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**A STUDY OF PARENTAL CHARACTERISTICS AND SCHOOL CHOICE**

**by**

**Chia-Lin Hsieh**

**A Dissertation  
Submitted to the  
Faculty of The Graduate College  
in partial fulfillment of the  
requirements for the  
Degree of Doctor of Education  
Department of Teaching, Learning, and Leadership**

**Western Michigan University  
Kalamazoo, Michigan  
April 2000**

# A STUDY OF PARENTAL CHARACTERISTICS AND SCHOOL CHOICE

Chia-Lin Hsieh, Ed.D.

Western Michigan University, 2000

Parental choice of schools has been a hot political issue for more than a decade and has become a cornerstone of federal educational policy. This study investigated the relationship between parental characteristics and school choice, and whether the decision to choose schools is related to family characteristics, school characteristics, parental beliefs, and/or parental satisfaction.

This study used existing national data that were gathered by the National Center for Education Statistics (NCES) and were extracted from the School Safety and Discipline (SS&D) component of the 1993 National Household Education Survey (NHES:93). 12,680 parents with children in 3<sup>rd</sup> through 12<sup>th</sup> grades were interviewed.

Hypotheses were tested at an alpha .05 level, and data were analyzed using chi-squared tests, one-way ANOVA, and Discriminant Function Analyses. These analyses enabled the researcher to determine if there were relationships between parents and their choice of schools among the four types of school choice when family characteristics, school characteristics, parental beliefs, and parental satisfaction were taken into consideration separately.

There were several findings. First, parents with higher family incomes and higher educational levels tend to choose private school for their children. Parents who choose private schools for their children tend to have higher parental involvement and positive perceptions of their children's academic achievement. Second, parents who

exercise choice have a positive perception of school qualities and higher parental satisfaction with school than do parents who do not exercise choice. Finally, parents who choose assigned and religious private school are more likely to find children of their same ethnicity in their schools than will parents who choose chosen and non-religious schools.

The results presented here should sound a note of caution regarding the self-fulfilling prophecy phenomena, social stratification, and cultural/racial segregation of school choice. Allowing schools to become more selective may make people feel more positive with the schools, but it does not appear to change the quality of the education. The competition between schools might be based not just on the quality of a school but also on the social class, cultural differences, and racial composition of the student body. Discussion of the findings and policy implications are provided.

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## ACKNOWLEDGMENTS

This dissertation could not have been possible without the help and support of many people. I am grateful for the professional and expert guidance from my academic advisor, Dr. Jianping Shen who spent many hours with me discussing the design and execution of the study. I will most remember his compassion, integrity, and dedication in helping me. My sincere appreciation also goes to my doctoral committee members, Dr. Charles Warfield and Dr. Brian Wilson for their advice and moral support.

My sincere gratitude is extended to Dr. Mark Jenness for his moral support and encouragement. My special thanks also go to Sandra Roethler who provided assistance throughout the completion of my dissertation. Her friendship will be cherished forever.

I want to express my sincere appreciation to my dearest parents, Hsu-Chang Hsieh and Li-Hwa Chen, whose knowledge and wisdom broaden my worldview. Their encouragement, unconditioned love, and support led me to believe that I can be successful in all my endeavors. I am proud to have them as my parents.

My most profound gratitude goes to my loving husband, Po-Chang Chiang, for his love, encouragement, and support which gives joy to every aspect of our life.

Chia-Lin Hsieh

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## CHAPTER I

### INTRODUCTION

Parental choice of schools has been a hot political issue for more than a decade and has become a cornerstone of federal educational policy. In 1986, the National Governors' Association endorsed the goal of providing choice among public schools. In the nation's first "Education Summit" in October 1989, President Bush and the 50 governors agreed on choice as a major facet of the nation's education policy agenda (Department of Education, 1989). Since then, the numbers of states that have school choice plan are increasing. Thirty-three states and the District of Columbia have taken formal legislative action to increase the educational choices available to parents (Lee, 1994; Cookson, 1994, 1997; Hanks, 1997; U.S. Department of Education, 2000). As the news about school choice spread, 43 of the nation's governors supported some type of choice in education in 1996 (Hank, 1997). In four locations, Milwaukee, Oregon, Colorado, and California, choice proposals include both public and nonpublic schools. Several major cities operate choice plans such as New York, St. Louis, Kansas City, Boston, Minneapolis/St. Paul, Baltimore, Montclair (CA), Milwaukee, Los Angeles, Rochester, Buffalo, Cambridge, with more on the drawing board (Cookson, 1994, 1997; Lee, 1994).

Why is choice in education important in the United States at the present time? Levin (1989) provides three reasons: (1) families should have the right to choose the type of education that they want for their children; (2) families should be able to choose the school which best fits the specific educational needs of their children; and (3) choice among schools will lead to greater competition for students and

improvements in school efficiency with respect to student achievement. The Office of Educational Research and Improvement (OERI) (1992) stresses two similar parts in its definition of school choice: The obvious dimension of the "right of students and parents to choose the school they or their children attend;" and the way choice gives "teachers, administrators, parents and students the opportunity to create distinctive schools which recognize that there is no one best school for all children" (p. 1).

Choice is everywhere in American education. Choice occurs when parents decide how to care for their preschool-age child and in the consequences of those choices for their youngster's readiness for elementary school. It occurs when parents use their knowledge, skill, and social connections to get their children assigned to one teacher or another, to one program or another within a given school, or to one school or another within a given district. Choice is present when families, sometimes at great financial sacrifice, decide to send their children to private schools instead of public schools. Choice occurs when students are chosen by lottery for magnet schools with specialized academic programs. Choice even occurs when parents decide where to live relative to the perceived quality of schools in a particular residential area. In these and many other ways, parents and students make choices that influence their educational future. Lee (1994) indicates that parental choice of schools is meant to increase the range of options open to parents to influence the quality of their children's education. In all instances, these choices are strongly shaped by the wealth, ethnicity, and social status of parents and their neighborhoods (Lee & Croninger, 1996; Martinez & Godwin, 1996; Witte, 1993, 1996).

Elmore and Fuller (1996) summarize that some critics portray public schooling as a monolithic and unresponsive bureaucracy, driven more by the self-interests of politicians and bureaucrats than by the interests of parents and students.

These critics see increased choice as driving a lethargic educational system toward greater responsiveness and effectiveness (Chubb & Moe, 1990). The other critics, however, see choice in American education as serving the interests of the already privileged and as increasing the gaps between those who are already successful at manipulating the system and those who are not. They see choice as driving the privileged and less privileged further apart, exacerbating school inequalities. They believe that many people are denied choices when they lack information, money, or accessible options (Moore & Davenport, 1990).

Using choice to improve education is a serious and complex task that is not easily amenable to guidance by simple ideological principles. Elmore and Fuller (1996) provided several suggestions to policy-makers. First, policy-makers should take seriously both the distributional impacts of choice and the achievement effects for specific groups of students. Second, policy-makers are accountable not only for the beneficial effects of choice policies on those who choose, but also for the detrimental effects on those who fail to choose. Lastly, policy-makers are accountable not just for the enhanced consumer satisfaction of people who are already active choosers, but also for the overall improvement of opportunity and performance for all students.

### Purpose of the Study

The purpose of the study is to investigate the factors that influence parents to choose schools for their children, and whether the decision to choose schools is related to family characteristics, school characteristics, parental beliefs, or parental satisfaction. The findings and conclusions will provide the knowledge for understanding parents' perspectives on choosing schools for their children.

Four research questions are composed for this study. The first question centers on the relationship between family characteristics and school choice. That is whether the relationship between parents' position on school choice changes depending on family characteristics such as parental education level, family income, ethnicity, and sex. The second question relates to the school characteristics and school choice. The intention is to inquire into whether the relationship between parents' position on school choice changes depending on school characteristics such as school location, school size, school race composition, school quality, and school safety. The third question focuses on the relationship between parental beliefs and school choice, whether parental beliefs change depending on their choice of schools. Parental beliefs include (a) parental involvement in their children's education, (b) parental perceptions of their children's academic achievement, and (c) parental expectations of their children's education. The last question pertains to whether parental satisfaction changes depending on their choice of schools. Please see Chapter III for null hypotheses provided to answer the stated research questions.

### Importance of the Study

In the midst of this debate, stakeholders in America's education system are seeking answers to many questions. There are three important questions surrounding decision-making about school choices that should be considered. First, what are the particular contexts--such as family characteristics and school characteristics--in which choice decisions are made? Second, who wants choice, and who does not, and why? Third, is there a relationship between choice and parental beliefs and satisfaction? These questions will be addressed in the study.

Public educators are interested because they are concerned about the potential

damage that a particular form of choice, vouchers, might inflict on public school enrollments and because they seek responses, including intradistrict options, that will stem a potential exodus (Choy, 1998; Fuller, 1996; Geske, 1997; Goldhaber, 1997). Policy-makers are interested in the answer to these questions because of the criticism that under certain forms of choice, some schools will attract the brightest students, most supportive parents, and best teachers, leaving other schools to languish in mediocrity or worse (Carnegie Foundation, 1992; Moore & Davenport, 1990; Fuller, Elmore, & Orfield, 1996).

This study intends to contribute to our knowledge on parental characteristics and school choice. Most of the past research only studied school choice regionally. This approach is useful in understanding the local scene of school choice, but it loses sight of the national aspects of the school choice. This study, by using a national data set, is able to generalize the findings to the national scene and is important in contributing to the national debate on school choice. The findings and conclusions provide knowledge for school educators, as well as policy-makers. Therefore this study is more policy- than theory-oriented.

### Definition of Terms

The following terms need to be defined so that these research questions will be more clearly understood.

**Assigned school:** The public school district assigns the neighborhood school to its residents. The residents (parents) accept the assigned school as their children's school.

**Chosen school:** There are two possibilities in the chosen school category. In the first, parents choose a public school that is not located in their neighborhood. In

the second, parents favor a specific public school district so they choose to live in this area in order for their children to attend this neighborhood school.

**Religious private school:** Parents choose to send their children to a private school where parents have to pay tuition for their children, the school is affiliated with religion, and the school may be or may not be in their neighborhood.

**Non-religious private school:** Parents choose to send their children to a private school where parents have to pay tuition for their children, the school is not affiliated with religion, and the school may be or may not be in their neighborhood.

### Conceptual Framework for the Study

On the basis of the literature review, school choice is a function of such variables as family characteristics, school characteristics, parental beliefs, and parental satisfaction. This assumption provides a general framework for selecting variables for the study. Please see Figure 1 for detail.

### Limitations of the Study

The limitation of this study largely results from the fact that the study uses an existing database. Consequently the data were collected before the study was conceptualized and research questions formulated.

The National Household Education Survey was conducted in 1993. Some of the data information may not be updated. In addition, some issues of school choice may not be able to address by this data set. However the database is a rich one that facilitated the conduct of this study, although the nature of pre-existing data placed some modest limits on the study.

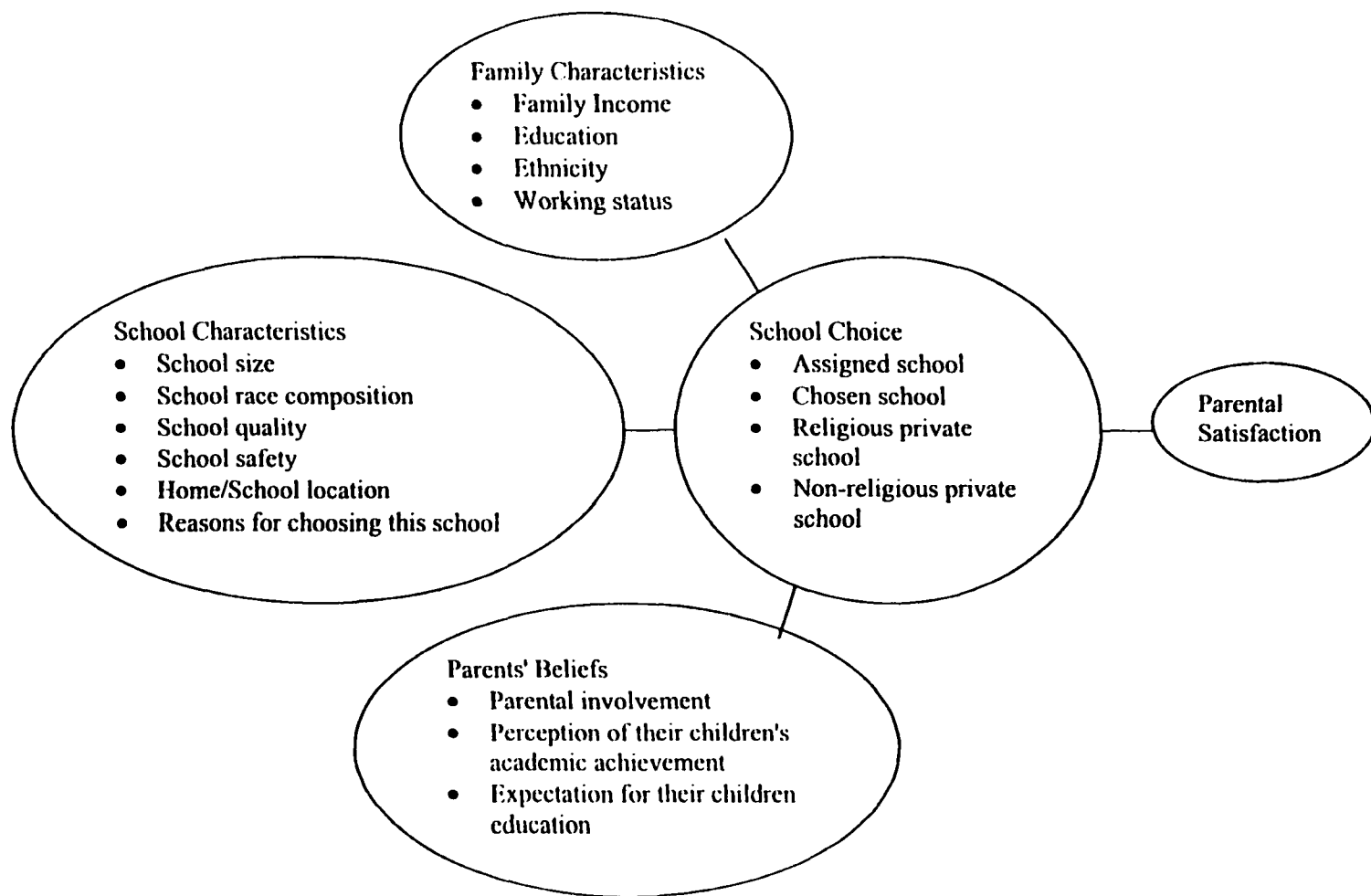


Figure 1. Conceptual Framework of Parental Characteristics and School Choice.



### Outline of the Dissertation

The next chapter is a review of the literature on (a) theory of school choice, (b) models for school choice, (c) pros and cons of school choice, (d) empirical studies of school choice, and (e) research questions for the study. Chapter III contains the proposed methodology for the current study. It discusses the methodological issues that include (a) secondary data, (b) sample, (c) research design, (d) research procedure, (e) instrumentation, and (f) hypotheses and data analysis. A description of the research findings is set forth in Chapter IV. Conclusions and implementations are found in Chapter V and the dissertation concludes with an Appendix.

## CHAPTER II

### REVIEW OF LITERATURE

The purpose of the study is to investigate the factors that influence parents to choose schools for their children, and whether the factors result from family characteristics, school characteristics, or parental beliefs. Choice in American education remains one of the most important and certainly more controversial issues in education reform movements. In the following section, Review of Literature, there are four major aspects. The first aspect is the philosophical and theoretical aspect of school choice. The second involves the models for school choice. The third includes both pros and cons as to choice in schooling. The last includes the empirical studies of school choice.

#### Theory of School Choice

School choice theories are drawn from a variety of disciplines, including philosophy, economics, sociology, and political science. Various proponents use these theories and perspectives to help explain and justify policies of school choice. This section will review (a) philosophical perspectives, (b) economic perspectives, (c) public choice perspectives, (d) decentralizational perspectives, and (e) educational perspectives.

#### Philosophical Perspectives

Kane (1992) reviews philosophical foundations of choice. He argues that the

choices we make and the resulting schools we create are grounded in the assumptions and commitments we make concerning the foundations of the human spirit and intellect. In this context, the human spirit is concerned with our ultimate conceptions of ourselves, our world, and our moral responsibilities. Schools play a major role in shaping these conceptions, since the nature of the school and its community place more or less emphasis on certain values over other values. Thus, the question of choice carries with it less concern for how children are taught and more concern that children are taught. Kane asks, "Who has the right, through the schools, to guide the emerging intellect and spirit of the individual?" Fundamentally, school choice calls for clarity concerning the respective rights and authorities of the individual and the state.

Therefore, a fine balance must be found in a democratic society in regard to educational choice that ensures that the state plays both a protective role and an enabling role in the intellectual development of its citizenry. Any new education policy, such as school choice, must face the test of how well it ensures the development of both the citizen and the individual.

### Economic Perspectives

School choice advocates often rely on economic or marketplace concepts and words to explain the virtues of school choice. Words such as consumer, competition, efficiency, excellence, supply and demand, and product are part of the economist's rhetoric.

Elmore (1988) discusses two dimensions of educational choice. The demand side explores the degree to which the consumer should play a central role in determining the nature of the educational product. In the supply side, the suppliers are

given a degree of autonomy and flexibility in responding to consumer demands. At present, consumers (i.e., parents and taxpayers) do not directly purchase their education system. Also, consumers and providers do not have autonomy in determining the nature of the school system; local boards and professional administrators operate within a framework of federal and state policies.

Wells and Crain (1992) offer a critique of economic rational choice theory. This theory assumes that when given tuition vouchers, families will act rationally, in a goal-oriented fashion, in the selection of the best school for their children. They suggest that such rationality is bounded or constrained by the “lack of market resources and their families’ perceptions of where they fit into the social hierarchy” (p. 66). It may be more difficult for poor and minority families to choose schools that are dominated by wealthy and Caucasian students. Wells (1991) found this was the case because poor and minority families placed greater emphasis on the comfort and familiarity of their neighborhood school even though they believed that distant suburban schools were better. Bridge and Blackman (1978) observed a similar tendency in parents who were inhibited in their gathering of information of school quality factors.

