ABSTRACT

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The study discussed in this dissertation identified and examined the factors that influence a parent's decision to choose a North Carolina charter school for their children. The study was conducted at 13 North Carolina Charter schools. Questionnaires were distributed to 2,325 parents, and 903 were completed. The questionnaire contained 14 questions that examined 16 factors that might influence parental decision-making. Frequency distributions were tabulated for each of the fourteen survey questions. A principal component and varimax analysis was conducted. The factors were grouped into three categories: (1) administration, (2) academic/instructional, and (3) student centered. Following this procedure, a multivariate analysis of variance (MANOVA) was applied to the data. This tested the three categories against the independent variables of race, parental income, and parent education level. A post hoc test (Tukey's Studentized Range, HSD) was applied when appropriate.

The category administration accounted for the greatest variance in the study. Factors in this category included sports programs, extracurricular activities, technology program, facilities, transportation, and food service.

The category that accounted for the next largest portion of the variance in the study was academic/instructional factors. These factors included curriculum, people running the school, opportunities for parents to participate, the school's expectation of parents, and academic standards.

The category that accounted for the third largest portion of the variance in the model was student-centered factors. These factors included school size, class size, and individual attention provided by teachers.

A multivariate analysis of variance (MANOVA) tested the three categories against independent variables of race, parental income levels, and education levels of parents. Post hoc testing was conducted when there was a significant main effect. This process led to the conclusion that minority parents place more value on administrative selection factors than majority parents. Furthermore, minority parents tend to place more value on academic/instructional selection factors than majority parents. Finally, parents that have professional or post graduate levels of education value administrative selection factors more than parents with lower levels of education.

THE NORTH CAROLINA CHARTER SCHOOL CHOICE: SELECTION FACTORS AND PARENTAL DECISION-MAKING

By

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BIOGRAPHY

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He and his wife, Beverly Fedewa, have two children, Michael Jr., and Dori.

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CHAPTER 1: INTRODUCTION OF THE STUDY

Education is seen as the great equalizer, the key to a better future for all citizens. The search for education effectiveness is a quest that seems to have no end. Today, the United States is analyzing its ability to compete in a global economy. Communities are concerned about their short and long-term security. Families are seeking quality opportunities for their children. Invariably, the focus of these discussions is education.

Public school systems appear to be fair game for criticism. Public education has become a highly politicized issue. As a result, massive education reforms have been initiated. Among these efforts is the open school choice option:

> Few educational reforms have ignited the imagination as much as school choice, and few reforms have aroused so much public controversy. Despite the fact that choice is in reality is a generic term that covers a wide variety of governance options. At its core, the school choice option rests on the fundamental assumption that public education will not improve until it becomes more competitive, less bureaucratic, and more consumer oriented (Cookson, 1992, p.vii).

For the school choice advocate, the argument is clear. Public schools have exclusive control over public education resources (Kolderie, 1990) and the allocation and distribution of public funds. According to the school choice advocate, public schools are interested only in maintaining their monopoly and the status quo (Finn, 1998).

School choice opponents view school choice reform as an attempt to dismantle the entire public education system. They contend that the result of such policies will segregate schools and lead to the greater polarization of society (Hassel, 1999). Traditional public

schools will have their best and brightest students swept away and only the children of parents unequipped to make sound educational decisions will remain in public schools (Hassel, 1999). School choice would also destroy the belief that public school for all children produces the enlightened and involved citizens necessary in a democracy (Shanker and Rosenberg, 1991).

The idea of school choice is not new. Milton Friedman first proposed it in 1955 when he advocated issuing educational vouchers to parents. These vouchers would be redeemable for educational services at private schools as well as public schools. His premise was that public schooling had become a national industry and government should dismantle this industry using educational vouchers. The idea found a home with liberal scholars who saw it as a means for integration and a way for minority students to access private education (Dougherty and Sostre, 1992).

As in many other parts of the country, school choice became an important topic in North Carolina in the early 1990s. This discussion resulted in the passage of the Charter Schools Act in June 1996 (N.C. General Statute 115c-238.29). In the 1997-1998 school year, 34 charter schools were opened. The Charter Schools Act limits the number of charter schools to 100. Currently, there are 97 charter schools operating in the State.

In North Carolina, parents can choose between home schooling, private schools, charter schools, and traditional public schools. The study presented in this dissertation was conducted to examine the factors that influence parents' choices to send their children to North Carolina's public charter schools and to determine the relative importance of each factor in the decision-making process.

North Carolina's charter schools were created to provide parents with more school choices within the public school system and to stimulate innovation in instructional practices and school development (Manual and McLaughlin, 2001). According to Hassel (1999), charter schools also were established to avoid the issue of school vouchers and/or tax credits for families who had children attending private schools or were being home-schooled. The charter public school would give those parents an additional option.

The key question is "Why is there a need for charter schools?" The answer to this question is complex; however, the origin of North Carolina's charter schools can be found in the 1983 publication of *A Nation At Risk: The Imperative For Educational Reform* by the National Commission on Excellence (Manual and McLaughlin, 2001). In this report there was a call for action. It created a sense of urgency in the field of education, and it claimed that the United States would pay a high price if changes were not made to the education system:

> The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a nation and a people. What was unimaginable a generation ago has begun to occur – others are matching and surpassing our educational attainments (Gardner, 1983, p.1).

Thus, as the school reform movement grew, charter schools in North Carolina became a reality. These schools operate under the control of a local board of directors. They are non-profit entities that operate through an agreement or charter that is ultimately approved by the North Carolina State Board of Education, and they operate outside the control of a

traditional school district. In exchange for this freedom, charter schools must produce the results that are outlined in the charter agreement.

Rationale for the Study

From a practical standpoint, the study discussed in this dissertation is useful for assessing the strengths and weaknesses of charter schools and for determining their perceived value in the community. This information could have great bearing on the viability of charter schools.

This study examines factors that influence a parent's decision to choose a charter school. Traditional public schools might use these data to become more competitive by improving customer service, communicating with the community, and by providing new curriculum choices (Moranto, Milliman, Hess, & Gresham, 2001). Charter schools might use these data to develop new and improved marketing strategies that will attract and retain more students.

In essence, this study illuminates and isolates those qualities that parents seek and desire in their children's schools. This information will be of interest to all educators.

Problem Statement

The issue of charter schools as a viable choice for parents in North Carolina is important. The literature on charter schools describes many reasons why parents choose these schools over other types of educational options. This study was designed to examine the decision-making process employed by those parents in North Carolina who have selected a charter school for their children.

A review of the literature suggested that the following factors might be used by parents to select a charter school for their children:

- Curriculum: Curriculum is closely linked to academic quality and educational philosophy. A strong course of study that is rigorous, yet takes into account a wide-range of student abilities, can be a major attraction when parents are selecting a charter school (Vanourek, Manno, Finn, & Bierlien, 1997).
- Individual attention by teachers: Many parents desire this and see it as a major reason for selecting a particular charter school (Vanourek, et al., 1997). Individual attention by teachers is often times closely identified with smaller schools, a characteristic of many charter schools.
- Class size: The size of charter schools and the size of individual classes are often cited as major reasons for parents to choose a charter school (Noblit & Corbett, 2001). Smaller class size leads to greater individual attention and is seen as a critical factor in the decision to send a child to a charter school (Vanourek, et al., 1997).
- School size: This factor is defined as the number of students that attend the school. Small schools are thought to provide extra help, personal attention, better school climate, and flexible instructional arrangements. (Noblit & Corbett, 2001).
- Sports program: This factor is not always relevant. For example, a school that serves students in pre-kindergarten to grade five does not traditionally field competitive sports teams. However, schools that serve students in middle grades through high school are likely to sponsor athletic teams. In some

cases, parents may select a particular charter school for its athletic program. In fact, failure to offer a sports program is often the reason why students return to traditional public schools (Kouri, Kleine, White, & Cummings, 1999).

- Extra-curricular activities: This factor is closely linked to sports programming in terms of importance to parents and students. For many students in middle and high schools, activities outside of the classroom are as important, and in some cases, even more important than regular classroom activities. Failure to offer extra-curricular activities is also a reason why students return to traditional public schools (Kouri, et al., 1999).
- People running the school: This factor is important because of the diversity of the people who attempt to start charter schools. Often parents who are dissatisfied with traditional public schools try to establish a charter school (Hassel, 1999). Other parents who have similar philosophies or outlooks on life view this as a valid reason for choosing the school (Vanoureck, et al., 1997).
- Opportunities for parents to participate: charter schools exist because parents believe their children will be better served outside the traditional school system. Many parents who choose charter schools for their children want to be more involved in their children's education. They want to feel a sense of ownership in the school (Manno et al., 1998a). Therefore, the opportunity to participate in the school is an important consideration.

- The school's expectation of parents: Some parents believe schools that require a high level of parent participation have high standards. Therefore, the school's expectation of parental involvement in school activities is an important consideration (Vanourek, et al., 1997).
- Academic standards: According to Noblit and Corbett (2001), one of the most important factors considered by parents when choosing a charter school for their children is the school's academic standards. Parents choose charter schools because they believe these schools are better than their children's previous school (Vanourek, et al., 1997). They believe charter schools offer their children higher academic standards and more individual attention, which will help them become more successful on standardized tests (Manual & McLaughlin, 2001).
- Teacher quality: A charter school's ability to attract students often depends on the perceived quality of its instructional staff. Parents are more likely to send their children to a school where they believe teachers will provide more individual attention and instructional support (Vanourek, et al., 1997).
- Technology: Parents often choose a particular charter school based on the level of its technological instruction. Some charter schools advertise their focus on technology in order to attract students (Kouri, et al., 1999).
- Facilities: A charter school's facilities can be an important factor in the selection process. Whether or not the school is situated in a new building rather than in an existing structure can have a bearing on a parent's decision.

It is also an issue that has an impact on the financial viability of the school, since charter schools receive no capital funding (Noblit & Corbett, 2001).

- Location and transportation: Charter schools are often established because a traditional public school has been closed and students are transported to schools outside their immediate area. The desire to maintain the community-based school, the neighborhood school, is a powerful motivation for choosing a charter school. Closely linked with location is the issue of transportation. In North Carolina, all charter schools must have a written plan for the transportation of students (N.C. General Statute 115C-238.29). Schools that can provide transportation are often able to attract students who might otherwise not be able to attend.
- Food service: For many parents, the availability of a quality food service can be a key factor in the selection process. In the 1997 *Charter Schools in Action Report*, both parents and students considered a quality food service program an important reason for choosing a particular school.
- Openness and accessibility: Some parents remove their children from traditional public schools because they are not satisfied with the management style of traditional public schools (Hassel, 1999). They believe their concerns are ignored and their children's needs are unmet. Some parents will choose a charter school simply because it appears to be more accepting of parent concerns and involvement (Vanoureck, et al., 1997).

Research Questions

This study addressed the following research questions:

- Research question 1: To what extent is the curriculum considered when selecting a charter school?
- Research question 2: To what extent is the amount of individual attention provided by teachers considered important when selecting a charter school?
- Research question 3: To what extent do parents consider class size when selecting a charter school?
- Research question 4: To what extent is the size of the school important when selecting a charter school?
- Research question 5: To what extent what extent are sports programs considered when selecting a charter school?
- Research question 6: To what extent are extra curricular activities considered when selecting a charter school?
- Research question 7: To what extent do parents consider the people running the school when selecting a charter school?
- Research question 8: To what extent is the opportunities for parents to participate considered when selecting a charter school?
- Research question 9: To what extent do parents consider the school's expectation of parents when selecting a charter school?
- Research question 10: To what extent are academic standards important when selecting a charter school?

- Research question 11: To what extent is the quality of teaching considered when selecting a charter school?
- Research question 12: To what extent do parents consider the technology program when selecting a charter school?
- Research question 13: To what extent do parents consider the facility when selecting a charter school?
- Research question 14: To what extent do parents consider transportation when selecting a charter school?
- Research question 15: To what extent do parents consider food service when selecting a charter school?
- Research question 16: To what extent do parents consider openness and accessibility when selecting a charter school?

Assumptions

There are a number of assumptions inherent in this study:

1. Data provided by parents concerning their selection of a charter school reflect their true beliefs about why they choose a specific school.
2. Parental perceptions regarding the selection process are valid and reliable.
3. A charter school was available to parents in order to make the selection. The number of charter schools in North Carolina is legislatively limited to 100. Thus, in many parts of the State, charter schools have not been established and are not an option for parents.

4. Parental choice of a charter school was voluntary and non-coerced. This excludes data collection from schools where students are incarcerated or placed in a school by the courts or social services.

Limitations of the Study

The State of North Carolina has limited the number of charter schools to100. There are 97 charter schools currently in operation. Due to the small sample, the findings of this study cannot be generalized.

The literature outlines a considerable number of factors that influence a parent's choice of a particular charter school. For example, parents with children who have special needs consider the charter school's ability to meet these needs (Noblit and Corbett, 2001). Some parents take their child's preference into consideration (Vanourek, et al., 1997). Others are concerned about school discipline and safety (RPP International, 1998), or about before and after school programs. Sometimes they are dissatisfied with their child's previous school. This study employed a survey instrument that dealt with the importance of 16 factors outlined in the research questions. Parents were also asked to compare additional factors that are important in the selection process with the school that their child would otherwise be attending.

Also, this study did not include parents who had chosen other types of schooling options such as home schooling or private schools. All participants were parents who had chosen a charter school for their children.

Finally, there are more elementary charter schools in North Carolina than charter high schools. Therefore, elementary schools are over-represented in this study.

Definition of Terms

The following terms are used in this dissertation:

- Academic standards - The extent to which a charter school requires students to meet high performance goals as a condition of being promoted to the next grade or to graduate.
- Charter - The legal instrument establishing a charter school (Blakemore, 1998).
- Charter school - "A public school of choice which is authorized by state statute and which is established by and operates under the terms of a charter granted to school organizers by a public sponsoring agency to which the school is thereafter accountable" (Blakemore, 1998, p. 2).
- Charter school cap - The maximum number of charter schools allowed to operate according to North Carolina law (N.C. General Statute 115C – 238.239).
- Child preferences - The extent to which a child chose a particular school or wants to attend a certain school.
- Choice - The act of selecting a particular school.
- Class size - the average number of students per class.
- Correlation matrix – a matrix of correlations among variables.
- Curriculum - The course of study utilized by a charter school.
- Dissatisfaction at a previous school - Parents who seek something different and better for their own children and have not been able to get it from their school system (Manno, Finn, Bierlein, & Vanourek, 1998b).
- Educational philosophy - The vision for the school that is the foundation for its existence.

- Eigenvalues – the variance in a set of variables explained by a factor or component.
- Principal component analysis- A statistical technique used to estimate factors or latent variables or reduce the dimensionality of a large number of variables to a fewer number of factors.
- Factor loadings – The correlation between a factor (category) and a variable.
- Factor matrix – a matrix of pattern or structure coefficients in which the factors are presented as columns and variables are presented as rows (Pohlman, 2003).
- Frequency distribution – A listing of categories of possible values for a variable, together with a tabulation of the number of observations in each category (Agresti and Finlay, 1986).
- MANOVA – Multivariate analysis of variance, or multiple dependent variables to be analyzed simultaneously.
- Parent - A parent, guardian, or responsible adult with one or more children in any grade in a participating charter school (Vanourek, Manno, et al. 1997).
- Parental involvement - "parental empowerment in their critical role of supporting their children's education" (Vasallo, 2000, p. 5).
- Public sponsoring agency - grants, revokes and renews charters and oversees each charter school's performance (Blakemore, 1998).
- Quality of teachers - The perceived determination by parents that instructors in a charter school are competent, caring, and professional.
- School facilities - the physical plant of a charter school.
- School safety - The extent to which students are free from physical danger and harm.
- School size - The number of total students enrolled in the charter school.

