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No Child Left Behind school choice: its impact in a district with extensive pre-existing choice programs

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No Child Left Behind school choice:  
Its impact in a district with extensive pre-existing choice programs

by

Petra Marie Hofstedt

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major:  Education

Program of Study Committee:
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Iowa State University
Ames, Iowa
2007

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ABSTRACT

In this investigation, the researcher indirectly examines the role of NCLB school choice by performing an in-depth investigation of the open enrollment program in a Minnesota school district while further couching the results in the major assumptions of NCLB school choice. Secondary data analysis was completed in order to test the following four interconnected tests of hypotheses: 1) Are students requesting successful schools more than unsuccessful schools? 2) Are students leaving less successful schools more than successful schools? 3) Are ethnic minorities requesting successful schools more than unsuccessful schools? 4) Are ethnic minorities transferring out of unsuccessful schools more than successful schools? Multiple regression was used to test 10 models per hypothesis (for a total of 40 models). Results from this analysis were mixed, but in most cases MCA test scores seemed to be a poor predictor of student requests and student transfers.
CHAPTER 1: INTRODUCTION

And we owe the children of America a good education. And today begins a new era, a new time in public education in our country. As of this hour, America’s schools will be on a new path of reform, a new path of results. Our schools will have higher expectations. We believe every child can learn. Our schools will have greater resources to help meet those goals. Parents will have more information about the schools, and more say in how their children are educated. From this day forward, all students will have a better chance to learn, to excel, and to live out their dreams (President George W. Bush, as cited in Office of the Press Secretary, 2002).

Statement of the Problem

President Bush’s enthusiasm and confidence about the benefits of No Child Left Behind (NCLB) seem clear in his comments made during his speech at Hamilton High School in January of 2002. This piece of legislation dubbed, “the cornerstone of my Administration” by the President himself, is intended to improve the state of elementary and secondary education in the U.S., while at the same time giving all students better educational opportunities so as to “leave no child behind” (U.S. Department of Education, 2002).

Since January 8, 2002 when President Bush signed it into law (Yell & Drasgow, 2005), NCLB has become one of the most widely talked about and debated educational policies of this century (Hess & Finn, 2004). This complex piece of legislation consists of a wide range of strategies, requirements, and goals, all of which are intended to increase student achievement and improve overall educational practices. The various elements of NCLB are organized into four basic pillars: 1) stronger accountability for results, 2) more freedom for states and communities, 3) proven educational methods, and 4) more choice for parents (U.S. Department of Education, n.d.b; U.S. Department of Education, 2002). While there are an unlimited number of topics and concerns to confront when examining this policy, the current focus is on the fourth pillar suggesting more choices for parents. This
pillar of NCLB aims to improve both the condition of the nation’s failing schools as well as the educational opportunities available to the students previously trapped within these schools. These aims are based on two main assumptions of NCLB school choice: 1) school choice will lead to school improvement through mechanisms of competition and 2) school choice will allow students previously trapped within failing schools the opportunity to seek options outside their school of origin (U.S. Department of Education, 2002).

Over the past several years, much debate has taken place regarding the effectiveness and necessity of various forms of school choice such as private school vouchers, open enrollment, and charter schools. However, because of its relatively recent implementation, little research has focused on the effectiveness of public school choice required of “failing” Title I schools under NCLB. Additionally, few investigations have considered the unique situation in which pre-existing forms of choice are already in operation. Because this piece of the NCLB legislation aims to support the most disadvantaged students in the U.S. educational system, it is critical to consider such unique situations in order to determine if the provision can and/or should be amended to be effective in all school districts and for all eligible students.

Therefore, this investigation examines the NCLB school choice provision in a Minnesota school district (Albertville School District will be used as a pseudonym in order to maintain confidentiality) that has historically offered comprehensive open enrollment options to its students (a pre-existing form of school choice). More specifically, the researcher indirectly examines the role of NCLB school choice by performing an in-depth investigation of the open enrollment program in the Albertville School District while further couching the results in the major assumptions of NCLB school choice. In this way, the following may be
considered: Is open enrollment meeting the intended goals of NCLB school choice? If open enrollment is effective in meeting these goals, one must consider the role of NCLB school choice in such a district, and ask if it is essential to spend extra resources in order to implement a provision that is already being met through other effective forms of choice. On the other hand, if the major goals of NCLB school choice are not the reality with the open enrollment program, one must further consider if significantly different results could be expected from the addition of the NCLB school choice consequence.

In order to study the overall role of NCLB, the following four hypotheses will be tested: 1) Are students requesting successful schools more than unsuccessful schools? 2) Are students leaving less successful schools more than successful schools? 3) Are ethnic minorities requesting successful schools more than unsuccessful schools? 4) Are ethnic minorities transferring out of unsuccessful schools more than successful schools?

Review of Remaining Chapters

The following outlines the organizational structure of this report and will offer the reader a preface of the upcoming chapters:

Chapter Two: Literature Review

This chapter provides the reader with the background and literature on school choice. Specifically, the researcher focuses on the NCLB school choice provision, the two main assumptions of NCLB school choice, how NCLB school choice is carried out in Minnesota, and finally a discussion on the pre-existing forms of choice available in Minnesota.

Chapter Three: Materials and Methods

Chapter three of this report describes in detail the methods used for this research study. It involves describing the obtained data sets, the steps required for cleaning and
organizing the data sets for data analysis, and ends with a review of the research questions and models to be used for statistical analysis.

*Chapter Four: Results*

The results chapter of this report begins with brief descriptive statistics, followed by results organized around the four research hypotheses under investigation. Each hypothesis section contains an overview of the question being asked along with the expected results. This is followed by a correlation matrix and results from the 10 different models used to test each hypothesis.

*Chapter Five: Conclusion*

The final chapter, chapter five, begins with a discussion of study limitations (specifically as it relates to the obtained data) and continues with conclusions organized around the four research hypothesis. Conclusions are made for each hypothesis that tie the results of multiple regression back to both the research hypotheses and literature. This is followed by final conclusions combining all tests and all results. This chapter ends with recommendations for future research.
CHAPTER 2: LITERATURE REVIEW

NCLB School Choice Provision

In investigating NCLB’s role in Albertville, it is first critical to examine the school choice pillar itself, the steps involved with its implementation, and finally the intended goals of the provision. Beginning with the school choice pillar, the NCLB Act requires that Title I schools labeled “in need of improvement,” by not meeting adequate yearly progress (AYP) for two consecutive years, must offer public school choice to their students. Therefore, parents get to choose, from a select list, which school they want their child to attend. Although all students enrolled in “failing” Title I schools are eligible for school choice, if funding is not able to support all interested students, priority must be given to the lowest achieving children from the lowest income families (U.S. Department of Education, n.d.a).

Parent choice and availability becomes further complicated and restricted when factoring in the issue of funding. The major area in need of funding when implementing this program is transportation services. A district is required to pay up to 20% of their total Title I allocations for choice services (this also includes supplemental services such as tutoring), and at least 5% of that must be used to support transportation costs of transferring students. Once again, when that funding requirement is met, the district is no longer responsible for funding any other students wanting to take advantage of the school choice option (U.S. Department of Education, 2003).

The next major element to consider with the school choice initiative is parent notification. School districts containing “failing” schools are responsible to first inform

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1 Title I schools are those schools with high percentages of poor children. There are programs/grants available to such schools to help ensure that all children meet challenging state academic standards (U.S. Department of Education, n.d.c.)
parents that their student is eligible to transfer to another public school because their current school is not performing at an adequate level. Second, school districts must provide parents with a list of possible transfer schools, along with the performance and quality of those schools. The list of choice schools that can receive students is limited to: 1) schools that have met AYP and are not identified as “in need of improvement” and 2) schools that are within the same school district, which may include other public schools or charter schools located within district boundaries (exceptions may be made, and are encouraged, if there are no schools available to receive students within the same district). If a parent chooses to send their student to another school, the receiving school is responsible for that child until they have completed the highest possible grade level. However, the district only has to pay for the transportation costs if the student’s school of origin is still labeled “in need of improvement” (U.S. Department of Education, 2003).

Assumptions of NCLB School Choice

School Choice and Competition

Now that an understanding of the school choice pillar of NCLB, has been established, it is next critical to examine two main assumptions or goals of this public school choice requirement. The first of these assumptions is that school choice will “encourage” failing Title I schools to improve (U.S. Department of Education, 2002). Various elements of school choice have been sited as possible explanations to and incentives for school improvement. The NCLB Act itself claims that “failing” schools’ potential of losing students along with corresponding budget allotments would offer a strong incentive for schools to improve. The Act further states the ultimate consequence of school closure would add increasing urgency for “failing” schools to make changes to increase their test scores and
overall success (U.S. Department of Education, 2002). Others contend that by holding schools accountable for their performance through threats of enrollment decline and school closure, teachers and administrators of these substandard schools would be “forced” to “fix the problems” associated with their school (Costa, Elseginy, Lusco, & Pinney, 2003).

The consequences of enrollment decline, budget cuts, and potential school closure often associated with the school choice initiative coincide directly with theories of competition and market system ideologies that have also been cited as major reasons for the support of public school choice. Godwin & Kemerer (2002) offer a helpful analogy to explain the basic idea of competition and how it works within a market system:

To see how competition works, take the example of cars. During the 1950s and early 1960s, almost all automobiles sold in the United States were produced by four automakers – General Motors, Ford, Chrysler, and American Motors. The average life of a car produced in this period was only about fifty thousand miles, and its reliability and gas mileage were low. The American automakers engaged in price collusion, and they relied on government to protect them from foreign competition. When the government lowered its trade barriers, Volkswagen, Toyota, Datsun (now Nissan), and Mercedes invaded the U.S. market. These cars had life spans of over a hundred thousand miles, were significantly more reliable than their American rivals, and had better gas mileage than comparable cars made in the United States. Within a short time, enough consumers switched to foreign-built cars to force American automakers to improve the quality of their cars and to lower their prices. American Motors was unable to meet the foreign competition and went out of business (pg. 19).

Therefore, the fundamental argument being made by those supporting the idea of competition within education is that public schools essentially hold a monopoly over education similar to the car industry in the 50s and 60s. Proponents of choice further assert that sufficient pressure is not being applied to encourage schools to perform at adequate and efficient levels (Chubb & Moe, 1991). By allowing parents the option to choose which school they wish to enroll their child, schools will have to compete to attract students (e.g., by offering quality programs, special curriculum, or employing highly qualified teachers). In
order to be successful in attracting students, schools will ultimately be forced to improve (Patchen, 2004; Godwin & Kemerer, 2002; Hess, 2002) and low-performing schools would be eliminated (Viteritti, 2003; Van Dunk & Dickman, 2003; Belfield, 2003). In using this argument schools are seen as existing within a market system where mechanisms such as competition are viewed as a positive way to create change (Patchen, 2004).

Various authors beginning with Friedman (1953) have built on such theories of competition and market models within education. In arguing the effectiveness of school choice in bringing about school improvement, Friedman (1953) suggested that by changing the overall structure of the educational system from one of monopoly control to a competitive market system (through the choice option), successful schools, like other market organizations, will thrive and “failing” schools will be flushed out of the system. More recently, Chubb and Moe (1990) recommended a system of competition in which students would be given “scholarships” to attend private schools in order to improve the educational system as well as increase opportunities for poor, at-risk students. Caroline Hoxby (2001) offers an effective summary of the school choice and competition argument:

Supporters of school choice believe that public school administrators and teachers would respond with equal vigor to the prospect of seeing their students and funding walk out the front door. Their professional pride and livelihood in jeopardy, they would work harder, adopt more effective curricula, hire more talented staff, and turn the district office into more of a support center than a maker and enforcer of rules. They would be spurred to innovate in ways that improve student achievement and parental satisfaction. Competition would be the proverbial rising tide that lifts all boats (pg. 70).

In addition to theories and models concerning competition and school improvement, research, although often focused on other forms of school choice, has further supported the overall argument of school choice improving the state of public education. For example,
Hoxby (1994) in operationally defining competition as the concentration of private schools near public schools, found public schools experiencing higher levels of competition performed better than those located in areas with little “private school competition.” Hoxby (2001) furthermore found that districts with “maximum interdistrict choice,” had significantly higher test scores than those districts with little or no choice available. More specifically, her findings show that, “8th grade reading scores of students in highly competitive areas are 3.8 national percentile points higher than those of students in areas with no competition; their 10th grade math scores are 3.1 national percentile points higher, and their 12th grade reading scores are 5.8 national percentile points higher” (p. 71).