Wells and Crain (1992) raise some tough questions about parent choice and school improvement:

One could argue that maximizing on the comfort, familiarity, and convenience of a same-race school is an equally rational choice for an isolated and alienated Black family. But will choices based on such nonacademic factors lead to any real and meaningful educational improvement? Will these “rational choosers” place pressure on schools to provide better services to all children? (p. 70)

### Public Choice Perspectives

Drawing upon public choice theory, Weeres (1988) argues that communities

and schools have attempted to maximize their self-interest. It is evident that many communities that have the means have placed considerable emphasis on quality schools in order to be successful in attracting new businesses and manufacturing plants. Several states have engaged in considerable fanfare surrounding their efforts at school improvement. These efforts are reinforced by business leaders who argue that the choice to locate in certain places is based in part on the quality of education in the area. As Weeres points out, however, this form of competition has placed greater pressure on the centralization of educational decision-making, particularly at the state level, which ironically runs counter to permitting more decentralization and responsiveness to parents at the local school level.

### Decentralizational Perspectives

Decentralization theory offers some support for the school choice movement. The Center for Policy Research in Education (CPRE) (1990) reports on decentralization as a means for improving schools. The decentralization movement has also gained momentum from the argument that those who are ultimately responsible for the success of teaching and learning--teachers, students, and parents--need to participate in key school-level decisions about instruction.

The research reveals four forms of differential treatment states are being applied to local school districts: (1) accreditation based on outcome measures; (2) rewards for high-performing schools and sanctions for low-performing schools; (3) technical assistance for low-performing schools; and (4) regulatory waivers to encourage innovation and flexibility.

It is yet to be seen if these adaptations by the states will yield greater local control or just a more sophisticated form of state control and coercion. If the latter is

the case, then parental choice and parents' influence on their school of choice will be greatly constrained (Carlson, 1996).

### Educational Perspectives

Henry Levin (1990), a professor of education at Stanford University, places the recent debate over choice in education into a theoretical framework. This framework begins by considering both private and social purposes of education and their implications for a common educational experience versus choice by families. It proceeds to an examination of two systems of choice--market choice and public choice. Market choice refers to the use of an educational marketplace with a voucher financing mechanism. Public choice refers to a system of choice within the public domain in its many variants.

At the heart of this framework is the need to sustain social and democratic benefits of education while promoting choice in those areas that confer private and family benefits. He emphasizes that education lies at the intersection of two sets of competing rights. The first is the right of parents to choose the experiences, influences, and values to which they expose their children, i.e., the right to rear their children in the manner that they see fit. The second is the right of a democratic society to use the educational system as a means to reproduce its most essential political, economic, and social institutions through a common schooling experience. In essence, the challenge is that of preserving the shared educational experience that is necessary for establishing a foundation of shared knowledge and values for preserving the existing economic, political, and social order while allowing some range of choice.

Levin (1990) further compares market and public choice systems in education

for their ability to confer social and private benefits as well as their relative efficiency. As might be expected, a market approach to education would appear to be superior in terms of private benefits, while the public choice approach appears to be superior in terms of social benefits. It is difficult to find an advantage for either system in terms of efficiency. The market system appears to be more efficient in terms of meeting private tastes for education, and there is evidence of a slight superiority in terms of student achievement. However, the overall costs for sustaining the information, regulation, and other parts of the market system while providing, at least, minimum social protections appear high to prohibitive relative to a public choice approach.

The philosophies and theories that are being used to either defend or attack school choice offer interesting perspectives. In the next section, Models for School Choice, the elements of these philosophies and theories will emerge in their respective designs.

### Models for School Choice

School choice may be interpreted as a system of educational options for families that is supported by state and local funds and that is accessible to all students (Thomas, 1997). School choice comes in many models such as statewide, district-wide, school-wide, or as special programs within regular schools and will no doubt continue to expand and contract with the winds of educational change. In this section, several models of school choice will be discussed such as charter school, magnet schools, interdistrict open enrollment, intradistrict open enrollment, and voucher program and private school.

### Charter Schools

Charter schools are organized by individuals or groups and typically have special themes or offer alternatives for students at risk. Approval to operate for a limited period of time is granted by a sponsoring agent on the basis of a contract that specifies student outcomes. Charter schools have three years to meet their stated objectives, including achievement goals, or risk losing their charters (Carlson, 1996). In other words, charter schools not fulfilling the terms of their contract may be forced to close (Thomas, 1997). These schools are state funded but operate with a minimum of state control, an arrangement that permits teachers and others the opportunity to create their own schools (Carlson, 1996).

In sum, charter schools allow for the development of autonomous schools, substantially deregulated and free of direct administrative control by the government, but held accountable for achieving outcomes in student performance or other specified areas (Biller, 1995).

### Magnet Schools

Magnet schools began as an alternative to forced busing for integration. They offer specialized curriculum and/or teaching methods. A student may have to show evidence of special aptitude to attend some magnet schools (Thomas, 1997).

In order to be attractive to students, a diversity of programs that reflect the demands and interests of the community must be offered. The curricular emphasis most frequently found in magnet schools at elementary and middle levels is "subject matter" such as mathematics, science, or foreign language; at the high school level, the most common emphasis is career-vocational (Blank, Levine, & Steel, 1996).

A majority of districts (58%) assign students to their magnet schools by



lottery. The rest of magnet schools use specific selection criteria such as test scores, teacher recommendations, and grade point average. Magnet schools may be contributing to desegregation goals. In minority-dominant districts, magnet schools enroll higher-than-average proportions of white students. In white-dominant districts, the reverse is true (Blank, Levine, and Steel, 1996).

### Interdistrict Open Enrollment

Interdistrict open enrollment is a plan in which students may cross district lines and attend school. Tuition funds from the state follow the student, and transportation costs are usually provided (Rogus, 1996). There are limitations--space constraints and the need to maintain desirable levels of racial balance are most prevalent (Carnegie, 1992).

Besides space constraints and desegregation requirements, The Carnegie Foundation (1992) reports that parents' satisfaction with their neighborhood school is the most likely reason for limited participation. Further, the report judges that current policies have not resulted in creating sufficiently distinct choices; that most states have not provided sufficient transportation assistance to make other school choices realistic; and that states have not provided sufficient and consistent information or verified its accuracy, making it most difficult for parents to make an informed decision.

Even though the student involvement in statewide choice has been limited, the impact of these choices on smaller or poorer school districts has been dramatic in some cases. This can be attributed to the practice of having state funds follow the student. For all these reasons, The Carnegie Foundation (1992) concluded "that responsible and effective statewide school choice does not exist in America

today”(p.62).

### Intradistrict Open Enrollment

Intradistrict open enrollment permits parents and their children to select schools within the school district’s boundaries. Final placement is limited by available space and desegregation requirements, and there are usually some controls to prevent creating elitist schools limited to only the gifted, motivated, and well-behaved students (Carlson, 1996).

According to The Carnegie Foundation report (1992), there are only three successful examples of intradistrict open enrollment. They are sufficiently different from other forms of intradistrict open enrollment to make them notable. First, they have essentially eliminated the neighborhood school concept by requiring parents to be more active decision-makers concerning school choice. Second, they have placed a stronger emphasis on cooperation and school improvement throughout the entire system. Third, their respective school choice policies grew out of a long, painstaking, grassroots process.

The Carnegie Foundation report (1992) concluded that even though these systems have not solved all their problems, they seemed to have lit an innovative spark: "Because of choice there is a strong desire in these districts to continue innovating, to offer more and better options, and above all, to distribute opportunities fairly to all children" (p. 46). The report attributes much of this success to a willingness of those involved to work together in shaping a school choice policy that attempts to address concerns for school reform.

### Voucher Program and Private School

The earliest form of privatization of school choice was the voucher plan (Carlson, 1996). According to Lieberman (1989), vouchers are government payments to consumers or on behalf of consumers who may use the payment at any institution approved by the government for the purpose of the voucher. Rogus (1996) explains that the voucher plan is a system of cash payments or certificates supported by the government that enables public school students to attend schools of their choice, public or private. The primary goal of this option is equity; students from poor economic backgrounds or students dissatisfied with their local high school have the opportunity to attend a public or private school more suited to their needs (Bhagavan, 1996).

The Carnegie Foundation (1992) made three conclusions regarding the Milwaukee voucher plan. First, the plan failed to demonstrate that vouchers could spark school improvement. Second, a few students were enabled to leave the city's public schools, and they felt pleased with the decision they had made, but no evidence could be found that the participating students made significant academic advances or that either the public or private schools were revitalized by the transfers. Finally, Milwaukee simply did not have enough nonsectarian private schools willing or able to participate in the voucher plan to make much difference to the vast majority of children. More time might be needed, but early indications suggested that the voucher plan has some limitations and is not necessarily living up to its expectations for bringing about school reform in any sizable way (Carlson, 1996).

The vast majority of private schools are elementary schools; only one out of 13 private schools enroll students in grades 9-12 (U.S. Department of Education, 1991). Private schools tend to be very small; half of private schools enroll fewer than

150 students, and less than 3% enroll more than 750 students. Approximately 46% of private schools enroll less than 5% minority students; only a small percent of private schools enroll more than 50% of their students from minority population (U.S. Department of Education, 1991).

Goldhaber (1997) used 1988 National Education Longitudinal Study data to explore whether public-private high school choice would improve students' overall achievement. The results did not show private schools to outperform public schools. However, several studies indicated that private school students outperform public school students (Shanker & Rosenberg, 1992; Coleman, Hoffer, & Kilgore, 1982).

School choice comes in many models and will no doubt continue to expand and contract in response to educational change. The following section will delineate the arguments put forth by various interest groups for or against school choice.

### Pros and Cons of School Choice

As can be expected, any tampering with the status quo will elicit a response from persons most threatened by the change and those who see the greatest possible benefits. Probably the most controversial aspects of school choice surface when various approaches begin to cross the hazy lines between private and social purposes of education and a common educational experience versus choice by families. As we review the pro and con positions, the arguments detailed will link to these controversial aspects.

#### Argument for School Choice

Advocates make several arguments on behalf of choice plans. Lieberman (1990), for example, cites the following benefits: (a) choice introduces competition

and market processes to schooling; (b) choice provides the disadvantaged families with opportunity to choose better schools than those available in their neighborhoods; (c) choice leads to accountability and higher levels of professionalism; and (d) parents and students who exercise choice are more committed to their own education.

Lieberman's argument is consistent with Carnegie (1992), Young and Clinchy (1992) and Paulu (1989). The Carnegie Foundation report (1992) did add one more to this list of arguments: Choice is a fundamental right rooted in the American experience.

Paulu (1989) notes that choice can bring structural change to schools; enhance the probability that individual student needs will be addressed; improve students' overall educational performance; increase parental freedom, satisfaction and involvement; and increase opportunities for parents, particularly the disadvantaged, to become involved in their children's education.

The process of choosing schools is perhaps more important than the impact of choice on tangible outcomes such as growth in academic achievement (Cookson, 1994). The act of choosing creates a sense of specialness in the minds of parents and students (Hill, 1996; Nathan & Ysseldyke, 1994).

Charters make it possible for parents to join with teachers and administrators in creating and managing innovative public schools that are freed from many of the usual regulations and restrictions (Tirozzi, 1996). Finn (1996) found that schools in their sample benefit from hundreds of hours-per-week of voluntary labor contributed by parents, other family members, staff, friends, and students themselves--evidence that charters serve as empowering, cohesive forces within their communities. Charter schools also represent the greatest potential for genuine teacher/parent empowerment, since they write their own charter for their schools.

Chubb and Moe (1990) cite an additional advantage for open enrollment

choice plans. They argue that the presence of free market choice will counter the excessive bureaucratization of the public schools, and in so doing, open the door to substantial school improvement. They assert that the interaction of competition, school decentralization, and free choice will result in the demise of poor schools and the growth of good ones.

A voucher plan that would allow parents to send their children to public or private schools is justified because liberty and freedom, the major tenets of a democracy, mandate that families should have the right to choose the schools their children attend (Bierlein, 1993). Voucher proponents argue that the nation already has a two-tier school system--the floundering big-city schools and those in the rest of the country. Vouchers would especially benefit low-income families who for the first time would have opportunities to improve their lives by becoming consumers of education services. They see vouchers as a wake-up call for public schools, particular in the inner cities. (Friedman, 1997).

#### Argument Against School Choice

Opponents of school choice have raised several important concerns. Most importantly, they have questioned whether there are enough good schools to go around and, if not, what will happen to students that get left behind by school choice (Bastian, 1989). Opponents have also asked whether choice will reduce teacher-empowerment plans, since shifts in students will force a shift in teachers (Bastian, 1989). The process of school assessment is another concern of anti-choicers, who fear that the competitive arena of the open market may force some schools to focus on advertising strategies instead of real educational issues (Nathan, 1989). Opponents also wonder if many parents would or could make appropriate educational choices for

their children (Rinehartn and Lee, 1991). Finally, opponents of choice fear that such plans will only lead to the further Balkanization of America (Bhagavan, 1996).

Opponents conclude that the existence of such delineating structures will only help to unravel our loose social fabric and destroy our pluralistic and diverse country (Bastian, 1989; Bhagavan, 1996; Nathan, 1989; Rinehartn & Lee, 1991).

Shanker (1992) has expressed grave doubts about school choice. He believes that education is not a product to be purchased from a vendor, but rather it is a public good and, in a democracy, is part of the community's responsibility of preparing future citizens.

After careful study of choice programs in Holland, Canada, and Australia, Brown (1992) concluded:

Choice will not result in market incentives to improve education. Choice will not improve educational opportunities for the poor. Choice will promote traditional schools, not innovative ones. Choice will not alter the influence of professional educators or increase the influence of parents in the schooling process. (p.171)

In Brown's research, parents, students, and teachers continue to prefer traditional schools over innovative ones. He is fearful that choice programs will produce a dual school system of rich and poor schools, similar to the situation in Australia. Hlebowitsh (1995) expresses a similar fear that choice programs represent a serious threat to the core democratic purpose of public education.

The opponents strongly feel school choice is a misguided effort that is distracting the public from more serious forms of school reform. Choice gives the impression of being an easy way of improving schools while overlooking the need for additional resources and hard work (Carlson, 1996).

Major concern with charter schools relates to the notion that market accountability will ensure quality education (Geske, 1997). There are no guarantees

that charter schools will provide improvements in education, and time is needed to determine the results (Fuller, 1996). Major disadvantages of market choice include higher income families deriving more benefits from market choice and the fact that market choice will not necessarily produce public or social benefits, thereby undermining the democratic structures of society (Geske, 1997; Wagner, 1996).

Implementation of open enrollment plans could result in greater social stratification (Rogus, 1996). Such plans would sort students by race, income, and religion, and increase both social conflict and economic disparity. Critics of choice plans argue that school choice will not give more freedom to students, parents, and teachers, and that it will not help to resolve the crisis in public schools (Ehrenberg, 1996). A voucher program would be inefficient because increased administrative costs would use up funds now used for school services. Voucher plans were also supposed to be based on a consumer economic concepts, market approach that is not appropriate to education, because education is not something that can be sold away to the highest bidder (Tirozzi, 1996).

While these arguments for and against school choice give intriguing views, the following section will provide empirical evidence regarding school choice.

### Empirical Studies of School Choice

The following section reviews empirical studies of school choice as related to family characteristics, school characteristics, parental expectations, student achievement, parental satisfaction with school, and parental involvement in education. These are complicated variables that sometimes overlap in determining parents' position on school choice.



### Family Characteristics

Family characteristics that have been studied in relationship to schools of choice include parental education, family income, parental employment status, and race.

#### Parental Education

Research suggests that parents' perspectives on school choice differ according to parents' education level. Research indicates that more educated parents are more likely than less educated parents to exercise their choice either within public school choice plans or beyond public school systems (private schools). For example, in studying a public school open enrollment program across 20 school districts in Massachusetts, Fossey (1994) found that families living in districts with higher levels of parent education tend to choose schools. Cookson (1994) also reported that educated parents more frequently exercise choice than do the less educated. Witte (1993, 1996) reported two-year results of the Milwaukee Parental Choice Program and found choice parents report higher education levels than Milwaukee Public Schools parents. More than half of the choice mothers reported some college education. Better-educated parents had access to more information about schools and about the choice programs than did their less educated counterparts. It makes sense that those parents who are more aware of options and have more information on which to base their selection are more likely to engage in educational choice. Cookson (1994) warned that many of the families who exercise choice in the public sector may have limited knowledge of educational systems. Thus, it is critical that they receive help in acquiring information to make informed decisions. Lack of access to information is crucial if choice is to not lead to a stratified school system.

In the case of a San Antonio neighborhood comprising poor and working-class families, Martinez, Godwin, and Kemerer (1996) found that choosing parents were more than twice as likely as non-choosing parents to have attended college. Being Latino had a negative impact on choice through its substantial effect on mother's education.

Using the National Education Longitudinal Study of 1988, Plank (1993) found a sharp difference between those students in 10th grade private and public schools. Students who have parents with high levels of education were over-represented among all types of private schools; an over-representation of parents with lower education levels was found in all types of public schools of choice.

Some studies challenge claims that parents with higher education level favor school choice. In Schneider, Schiller, and Coleman's study (1996), their controversial findings showed that parents who had lower levels of education were more likely than those with more education to take advantage of choice. Findings of Lee, Croninger, and Smith (1996) indicated that education level is negatively associated with the respondent's likelihood to choose.

The finding that less educated (and minority) parents do have a high propensity to choose seriously challenges claims that expanded choice would be taken advantage of primarily by highly educated (and white) parents. Combined with another important factor that affects parents' perspectives on making choice — home location — the above argument may be further disproved: Parents with lower education levels who live in inner-cities have been shown to exercise their choice as well.

As the foregoing review suggests, parental perspectives of making school choice differ among parents' education level. Most of studies concluded that better-

educated parents are more active to exercise their choice either within public school choice plan or beyond public school systems (private schools). However, another important factor plays an important role also affects parental perspectives of making choice--home location. Parents who live in inner-city with lower education level do exercise their choice as well. In sum, parental social class position in combination with the location of their residency often determines which parents most effectively express choice.

### Family Income

Findings from research on the link between family income and school choice are mixed. Several studies indicated an inverse relationship between family income and choice, while others showed a direct relationship. The subject of family income is complicated because embedded into "income" are parents' education, home location, employment status, socioeconomic status, and other issues.

Using evidence from existing survey data, Plank, Schiller, Schneider, and Coleman (1993) concluded that low-income families would take advantage of expanded choice if made available. In an investigation of the effects of a tuition tax deduction plan on choice behavior in Minnesota, Darling-Hammond and Kirby (1985, 1988) had similar findings that low-income parents were more likely than higher-income parents to consider alternatives to their local public schools. Upper-income parents had less reason to consider alternatives because of their access to better schools. Similarly, Strate and Wilson (1991) found on average that low-income families in Detroit favored school choice policies.