- Selection factor - factor that parents use in determining whether or not to send their child to a particular school.
- Site location - The geographical position of the charter school, its physical address.
- Squared Multiple Correlations – Measures the percent of variance in a given variable explained by all of the factors jointly.
- Traditional public school - For the purposed of this study, these are public schools that operate through a local board of education and within a system known as a local education agency. They are funded through state and federal dollars and must adhere to all relevant local, state, and federal rules, regulations and statue.
- Variance – Describes the squared deviations about the mean (Agresti and Finlay, 1986).
- Varimax rotation – an orthogonal rotation criterion which maximizes the variance of the squared elements in the columns of a factor matrix (Pohlman, 2003).

Summary

Since June 1996, charter schools have been allowed to operate in North Carolina. To date, 97 charter schools are in operation. While there have been studies that examined the factors that influence parents' decisions to send their children to charter schools, these factors have not been studied in North Carolina. The study discussed in this dissertation examines 16 factors and their variables in order to discover which factors have the most influence over parental decisions to send their children to a particular charter school.

CHAPTER 2: LITERATURE REVIEW

The concept of the charter school is relatively new. Charter schools are public because they are funded through state and federal tax revenues. They must also serve all students who choose to attend or provide a process for admission when demand exceeds available enrollment slots. In order to provide more flexible educational instruction and avoid the centralized control that characterizes traditional public schools, charter schools promise that their students will achieve a certain academic standard:

> In exchange for their freedom, typically a three to five year charter period, the schools agree to produce educational results in their students. And this is what makes charter schools so vibrant a force and promising as an education reform strategy, i.e., they are accountable for results or they risk closure. Only if a school has reached the goals it sets for itself is the charter renewed. Public authorities retain final say over these new-style public schools, which are tax-financed, tuition free, non-sectarian, open to all students, and have no admission tests (Manno, Finn, Bierlien, & Vanourek, 1998a, p. 2).

The North Carolina charter school initiative began in 1997. At the time, many people believed the North Carolina Charter School Act was passed to avoid instituting a voucher program in the state (Hassel, 1999). Regardless of the reason for the act, discussions about charter schools have been heated and often have resulted in strained relationships between charter schools and local education agencies (Moranto, et. al., 2001).

Although some people do not have a positive view of charter schools, these public schools have become a legitimate schooling option for many parents. The question is why?

What do charter schools offer that other schools do not? The answer to this question is important for traditional public schools and private schools alike.

Academic Quality

The perceived quality of the school is the factor most often cited in a parent's decision to send a child to a charter school. In the 2001 *North Carolina Evaluation Report* (Noblit & Corbett, 2001), which was legislatively commissioned, academics and educational quality were the most important factors influencing parents' decisions to choose charter schools for their children:

> The vast majority of respondents considered placing importance on academics either very or somewhat important. Additionally the academic reputation of the school was important to a majority of respondents. The majority also believed increased motivation for learning as important (pp. vii-8).

Academic quality was a key factor cited in many other statewide research projects. *The Texas Open Enrollment Charter Schools Evaluation Report* (Texas State Board of Education, 1997) states that the most important factors to parents are the educational quality of schools and lower class size. The Hudson Institute (Vanourek, et al., 1997) also found that educational quality was important to parents nationwide.

It is important to note that the issue of educational quality can be divided into many subsets, including standardized test results, teacher quality, strength of curriculum, creative/innovative instructional methodologies, and back-to-basic themes. The strength of a subset variable may be strong enough to outweigh the other variables.

The importance of each subset varies greatly among parents. For many, academic quality is measured against past school experiences:

> Charter schools are havens for children who have had bad educational experiences elsewhere" according to a Hudson Institute survey of students, teachers, and parents from fifty charters in ten states. More than 60 percent of the parents said charter schools are better than their children's previous schools in terms of teaching quality, individual attention from teachers, curriculum, discipline, parent involvement and academic standards (Vanourek, et al., 1997, p. 9).

This perspective of value or quality measured against past school performance is also noted in the *Dayton Education in 2001 Survey* (Finn, 2001), conducted by Paragon Opinion Research:

> From the parents' standpoint, charter and private schools in Dayton are producing a lot more satisfaction than the public schools - fewer problems, less worry, greater contentment with teachers and curriculum, generally higher marks (p.2).

Many charter schools were established as a response to deficiencies in traditional public schools. Other than the desire to offer quality education, charter schools are not based on any one philosophical premise:

> Charter founders are parents who seek something different and better for their children and have not been able to get satisfaction from their school system (and who, in many cases, cannot afford private schools). Some are

> very liberal, some quite conservative, and their educational priorities differ hugely. What they have in common is a powerful desire to make sure that their daughters and sons get the right sort of education (Manno, et al, 1998b, p. 4).

This phenomenon gets to the heart of why this present research is potentially important for all educators. Traditional public schools must address the issue of satisfaction and ask themselves what charter schools are doing that they are not.

Administrative Factors

Academic quality is not the only factor that influences parents' decisions to select charter schools. Administrative factors such as physical location and availability of transportation are also important.

These two factors may play a major role in the selection of a charter school. In some instances, a charter school is established in a location where a traditional public school was closed due to consolidation or other reasons. In these cases, the desire to maintain a community school was so strong that local individuals sought and received a charter to operate their own school rather than send their children to a new school outside the community.

The facilities of a charter school can also be in important factor in the parental decision-making process. However, due to the lack of capital funding in North Carolina, providing and maintaining appropriate school facilities have presented a financial challenge to many charter schools (Noblit & Corbett, 2001).

Although school facilities are important to parents, school size and class size have more influence over a parent's decision to choose a particular charter school. The charter school movement in North Carolina has highlighted this issue time and time again. The *North Carolina Evaluation Report* (Noblit & Corbett, 2001) states,

> At this point in time the primary innovation that charter schools have demonstrated has been smaller schools, most importantly, smaller classrooms within those buildings . . . clearly charter school staff, parents, and supporters desire to have institutions with fewer students (pp.i-8).

In other words, it is smaller schools and class sizes and not the facilities that attract parents to charter schools (Vanourek, et al., 1997).

Parental involvement and the school's expectation of parents are also important to parents. Charter schools are schools of choice. Children attend these schools as a result of a decision-making process employed by their parents or primary caretaker:

> Studies from school choice experiments suggest that school choice can be a powerful engine for parental involvement - choice by its nature engenders a higher level of parental participation than does the current system. Although a universal, customer-driven system has not been tried, sufficient research exists to prove that modified forms of choice - such as charter schools, voucher, and private scholarship programs increase parental involvement (Vasallo, 2000, p. 1).

The very nature of a charter school requires some level of parental involvement. This commitment becomes an important selection variable that parents consider.

Many charter schools are founded for the expressed reason of increasing parental involvement (Manno, et al., 1998b). Parents wish to be more involved in the decision-making process of the school and closer to the instructional point of contact. They also see parental involvement as a way of ensuring academic quality: "Choice frees parents from the shackles of bureaucratic controls and strengthens their capacity to participate in their children's education" (Vasallo, 2000, p.1). This type of involvement is seen as a key selection factor in numerous studies (see Kane, 1998; Manno, et al., 1998b; Vasallo, 2000).

In North Carolina, parents select the charter school that fits their educational mindset. They select the charter school that most closely incorporates their beliefs and values about education:

> Several factors have combined to make charter schools places where parents are more likely to be visibly active in their children's education, including parents being instrumental in the schools' creation, the schools' expressed focus on special student populations, and the need for parents to be proactive in enrolling their children in the schools (Noblitt & Corbett, 2001, pp. i-8).

The perceived level of openness that the school demonstrates and its accessibility to parents in terms of decision-making and communication can be key factors in the selection of a charter school. This perception is often created because charter schools treat parents like customers (Teske, Schneider, Buckley, & Clark, 2000). Understanding that a customer’s needs have to be met in order for services to continue can motivate a school of choice to pay extra attention to parental desires.

Program Elements

Parents also consider program elements when choosing a charter school for their children. Program elements include before- and after- school care, preferences of children, innovative practices, school safety, discipline policy, technology, extra and co-curricular activities, food service and services for children with special needs. The weight of each of these factors varies throughout the research, depending on the needs of individual parents and children. In some cases, program elements are very important to parents. In other cases, parents do not consider program elements to be as important as other factors.

Before- and after- school care is a program that is more important to lower income families than to upper income families (Vanourek et al., 1997). By providing this service, the school is more likely to meet the needs of a lower income family. This service saves a parent from having to make before- and after-school care arrangements with other sources. Without this service, many parents would not be able to afford to send their children to a charter school.

A child's preference can also be a major factor in parents' decision to send their children to charter schools. Most parents want their children to do well in school. They also want them to be happy.

School safety is also a significant factor in parental decision-making. Some research indicates that school safety is a key reason for selecting a charter school. In the *Charter Schools in Action Project* (Vanourek, et al., 1997) survey, 20.1 percent of parents stated that their child’s previous school was unsafe and that was their reason for choosing a charter school. An RPP International study (Berman, 1999) found that a safe environment was the

second most important quality of charter schools, closely followed by a nurturing environment.

School discipline is closely linked with safety and a safe environment. An evaluation of the Cleveland voucher program, school choice programs in Washington D.C., and the choice plan in Dayton, Ohio shows that parents of children attending a school of choice are much more satisfied with their school's discipline policy than with the discipline policy found in traditional public schools (Greene, Howell, & Peterson, 1998). The 2001 Paragon Opinion Research study (Finn, 2001) of Dayton, Ohio's public, private, and charter schools further illustrates this finding:

> School safety and discipline are top concerns among Daytonians in general and parents whose children attend public schools in general. Most respondents think discipline is a problem in the Dayton Public Schools and 57 percent believe it is a serious problem…just 43 percent are very satisfied with their child's safety, compared with three quarters of charter parents and 86 percent of private school parents (pp. 7-8).

Many charter schools are established to address the needs of specific student populations. In North Carolina, the legislation states that serving students with special needs is a reason for a school to be chartered (NC general statute 115c-238.29). Some research indicates, however, that this factor does not have much influence over parents' decisions to send their children to charter schools. The *Charter Schools in Action Project* (Vanourek, et al., 1997) found that only 19.9 percent of parents believed their child's special needs were not being met at their previous school, and thus, it was not a very strong reason for to choose a

charter school. Other studies indicate that meeting the needs of specific students is considered a key factor by some parents (Manno, et al., 1998b).

Some parents consider a school's technology program when choosing a charter school for their children. In many traditional public schools systems, technology is a characteristic of a magnet school. Technology can also act as a magnet for charter schools. However, a school's inability to provide appropriate technological instruction can act as a deterrent to enrollment (Kouri, et al., 1999).

Extra- and co-curricular activities can be key factors in a parent's decision-making process. Sports programs, in particular, can be very important to both parents and children. The availability or lack of competitive athletic programs or other extra- and co-curricular activities may determine the success or failure of a charter school's recruitment and retention efforts (Kouri, et al., 1999).

The final factor in a parent's decision to select a charter school is the availability of a food service program. This program is especially important to students who are eligible for free and reduced breakfast and lunch programs (Vanourek, et al., 1997).

Conditions That Affect Parents' Decisions

The literature also suggests that certain conditions can influence the factors parents use to select charter schools. One such condition is the race of the parent.

In studies conducted over the last several years and charter school enrollment studies at the national level indicate only a slightly larger percentage of students of color in charter schools than in traditional public schools (U. S. Department of Education, 2000.) This is also the case in North Carolina (Noblit & Corbett, 2001). This picture changes when reviewing

enrollment on a school-by-school basis. Some charter schools have a racial composition significantly different from that of the nearby traditional public schools. In North Carolina, there are several charter schools almost completely made up of a single race (Noblit and Corbett, 2001). A study conducted by the Civil Rights Project at Harvard University (Frankenberg & Lee, 2003) suggests that charter schools have helped to resegregate public schools. This study cites the following information about charter schools and race:

- Seventy percent of all black charter school students attend intensely segregated minority schools compared with 34 percent of black public school students. In almost every state study, the average black charter school student attends a school with a higher percentage of black students and a lower percentage of white students.
- Because of the disproportionately high enrollment of minority students in charter schools, white charter school students go to school, on average, with more non-white students than whites in non- charter public schools. However, there are pockets of white segregation where white charter school students are as isolated as black charter school students.
- The pattern for Latino segregation is mixed. On the whole, Latino charter school students are less segregated than their black counterparts (p. 7).

There are many reasons why minority parents select charter schools for their children. Some minority parents see education as a primary source of upward mobility and are seeking

schools with high academic standards (Wells, 1993). Minority parents also consider the educational vision of the school and greater autonomy (Berman, 1999).

Economic status of the parents is another condition that affects the choice of a charter school. According to Lareau (1989), there is a significant difference in how upper middle-class families and working-class families interact with the schools their children attend:

> Family-school relationships vary between the working-class and the upper middle-class communities. Relationships between working-class families and the school are characterized by separation. Because these parents believe that teachers are responsible for education, they seek little information about either the curriculum or the educational process, and their criticisms of the school center almost entirely on non-academic matters. Most working-class parents never intervene in the school program; their children receive a generic education (p. 8).

If this observation holds true, it is clear that parental income level plays a significant role in their selection process.

The number of students that come from lower income households is approximately the same as the number of minority students. That is, nationally, the proportion of charter school students eligible for free and reduced lunch is similar to that of traditional public schools (RPP International, 2000). Broken down state by state, there is greater variation. Some states have a larger low- income student enrollment in charter schools than other states (Buckley & Fisler, 2002).

The education level of the parents is also a condition that influences their choice of a charter school. Although education level is closely linked to income levels, the literature

suggests that charter schools can be very attractive to disadvantaged populations (Peebles, 2000). Lack of advantage can take on many forms, including lack of access to educational opportunities. Parents who have not had a great deal of formal education may view the characteristics of charter schools in a different way than parents who are more formally educated (Vanourek, et el., 1997).

Summary

The factors that parents consider when selecting a charter school for their children are numerous and have been given considerable attention in the literature. This chapter reviewed the existing literature regarding parental decision-making and those factors that parents considered to be important when choosing a charter school. They were first identified and then organized into three categories; academic quality, administrative factors, and program elements. The final section of the chapter reviewed various conditions experienced by parents that could influence the decision to select a charter school. The conditions discussed were the race of the parent, the income level of the parent, and the education level of the parent.

CHAPTER 3: METHODOLOGY

The study discussed in this dissertation examines factors that influence parents' decisions to select a charter school and the relationship between the factors parents consider when choosing a charter school and the actual selection of that charter school. This research design was selected after identifying and formulating the 16 research questions outlined in Chapter One.