While many sources report school choice and its components to be positively correlated to school improvement, discourse and research on the area is very inconclusive with much being reported to support the opposite. Those opposing school choice believe it to be a direct attack on public education (Wood, 2004; Darling-Hammond, 2004; Witte, 2000) and the mechanisms of school competition to be ineffective in improving the state of “failing” schools (Meier & Wood, 2004). For example, many opponents of choice believe it will remove the best students from the poorest schools along with the most “politically active” parents which will in turn reduce the pressure for substandard schools to improve (Godwin & Kemerer, 2002). In this case, the results of a competitive market-based educational system would have a negative impact on those schools most in need of assistance and improvement. In addition, many believe that for competition to be successful, consumers, in this instance, parents, must be well informed about their situation (the state of their child’s current “failing” school) as well as their various options and alternative “products” (the characteristics of possible transfer school options) (Godwin & Kemerer,
This argument is strengthened when paired with the various reports suggesting adequate information to be a piece of the school choice implementation process that is consistently found to be lacking (GAO, 2004; Brown, 2004; Van Dunk & Dickman, 2003). Still others believe the mandated process of labeling a school as failing and requiring those schools to transfer their students to other, more successful schools, creates a large disincentive for qualified teachers and staff to remain in those schools most in need (Darling-Hammond, 2004).

Similar to the pro-choice side of the debate, one can look to both theories of competition as well as previous research to find compelling information that strengthen the overall arguments and assumptions being made by school choice opponents. In his book, Revolution at the Margins, Hess (2002) notes three key elements central to theories of competition that he shows to be lacking from NCLB’s school choice provision. Without these elements, Hess (2002) believes any improvement mechanisms characteristic to competition become irrelevant and therefore ineffective in bringing about change for “failing” Title I schools.

First, according to theories of competition, in order for competitive pressures to bring about desired change, the threat of such pressure must be felt by the producers involved (Hess, 2002). In the case of school choice, if school personnel do not perceive any real threat from school choice, school improvement is not likely to be a direct result of the competition intended to be created through the school choice provision. Competition then becomes irrelevant and furthermore ineffective in creating positive change for “failing” public schools. The question then becomes, is the threat of competition actually experienced by teachers and school personnel?
Again, while little research has focused on NCLB choice directly, research on other forms of school choice has found no direct relationship between competitive presence (e.g., nearby private schools) and competitive awareness and effects. For example, in an initial look at survey data, Van Dunk and Dickman (2003) found that a majority of teachers surveyed reported both the awareness of competition as well as direct effects of competition. Specifically they found that three fourths of teachers indicated the staff in their school had discussed the potential impacts of competition (competition awareness) and two thirds of the teachers reported changes made to attract or retain students (direct competition effects). However, when further analysis was completed, no relationship was found between these variables and the presence of competition. Therefore, teachers from schools with “existent” competition did not report significantly different answers than those teachers coming from zero competition schools (Van Dunk & Dickman, 2003).

In addition to not feeling the threat of competition, others have found that many teachers do not believe the intervention, whether felt by teachers or not, will actually lead to school improvement. For example, Sunderman, Kim and Orfield (2005) found that teachers generally disagreed that labeling schools as failing will lead to school improvement and further rejected the notion that school choice would improve schools (less than 7% of surveyed teachers agreed with these statements).

A second element of competition that is essential for it to be effective is consumers must have adequate information about the market as well as viable products to choose from (Hess, 2002). Again, considering this element within the school choice debate, parents must have knowledge regarding their student’s current failing school along with several options of other, higher-performing schools to send their student to in order for competition to have any
direct effects on school improvement. Once again, much research has found capacity (number of transfer school options) and adequate information to be deficient within the NCLB school choice provision (GAO, 2002; Brown, 2004; Van Dunk & Dickman, 2003; Neild, 2005). For example, a study completed in Buffalo found that “75% of parents questioned did not realize their child attended a school identified for improvement” (Brown, 2004, pg. 31).

The final element noted by Hess (2002) to be required under theories of competition, is that producers must have the tools to adequately and effectively compete within the market system otherwise competition becomes irrelevant and therefore ineffective in improving public education. In the case of school choice, this means that “failing” Title I schools must have the funding and personnel required to respond to any pressures of competition that are thought to create positive change for public education. This has been one of the major complaints surrounding NCLB school choice provision (Darling-Hammond, 2004). As stated previously, one of the requirements under this sanction is that schools must use up to 20% of their Title I funds to pay for choice services and a great deal of their time and energy establishing plans for new bus routes, improved programming, etc. (U.S. Department of Education, 2003). With all of their tools being taken away by the provision itself, little will be left to respond to the sanction’s competitive pressures and requirements (Darling-Hammond, 2004).

*School Choice and Equal Educational Opportunity*

Creating equal educational opportunities for all students, specifically for those students from the lowest socioeconomic backgrounds and with the lowest academic achievement records is the second major goal of NCLB school choice (U.S. Department of...
Education, 2002). In general, the impetus behind this goal is that parents with more financial resources have always been able to exercise choice by moving to whatever neighborhood they wish (Green & Winters, 2006; Goodman & Moore, 2001) or by enrolling their student in a private school, while low-income students are typically given fewer choices due to restrictions they face with where they can afford to live and what tuitions they can afford to pay (Archbald, 2004; Costa, Elseginy, Lusco, & Pinney, 2003; Goodman & Moore, 2001). Proponents further argue that such expanded choice will result in increased academic achievement for those students previously trapped within inferior schools (Yell & Drasgow, 2005; Sunderman, Kim, & Orfield, 2005; Finn & Hess, 2004).

Theories and models such as the liberation model (Archbald, 2004) and the opportunity model (Coons & Sugarman, as cited in Viteritti, 2003) outline ways in which increased choice would offer more options for low-income, low-performing students. The liberation model outlined by Douglas Archbald (2004) for example, makes the claim that poor, lower-class students are more likely to remain trapped within inferior schools than their upper-class counterparts. It further assumes that school choice would reduce this economic “segregation among children in public school by creating access for lower-income families to schools outside their neighborhoods” (p.284).

Research focusing on various choice programs has resulted in a great deal of literature used to support the assumption of increased academic achievement for choice users. For example, Belfield (2003) described the results from 25 different investigations all of which showed increased test scores for students to be a result of school choice availability. Goodman & Moore (2001) also found that when low-income students are given the
opportunity to attend middle-class schools they do “significantly better” academically than those who are not given that option.

Again, due to the controversy surrounding the use of school choice, many disagree with the educational opportunity assumption. Three main, interconnected arguments are consistently given as reason for this counter-position. First, it is argued that choice is not effective because students do not have a sufficient number of quality choice options. It has been shown that some districts, often times urban districts, contain several schools on the “needs improvement” list. This results in large numbers of eligible student transfers with small numbers of school options to choose from. Furthermore, a person could also consider small rural districts that perhaps only house one or two schools, again resulting in an inadequate number of options for students to choose from (Finn & Hess, 2004).

A second argument closely related, if not a direct result of the first, is that students are simply not transferring (Brownstein, 2003; Howell, 2006). Albertville can be used as a perfect example of this. While there where over 17,000 families eligible for choice under NCLB, only 22 families actually utilized this option (Student Placement Office, personal communication, January 13, 2005). That is less than a one fourth percent transfer rate. Similar results have been reported from school districts across the nation (Brownstein, 2003; Howell, 2006; Sunderman, Kim, & Orfield, 2005). Furthermore, while this provision targets low income, low achieving student populations, studies have shown these populations to be transferring at even lower rates compared to their higher income, higher achieving counterparts (Bulman, 2004; Weidner & Herrington, 2006).

A final argument against school choice creating educational opportunities and increased student achievement, is that even when students do transfer, which again is at
minimal rates under NCLB, few, if any, achievement gains can be demonstrated (Howell, Wolf, Campbell, & Peterson, 2002; Robelen, 2006; Viteritti, 2003).

NCLB School Choice in Minnesota

While the public school choice requirement is clearly and explicitly outlined in the NCLB document, each state may differ on the specifics of school choice including, Adequate Yearly Progress (AYP) requirements, AYP assessment measures, school choice participation and school choice implementation. In order to gather such logistical information for Minnesota, several phone conversations and interviews were carried out. One interview was with the supervisor for the Consolidated Federal Program Policy Division at the Minnesota Department of Education. A second interview was conducted with the NCLB Compliance Officer for the Albertville School District. Finally, information on participation rates was gathered from the Student Placement Office. This office is responsible for distributing NCLB school choice information to interested parents.

Before information is given regarding how school choice works in Minnesota, one must have a clear understanding as to why a school is required to offer choice in the first place. This involves an explanation of the complicated term, “Adequate Yearly Progress.” Minnesota looks at four different areas when calculating AYP standards: participation, proficiency, attendance for elementary and middle schools, and graduation for high schools. Ninety-five percent of the student population as well as 95 percent of the individual subgroups present within a school must be administered the state test (given a three week time frame) in order for a school to meet the participation requirement (Minnesota Department of Education, 2005b).
Minnesota uses the Minnesota Comprehensive Assessment (MCA) as their assessment tool and requires a score of 1420 to meet the proficiency standard. A student’s raw score is given an assignment of level 1 through level 5 which later generates a corresponding index point and determines final proficiency scores. More specifically, level 3, 4, or 5 assignments generate one full index point and indicates an above proficiency score; level 2 generates one half a point, indicating a score that meets proficiency; and a student scoring at level 1 generates no index points for their particular school, indicating a score below proficiency. Following initial assignment of index points, an index rate is calculated by taking the cumulative index points for a school, divided by the total number of students taking the test in that school and multiplying by 100. This index rate for each school is then compared to the state’s “index target” (a predetermined benchmark for all schools in the state). If the school’s index rate lies below the state target, that school fails to meet proficiency requirements. If they are at or above the state target, they officially meet the proficiency aspect of AYP. To meet AYP for attendance, Minnesota schools must have a daily attendance rate of 90% and for graduation AYP they must have a graduation rate of 80% (Minnesota Department of Education, 2005a, 2005b).

If a school does not make AYP according to the above standards, they fall into Stage 0 depicted in Figure 1 below and further consequences are determined using the following sequence of stages (again, a visual depiction of these stages can be seen in Figure 1 below):

*Stage 1.1.* A school has missed AYP for two consecutive years and is in the first stage of consequences in which a school must offer school choice to its students.
Stage 2.1. A school has missed AYP for the third straight year and must offer supplemental services to its students (supplemental services include tutoring or after school programs).

Stage 3.1. A school has missed AYP for four consecutive years and is considered to be in the corrective action stage. These corrective actions could involve extending the school day or school year, replacing school staff members, or appointing an outside expert to advise the school.

Stage 4.1. A school has missed AYP for five straight years and must submit a plan for restructuring. This could involve plans to reopen the school as a charter school, replacing most of the schools staff, or turning over the operation of the school to the state.

Stage 5.1. A school must carry out their restructuring plan outlined in Stage 4.1.
Again, if a school misses AYP for two consecutive years, the school choice procedures begin. The first step is formal or public identification of the school. In 2005, formal identification was done in Minnesota on August 29 (NCLB Compliance Officer, personal communication, October 14, 2005).
Following formal identification, parent notification letters are to be released. This is supposed to take place before the start of the school year and is the responsibility of the district. The NCLB Compliance Officer (personal communication, December 2, 2005) offered helpful insight as to what is involved with this process:

Well, our office is responsible for preparing and mailing parent notification letters at the beginning of the school year. So we mail them to all eligible families and do everything that is needed to set that up in terms of determining which schools and which families, and making sure our data is accurate and so forth. We also help the Student Placement Office determine which schools they should make available for parents. I don’t know if we went into this a little bit before hand, but the process in Albertville is that parents who want to take advantage of this choice are encouraged to contact our Student Placement Office, rather than us giving all the information in the letters to them because there is so much that goes into a choice such as this. So the Student Placement Office is prepared to give them all the information about certain schools that they are looking at.

The Compliance Officer (personal communication, December 2, 2005) also explained how the process of getting out parent notification letters in a timely manner is not always possible with the way the system is set up:

We try to send those letters out, we are suppose to have them out by the first of the school year, but at least for Minnesota that is a little bit difficult because we get our final AYP data generally about the week before we start school here in Albertville. So it is hard to turn that around. And we do have preliminary data before hand, but we do not want to prepare mailings that cost thousands of dollars on preliminary data. So we try to do it as quickly as we can, but it generally goes out some time in September, later September. We hope to give parents the option to transfer their child, when their child is not too far into the school year.

Another important step with the school choice provision in Minnesota is the verification process used to make sure the schools and/or districts are indeed following through with the proper steps. In Minnesota, 30 thousand dollar grants are given to those schools identified as “in need of improvement” but before that money is disseminated,
schools must provide the state with a copy of the letter that has been mailed to the parents explaining the reason, purpose, and options involved with school choice (Supervisor for Consolidated Federal Program Policy Division, personal communication, October 14, 2005).