Related to family income, parents' social class position in combination with the location of their residency often determines which parents most strongly support

choice. Suburban families hold less favorable attitudes about choice policies generally. Lee, Croninger, and Smith (1996) studied inner-city families and suburban families regarding their perceptions of the quality of their neighborhood schools and their support of school choices. They had similar findings that low-income families who reside in urban school districts, particularly those characterized by severe educational difficulties, favor choice and appear to see it as a vehicle for accessing better schools. Plank (1993), using the National Education Longitudinal Study of 1988, found an over-representation of parents with lower incomes in all types of schools of choice, showing that public schools of choice have students who come from a somewhat lower-income, less well-educated background in general than do assigned schools.

In a study of the United Kingdom's educational reforms, Woods (1996) examined social-class differences among parents and their relationship to choice, using PAsCI (Parental and School Choice Interaction) study data. Professional and middle class parents were more concerned than working class parents with the academic aspect of schools, together with their reputation, atmosphere and external physical image. This is much in line with the findings of West (1992). Her study examined why British parents consider private schools or schools in other districts. The findings indicated that middle-class parents and parents with academically able children are looking for high quality education, high expectations, and an atmosphere or ethos conducive to work. Working class parents placed greater emphasis on how their children felt about the school, plus other factors such as discipline, subjects offered, non-academic opportunities, and school distance from the home.

Some studies challenge the claim of the inverse relationship between family income and choice. Hirschman (1970) indicated that parents with greater income, and

those unconstrained by racial or ethnic barriers in neighborhood, can exercise choice among schools by choosing where to live. In addition, parents with sufficient income can consider private schools. Martinez, Godwin, and Kemerer (1996) came to similar conclusions that choosing families were more than twice as likely as non-choosers to have annual family incomes above \$35,000. Choosing families also tended to have fewer children. Lankford (1992), using a data set of 1980 in New York schools, also found that parents were sensitive to the social characteristics of other students, and the relative income of other families was an important determinant of school choice. They found it less appealing that parents seem to be motivated to increase the economic segregation of the educational environment beyond that already existing as a result of residential location. This is especially troubling given the increased potential for such segregation inherent in many proposed school choice plans.

Three studies reported a mixed relationship between income and the support of voucher program. In a study based on the 1988 National Education Longitudinal Study data, Goldhaber (1997) showed that upper-income families will benefit from voucher programs. Moreover, upper-income parents are more likely to send their children to private schools. Plank (1993) had similar findings that students whose families had higher incomes were proportionately over-represented in private schools. Of course, these results are not surprising, given that upper-income families are better able to afford the tuition of private schools. However, Sandy (1992) found opposite results than did Goldhaber (1997) and Plank (1993). Sandy (1992) used survey data from 759 persons who voted in a voucher proposal that appeared on the November 1978 ballot in Michigan. Results indicated that income and public school quality were inversely related to the support for the voucher. These findings are complicated by the inclusion of variables other than income: The probability of favoring the voucher

increased among African-Americans, Catholics, low-income families with children enrolled in private schools, residents of areas with low quality public schools and those voters who anticipated a tax break. The voucher received the least support among higher income groups, public school employees, those who anticipated tax increases, and those who believed the voucher would decrease the funding for their local public schools.

All of these results indicate that poor families in school districts with a weak resource base favor school choice as an educational policy. These findings also show that actual characteristics of school districts influence parents' positions on choice. Again, the home location – often related to income – is an important factor. Families in districts characterized by low property wealth, high proportions of poor students, low mastery rates on the state tests, and low graduation rates are more likely to favor choice; families in districts characterized by more positive values on these measures are more likely to oppose choice. In sum, parents who favor school choice are motivated by a desire to leave an undesirable school, and parents who do not favor school choice are motivated by a desire to stay in a desirable school.

These findings indicate that families who are often regarded as least likely to take action to aid their children's education *will* take advantage of the opportunity to exercise choice of a school, which more advantaged families already do.

### Ethnicity

Several studies demonstrate the tendency that minority parents favor school choice. Cookson (1994) reported that minority parents are more likely to exercise the choice option than are white parents. Similarly, Witte, Bailey, and Thorn (1993, 1996) found through evaluating a school choice program in Milwaukee that African-

Americans were dramatically over-represented in students applying to the choice program. The parental choice program has had the greatest impact on African-American students who comprise 73.5 percent of the choice students. African-Americans are 2.8 times more likely than whites to be in the choice program, and Hispanics are 3.9 times more likely. Schneider, Schiller, and Coleman (1996) similarly concluded that Hispanics and African-Americans showed a greater propensity to take advantage of school choice opportunities than whites and Asian Americans. Plank (1993), using the National Education Longitudinal Study of 1988, discovered similar findings that African-Americans and Hispanics are over-represented in public schools of choice.

In the case of Detroit schools, Lee et al. (1994, 1996) studied how inner-city and suburban families perceived the quality of their neighborhood schools and their support for school choice. They found that African-American inner-city families by far have the most negative perceptions of their neighborhood schools; they are especially concerned about basic issues of safety and teacher quality. These families also expressed the strongest support for more school options. Strate (1993), who also studied choice in the Detroit metropolitan area, found that, overall, the residents there are receptive to the idea of school choice, despite the area's history of extreme racial segregation. Both African-Americans and whites were supportive of school choice, but African-Americans were somewhat more supportive than whites.

These findings that minority (and less educated) parents do have a high propensity to choose challenges claims that expanded choice would be taken advantage of primarily by white and highly educated parents.

Some findings suggested that white parents might not favor school choice. Lee (1996) reported that parents living in predominantly white suburbs surrounding

downtown Detroit did not share with inner-city residents a negative view of their local schools; hence they felt much less urgency over school choice. Similarly, Strate (1993) found that many white suburbanites were relatively happy with the quality of the public schools. Many said they would not send their children to the schools of another district because they did not see any particular benefit to themselves or their children. They would just as soon retain the educational advantages that they already enjoyed. Plank (1993) concluded that choice and assigned schools appear to be similar to one another in their racial and ethnic distributions, although white students are slightly over-represented in assigned schools.

The existing studies concluded that minority families in inner-city school districts favor school choice policy. Minority families in inner-city school districts often have weak resources. They have to choose home location based first where they can afford to live, and usually there are no means for them to choose the school they want for their children. In comparison, white families in suburban school districts do not favor school choice policy. These families often had stronger resources, allowing them to choose the residential areas with desirable school districts. In effect, they exercised their school choice when making the decision of where to live. In sum, minority families who live in inner-city with weak resources favor school choice policy; white families who live in suburban area with strong resources do not favor school choice policy.

### Child's Sex

Several studies indicate that gender plays an important role in school choice. West (1995) indicated that more parents of girls than boys liked the school they were applying to because they were single-sex schools. Further they also liked the chosen



school because it was smaller. Similarly, David (1997) found that parents of daughters opted for single-sex girls' schools far more frequently than co-educational schools. Co-educational schools tended to be preferred more for sons than daughters. The findings of Martinez, Godwin, and Kemerer (1996) indicated that there are more female children than male children in choice programs. They found that female students were more likely to qualify for the program. Witte (1996) had similar finding that girls are slightly more likely to be in the choice program.

A few interesting observations emerge from the review of the studies in family characteristics of school choice. First, parental education level, income, race, and gender play important roles and are all important predictors of choice participation. Second, home location and race are strongly interrelated with all of the above factors. On one hand, white, suburban families, with higher income and higher parental education level have the propensity to choose public assigned schools or private schools and do not as often favor school choice policy. On the other hand, minority, urban families, with lower income and higher parental education levels are opting for school choice policy. These families have limited resources and are unable to exercise their school choice by choosing their home location or sending their children to private schools. Therefore, when the opportunities of school choice are available, these families will take advantage of the school choice policy.

### Perceived School Characteristics

Several variables fall into the category of school characteristics, including school/home location, school race composition, school quality, parental expectations and involvement in children's' education, student achievement, and parental satisfaction with the school.

### School/Home Location

Based on his study of New York schools, Lankford (1992) concluded that the importance of location decisions has not been fully taken into account in research on school choice. Determining support of school choice is complicated by the fact that deciding on a home location is a *de facto* choice about schools. When a family chooses a neighborhood in which to live, it is in essence selecting its children's school, because most children attend the "assigned" public school in their designated neighborhood attendance zone. The U.S. Department of Education survey (1991) found that 50% of public school parents report having considered the quality of public schools when making their residential location decisions and that 18% report public school quality as being the most important factor in their residential location decisions. Their support for choice is obvious – the choice was merely made up front by these families -- though they may not recognize this and may argue against the idea of school choice. To this group of people, the school's proximity to home is an important factor.

In contrast, urban poor and minority families have few opportunities to select a desirable neighborhood with a high-quality school because of the lack of resources and segregated housing conditions. These families are more likely to favor school choice. Lee (1994) found that more Detroit inner-city residents favor school choice than non-Detroiters and that school location proximity to home is not a critical issue.

Families who are unable to choose their home location due to limited resources and who reside in inner-city indicated that school's proximity to home is not a critical issue, because they believe that suburban schools are better than those in the city. They are willing to sacrifice the convenience of sending their children to a nearby school in order to have their children attend what they perceive as good

quality suburban schools.

### Race and Social Composition

Lee (1996) found that when poor and minority families choose schools, they may consider not only a school's overall effectiveness but its effectiveness with children who come from backgrounds like their own. Most of the parents chose schools because of neighborhood proximity and the racial and social composition of the school, rather than on the basis of instructional program (Bridge & Black, 1978). Wells (1996) reported on a recent study of low-income minority parents participating in St. Louis's metropolitan desegregation plan. The evidence suggests that very few parents considered the specific educational offerings of individual schools. Rather they relied on anecdotal information and the perceived social status of the school. Actually, most parents believed that suburban schools were better than those in the city, so in their minds there was little risk of making a bad choice. Willms and Echols (1993) discovered similar beliefs among the families in Scotland who decided to send their children to schools outside their neighborhood. Lower-status families believed that if they sent their children to schools that served higher status families, they would do better academically. From these evidences, Wells (1996) warned that students and parents do not act monolithically, responding to change in the structure of the educational system in a predetermined, goal-oriented fashion. Both race and class affect parents' perceptions, therefore the way they perceived school choice opportunities will not be the same. Some will actively seek out schools that they believe will help them attain higher status; others who fear competition or failure in a higher-status school and those who have lost faith in the educational system will most likely choose not to choose.

### School Quality

Previous research suggests that positions on choice will vary by family characteristics and the quality of schools. Lee, Croninger, and Smith (1996), and Lee (1994) indicated that more Detroit residents favor school choice than non-Detroiters. These positions are inversely related to the rating respondents give to their local school districts. Many of the low-income and minority families living in urban school districts who gave lower ratings to their public schools favor choice and appear to see it as a vehicle for accessing better schools. However, non-Detroiters are more likely to think their schools' achievement would worsen as a result of choice because those transferred students from inner-city might lower their school quality and achievement. In a study of analyzing public opinion on the issue of school choice from the Detroit metropolitan area, Strate (1993) had similar findings that parents who gave low rating to their public schools apparently saw school choice as an opportunity to improve education, regardless of the specific option. For the parents, the quality of the public schools in their own district was the most important factor affecting whether or not they would consider sending their children to school in another school district.

One of the arguments in school choice is the value promoted in public and private schools. Some parents chose private school over public school because of the emphasis of value in instructional programs. Ausbrooks (1997) compared the values emphasized in instruction among public schools, schools of choice, and private schools in San Antonio, Texas. The findings indicated that the public and private schools were more similar than different in the values they emphasized in their instructional programs. Both types of school stressed the importance of learning and promoted the development of a sense of right and wrong. The only major difference

was in the emphasis on religion. Martinez and Godwin (1996) also indicated that families that stress the importance of religion participate in choice programs or choose their children's school.

In summary, most families who live in inner cities assume that suburban schools are better than city schools, so they see school choice as an opportunity to improve their children's education. For these parents, the quality of the public schools is the most important factor affecting whether or not they send their children to school in another school district. On the contrary, families who reside in suburban think that their school quality would worsen as a result of choice because of those transferred low-achievement inner-city students.

#### Parental Expectation and Parental Involvement in Children's Education

Research findings suggest that families who favor the choice policy or send their children to private schools have higher expectations and more parental involvement (as well as higher socioeconomic status and educational level) than those who oppose choice.

Martinez, Godwin, and Kemerer's (1996) analysis indicated that the level of parents' educational expectations for their children significantly correlates with whether or not parents will be choosers. In addition, those families that actively choose express stronger feeling toward ethnic traditions and toward religion than non-choosers. Active choosers believe that discretionary income is better spent on aiding their children's education rather than on purchasing more household goods.

Witte (1993, 1996) examined two types of school choice programs in Milwaukee—the voucher private school and the interdistrict public school choice program. Eighty-seven percent of both voucher private school choice and interdistrict

school choice parents indicated that they expected their child to go to college or do postgraduate work.

Mothers' education indirectly affects choice: Women with more education have higher educational expectations of their children and participate in the child's education at home.

Findings from research show that parents who are more involved in their child's educational activities are more likely to participate in choice programs or choose their children's schools. Martinez, Godwin, and Kemerer (1996) concluded that the characteristics of the families who participate in the choice program have higher parental involvement, socioeconomic status, and academic performance. Witte (1993, 1996) also indicated that choice parents were significantly more involved in the education of their children before they entered the choice program than were Milwaukee Public Schools (MPS) parents and also more active than MPS parents in all areas of parental involvement. Involvement was measured in terms of parents contacting schools, parental activity in school organizations and activities, and parents working with their children at home. Driscoll (1993) used the data from the National Educational Longitudinal Study of 1988 to investigate public schools of choice and reached the similar conclusion that choice parents spent more time talking to their child about high school plans and were contacted less frequently about their child's behavior.

### Student Academic Achievement

Research on the impact of school and district characteristics and family's characteristics on parents' attitudes toward choice provides indirect evidence, suggesting that parents who emphasize the quality of their children's education are

more likely to choose their children's schools.

Several studies reported that there is a relationship between parental school choice and children's academic achievement. Many families who participate in choice programs or choose their children's school have children with higher levels of academic performance. Shanker and Rosenberg (1992) found that Catholic school students outperform public school students by seven points, and other private school students outperform public school students by six points. Coleman, Hoffer, and Kilgore (1982) found no subject in which public school students scored higher than private school students. Greene and Peterson (1996) have similar findings in terms of academic achievement. They found that the reading scores of voucher students in their third and fourth years were from 3 to 5 percentile points higher than those of students who applied to the program but who were not selected and stayed in public school. Math scores were 5 and 12 percentile points higher for the third and fourth years, respectively.

Several studies have controversial findings in terms of student achievement and choice. Goldhaber (1996) concluded that overall private schools have no statistically significant advantage in the education of mathematics or reading. This finding is replicated when the comparison was made between public schools and elite private schools. Gamoran (1996) used data compiled by the National Educational Longitudinal Study (NELS) to measure the effects of magnet schools. The study is less favorable for supporters of private school choice. Although Catholic schools exhibited higher achievement in math, if public schools created a comparably focused academic environment, researchers concluded that this difference would likely disappear. More strikingly, secular private schools appear to have no achievement advantages. A finding that is consistent with Witte's (1993, 1996) assessment of the

Milwaukee private school voucher program found that the choice students in this program enter very near the bottom in terms of academic achievement, and parental attitudes reflected this standing. Also the academic achievement for voucher private school choice students have been consistently below the MPS.

Student achievement is not due solely to the type of school. Shanahan and Walberg (1985) found that major differences in student achievement appear to be due to fixed characteristics of students and outside experiences and not to the hypothesized superiority of private schools. Hanushek (1992) shows that the mother's employment status, the number of children in the household, the parents' religious preferences and values, the structure of the family, and the family's participation in welfare programs significantly influence educational performance. Williams and Carpenter (1990) discovered similar beliefs that differences between public and private school student achievement were attributable to student socioeconomic characteristics and not to sector differences. Similarly, Lee and Bryk (1989) found that the relative achievement differences between public and private schools students were the result not only of students' racial and socioeconomic characteristics but also of the average number of advanced courses taken, amount of homework assigned, and staff problems at the school. Cookson (1993) found that attendance in private school is not directly connected to student achievement, once the background characteristics of students are taken into account.

There is strong evidence that private secondary schools in general and high-status private secondary schools in particular influence their graduates' postsecondary educational opportunities, whatever their level of academic attainment. This effect is independent of students' background characteristics (Cookson, 1993).

In summary, findings from research on student achievement and school choice



are mixed. Many families who choose their children's school, especially private schools, have higher educational levels and income. In addition, most of them are white families. Their children usually have higher levels of academic performance. However, families who participate in choice program with lower income and are minorities have children with lower level of academic performance. In addition, the differences between public and private school student achievement were attributable to student socioeconomic characteristics and not to sector (private or public schools) differences. That is, the relative achievement differences between public and private schools students were the result not only of students' background characteristics but also of school factors, homework assigned and advanced courses taken.

#### Parental Satisfaction With School

Overall, research shows that parents who are dissatisfied with their children's school have the tendency to look for alternatives for their children, either by participating in choice programs or looking for private schools. After parents made the school choice for their children, parents tended to have higher satisfaction levels in the choice school than prior school.

Several studies demonstrate that parents who are dissatisfied with their children's schools are indeed more likely to select another school. Witte (1993, 1996) reported that choice parents were less satisfied with their child's public schools than the average Milwaukee Public Schools parents. Parental satisfaction with choice schools increased significantly over satisfaction with prior public schools. Satisfaction of choice parents with their prior schools was significantly less than satisfaction of the average MPS parent. Parental attitudes toward their schools and the education of their children were much more positive than their evaluations of prior

public schools. The dissatisfied parents are active in schools, have high expectation for their children, and are relatively well educated. Their greatest concerns were with the amount the child learned and with school discipline; parents were least dissatisfied with such factors as school location, which have little to do with the operation of the school. Parents may have been dissatisfied with their children's prior public schools because their children were not doing well in those schools. Ogawa and Dutton (1997) indicated that parents who are more likely to seek interdistrict transfers are simply less satisfied with their children's schools. Parents who are more likely to use vouchers also have more opportunities to exercise voice and invest in educational quality, but they are also less satisfied. Strate (1993) similarly concluded that parents who were dissatisfied with the quality of public schools were more likely to support school choice than those who were satisfied.