Sampling Methodology

Currently, 97 charter schools exist in North Carolina. Thirteen schools participated in this study. These schools represent a cross-section of various grade levels, school sizes, and geographic locations. The schools range in size from 75 students to 480 students and in grade levels from kindergarten to eleventh grade. The sample includes schools that are racially mixed as well as schools that were predominantly one race. Table 3.1 illustrates the relevant demographic data of the participating schools as well as the survey response rate.

A total of 2,325 surveys were distributed in the 13 participating schools. Thirty-nine percent (903) of the surveys were completed and returned to the researcher.

Table 3.1—Participating Schools

School # distributed	County	Grades	# of surveys	# of surveys returned
100	Wilson	K-8	400	119
110	Franklin	K-5	100	67
120	Iredell	K-5	300	139
210	Durham	K-5	100	25
300	Warren	K-6	100	34
310	Beaufort	K-5	100	52
400	Buncombe	K-8	100	29
410	Carteret	1-6	75	45
500	Chatham	K-8	200	63
600	Guilford	K-7	250	92
610	Wake	K-11	400	167
800	Mecklenburg	K-8	100	38
900	Forsythe	K-8	100	33
Total			**2,325**	**903**

The administrative heads of 16 schools were contacted by phone. Three administrators declined to be involved. Surveys were mailed to each school, and the administrative head distributed and collected the surveys from participating parents. The completed surveys were returned by mail for analysis. The schools asked to participate in

this study were chosen because they represent a particular type of charter school. The selection criteria included the following characteristics:

- Location: The schools were located in the coastal, Piedmont and mountain regions of North Carolina.
- Size of school: The largest student enrollment of a participating school was 480. The school with the smallest enrollment had a student population of 75. Most North Carolina charter schools fall somewhere in between these two enrollment figures.
- Grade level: An effort was made to include schools that had of a variety of grade levels. Four schools offer kindergarten through fifth grade. Five schools offer kindergarten through eighth grade. One school offers kindergarten through sixth grade. One school offers first through sixth grade. One school offers kindergarten through seventh grade. One school offers kindergarten through eleventh grade. This was the only school offering high school placement that agreed to participate in this study.

Data Collection

A questionnaire (see appendix A) was employed as the primary data collection instrument. It was distributed to all parents whose children attended one of the 13 selected schools. A preliminary phone call was made to each administrative head to clarify the purpose of the research and to obtain permission to use the parent population of their school for the study. Each survey was coded to ensure confidentiality. The survey is an instrument that had already been used in the *Charter Schools in Action* study conducted in 1997

(Vanourek, et al., 1997). The survey was selected for use in this study because of its comprehensiveness, simplicity, and its previous use in a larger, nation-wide study. Permission to use the survey was sought from the Fordham Foundation prior to distribution (see appendix B).

The instrument contained fourteen questions and included demographic and attitudinal questions. The demographic questions included items concerning the school that the child previously attended, the child's age, the number of children in the charter school, the length of time the child/children had been enrolled, and respondents' race, education level, and annual family income.

The attitudinal questions focused on the reasons why the charter school was selected. These items included the reasons for selecting the school, any educational challenges faced by the child, the child's academic performance at their previous school, a rating of the academic performance of the child at the charter school, the important features of the charter school, and a comparison of the charter school with the school the child would otherwise be attending.

A key question on the survey was question 8. This question on the original survey attempted to extract parental satisfaction levels for 16 features of a school. It was modified in this study to extract the level of importance that parents placed on the sixteen features of a school when making the decision to select a charter school for their children.

Statistical Methodology

A visual model of the statistical methodology developed for this study is illustrated in figure 3.1. The first step in the process involved computing the frequency distribution for

each survey item and when appropriate, the sample means and standard deviations for questions asked in the questionnaire. This was done to examine the normality of the distribution. Question 8 is of particular importance. It attempted to identify factors and their level of importance. The question asked respondents to rate the importance of each feature of the school in their decision-making process on a 4-point Likert-type scale. The scale ranged from very important, somewhat important, uncertain, to not important. Parents were asked to check the appropriate response. These responses were then given a number. Four represented very important; three represented somewhat important; two represented uncertain; and one meant that the feature was not important. The standard deviation allowed for the variance in responses to be quantified. In other words, it allowed for each factor to be viewed in terms of the impact it had on a parent's decision to select a charter school. For example, the standard deviation of the factor "food service" was 3.344. The mean was 2.291. This means that there were many respondents that felt that food service was a very important factor in making their decision to select a charter school. It also means that there were a large number of respondents who did not feel that food service was important.

Questions 12 and 14 did not yield a normal distribution. Question 12 asked respondents to identify their race. There were six possible responses: White/Anglo/Caucasian, Black/African-American, Hispanic/Mexican/Puerto Rican, Asian, Native American, and other. It was recoded into two categories, majority and minority. Question 14 asked respondents to identify their approximate total household income from the previous year. There were seven possible responses; less than $10,000, $10,000-$19,999, $20,000-$29,999, $30,000-$$39,999, $40,000-$59,000, $60,000-$99,999, and more than

$100,000. It was recoded into five categories; $0-$19999, $20,000-$39,999, $40,000-$59,999, $60,000-$99,999, and over $100,000.

A correlation matrix was created using squared multiple correlations (Figure 3.1 refers to SMC). This allowed each factor to be measured against all of the other factors in the model.

The next phase involved conducting a principal components factor analysis of the matrix. This process extracted linear combinations of variables or factors. The next step in the process was to conduct a rotated or varimax analysis. This was done in order to get the best possible fit of factors on the matrix. In other words, the rotation maximized the variance explained by the correlation of the different categories. Based on the output, three categories or psychological constructs were identified: (1) administration, (2) academic/instructional, and (3) student centered.

Once this analysis was completed, a MANOVA (multivariate analysis of variance) was conducted. This was done to measure the effect that certain conditions in a parent's environment might have on the weight or value placed on certain selection factors. A MANOVA allows for multiple independent variables to be tested simultaneously. It also is justified when there is some belief that correlations exist among those variables (Frankel and Wallen, 1996). In this study, three conditions that could effect how selection variables are used by parents were examined: (1) the race of the parents (Frankenberg and Lee, 2003), (2) the education level of parents (Peebles, 2000), and (3) the income level of parents (Buckley and Fisler, 2002). These three conditions functioned as the independent variables and were tested against the three dependent categories that were extracted from the varimax analysis.

Finally, a post hoc test, Tukey's Studentized Range (Honestly Significant Difference), was conducted when appropriate. This test was conducted when as a result of the analysis of variance there was a significant main effect. This was the case with category one, race, and parent education. It was also applicable for category two and race.

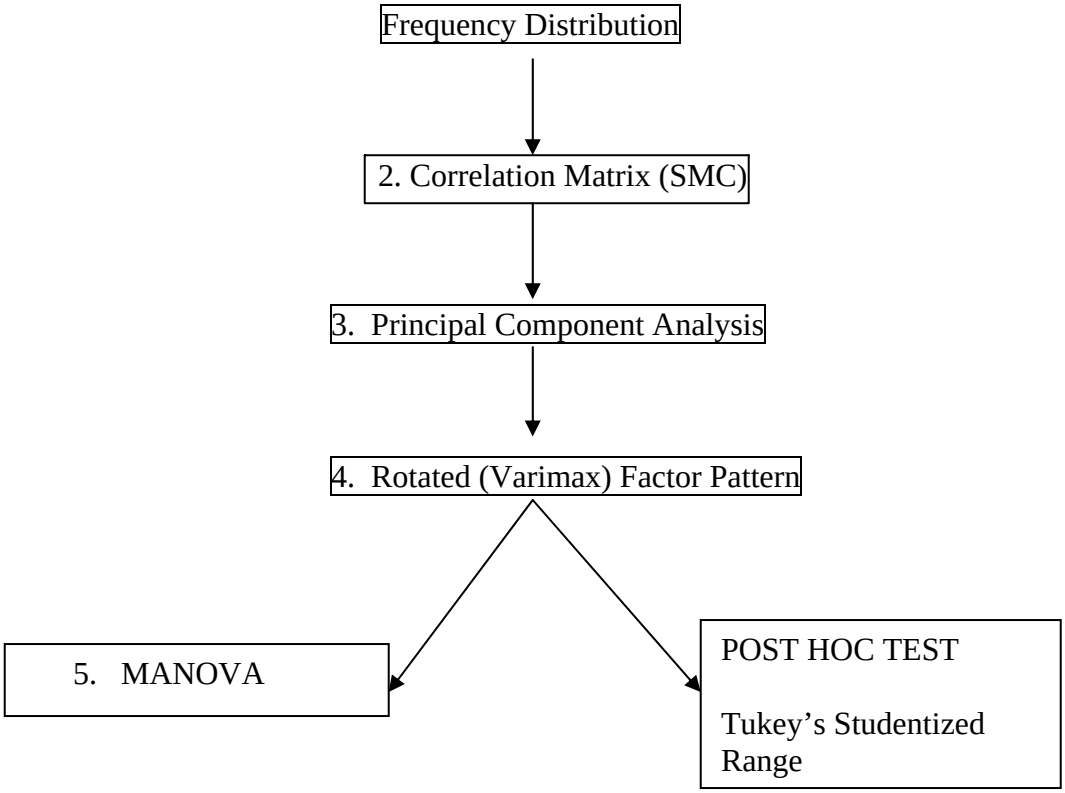

Figure 3.1 Statistical Methodology

Threats to Validity

Frankel and Wallen (1996), list four threats to internal validity in survey research:

1. Mortality: arises in longitudinal studies unless all of the data on "lost" subjects are deleted.
2. Location: collection of data is carried out in places that may affect responses.
3. Instrument decay: can occur in interview surveys if the interviewees get tired or are rushed.
4. Instrumentation: defects in the instrument that may introduce a systemic bias.

Campbell and Stanley (1963) discuss both internal and external threats to validity. They identify eight factors that can jeopardize internal validity:

1. History: events that occur between the first and second measurement that are unrelated to the experiment but that could affect the results.
2. Maturation: changes in the participants that occur as a function of the passage of time and not specific to the experiment.
3. Testing: the effects of taking a test on the scores of a second test.
4. Instrumentation: changes in the measurement instrument or changes the observers make in the obtained measurements.
5. Statistical regression: groups having extreme scores on the pretest will tend to have scores closer to the mean on the posttest.
6. Selection biases resulting in differential selection of respondents for the comparison groups.
7. Experimental mortality: differential loss of respondents from the comparison groups.

8. Selection-maturation interaction, other interaction effects: groups may differ in some way that creates bias and then one of the groups may mature at a faster rate than the other.

External validity, which, according to Campbell and Stanley (1963), addresses how confidently the research findings can be generalized to other populations, can also be jeopardized. The threats to external validity include the following four threats:

1. Reactive or interaction effects of testing: the pretest itself might be a learning experience such that by taking the pretest students gain information that will affect post test results.
2. Interaction of selection and the experimental variable: different groups may respond differently to the experimental variable.
3. Reactive effects of experimental arrangements: subjects respond differently because they know they are in an experiment.
4. Multiple treatment interference: multiple treatments applied to the same respondents and effects of prior treatments are not erasable.

No controls existed for mortality in this study. Location also was not controlled in this study because the questionnaire was distributed to parents at their respective schools and completed at their convenience. Therefore, it is possible that these factors may have influenced the results. It is not known that they in fact did so, however, this possibility cannot be completely dismissed.

Reliability

The reliability of a research instrument is the extent to which the instrument yields the same results on repeated administrations. In other words, an instrument or method is said to

be reliable if it produces the same answer/observation over time, across groups, and by whoever is administering it (Franken & Wallen, 1996).

In order to judge the reliability of an instrument, a reliability coefficient must be calculated. This coefficient expresses the relationship between scores of the same individuals on the same instrument at two different times, or between two parts of the same instrument. There are three ways to obtain a reliability coefficient: (1) the test-retest method, (2) the equivalent forms method, and (3) the internal consistency method. Reliability coefficients range from 0.00 to 1.00. The closer the coefficient is to one, the stronger the reliability of the instrument (Nunnally, 1978).

The method used in this study was the Cronbach Coefficient Alpha. This was used as a check on the internal consistency of the survey instrument. It was used because there were items on the instrument that were not scored right versus wrong (Franken and Wallen, 1996).

In this study, the three categories, or psychological constructs, that were extracted from the varimax analysis were used in the computation of the coefficient. Category one, administration consisted of the following factors:

- sports
- extracurricular activities
- technology
- facilities
- transportation
- food service

The Cronbach Coeffiecient Alpha for the category administration was 0.79. All of the coefficients of the six individual factors that make up category one were over 0 .7 which

is the criterion suggested by Nunnally (1978). Thus, the factors in this category are highly correlated with the category and with each other. A printout of this procedure is provided in appendix C.

The same process was used with category two, academic/instructional. The factors in category two included:

- curriculum
- people running the school
- opportunities for parents to participate
- schools expectation of parents
- quality of teachers
- academic standards

The Cronbach Coefficient Alpha for this category academic/instructional was 0.71. This figure is also greater than Nunnally's (1978) suggested value of 0.7. None of the factors individually had coefficients that exceeded 0.7. They fell between 0.6 and 0.68. This suggests that there is a strong relationship between each of the factors and the category. However, it also suggests that there is not a strong relationship between each of the individual factors. A printout of this procedure is provided in appendix C.

Category three, student-centered, consists of the following factors:

- individual attention by teachers
- class size
- school size

The Cronbach Coefficient Alpha for the category student centered is 0.631. All of the factors had a coefficient of less than 0.6. This suggests that there is not a strong relationship

between the factors and the category, nor is there a strong relationship between the individual factors. A printout of this procedure is provided in appendix C.

Summary

In this chapter, the methodology that was used in the study was described in detail. It outlined the sampling methodology that was used to identify relevant data sources. It described how the data were collected. It provided an overview of the statistical analysis that was used to process the data. This included the calculation of frequency distributions and the production of a correlation matrix. It explained the use of principal component analysis, unrotated and rotated (varimax). The final parts of the chapter explained the use of MANOVA and Tukey's Studentized Range (HSD) as they were utilized in this study.

CHAPTER 4: RESULTS

The study discussed in this dissertation examined certain factors and their relative importance in parents' choice of a charter school. The factors identified in the existing literature and tested in a survey of parents whose children currently attend a charter school in North Carolina were:

- curriculum
- individual attention provided by teachers
- class size
- school size
- sports program
- extracurricular activities
- people running the school
- opportunities for parents to participate
- school's expectation of parents
- academic standards
- quality of teachers
- technology
- facilities
- transportation
- food service
- accessibility and openness

Survey Results

Sixteen schools were invited to participate in this survey. These sixteen schools are a snapshot of the charter schools that currently operate in North Carolina. They represent the three geographic regions of the state: the Piedmont or central region, mountain or western region and coastal or eastern region. Collectively, these 16 schools offer kindergarten to grade 11 (see Table 3.1).

Thirteen schools agreed to participate in the study. One school declined to participate verbally, and two schools did not return the completed surveys. The 13 schools were sent 2,325 surveys, and 903 completed surveys were returned. This represented a return rate of 39 percent. The survey instrument contained 14 questions. Not every parent that completed the survey answered all 14 questions.

Frequency Data

Frequency data serve as descriptive information for the individuals completing the survey. Question 1 asked the parent to identify the school that their child had previously attended. Table 4.1 presents the results.