No Child Left Behind school choice participation rates are quite minimal for the Albertville School District. According to the Student Placement Office (personal communication, January 13, 2005), there were 17,586 students eligible for NCLB school choice in the 2005-2006 school year. There were a total of 91 families who inquired about the choice option and only 22 that ultimately requested transfers under the NCLB school choice option.

Pre-existing Choice Options in Minnesota

Minnesota has historically offered comprehensive school choice options to its enrolled students. The Minnesota Department of Education’s website (Minnesota Department of Education, n.d.b) describes six main choice options available to students throughout the state and specifically within the Albertville Public School District: 1) nonpublic schools, 2) charter schools, 3) alternative education programs, 4) online learning, 5) open enrollment, and 6) the Choice is Yours program. The focus here will be on Open enrollment and The Choice Is Yours program, as they both have high participation rates and are most in line with NCLB school choice.

Open Enrollment

Open enrollment gives families the option to have their student(s) attend a school outside of the school district in which they live. Families must apply to the district of choice by January 15 in order to have the best chance of being admitted in the following fall. In the open enrollment program, families usually provide their own transportation, but there are
district funds available for those families at or below poverty level. In the 2005-2006 school year more than 30,000 families across the state of Minnesota took advantage of open enrollment options (Minnesota Department of Education, n.d.a).

The Choice is Yours Program

The second major choice option used by many in Minnesota, and specifically within Albertville is the Choice Is Yours (CIY) program. CIY is a program reserved specifically for Albertville families who qualify for free and reduced lunch. Again applications are due by January 15 in order to increase the likelihood of getting ones first choice in a non-resident district school (although CIY families receive priority placement at schools they request). For the purpose of this choice program, the city of Albertville is divided into two main sections: North and South Albertville. Depending on the geographical area a family resides in they are given a list of suburban districts and schools in which they could chose to send their child. Also, a little different from general open enrollment, the state of Minnesota provides money for transportation to suburban schools and the Albertville School District provides the transportation to other Albertville schools of choice (Minnesota Department of Education, n.d.c). This program began in the 2001-02 school year and the number of participating students has risen each year. According to the evaluation report prepared by ASPEN Associates (2006), “total enrollments in suburban choice schools has increased each year from 472 students in year one, to 720 students in year two (53% increase), 1,030 students in year three (43% increase), and 1,435 in year four (39% increase)” (pg. 7).

Summary

The No Child Left Behind Act was implemented in order to both improve elementary and secondary education as well as to offer students a way out of inferior schools (U.S.
Department of Education, 2002). These goals are based on two main assumptions of school choice: 1) competition between schools (brought about by school choice) will lead to school improvement and 2) school choice will offer students previously trapped within inferior schools the opportunity for a better education in a school outside of their neighborhood (U.S. Department of Education, 2002).

A unique situation not taken into consideration by the Act are school districts already operating under extensive school choice programs. Considering the number of students who take advantage of open enrollment and the CIY Program in Minnesota compared to the minimal numbers participating in NCLB school choice one must question, “Is NCLB school choice effective and/or necessary in addressing school improvement and creating equal educational opportunities for all disadvantaged student populations and for all district types?”

Again, by performing an in-depth investigation into the open enrollment and Choice is Yours programs and couching the results in the assumptions of NCLB school choice, the following will be determined: Are pre-existing forms of choice meeting the requirements and goals of NCLB school choice? If yes, should changes to the AYP consequences be considered for districts with pre-existing choice options? If no, can one assume NCLB would offer significantly different results? As succinctly stated by Finn and Hess (2004):

> Will a school turn itself inside out because it is losing two dozen kids to intradistrict choice…Moreover, many troubled schools are located in communities that have long offered such education options as magnet schools, open enrollment, interdistrict choice and charter schools…If that competition has failed to trigger a dynamic response from traditional public schools, one must ask why NCLB’s addition of two more choice programs will dramatically alter the picture (p. 45-46).
CHAPTER 3: MATERIALS AND METHODS

Population

The Albertville public school district was chosen as the population from which to study based on two main criteria. 1) The Albertville school district has relatively high percentages of students eligible for free and reduced lunch (FRL) as well as a high percentage of minority students in relation to the rest of the state’s school districts. 2) The Albertville school district has a high number of Title I schools identified for improvement compared to other districts within the state. In this way, Albertville and its surrounding districts will be representative of the type of population which the NCLB school choice provision hopes to target.

Open Enrollment Database

Original Data Files

Previously collected data on all students participating in the open enrollment and the CIY program in Albertville for the 2003-2004 through 2005-2006 school years was obtained and used for data analysis. This data was obtained from the Accounting Office for the Albertville Public School District in Minnesota. The original data was collected using the Open enrollment Form (see Appendix A) that parents fill out for each student transferring to another school district. The information from this form is entered into an ACCESS database by staff at the Student Accounting Office.

Two files were requested and obtained from the Albertville Public School District. One of the files contains student records of open enrollment/CIY moves out of Albertville (referred to as OE.Out for the remainder of the report) and one contains student records of open enrollment/CIY moves into Albertville (referred to as OE.In for the remainder of the
The two files varied slightly. The original OE.Out file encompasses the years from 2003-2004 through 2005-2006, and contains a total of 6336 student records. The following is a list of variables contained in this file along with a description of each:

1. **app**: A unique application number used to identify students.
2. **stdnt last name**: A student’s last name. This variable was removed from the data set used for final analysis since student names are not necessary. This variable was also removed to address confidentiality issues.
3. **stdnt first name**: A student’s first name. Similar to the student’s last name, this variable was removed from the data set used for final analysis due to its unimportance and issues related to confidentiality.
4. **stdnt #**: A unique student identifier used instead of student names to identify individual students within the data base. In this way student confidentiality was preserved.
5. **eth**: A student’s ethnic number. The Albertville School District breaks this variable down as follows:
   - 1 = American Indian
   - 2 = African American
   - 3 = Asian American
   - 4 = Hispanic American
   - 5 = White American
6. **M/F**: The sex of the student.
7. **zip**: The zip code of the district in which the student resides.
8. **dist #**: The requested district id.
9. **dist name**: The name of the requested district.
10. **school requested**: The school requested by the student.
11. **grd**: The grade of the student
12. **tran yr**: The year the student transferred using school choice options.
13. **previous school**: The name of the school the student chose to transfer out of.
14. **code**: The previous school type. The Albertville School District breaks this variable down as follows:
   - 0 = unknown
   - 1 = Albertville Public School
   - 2 = Non-public school
   - 3 = Charter School
   - 4 = Home School
   - 5 = Other Minnesota public school
   - 6 = Another State
   - 7 = Another Country
   - 8 = IDDS/FAIR school (Inter-District Downtown School and Fine Arts Interdisciplinary Resource School)
   - 9 = None (the student is going into Kindergarten so they do not have a previous school).
15. tran rsn: The transfer reason given by the student (See Appendix B for breakdown of this variable).
16. app/dis: The decision with regards to the transfer request – approved or disapproved.
17. notes: The only entry in this field of importance is if a comment indicates the application has been cancelled. This would mean the student never actually used open enrollment/CITY.
18. sp ed: Indicates whether a student is a special education student.
19. program: The option program requested by the student. The following describes the different types of programs offered in Albertville:
   - OPN = Open enrollment
   - IDT = Inter-District Transfer or Non-Resident Agreement
   - CON = Continued Enrollment of 11th and 12th graders
   - HSG = High School Graduation program
20. start date: The year the student began in the requested school and district.
21. end date: The year the student stopped enrollment in the requested school and district.

The OE.In file encompasses the years from 1989-1990 through 2005-2006, and contains a total of 8913 student records. Again, the following outlines the variables contained in the OE.In file (if a variable listed below is also listed in the OE.Out file, a description is not provided):

1. app:
2. stdnt last name:
3. stdnt first name:
4. stdnt #:
5. DOB: The student’s date of birth.
6. eth:
7. M/F:
8. parent last name: The parent’s last name. Similar to the student’s name, this variable is not included in the final data set used for this investigation.
9. parent first name: The parent’s first name. Similar to the student’s name, this variable is not included in the final data set used for this investigation.
10. house #:
11. street name:
12. city:
13. zip:
*Variables 10, 11, 12, and 13 provide the student’s address. These variables were not included in the final data file.
14. res #: The id number for the student’s district of residence (previous district).
15. res dist name: The name of the student’s district of residence (previous district).
16. school requested: The school requested by the student (requested schools will always be an Albertville Public School in this file).
17. grd:
18. tran yr:
19. eve phone: This variable is not necessary for the purpose of this study and therefore was not included in the final data file.
20. day phone: This variable is not necessary for the purpose of this study and therefore was not included in the final data file.
21. program:
22. tran rsn:
23. app/dis:
24. notes:
25. sp ed:
26. start date:
27. end date:

It should be noted that the OE.In file only includes the previous district and never provides the previous school. This will be of importance when considering the type of analysis utilized for this project.

Data Files to be Constructed

The datasets provided to the researcher contain student level records, however, for the purpose of this study, the data needed to be aggregated at the school level. Specifically, two main data files were necessary: 1) a file containing both transfers into and out of Albertville; aggregated by requested school. This file ultimately provided requested school demographics along with the number and percentage of requests received by a school. 2) A file containing only transfers out of Albertville; aggregated by a student’s previous school (as mentioned previously, the In.OE file never listed a previous school, so this file could not be included for this analysis). For this second data file, only previous Albertville schools were included, therefore, it ultimately contained demographics on Albertville schools losing students to open enrollment/CIY along with the exact number and percentage of students
lost. In order for these two aggregated files to be created, the following data clean-up and organizational steps were completed.

*Data Clean-up and Organization*

Several steps were necessary in order to make the data ready for data analysis. First, both files were sorted and filtered according to the following criteria: 1) only the 0304, 0405, and 0506 school years were included. This was only a factor with the OE.In file. 2) Only student records describing open enrollment moves were included. Therefore, records must have contained “OPN” for the program variable. 3) Only student records NOT containing “cancel” under the notes variable were included. All cancelled requests were therefore removed from the database. 4) Finally, if a record indicated “DIS” for the app/dis variable, they were also removed from the final data set. These initial sorts resulted in the OE.In file to be reduced from 8913 records to 2886 and the OE.Out file from 6336 to 4397.

Once the datasets contained only records of interest for this investigation, the second step involved in data clean-up was matching entered previous and requested districts and schools with official Minnesota Department of Education (MDE) school and district names. School and district ids (also downloaded from the MDE website) were further added to the database. These steps were critical in order to complete file merging which will be outlined in subsequent steps.

The two datasets (OE.In and OE.Out) were treated a little differently for the step of matching official MDE names and ids to the schools provided in the Open enrollment database. For the OE.In file, since no previous schools were ever given only requested schools needed to be matched with official MDE names and ids. One hundred percent
matching was not obtained for this file. Specifically, two schools accounting for three
student records could not be matched with an official MDE school and district name and id.

For the OE.Out file, a few more steps were necessary. First, the requested schools
needed to be matched. Once again, 100 percent matching was not obtained. A total of 26
student records could not be matched on their requested school name. Second, the previous
schools needed to be matched. For this step, only Albertville schools were of interest so
matching non-Albertville schools was not necessary (a total of 1690 student records had
previous Albertville schools). Not all previous schools could be matched in this step.
Specifically, a total of 32 student records would later need to be removed due to the inability
to match their previous Albertville School with an official MDE name and id. The following
outlines reasons for the lack in 100 percent match:

Recall, the OE.Out file listed previous schools along with a corresponding
school/district code (actual district names were not given).

1) An unidentified (unmatched) district and/or school could occur if it could not be
found in any MDE district and/or school file list.

2) An unidentified district and/or school could occur if the listed school exists in
multiple districts and the school code provided is 5 (Minnesota public school – not an
Albertville Public School). In this instance, one could not be sure what school and
district was actually requested.

While one would assume all previous schools in the transfers OUT of Albertville file would be Albertville
schools, this was not always the case. An explanation can be given in the following example: Student A
attends Johnson Middle School, a school in the Heartland School District. Student A then moves into the
Albertville School District, but wants to continue enrollment at Johnson Middle School. This record would still
be considered an Open Enrollment transfer OUT of Albertville even though the previous school was not an
Albertville school.
A final piece of database clean-up and organization was the addition of a building id. The construction of this id was necessary due to the fact that school ids were not unique (i.e., two different schools could have the same school id, but different district ids). A unique identifier was critical for aggregating the data. The building id was constructed by taking the school id multiplied by 1000 and then adding it to the district id. This would result in a unique number that accounts for both the school and the district.