On the other hand, parents who enroll their child in a chosen school will be more satisfied with their child's school. Driscoll (1993) used the data from National Educational Longitudinal Study of 1988 to investigate public schools of choice as compared with other public schools and also explore the importance of those positive beliefs and feelings that choice students and parents have about their schools. Results found that choice parents were significantly more satisfied with their child's education. They believed more strongly that their child enjoyed school and was challenged by it, that the homework assigned was worthwhile, and that the school was a safe place. The analyses showed that they did not exhibit higher expectations for their child's education in terms of level of educational completion (college, masters, or doctorate). In other words, although they had significantly more positive beliefs about their child's school experience, they did not translate these beliefs into higher expectations for completion of college or professional degrees. Martinez and

Kemerer (1996) have similar findings in terms of parental satisfaction. Choosing parents were significantly more satisfied with their children's schools, more positive in school functions, and more involved in their children's homework and other educational activities than non-choosing parents.

Those who are satisfied with their children's school often do not favor choice. Lee, Croninger, and Smith (1996) indicated that suburban school and private school administrators, as well as the families they serve, however, might oppose choice. Suburban school administrators and families may not want to make the changes in school programs required to accommodate students from diverse social and educational backgrounds, particularly if they think changes will undermine the quality of their local schools. In their Minnesota study, Darling-Hammond and Kirby (1985, 1988) reported that upper-income parents had less reason to consider alternatives because of their access to better schools. Strate and Wilson (1991) also found that suburban families hold less favorable attitudes about choice policies generally.

One of the issues about school choice is whether parent's satisfaction is based on the action of choice or the quality of the school. Driscoll (1993) pointed out that choice parents believe the school is better because it is selective. Its criteria of worth is its very selectivity, measured not by what students achieve or what teachers do but by the fact that not everybody gets admitted. Other than the fact that choice schools are more selective, data showed nothing that makes them different in terms of academic achievement from other schools (Goldhaber, 1996; Gamoran, 1996; Witte, 1993, 1996). The evidences suggested that choice itself is not the engine for real change. Allowing schools to become more selective may make people feel more positive or satisfied with the schools, but it does not appear to change the quality of

the educational experience in any other measurable way.

### Reasons of Choice

Different groups of parents start thinking about school choices at different times and for different reasons. West (1995) examined how parents choose secondary schools for their children, based on interview data gathered from 70 London-area parents. The reasons most frequently mentioned as most important were the school's academic record/good education, the child's wishes/happiness, and the school's location. Through interviews, Lindle (1991) concluded that Catholic school parents actively chose their Catholic elementary school for religious education reasons. None of the public school parents mentioned values as a particular attraction to their school. None of the parents mentioned better performance due to the act of choice. However, parents mention the academic reputation of the school in listing reasons to choose a school. Parents did not mention issues of equity or wealth when they discussed reasons for choosing a school. Only a couple of public school mothers suggested that they could not afford to send their children to a private school. Lankford (1992) used a data set of 1980 in New York schools and found that parents seek out private schools to improve the quality of education that their children receive and that parents choose between elementary public and private schools partially based on the academic performances of student in those schools. When given a choice, parents opt for quality. Goldring and Bauch (1993) surveyed parents of students attending Catholic schools and public magnet schools. Parents were asked about their reasons for choosing a particular school, about their own involvement in the school, and about the school's activities and responsibilities for facilitating the home-school relationship. Reasons for school choice were divided into five categories: academic

program and college preparation, discipline policies and safety, moral development and religious education, preparation for jobs, and closeness to home. Crawford (1996) surveyed parents' reasons for sending their children to private or Catholic schools. Reasons are religion and value, discipline and safety, school quality such as teachers, curriculum, and leadership, school size, and community support and parent involvement. These findings support the view of school choice proponents that schools of better quality will benefit through a choice process.

### A Summary of the Literature Review

Using choice to improve education is a serious and complex task that is not easily amenable to guidance by simple ideological principles. The literature suggested that the idea that choice will produce better results with less public authority or bureaucracy is highly problematic. A good school choice plan should seriously take into account both the distributional impacts of choice and the achievement effects for specific groups of students (Fuller & Elmore, 1996).

The existing research of school choice related to family characteristics and school characteristics is summarized as followed. There are choices (a) within public schools such as charter schools, interdistrict open enrollment, intradistrict open enrollment, and voucher programs; and (b) beyond public school systems such as private schools affiliated with religion and without religion. How parents choose schools depends on many factors such as family income, parents' education level, race, home/school location, school characteristics, and parents' attitudes and beliefs. There are four different routes that parents choose schools.

First, parents with higher income, higher education level, and without concern for proximity of school and home will most likely choose private schools for their

children. These parents have no resource restraints and are able to choose where they live, where their children attend schools, and are not restricted by the public school systems. A higher proportion of white families is in this route.

The second route, parents with higher income, higher education, but with concern for proximity of school and home have the likelihood of choosing public assigned schools for their children. These parents are able to choose their home location based on good quality suburban-schools, so their children are able to attend these good suburban neighborhood schools. There is also a higher proportion of white families in this route.

The third route is that parents who have lower income, higher education, and no concern for proximity of school and home have a higher tendency to choose the public chosen schools for their children. These parents are unable to choose their home location based on the location of good suburban schools or private schools because of resource restraints. Therefore, the proximity of school and home is not a critical issue for them. Instead the important issue is to give their children a good education through a good school. In addition, these parents have relatively higher education levels, so they are aware of the public school alternatives. Most likely these families reside in urban areas and are made up of a higher proportion of African-American parents.

Lastly, the parents with lower income, lower education levels, but with concern for proximity of school and home have the likelihood of staying in inner-city public assigned schools for their children. Again, because of resource restraints, these parents are unable to afford housing in nice suburban areas; and because of their limited knowledge, they might choose not to choose or do not want to take the risk to choose schools for their children. Therefore, they might just stick with what they

have. There is also a higher proportion of African-American families in this route.

### Contributions of the Study

This study intends to contribute to our knowledge on parental characteristics and school choice. Most of the past research only studied school choice regionally. This approach is useful in understanding the local scene of school choice, but it loses sight of the national aspects of the school choice. This study by using a national data set is able to generalize the findings to the national scene and is important in contributing to the national debate on school choice. The findings and conclusions provide knowledge for school educators, as well as policy-makers. Therefore this study is more policy- than theory-oriented.

### Research Purpose and Questions

#### Purpose of the Study

The purpose of the study is to investigate the factors that influence parents to choose schools for their children, and whether the factors are family characteristics, school characteristics, parental beliefs, or parental satisfaction. The findings and conclusions will provide the knowledge for understanding parents' perspectives on choosing schools for their children.

#### Research Questions

Four questions are composed for this study. The first question centers on the relationship between family characteristics and school choice. Specifically, the research asked whether the parents' position on school choice changes depending on

family characteristics such as parents' education level, income, race, and child's sex. The second question relates to school characteristics and school choice. The intention is to inquire into whether the parents' position on school choice changes depending on school characteristics such as school location, size, race composition, quality, and safety. The third question focuses on whether there is a relationship between parental beliefs and school choice. Parental beliefs include (a) parental involvement in their children's education, (b) parental perceptions of their children's academic achievement, and (c) parental expectation of their children's education. The last question pertains to whether there is a relationship between parental satisfaction and school choice.

Here is a list of the types of questions the researcher hopes to answer:

1. Which family chooses school? Who wants choice? Who does not? Do parents who choose schools vary by their educational level, income, race, and gender?
2. What kinds of schools do parents choose? What quality do parents consider important in choosing school? Do families who choose schools consider different qualities than families who do not choose? What is the relationship between reasons of choice and school types?
3. What is the relationship between school choice and parental beliefs? What is the relationship between choice and parental perceptions of their child's academic achievement? What is the relationship between choice and parental expectations of their child's education?
4. What is the general relationship between school choice and satisfaction?



### Definitions of Terminology

The following terms describing four types of school choice need to be defined so that these research questions will be more clearly understood:

**Assigned school:** The public school district assigns the neighborhood school to its residents. The residents (parents) accept the assigned school as their children's school.

**Chosen school:** There are two possibilities in the chosen school. In the first, parents are in the school choice plan and choose a public school that is not located in their neighborhood. In the second, parents favor a specific public school district so they choose to live in this area in order for their children to attend this neighborhood school.

**Religious private school:** Parents choose to send their children to a private school where parents have to pay tuition for their children, the school is affiliated with religion, and the school may be or may not be in their neighborhood.

**Non-religious private school:** Parents choose to send their children to a private school where parents have to pay tuition for their children, the school is not affiliated with religion, and the school may be or may not be in their neighborhood.

## CHAPTER III

### METHODOLOGY

This study investigated the factors that influence parents to choose schools for their children. Family characteristics, school characteristics, parental beliefs, and parental satisfaction are taken into consideration. This chapter discusses the methodological issues that include (a) secondary data, (b) sample, (c) research design, (d) research procedure, (e) instrumentation, and (f) hypotheses and data analysis.

#### Secondary Data

This study used existing national data to investigate parental characteristics and school choice. This type of data is called secondary data. According to Best and Kahn (1993), secondary analysis is defined as “reanalyzing the data gathered by a previous investigator and may involve different hypotheses, different experimental designs, or different methods of statistical analysis” (p.124). In this study, the data were gathered by National Center for Education Statistics (NCES), however, this researcher used alternative methods of analysis. Kiecolt and Nathan (1985) and Best and Kahn (1993) argued that secondary analysis has the following advantages:

1. The new investigator brings a fresh point of view to the investigation and may think of different questions to be raised or hypotheses to be tested.
2. Secondary analysis may bring greater expertise to the area of investigation and greater skill in experimental design and statistical analysis.
3. The reanalysis would involve less expense in both time and money.

Because the data are already available, a more moderate appropriation of funds would be possible. It would not be necessary to intrude upon the time of subjects whose primary activities had been diverted in the original investigation.

### Sample

The data for this study were extracted from the School Safety and Discipline (SS&D) component of the 1993 National Household Education Survey (NHES:93). Parents with children in 3rd through 12th grades from the 50 states and the District of Columbia were interviewed. The total number of completed SS&D interviews was 12,680, with 2,563 interviews with parents of 3rd through 5th grades, and 10,117 interviews with parents of 6th through 12th grades.

Among 12,680 parents, 10,017 parents (79%) chose assigned schools for their children. 1,382 parents (10.9%) chose chosen schools for their children, 1,031 parents (8.1%) chose religious private schools for their children, and 250 parents (2%) chose non-religious private schools for their children.

In the SS&D interview, the respondent was the parent or guardian living in the household who was the most knowledgeable about the care and education of their children enrolled full time in grade 3 through 12. The interview provided information concerning school characteristics, child characteristics, family characteristics, parents' education, and household characteristics. Please see Appendix A for variables that were compared with school choice in detail. Because of the complex sampling techniques and the need for quick and accurate administration, the NHES:93 was conducted using computer-assisted telephone interviewing (CATI) technology.

### Weighted Sample

The households were sampled within clusters in order to effect significant cost savings. With this method of cluster sampling, the number of telephone numbers that need to be dialed is at least 50 percent less than what would be needed if all telephone numbers were dialed at random. Because the sample design of NHES:93 involved stratification, disproportionate sampling of certain strata, and clustered probability sampling, the resultant NHES:93 sample was not a random sample. Therefore, a relative sample weight, which was based on NHES:93 parents' final weight, was used not only to approximate the population but also to adjust it down to the actual sample size of the study. Thus the findings of the study are generalizable to overall national parents who were or were not making school choice. The following are the details in the process of weighted sample.

Oversampling by the characteristics of the prefix area had two effects. First, the oversampling increased the sample size for minorities because they were more heavily concentrated in the prefix areas that were oversampled. Therefore, the sampling errors for estimates of these groups were reduced due to the increased sample size. On the other hand, not all minorities were found in the oversampled prefix areas. Thus, differential sampling rates were applied to persons depending on their telephone prefix. Using differential rates increased the sampling errors of the estimates. These increases partially offset the benefit of the larger minority sample sizes. When making overall national estimates from the survey data, weights are applied to adjust for the oversampling of minorities.

In sum, there were three steps to adjust the weight of sample. The first step was the weighting associated with the sample of telephone numbers. This weight was also adjusted for households that had more than one telephone number, hence more

than one chance of being included in the sample. The second step was the weighting associated with children misclassified and sampled for the wrong path. The third step was to further adjust the weights to account for nonresponse to the interview.

### Research Design

The sampling method used is a variant of random digit dialing (RDD) procedures described in Waksberg (1978). The first step in the sampling process was to form a list of all existing telephone area codes and prefix numbers for the 50 states and the District of Columbia. A prefix number is a three-digit telephone exchange. All possible combinations of two-digit numbers were then added to these numbers to create a list of all the possible first eight digits of the 10 digits in telephone numbers. These eight-digit numbers were treated as Primary Sampling Units (PSUs), or telephone clusters.

A random sample of PSUs was selected. Adding a random two-digit number to the eight-digit cluster formed a prime telephone number. The prime number was then dialed to determine if it was residential. If it was residential, the PSU was retained in the sample. If the prime number was not residential, then the PSU was rejected and no further calls within the PSU were made. The sampling method for this study used a fixed number of telephone numbers per PSU, rather than a fixed number of households per PSU.

### Research Procedures

The procedures used in the data collection included the use of CATI, staff training, interviewer assignment and contract procedures, and quality control. Interviewer training was conducted over a 3-week period in late January and early

February 1993. Data collection quality control activities continued during training and data collection. During interviewer training, interviewers were paired with one another and they conducted role-play interviews on telephones monitored by supervisors. When interviewers began actual data collection, they were monitored on an ongoing basis by telephone center supervisors.

### Instrumentation

Two instruments were used in the NHES:93, the screener and the interview questions. The purpose of the screener was to determine whether the sampled telephone number belonged to a household, to identify those households eligible for the study, and to collect information required for sampling household members for extended interviews. The first series of screener questions determined whether the phone number was residential and whether the person on the telephone was eligible to answer the questions. The second series of screener items determined if any household member was eligible to be the subject of an interview. The third series of screener items determined whether children or youth age 3 to 21 in the household were enrolled in or attending a school or an alternative educational program, and the grade or year of school in which they were enrolled. The final series of questions recorded the parent or guardian in the household who was the most knowledgeable about the sampled child's care and education and that person's relationship to the sampled child.

The SS&D interview questions for the study consisted of the following areas: (a) school characteristics and environment; (b) family characteristics; (c) parents' education and household characteristics. There are 30 items in total: 12 items on school characteristics and environment, 13 items for family characteristics, and five

items for parents' education and household characteristics. The completion rate for the parents of 3rd through 12th graders was 73.5 percent. Please see Appendix A for Interview questions.

### Hypotheses and Data Analysis

The researcher used the public release data file for the SS&D component of the NHES:93. The data was analyzed using descriptive and inferential statistics. The following hypotheses are provided to answer the stated research questions.

#### Research Question 1

Does the parents' position on school choice change depending on family characteristics? Which family chooses a school? Who wants choice? Who does not?

Variables of family characteristics such as mother's educational level, father's educational level, family income, ethnicity, child's sex, parents' working status, and types of parents (birth, adoptive, or step-parents) may have an impact on making choices in schooling.

#### Null Hypotheses

1. There is no difference in the proportion of mother's educational level among four types of school choice (assigned, chosen, religious private, and non-religious private school).
2. There is no difference in the proportion of father's educational level among four types of school choice (assigned, chosen, religious private, and non-religious private school).
3. There is no difference in the proportion of family income among four types

of school choice (assigned, chosen, religious private, and non-religious private school).

4. There is no difference in the proportion of child's ethnicity among four types of school choice (assigned, chosen, religious private, and non-religious private school).

5. There is no difference in the proportion of child's sex among four types of school choice (assigned, chosen, religious private, and non-religious private school).

6. There is no difference in the proportion of mother's working status among four types of school choice (assigned, chosen, religious private, and non-religious private school).

7. There is no difference in the proportion of father's working status among four types of school choice (assigned, chosen, religious private, and non-religious private school).

8. There is no difference in the proportion of types of mother (birth, adoptive, or stepmother) among four types of school choice (assigned, chosen, religious private, and non-religious private school).

9. There is no difference in the proportion of types of father (birth, adoptive, or stepfather) among four types of school choice (assigned, chosen, religious private, and non-religious private school).

The first research question was analyzed using chi-squared tests. The analyses enabled the researcher to determine if there are any differences in parents' position on school choice when family characteristics are taken into consideration.

## Research Question 2

Does the parents' position on school choice change depending on school



characteristics? What kinds of schools do parents choose? What qualities do parents consider important in choosing school? Do parents value these qualities differently? What is the relationship between reasons of choice and school types?

Variables of school characteristics such as school/home location, school size, race composition, school overall quality, school safety, and reasons for choice may influence parents' choice of schooling.

### Null Hypotheses

1. There is no difference in the proportion of parents who chose their home location based on school options among four types of school choice (assigned, chosen, religious private, and non-religious private school).
2. There is no difference in the proportion of children's school located in neighborhood among four types of school choice (assigned, chosen, religious private, and non-religious private school).
3. There is no difference in the proportion of school size among four types of school choice (assigned, chosen, religious private, and non-religious private school).
4. There is no difference in the proportion of race composition among four types of school choice (assigned, chosen, religious private, and non-religious private school).
5. There is no difference in the mean score of "children challenged at school" (according to the parent interviewed) among four types of school choice (assigned, chosen, religious private, and non-religious private school).
6. There is no difference in the mean score of "children enjoyed school" among four types of school choice (assigned, chosen, religious private, and non-religious private school).

7. There is no difference in the mean score of "teachers maintained discipline" among four types of school choice (assigned, chosen, religious private, and non-religious private school).

8. There is no difference in the mean score of "student and teacher respected each other" among four types of school choice (assigned, chosen, religious private, and non-religious private school).

9. There is no difference in the mean score of "principal maintained discipline" among four types of school choice (assigned, chosen, religious private, and non-religious private school).

10. There is no difference in the proportion of perceived school safety among four types of school choice (assigned, chosen, religious private, and non-religious private school).

11. There is no difference in the reasons for choosing school among four types of school choice (assigned, chosen, religious private, and non-religious private school).

The second research question was analyzed using chi-squared tests for school location, size, race composition, safety, and reasons for choice; and one-way ANOVA was used to analyze school quality. The analyses enabled the researcher to determine if there are any differences among school choice when school characteristics are taken into consideration.

### Research Question 3

What is the general relationship between school choice and parental beliefs? What is the relationship between school choice and parental involvement? What is the relationship between school choice and parental perceptions of their child's academic

achievement? What is the relationship between school choice and parental expectations of their child's education?