Table 4.1 School Previously Attended

School previously attended	Frequency	Percent	Cumulative frequency	Cumulative percent
Regular public	413	48.81	413	49.05
Private	100	11.88	513	60.93
Home school	22	2.61	535	63.54
Not in school	222	26.37	757	89.90
Other	85	10.10	842	100.00
Missing	61			

Note: missing indicates the number of respondents that did not answer this question.

Nearly half of the parents in this study (48.81) had children attending a regular public school prior to selecting a charter school. This would suggest that they were looking for the charter school to provide something not provided by the traditional public schools.

Question 2 explored why parents choose a particular charter school for their children. Respondents were asked to check all the reasons that applied to their situation. The results are listed in Table 4.2.

Table 4.2 Reasons for Choosing a Particular Charter School

Reasons	Importance of factor	Frequency	Percent
Child was doing badly at regular school	0	821	90.92
	1	82	9.08
Location of charter school convenient	0	683	75.63
	1	220	24.37
Special needs of child not being met	0	752	83.28
	1	151	16.72
School size	0	220	24.36
	1	683	75.64
Better teachers at charter school	0	510	56.48
	1	393	43.52
Previous school was a hassle	0	801	88.70
	1	102	11.30
Told it is a better school	0	597	66.11
	1	306	33.89
Child wished to attend	0	708	78.40
	1	195	21.60
Unhappy with curriculum or teaching at previous school	0	629	69.66
	1	274	30.34

Table 4.2 Continued

Factor	Importance of factor	Frequency	Percent
Clear philosophy at charter school	**0**	537	59.47
	1	366	40.53
Greater opportunities for parental involvement	**0**	555	61.46
	1	348	38.54
Prefer private school but cannot afford one	**0**	686	75.97
	1	217	24.23
Better before/after school programs	**0**	767	84.94
	1	136	15.06

Note: 0 = not important; 1 = important

Over 75 percent of responding parents indicated that school size was an important reason when selecting a charter school for their children. The next most important reason was the belief that teachers were better at the charter school (43.52 percent). The child's performance at his/her previous school was the least important reason. (9.08 percent).

Question 3 attempted to isolate parental beliefs about the educational challenges faced by their child. Respondents were asked to check all the appropriate challenges. The results are listed in Table 4.3.

Table 4.3 Educational Challenges

Factor	Importance of factor	Frequency	Percent
Does not learn quickly/needs extra help	**0**	743	82.74
	1	155	17.26
	Missing	5	
Physical disabilities	**0**	886	98.55
	1	13	1.45
	Missing	4	
Behavior problems	**0**	838	93.21
	1	61	6.79
	Missing	4	
Fast learner	**0**	659	73.38
	1	239	26.62
	Missing	5	
Interested in some subjects, but not others	**0**	698	77.73
	1	200	22.27
	Missing	5	
Does not understand English very well	**0**	892	99.22
	1	8	00.88
	Missing	4	

Table 4.3 Continued

Factor	Importance of factor	Frequency	Percent
Learning disability	**0**	832	92.55
	1	67	7.45
	Missing	4	
Does not have many friends	**0**	848	94.33
	1	51	5.67
	Missing	4	
Too social, not academic enough	**0**	817	90.88
	1	82	9.12
	Missing	4	
No special challenges	**0**	633	70.41
	1	266	29.59
	Missing	4	
Other	**0**	816	90.77
	1	83	9.23
	Missing	4	

Note: 0=not applicable; 1=applicable; missing indicates that the parent did not respond to the question in an appropriate manner.

The majority of parents responding indicated that their child had no special challenges (70.41 %). The challenge that drew the largest parent response was child was a fast learner (26.62 %).

Question 4 asked respondents to identify the academic performance of their child at their previous school. The results are presented in Table 4.4.

Table 4.4 Child's Academic Performance at His/Her Previous School

Factor	Frequency	Percent
Does not apply	239	27.57
Poor	15	1.73
Below Average	89	10.27
Average	195	22.49
Above average	157	18.11
Excellent	170	19.61
Missing	38	

Note: mean 3.599, standard deviation 1.870; missing indicates the number of respondents that did not answer this question.

The highest response rate for parents when asked to identify their child's academic performance at his/her previous school was the Does not apply category (27.57 percent). This large response rate is likely due to the fact that the charter school is the first school that many of the respondent's children have attended. More than 60 percent of the respondents indicated that their children had performed average, above average, or excellent at the school they previously attended. Only 12 percent responded that their children were doing below average or poorly.

Question 5 examined participants' perceptions of their children's performance at the selected charter school. Table 4.5 presents these results.

Table 4.5 Academic Performance of Child at Charter School

Factor	Frequency	Percent
Poor	1	0.11
Below average	288	32.54
Average	320	36.16
Above average	251	28.36
Excellent	23	2.6
Missing	20	

Note: mean 3.995, standard deviation 0.877; missing indicates the number of respondents that did not answer this question.

The majority of the respondents indicated that their children were performing average, above average, or excellent at the selected charter school (67.12 percent). Of the 883 responses to this question, only one parent indicated that their child was doing poorly.

Question 6 asked respondents to identify the age of the child that currently attends a charter school. Table 4.6 presents the results.

Table 4.6 Age of Child

Age	Frequency	Percent
5 or younger	97	10.95
6 years	136	15.35
7 years	122	13.77
8 years	142	16.03
9 years	130	14.67
10 years	104	11.74
11 years	74	8.35
12 years	36	4.06
13 years	28	3.16
14 years	13	1.47
15 years	4	0.45
Missing	17	

Note: missing indicates the number of respondents that did not answer this question.

The vast majority of children whose parents participated in this study were ten years old or younger (82.52 percent).

Question 7 asks respondents to indicate whether or not they plan to return their child or children to the charter school for the next school year. More than 80 percent of the respondents indicated that their child/children would be returning to the charter school for the next school year. The results of this question are shown in Table 4.7.

Table 4.7 Plan to Return

Plans	Frequency	Percent
Will not return	149	16.84
Not sure	26	2.94
Will return	710	80.23
Missing	18	

Note: mean 2.663, standard deviation 0.754; missing indicates the number of respondents that did not answer this question.

The retention rate of students is a key statistic in determining the success of the charter school movement. Failure to retain students will ultimately lead to the closure of the school. An 80 percent retention rate in this study should be considered significant.

A key goal of this study was to identify and focus on the reasons why parents selected a charter school for their children. Question 8 ("How important were these features of a charter school when you decided to enroll your child?") on the survey specifically asked parents to rate the importance of each factor using a 4-point, Likert-type scale, with four being most important, three being somewhat important, two being uncertain and one being not important (see Table 4.8).

There were several factors where the mean was relatively high and the standard deviation was low (e.g., curriculum 3.737 and 0.484 and quality of teachers 3.935 and 0.278). Thus, for the factors curriculum and quality of teachers, it could be said that there were many respondents who felt these factors were important in their decision to school a charter school. It could also be concluded that there were a few parents who did not consider these factors to be important.

A similar observation could be made about those factors that had a relatively low mean and a high standard deviation (e.g., food service 2.291 and 3.344). This means that this

factor was important to many parents and was not important to a similarly large number of parents.

Table 4.8 Importance of Charter School's Features

	Rating	Frequency	Percent	Mean	Standard deviation
Curriculum	**1**	1	0.11	3.737	0.484
	2	17	1.91		
	3	197	22.13		
	4	675	75.84		
	Missing	13			
Individual Attention by Teachers	**1**	5	0.56	3.799	0.453
	2	6	0.67		
	3	152	17.08		
	4	727	81.69		
	Missing	13			
Class size	**1**	10	1.12	3.688	0.553
	2	13	1.45		
	3	227	25.33		
	4	646	72.10		
	Missing	7			

Table 4.8 Continued

Factors	Rating	Frequency	Percent	Mean	Standard deviations
School size	**1**	50	5.62	3.278	0.780
	2	31	3.48		
	3	432	48.54		
	4	377	42.36		
	Missing	13			
Sports program	**1**	275	31.04	2.239	0.975
	2	171	19.30		
	3	378	42.66		
	4	62	7.00		
	Missing	7			
Extra-curricular activities	**1**	134	15.09	2.678	0.887
	2	123	13.84		
	3	506	56.98		
	4	125	13.96		
	Missing	5			
People running the school	**1**	22	2.47	3.525	0.706
	2	50	5.62		
	3	259	29.13		
	4	557	62.65		
	Missing	5			

Table 4.8 Continued

Factors	Rating	Frequency	Percent	Mean	Standard deviations
Opportunities for parents to participate	**1**	13	1.46	3.416	0.633
	2	34	3.82		
	3	420	47.14		
	4	424	47.59		
	Missing	12			
School's expectation of parents	**1**	30	3.38	3.200	0.732
	2	79	8.90		
	3	462	52.03		
	4	316	55.59		
	Missing	16			
Academic standards	**1**	2	0.22	3.842	0.278
	2	12	1.34		
	3	118	13.20		
	4	761	85.12		
	Missing	10			
Quality teachers	**1**	1	0.11	3.935	0.278
	2	5	0.56		
	3	46	5.14		
	4	842	94.08		
	Missing	9			

Table 4.8 Continued

Factors	Rating	Frequency	Percent	Mean	Standard deviations
Technology program	**1**	21	2.35	3.416	0.665
	2	23	2.57		
	3	409	45.70		
	4	440	49.16		
	Missing	10			
Facilities	**1**	36	4.02	3.288	0.729
	2	35	3.91		
	3	451	50.33		
	4	373	41.63		
	Missing	8			
Transportation	**1**	423	47.47	2.163	0.213
	2	54	6.06		
	3	237	26.60		
	4	144	19.87		
	Missing	45			
Food Service	**1**	363	40.70	2.291	3.344
	2	76	8.52		
	3	263	29.48		
	4	190	21.30		
	Missing	11			

Table 4.8 Continued

Factors	Rating	Frequency	Percent	Mean	Standard deviation
Accessibility and openness	**1**	34	3.85	3.344	0.784
	2	74	8.37		
	3	333	37.67		
	4	443	50.11		
	Missing	19			

Note: 1=not important; 2=uncertain; 3=somewhat important; 4=most important; missing indicates the number of respondents that did not answer this question

Question 9 asked respondents to compare their child's current charter school with the school the child would otherwise be attending. Parents were asked to rate each factor on a 3-point scale. Three indicated the charter school was better in a specific area than the school the child would otherwise be attending. Two indicates the schools were the same regarding a particular area. One indicates the charter school was worse in a particular area than the school the child would otherwise be attending. The results are shown in Table 4.9.

Table 4.9 Comparison of Charter School and School Child Would Otherwise Attend

Factors	Rating	Frequency	Percent	Mean	Standard deviations
Curriculum	**1**	37	4.44	2.572	0.577
	2	282	33.85		
	3	514	61.70		
	Missing	70			
Individual attention by teachers	**1**	59	6.98	2.672	0.600
	2	159	18.82		
	3	627	74.20		
	Missing	58			
Class size	**1**	61	7.12	2.683	0.599
	2	149	19.39		
	3	647	75.50		
	Missing	46			
School size	**1**	63	7.44	2.697	0.600
	2	130	15.35		
	3	654	77.21		
	Missing	56			
Safety	**1**	46	5.42	2.593	0.591
	2	253	29.80		
	3	519	61.35		
	Missing	85			

Table 4.9 Continued

Factors	Rating	Frequency	Percent	Mean	Standard deviations
Discipline	**1**	57	6.74	2.546	0.618
	2	270	31.91		
	3	519	61.35		
	Missing	57			
Basic skills	**1**	35	4.19	2.529	0.577
	2	323	38.64		
	3	478	57.18		
	Missing	67			
Academic standards	**1**	35	4.17	2.598	0.569
	2	267	31.82		
	3	537	64.00		
	Missing	64			
Quality of teachers	**1**	41	4.92	2.617	0.578
	2	237	28.42		
	3	556	66.17		
	Missing	69			
Facilities	**1**	149	17.65	2.276	0.744
	2	313	37.09		
	3	382	43.26		
	Missing	59			

Table 4.9 Continued

Factors	Rating	Frequency	Percent	Mean	Standard deviations
Extra help	**1**	52	6.27	2.580	0.611
	2	246	29.64		
	3	530	63.86		
	Missing	75			
Parent involvement	**1**	47	5.64	2.547	0.602
	2	284	34.09		
	3	501	60.14		
	Missing	71			
Accessibility and openness	**1**	61	7.39	2.444	0.630
	2	337	40.85		
	3	426	51.64		
	Missing	79			

Note: 1=worse; 2=the same; 3=better; missing indicates the number of respondents that did not answer the question

The results for question 9 are important because they provide a comparison of the parental perception regarding the charter school and the school that the child would otherwise be attending. The two areas that had the highest mean scores were school size (2.697) and class size (2.683). This validates the *North Carolina Charter School Report* (Noblit & Corbett, 2001) which found that these two areas were the primary innovations of North Carolina charter schools (pp. i-4). The factor that had the lowest mean was facilities (2.276).

Question 10 dealt with the number of children that each participant had enrolled in a charter school. The results of this question are presented in Table 4.10

Table 4.10 Number of Children in the Charter School

Number of Children	Frequency	Percent
1	560	63.06
2	251	28.27
3	47	5.28
4	29	5.27
5 or more	1	0.11
Missing	15	

Note: mean 1.49; standard deviation 0.752; missing indicates the number of respondents that did not answer the question

The vast majority of parents had either one or two children in the schools that participated in this study.

Question 11 asked parents to indicate the length of time their child had been enrolled in the charter school. The results of this question are presented in Table 4.11

Table 4.11 How Long Have Your Children Attended the Charter School?

Number of years	Frequency	Percent
1 year	355	39.93
2 years	186	20.92
3 years	181	20.36
4 years	81	9.11
5 or more years	86	9.67
Missing	44	

Note: mean 2.276; standard deviation 1.372; missing indicates the number of respondents that did not answer the question.

Most of the parents indicated that their children had only been with the charter school for three years or less. This is likely due to the fact that charter schools have only been operation in North Carolina since1997.

Question 12 identified the race of the respondent. The results of this question are presented in Table 4.12.

Table 4.12 Race

Race	Frequency	Percent
Majority	594	68.12
Minority	278	30.64
Missing	31	

Note: missing indicates the number of respondents that did not respond to this question.

Question 12 originally had six possible responses: White/Anglo/Caucasian, Black/African-American, Hispanic/Mexican/Puerto Rican, Asian. Native American, and Other. The question was recoded in order to get a more normal distribution of the data. In the more detailed statistical analysis, observations with missing values were not included in the analysis, thus there is a discrepancy in the frequency distribution data and the data used later in the study. The actual racial makeup of the respondents was as follows:

- white: 594, or 68.12 percent of the total response;
- African-American: 198, or 22.71 percent of the total response;
- Hispanic: 30, 3.44 percent of the total response;
- Asian: 11, or 1.26 percent of the total response;
- Native American: 27, or 3.10 percent of the total response;
- Other: 12, or 1.38 percent of the total response;
- 31 respondents did not answer this question

The percentages of minority and majority respondents are similar to those of the state of North Carolina.

Question 13 asked parents to identify their highest level of formal education. The results are presented in Table 4.13.