Aggregating Data Files

Once the datasets were cleaned and organized they then needed to be converted from student level records to school level records. This involved aggregating the files. Again, two main files were created: 1) One containing both transfers into and out of Albertville, aggregated by the requested school and 2) one containing only transfers out of Albertville, and only previous Albertville schools, aggregated by previous school.

Requested school aggregated file. In order to aggregate by the requested school, it was first necessary to combine the OE.In file (containing 2883 student records) with the OE.Out file (containing 4371 student records). This dataset containing 7254 student records was then opened in SPSS and aggregated by the requested building id. The number of student requests was recorded for each school along with that number broken down by ethnic category. In addition, another variable, request rate (number of students who requested that particular school divided by the schools PK-12 enrollment) was also included in the file. This aggregating resulted in the 7254 student level records to be combined into 274 school level records.

Previous Albertville School Aggregated File. In order to aggregate by the previous school, only the OE.Out file was considered and further, only previous Albertville schools
were included. Again, the records were opened in SPSS and aggregated by the previous building id. For this dataset, the count of transfers out of the school along with that count broken down by ethnic category was included as well as the transfer rate (number of students who transferred out of that particular school divided by the schools PK-12 enrollment). This aggregating resulted in the 1658 student records to be combined into 96 school level records.

*Addition of Key Variables*

Four key variables needed to be added to the two main aggregated files: PK-12 enrollment, FRL enrollment (which was later converted to a percent and used as a measure of SES), minority enrollment (which again was later converted to a percent and used as a measure of diversity), and average MCA scores (averaged across grade and subject). The first three variables were selected for merging as they can all be shown to be predictors of student achievement and/or school success. In addition, MCA scores were used since NCLB uses AYP to determine the quality of a school and MCA scores are what Minnesota uses as their assessment measure for proficiency standards. Tables from the MDE website were downloaded which contained all Minnesota schools and all necessary demographics. These tables were downloaded by appropriate year: one each for 0304, 0405, and 0506.

After downloading all necessary tables, the first step in adding these variables was to calculate an average for each variable that would provide a single value for the three years worth of data. Therefore, if a school was given three different values for enrollment; say 500 in 0304, 600 in 0405 and 550 in 0506, that particular school would have an average enrollment of 550. Furthermore, building ids once again needed to be constructed for these

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3 The reasons for the difference in performance between school and/or student types are complex and far-reaching and will not be discussed here. However, it must be stressed that the researcher is not implying poor, minority schools to be of inherently lesser quality or poor, minority students to be of lower academic ability.
demographic tables, using the same technique as described previously. This process was completed for all four variables. Once schools had one single value for each of the four variables, the MDE tables were merged with the two aggregated open enrollment files. Files were merged using the constructed building id as the matching variable. This step therefore added requested (and previous Albertville) school demographics to each of the files.

**Final Datasets**

For clarity purposes, the following outlines the variables (along with their descriptions) of the two final datasets used for analysis:

*Requested School Aggregated File.*
1. Building: Unique Building ID.
2. RDistrict: Requested District Name.
3. DistID: Requested District ID.
4. RSchool: Requested School Name.
5. SchID: Requested School ID.
6. Requests: Number of students who requested that particular school.
7. Request Rate: Number of students who requested that particular school divided by that school’s PK-12 enrollment.
8. Ethnic0: Number of students who requested that particular school with no given ethnic category.
9. Ethnic1: Number of American Indian students who requested that particular school.
10. Ethnic2: Number of African American students who requested that particular school.
11. Ethnic3: Number of Asian American students who requested that particular school.
12. Ethnic4: Number of Hispanic American students who requested that particular school.
13. Ethnic5: Number of White American students who requested that particular school.
14. Ethnic Requests: Total number of minority students requests (Ethnic1 + 2 + 3 + 4).
15. Ethnic Request Rate: Number of minority student requests divided by that school’s minority enrollment.
16. Enrollment: Average PK-12 enrollment for particular school.
17. FRL: Average FRL enrollment for particular school.
18. FRL Percent: Average FRL percent for particular school.
19. Minority: Average Minority enrollment for particular school.
20. Minority Percent: Average minority percent for particular school.
21. MCA: Average MCA score for particular school.

*Previous Albertville Aggregated File.*
1. Building: Unique Building ID.
2. PDistrict: Previous District Name.
3. DistID: Previous District ID.
4. PSchool: Previous School Name.
5. SchID: Previous School ID.
6. Transfers: Number of students who transferred out of that particular school.
7. Transfer Rate: Number of students who transferred out of that particular school divided by that school’s PK-12 enrollment.
8. Ethnic0: Number of students who transferred out of that particular school with no given ethnic category.
9. Ethnic1: Number of American Indian students who transferred out of that particular school.
10. Ethnic2: Number of African American students who transferred out of that particular school.
11. Ethnic3: Number of Asian American students who transferred out of that particular school.
12. Ethnic4: Number of Hispanic American students who transferred out of that particular school.
13. Ethnic5: Number of White American students who transferred out of that particular school.
14. Ethnic Transfers: Total number of minority transfers (Ethnic1 + 2 + 3 + 4).
15. Ethnic Transfer Rate: Total number of minority transfers divided by that school’s minority enrollment.
16. Enrollment: Average PK-12 enrollment for particular school.
17. FRL: Average FRL enrollment for particular school.
18. FRL Percent: Average FRL percent for particular school.
19. Minority: Average minority enrollment for particular school.
20. Minority Percent: Average minority percent for particular school.
21. MCA: Average MCA score for particular school.

Operational Definitions

School Success

A very critical part of this report is defining what will later be referred to as successful and unsuccessful schools. NCLB will again be used as the place from which to couch this discussion. NCLB school choice is available to students whose school has failed to meet adequate yearly progress (AYP) for two consecutive years. AYP is based on four main criteria: participation rates (the percentage of students who take the state-wide exam), proficiency rates (test scores), graduation rates, and attendance rates. If a school misses the
mark on any one of these criteria, they will not meet AYP standards for that year. Therefore, according to NCLB, a successful school is one that scores high in all of the AYP areas, while an unsuccessful school is one that misses the mark in one or more of the areas, resulting in a failure to meet the AYP standards (U.S. Department of Education, n.d.a).

Considering how NCLB uses the AYP criteria to define the success level of a school, it would make most sense to assume actual participation, proficiency, graduation, and attendance rates to define successful and unsuccessful schools in this investigation. However, most of this data was not available to the researcher. Specifically, only data capturing the proficiency aspect of AYP was obtained. Because of this, the following variables were considered in place of participating, graduation, and attendance: enrollment (size of a school), FRL percent of a school, and minority percent of a school. Further detail and justification of these variables follows:

**Enrollment.** This variable describes school population in terms of the number of PK-12 students enrolled. Previous research has been inconsistent when determining the impacts of school size on academic achievement, with some reporting positive relationships between school size and academic achievement, some reporting negative relationships, and some finding no relationship at all (Borland & Howsen, 2003; Gardner, Ritblatt, & Beatty, 2000). However, a study by Gardner, Ritblatt, and Beatty (2000) found smaller schools to have lower dropout rates and less absenteeism than larger schools. Dropout rates and absenteeism align closely with two of the facets of AYP: graduation and attendance. Because of this, this study will assume large schools to be less successful than smaller schools.

For the Requested School Aggregated File, enrollment size ranged from the smallest school with a three-year average enrollment of 14 to the largest school obtaining a three-year
average of 3307.33. For the *Previous Albertville Aggregated File*, the range was quite a bit smaller going from 16.67 for the smallest school to 1881.67 for the largest.

*FRL percent.* This variable gives the percentage of students in a school that are eligible for free and reduced lunch (FRL). Again, looking at the literature, FRL percent is often used as a measure of socio economic status (SES), and more specifically, is used as a measure of poverty. Furthermore, it is shown that children living in poverty, or those children receiving FRL, are often at risk of failing or dropping out of school (Taylor, 2005). For example, poor youths are more likely to attend low-quality, resource-poor schools (Eamon, as cited in Eamon, 2005). Furthermore, children attending high poverty schools with high crime rates, small budgets, and few advanced course offerings often have lower achievement scores (Catsambis & Beveridge, as cited in Eamon, 2005; Secker, 2004; Gutman & Midgley, 2000). Therefore, for the purpose of this research, schools with higher poverty levels, measured by higher FRL percents, are considered to be less successful schools. Again, for the *Requested School Aggregated* file, this percentage ranges from zero to 98.45 percent and for the *Previous Albertville Aggregated file*, from 7.08 to 100 percent.

*Minority percent.* This variable provides the researcher with the percentage of students in a school who are considered to be minority students. Since minority status is so closely tied to a student’s poverty level, with minority students being disproportionately affected by poverty, students considered to be minority are again at a higher risk of school failure such as dropped courses, or not completing school (Taylor, 2005). Therefore, to be consistent with the literature, this study considers high minority schools to be less successful. For the *Requested School Aggregated* file, minority percent ranges from 1.34 to 100 percent and for the *Previous Albertville Aggregated file*, it ranges from 5.78 to 99.57 percent.
MCA score. This variable indicates the average MCA score a school received and is used to capture the proficiency aspect of AYP. This score is averaged across grade, content (math and reading) as well as across three years worth of data. Operationally defining this variable is more straightforward with higher scores indicating a more successful school (again, a score of 1420 is needed to meet proficiency). For the Requested School Aggregated file, MCA scores range from 743.9 to 1632.4 and for the Previous Albertville Aggregated file, scores range from 440.10 to 1465.15.

Research Hypotheses

In order to address the predominant research question, what is the role of NCLB in a district with pre-existing choice options, the following four hypotheses will be tested:

Hypothesis #1. Are students requesting successful schools more than unsuccessful schools? Assuming the intended consequences of NCLB to be true, specifically, assuming school choice leads to school improvement and better educational opportunities, one must further assume that when given the choice, students will request enrollment at successful schools over unsuccessful schools. If this is not the case, if successful schools are not receiving more student requests than unsuccessful schools, this goal would not be met. Therefore, the null hypothesis in this situation would be that there is no difference in the number and rate of student requests, while the alternative would be that more successful schools are receiving more requests than those schools considered to be less successful.

Hypothesis #2. Are students leaving less successful schools more than successful schools? Again, assuming the intended consequences of NCLB to be true, one must further assume that when given the option, students/families will choose to leave substandard schools in order to receive a “higher quality” education elsewhere. Therefore, the null
hypothesis would be that schools lose students at equal rates, while the alternative would be that unsuccessful schools lose students to open enrollment options more than successful schools.

**Hypothesis #3.** Are ethnic minorities requesting successful schools more than unsuccessful schools? Once again, if NCLB is correct in assuming school choice will offer student minorities the option of more quality educational choices, one must further claim that when given the option, minority students will choose successful schools to attend over unsuccessful schools. If minorities are not choosing higher performing schools, this goal will not be met. Therefore, the null hypothesis is minorities request successful schools equally as often as unsuccessful schools while the alternative is that minorities request attendance to successful schools more than to unsuccessful schools.

**Hypothesis #4.** Are ethnic minorities transferring out of unsuccessful schools more than successful schools? Similar to Hypothesis #3, if NCLB is correct in assuming school choice will offer student minorities the option of more quality educational choices, one must further claim that when given the option, minority students will choose to leave their potentially unsuccessful school. If minorities are not choosing to leave unsuccessful schools, this goal will not be met. Therefore, the null hypothesis is minorities transfer from successful and unsuccessful schools at equal rates, while the alternative is these students transfer from unsuccessful schools more than from successful ones.

**Models Used in Multiple Regression**

To test these various hypotheses, multiple regression was completed (and supplemented with partial F-tests) using enrollment, FRL percent, minority percent, and MCA score as the predictor variables (IV) assumed to measure school success. Transformed
request (or transfer) numbers, and transformed request (or transfer) rates were the dependent variables (DV) assumed for this analysis. Transformations are used to correct skew and bring data closer to the normal distribution (Tabachnick & Fidell, 1996). In this investigation the distributions of request and transfer numbers and rates were all highly skewed. In the case of raw request and transfer numbers, both distributions were positively skewed (skewness = 3.372 for request and skewness = 1.501 for transfers). In order to bring these distributions closer to normal, to reduce the amount of skew, the following log transformation was used:

\[ \text{Transformed Request} = \ln(\text{requests}) \]

After transformations were completed for the raw request and transfer numbers skewness decreased to .282 for requests and .028 for transfers. In addition, following transformations, for requests, the distribution of values ranged from .693 to 5.778. Twenty-five percent of the data points were less than or equal to 1.099 while 25 percent of the data points were greater than or equal to 3.597. Similarly, for transfers, following transformations, the distribution of values ranged from .693 to 4.443 with 25 percent of the data falling at or below 1.609 and 25 percent of the data falling at or above 3.332 (these same transformations were completed for minority request and transfer numbers, with similar results, however, specifics will not be discussed).