Variables of parental involvement such as “talk to child about school activity,” “attend school meeting,” “attend school events,” and “act as volunteer at school,” may influence parents’ choice of schooling. Variables of parental perception of child’s academic achievement may have an effect on parents' choice of schooling. In addition, variables of parental expectation such as thinking that the child will graduate from high school, will attend school after high school, and will graduate from a 4-year college may also have an impact on parents’ choice of schooling.

### Null Hypotheses

1. There is no difference in the proportion of parents talking to child about school activities among four types of school choice (assigned, chosen, religious private, and non-religious private school).
2. There is no difference in the proportion of parents attending school meetings among four types of school choice (assigned, chosen, religious private, and non-religious private school).
3. There is no difference in the proportion of parents attending school activities among four types of school choice (assigned, chosen, religious private, and non-religious private school).
4. There is no difference in the proportion of parents acting as volunteers at school among four types of school choice (assigned, chosen, religious private, and non-religious private school).
5. There is no difference in the proportion of parents who think their child has high academic achievement in the classroom among four types of school choice

(assigned, chosen, religious private, and non-religious private school).

6. There is no difference in the proportion of parents thinking that their children will graduate from high school among four types of school choice (assigned, chosen, religious private, and non-religious private school).

7. There is no difference in the proportion of parents thinking that their children will attend school after high school among four types of school choice (assigned, chosen, religious private, and non-religious private school).

8. There is no difference in the proportion of parents thinking that their children will graduate from a 4-year college among four types of school choice (assigned, chosen, religious private, and non-religious private school).

The research question was analyzed using independent chi-squared tests. The analyses involve four types of school choice (assigned, chosen, religious private, and non-religious private school), and parental involvement, parental perception, and parental expectations. The analyses enabled the researcher to determine if there are any differences among school choice when parental involvement, parental perceptions, and parental expectations are taken into consideration.

#### Research Question 4

What is the relationship between school choice and parental satisfaction?

Variables of parental satisfaction such as satisfaction with school, teacher, academic standards, and discipline may influence parents' choice of schooling.

#### Null Hypotheses

1. There is no difference in the mean parental satisfaction with the school among four types of school choice (assigned, chosen, religious private, and non-

religious private school).

2. There is no difference in the mean parental satisfaction with the teachers among four types of school choice (assigned, chosen, religious private, and non-religious private school).

3. There is no difference in the mean parental satisfaction with the academic standards of the school among four types of school choice (assigned, chosen, religious private, and non-religious private school).

4. There is no difference in the mean parental satisfaction with the order and discipline at the school among four types of school choice (assigned, chosen, religious private, and non-religious private school).

The research question was analyzed using one-way ANOVA for parental satisfaction. The analyses used school choice as the independent variable and satisfaction with school, teacher, academic standards, and school discipline as dependent variables. The analyses enabled the researcher to determine if there are any differences among school choice when parental satisfaction is taken into consideration.

### A Summary of the Methodology

The study investigated the factors that influence parents to choose schools for their children. There are basically four questions to inquire into the relationship between parental characteristics and school choice. The first question was to inquire into the relationship between parents' position of school choice changed depending on family characteristics such as parental education level, family income, child ethnicity and sex, and parental working status.

The second question was to inquire into the relationship between parents'

position of school choice change depending on school characteristics. Rank order was then assigned based on the mean, and rank-order correlation was calculated to inquire into the congruence or disparity between school quality and school choice.

The third question was to inquire into the relationship between school choice and parental involvement, parental perception of their children's academic achievement, and parental expectation of their children's education.

The fourth question was to inquire into the relationship between school choice and parental satisfaction. Rank order was also assigned based on the mean, and rank-order correlation was calculated to inquire into the congruence or disparity between parents' satisfaction and school choice. The following chapter reports the results of these four research questions.

## CHAPTER IV

### RESULTS

The study investigated the factors that influence parents to choose schools for their children. This chapter reports the results of four kinds of relationship between parental characteristics and school choice: (1) relationship between family characteristics and parents' position on school choice; (2) relationship between school characteristics and parents' position on school choice; (3) relationship between parental beliefs and parents' position on school choice; and (4) relationship between parental satisfaction and parents' position on school choice.

The researcher also conducted discriminant function analyses to determine whether there were differences among the parents who sent their children to assigned, chosen, religious private, and non-religious private schools in family characteristics, school characteristics, parental beliefs, and parental satisfaction. In order to have relatively simple discriminant functions, only the absolute value of correlation coefficients greater than 0.35 are included in the interpretation, although all the coefficients are displayed. An alpha of .05 was used with all inferential procedures in this study, since it is a customary set for behavioral science (Hinkle, Wiersma, & Jurs, 1994).

#### Research Question 1

Does the parents' position on school choice change depending on family characteristics? Which family chooses a school? Who exercises choice? Who does

not?

### Analysis of Family Characteristics

The first research question was analyzed using chi-squared tests. The analyses involved dependent variable types of school choice (assigned, chosen, religious private, and non-religious private school) and independent variable family characteristics (parental educational level, family income, child's ethnicity and sex, parental working status, and types of parents). The analyses enabled the researcher to determine if there are any differences in parents among the four types of school choice when family characteristics are taken into consideration.

#### Mother's Education Level

Distribution of school choice in relation to the mother's education level is displayed in Table 1. The null hypothesis is rejected. Therefore, there is a relationship between mothers' education level and the type of school they choose ( $\chi^2 (12)=347.91$ ,  $p<.001$ ). The data indicated that of all mothers with children in assigned, chosen, or religious private schools, by far most mothers have a high school diploma or associate degree. Of those with children in non-religious private schools, most have an associate, bachelors, or graduate degree.

#### Father's Education Level

Distribution of school choice in relation to the father's education level is displayed in Table 2. The null hypothesis is rejected. Therefore, there is a relationship between fathers' education level and the type of school they choose ( $\chi^2 (12)=252.66$ ,  $p<.001$ ).



Table 1  
Distribution of School Choice in Relation to Mother's Education Level

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious Private	347.91	12	***	2%
<= 11th grade	16.8%	18.9%	4.2%	2.7%				
High school diploma	37.4%	35.9%	29.1%	17.1%				
<= Associate degree	29.8%	29.9%	35.2%	36.9%				
Bachelor's degree	8.8%	8.0%	17.1%	24.6%				
Graduate school	7.1%	7.4%	14.4%	18.7%				
Total	100%	100%	100%	100%				

\*\*\* $p < .00$ .

Table 2  
Distribution of School Choice in Relation to Father's Education Level

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious Private	252.66	12	***	2%
<= 11th grade	15.4%	13.2%	6.4%	3.1%				
High school diploma	33.1%	33.3%	23.7%	11.2%				
<= Associate degree	26.9%	28.4%	30.7%	25.5%				
Bachelor's degree	11.9%	10.4%	18.0%	19.3%				
Graduate school	12.7%	14.7%	21.2%	41.0%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

The data indicated that of all fathers with children in assigned, chosen, or religious private schools, by far most fathers have a high school diploma or associate degree. Of those with children in non-religious private schools, most have an associate, bachelors, or graduate degree.

The finding in fathers' education is consistent with mothers' education in the four types of school choice. In sum, there is a difference between parents who choose assigned and chosen schools and those who choose religious private and non-religious private schools. In comparison to their counterparts who choose assigned and chosen schools, parents who choose religious private and non-religious private schools have a higher percentage of associate, bachelor's or graduate degrees. Therefore, the parents who choose religious private and non-religious private schools have a higher education attainment.

### Family Income

According to the U.S. Census Bureau, in 1993, the poverty threshold for a family of four was \$14,763 in annual income. The median income level for the nation's households was \$31,000. The 70th percentile household income was \$55,139 (U.S. Census Bureau, 1996, 1999). Because the NHES:93 survey was conducted in 1993, the cut-points of family income in this study were based on the 1993 household income of U.S. Census Bureau. There are three cut-points: \$15,000, \$35,000, and \$50,000.

Distribution of school choice in relation to family income is displayed in Table 3. The null hypothesis is rejected. Therefore, there is a difference in the proportion of family income among the four types of school choice ( $\chi^2(9)=369.29$ ,  $p<.001$ ).

Table 3  
Distribution of School Choice in Relation to Family Income

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious private	Non-religious private	369.29	9	***	2%
<\$15,000	22.7%	28.1%	8.1%	6.7%				
\$15,000-\$35,000	34.1%	35.1%	27.8%	17.0%				
\$35,001-\$50,000	19.3%	17.1%	22.6%	18.0%				
>\$50,000	23.9%	19.7%	41.6%	58.2%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

The results indicated those parents with family income higher than \$35,001 are more likely to choose religious or non-religious private schools for their children than families with lower incomes. Fifty-eight percent of parents who chose non-religious private school have family income of more than \$50,000. Forty-one percent of parents who chose religious private school have family income of more than \$50,000.

Parents with family income lower than \$35,000 are more likely to choose assigned or chosen schools for their children. In chosen and assigned schools, parents who choose chosen school for their children have slightly lower family income than those who choose assigned schools for their children.

#### Child's Ethnicity

Distribution of school choice in relation to child's ethnicity is displayed in Table 4. The null hypothesis is rejected. Therefore, there is a difference in the proportion of child's ethnicity among the four types of school choice ( $\chi^2(12)=280.80$ ,  $p<.001$ ). The distribution of student ethnicity in all schools is relative to the ethnicity distribution in the overall population.

The findings indicated that Caucasian families are more likely to choose religious private school for their children than other types of schools. African-American and Native American families are more likely to choose chosen schools for their children than other types of schools. Asian families are more like to choose non-religious private schools for their children than other types of schools.

In chosen and assigned schools, Caucasian families are more likely to choose assigned school for their children, while African-American, Native American, and Asian families are more likely to choose chosen schools for their children.

Table 4

Distribution of School Choice in Relation to Child's Ethnicity

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious private	280.80	12	***	0.09%
Caucasian	75.3%	59.8%	85.0%	83.4%				
African-American	15.7%	28.0%	6.7%	7.8%				
Native American	0.9%	2.2%	0.3%	0.5%				
Asian	1.9%	2.7%	2.6%	4.7%				
Other	6.2%	7.2%	5.4%	3.6%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$ .

### Child's Sex

Distribution of school choice in relation to the child's sex is displayed in Table 5. The null hypothesis is rejected. Therefore the data suggested that there is a difference in the proportion of child's sex among the four types of school choice ( $\chi^2(3)=8.32, p=.04$ ).

The results showed that of private school enrollment, families with boys are more likely to choose non-religious private schools, while families with girls are more likely to choose religious private schools. In public schools, families with girls are more likely to choose chosen schools, while families with boys are more likely to choose assigned schools.

Table 5  
Distribution of School Choice in Relation to Child's Sex

	School Choice				$\chi^2$	df	Sig.
	Assigned	Chosen	Religious Private	Non-Religious private	8.32	3	*
Female	48.6%	50.2%	53.2%	46.6%			
Male	51.4%	49.8%	46.8%	53.4%			
Total	100%	100%	100%	100%			

\* $p < .05$

### Mother's Working Status

Table 6 displays data on "During the past week, did mother work at a job for pay?" The null hypothesis is rejected. Therefore, there is a difference in the proportion of mothers' employment status among the four types of school choice ( $\chi^2(3)=16.92, p<.01$ ). Of all the school types, religious private schools have the highest proportion of working mothers and non-religious private schools have the lowest proportion of working mothers.

### Father's Working Status

Table 7 displays data on "During the past week, did father work at a job for pay?" The null hypothesis is rejected. Therefore, there is a difference in the proportion of fathers' employment status among the four types of school choice ( $\chi^2(3)=20.26, p<.001$ ). Of all the school types, non-religious private schools have the highest proportion of working fathers and assigned schools have the lowest proportion of working fathers.

### Type of Mother

Distribution of school choice in relation to types of mothers is displayed in Table 8. The null hypothesis is rejected. Therefore, there is a difference in proportion of types of mothers among the four types of school choice ( $\chi^2(6)=15.71, p<.05$ ).

Birth mothers are most likely to choose religious private school for their children, while adoptive mothers are least likely to choose them. No stepmothers chose private schools for their children.



**Table 6**  
**Distribution of School Choice in Relation to Mother's Working Status**

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious private	Non-religious private	16.92	3	**	0.1%
Yes	66.8%	63.0%	69.5%	58.3%				
No	33.2%	37.0%	30.5%	41.7%				
Total	100%	100%	100%	100%				

\*\* $p < .01$

Table 7

Distribution of School Choice in Relation to Father's Working Status

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious private	Non-religious private	20.26	3	***	0.2%
Yes	87.9%	88.2%	92.0%	95.7%				
No	12.1%	11.8%	8.0%	4.3%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

**Table 8**  
**Distribution of School Choice in Relation to Type of Mothers**

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious private	Non-religious private	15.71	6	*	0.03%
Birth mother	96.6%	95.7%	98.6%	96.2%				
Adoptive mother	3.0%	3.7%	1.4%	3.8%				
Stepmother	0.4%	0.5%	0%	0%				
Total	100%	100%	100%	100%				

\* $p < .05$

### Type of Fathers

Distribution of school choice in relation to types of fathers is displayed in Table 9. The null hypothesis is rejected. Therefore, there is a difference in the proportion of types of fathers among the four types of school choice ( $\chi^2(6)=60.93$ ,  $p<.001$ ).

Birth fathers are more likely than adoptive fathers to choose non-religious and religious private school for their children. Adoptive fathers and stepfathers have a propensity to choose chosen schools for their children. No stepfathers chose private schools for their children. This is consistent with stepmothers.

Parents' choice of school changes depending on family characteristics such as parental education, family income, child's ethnicity and sex, parental working status, and type of parents. All of the above factors influence parents' position on school choice.

### Discriminant Function Analysis on Family Characteristics

In order to test whether parents who chose assigned school, chosen school, religious private school, and non-religious private school differ on their family characteristics, discriminant function analyses were used. Therefore, predictors were the variables in family characteristics; and groups were the four types of school choice. A description of variables for discriminant function analysis on family characteristics is displayed in Table 10. In Table 11, the discriminant function analysis determined whether there were differences among assigned school, chosen school, religious private school, and non-religious private school in family characteristics.

Table 9  
Distribution of School Choice in Relation to Type of Fathers

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious private	60.93	6	***	0.3%
Birth father	84.1%	80.8%	92.4%	94.4%				
Adoptive father	15.3%	18.2%	7.6%	5.6%				
Stepfather	0.6%	0.9%	0%	0%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

Table 10

**A Description of Variables for Discriminant Function Analysis on Family Characteristics**

Variable	Description and coding
Type of school choice	1=assigned school; 2=chosen school; 3=religious private school; 4=non-religious private school.
Family income	0=less or equal to \$35,000; 1=more than \$35,000.
Parental education attainment	0=lower than bachelor's degree; 1=equal to or higher than bachelor's degree.
Parental working status	0=no work; 1=work.
Child's ethnicity	0=non-Caucasian; 1=Caucasian.

There were three significant discriminant functions that distinguished the four types of school choice on family characteristics,  $X^2(18, N=9220)=361.82, p<.001, R_c=.18$ ;  $X^2(10, N=9220)=82.71, p<.001, R_c=.09$ ;  $X^2(4, N=9220)=9.68, p<.001, R_c=.03$ . In the first function, an examination of group centroids and item-to-function correlations indicated that this discriminant function separated religious private and non-religious private schools from assigned and chosen schools on the variable of father's education attainment, mother's education attainment, and family income.

In the second function, an examination of group centroids and item-to-function correlations indicated that this discriminant function separated assigned and religious private schools from chosen and non-religious private schools on the variable of child's ethnicity. There is a tendency that families who have Caucasian children would choose assigned and religious private schools more than families with non-Caucasian children.

In the last function, an examination of group centroids and item-to-function

Table 11

## Discriminant Function Analysis of School Choice

Variable	School Choice							
	Assigned		Chosen		Religious Private		Non-religious Private	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Family Characteristics</i>								
Father education	0.25	0.43	0.26	0.44	0.39	0.49	0.61	0.49
Mother education	0.19	0.39	0.20	0.40	0.34	0.47	0.45	0.50
Family income	0.56	0.50	0.54	0.50	0.72	0.45	0.86	0.35
Child's ethnicity	0.83	0.37	0.72	0.45	0.89	0.31	0.85	0.35
Father's working status	0.89	0.32	0.88	0.32	0.92	0.26	0.95	0.21
Mother working status	0.68	0.47	0.67	0.47	0.68	0.47	0.57	0.50
Group centroids								
Assigned								
Chosen								
Religious Private								
Non-religious Private								
Eigenvalue								
Canonical Correlation								

\*\* $p < .01$ . \*\*\* $p < .001$ .





Table 11  
Discriminant Function Analysis of School Choice on Family Characteristics

School Choice						Univariate <i>F</i>	Item to Function Correlation		
Chosen	Religious Private		Non-religious Private				1	2	3
<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>					
<i>Family Characteristics</i>									
5	0.44	0.39	0.49	0.61	0.49	54.78***	.75	-.22	-.30
0	0.40	0.34	0.47	0.45	0.50	54.41***	.75	-.16	.50
4	0.50	0.72	0.45	0.86	0.35	44.01***	.68	.05	.10
2	0.45	0.89	0.31	0.85	0.35	29.72***	.29	.95	-.11
3	0.32	0.92	0.26	0.95	0.21	5.74**	.25	.02	.81
7	0.47	0.68	0.47	0.57	0.50	2.51	-.09	.14	.65
							-.05	.02	-.01
							-.10	-.27	.03
							.42	.06	.07
							.90	-.22	-.17
							.03	.01	.00
							.18	.09	.03



correlations indicated that this discriminant function separated chosen and religious private schools from assigned and non-religious private schools on the variable of father's working status, mother's working status, and mother's education attainment. Parents who choose chosen and religious private schools are working parents and have higher mother education attainments than other types of schools.

Parents' position on school choice changes depending on family characteristics. Caucasian families with higher education attainment and higher family income have the tendency to choose private schools for their children. Minority families with lower education attainment and lower family income have the tendency to choose schools within the public system for their children. Within private school, families who choose non-religious private schools have higher parental education attainment and higher family income than families who choose religious private schools. In the public school system, families who choose assigned school have higher family incomes than families who choose chosen schools. The evidence provided here showed that the choice between schools might be based not just on the quality of a school but also on the social class. There is a signal of social stratification regarding the equality consequences of choice.

### Research Question 2

Does the parents' position on school choice change depending on school characteristics? What kinds of schools do parents choose? What quality do parents consider important in choosing school? Do parents value these qualities differently? What is the relationship between reasons of choice and school types?