Table 4.13 Parents' Education Level

Level of education	Rating	Frequency	Percent
Did not complete high school	**1**	39	4.42
High School grad but no college	**2**	120	13.59
Some college but no degree	**3**	184	20.84
College grad	**4**	407	46.09
Post grad/professional	**5**	133	15.07
Missing		20	

Note: mean 3.530; standard deviation 1.047; missing indicates the number of respondents that did not answer this question.

Nearly forty seven percent of the respondents indicated that they were college graduates, a greater percentage than the population in general. Another 15 % had gone beyond the bachelor's degree. Together with the respondents who indicated that they had some college education, the percentage of parents who have had a high level of formal education rises to 82 percent.

Question 14 asked respondents to identify their level of annual family income. This question was recoded in order to get a more normal distribution of the results. The original categories were: less than $10,000, $10,000 - $19,999, $20,000 - $29,999, $30,000 - $39,999, $40,000 - $59,999, $60,000 - $99,999, more than $100,000.

The results are presented in Table 4.14.

Table 4.14 Parental Income

Annual income ($)	Frequency	Percent
0-19,999	114	14.23
20-39,999	173	21.60
40-59,999	183	22.85
60-99,999	220	27.47
Over 100,000	111	13.86
Missing	102	

Note: missing indicates the number of respondents that did not answer this question.

The majority of the respondents (64.18%) claimed to have an annual income of $40,000 or more.

Table 4.15 shows the individual school frequency distributions. This provides a school-by-school report of the number surveys that were sent to each of the thirteen participating schools and the number of surveys that each of the schools returned to be included in the study.

Table 4.15 School Frequencies

School ID#	Frequency	Percent	Cumulative Frequency	Cumulative Percent
100	119	13.18	119	13.18
110	67	70.42	186	20.60
120	139	15.36	325	35.99
210	25	2.77	350	38.26
300	34	3.77	384	42.52
310	52	5.76	436	48.28
400	29	3.21	465	51.50
410	45	4.98	510	56.48
500	63	6.98	573	63.46
600	92	10.19	665	73.63
610	167	18.49	832	92.14
800	38	4.21	870	96.35
900	33	3.65	903	100.00

Statistical Analysis

The proceeding information was a review of the data produced by the completion of the survey by parents who have selected a charter school for their child. Sample characteristics were discussed in the form of frequency distributions. This included the number of responses for each question, percentages, and when appropriate, means and standard deviations.

The next section of results is a more substantive analysis of the data. It includes a principal component analysis, a rotated (varimax) principal component analysis, MANOVA (multivariate analysis of variance), and a post-hoc test when appropriate (Tukey's Studentized Range, HSD or Honestly Significant Difference).

The purpose of these procedures is to categorize the various factors that parents use to select a charter school and to then examine how different sets of parents utilize these categories in their decision-making process.

A correlation matrix was created for question 8 using squared multiple correlations (SMC). The actual matrix is provided in appendix D. In this question, respondents were asked to rate the importance of 16 factors that might influence their choice of a charter school. Table 4.3 displays the means and standard deviation of the data.

A correlation matrix is a matrix that depicts the correlation between each variable and every other variable in the analysis. It provides a great deal of information about relationships between and among the variables. Standard practice is to assume that every variable correlates perfectly with itself, therefore 1.0s are typically used in the diagonal of the matrix. This statistical assumption is not always correct, however, due to measurement error. Ones in the diagonal include such error. Squared multiple correlations explain the magnitude

of the relationship, partitioning out measurement error. Since the matrix is input into principal component analysis, the accuracy of the matrix is critical. Using squared multiple correlations is more accurate and more sophisticated than the routine use of 1.0s. The study described in this dissertation used a 16 by 16 matrix. This allowed for each of the 16 variables to be measured against each other. Rummell (1970) states:

> The matrix is analogous to a between-city mileage table, except that for cities we substitute variables, and for mileage we have a coefficient of correlation.. . . The correlation matrix has the following features:
>
> - The coefficients of correlation express the degree of linear relationship between the row and column variables of the matrix. The closer to zero the coefficient, the less the relationship; the closer to one, the greater the relationship.
> - …The principal diagonal usually contains the correlation of a variable within itself, which is always 1.0. Often, however, when the correlation matrix is to be factored, the principal diagonal will contain communal estimates instead. These measure the variation of a variable in common with all the others together (p.14).

The communality estimates are presented in Table 4.16.

Table 4.16 Communality Estimates (SMC)

Variable	**Communality estimate**
Curriculum	0.210
Individual attention by teachers	0.251
Class size	0.336
School size	0.245
Sports	0.374
Extracurricular activities	0.407
People running the school	0.242
Opportunities for parents to participate	0.376
School's expectation of parents	0.416
Academic standards	0.248
Quality of teachers	0.237
Technology	0.411
Facilities	0.444
Transportation	0.431
Food service	0.517
Accessibility and openness	0.247

Again, because a principal components analysis is to be conducted, these communality estimates make up the matrix that is necessary for this procedure. These estimates measure the variation that a specific factor that parents consider when selecting a charter school has in common with all the other factors in the model (Rummel, 1970).

One of the stated reasons for this research is to not only identify those factors that parents consider to be important in their decision to select a charter school, but to also examine how these factors relate to each other in the decision-making process. Factor analysis is a statistical method that is used to study the patterns of relationships among many independent variables (Darlington, Weinberg, and Walberg, 1973). It is also used to explain these selection factors in terms of their common underlying dimensions (Hair, 1992). These dimensions form the psychological constructs in which the sixteen selection factors included in the analysis are grouped.

There were three steps used in this process. The first step was to collect the data and generate the correlation matrix using SMC. The next step is to conduct an unrotated factor solution. The third step involved a rotated (varimax) factor analysis.

Once the data was collected and a matrix was constructed, a principal component analysis was performed in order to extract linear combinations of the factors. This allowed fourteen of the sixteen selection factors to be placed into a category. Table 4.17 shows the factor-loadings of the unrotated factor pattern.

Table 4.17 Principal Component Factor Loadings

Selection Variables	(F1)	(F2)	(F3)
Curriculum	40	23	-18
Individual Attention by Teachers	33	34	25
Class Size	26	36	48
School Size	31	22	36
Sports	49	-30	8
Extracurricular Activities	57	-22	-4
People Running the School	45	23	-18
Opportunities for Parents to Participate	49	23	-31
School Expectation of Parents	56	18	-29
Academic Standards	36	29	-4
Quality of Teachers	33	34	-5
Technology	59	-9	3
Facilities	63	-14	14
Transportation	44	-47	8
Food Service	59	-47	6
Accessibility and openness	49	-2	-5

Note: Variance explained by each factor: Factor 1 = 3.523, Factor 2 = 1.299, Factor 3 = 0.720

Category F1 accounts for 35 percent of the variance in the model. Category F2 accounts for 13 percent of the variance. Category F3 accounts for seven percent. This means that the strongest linear combination in this unrotated factor pattern is category F1, followed

by F2 and F3. A selection factor is placed in a category when there is a minimum loading on the category at .4 or higher (Nunnally, 1978). A loading represents a correlation between a selection factor and the overall category and ranges from -1 to 1. The closer to one a loading is the stronger the correlation to that category. The indicators were multiplied by 100 and rounded to the nearest integer. Selection factors with a coefficient of 40 or greater were considered to be a part of that particular category. The following indicates the categories and the selection factors that are correlated with them. These results are taken from Table 4.17.

Category one (F1) variables with a loading of 40 or greater were:

- curriculum
- sports program
- extracurricular activities
- people running the school
- opportunities for parents to participate
- school expectation of parents
- technology program
- facilities
- transportation
- food service
- accessibility and openness

Category two (F2) variables with a loading of 40 or greater were

- transportation
- food service

Category three (F3) variables with loadings of 40 or greater were:

- class size

The number of categories to be retained was determined by extracting as many categories as necessary to account for as much variance in the model as possible. More variance is accounted for with each extracted category. When the point is reached that a category accounts for very little variance, the number of categories is set. In this study, three categories account for the majority of the variance and thus were retained.

According to Kerlinger and Pedhazur (1973),

> The factor loadings in any row of the factor matrix are indices of the amount of variance each factor contributes to the estimation of the variables. This contribution can be calculated by squaring each factor loading. The sums of squares for each factor are additive in the calculation of communalities. The sums of these squares are the communalities. They indicate the common variance of the variables. That is, they indicate the proportion of the total variance of a variable That is common factor variance (p. 669).

These factor loadings then are used to categorize the selection factors. Again, according to Kerlinger and Pedhazur (1973),

> One does not read off factor loadings from references axes; one calculates them using rather complex methods. The principal components method actually involves the solution of simultaneous linear equations. The roots obtained from the solution are called eigenvalues. Eigenvectors are also obtained; after suitable transformation they become factor loadings (p.666).

In order to more fully account for variance in the model and in order to place as many selection factors as possible in a category, a rotated analysis was performed. A varimax rotation was used in this study. There are other rotation techniques available, but the most commonly used is varimax, or variance maximizing rotation. By using this type of rotation, fifteen of the sixteen selection factors were placed into one the three categories. This rotation shows a clearer or stronger pattern of association between the individual variables and the factors. The categories were given a descriptive title that best describes the nature of the factors that were included in each category. Thus, category one was labeled administrative, category two was labeled academic/instructional, and category three was labeled student-centered. The rotated factor loadings are presented in Table 4.18.

Table 4.18 Rotated (Varimax) Factor Loadings

Selection variables	Administrative (F1)	Academic/instructional (F2)	Student centered (F3)
Curriculum	10	48	10
Individual Attention by Teachers	5	24	48
Class Size	1	7	65
School Size	13	10	50
Sports	57	10	7
Extracurricular Activities	55	26	3
People Running The School	15	50	11
Opportunities For Parents to Participate	15	60	3
School's Expectation of Parents	24	61	3
Academic Standards	5	40	23
Quality of Teachers	0	42	24
Technology	49	30	17
Facilities	57	23	24
Transportation	65	-3	-4
Food Service	75	8	-1
Accessibility and Openness	36	32	11

Note: Variance explained by each factor: Factor 1 = 2.442; Factor 2 = 1.953; Factor 3 = 1.146

Category one (F1) variables with a loading of 40 or greater were:

- sports
- extracurricular activities
- technology

- facilities
- transportation
- food service

Category two (F2) variables with a loading of 40 or greater were:

- curriculum
- people running the school
- opportunities for parents to participate
- schools expectation of parents
- academic standards
- quality of teachers

Category three (F3) variables with a loading of 40 or greater were:

- individual attention by teachers
- class size
- school size

The selection variable openness and accessibility did not load to any of the three categories at a significant level (40). Thus, it can be determined that this selection factor was not a significant variable in the model.

By rotating the categories (factors), the variance explained by the correlation of the different variables is maximized.

The next procedure conducted was a MANOVA, or multivariate analysis of variance. This procedure is designed to examine the analysis of variance in models that contain two or more dependent variables. The study described in this dissertation had three dependent

variables, namely, those derived from varimax factor anlaysis: administrative factors, academic/instructional factors and student-centered factors.

There were three independent variables: The race of the parent, education level of the parent, and income level of the parent. These three variables were identified in the literature as variables that have an impact on the decision-making process of parents when selecting a charter school. Also, the previous results of the survey instrument when used in another study indicated that how these three independent variables interact with the other selection factors can have a significant influence on the ultimate decision to select a charter school (Manno, et al., 1998a).

MANOVA explores how independent variables influence some patterning of response on the dependent variables. It is used to assess the dependent variables as they interact with the independent variables. The key statistics are the F value and the p value. An F value of one means that there is no difference between the groups or there is no main effect, so the larger the F value, the greater the main effect. When there is a significant main effect (a large F statistic) it means that something significant is occurring with regard to that particular independent variable. It also justifies further analysis. In this study, that analysis was done using the post hoc test, Tukey's Studentized Range (HSD). The p value indicates the significance of the statistic or how likely the result is due to chance. The smaller the p value, the less likely the result is due to chance.

Table 4.19 displays the analysis of variance of the first dependent variable, administrative factors.

Table 4.19 Analysis of Variance (Model), Category 1: Administrative Factors

Source	DF	Sum of Squares	Mean Square	F Value	Prob > F
Model	8	3179.29	397.4108	34.73	p <.001
Error	746	8535.40	11.441		
Corrected Total	754	11714.69			

Table 4.20 displays the analysis of variance when the three independent variables are separated and tested against Category one, administrative factors.

Table 4.20 Analysis of Variance, Category 1: Three Independent Variables

Source	DF	Type III SS	Mean Square	F Value	Prob > F
Race	1	1541.73	1541.73	134.75	p <.0001
Parent Education	3	243.44	81.149	7.09	0.0001
Income of Parents	4	34.58	8.64	0.76	0.55

Category one, when tested against the independent variable of race, yielded an F Value of 134.75 and p < .0001. This indicates that there is a significant main effect with category one, administrative factors. The p value indicates that this result is not likely due to chance.

A similar result exists when category one is tested against the level of parental education, although it is not nearly as strong as race. The F value is 7.09 and p = .0001. This suggests that there is a significant main effect between administrative factors and the parent's level of education and that it is not likely due to chance.

The income level of parents yields an F value of 0.76 and P = 0.55. Given that the F statistic is low and the p value is high, there is no significant main effect with category one.

Table 4.21 displays the analysis of variance of the second dependent variable, category two, academic/instructional factors.

Table 4.21 Analysis of Variance (Model), Category 2: Academic/instructional Factors

Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Prob > F**
Model	8	198.17	24.77	5.95	p <.0001
Error	746	3107.32	4.16		
Corrected Total	754	3305.49			

Table 4.22 displays the analysis of variance when the three independent variables are separated and tested against category two, academic/instructional factors.

Table 4.22 Analysis of Variance, Category 2: Three Independent Variables

Source	**DF**	**Type III SS**	**Mean Square**	**F Value**	**Prob > F**
Race	1	80.198	80.198	19.25	p <.0001
Parent Education Level	3	29.211	9.737	2.34	0.072
Parent Income	4	11.395	2.848	0.68	0.603

When category two was tested against race, the results yielded an F value of 19.25 and p <.0001. This indicates a significant main effect between category two and the race of the parent and this result is not likely due to chance.

The education level of the parent yields an F value of 2.34 and p = 0.072. This indicates that there is not a significant main effect between category two and the education level of the parent.

The income level of parents yields an F Value of 0.068 and p = 0.063. This indicates that there is not a significant main effect between category two and the income level of the parent.

Table 4.23 displays the analysis of variance of the third dependent variable, student-centered factors.

Table 4.23 Analysis of Variance (Model), Category 3: Student-Centered Factors

Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Prob >F**
Model	8	18.519	2.314	1.31	0.235
Error	746	1319.75	1.769		
Corrected Total	754	1338.27			

Table 4.24 displays the analysis of variance when the three independent variables are separated and tested against category three, student-centered factors.

Table 4.24 Analysis of Variance, Category 3: Three Independent Variables

Source	DF	Type III SS	Mean Square	F Value	Prob >F
Race	1	0.462	0.462	0.26	0.609
Parent Education	3	8.546	2.848	1.61	0.185
Parent Income	4	9.426	2.356	1.33	0.256

When category three was tested against race, the results were not statistically significant. The F value is small (0.26) and the p value is greater than .05 meaning that the results could have been due to chance. Similar results were produced when category three was tested against parent education level and parent income level.