The distributions for request and transfer rates were again skewed with skewness equaling 1.973 for request rate and 1.397 for transfer rate. Since these were distributions of proportions a different transformation was needed to be used which reduced the variability in the middle of the distributions. Again, the following equation was used to transform all data points:
Transformed Rate = ArSin(SqrtRate)

So, in this instance, the square root of every request (or transfer) rate was first calculated, then that was multiplied by the ArSin function. For these two distributions, using the transformation again greatly reduced the skewness down to .816 for request rate and to .504 for transfer rate. In addition, as a result of transformations, the distribution for request rate ranged from .0238 to .5994, with the 25th percentile equaling .0587 and the 75th percentile equaling .2648. Similarly, for transfer rates, following transformations, the distribution of values ranged from .0417 to .4198 with 25 percent of the values being less than or equal to .1133 and 25 percent of the values being greater than or equal to .2437 (again, these transformations were also completed for minority request and transfer rates, but further detail will not be given).

Due to additional issues with collinearity among several of the predictor variables (which will be outlined in subsequent pages and depicted in correlation matrices), a total of 10 models were required for each of the four hypotheses in order to determine the extent to which requests and transfers are a function of enrollment, FRL percent, minority percent, and/or MCA test scores. The following outlines the ten models considered for each of the four research hypotheses:

Hypothesis #1.

M1:  Ln(Requests) = f(enrollment)
M2:  Ln(Requests) = f(enrollment, FRL%)
M3:  Ln(Requests) = f(enrollment, minority%)
M4:  Ln(Requests) = f(enrollment, MCA)
M5:  Ln(Requests) = f(enrollment, FRL%, minority%, MCA)
M6:  Arsin(Sqrt Request Rate) = f(enrollment)
M7:  Arsin(Sqrt Request Rate) = f(enrollment, FRL%)
M8:  Arsin(Sqrt Request Rate) = f(enrollment, minority%)
M9:  Arsin(Sqrt Request Rate) = f(enrollment, MCA)
M10: Arsin(Sqrt Request Rate) = f(enrollment, FRL%, minority%, MCA)
Hypothesis #2.
M1: Ln(Transfers) = f(enrollment)
M2: Ln(Transfers) = f(enrollment, FRL%)
M3: Ln(Transfers) = f(enrollment, minority%)
M4: Ln(Transfers) = f(enrollment, MCA)
M5: Ln(Transfers) = f(enrollment, FRL%, minority%, MCA)
M6: Arsin(Sqrt Transfer Rate) = f(enrollment)
M7: Arsin(Sqrt Transfer Rate) = f(enrollment, FRL%)
M8: Arsin(Sqrt Transfer Rate) = f(enrollment, minority%)
M9: Arsin(Sqrt Transfer Rate) = f(enrollment, MCA)
M10: Arsin(Sqrt Transfer Rate) = f(enrollment, FRL%, minority%, MCA)

Hypothesis #3.
M1: Ln(Minority Requests) = f(enrollment)
M2: Ln(Minority Requests) = f(enrollment, FRL%)
M3: Ln(Minority Requests) = f(enrollment, minority%)
M4: Ln(Minority Requests) = f(enrollment, MCA)
M5: Ln(Minority Requests) = f(enrollment, FRL%, minority%, MCA)
M6: Arsin(Sqrt Minority Req Rate) = f(enrollment)
M7: Arsin(Sqrt Minority Req Rate) = f(enrollment, FRL%)
M8: Arsin(Sqrt Minority Req Rate) = f(enrollment, minority%)
M9: Arsin(Sqrt Minority Req Rate) = f(enrollment, MCA)
M10: Arsin(Sqrt Minority Req Rate) = f(enrollment, FRL%, minority%, MCA)

Hypothesis #4.
M1: Ln(Minority Transfers) = f(enrollment)
M2: Ln(Minority Transfers) = f(enrollment, FRL%)
M3: Ln(Minority Transfers) = f(enrollment, minority%)
M4: Ln(Minority Transfers) = f(enrollment, MCA)
M5: Ln(Minority Transfers) = f(enrollment, FRL%, minority%, MCA)
M6: Arsin(Sqrt Minority Transfer Rate) = f(enrollment)
M7: Arsin(Sqrt Minority Transfer Rate) = f(enrollment, FRL%)
M8: Arsin(Sqrt Minority Transfer Rate) = f(enrollment, minority%)
M9: Arsin(Sqrt Minority Transfer Rate) = f(enrollment, MCA)
M10: Arsin(Sqrt Minority Transfer Rate) = f(enrollment, FRL%, minority%, MCA)
CHAPTER 4: RESULTS

Before looking at the results from multiple regression, simple descriptive statistics are depicted in the following table:

Table 1
*Descriptive Statistics for Eight Dependant Variables*

<table>
<thead>
<tr>
<th></th>
<th>Sample Size</th>
<th>Mean Value</th>
<th>St. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requests</td>
<td>257</td>
<td>27.46</td>
<td>43.98</td>
</tr>
<tr>
<td>Request Rate</td>
<td>257</td>
<td>.04</td>
<td>.06</td>
</tr>
<tr>
<td>Transfers</td>
<td>88</td>
<td>17.28</td>
<td>18.37</td>
</tr>
<tr>
<td>Transfer Rate</td>
<td>88</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>Minority Requests</td>
<td>222</td>
<td>23.88</td>
<td>37.16</td>
</tr>
<tr>
<td>Minority Request Rate</td>
<td>222</td>
<td>.09</td>
<td>.10</td>
</tr>
<tr>
<td>Minority Transfers</td>
<td>82</td>
<td>14.41</td>
<td>15.45</td>
</tr>
<tr>
<td>Minority Transfer Rate</td>
<td>82</td>
<td>.04</td>
<td>.03</td>
</tr>
</tbody>
</table>

There were 17 schools removed from the requested file before data analysis was completed (including descriptive statistics). Specifically, 16 schools were removed because they did not have MCA scores and one school was removed because it had a request rate greater than one. This occurred since the school had a greater number of requests than their total PK-12 enrollment. Upon closer examination, this building was determined to be a special program with a very low enrollment. In addition to the case just mentioned, for the minority request and minority request rates, 35 schools were removed. These schools had no minority requests, so their data could not be used with the transformations and would have ultimately skewed results. For the transfer file, similar deletions were necessary. Seven
schools were removed due to lack of MCA score while six buildings had to be removed for the minority transfer and minority transfer rates because the buildings received no minority transfers.

It is next important to take note of the distribution of requests and transfers. In this set of data, most requests cluster around one. Specifically, 37.4 percent of the 272 schools only received between one and three requests (46 schools received one request, 28 schools received 2 requests, and 22 schools received 3 requests). Because the size of a school could greatly skew the number of requests received, with larger schools likely receiving more requests, it is also important to look at the request rate which takes into account the size of a school by dividing the number of requests by the school’s total PK-12 enrollment. Again, the majority of schools received a request rate close to zero (40.9 percent of requested schools had a request rate less than .01). The largest request rate was .32 which was obtained by only one school.

Similar to the student requests, most student transfers clustered around one. In this case, 19.3 percent of the 88 Albertville schools had only one or two transfers. To account for the size of the school, again assuming larger schools to have a higher number of transfers, the transfer rate was also calculated, with 13.6 percent of the schools receiving a rate less than .01.

A final set of descriptive statistics to be outlined are the means and standard deviations for each of the four variables added to the datasets: enrollment, FRL percent, minority percent, and MCA test scores. It should be noted that these descriptives were determined using the request and transfer datasets (datasets containing 257 and 88 records).
not the smaller sets used for minority requests and minority transfers (datasets containing 222 and 82 records).

Table 2
Descriptive Statistics of Four Predictor Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Size</th>
<th>Mean Value</th>
<th>St. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Requested</td>
<td>Previous</td>
<td>Requested</td>
</tr>
<tr>
<td>Enrolment</td>
<td>257</td>
<td>88</td>
<td>707.39</td>
</tr>
<tr>
<td>FRL Percent</td>
<td>257</td>
<td>88</td>
<td>46.15</td>
</tr>
<tr>
<td>Minority Percent</td>
<td>257</td>
<td>88</td>
<td>47.99</td>
</tr>
<tr>
<td>MCA Score</td>
<td>257</td>
<td>88</td>
<td>1508.96</td>
</tr>
</tbody>
</table>

Statistical Analysis

With descriptive statistics being summarized, the results of the four specific tests of hypothesis can be outlined. Each hypothesis is broken down into its own section containing a brief summary of the expected results along with the obtained results of the various models assumed for multiple regression. More specifically, each hypothesis was tested by looking at five models using the transformed request or transfer number as the DV and five models using the transformed request or transfer rates. Again, the transformations were completed due to violations made to the regression analysis (most critically, the violation to homogeneity of variance assumption) and the ten total models were required to account for issues of collinearity. In addition, partial F-tests were calculated to determine the unique contribution of three of the predictor variables (FRL percent, minority percent, and MCA test scores).
Are student requests (and student request rates) a function of school enrollment, school FRL percent, school minority percent, and/or school MCA test scores?

Assuming the intended consequences of NCLB to be true, specifically, assuming school choice leads to school improvement and better educational opportunities, one must further assume that when given the choice, students will leave substandard schools for better performing schools. Using multiple regression to test this hypothesis, it was therefore expected that requests (and request rates) would be a function of enrollment, FRL percent, minority percent, and/or MCA test scores (H₀: \( \text{Ln(Requests)} = \beta_0 + \epsilon_i \), Hₐ: At least one of the slopes is significant; H₀: \( \text{Arsin(Request Rate)} = \beta_0 + \epsilon_i \), Hₐ: At least one of the slopes is significant). More specifically, when considering the operational definitions provided earlier, significant negative correlations would be expected for the relationship between FRL percent X requests and request rates, minority percent X requests and request rates, and enrollment X requests and request rates while a significant positive correlation would be expected for the relationship between MCA score X requests and request rates. The following correlation matrix can be used to examine the relationship between these four variables and student requests or request rates:
Table 3

**Correlation Matrix: Student Requests ($y_1$) and Student Request Rate ($y_2$). $N = 257$**

<table>
<thead>
<tr>
<th></th>
<th>$Y_1$</th>
<th>$Y_2$</th>
<th>Ln ($y_1$)</th>
<th>Arsin ($\sqrt{y_2}$)</th>
<th>Enrollment</th>
<th>FRL %</th>
<th>Minority %</th>
<th>MCA Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y_1$</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$Y_2$</td>
<td>.771**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ln($y_1$)</td>
<td>.789**</td>
<td>.805**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Arsin ($\sqrt{y_2}$)</td>
<td>.744**</td>
<td>.960**</td>
<td>.900**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Enrollment</td>
<td>.247**</td>
<td>-.134*</td>
<td>.109</td>
<td>-.184**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FRL %</td>
<td>.033</td>
<td>.204**</td>
<td>.137*</td>
<td>.263**</td>
<td>-.339**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Minority %</td>
<td>.067</td>
<td>.220**</td>
<td>.183**</td>
<td>.285**</td>
<td>-.297**</td>
<td>.966**</td>
<td>1.0</td>
<td>-</td>
</tr>
<tr>
<td>MCA Score</td>
<td>-.081</td>
<td>-.199**</td>
<td>-.139*</td>
<td>-.243**</td>
<td>.251**</td>
<td>-.873**</td>
<td>-.834**</td>
<td>1.0</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed).