### Analysis of School Characteristics

The second research question was analyzed using chi-squared tests for school location, size, race composition, safety, and reasons. It was analyzed using a one-way ANOVA for school quality. A post hoc multiple-comparison analysis was used to evaluate pairwise differences among the means, when appropriate. The Scheffé test was used, as it is the most stringent and powerful test with respect to identifying differences between pairs of means (Sheskin, 1997). The analyses involved types of school choice (assigned, chosen, religious private, and non-religious private school) as the dependent variable and school characteristics (school/home location, school size, race composition, school quality, school safety, and reasons for choice) as the independent variable. The analyses enabled the researcher to determine whether there are any differences in parents' positions among the four types of school choice when school characteristics are taken into consideration.

#### Home Location

Table 12 displays data on “Was your choice of where you live now influenced by where your child would go to school?” The null hypothesis is rejected. Therefore, for those who choose public school, they have also exercised choice by deciding where to live ( $\chi^2(3)=83.05, p<.001$ ).

Parents who chose assigned schools were influenced by the school's location when they decided their home location more than parents who chose other schools. School location did not have a big impact on parents who chose non-religious private school when they decided their home location.

Table 12

Distribution of School Choice in Relation to "Home Location Influenced by School"

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious private	83.05	3	***	0.6%
Yes	48.8%	44.1%	36.0%	30.6%				
No	51.2%	55.9%	64.0%	69.4%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$ School Location

Table 13 displays data on "Is your child's school located in the neighborhood where you live?" The null hypothesis is rejected. Therefore, there is a difference in the proportion of "school located in neighborhood" among the four types of school choice ( $\chi^2 (3) = 701.27, p < .001$ ).

For most of the families (72.4%) who chose assigned schools, the school was located in their neighborhood. For families who chose non-religious private school, the school was not located in their neighborhood. This result is consistent with previous findings that when school location has influenced the family's home location, most likely these families choose assigned, neighborhood schools for their children. When school location has less impact on the family's home location, most likely they choose private schools for their children.

Table 13

## Distribution of School Choice in Relation to "School Located in Neighborhood"

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious private	Non-religious private	701.27	3	***	4%
Yes	72.4%	43.2%	50.9%	33.0%				
No	27.6%	56.8%	49.1%	67.0%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$ School Size

Distribution of school choice in relation to school size is displayed in Table 14. The null hypothesis is rejected. Therefore, there is a difference in the proportion of school size among the four types of school choice ( $\chi^2(9) = 778.79, p < .001$ ). Non-religious private and religious private schools tend to have a small school size, less than 599 students. Chosen schools tend to have a bigger school size, 600 students and more. Assigned schools tend to have a medium school size, between 300 and 999 students. However, parents choice of school may or may not be affected by the school size, as size may be a by-product of school type. Therefore, the school size might be due to default rather than the result of actively exercising choice.

School Race Composition

Distribution of school choice in relation to school race composition is

Table 14  
Distribution of School Choice in Relation to School Size

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious private	Non-religious private	778.79	9	***	5%
< 300 students	11.7%	14.0%	42.0%	39.3%				
300-599 students	38.9%	36.1%	36.2%	36.1%				
600-999 students	24.4%	23.6%	13.5%	16.2%				
>= 1000 students	25.0%	26.4%	8.3%	8.4%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

Table 15  
Distribution of School Choice in Relation to School Race Composition

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious private	Non-religious private	159.50	6	***	0.2%
Child's race is minority (<25% of child's race)	11.1%	16.8%	11.2%	21.8%				
25 to 75% of child's race	40.2%	46.8%	29.2%	34.7%				
Child's race is majority (>75% of child's race)	48.7%	36.4%	59.6%	43.5%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$



displayed in Table 15. The null hypothesis is rejected. Therefore, there is a relationship between race composition and the four types of school choice ( $\chi^2(6)=159.50, p<.001$ ).

Families who choose religious private schools and assigned schools are more likely to find children of the same ethnicity in their schools than will parents who choose non-religious private school and chosen schools. Children of families who choose non-religious private schools tend to attend schools where they are more likely to be in the ethnic minority. Families who choose religious private schools tend to find more than 75% of other children are of their child's race. Families who choose chosen schools tend to find 25 to 75% of other children are of their child's race.

School race composition may not be an important school quality to families who choose non-religious private school. However, it seems to be a critical school quality to families who choose religious private schools.

### School Safety

Distribution of school choice in relation to school safety is displayed in Table 16. The null hypothesis is rejected. Therefore, there is a relationship between school safety and the four types of school choice ( $\chi^2(6)=515.45, p<.001$ ).

Families who chose non-religious private, religious private and chosen schools felt that their chosen school is, as safe, or safer than their neighborhood. Families who chose assigned school felt that their chosen school is as safe as their neighborhood, and sometimes not as safe.

School safety may be a more important school quality to families who choose assigned schools than to those who choose non-religious private, religious private, and chosen schools. School safety seems crucial for families who choose assigned

Table 16  
Distribution of School Choice in Relation to School Safety

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious private	Non-religious private	515.45	6	***	4%
School is not as safe as neighborhood	16.8%	14.3%	6.5%	9.8%				
School is as safe as neighborhood	70.5%	64.0%	55.5%	56.7%				
School is safer than neighborhood	12.8%	21.7%	38.1%	33.5%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$ .

schools because a higher percentage of these parents think that their school is not as safe as their neighborhood. The 4% variance in school choice can be explained by school safety. Families who choose non-religious private, religious private and chosen schools seem to see their children's schools as safe.

### School Quality

Mean and rank of school quality among the four types of school choice is displayed in Table 17. School qualities were measured by "child challenged at school," "child enjoyed school," "teachers maintained discipline," "student and teacher respected each other," and "principal maintained discipline." Parents rated these variable on a 4-point Likert scale ranging from 1 (very much disagree), 2 (somewhat disagree), 3 (somewhat agree), to 4 (very much agree).

Child Challenged at School. The result indicated that there is a difference in the mean score of "child challenged at school" among the four types of school choice. Non-religious private schools have the highest mean (3.57), religious private schools have a mean of 3.56, and chosen schools have a mean of 3.15. Assigned schools have the lowest mean of 3.06 ( $p < .001$ ). The null hypothesis is rejected. The Scheffe multiple comparison test was conducted. There were statistically significant differences among the four types of school choice ( $p < .001$ ) except between religious private and non-religious private schools.

Child Enjoyed School. The result indicated that there is a difference in the mean score of "child enjoyed school" among the four types of school choice. Religious private schools have the highest mean (3.45), non-religious private schools have a mean of 3.39, chosen schools have a mean of 3.27, and assigned schools have

Table 17

## Mean and Rank of School Quality Among th

	School Choice							
	Assigned (A)		Chosen (C)		Religious private (R)		Non-religious private (NR)	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Child challenged at school	3.06	5	3.15	5	3.56	4	3.57	2
Child enjoyed school	3.17	2.5	3.27	3	3.45	5	3.39	5
Teachers maintained discipline	3.17	2.5	3.29	2	3.63	3	3.53	3.5
Student/teacher respected each other	3.08	4	3.18	4	3.66	2	3.66	1
Principal maintained discipline	3.24	1	3.34	1	3.71	1	3.53	3.5

\*\*\* $p < .001$



Table 17

Mean and Rank of School Quality Among the Four Types of School Choice

School Choice						<i>F</i>	Sig.	Effect size	Multiple comparison
Chosen (C)	Religious private (R)		Non-religious private (NR)						
	Mean	Rank	Mean	Rank					
5	3.56	4	3.57	2	171.19	***	4%	A<C,R,NR C<R,NR	
3	3.45	5	3.39	5	55.70	***	1%	A<C,R,NR C<R	
2	3.63	3	3.53	3.5	146.80	***	3%	A<C,R,NR C<R,NR	
4	3.66	2	3.66	1	221.29	***	5%	A<C,R,NR C<R,NR R<NR	
1	3.71	1	3.53	3.5	160.32	***	4%	A<C,R,NR C<R,NR R<NR	



the lowest mean of 3.17 ( $p < .001$ ). The null hypothesis is rejected. The Scheffe multiple comparison test found statistically significant differences among the four types of school choice ( $p < .001$ ) except between religious private and non-religious private schools and between chosen and non-religious private schools.

Teachers Maintained Discipline. The result indicated that there is a difference in the mean score of "teachers maintained discipline" among the four types of school choice. Religious private schools have the highest mean (3.63), non-religious private schools have a mean of 3.53, chosen schools have a mean of 3.29, and assigned schools have the lowest mean of 3.17 ( $p < .001$ ). The null hypothesis is rejected. The Scheffe multiple comparison test found statistically significant differences among the four types of school choice ( $p < .001$ ) except between religious private and non-religious private schools.

Student/teacher Respected Each Other. The result indicated that there is a difference in the mean score of "student and teacher respected each other" among the four types of school choice. Non-religious private schools and religious private school have the same highest mean (3.66), chosen schools have a mean of 3.18 and assigned schools have the lowest mean of 3.08 ( $p < .001$ ). The null hypothesis is rejected. Therefore, there is a difference in the mean score of "student and teacher respected each other" among the four types of school choice. The Scheffe multiple comparison test found statistically significant differences among the four types of school choice ( $p < .001$ ).

Principal Maintained Discipline. The result indicated that there is a difference in the mean score of "principal maintained discipline" among the four types of school choice. Religious private schools have the highest mean (3.71), non-religious private



schools have a mean of 3.53, chosen schools have a mean of 3.34, and assigned schools again have the lowest mean of 3.24 ( $p < .001$ ). The null hypothesis is rejected. The Scheffe multiple comparison test found statistically significant differences among the four types of school choice ( $p < .001$ ).

Overall, parents who choose non-religious private and religious private schools have higher mean scores of agreement in all of these five school qualities among the four types of school choices. That is, private school parents see these school qualities more often than those parents who choose assigned and chosen schools do.

The Spearman's rank order correlation coefficient is displayed in Table 18. Both parents of assigned schools and chosen schools share similar values regarding school qualities: The correlation coefficient between them was 0.98 ( $p < .01$ ). They see "principal maintained discipline" as the most important quality of school. "Teachers maintained discipline" is the second most important quality of school. Thereafter, they value "child enjoyed school," followed by "student and teacher respected each other," and "child challenged at school."

Table 18

Rank Order Correlation Coefficients between the Four Types of School Choice on School Quality

School Choice	Correlation Coefficients			
	Assigned	Chosen	Religious Private	Non-religious Private
Assigned	1.00			
Chosen	.98**	1.00		
Religious Private	.41	.50	1.00	
Non-religious Private	-.66	-.56	.41	1.00

\*\* $p < .01$

The rest of the rank order correlation coefficients are not statistically significant. However, it is interesting that both types of private school parents ranked “child enjoyed school” as the least important school quality. Whether or not their children enjoy school seems not an important school quality for private school parents. The strength of the relationship between school choice and school qualities was quite weak. As assessed by eta square, the school choice accounts for 1 to 5 % of the variance school qualities.

### Reasons for Attending This School

Distribution of school choice in relation to "reasons for attending this school" is displayed in Table 19. Parents were asked to pick the most important reason for their children attending this school. The null hypothesis is rejected. Therefore, there is a difference in the proportion of "reasons for attending this school" among the four types of school choice ( $\chi^2(24)=882.69, p<.001$ ).

The reason for most parents to choose schools is for a better academic environment. For chosen schools, the reasons parents chose the school were for better academic environment (23.6%), special courses (21.4%), and convenient location (21.1%). The parent's reasons for choosing religious private schools are better academic environment (33.7%) and religious/moral reason (33.5%). Parents who choose non-religious private school also look for better academic environment (45.4%) and special courses (20.1%). The strength of relationship between school choice and the reasons for choice was moderate. As assessed by eta square, the school choice accounts for 44% of the variance of the reasons for choice. There is a 44% moderate nonlinear relationship between school choice and reasons for choice. Parents' position on school choice changes depending on school characteristics such

Table 19  
Distribution of School Choice in Relation to "Reasons for Attending This School"

	School Choice			$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Chosen	Religious private	Non-religious private	882.69	24	***	44%
Better academic environment	23.7%	33.7%	45.4%				
Special courses	21.5%	7.2%	20.1%				
More convenient location	21.2%	1.2%	4.6%				
Safer school area	6.3%	5.0%	3.1%				
Small school/class	4.0%	3.1%	9.3%				
Stayed former school after family moved	3.5%	0%	0.5%				
Relative attended/work there	3.4%	1.2%	1.0%				
Better discipline school	3.3%	9.1%	5.7%				
Special activities	3.2%	0.5%	0%				
Child wants to/friends/social reasons	1.8%	1.5%	0%				
Sent to alternative school	1.6%	0.2%	0.5%				
Religious/moral reason	0.2%	33.5%	3.6%				
Other	6.2%	3.7%	6.2%				
Total	100%	100%	100%				

\*\*\* $p < .001$

as home/school location, school size, school race, composition, school quality, school safety, and reasons for choice.

### Discriminant Function Analysis on School Characteristics

In order to test whether parents who choose assigned, chosen, religious private, and non-religious private school differ on school characteristics, discriminant function analyses was used. Therefore, predictors were the variables in school characteristics, and groups were the four types of school choice. A description of variables for discriminant function analysis on school characteristics is displayed in Table 20. In Table 21, the discriminant function analysis displays whether there were differences among assigned school, chosen school, religious private school, and non-religious private school in school characteristics.

There were three significant discriminant functions that distinguished the four types of school choice on school characteristics,  $X^2(30, N=12520)=2270.95, p<.001, R_c=.37$ ;  $X^2(18, N=12520)=420.80, p<.001, R_c=.18$ ;  $X^2(8, N=12520)=19.11, p<.05, R_c=.04$ . In the first function, an examination of group centroids and item-to-function correlations indicated that this discriminant function separated chosen, religious private and non-religious private schools from assigned schools on the variables of "student and teacher respected each other," "child challenged at school," "principal maintained discipline," "teacher maintained discipline," and "how safe is school vs. neighborhood."

Parents who chose chosen, religious private, and non-religious private schools gave higher scores to five variables than did parents who chose assigned schools.

Table 20

**A Description of Variables for Discriminant Function Analysis on School Characteristics**

Variable	Description and coding
Type of school choice	1=assigned school; 2=chosen school; 3=religious private school; 4=non-religious private school.
Student/teacher respected each other	1=strong disagree; 2=disagree; 3=agree; 4=strong agree.
Child challenged at school	1=strong disagree; 2=disagree; 3=agree; 4=strong agree.
Teachers maintained discipline	1=strong disagree; 2=disagree; 3=agree; 4=strong agree.
Principal maintained discipline	1=strong disagree; 2=disagree; 3=agree; 4=strong agree.
Child enjoyed school	1=strong disagree; 2=disagree; 3=agree; 4=strong agree.
How safe is school vs. neighborhood	1=not as safe as neighborhood; 2=as safe as neighborhood; 3=safest than neighborhood
School located in neighborhood	0=no; 1=yes
School race composition	0=less or equal to 75% of child's race; 1=more than 75% of child's race
School size	0=less than 600 students; 1=equal to or more than 600 students.
Home location influenced by school	0=not influenced; 1=influenced.

Table 21

## Discriminant Function Analysis on

School Choice							
Variable	Assigned		Chosen		Religious Private		Non-religious Private
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>
<i>School Characteristics</i>							
Student/teacher respected each other	3.08	0.70	3.18	0.67	3.66	0.51	3.49
Child challenged at school	3.06	0.72	3.15	0.71	3.56	0.57	3.57
Principal maintained discipline	3.24	0.66	3.34	0.64	3.71	0.49	3.53
Teachers maintained discipline	3.17	0.69	3.29	0.67	3.63	0.54	3.53
How safe is school vs. neighborhood	1.96	0.54	2.07	0.60	2.32	0.59	2.23
Child enjoyed school	3.17	0.72	3.28	0.68	3.45	0.65	3.40
School race composition	0.49	0.50	0.37	0.48	0.60	0.49	0.43
School located in neighborhood	0.72	0.45	0.43	0.50	0.51	0.50	0.33
School size	0.49	0.50	0.50	0.50	0.22	0.41	0.25
Home location influenced by school	0.49	0.50	0.44	0.50	0.36	0.48	0.33
Group centroids							
Assigned							
Chosen							
Religious Private							
Non-religious Private							
Eigenvalue							
Canonical Correlation							

\*\*\* $p < .001$ .



Table 21  
Discriminant Function Analysis on School Characteristics

School Choice						Univariate <i>F</i>	Item to function Correlation		
Chosen		Religious Private		Non-religious Private			1	2	3
<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
<i>School Characteristics</i>									
3.18	0.67	3.66	0.51	3.49	0.65	217.21***	.54	.37	.34
3.15	0.71	3.56	0.57	3.57	0.61	165.35***	.48	.28	-.35
3.34	0.64	3.71	0.49	3.53	0.67	158.12***	.47	.29	.56
3.29	0.67	3.63	0.54	3.53	0.65	148.81***	.46	.20	.28
2.07	0.60	2.32	0.59	2.23	0.61	136.80***	.45	.13	.37
3.28	0.68	3.45	0.65	3.40	0.65	54.58***	.27	.04	.23
0.37	0.48	0.60	0.49	0.43	0.50	41.19***	.04	.54	.26
0.43	0.50	0.51	0.50	0.33	0.47	246.06***	-.52	.69	.05
0.50	0.50	0.22	0.41	0.25	0.43	101.50***	-.35	-.40	.32
0.44	0.50	0.36	0.48	0.33	0.46	28.61***	-.21	-.02	.29
							-.18	.03	-.00
							.40	-.46	.03
							1.14	.33	.04
							1.20	-.14	-.29
							.16	.03	.00
							.37	.18	.04





These variables are "student and teacher respected each other," "child challenged at school," "principal maintained discipline," "teacher maintained discipline," and "how safe is school vs. neighborhood."

Parents who choose chosen, religious private, and non-religious private schools have the tendency to choose schools that have better student/teacher relations, that challenge their children, that are a place where principals and teachers maintain discipline, and that are a safe place. Parents who choose assigned schools tend to send their children to schools that were located in their neighborhood and had a larger school size.

"Child enjoyed school," "school race composition," and "home location influenced by school" are not predictors for any types of school.

In the second function, an examination of group centroids and item-to-function correlations indicated that this discriminant function separated assigned and religious private schools from chosen and non-religious private schools on the variables of "school located in neighborhood," "school race composition," and "student/teacher respected each other." Parents who choose assigned and religious private schools have a tendency to choose a school located in their neighborhood, with homogeneous ethnicity where students and teachers respect each other.