The last statistical procedure that was conducted was Tukey's Studentized Range (Honestly Significant Difference) test. This is a post hoc test. When an overall or main effect is significant in analysis of variance, as it is in this study for race and categories one and two and parent education level and category one, it is necessary to perform such a test. This test helps determine more precisely where the differences in the means are occurring and in what direction. Failure to perform post hoc testing would make it impossible to tell which group rated each factor higher or lower than another. Post hoc testing helps to more fully describe how the subsets of each of the independent variables relate to the dependent variables. For example, while concluding that race and category one, administrative factors, have a strong relationship, it is of more value to know the strength of the relationship between minority parents and administrative factors and majority parents and administrative factors. Post hoc testing provides this kind of information. The raw data from this procedure is illustrated in appendices E through H.

The post hoc test had significant meaning in the area of race. Table 4.25 describes the Tukey's Studentized Range for category one when tested against the independent variable of race.

Table 4.25 Category One and Race

Tukey Grouping	**Mean**	**N**	**Race**
A	18.9283	223	Minority
B	14.6786	532	Majority

When analyzing this data, if the mean of a Tukey grouping has the same letter, they are said to be not significantly different. If the means of a grouping have a different letter, it can be concluded that there is a significant difference in how the two components value a particular factor. In Table 4.25, Minority parents are classified with an A while majority parents are classified with a B. Thus, minority parents view administrative factors differently than majority parents. Combining this with previously reported data, it can be said that minority parents place more value on the selection factors in category one than majority parents. Factors such as sports programs, extracurricular activities, technology, facilities, transportation, and food service are selection factors that are more important to minority parents than to majority parents.

Table 4.26 describes the Tukey's Studentized Range for category two, academic/instructional factors when tested against the independent variable of race.

Table 4.26 Category Two and Race

Tukey Grouping	Mean	N	Race
A	22.7367	223	Minority
B	21.3816	532	Majority

In this case, as well as with category one, it can be concluded that there is a significant difference between minority and majority parents in how they view category two, academic/instructional factors. Minority parents value selection factors such as curriculum, people running the school, opportunities for parents to participate, the school's expectation of parents, academic standards and the quality of teachers to a greater extent than majority parents.

The same statistical procedure was conducted for the independent variable parent education. Table 4.27 describes the Tukey's Studentized Range for category one and parent education level.

Table 4.27 Category One and Parent Education

Parent Education Comparison	Difference Between Means	Simultaneous 95% Confidence Limits
High school or less –some college	1.349	0.32 2.37 ***
High school or less-college grad	2.311	1.41 3.20 ***
High school or less-post grad/professional	3.375	2.25 4.49 ***
Some college-high school or less	-1.349	-2.37 -0.32 ***
Some college-college grad	0.962	0.13 1.78 ***
Some college-post grad/professional	2.025	0.95 3.09 ***
College grad-high school or less	-2.311	-3.20 -1.41 ***
College grad-some college	-0.962	-0.96 -0.13 ***
College grad-post grad/professional	1.063	0.12 2.00 ***
Post grad/professional-high school or less	-3.375	-4.49 -2.25 ***
Post grad/professional-some college	-2.025	-3.09 -0.95 ***
Post grad/professional-college grad	-1.063	-2.00 -0.12 ***

Note: Comparisons significant at the 0.05 level are indicated by ***

The results of Tukey's Studentized Range (HSD) for category one indicate that all comparisons of the four categories of parent education levels were considered to be significant. The greatest difference in means in the pairwise comparisons occurred when parents who had post-graduate or professional education levels were compared with parents who had an education level of high school or less. That difference in means lessened as the difference in education levels decreased. Thus, parents who had post-graduate or professional education levels value selection factors such as sports programs, extracurricular

activities, technology, facilities, transportation, and food service to a greater extent than parents with lower levels of education.

Summary

This chapter provided the results from the data collection and the application of the statistical methodology. It provides tables with frequency distributions for each question on the survey. It provides communality estimates used in a correlation matrix from which the principal components and varimax analysis extracted three categories. These categories are administrative factors, academic/instructional factors, and student-centered factors. A multivariate analysis of variance was conducted using the three categories as dependent variables and three independent variables: race, parental income level, and parent education. This analysis indicted that there is a significant relationship of category one (administrative factors) with race and parents' education level. It also indicated that there was a significant relationship between race and category two, academic/instructional factors. Tukey's Studentized Range (HSD) was employed to analyze the component parts of each category with the independent variables. This test further suggested that minority parents and majority parents view category one, administrative variables, and category two, academic/instructional variables, in different ways. Minority parents tend to place more value on category one selection factors than majority parent. Minority parents also tend to place more value on category two selection factors than majority parents.

The same test was conducted for category one and parent education levels. The results indicated that all of the pairwise comparisons made were considered to be significant.

It also indicated that parents with higher levels of education valued the selection factors of category one to a greater extent than parents who had lower levels of education.

CHAPTER 5: CONCLUSIONS AND IMPLICATIONS

The study discussed in this dissertation identified the reasons why parents select a charter school and the relative importance of these reasons. According to the literature (Vanourek, et al., 1997), there are 16 factors that influence parent's decisions to choose a charter school for their children:

1. sports programs
2. extracurricular activities
3. technology programs
4. facilities
5. transportation
6. food service
7. curriculum
8. people running the school
9. opportunities for parents to participate
10. schools expectation of parents
11. quality of teachers
12. academic standards
13. class size
14. school size
15. individual attention provided by teachers
16. accessibility and openness of the school

Review of the Methodology

This study examined the relationships between specific factors that influence parents' decisions to send their children to a charter school. It is an exploration of parents' decision-making process and those things that attract them to charter schools. It sought to answer the questions, "Why do parents select charter schools, and how important are the reasons that helped them make that decision?"

This study shows that certain factors used by parents to select a charter school are of greater or lesser importance in the decision-making process. Principal component and varimax analysis procedures were used to analyze how these factors interact with each other and to group the factors into categories. MANOVA (multivariate analysis of variance) was conducted to examine how independent variables of race, parental income, and parental education levels interacted with the three categories of factors. Post hoc testing was conducted as necessary. The research design was selected after identifying and formulating16 research questions

Sample and Data Collection

Thirteen schools agreed to be part of the study. The participating schools represent different types of charter schools in terms of grade level configurations and geographic location. The number of students in these schools ranged from 75 to 480. The participating schools offered kindergarten to grade 11.

A parent questionnaire was employed as the primary data collection instrument. It was distributed to all parents whose children attended one of the 13 participating schools. A preliminary phone call was made to each administrative head of the school to clarify the

purpose of the research and to obtain permission to use the parent population of the school. Each survey was coded to ensure confidentiality. The questionnaire had already been used in the *1997 Charter Schools in Action* (Vanourek, et al., 1997) report. This questionnaire was used because of its comprehensiveness, simplicity, and its previous use in a larger, nationwide study. Of the 2,325 questionnaires distributed to the 13 participating schools, 903 were returned. This yielded an overall response rate of 39 percent.

Findings

The data and statistical analysis revealed many things about the importance of the various selection factors that parents consider when selecting a charter school. From a basic review of the frequency data, several observations can be made.

The largest number of students entering charter schools came from traditional public schools. This loss of students from the traditional public school system could lead to a financial drain on regular public schools, which is one of the chief criticisms of the charter school movement made by LEAs (local education agencies) (Moranto, et al., 2001). It is also not surprising that a large number of respondents' children had not attended school prior to enrolling in a charter school. Charter schools have only been in existence in North Carolina since 1997, and every school in this study enrolled students in kindergarten, the first year of formal school for most children.

Question two of the survey instrument asked respondents to select from a fourteen-item list, reasons that were most important to them in the selection of the charter school that their child attended. The reasons that parents could select were subjective in nature and ranged from items such as small size of school and classes to preferring a private school but

not being able to afford one. Parents could check as many of the fourteen listed reasons that were applicable. The two reasons that were selected the most were small school size and the perception that the charter school had better teachers. Furthermore, many of the parents responding in this study did not believe that their child faced any special educational challenge. This contradicts one of the expressed reasons for legalizing charter schools in North Carolina (N.C. General Statute 115C-238.29). The original statute outlines six reasons why charter schools could be established. The second reason in the statute states that charter schools could be established to "increase learning opportunities for all students, with special emphasis on expanded learning experiences for students who are identified as at-risk of academic failure or academically gifted" (North Carolina General Statute 115C-238.29a). Students who are at risk of failure present unique challenges. In many cases, North Carolina charter schools were started as a means of providing a new environment for dealing with at-risk students. However, the majority of parents in this study indicated that choosing a school that deals with children with special challenges was not a driving force in the selection process.

Parents were asked to indicate the level of their child's academic success at the charter school. Many indicated that their child's academic performance was "average"(36.16 percent). This would seem to indicate that a child's academic performance was not necessarily realized by many parents, and it contradicts Manual and McLaughlin's (2001) finding that this is an important factor in parents' decision-making process. Also, the *Charter Schools in Action* study's (Vanourek, et al., 1997) findings were slightly different for this question. In that study, 30 percent of the respondents said that their child's overall performance at the charter school was average.

Respondents were asked to indicate whether they plan on enrolling their child in the charter school again. The vast majority indicated that they do plan to send their children to the charter school. This could be seen as an endorsement of the charter school if retaining students is an indication of school success (Manno, et al., 1998).

Parents were asked to rate 16 selection factors in terms of their importance in selecting a charter school. These factors were identified in the literature as variables that are commonly used by parents across the country when selecting a charter school. The responses were formatted into a Likert-type scale that allowed for each factor to have a numerical weight associated with it. The factor that garnered the highest rating was the quality of teachers at the charter school. This was followed by academic standards and the amount of individual attention provided by teachers. These results indicate that factors related to instruction are closely linked. Unfortunately, there is no benchmark in this type of statistic to determine how parents define teacher quality and academic standards. However, this result would support the notion that these types of factors (i.e., student achievement/instruction) are compelling reasons to select a charter school (Noblit & Corbett, 2001).

Parents were asked to compare the charter school with the school that their child would have otherwise attended. Many indicated that school size and class size were better at the charter school. Again, these data seem to support the literature, which identified these items as compelling reasons for selecting a charter school (Noblit & Corbett, 2001). *The Charter Schools in Action* (Vanourek, et al., 1997) study found that parents felt charter schools were better than other types of schooling options in relation to class size (69%), individual attention by teachers (69%), and school size (68%).

Parents were asked to identify their race. This question, along with the question related to family income, was often unanswered. Nearly 70 percent of the parents who answered indicated they were part of the majority (white). A little more than 30 percent of the respondents classified themselves as a minority parent.

Respondents were asked to identify their highest level of education. A little more than 46 percent of the parents were college graduates. Fifteen percent of the respondents had a professional degree or some post-graduate education.

Finally, information was sought about the parent's annual income. More than 27 percent of the parents had income levels in the $60,000 to $99,999 range. Over thirteen percent of the respondents indicated that their annual income exceeded $100,000.

A principal component analysis and varimax rotation were used to analyze inter-relationships among 16 selection factors. This helped to explain the factors in terms of their common underlying dimensions (categories). This approach involved finding a way of condensing the information into a smaller set of dimensions with a minimum loss of information (Hair, et. al., 1992). This analysis produced three categories of selection factors. Fifteen of the sixteen selection factors were placed in one of the three categories. These categories were then tested in a multivariate analysis of variance to determine if a relationship existed between the categories and the independent variables of race, parent education level, and parent income level. Post hoc testing was conducted as necessary.

The results indicated that a significant relationship exists between category one, administrative factors, and race and parent education levels. Post hoc testing indicated that minority parents place more value on administrative selection factors than majority parents.

It also indicated that parents value administrative selection factors more as education levels rise.

Category two selection factors yielded a similar result in that minority parents placed more value on academic/instructional-type factors than majority parents. There was not a significant relationship between category two and parent education level and parental income level.

Category three selection factors were not considered significantly different when tested against any of the three independent variables. Student-centered selection factors were not differentiated by race, education levels, or income.

A proposed theoretical model of the decision-making process used by parents to select a charter school is illustrated in Figure 5.1. This model is helpful in visualizing how the various selection factors are grouped and categorized. Category one factors indicates a common link between the selection factors best described as administrative in nature. Category two factors can best be described as academic or instructional in nature. Category three selection factors can best be described as student-centered in nature. Of the sixteen selection factors in the model, fifteen of them, due to their underlying commonality as determined by principal component and varimax analysis, were able to be placed in one of the three categories. The selection variable openness and accessibility did not factor into any of the categories and thus was not considered further in the model.

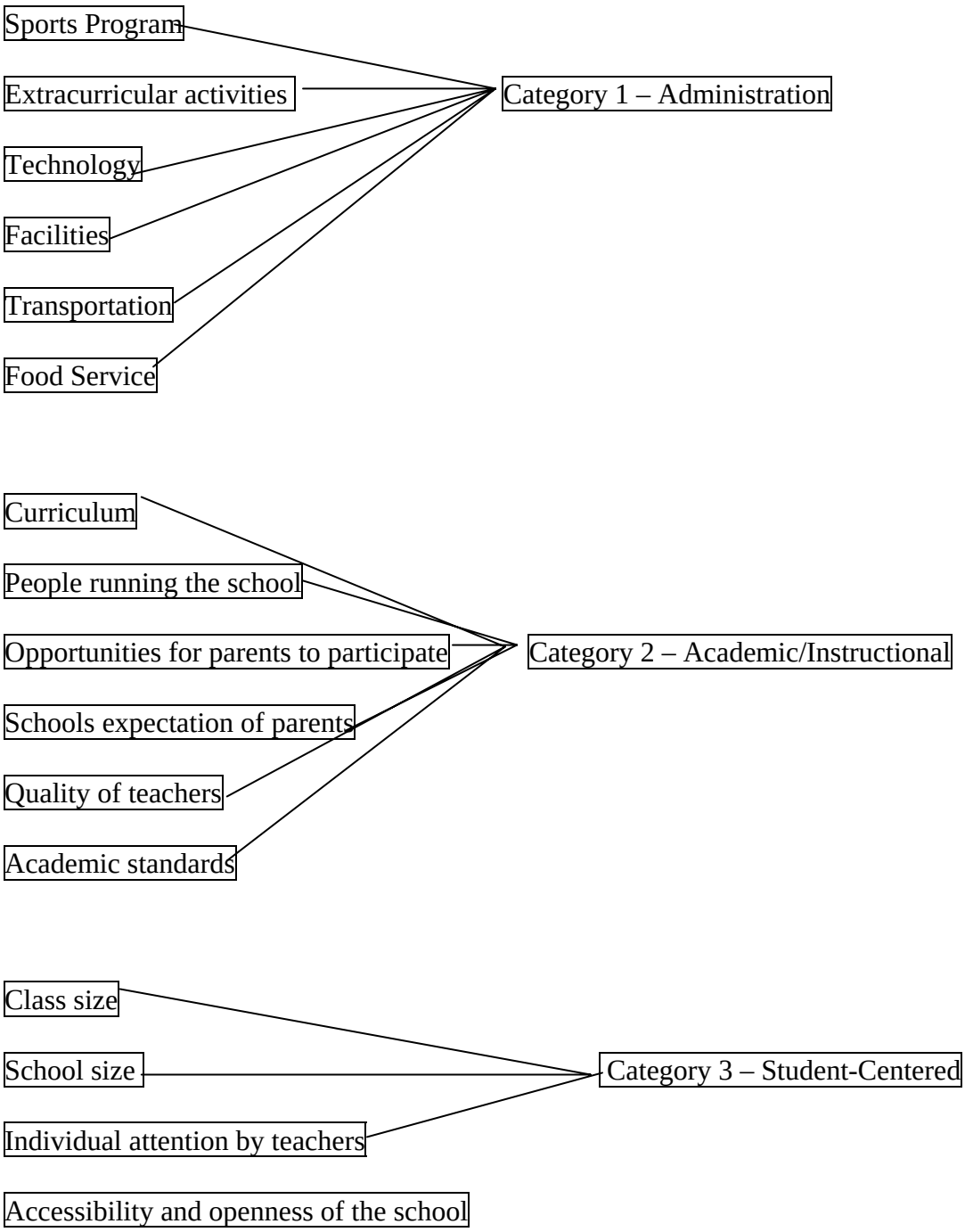

Figure 5.1 Process for Charter School Selection

Limitations of the Study

There are several limitations to this study that prevents broad conclusions from being drawn. The sample size of the study was relatively small (903). The response rate was also low (39%). There were no provisions made to increase the response rate.