Only one of the highlighted correlations (correlations of most interest) is in the expected direction. The significant negative correlation between Enrollment and Arsin(\sqrt{\text{ReqRate}}) is what the researcher expected and suggests larger schools to have lower request rates. One can see how using a request rate instead of the raw request number can alter the results. When using raw request number, the relationship between requests and size of school is positive (although not significant), but when using the request rate, that relationship becomes significantly negative. Again, it is assumed that the rate is more accurate as it considers the size of the school when determining the number of transfers. All other correlations are in the opposite direction of what would be expected and in all but one instance those correlations were significant.
It is also critical to look at the correlation between the four predictor variables in order to see the previously mentioned issues of collinearity. Three considerably large coefficients were obtained when looking at the relationships between FRL percent, minority percent and MCA test score ($r_{xy} = .966, -.873, \text{ and } -.834$). Because of these strong correlations all three variables were run in a model containing all three, along with three separate models containing only one variable at a time. The results from the regression analysis are further depicted in the following table:

Table 4

Summary of Regression Results Predicting Requests and Request Rates

<table>
<thead>
<tr>
<th></th>
<th>Ln(Requests)</th>
<th>ARSIN(SqrtRequestRate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M1</td>
<td>M2</td>
</tr>
<tr>
<td>Enrollment</td>
<td>.109</td>
<td>.176</td>
</tr>
<tr>
<td>FRL Percent</td>
<td>-.196</td>
<td>t=3.01</td>
</tr>
<tr>
<td>Minority Percent</td>
<td>-.237</td>
<td>t=3.72</td>
</tr>
<tr>
<td>MCA</td>
<td>-.178</td>
<td>t=-2.8</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.23</td>
<td>1.69</td>
</tr>
<tr>
<td>F-value</td>
<td>3.09</td>
<td>6.13</td>
</tr>
<tr>
<td>R$^2$</td>
<td>.01</td>
<td>.05</td>
</tr>
<tr>
<td>ΔR$^2$</td>
<td>-</td>
<td>.04</td>
</tr>
<tr>
<td>Partial F-value</td>
<td>-</td>
<td>9.08</td>
</tr>
</tbody>
</table>

*For the partial F-test, the critical value = 3.84 ($\alpha = .05$), 6.63 ($\alpha = .01$), and 10.83 ($\alpha = .001$)

When request number and request rate were regressed on the four school success variables, those variables accounted for a small, but significant proportion of the variance in
all cases except for M1 looking only at PK-12 enrollment. Looking at the models using transformed request numbers (M1-M5) the largest $R^2$ value was obtained when taking all four variables in combination ($R^2 = .08, F(4, 252) = 5.45, p < .001$). Because of the high collinearity it is also important to look at M2 through M4 where only one of the three highly correlated variables are examined at a time. In M3, considering enrollment and minority percent, six percent of the variance in requests can be explained. Looking further to the partial F-value for M3, one can see minority percent, after controlling for enrollment, contributes significantly to the explanation of requests (Partial $F=13.83$ is significant at the .001 level).

In all models, again with the exception of M1, the school success variables were significant predictors for student requests (all t-values were significant at the .05 level with some being significant at the .01 and .001 levels). However, MCA score had little to no ability in predicting student requests when taking all four variables in combination (M5).

Using the same school variables to predict request rates resulted in slightly stronger results (i.e., slightly larger $R^2$ values). In all instances, M6 through M10, the variables explained a significant amount of the variance in request rates. $R^2$ ranged from .03 to .10, with F-values being significant at the .01 level for M6, and significant at the .001 level for all others. Again, one can see that most variance can be explained when regressing request rate against all four school variables ($R^2 = .10, F(4, 252) = 7.01, p < .001$). However with issues of collinearity between FRL percent, minority percent and MCA score, it is once again critical to look at the models that consider only one of these three variables at a time. In this case, minority percent again is able to explain the most variance in request rate. Specifically, when regressing request rate with enrollment and minority percent, nine percent of the
variance in request rate can be explained. The partial F-test shows that minority percent, after controlling for enrollment, contributes significantly to the explanation of request rates (Partial F = 16.07 is significant at the .001 level). In these models (M6 through M9) all variables act as significant predictors when taken separately, but when taken in combination (M10), only enrollment and minority percent show predictive significance (again this is likely due to the three variables of FRL percent, minority percent, and MCA being highly correlated).

Are student transfers and transfer rates a function of enrollment, FRL percent, minority percent, and/or MCA score?

Similar to hypothesis #1, in assuming the intended consequences of NCLB to be true, one must further assume that when given the option, students/families will choose to leave substandard schools in order to receive a higher quality education elsewhere. Therefore, the null hypothesis would be that schools lose students at equal rates, regardless of school success, while the alternative would be that more students (higher transfers and higher rates of transfer) are leaving unsuccessful schools than successful schools. According to this hypothesis, using multiple regression, one would expect transfers and transfer rates to be a function of enrollment, FRL percent, minority percent and/or MCA scores (H₀:

\[ \ln(\text{Transfers}) = \beta_0 + \epsilon_i, \text{ H}_A: \text{ at least one of the slopes is significant; H}_0: \text{ Arsin(\sqrt{\text{Transfer Rate}})} = \beta_0 + \epsilon_i, \text{ H}_A: \text{ at least one of the slopes is significant}. \] More specifically, assuming the operational definitions provided earlier, positive correlations would be expected between FRL percent X transfers and transfer rates; minority percent X transfers and transfer rates; and enrollment X transfers and transfer rates. Furthermore, one would expect to see a significant negative correlation for the relationship between MCA score X
transfers and transfer rates. Again, the following correlation matrix can be used to examine the relationships between the four school level variables and transfers or transfer rates:

Table 5
Correlation Matrix: Student Transfers ($y_1$) and Student Transfer Rates ($y_2$). $N = 88$

<table>
<thead>
<tr>
<th></th>
<th>$Y_1$</th>
<th>$Y_2$</th>
<th>$\ln(y_1)$</th>
<th>Arsin ($\sqrt{y_2}$)</th>
<th>Enrollment</th>
<th>FRL %</th>
<th>Minority %</th>
<th>MCA Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y_1$</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$Y_2$</td>
<td>.614**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$\ln(y_1)$</td>
<td>.895*</td>
<td>.633**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Arsin ($\sqrt{y_2}$)</td>
<td>.635**</td>
<td>.974**</td>
<td>.702**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Enrollment</td>
<td>.545</td>
<td>-.115</td>
<td>.540**</td>
<td>-.098</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FRL %</td>
<td>.123</td>
<td>.307**</td>
<td>.137</td>
<td>.362**</td>
<td>-.302**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Minority %</td>
<td>.125</td>
<td>.243*</td>
<td>.152</td>
<td>.309**</td>
<td>-.216*</td>
<td>.935**</td>
<td>1.0</td>
<td>-</td>
</tr>
<tr>
<td>MCA Score</td>
<td>.021</td>
<td>-.222*</td>
<td>.042</td>
<td>-.269*</td>
<td>.359**</td>
<td>-.792**</td>
<td>-.785**</td>
<td>1.0</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

In this analysis, more of the obtained results (specifically looking at the highlighted correlations) were consistent with what the researcher hypothesized. Looking first at the transformed transfer numbers, one significant coefficient was obtained; that between transformed transfer number and enrollment ($r_{xy} = .540$, $p < .01$). This result indicates larger schools to be losing more students to open enrollment than smaller schools. Once again, size of school could be impacting this result with larger schools losing more students simply because they have more students to lose. Transfer rate may be more accurate for this reason. When looking at transformed transfer rate and enrollment, one can see that the correlation is no longer significant and actually is in the opposite direction suggesting a complete change in
the relationship. All other coefficients for transformed transfer rate are significant and going in the expected direction. That is a significant positive correlation was obtained for FRL percent X transformed transfer rate, a significant positive correlation for minority percent X transformed transfer rate and significant negative correlation was obtained for MCA score X transformed transfer rate.

Again, because the relationships between FRL percent, minority percent, and MCA test score are so strong (r_{xy} = .935, -.792, -.785), these variables were run in a model containing all three along with three separate models considering only one of these variables at a time. The results from the regression analysis are further depicted in the following table:

Table 6
Summary of Regression Results Predicting Transfers and Transfer Rates

<table>
<thead>
<tr>
<th></th>
<th>Ln(Transfers)</th>
<th>ARSIN(SqrtTransferRate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M1</td>
<td>M2</td>
</tr>
<tr>
<td>Enrollment</td>
<td>.540</td>
<td>.640</td>
</tr>
<tr>
<td></td>
<td>t=5.95</td>
<td>t=7.20</td>
</tr>
<tr>
<td>FRL Percent</td>
<td>-.330</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>t=3.71</td>
<td>-</td>
</tr>
<tr>
<td>Minority Percent</td>
<td>-.282</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>t=3.20</td>
<td>-</td>
</tr>
<tr>
<td>MCA</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>t=-1.8</td>
<td>t=1.34</td>
</tr>
<tr>
<td>Intercept</td>
<td>1.69</td>
<td>0.35</td>
</tr>
<tr>
<td>F-value</td>
<td>35.44</td>
<td>27.24</td>
</tr>
<tr>
<td>R²</td>
<td>.29</td>
<td>.39</td>
</tr>
<tr>
<td>ΔR²</td>
<td>-</td>
<td>.10</td>
</tr>
</tbody>
</table>

*For the partial F-test, the critical value = 3.96 (α = .05), 6.97 (α = .01), and 11.68(α = .001)
When predicting student transfers, the variables in all models accounted for a significant proportion of the variance, with the exception of M6. In first looking at the models predicting transformed transfer numbers (M1 through M5), $R^2$ values ranged from .29 in M1 to .41 in M5 (in all cases the F-value was significant at the .001 level). Furthermore, several significant standardized coefficients were obtained (t-values range from 5.95 to 7.20). FRL percent seemed to be the strongest predictor of student transfers with $R^2 = .39$, $F(2,85) = 27.24$, $p < .001$ (for M2) and the partial $F = 13.78$, $p < .001$ indicating that after controlling for enrollment, FRL percent contributes significantly to the explanation of transfers.

The models predicting transfer rates (M6 through M10) do not explain as much of the variance as when using transfer numbers. Although that may be more accurate as these models take the size of the school into account by predicting transfer rates instead of raw transfer numbers. One can see that when using transfer rate enrollment no longer demonstrates itself to be a significant variable in predicting student transfers. However, the effects of FRL and minority percent remain significant ($t = 3.45$, $p = .001$ for FRL percent; $t = 2.86$, $p < .01$ for minority percent) when run in models separately and are consistent with the research hypothesis. MCA score also shows significance in predicting student transfer rates ($t = -2.4$, $p < .05$).

Are minority requests and minority request rates a function of school enrollment, school FRL percent, school minority percent, and/or school MCA scores?

If NCLB is correct in assuming school choice will offer minority students the option of more quality educational choices, one must further claim that when given the option, minority students will choose higher performing schools to attend. If minorities are not choosing higher performing schools, this goal will not be met. Therefore, the null hypothesis
is schools receive minority requests at equal rates, regardless of school success while the alternative is that successful schools receive more minority requests (higher requests and higher request rates) than do unsuccessful schools. Therefore, according to this hypothesis, when using multiple regression to analyze the data, one would expect minority requests and minority request rates to be a function of enrollment, FRL percent, minority percent, and/or MCA test scores (H₀: Transformed Minority Requests = β₀ + Cᵢ, Hₐ: At least one of the slopes is significant; H₀: Transformed Minority Request Rate = β₀ + Cᵢ, Hₐ: At least one of the slopes is significant). More specifically, when considering the operational definitions provided earlier, significant negative correlations would be expected for the relationship between FRL percent X minority requests and minority request rates; minority percent X minority requests and minority request rates; and enrollment X minority requests and minority request rates while a significant positive correlation would be expected for the relationship between MCA score X minority requests and minority request rates. The following correlation matrix can be used to draw inferences about these relationships:
Table 7  
Correlation Matrix: Minority Student Requests ($y_1$) and Minority Student Request Rates ($y_2$).  
$N = 222$

<table>
<thead>
<tr>
<th></th>
<th>$Y_1$</th>
<th>$Y_2$</th>
<th>$\text{Ln}(y_1)$</th>
<th>$\text{Arsin}\left(Sq\text{rty}_2\right)$</th>
<th>Enrollment</th>
<th>FRL %</th>
<th>Min %</th>
<th>MCA Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y_1$</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$Y_2$</td>
<td>.662**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$\text{Ln}(y_1)$</td>
<td>.783**</td>
<td>.721**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$\text{Arsin}\left(Sq\text{rty}_2\right)$</td>
<td>.658**</td>
<td>.968**</td>
<td>.813**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Enrollment</td>
<td>.301**</td>
<td>.058</td>
<td>.163*</td>
<td>.002</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FRL %</td>
<td>.038</td>
<td>-.260**</td>
<td>.091</td>
<td>-.233**</td>
<td>-.360**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Minority %</td>
<td>.067</td>
<td>-.259**</td>
<td>.135*</td>
<td>-.233**</td>
<td>-.305**</td>
<td>.967**</td>
<td>1.0</td>
<td>-</td>
</tr>
<tr>
<td>MCA</td>
<td>-.097</td>
<td>.182**</td>
<td>-.120</td>
<td>.164*</td>
<td>.283**</td>
<td>-.876**</td>
<td>-.840**</td>
<td>1.0</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).  
* Correlation is significant at the 0.05 level (2-tailed).