In the last function, an examination of group centroids and item-to-function correlations indicated that this discriminant function separated chosen and religious private schools from assigned and non-religious private schools on the variables of "principal maintained discipline" and school safety. Parents who choose chosen and religious private schools have the tendency to choose schools that have better discipline and are a safe place. Parents who choose non-religious private school have the tendency to choose schools that provided challenge to their children.

In order to test whether parents in chosen school, religious private school, and non-religious private school differ on their reasons for choice, reasons for choice were used to predict the three types of school choice by performing discriminant function analyses. Therefore, predictors were the variables in reasons for choice; and groups were parents in the three types of school choice. A description of variables for discriminant function analysis on reasons for choice is displayed in Table 22. In Table 23, the discriminant function analysis displays whether there were differences among chosen school, religious private school, and non-religious private school in reasons for choice.

There were two significant discriminant functions that distinguished the three types of school choice on reasons for choice,  $X^2(8, N=2384)=835.44, p<.001, R_c=.54$ ;  $X^2(3, N=2384)=62.07, p<.001, R_c=.17$ . An examination of group centroids and item-to-function correlations indicated that this discriminant function separated religious private school from chosen and non-religious private schools on the variable of "religious reason."

The most important reason for parents who choose religious private schools is the religious reason. Religious private schools ( $M=0.35$ ) have a higher score in religious reason than non-religious private ( $M=0.04$ ), and chosen ( $M=0.00$ ) schools do. The most important reason for parents who choose chosen and non-religious private schools is for social reasons. Academic and safety reasons were not predictors for the group of religious private schools or for the group of chosen and non-religious private schools.

In the second function, an examination of group centroids and item-to-function correlations indicated that this discriminant function separated non-religious private schools from chosen and religious private schools on the variable of academic

reason. The most important reason of choosing schools for non-religious private school parents is the better academic environment.

Table 22

A Description of Variables for Discriminant Function Analysis on Reasons for Choice

Variable	Description and coding
Religious reason	0=not religious reason; 1=religious reason.
Social reason	0=not social reason; 1=social reason.
Safety reason	0=not safety reason; 1=safety reason.
Academic reason	0=not academic reason; 1=academic reason.

Parents' position on school choice changes depending on school characteristics. Parents who choose assigned school consider that neighborhood proximity and racial composition of the school are important. Parents who choose religious private school also value homogeneous ethnicity but the reverse is true for parents who choose non-religious private schools. Without a doubt, the most important reason for parents sending their children to religious private schools is for the religious element. The most important reason for parents sending their children to non-religious private school is the better academic environment. The most important reason for parents sending their children to chosen schools is for social reasons.

The findings showed that race and social class affects parents' perceptions of school choice. Again, the evidence provided here showed that the choice between schools might be based not just on the quality of a school but also on the different cultural and ethnic composition of student body. There is a warning sign of social segregation that parents do not act monolithically, responding to change in the

Table 23  
Discriminant Function Analysis of School Choice on Reasons

Variable	School Choice						Univariate <i>F</i>	Item to function correlation	
	Chosen		Religious Private		Non-religious Private			1	2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
<i>Reasons for Choice</i>									
Religion reason	0.00	0.04	0.35	0.48	0.04	0.20	327.58***	.83	-.54
Social reason	0.35	0.48	0.05	0.21	0.06	0.24	182.86***	-.60	-.72
Safety reason	0.07	0.25	0.05	0.22	0.03	0.18	2.14	-.05	-.18
Academic reason	0.58	0.49	0.56	0.50	0.86	0.35	31.56***	-.03	.99
Group centroids									
Chosen								-.59	-.05
Religious Private								.77	-.05
Non-religious Private								-.04	.50
Eigenvalue								.42	.03
Canonical Correlation								.54	.17

\*\*\* $p < .001$ .

structure of the educational system in a goal-oriented fashion. Both race and social class affect parents' perception of school choice.

### Research Question 3

What is the general relationship between school choice and parental beliefs? What is the relationship between school choice and parental involvement? What is the relationship between school choice and parental perception of their child's academic achievement? What is the relationship between school choice and parental expectation of their child's education?

#### Analysis of Parental Beliefs

The research question was analyzed using chi-squared tests for parental involvement, parental perception of their child's academic achievement, and parental expectation of their child's education. The analyses enabled the researcher to determine if there are any differences among the four types of school choice when parental beliefs are taken into consideration.

#### Parental Involvement

Parental involvement was measured by "parents talked to children about school activities," "parents attended school meetings," "parents attended school events," and "parents acted as volunteers at school." Distributions of school choice in parental involvement are displayed in Table 24, 25, 26, and 27.

Parents Talked to Students About School Activities. The null hypothesis is rejected (Table 24). Therefore, there is a relationship between parents who talked to children about school activities and the four types of school choice ( $\chi^2(3)=47.10$ ,

$p < .001$ ). About 95% of families who chose religious and non-religious (94.8%) private schools talked to their children about school activities. For chosen schools, 88.7% of parents talked to their child about school activities, which is slightly higher than in assigned schools (88.2%).

Table 24

Distribution of "Parents Talked to Students About School Activities" in Relation to the Four Types of School Choice

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious private	47.1	3	***	0.3%
Yes	88.2%	88.7%	95.0%	94.8%				
No	11.8%	11.3%	5.0%	5.2%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

Parents Attended School Meetings. The null hypothesis is rejected (Table 25). Therefore, there is a relationship between parents who attended school meetings and the four types of school choice ( $\chi^2 (3) = 171.10, p < .001$ ). Ninety-three percent of families who choose religious private schools attended school meetings, and 88.7% of families who choose non-religious private schools attended school meetings. For assigned schools, 75.2% of parents attended school meetings, which is slightly higher than in chosen schools (72.5%).

Parents Attended School Events. The null hypothesis is rejected (Table 26).

Table 25

Distribution of "Parents Attended School Meetings" in Relation to the Four Types of School Choice

	School Choice				$x^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious private	171.10	3	***	1%
Yes	75.2%	72.5%	92.6%	88.7%				
No	24.8%	27.5%	7.4%	11.3%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

Table 26

Distribution of "Parents Attended School Events" in Relation to the Four Types of School Choice

	School Choice				$x^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious private	210.37	3	***	0.8%
Yes	66.4%	61.1%	86.6%	64.5%				
No	33.6%	38.9%	13.4%	15.5%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

Therefore, there is a relationship between parents who attended school events among the four types of school choice ( $x^2 (3) = 210.37, p < .001$ ). Eighty-seven percent of



families who chose religious private schools attended school events, while only 64.5% of families who chose non-religious private schools attended school events. For assigned schools, 66.4% of parents attended school events, which is more than in chosen schools (61.1%).

Parents Acted as Volunteers at School. The null hypothesis is rejected (Table 27). Therefore, there is a relationship between parents who acted as volunteers at school among the four types of school choice ( $\chi^2 (3)=474.45, p<.001$ ). Sixty-six percent of families who chose religious private schools acted as volunteers at school, and 59.1% of families who chose non-religious private schools acted as volunteers at school. Significantly less often, 32.6% of parents at assigned schools volunteered, and 30.8% volunteered at chosen schools.

Table 27

Distribution of "Parents Acted as Volunteers at School" in Relation to the Four Types of School Choice

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious Private	474.45	3	***	3%
Yes	32.6%	30.8%	66.1%	59.1%				
No	67.4%	69.2%	33.9%	40.9%				
Total	100%	100%	100%	100%				

\*\*\* $p<.001$

In comparing the variables of parental involvement, the findings are in unison

across the four school choices, as shown in Table 28. Most parents talked to their children about school activities. The second most common type of parental involvement is attending school meetings, followed by attending school events, and volunteering at school.

In these four types of school choice, religious private school parents have the highest parental involvement. Non-religious private school parents have the second highest parental involvement. In comparison with the private schools, assigned and chosen schools have lower parental involvement.

Table 28

Summary of Parental Involvement in Their Children's Education in Relation to the Four Types of School Choice

Items of Parental Involvement	School Choice			
	Assigned	Chosen	Religious Private	Non-religious Private
Parents talked to children about school activities	88.2%	88.7%	95.0%	94.8%
Parents attended school meetings	75.2%	72.5%	92.6%	88.7%
Parents attended school events	66.4%	61.1%	86.6%	64.5%
Parents acted as volunteers at school	32.6%	30.8%	66.1%	59.1%

#### Parental Perception of Child's Academic Achievement

Table 29 displays data on the question "Compared with other children in your child's class, how would you say your child is doing in his/her schoolwork this year?"

The null hypothesis is rejected. Therefore, there is a relationship between

Table 29

Distribution of Parental Perception of Child's Academic Achievement in the Classroom in Relation to the Four Types of School Choice

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious Private	109.82	12	***	0.5%
Near the top of the class	36.6%	37.5%	46.7%	42.3%				
Above the middle of the class	21.9%	18.9%	23.7%	27.8%				
Around the middle	31.3%	35.7%	26.0%	23.2%				
Below the middle	7.0%	4.2%	2.5%	5.7%				
Near the bottom of the class	3.2%	3.8%	1.2%	1.0%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

parental perception of their child's academic achievement in the classroom and the four types of school choice ( $\chi^2(12)=109.82, p<.001$ ).

Seventy percent of private school parents believe that their children have superior academic achievement. Religious private school parents indicated that their children's schoolwork is near the top of the class or above the middle of the class (70.4%). Non-religious private school parents indicated that their children's schoolwork is near the top of the class or above the middle of the class (70.1%). Perhaps, parents' perception of their children's academic achievement is a self-fulfilling prophecy that might be due to the very act of selection, rather than the child's genuine academic achievement. Parents may in this way believe they have fulfilled their hope of getting their children a better education.

Families who choose chosen and assigned schools indicated that their children's schoolwork is either near the top of the class or around the middle of the class. It is interesting to find that families who choose chosen schools also indicated that their children's schoolwork is near the bottom of the class more often (3.8%) than the other school choices.

#### Parental Expectation of Child's Education

Parental expectation of child's education was measured by "child will graduate from high school," "child will attend school after high school," and "child will graduate from a 4-year college." Distributions of parental expectation in relation to school choice are displayed in Tables 30, 31, and 32.

Child Will Graduate From High School. Almost 100% of families who choose religious private schools indicated that they expect their children to graduate from high school, so do 98.5% of non-religious private school families, 98.6% of assigned

school families, and 98.3% of chosen school families. ( $\chi^2 (3)=7.5, p=.06$ ). The null hypothesis is not rejected (Table 30). Therefore, there is no difference in the proportion of parents who expect their children to graduate from high school among the four types of school choice.

Table 30

Distribution of "Child Will Graduate from High School" in Relation to the Four Types of School Choice

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious Private	7.5	3	0.06	0.01%
Yes	98.6%	98.3%	99.6%	98.5%				
No	1.4%	1.7%	0.4%	1.5%				
Total	100%	100%	100%	100%				

Child Will Attend School After High School. Ninety-seven percent of families who choose religious private schools expected their children to attend school after high school. Families who choose non-religious private school (95.9%) expect their child to attend school after high school. Families who choose chosen school (92.8%) have slightly higher expectations that their children will attend school after high school than those who choose assigned (92.3%) school ( $\chi^2 (3)=30.34, p<.001$ ). The null hypothesis is rejected (Table 31). Therefore, there is a difference in the proportion of parents who expect their children to attend school after high school among the four types of school choice.

Table 31

Distribution of "Child Will Attend School after High School" in Relation to the Four Types of School Choice

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious Private	30.34	3	***	0.2%
Yes	92.3%	92.8%	97.0%	95.9%				
No	7.7%	7.2%	3.0%	4.1%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

Child Will Graduate From a 4-year College. Ninety-three percent of families who choose religious private schools expect their children to graduate from a 4-year college. Families who choose non-religious private schools (92.3%) expect their children to graduate from a 4-year college. Families who choose chosen school (83.9%) again have a higher expectations that their children will graduate from a 4-year college than those who choose assigned (82.1%) schools ( $\chi^2 (3)=84.69 p<.001$ ). The null hypothesis is rejected (Table 32). Therefore, there is a difference in the proportion of parents who expect their children to graduate from a 4-year college among the four types of school choice.

In comparing parental expectations, the findings are in unison across these four school choices, as shown in Table 33. Most parents expect their children to graduate from high school. The second most common parental expectation is that their child will attend school after high school, followed by the expectation that their

Table 32

Distribution of "Child Will Graduate From 4-year College" in Relation to  
the Four Types of School Choice

	School Choice				$\chi^2$	df	Sig.	Eta <sup>2</sup>
	Assigned	Chosen	Religious Private	Non-religious Private	84.69	3	***	0.6%
Yes	82.1%	83.9%	93.0%	92.3%				
No	17.9%	16.1%	7.0%	7.7%				
Total	100%	100%	100%	100%				

\*\*\* $p < .001$

child will graduate from a 4-year college.

In the four types of school choice, religious private school parents have the highest parental expectations. Non-religious private school parents have the second highest parental expectations. In comparison with private schools, assigned and chosen schools have lower parental expectations.

In order to test whether parents in assigned school, chosen school, religious private school, and non-religious private school differ on their parental beliefs, discriminant function analyses were used. Therefore, predictors were the variables in parental beliefs; and groups were parents in the four types of school choice. A description of variables for discriminant function analysis on parental beliefs is displayed in Table 34. In Table 35, the discriminant function analysis show differences among assigned school, chosen school, religious private school, and non-religious private school in parental beliefs.

Table 33

Summary of Parental Expectation of Their Children's Education in Relation to the Four Types of School Choice

Item of Parental Expectation	School Choice			
	Assigned	Chosen	Religious Private	Non-religious Private
Child will graduate from high school	98.6%	98.3%	99.6%	98.5%
Child will attend school after high school	92.3%	92.8%	97.0%	95.9%
Child will graduate from 4-year college	82.1%	83.9%	93.0%	92.3%



Table 34

## A Description of Variables for Discriminant Function Analysis on Parental Beliefs

Variable	Description and coding
Parents acted as volunteers at school	0=no; 1=yes
Parents attended school events	0=no; 1=yes
Parents attended school meeting	0=no; 1=yes
How child is doing in school work	1=bottom of the class; 2=below the middle of the class; 3=about the middle of the class; 4=above the middle of the class; 5=top of the class.
Parent & child talked about school events	0=no; 1=yes
Expect child will attend school after high school	0=no; 1=yes
Expect child will graduate from college	0=no; 1=yes
Expect child will graduate high school	0=no; 1=yes

Discriminant Function Analysis of School Choice on Parental Beliefs

There were two significant discriminant functions that distinguished the four types of school choice on parental beliefs,  $X^2(24, N=12680)=611.98, p<.001, R_c=.21$ ;  $X^2(14, N=12680)=26.66, p<.05, R_c=.04$ . In the first function, an examination of group centroids and item-to-function correlations indicated that this discriminant function separated religious private and non-religious private schools from assigned and chosen schools on the variables of "parents acted as volunteers at school," "parents attended school events," "parents attended school meetings," "expect child will graduate from college," and "how child is doing in school work."

Table 35

## Discriminant Function Analysis of School

Variable	School Choice							N
	Assigned		Chosen		Religious Private		Non-religious Private	
	M	SD	M	SD	M	SD		
<i>Parental Beliefs</i>								
Parents acted as volunteers at school	0.33	0.47	0.31	0.46	0.66	0.47	0.31	0
Parents attended school events	0.66	0.47	0.61	0.49	0.87	0.34	0.31	0
Parents attended school meeting	0.75	0.43	0.73	0.45	0.93	0.26	0.31	0
Expect child will graduate from college	0.82	0.38	0.84	0.37	0.93	0.26	0.31	0
How child is doing in school work	3.82	1.10	3.82	1.10	4.12	0.96	4.12	4
Parent & child talked about school events	0.88	0.32	0.89	0.32	0.95	0.22	0.31	0
Expect child will attend school after high school	0.92	0.27	0.93	0.26	0.97	0.17	0.31	0
Expect child will graduate high school	0.99	0.12	0.982	0.13	1.00	0.06	0.31	0
Group centroids								
Assigned								
Chosen								
Religious Private								
Non-religious Private								
Eigenvalue								
Canonical Correlation								

\*\*\* $p < .001$ .



Table 35

## Discriminant Function Analysis of School Choice on Parental Beliefs

School Choice							Univariate <i>F</i>	Item to function correlation	
Chosen			Religious Private		Non-religious Private				
<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		1	2
<i>Parental Beliefs</i>									
47	0.31	0.46	0.66	0.47	0.59	0.49	164.33***	.91	.10
47	0.61	0.49	0.87	0.34	0.85	0.36	71.32***	.59	-.56
43	0.73	0.45	0.93	0.26	0.89	0.32	57.91***	.54	-.24
38	0.84	0.37	0.93	0.26	0.92	0.27	28.36***	.36	.51
10	3.82	1.10	4.12	0.96	4.04	1.00	24.58***	.35	.17
32	0.89	0.32	0.95	0.22	0.95	0.22	15.92***	.28	.24
27	0.93	0.26	0.97	0.17	0.96	0.20	10.10***	.22	.22
12	0.982	0.13	1.00	0.06	0.98	0.12	2.29	.09	-.19
								-.06	-.02
								-.12	.12
								.72	.01
								.57	.03
								.05	.00
								.21	.04



Parents who chose religious and non-religious private schools were more involved and had higher expectations than parents who chose assigned or chosen schools on the following variables: volunteering at school, attending events, attending meetings, expecting child to graduate from a 4-year college, and perceiving child having better academic achievement.

The variables "parents talked to children about school activities," "expect that child will attend school after high school," and "expect that child will graduate high school" are not predictors for any type of school.

In the second function, an examination of group centroids and item-to-function correlations indicated that this discriminant function separated chosen, religious private and non-religious private schools from assigned schools on the variables of "expect child will graduate from a 4-year college" and "parents attended school events." Parents who choose chosen, religious private, and non-religious private schools have a higher expectation that their children will graduate from college. Parents who choose assigned school were less likely to expect their children to graduate from college, but they did attend their children's school events.

The general relationship between parental beliefs and school choice are as follows: (a) private school parents are more involved in their children's education than are public school parents; (b) private school parents have higher expectations of their children's education than do public school parents; and (c) private school parents perceive their children to have higher academic achievement than do public school parents.

The findings showed that parental beliefs affect their school choice. Private school parents perceived their children to have higher academic achievement and had higher expectation of their children's education. This perception may be a self-

fulfilling prophecy due to the very act of selection, rather than the child's genuine academic achievement and education.