All of the participating schools were from North Carolina. Given the diverse nature of how various states have become involved with charter schools and given the wide range of control that different state governments have over charter schools, this study may not be generalized to a population outside of the state of North Carolina.

There are also technical limitations that are a result of using a previously administered survey instrument. The instrument was one that was used in a multi-state sample that anticipated and received a much larger response rate then the response rate achieved in this study. The design of the instrument was conducive to a large response. The questions were formatted primarily to obtain frequency distribution data. This made the application of the more sophisticated statistical methodology in this study difficult to conduct.

The instrument format also prevented all of the key selection factors to be included in the key question of importance. Sixteen key selection factors were tested. However, the literature indicated that there were others that could have been included. Selection factors such as discipline, serving children with special needs, and safe environment, while addressed in another type of question, were not presented to the respondent in the form of importance. It may have been more appropriate to develop an instrument that would have been utilized specifically for this study.

Conclusions

The charter school movement is still in its infancy. There are relatively few charter schools available to parents and in many parts of North Carolina, there are none. However, charter schools do present a new dimension to public education. At the heart of this study is the desire to identify why there is a demand for charter schools. It is clear that when parents look toward charter schools they are seeking something they are not getting from traditional public schools or other educational options (Vanourek, et.al., 1997).

Whether charter schools will establish themselves as viable options for parents in the future is a question that only time will answer. The results of this study help to illustrate some the issues that are involved when parents select charter schools for their children. As schools of choice, charter schools will have to be attentive to these reasons and create schools that address the needs of the parents in their communities if they are to attract and retain students.

Implications for Further Research

This study was an attempt to quantify and evaluate the reasons that parents select charter schools for their children. Most of the previous work similar to this study has been limited to frequency distribution data. This study is one of the few that empirically analyzes the issue in depth, using a significant sample size and an extensive statistical methodology. The findings provide new insight into the decision-making process of parents. It also has implication for everyone concerned with education in North Carolina, especially those interested in school choice. The size of a school and the number of students in individual classes remain a constant concern for all parents in this study when selection a charter school. This has ramifications for traditional public schools as well, given the resources that are currently available. Key questions that must be addressed include:

- How will traditional public schools respond to the emergence and continued expansion of charter schools?
- How will charter schools continue to attract and retain students?
- How will parents use available resources to evaluate schools and what will that evaluation involve?
- How will private schools respond to the charter school movement?

There were several other areas that could have been examined. Additional post hoc work could have been conducted using the three categories of factors. Given the results of this study, there are several other areas that should be investigated:

1. Research regarding parents who choose to leave the charter school would further develop a model of school choice.

2. While this study focused on parents and their decision making process as it relates to charter schools, it would be of equal value to examine the reasons why parents did not select a charter school when the opportunity was available.
3. Similar research regarding private schools and parental decision-making would add to the literature involving the school choice movement.
4. Research should investigate the operational side of charter schools: specifically, how state agencies and authorizers should or could be involved in the operational side of charter schools.
5. The intent of this study was to analyze the decision- making process of parents who chose a charter school for their children from a state-wide perspective. To do so, 13 schools allowed their parent populations to participate in the project. This study's research methods could be applied to individual schools. This could provide local charter school operators with greater information about their own schools and assist them with the recruitment and retention of students.

Summary

The purpose of this chapter was to present the findings and conclusions from a study of the factors that parents consider when selecting a charter school for their children. This chapter also explored the relative importance of each factor in that decision. The methodology for the study was reviewed and the findings were outlined.

Conclusions regarding the findings in the study were discussed within the context of a proposed theoretical model of parental decision-making. Implications for further research concluded the chapter.

REFERENCES

Agresti, A., & Finlay, B.(1986). *Statistical methods for the social sciences* (2nd ed.). San Francisco: MacMillan

Berman, P. (1999*). A national study of charter schools: Second year report*. Washington, D.C.: RPP International.

Blakemore, C. (1998). *A public school of your own: Your guide to creating and running a charter school*. Wheat Ridge, Co: Adams-Pomoroy Press.

Buckley, K., & Fisler, J. (2002). *A decade of charter schools: From theory to practice*. CPRE Policy Briefs, Graduate School of Education, University of Pennsylvania.

Campbell, D.T., & Stanley, J.C. (1963). *Experimental and quasi-experimental designs for research.* Boston: Houghton-Mifflin Company.

Charter Schools Act, North Carolina General Statute 115C-238.29 (1996).

Cookson, P. (1992). *The choice controversy*. Newbury Park, CA: Corwin Press.

Darlington, R.B., Weinberg, S., & Walberg, H. (1973). Canonical variate analysis and related techniques. *Review of Educational Research*, 453-454.

Dougherty, K., & Sostre, L. (1992). Minerva and the market: The sources of the movement for school choice. *The choice controversy* (pp. 24-45). P. Cookson (Ed.) Newbury Park, CA: Corwin Press.

Finn, C. (1998, November 18). Charter foes no friends of education. *Dayton Daily News*, p.1.

Finn, C. (2001, October). Paragon Opinion Research Dayton survey: Citizens and parents want reform in education. *Primer: Change Begins With Ideas*. 4(1), p. 1.

Fraenkel, J., & Wallen, N. (1996). *How to design and evaluate research in education*. New York: McGraw-Hill

Frankenberg, E., & Lee, C. (2003). *Charter schools and race: A lost opportunity for integrated education.* Cambridge, MA: The Civil Rights Project at Harvard University

Friedman, M. (1955). The role of government in education. In R.A. Solo (Ed.) *Economics and the public interest* (pp. 123-144). New Brunswick, NJ: Rutgers University Press.

Gardner, D. (1983*). A nation at risk: The imperative for educational reform*. Washington, D.C.: National Commission on Excellence in Education, U.S. Department of Education.

Green, J., Howell, W., & Peterson, P., (1998). *Learning from the Cleveland scholarship program: Learning from school choice*. Washington, D.C.: Brookings Press.

Hair, J. F. (1992*). Multivariate data analysis* (3rd Ed.). New York: MacMillan.

Hassel, B. (1999). *The charter school challenge: Avoiding the pitfalls, fulfilling promise*. Washington, D.C.: Brookings Institute.

Kane, P.R. (1998). *New Jersey charter schools: The first year, 1997-1998*. New York: New Jersey Institute for School Innovation and Teachers College, Columbia University.

Kerlinger, F.N. & Pedhazur, E.J. (1973). *Multiple regression in behavioral research*. New York: Holt, Rinehart, and Winston.

Kolderie, T. (1990). *Beyond choice to new public schools: Withdrawing the exclusive franchise in public education* . Washington, D.C.: Progressive Policy Institute.

Kouri, N., Kleine, R., White, R., & Cummins, L. (1999). *Michigan charter school initiative: From theory to practice: Final report*. Lansing: Michigan Department of Education.

Lareau, A. (1988). *Home advantage: social class and parental intervention in elementary education*. London: Folmer Press.

Manno, V., Finn, C., Bierlein, L., Vanourek, G. (1998a). Charter schools: Accomplishments and dilemmas. *Teachers' College Record, Spring*, 537-558.

Manno, V., Finn, C., Bierlein, L., Vanourek, G. (1998b). How charter schools are different: Lessons and implications from a national study. *Phi Delta Kappan,* 79(7), p. 488-498).

Manual, J., & McLaughlin, M. (2001*). The charter school experience in North Carolina*. Chapel Hill: The North Carolina Center for Public Policy Research.

Moranto, R., Milliman, S., Hess, F., & Gresham, A. (2001). *School choice in the real world: Lessons from Arizona charter schools*. Boulder, CO: Westview Press.

Noblit, G., & Corbett, D. (2001). *The North Carolina charter school evaluation report*. Raleigh N.C.: North Carolina State Board of Education.

Nunnally, J.C. (1978). *Psychometric theory* (2nd Ed.). New York: MacGraw-Hill.

Peebles, L. (2000). *Charter school's equity issues: Focus on minority and at-risk students*. Aurora, CO*:* Mid-Continent Research for Education and Learning.

Pohlman, J.T. (2003). Department of Psychology and Special Education, Sourthern Illinois University. Website.

RPP International (1998*). A national study of charter schools: Second year report*. Washington D.C.: U.S. Department of Education.

RPP International (2000). *The state of charter schools 2000: Fourth year report*. Washington, DC: U.S. Department of Education.

Rummell, R.J. (1970). *Applied factor analysis*. Evanston, IL: Northwestern University Press.

Shanker, A., & Rosenberg, B. (1991). *Politics, markets, and America's schools: The fallacies of private school choice*. Washington, DC: American Federation of Teachers.

Teske, P., Schneider, M., Buckley, J., & Clark, S. (2000). *Does charter school competition improve traditional public schools*? Stoney Brook , NY: Manhatten Institute For Policy Research.

Texas Board of Education. (1997*). Texas open enrollment charter schools: Year two evaluation for Texas state board of education*: Austin, Texas.

U.S. Department of Education. (2000). *The state of charter schools: National study of charter schools: Fourth year report*. Washington, DC: Office of Educational Research and Improvement, U.S. Department of Education.

Vanourek, B., Manno,B., Finn,C., &Bierlien, L. (1997). *Charter schools as seen by those who know them best: Students, teachers, parents*. New York City: Hudson Institute – Fordham Foundation.

Vasallo, P. (2000). More than grades: How choice boosts parental involvement and benefits children. *Policy Analysis*, 383, 1-16.

Wells, A.S. (1993). *The sociology of school choice: Why some win and others lose in the educational marketplace*. *School choice: Examining the evidence*. Washington DC: Economic Policy Institute.

APPENDICES

Appendix A. Parent Questionnaire

Parent questionnaire

Instructions:

Participation in this survey is voluntary and anonymous. The information you provide will never be associated with you personally. Questionnaires are marked for school identification only. Please answer questions 1 - 14 by completely filling the box (es) next to your choice(s) in a dark #2 pencil.

INFORMATION ABOUT YOUR CHILD

(If more than one child attends this charter school, please tell us about the child who has attended for the longest time.)

1. SCHOOL YOUR CHILD PREVIOUSLY ATTENDED:
___Regular public ___ private ___ home-schooled ___ not in school ___other

2. IMPORTANT REASONS FOR CHOOSING THIS SCHOOL FOR YOUR CHILD:
(Check all that apply)

___Child doing badly in regular school
___The location of charter school is more convenient
___My child has special needs that the previous school was not meeting
___Small size of charter school or classes
___Better teachers at charter school
___Previous school was unsafe; charter school is safer
___People told me this is a better school
___My child wanted to come here
___I was unhappy with curriculum or teaching at previous school
___This school's program is closer to my educational philosophy
___Greater opportunities for parent involvement at charter school
___Prefer private school but could not afford it
___Charter school offers before/after school programs
___Other

3. WHAT EDUCATIONAL CHALLENGES DOES YOUR CHILD FACE, IF ANY? (Check all that apply)
___Does not learn quickly, needs extra teaching
___Physical disability
___Behavior problems
___Fast learner, often bored
___Interested in some subjects but not others
___Does not understand English very well
___Learning disability
___Does not have a lot of friends
___Too social, not academic enough
___No special challenges
___Other

4. HOW WOULD YOU DESCRIBE YOUR CHILD'S OVERALL ACADEMIC PERFORMANCE AT HIS/HER PREVIOUS SCHOOL?
___Excellent
___Above average
___Average
___Below average
___Poor
___Does not apply, since my child was not in school

5. ACADEMIC PERFORMANCE AT THIS CHARTER SCHOOL?
___Excellent
___Above average
___Average
___Below average
___Poor

6. WHAT IS YOUR CHILD'S AGE?
___5 or younger ___6 ___7 ___8 ___9 ___10 ___11 ___12 ___13 ___14 ___15
___16 ___17 ___18 ___19 or older

7. DO YOU PRESENTLY PLAN TO KEEP YOUR CHILD IN THIS CHARTER SCHOOL FOR AS MANY YEARS AS IT IS AVAILABLE? ___yes___no___not sure

8. HOW IMPORTANT WERE THESE FEATURES OF THE CHARTER SCHOOL WHEN YOU DECIDED TO ENROLL YOUR CHILD?

Curriculum (what the school teaches)
most important___ somewhat important ___uncertain ___not important

Individual attention by teachers
most important___ somewhat important___ uncertain___ not important

Class size
most important___ somewhat important___ uncertain___ not important

School size
most important___somewhat important___ uncertain___ Not important

Sports program
most important___ Somewhat important___ uncertain___ not important

Other extracurricular activities
most important___somewhat important___uncertain___ not important

People running the school
most important___ somewhat important___ uncertain___ not important

Opportunities for parents to participate
most important___ somewhat important___ uncertain___ not important

How much the school expects from parents
most important___ somewhat important___ uncertain___ not important

Academic standards for students
most important___ somewhat important___ uncertain___ not important

Quality of teaching
most important___ somewhat important___ uncertain___ not important

Technology (computers, etc.)
most important___ somewhat important___ uncertain___ not important

School facilities
Most important___ somewhat important___ uncertain___ not important

Transportation/location of school
most important___ somewhat important___ uncertain___ not important

Food
most important___somewhat important___uncertain____not important

Accessibility and openness
Most important___somewhat important___uncertain___not important

9. PLEASE COMPARE (IN THE FOLLOWING AREAS) THIS CHARTER SCHOOL WITH THE SCHOOL YOUR CHILD WOULD OTHERWISE BE ATTENDING THIS YEAR:

Curriculum (what the school teaches):
Better___ About the same___ Worse___

Individual attention by teachers:
Better___ About the same___ Worse___

Class size:
Better___ About the same___ Worse___

School size:
Better___ About the same___ Worse

Safety:
Better___ About the same___ Worse

Discipline:
Better___ About the same___ Worse

Basic Skills:
Better___ About the same___Worse

Academic standards for students:
Better___ About the same___ Worse

Quality of teaching:
Better___ About the same___ Worse

School facilities:
Better___ About the same___ Worse

Extra help for students when needed:
Better___ About the same___ Worse

Parent involvement:
Better___ About the same___ Worse

10. HOW MANY CHIDREN DO YOU HAVE IN THIS CHARTER SCHOOL?
___1 ___2 ___3 ___ more

11. HOW LONG HAVE YOU HAD ONE OR MORE CHILD ATTENDING THIS SCHOOL? THIS IS THE:
___first year, ___second year, ___third year, ___fourth year, ___more

12. YOUR RACE/ETHNICITY
___White/Anglo/Caucasion___Black/African -American ___ Hispanic/Mexican/Puerto Rican ___ Asian ___Native American ___ Other

13. HOW MUCH FORMAL EDUCATION HAVE YOU HAD?
___Did not complete high school ___High school graduate but no college ___Some college but no degree ___ College graduate ___Post-graduate/professional degree

14. PLEASE CHECK THE APPROXIMATE TOTAL INCOME OF YOUR HOUSEHOLD/FAMILY LAST YEAR:
___Less than $10,000 ___$10,000 - 19,999 ___ $20,000 - 29,999 ___$30,000 - 39,999
___ $40,000 - 59,999 ___ $60,000 - 99,999 ___ More than $100,000

Appendix B. Permission Notice

From: Cefinnjr@aol.co

Sent: December 15, 2003 4:46 PM

To: Mike Fedewa

Subject: Re: Charter Schools In Action Report

In a message dated 12/15/2003 4:33:54 PM Eastern Standard Time,
mike.fedewa@raldioc.org writes:

In October of 2002 I emailed you and asked you for permission to use the instrument and you granted it. It now seems that I have erased the email where you did so. Could you send me a short message indicating that I had permission to use the instrument? I would appreciate it. Also, if you would like to see the results, I would be happy to share them with you. I did a principal component factor analysis, a varimax factor analysis, a MANOVA, and Tukey's Studentized Range based on the data from the survey. Thank you for your time. By the way, I also serve as the Superintendent of Schools for the Catholic Diocese of Raleigh, NC and am currently the chairman of the North Carolina Charter School Advisory Committee. I admire your work very much and use the material produced by the Fordham Foundation in my work.