Just looking at the correlations between the transformed variables and the four school variables, three are consistent with the research hypothesis, while the others go in the opposite direction of what was expected. However, when looking at just the transformed request rate (which again may be more accurate since it takes the size of the school into consideration), all but one of the correlations is significant and in the expected direction. The significant negative relationships between FRL percent X minority request rate and minority percent X minority request rate, as well as the significant positive relationship between MCA score X minority request rate are all in line with the expected results. That is, higher FRL percent schools, and higher minority percent schools received a lower minority request rate than did lower FRL percent schools and lower minority percent school. In addition, schools
with higher MCA scores received a higher minority student request rate than did those scoring lower on the MCA test. The positive relationship between enrollment X minority request rate, although not significant, contradicts the expected results.

Again, one can clearly see the high correlations between FRL percent, minority percent, and MCA score which requires these three variables to be run in separate models. The following table further depicts the results of multiple regression looking at minority requests and request rates as a possible function of enrollment, FRL percent, minority percent, and/or MCA score:

Table 8

<table>
<thead>
<tr>
<th></th>
<th>Ln(Minority Request)</th>
<th>ARSIN(Sqrt Minority Request Rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M1</td>
<td>M2</td>
</tr>
<tr>
<td>Enrollment</td>
<td>.163</td>
<td>.225</td>
</tr>
<tr>
<td></td>
<td>t=2.45</td>
<td>t=3.19</td>
</tr>
<tr>
<td>FRL Percent</td>
<td>-</td>
<td>.172</td>
</tr>
<tr>
<td></td>
<td>t=2.45</td>
<td>t=3.37</td>
</tr>
<tr>
<td>Minority Percent</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>t=2.97</td>
<td>-</td>
</tr>
<tr>
<td>MCA</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>t=2.6</td>
<td>t=1.2</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.14</td>
<td>1.67</td>
</tr>
<tr>
<td>F-value</td>
<td>6.01</td>
<td>6.06</td>
</tr>
<tr>
<td>R²</td>
<td>.03</td>
<td>.05</td>
</tr>
<tr>
<td>ΔR²</td>
<td>-</td>
<td>.02</td>
</tr>
<tr>
<td>Partial F-value</td>
<td>-</td>
<td>5.98</td>
</tr>
</tbody>
</table>

*For the partial F-test, the critical value = 3.84 (α = .05), 6.63 (α = .01), and 10.83 (α = .001)
Looking at Table 8, one can see that in all cases (with the exception of M6), the predictor variables account for a small, but significant proportion of the variance in minority requests and minority request rates ($R^2$ ranges from .03 to .08). Looking first at M1 through M5 which predict minority requests, significant standardized coefficients were obtained for all predictor variables. Furthermore, looking at the partial F-values which demonstrate the unique contribution of FRL percent, minority percent, or MCA score, after controlling for enrollment, all three variables contribute significantly to the explanation of minority requests (partial $F = 5.98, p < .05$; partial $F = 8.80, p < .01$; partial $F = 6.96, p < .01$, respectively). However, when regressing all four variables at the same time (M5), only enrollment and minority percent show significance ($t = 2.66, p < .01$ for enrollment; $t = 2.34, p < .05$ for minority percent).

Models 6 through 8 show similar results, with around three to seven percent of the variance in minority request rates being explained by the predictor variables, depending on the proposed model. One large change to note is the impact of enrollment. When shifting to the use of minority request rates as the DV, the predictive impact of enrollment both changes direction and loses significance. For example, when comparing M4 to its equivalent, M9, the coefficient for enrollment changes from .214 ($t=3.13$) to -.048 ($t=-0.7$). Similar results can be seen across all models. When only considering enrollment and one other school variable, standardized coefficients for those variables are significant and in the hypothesized direction. However, when regressing all four variables on minority request rate (M10), none of the variables show significance. This again shows the impact of collinearity among variables.
Are minority transfers and minority transfer rates a function of enrollment, FRL percent, minority percent, and/or MCA scores?

If NCLB is correct in assuming school choice will offer student minorities the option of more quality educational choices, one must further claim that when given the option, minority students will choose to leave their (potentially) unsuccessful school. If minorities are not leaving unsuccessful schools, this goal will not be met. Therefore, the null hypothesis is schools lose minority students at equal rates, regardless of school success while the alternative is that unsuccessful schools lose more minority students (have higher transfers and higher transfer rates) than do successful schools. Therefore, according to this hypothesis, one would expect minority transfers and minority transfer rates to be a function of enrollment, FRL percent, minority percent and/or MCA scores (H₀: Transformed Minority Transfers = β₀ + ɛᵢ, Hₐ: At least one of the slopes is significant; H₀: Transformed Minority Transfer Rate = β₀ + ɛᵢ, Hₐ: At least one of the slopes is significant). More specifically, assuming the operational definitions provided earlier, positive correlations were expected between FRL percent X transformed minority transfers and minority transfer rates; minority percent X transformed minority transfers and minority transfer rates; and enrollment X transformed minority transfers and minority transfer rates. Furthermore, one would expect to see a significant negative correlation for the relationship between MCA score X transformed minority transfers and minority transfer rates. Again, the following correlation matrix can be used to examine the relationships between the four school level variables and minority transfers and/or minority transfer rates:
Table 9
Correlation Matrix: Minority Student Transfers ($Y_1$) and Minority Student Transfer Rates ($Y_2$). $N = 82$

<table>
<thead>
<tr>
<th></th>
<th>$Y_1$</th>
<th>$Y_2$</th>
<th>$\ln(y_1)$</th>
<th>$\text{Arsin} \left(\sqrt{y_2}\right)$</th>
<th>Enrollment</th>
<th>FRL %</th>
<th>Min %</th>
<th>MCA Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y_1$</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$Y_2$</td>
<td>.520**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$\ln(y_1)$</td>
<td>.895**</td>
<td>.582**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$\text{Arsin} \left(\sqrt{y_2}\right)$</td>
<td>.555**</td>
<td>.975**</td>
<td>.652**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Enrollment</td>
<td>.562**</td>
<td>-.105</td>
<td>.562**</td>
<td>-.075</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FRL %</td>
<td>.146</td>
<td>.196</td>
<td>.121</td>
<td>.179</td>
<td>-.330**</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Minority %</td>
<td>.196</td>
<td>.166</td>
<td>.175</td>
<td>.150</td>
<td>-.234*</td>
<td>.922**</td>
<td>1.0</td>
<td>-</td>
</tr>
<tr>
<td>MCA Score</td>
<td>.021</td>
<td>-.182</td>
<td>.094</td>
<td>-.158</td>
<td>.419**</td>
<td>-.750**</td>
<td>-.741**</td>
<td>1.0</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Again, looking only at the highlighted correlations one can see that only one of these correlations is significant. The relationship between enrollment and transformed minority transfers is positive suggesting larger schools to have more minority transfers. However, this strong relationship is likely due to the nature of the variable being used. High enrollment schools likely have higher minority transfers simply because they have more minority student populations to begin with. Therefore, like all other instances, the minority transfer rate is more appropriate to use. When using this variable, none of the correlations, including that between enrollment and transfer rate are significant (although all are going in the hypothesized direction).
A final note to make about the correlation matrix is again the high correlations between FRL percent, minority percent, and MCA score (rₓᵧ = .922, -.750, -.741). Because of this all three variables were run in separate models along with one model containing all three in order to demonstrate and account for issues of collinearity. Taking the analysis a step further, the following table describes the results using multiple regression to determine to what extent enrollment minority student transfers and transfer rates are a function of FRL percent, minority percent, and/or MCA test scores:

Table 10

<table>
<thead>
<tr>
<th></th>
<th>Ln(Minority Transfer)</th>
<th>ARSIN(Sqrt Minority Transfer Rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M1</td>
<td>M2</td>
</tr>
<tr>
<td>Enrollment</td>
<td>.562</td>
<td>.675</td>
</tr>
<tr>
<td></td>
<td>t=6.08</td>
<td>t=7.45</td>
</tr>
<tr>
<td>FRL Percent</td>
<td>-</td>
<td>.344</td>
</tr>
<tr>
<td></td>
<td>t=3.79</td>
<td></td>
</tr>
<tr>
<td>Minority Percent</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>t=3.67</td>
<td></td>
</tr>
<tr>
<td>MCA</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>t=-1.7</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>1.60</td>
<td>0.11</td>
</tr>
<tr>
<td>F-value</td>
<td>36.94</td>
<td>28.73</td>
</tr>
<tr>
<td>R²</td>
<td>.32</td>
<td>.42</td>
</tr>
<tr>
<td>ΔR²</td>
<td>-</td>
<td>.10</td>
</tr>
<tr>
<td>Partial F-value</td>
<td>-</td>
<td>14.36</td>
</tr>
</tbody>
</table>

Similar to minority requests and minority request rates, one can see the difference in obtained R² values between using raw transfer numbers and transfer rates; with the raw numbers again resulting in models with much higher R² values. R² in M1 through M5 are
relatively large ranging from .32 to .44. With such a large percent of the variance in transfers being explained in these models, the corresponding F-values are also quite large (F ranges from 15.00 to 36.94, all of which are significant at the .001 level). However, when trying to predict minority transfer rate (the more appropriate DV) the variance explained by those models dramatically decreases, with .05 being the largest R² value obtained. In fact, none of the variables in any of these models have standardized coefficients that show predictive significance.

Accordingly, similar dramatic differences can be seen by examining the sole impact of enrollment. Enrollment is a strong predictor with larger schools having more transfers in M1 through M5. However, the size of the school alone is likely skewing this result so it is more appropriate to look at the transfer rate which takes the size of the school into account. When looking at the models that assume the transfer rate for the DV, one can clearly see the large discrepancy in the results. Examining the standardized coefficients, the relationship between enrollment and transfer rates is negative and no longer significant (it begins to show a positive relationship in M10, but again this coefficient is too small to show predictive significance).
CHAPTER 5: CONCLUSIONS

Limitations of Data

Before reviewing the results and possible implications of this research, there are several limitations to the data that must be discussed. First, the four school level predictor variables (not including MCA score) were not ideal for this investigation. Using actual AYP measures (test scores, proficiency rate, graduation rate, and attendance rate), since these are the exact variables used by NCLB to measure school success, would have been a far better way of indirectly measuring the role of NCLB in a school district already operating under existing choice options. However, these variables could not be obtained for all schools so enrollment, FRL percent, and minority percent needed to be used in their stead. While these variables have been shown to be predictors of student and/or school achievement, they are not directly tied to the school choice provision under investigation.

It is interesting to note however, that of the four predictor variables, MCA score (the one variable directly related to the idea of NCLB school success) was the variable determined to be the least important in predicting student requests and transfers. A significant standardized coefficient was obtained for only five of the 16 possible models in which MCA was included. This suggests that when choosing a school to attend or a school to transfer out of, the schools’ overall test performance does not seem to be a critical factor in that decision for parents/students.

This fact brings up the importance of considering other variables to define school success and predict student transfers and requests. It would seem worthwhile to expand the current definition of school success to include variables shown to be important to parents and/or students such as closeness to home, special programs offered, extra-curricular
activities offered, etc. Expanding the variables may offer important insight into what factors go into making a decision to transfer and/or enroll one’s student in a particular school.

In addition to the limitations of the predictor variables used in this investigation, there were no variables in the datasets that captured a student’s SES or achievement level (these variables were only available at the school level). This would be helpful in considering the second assumption of school choice – offering more opportunity for low-income, low-achieving students. Using these two indicators would have therefore, been more helpful for Hypotheses #3 and #4. However, because minority status is shown to be closely related to SES and academic achievement, and was further a variable available to the researcher, it was assumed for this study. Again, using the direct measure of a student’s SES and academic achievement would have made for stronger arguments and results.

It should finally be noted that attempts were made to obtain data on NCLB school choice users, inquirers and eligibles for the Albertville school district, but all efforts failed (even though district approval was granted to complete this study). This failure to obtain data resulted in modifications to research questions and methods. The use of this data would be helpful in examining NCLB more directly than what was accomplished with the modified study.

Discussion

Are Students Choosing More Successful Schools to Attend

While all but one of the models tested under hypothesis #1 obtained significant results, few of the coefficients pointed in the hypothesized direction. In M1 through M5 (models using transformed request number) all coefficients were positive, with the exception of FRL percent (only in M5) and MCA score (which was only significant in M4).
Furthermore, looking at M6 through M10 (models using transformed request rate) only enrollment came through as being both a significant predictor of request rate and in the hypothesized direction (in M6 and M10 only).

Taking these results and going back to the literature and the assumptions of school choice, the results under this hypothesis show support for those who oppose school choice. By considering low enrollment, low FRL percent and low minority percent schools to be more successful, this study indicates students are not choosing more successful schools to attend. If students are not choosing better schools to attend the notion of competition leading to school improvement is further refuted. With students not requesting better schools, substandard schools are not likely to feel pressures to improve, and therefore this goal of NCLB would not be met. Since the open enrollment program does not seem to produce pressures on schools through competition, one must question the ability of NCLB school choice to produce such pressure.

*Are Students Transferring out of Non-successful Schools*

The models tested under hypothesis #2 accounted for far more of the variance in transfers than was obtained under hypothesis #1 predicting student requests. Furthermore, the results from these tests were consistent with the research hypothesis. In M1 through M3 the coefficients for enrollment, FRL percent and minority percent were positive and significant in all cases. The coefficient for MCA score in M4 was negative, but not yet reaching significance (p=0.072). When regressing all school level variables against students transfers (M5), only enrollment and FRL percent show predictive significance. $R^2$ values are greatly reduced in M6 through M10, using transformed transfer rate, but these results are likely more accurate. Enrollment no longer shows to be a predictor of student transfers, but
the other three variables show similar results as in M1 through M5. In this instance, MCA score reaches significance. All results from M1 through M10 (with the exception enrollment not predicting transfer rate) are in-line with the research hypothesis and suggest that students are transferring from less successful schools more often than from successful schools (assuming the operational definitions provided).

Unlike hypothesis #1, the results under this hypothesis coincide with those who support school choice. Again, by considering low enrollment, low FRL percent, and low minority percent schools to be more successful and further considering high MCA schools to be more successful, this aspect of the study would support the pro-choice side of the debate as it reports students to be leaving unsuccessful schools more than successful schools. While this is an important piece of information, and also a criteria for competition to be produced (i.e., if students are not leaving substandard schools, the possible effects of competition become irrelevant), these results are still only preliminary, with further research being required to make more conclusive statements about school choice. For example, while it can be seen that students are leaving unsuccessful schools more than successful schools, the type of school to which they are transferring to cannot be concluded from the findings here. This would add important insight into the discussion. Perhaps they are not moving from unsuccessful schools to more successful schools. It could be possible that students leave one unsuccessful school to another school performing at the same or lesser level. Furthermore, while this study describes unsuccessful schools to be losing more students to open enrollment, it cannot be concluded if transferring from poor schools creates incentives for those schools to improve. Again, this would require additional research and inquiry.
Finally, if students are leaving unsuccessful schools through open enrollment, the addition of NCLB school choice can be questioned. Would more student transfers seem likely, or is the addition of this provision redundant and unnecessary for a district such as Albertville? Pairing the results from this hypothesis with the number of students using open enrollment in Albertville (especially when compared to those who participate in NCLB school choice), one may conclude that indeed, where pre-existing open-enrollment programs are present, the provisions of NCLB are redundant.

*Are Minority Students Choosing Successful Schools to Attend*

Since the models tested under this hypothesis are a subset of those tested under hypothesis #1, similar results were obtained. For variables in M1 through M4, significant standardized coefficients were obtained, but again, they were not in line with the research hypothesis. This suggests minority students to not be requesting successful schools more than unsuccessful ones. In M6 through M10, the $R^2$ values remained about the same, explaining between three to seven percent of the variance in minority request rates, but the standardized coefficients switched direction and remained significant. These results would suggest that minority students are requesting successful schools more often than unsuccessful ones, a major difference from looking at the first five models under this hypothesis.

In this case, instead of looking at the assumption of competition, the results will be couched in the equal educational opportunity assumption. Looking only at M6 through M10 (since they are argued by the researcher to be using a more accurate DV of transformed transfer rate), the results from this hypothesis would support the position held by those who agree with school choice and its positive impacts. Specifically, they would support those who argue school choice leads to more equal educational opportunities for minority students.
Minority students, if given the opportunity to attend a school of their choosing, seem to be choosing successful schools over unsuccessful schools. Using open enrollment to determine the role of NCLB school choice, it can therefore be shown that school choice may be effective in providing low-income, low-achieving students with sufficiently better educational options. Once again, while this seems to support NCLB, it may also cause reason to question how NCLB would produce significantly different results. That is to say, if open enrollment seems to be fulfilling this goal of NCLB, is the addition of the provision necessary?

Similar to other hypotheses, these statements are not conclusive as the researcher is unaware of students’ previous school in relation to the school they chose to attend through open enrollment. While this aspect of the study shows minority students to be requesting successful schools more than unsuccessful schools, it is possible that in several of these cases the requested school may not performing at a significantly higher level than a student’s previous school. This would require additional research.

*Are Minority Students Transferring out of Non-successful Schools*

Looking first at M1 through M5, enrollment seems to be a strong predictor of minority transfers. However, when taking the transfer variable and standardizing it according to school size (by using transformed transfer rate), it can be easily observed that enrollment has little to no ability in predicting minority transfers. While all other coefficients in M1 through M10 are in the hypothesized direction, few show predictive significance. Only FRL percent and minority percent in M2 and M3 (models using the misleading transfer variable) obtained significant t-values.
Since none of the variables in M6 through M10 seem to predict minority transfer rate, and since the models as a whole explain very little of the variance in minority transfer rate, it could be concluded that a school’s success level (assuming the variables and operational definitions of this study) has little impact on a parent’s decision to transfer their student from a particular school. Therefore, couching the results in the literature and in the educational opportunity assumption, the pro-choice side of the debate would not be supported by these findings. Specifically, this study shows minority transfers are not a function of the four school success indicators. Therefore, when given the choice, minority students do not appear to be transferring from a school based on variables considered for this study. Again, it would be more insightful to examine what school they are choosing to attend in relation to their previous school. In this way one could add information to the argument by possibly being able to confirm that students are leaving unsuccessful schools for more successful schools.

Overall Conclusions

While several statistically significant results were obtained in this investigation, few strong conclusions can be made with regards to the role of NCLB school choice. There are several inconsistencies within the study itself as well as between this study and past research. For example, several of the tested models resulted in support for school choice and its benefit for student populations and schools in Albertville, while several others contested the assumptions of schools choice.

However, in both cases, when support is given and when opposition to choice is demonstrated, an important question can be addressed: what is the role of NCLB in a district that already provides choice options to its students? When the results are in line with the goals of NCLB (i.e., when results show students to be leaving unsuccessful schools and/or
requesting successful one) one may conclude the addition of NCLB school choice to be unnecessary. In addition, when the results show opposition to the assumptions and goals of NCLB school choice (i.e., when results show students do not request successful schools and/or transfer from unsuccessful ones), one may question the ability of NCLB to provide significantly different results. In either case, it seems that for a district such as Albertville, that already operates under extensive choice programs, the addition of the NCLB school choice provision would not provide additional benefits for the schools and/or for the students they serves.

Recommendations for Future Research

This study was an introductory look into the impact of NCLB school choice. Future research may want to consider expanding this preliminary examination by studying the actual reasons for choosing particular schools. This could be achieved through interviews to determine exactly why parents chose to send their child to a particular school – what variables are involved in this decision (clearly, the variables examined in this study account for only a small part of the variance). Also, in examining NCLB more directly, it may be helpful, particularly in Minnesota, to investigate why those who inquired about NCLB school choice, ultimately chose not to take advantage of the provision. Another interesting direction would be interviewing those who are eligible, but make no attempts to find out more about the choice option. Reasons describing this lack of participation and inquiry could help in modifying the provision to be more helpful and effective for more families.

Finally, this study only considers a previous school OR a requested school, it did not look at the two in conjunction. It would therefore be helpful to consider the school from which students leave in relation to the school they choose to attend. For example, while this
study could make statements about the type of schools students are choosing to attend (e.g., larger schools receive more requests than smaller schools), it does not show the difference between the requested school and the school from which they transferred. Perhaps the school they choose is performing better than their previous school, but when compared to other requested schools, it ranks as an unsuccessful school.
REFERENCES


U.S. Department of Education. (n.d.a). Choice and supplemental services frequently asked questions. Retrieved April 20, 2005 from
http://www.ed.gov/parents/schools/choice/choice.html


**APPENDIX A**

Minnesota Open Enrollment Form

**APPLICATION FOR ENROLLMENT**

**SCHOOL DISTRICT ENROLLMENT OPTIONS PROGRAM**

ED-01861-21

**GENERAL INFORMATION AND INSTRUCTIONS:** Kindergarten through twelfth grade students and pre-kindergarten children with disabilities may apply to attend a public school outside of their resident district (Minn. Stat. § 124D.03). Use one application for each student.

Parent/Guardian: Request school and program information from districts, visit schools, and ask questions of administrators, teachers, parents and students. You may also visit the Department of Education’s Web site at http://education.state.mn.us for information about school districts, schools and school programs. If you have questions or need assistance, call Enrollment Options at (651) 382-8471.

Once you decide to apply, you must inform the school your child is currently attending that you are applying to a non-resident district for enrollment.

**Complete Section 1 and sign Section 2.** Send the completed application to the non-resident district (not to Department of Education). Applications must be sent to the non-resident district by January 15 for enrollment beginning the following school year. If you miss the January 15 deadline, contact the non-resident district to determine if you are eligible for a waiver of that deadline.

You can expect to receive an approval or disapproval from the non-resident district by February 15. When you receive an approval of your application, you must notify the non-resident district of your commitment to attend their the following school year.

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### SECTION 1: TO BE COMPLETED BY THE STUDENT’S PARENT OR GUARDIAN

<table>
<thead>
<tr>
<th>Parent/Guardian Name (Last, First, M.I.)</th>
<th>Parent/Guardian Address</th>
<th>City/State/Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parent/Guardian Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home ( )</td>
</tr>
<tr>
<td>Work ( )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Name (Last, First, M.I.)</th>
<th>Birthdate</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mo. Day. Year</td>
<td>M □ F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School Currently Attending or Last Attended</th>
<th>Grade (as of today’s date)</th>
<th>Special Needs (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reason for Request; (This does not affect your acceptance) List school(s) chosen in non-resident district in order of priority
1. ________________________________________
2. ________________________________________
3. ________________________________________

For Minneapolis students applying for the “Choice is Yours” plan, do you believe your child qualifies for free or reduced price lunch? No ☐ Yes ☐ Don’t Know ☐

Are you applying to other districts? No ☐ Yes ☐ If yes, which district(s): __________________________________________

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### SECTION 2: PARENT/GUARDIAN VERIFICATION OF INFORMATION

I hereby verify that the above information is true and correct to the best of my knowledge and belief.

__________________________________________
Signature - Parent/Guardian

Date

---

**Non-Resident District:** Complete Section 3. The non-resident district must notify parents/guardians by February 15 of approval or disapproval of application. After receipt of commitment to attend, the non-resident district must notify the resident district by March 15 of the student’s intent to enroll. Copies of all disapproved applications must be sent to the Department of Education.

---

### SECTION 3: TO BE COMPLETED BY THE NONRESIDENT DISTRICT

<table>
<thead>
<tr>
<th>Date of Receipt of Application</th>
<th>District Name</th>
<th>District Number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Contact Person</th>
<th>Title</th>
<th>Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>( )</td>
</tr>
</tbody>
</table>

☐ APPROVED

☐ DISAPPROVED

**Signature - Superintendent / Responsible Authority**

Date

---

1. On the basis of information provided in the above application, and with respect to district criteria, policies and procedures, the above student will be assigned for enrollment in ____________________________ on ____________________________ at ____________________________ School Building Name starting date grade level.

Please visit the district offices at least ten (10) days prior to the above starting date for completion of all enrollment forms.

---

2. The above district is unable to approve your request for enrollment for the following reason(s):
   [ ] Lack of capacity in a building
   [ ] Lack of capacity in a program
   [ ] Lack of capacity in a class
   [ ] Already reached enrollment set by law
APPENDIX B

Transfer Reason Codes

1 – Convenience
   1.0 = Close to day care
   1.2 = Close to employer
   1.3 = Close to home

2 – Academic
   2.0 = Better program outside resident district
   2.1 = Program not in resident district

3 – Objections to Resident District
   3.0 = Could not get school of choice in resident district
   3.4 = Object to conditions in resident district

4 – Class Size
   4.1 = Smaller student body or class size

5 – Social
   5.0 = Friends/relatives go to non-resident school/dist
   5.1 = Siblings go to non-resident school/district
   5.3 = Greater cultural diversity among students/staff

6 – Move
   6.0 = Moved, to continue at the same school
   6.1 = Anticipate moving into non-resident district

7 – Employee
   7.0 = To attend the school/district I teach in

8 – Expelled
   8.0 = Expelled from resident district

9 – Other
   9.0 = Miscellaneous
   9.2 = Previously attended
   9.5 = Lives with other than parent/guardian
   9.9 = Enrolled without paperwork

10 – No reason given

11 – Continued Enrollment of 11th and 12th Graders

12 – High School graduation incentives