Mike Fedewa

Congratulations on your successful dissertation defense. I have no specific recollection of our previous exchange but please be aware that this survey instrument is on our website and in the public domain and no permission is required to use it.

Chester E. Finn, Jr.
Senior Fellow, Hoover Institution, Stanford University &
President, Thomas B. Fordham Foundation
1627 K Street N.W., Suite 600, Washington DC 20006

Appendix C. Cronbach Coefficient Alpha

6 variables: sports extracurr tech facilities trans food

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Sports	861	2.241	0.976	1930	1.000	4.000	Sports
extracurr	861	2.681	0.889	2309	1.000	4.000	Extracurr
Tech	861	3.413	0.665	2939	1.000	4.000	Tech
Facilities	861	3.289	0.732	2832	1.000	4.000	Facilities
Trans	861	2.167	1.217	1866	1.000	4.000	Trans
Food	861	2.292	1.201	1974	1.000	4.000	Food

Cronbach Coefficient Alpha

Variables	Alpha
Raw	0.778
Standardized	0.789

Cronbach Coefficient Alpha with Deleted Variable

	Raw Variables		Standardized Variables		
Deleted variable	Correlation with total	Alpha	Correlation with total	Alpha	Label
Sports	0.519	0.746	0.530	o.759	Sports
Extracurr	0.501	0.750	0.506	0.765	Extracurr
Tech	0.482	0.760	0.508	0.764	Tech
Facilities	0.538	0.747	0.564	0.751	Facilities
Trans	0.530	0.749	0.496	0.767	Trans
Food	0.660	0.707	0.633	0.734	food

6 Variables: curriculum pplrunsch oppparpar schexpar qualofteac acstdrds

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
curriculum	861	3.739	0.481	3220	1.000	4.000	curriculum
pplrunsch	861	3.528	0.712	3038	1.000	4.000	pplrunsch
oppparpar	861	3.414	0.635	2940	1.000	4.000	oppparpar
schexpar	861	3.199	0.735	2755	1.000	4.000	schexpar
qualofteac	861	3.933	0.279	3387	1.000	4.000	qualofteac
Acstdrds	861	3.837	0.419	3304	1.000	4.000	Acstdrds

Cronbach Coefficient Alpha

Variables	Alpha
Raw	0.698
Standardizes	0.713

Cronbach Coefficient Alpha with Deleted Variables

Raw Variables			Standardized Variables		
Deleted variable	Correlation with total	Alpha	Correlation with total	Alpha	Label
Curriculum	0.420	0.662	0.431	0.677	Curriculum
Pplrunsch	0.462	0.651	0.464	0.667	Pplrunsch
Oppparpar	0.535	0.619	0.481	0.661	Oppparpar
Schexpar	0.522	0.627	0.484	0.660	Schexpar
Qualofteac	0.370	0.687	0.397	0.687	Qualofteac
Acstdrds	0.355	0.681	0.403	0.685	Acstdrds

3 variables: inattbytea clsize schsize

Simple Statistics

Variable	N	Mean	Std dev	Sum	Minimum	Maximum	Label
inattbytea	855	3.797	0.456	3247	1.000	4.000	inattbytea
Clsize	855	3.690	0.550	3155	1.000	4.000	Clsize
Schsize	855	3.281	0.775	2806	1.000	4.000	Schsize

Cronbach Coefficient Alpha

Variables	Alpha
Raw	0.603
Standardized	0.601

Cronbach Coefficient Alpha with Deleted Variables

	Raw Variables		Standardized Variables		
Deleted variable	Correlation with total	Alpha	Correlation with total	Alpha	Label
Inattbytea	0.347	0.600	0.372	0.625	Inattbytea
Clsize	0.562	0.303	0.570	0.339	Clsize
Schsize	0.402	0.594	0.389	0.601	Schize

Appendix D. Correlation Matrix

Pearson Correlation Coefficients
Prob > [r] under HO: rho=0

	Curr.	Individual attention by teachers	Class size	School size	Sports	Extra-curricular	People running the school	Opp. for parents to partic.
Curr.	1.000	0.192 <.0001	0.107 0.001	0.067 0.045	0.114 0.0007	0.212 <.0001	0.313 <.0001	0.282 <.0001
Ind.att.by teachers	0.192 <.0001	1.000	0.428 <.0001	0.199 <.0001	0.071 0.035	0.126 0.0002	0.194 <.0001	0.188 <.0001
Class size	0.107 0.0001	0.428 <.0001	1.000	0.444 <.0001	0.066 0.049	0.042 0.211	0.08 0.0164	0.142 <.0001
School size	0.067 0.045	0.199 <.0001	0.444 <.0001	1.000	0.116 0.0006	0.129 0.0001	0.160 <.0001	0.133 <.0001
Sports	0.114 0.0007	0.071 0.035	0.066 0.049	0.116 0.0006	1.000	0.555 <.0001	0.124 0.0002	0.144 <.0001
Extra-curricular	0.212 <.0001	0.126 0.0002	0.042 0.210	0.129 0.0001	0.555 <.0001	1.000	0.215 <.0001	0.251 <.0001
People running the school	0.313 <.0001	0.194 <.0001	0.08 0.016	0.160 <.0001	0.124 0.0002	0.214 <.0001	1.000	0.355 <.0001
Opp. parents to participate	0.282 <.0001	0.188 <.0001	0.142 <.0001	0.133 <.0001	0.144 <.0001	0.251 <.0001	0.355 <.0001	1.000

Pearson Correlation Coefficients
Prob > under HO: Rho=0

	Sch. expec. of parents	Aca. stand.	Qual. of teach.	Tech.	Facilities	Trans.	Food	Acc/open
Curr.	0.257 <.0001	0.293 <.0001	0.261 <.0001	0.222 <.0001	0.184 <.0001	0.059 0.075	0.124 0.0002	0.181 <.0001
Ind.att by teach.	0.173 <.0001	0.185 <.0001	0.249 <.0001	0.109 0.0011	0.179 <.0001	0.033 0.032	0.075 0.024	0.188 <.0001
Class size	0.097 0.0037	0.138 <.0001	0.151 <.0001	0.08 0.015	0.121 0.0003	-o.o14 0.665	0.009 0.793	0.126 0.0002
School size	0.156 <.0001	0.108 0.0012	0.126 0.0002	0.120 0.0003	0.191 <.0001	0.04 0.227	0.082 0.013	0.142 <.0001
Sports	0.186 <.0001	0.127 0.0001	0.029 0.379	0.304 <.0001	0.361 <.0001	0.303 <.0001	0.382 0.013	0.164 <.0001
Extra-curr.	0.328 <.0001	0.104 0.002	0.734 0.028	0.315 <.0001	0.319 <.0001	0.273 <.0001	0.373 <.0001	0.296 <.0001
People running the school	0.337 <.0001	0.254 <.0001	0.283 <.0001	0.198 <.0001	0.245 <.0001	0.107 0.0014	0.165 <.0001	0.281 >.0001
Opp. for Parents to part.	0.581 <.0001	0.187 <.0001	0.203 <.0001	0.198 <.0001	0.175 <.0001	0.101 0.0002	0.166 <.0001	0.299 <.0001

Pearson Correlation Coefficients
Prob > [r] under HO: Rho=0

	Curr.	Ind. att. by tech.	Class size	School size	Sports	Extra-curr.	People run. school	Opp. for parents to part.
School's exp. of parents	0.252 <.0001	0.173 <.0001	0.097 0.0037	0.156 <.0001	0.186 <.0001	0.328 <.0001	0.337 <.0001	0.581 <.0001
Acad. stand.	0.294 <.0001	0.183 <.0001	0.138 <.0001	0.108 0.0012	0.127 0.0001	0.104 0.0019	0.254 <.0001	0.187 <.0001
Qual. of teach.	0.262 <.0001	0.151 <.0001	0.151 <.0001	0.126 0.0002	0.029 0.379	0.073 0.028	0.283 <.0001	0.203 <.0001
Tech.	0.223 <.0001	0.109 0.001	0.08 0.015	0.120 0.0003	0.304 <.0001	0.315 <.0001	0.198 <.0001	0.197 <.0001
Facilities	0.184 <.0001	0.179 <.0001	0.121 0.0003	0.191 <.0001	0.361 <.0001	0.319 <.0001	0.245 <.0001	0.175 <.0001
Transp.	0.059 0.075	0.033 0.320	-0.014 0.665	0.04 0.227	0.302 <.0001	0.273 <.0001	0.107 0.001	0.101 0.002
Food	0.123 0.002	0.075 0.024	0.008 0.793	0.082 0.013	0.382 <.0001	0.373 <.0001	0.165 <.0001	0.166 <.0001
Acc/open.	0.181 .0001	0.188 <.0001	0.125 0.0002	0.142 <.0001	0.164 <.0001	0.296 <.0001	0.281 <.0001	0.299 <.0001

Pearson Correlation Coefficients
Prob > [r] under HO: Rho=0

	Sch. exp. of parents	Acad. stand.	Qual. of teach.	Tech.	Facilities	Transp.	Food	Acc/op
Sch. exp. of parents	1.000	0.22 <.0001	0.196 <.0001	0.275 <.0001	0.247 <.0001	0.144 <.0001	0.249 <.0001	0.338 <.0001
Acad. Stds.	0.220 >.0001	1.000	0.431 <.0001	0.311 <.0001	0.249 <.0001	0.018 0.592	0.095 0.004	0.153 <.0001
Qual. of teach.	0.196 <.0001	0.431 <.0001	1.000	0.242 <.0001	0.196 <.0001	0.034 0.298	0.039 0.24	0.159 <.0001
Tech.	0.275 <.0001	0.311 <.0001	0.242 <.0001	1.000	0.559 <.0001	0.259 <.0001	0.373 <.0001	0.229 <.0001
Facilities	0.247 <.0001	0.249 <.0001	0.196 <.0001	0.559 <.0001	1.000	0.329 <.0001	0.432 <.0001	0.308 <.0001
Transp.	0.144 <.0001	0.018 0.592	0.034 0.298	0.259 <.0001	0.329 <.0001	1.000	0.664 <.0001	0.275 <.0001
Food	0.249 <.0001	0.095 0.0004	0.039 0.240	0.373 <.0001	0.432 <.0001	0.664 <.0001	1.000	0.328 <.0001
Acc/op.	0.338 <.0001	0.153 <.0001	0.159 <.0001	0.229 <.0001	0.308 <.0001	0.275 <.0001	0.328 <.0001	1.000

Appendix E. Tukey's Studentized Range - Category One and Race

Alpha	0.05
Error degrees of freedom	746
Error mean square	11.441
Critical value of studentized range	2.776
Minimum significant difference	0.529
Harmonic mean of cell sizes	314.267

Means with the same letter are not significantly different

Tukey grouping	Mean	N	Newrace
A	18.9283	223	Minority
B	14.6786	532	Majority

Appendix F. Tukey's Studentized Range – Category 2 and Race

Alpha	0.05
Error degrees of freedom	746
Error mean square	4.1653
Critical value of studentized range	2.776
Minimum significant difference	0.3196
Harmonic mean of cell sizes	314.2675

Means with the same letter are not significantly different.

Tukey grouping	Mean	N	Newrace
A	22.3767	223	Minority
B	21.3816	532	Majority

Appendix G. Tukey's Studentized Range – Category one and Parent Education Level

Alpha	0.05
Error degrees of freedom	746
Error mean square	11.441
Critical value of studentized range	3.6414

Comparisons significant at the 0.05 level are indicated by ***

Parent education comparisons	Difference between means	Simultaneous 95% confidence limits		
High school or less- some college	1.3494	0.323	2.374	***
High school or less – college grad	2.311	1.416	3.206	***
High school or less – post grad or prof	3.375	2.255	4.495	***
Some college – high school or less	-1.349	-2.374	-0.323	***
Some college – college grad	0.962	0.134	1.789	***
Some college – post grad proff	2.025	0.958	3.093	***
College grad – high school or less	-2.311	-3.206	-1.416	***
College grad – some college	-0.962	-1.789	-0.134	***
College grad – post grad proff	1.063	0.121	2.006	***
Post grad proff – high school or less	-3.375	-4.495	-2.255	***
Post grad proff – some college	-2.025	-3.093	-0.958	***
Post grad proff – college grad	-1.063	-2.006	-0.121	***

Appendix H. Tukey's Studentized Range – Category 2 and Parent Education Level

Alpha	0.05
Error degrees of freedom	746
Error mean square	4.1653
Critical value of studentized range	3.6414

Comparisons at the 0.05 level are indicated by ***

Parent education comparison	Difference between means	Simultaneous 95% confidence limits		
Some college – high school or less	0.083	-0.535	0.702	
Some college – college grad	0.508	0.009	1.007	***
Some college – post grad proff	0.745	0.100	1.389	***
High school or less – some college	-0.083	-0.702	0.535	
High school or less - college grad	0.425	-0.114	0.965	
High school or less – post grad proff	0.661	-0.014	1.337	
College grad – some college	-0.508	-1.007	-0.009	***
College grad – high school or less	-0.425	-0.965	0.114	
College grad – post grad proff	0.236	-0.332	0.805	
Post grad proff – some college	-0.745	-1.389	-1.00	***
Post grad proff – high school or less	-0.661	-1.337	0.014	
Post grad proff – college grad	-0.236	-0.805	0.332	