#### Research Question 4

What is the general relationship between school choice and parental satisfaction?

#### Analysis of Parental Satisfaction

The analyses used school choice as the independent variable and used satisfaction with school, teacher, academic standards, and school discipline as dependent variables. Mean and mean rank of parental satisfaction among the four types of school choice is displayed in Table 36. Parental satisfactions were measured by “satisfied with school,” “satisfied with teacher,” “satisfied with academic standards,” and “satisfied with discipline.” Parents rated these variable on a 4-point Likert scale ranging from 1 (very dissatisfied), 2 (somewhat dissatisfied), 3 (somewhat satisfied), to 4 (very satisfied).

#### Parents Were Satisfied With School

Parents who chose religious private schools (3.79) were more satisfied with school than those who chose non-religious private (3.73), chosen (3.51), and assigned (3.35) schools ( $p < .001$ ). The null hypothesis is rejected. Therefore, there is a difference in the mean parental satisfaction with school among the four types of school choice. The Scheffe multiple comparison test found statistically significant differences among the four types of school choice ( $p < .001$ ) except between religious private and non-religious private school.

### Parents Were Satisfied With School Teachers

Parents who chose religious private (3.72) and non-religious private (3.72) were more satisfied with school teachers than those who chose chosen (3.55) and assigned (3.44) schools ( $p < .001$ ). The null hypothesis is rejected. Therefore, there is a difference in the mean parental satisfaction with school teachers among the four types of school choice. The Scheffe multiple comparison test found statistically significant differences among the four types of school choice ( $p < .001$ ) except between religious private and non-religious private school.

### Parents Were Satisfied With Academic Standards

Parents who chose religious private schools (3.82) were more satisfied with academic standards than those who chose non-religious private (3.76), chosen (3.55), and assigned (3.43) schools ( $p < .001$ ). The null hypothesis is rejected. Therefore, there is a difference in the mean parental satisfaction with academic standards among the four types of school choice. The Scheffe multiple comparison test found statistically significant differences among the four types of school choice ( $p < .001$ ) except between religious private and non-religious private school.

### Parents Were Satisfied With School Discipline

Parents who chose religious private schools (3.83) were more satisfied with school discipline than those who chose non-religious private (3.66), chosen (3.52), and assigned (3.40) schools ( $p < .001$ ). The null hypothesis is rejected. Therefore, there is a difference in the mean parental satisfaction with school discipline among the four types of school choice. The Scheffe multiple comparison test found statistically significant differences among the four types of school choice ( $p < .01$ ).



Overall, parents who chose private schools had the highest satisfaction with school among the four types of school choices, while parents who chose assigned schools had the lowest satisfaction. The strength of the relationship between school choice and parental satisfaction was quite weak. As assessed by eta square, the school choice accounts for 1 to 3 % of the variance of parental satisfaction.

The rank order for each school quality is in Table 36. The Spearman's rank order correlation coefficients displayed in Table 37 are statistically significant. The correlation coefficient between assigned schools and chosen schools was 0.95 ( $p=.051$ ). Parents of both assigned schools and chosen schools share a similar satisfaction of school, being satisfied most with the teacher, then with standards, discipline, and finally, the school.

#### Discriminant Function Analysis of School Choice on Parental Satisfaction

In order to test whether parents in assigned school, chosen school, religious private school, and non-religious private school differ on their parental satisfaction, discriminant function analyses were used. Therefore, predictors were the variables in parental satisfaction; and groups were parents in the four types of school choice. In Table 38, the discriminant function analysis shows whether there were differences among assigned school, chosen school, religious private school, and non-religious private school in parental satisfaction.

There was a significant discriminant function that distinguished the four types of school choice on parental beliefs,  $X^2(12, N=12680)=426.332, p<.001, R_c=.18$ . An examination of group centroids and item-to-function correlations indicated that this discriminant function separated chosen, religious private and non-religious private schools from assigned schools on the variables of "parents were satisfied with

Table 36

## Mean and Rank of Parental Satisfaction Am

	School Choice								N
	Assigned (A)		Chosen (C)		Religious private (R)		Non-religious private (NR)		
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	
Satisfied with school	3.35	4	3.51	4	3.79	3	3.73	2	112.0
Satisfied with teacher	3.44	1	3.55	1	3.72	4	3.72	3	56.0
Satisfied with academic standards	3.43	2	3.55	1	3.82	2	3.76	1	100.0
Satisfied with discipline	3.40	3	3.52	3	3.83	1	3.66	4	101.7

\*\*\* $p < .001$



Table 36

## Mean and Rank of Parental Satisfaction Among the Four Types of School Choice

School Choice					<i>F</i>	Sig.	Effect Size	Multiple Comparison
C)								
Religious private (R)		Non-religious private (NR)						
Rank	Mean	Rank	Mean	Rank				
4	3.79	3	3.73	2	112.60	***	3%	A<C,R,NR C<R,NR
1	3.72	4	3.72	3	56.18	***	1%	A<C,R,NR C<R,NR
1	3.82	2	3.76	1	100.95	***	2%	A<C,R,NR C<R,NR
3	3.83	1	3.66	4	101.70	***	2%	A<C,R,NR C<R, NR<R



Table 37

## Rank Order Correlation Coefficients of Parental Satisfaction With School Choice

School Choice	Correlation Coefficients			
	Assigned	Chosen	Religious Private	Non-religious Private
Assigned	1.00			
Chosen	.95	1.00		
Religious Private	-.40	-.21	1.00	
Non-religious Private	0	.21	-.20	1.00

school," "parents were satisfied with discipline," "parents were satisfied with academic standards," and "parents were satisfied with teachers."

Parents who chose chosen, religious, and non-religious private schools were more satisfied than parents who chose assigned on the following variables: satisfied with school, satisfied with discipline, satisfied with academic standards, and satisfied with teachers.

The results showed that parents who exercise choice, no matter if it is in the public or private school system, were more satisfied with schools. There is an issue of whether parental satisfaction is based on the action of choice or the quality of school. Parents may believe the school is better because it is selective. In addition, in the findings on parental beliefs, private school parents perceived that their children have superior academic achievement. These self-fulfilling prophecies might be due to the very act of selection, rather than the child's genuine academic achievement and the quality of school.

Table 38

## Discriminant Function Analysis of School

Variable	School Choice							
	Assigned		Chosen		Religious Private		Non-religious Private	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Parental Satisfaction</i>								
Satisfied with school	3.35	0.82	3.51	0.71	3.79	0.52	3.73	0.60
Satisfied with discipline	3.40	0.79	3.52	0.73	3.83	0.47	3.66	0.66
Satisfied with academic standards	3.43	0.74	3.55	0.67	3.82	0.44	3.76	0.54
Satisfied with teachers	3.44	0.73	3.55	0.65	3.72	0.52	3.72	0.58
Group centroids								
Assigned								
Chosen								
Religious Private								
Non-religious Private								
Eigenvalue								
Canonical Correlation								

\*\*\* $p < .001$ .





Table 38

## Discriminant Function Analysis of School Choice on Parental Satisfaction

School Choice						Univariate <i>F</i>	Item to function correlation
Chosen		Religious Private		Non-religious Private			
<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
<i>Parental Satisfaction</i>							
3.51	0.71	3.79	0.52	3.73	0.60	112.60***	.89
3.52	0.73	3.83	0.47	3.66	0.66	101.70***	.85
3.55	0.67	3.82	0.44	3.76	0.54	100.95***	.85
3.55	0.65	3.72	0.52	3.72	0.58	56.18***	.63
							-.08
							.13
							.57
							.43
							.03
							.18



### A Summary of the Results

The study investigated the factors that influence parents to choose schools for their children. Four research questions inquired into the relationship between parental characteristics and school choice. The results confirmed the relationship between parental characteristics and school choice.

As to Research Question 1, it is clear that family characteristics do affect parents' school choice. Education level, family income level, child's ethnicity and sex, parental working status, and type of parents all significantly influence the parental decision of choosing schools for their children. Parents with higher education attainments, families with higher income, white parents, working parents, and birth parents choose either religious private or non-religious private schools more often than other kinds of parents. Public assigned schools and chosen schools have mixed findings.

The first discriminant function separated religious private and non-religious private schools from assigned and chosen schools on the variable of fathers' education attainment, mothers' education attainment, and family income. The second discriminant function separated assigned and religious private schools from chosen and non-religious private schools on the variable of child's ethnicity. The last discriminant function separated chosen and religious private schools from assigned and non-religious private schools on the variable of fathers' working status, mothers' working status, and mothers' education attainment.

Upper-income families with higher education attainment are clearly more likely to send their children to private schools. Minority families with lower education attainment and lower family income send their children to public chosen

school. The evidence provided here showed that the choice between schools might be based not just on the quality of a school but also on the social class. There is a signal of social stratification regarding the equality consequences of choice.

As to Research Question 2, it is also obvious that school characteristics do affect parental school choice. School location, school race composition, school quality, and school safety all influence parents' decision of choosing schools for their children. Families who choose one type of school consider different school characteristics than families who choose the other types of schools. However, parents' choice of schools may or may not be affected by the school size, as size may be a by-product of school type. Therefore, the school size might be due to default rather than the result of actively exercising choice. The most important reason of choice for chosen, religious private, and non-religious private schools is for better academic environment.

The first discriminant function separated chosen, religious private and non-religious private schools from assigned schools on the variables of "student and teacher respected each other," "child challenged at school," "principal maintained discipline," "teacher maintained discipline," and "how safe is school vs. neighborhood." The second discriminant function separated assigned and religious private schools from chosen and non-religious private schools on the variables of "school located in neighborhood," "school race composition," and "student/teacher respected each other." The last discriminant function separated chosen and religious private schools from assigned and non-religious private schools on the variables of "principal maintained discipline" and school safety.

The findings showed that race and social class affects parents' perceptions of school choice. Again, the evidence provided here showed that the choice between

schools might be based not just on the quality of a school but also on the different cultural and ethnicity composition of student body. There is a warning sign of social segregation that parents do not act monolithically, responding to change in the structure of the educational system in a goal-oriented fashion. Both race and social class affect parents' perception of school choice.

In Research question 3, it is evident that there is a relationship between school choice and parental beliefs, including parental involvement, parental perception of their child's academic achievement, and parental expectation of their child's education. Most parents are involved by talking to their children about school activity, while volunteering was the least common type of involvement. Families who choose religious private schools have the highest parental involvement. Families who choose assigned and chosen schools have lower parental involvement. Parents who choose religious private and non-religious private schools have the perception that their children are doing well in school. In parental expectation of their children's education, private schools again have the highest expectation among the four types of school choice.

The first discriminant function separated religious private and non-religious private schools from assigned and chosen schools on the variables of "parents acted as volunteers at school," "parents attended school events," "parents attended school meetings," "expect child will graduate from college," and "how child is doing in school work." The second discriminant function separated chosen, religious private and non-religious private schools from assigned schools on the variables of "expect child will graduate from a 4-year college" and "parents attended school events."

The findings showed that parental beliefs affect their school choice. Private school parents perceived their children with higher academic achievement and had

higher expectations of their children's education. This self-fulfilling prophecy might be due to the very act of selection, rather than the child's genuine academic achievement and education.

In Research question 4, it is also observed that parental satisfactions are affected by parents' school choice. Parents who choose religious private and non-religious private schools are more satisfied with their schools than parents of the other two school choices. Parents who choose assigned schools are the least satisfied with their schools. The discriminant function separated chosen, religious private and non-religious private schools from assigned schools on the variables of "parents were satisfied with school," "parents were satisfied with discipline," "parents were satisfied with academic standards," and "parents were satisfied with teachers."

The results showed again that parents who exercise choice, no matter if it is in the public or private school system, were more satisfied with schools. Parents may believe the school is better because it is selective. There is an issue of whether parental satisfaction is based on the action of choice or the quality of school. The discussion and implications of the study derived from the findings will be set forth in the chapter that follows.

## CHAPTER V

### DISCUSSION

This study investigated the relationship between parental characteristics and school choice, and whether the decision to choose schools is related to family characteristics, school characteristics, parental beliefs, and parental satisfaction. The literature reviewed in Chapter II showed that family characteristics, school characteristics, and parental beliefs do play a role in parents' decision to choose schools for their children. This is confirmed by the results of testing hypotheses concerning parental characteristics and school choice. This chapter discusses the summary and implication of the findings as well as the limitation of the study.

#### Summary of the Findings

The findings of this study, which were based on a nationally representative sample, both confirm and challenge previous findings. The following is a list of findings that are consistent with previous literature. First, parents with higher family income and higher educational level tend to choose private school for their children. Second, there are more minority students in the public school arena. Third, parents who exercise choice--chosen schools and private schools--have a positive perception of school qualities. Fourth, parents who choose assigned and religious private schools are more likely to find children of their same ethnicity in their schools than will parents who choose chosen and non-religious schools. Fifth, parents who choose private schools for their children tend to have higher parental involvement and

positive perceptions of their children's academic achievement. Finally, parents who exercise school choice tend to have higher parental satisfaction with schools than do parents who do not exercise choice. The following sections have a detailed discussion of the findings.

### Family Characteristics

This study found that parents' position on school choice does vary depending on family characteristics. Caucasian families with higher education attainment and higher family income have the tendency to choose private schools for their children. Minority families with lower education attainment and lower family income have the tendency to choose schools within the public realm for their children. The findings are in line with Cookson's (1994) and Plank's (1993) studies. Cookson indicated that private schools attract families who are wealthier than average, are usually quite knowledgeable about their educational opinions, and have faith in the power of education. Goldhaber (1997) reached a similar conclusion that upper-income parents are more likely to send their children to private schools.

Within the realm of private school, this study found that families who choose non-religious private schools have higher parental education attainment and higher family income than families who choose religious private schools. In the realm of public school, families who chose assigned school have higher family income than families who choose chosen schools. My finding confirms what other studies of choice have found (Strate & Wilson, 1991; Plank, Schiller, & Schneider, 1993; Darling-Hammond & Kirby, 1985; Lee, & Croninger, 1996), that is, low-income families would take advantage of expanded choice if made available. The evidence provided here showed that the choice between schools might be based not just on the



quality of a school but also on the social class. There is a signal of social stratification regarding the equality consequences of choice.

### School Characteristics

This study found that parents' position on school choice does vary depending on school characteristics. Parents among the four types of school choice value school characteristics differently. Both types of public school parents share similar values regarding school qualities. Parents who choose assigned schools prefer the following school characteristics: neighborhood school, median school size, homogeneous ethnicity, and safer school environment. This is much in line with Bridge and Black's (1978) findings that most parents chose schools because of neighborhood proximity and racial composition of the school.

Parents who choose religious private school prefer the following school characteristics: small school size and homogeneous ethnicity. Parents who choose non-religious private school prefer small class size and heterogeneous ethnicity. These findings were supported by Wells (1996) that race and culture affect parents' perceptions. Both types of private school parents value these school qualities more than those parents who choose public schools.

Among these four types of school choice, this study found that the main reason for parents to choose schools is for a better academic environment. This is also in line with other studies (Strate, 1993; Lee, 1996; Martinez, 1996; West, 1995) that parents see school choice as an opportunity to improve education and better academic record. For religious private school parents, they chose school not only because of better academic environment, but also because of religious/moral reasons, which is supported by Lindle (1991).

Regarding other factors that affect school choices, parents who choose chosen, religious private, and non-religious private schools have the tendency to prefer schools that have better student-teacher relations, that challenge children, that are a place where principals and teachers maintain discipline, and that are a safe place. Parents who choose assigned schools tend to send their children to schools that were located in their neighborhood and had a larger school size. Important factors in school choice for parents of children in chosen and religious private schools are discipline and safety. The most important factor in school choice for parents of children in non-religious schools is that children are challenged.

The findings reveal that race and culture affect parent's perception of school choice. Again, the evidence provided here showed that the choice between schools might be based not just on the quality of a school but also on the different cultural and ethnic composition of student body. There is a warning sign of social segregation.

#### Parental Beliefs and Parental Satisfaction

The following findings were shown regarding the relationship between parental beliefs and school choice which are in line with other studies (Witte, 1993, 1996):

1. Parents who choose private schools are more involved in their children's school and education than are parents who choose public schools.
2. Parents who choose private schools perceive their children to have higher academic achievement than do parents who choose public schools.
3. Parents who choose private schools have higher expectations of their children's education than do parents who choose public schools.

However, in the public school arena, the findings that parents choosing chosen

schools are not necessarily more involved than parents choosing assigned schools also challenge some of the previous research. The findings of this study are contrary to Martinez et al (1996) and Witte's (1993, 1996) findings that choice parents were more involved in their children's education than non-choosing parents. One plausible explanation is that the local cultural and institutional context of choice has an important impact on its consequences for different groups of parents and students (Fuller & Elmore, 1996). Martinez's and Witte's studies investigated parental school choice in inner-city. The context of their studies and this study is different—one described local scene of school choice, the other described national scene of school choice. Willms and Echols (1993) indicated that different groups of educational clients seem not only to have very different predispositions to choose, they also seem to bring very different cultural and social assumptions to the choices they are expected to make. For example, lower status families believed that if they sent their children to schools that served higher status families, they would do better academically, but it does not necessarily mean that parents will be involved in their children's education. As a result, many researchers (Wells, 1996; Fuller & Elmore, 1996; Lee, 1996) warned that parents do not act monolithically, responding to change in the structure of the educational system in a goal-oriented fashion. Both race and social class affect parents' perceptions, therefore, the way they perceived school choice opportunities would not be the same. Some qualitative data from future studies will help explain the discrepancy in findings.

A higher percentage of private school parents expect their children to graduate from college than their counterparts associated with public schools. Parents who exercise choice, no matter if it is in the public or private school system, had higher expectations, and perceived their children to have higher academic achievement than

parents who did not exercise choice. Furthermore, those who exercise choice were more satisfied with their children's school experience including being more satisfied with the school, or discipline, with academic standards, and with teachers.

The findings indicated that parental beliefs and satisfaction affect their school choice. Parents who exercise choice, no matter if it is in the public or private school system, perceived their children to have higher academic achievement and were more satisfied with school than parents who did not exercise choice. This self-fulfilling prophecy might be due to the very act of selection, rather than the child's genuine academic achievement and genuine school education and quality. Parents may believe the school is better because it is selective. There is a concern that whether parental beliefs and satisfaction are based on the action of choice, self-fulfilling prophecy, or the quality of the school.

In sum, parental characteristics have an association with school choice. A summary of parental characteristics between public schools and private schools is displayed in Table 39. Parents who have higher family income and higher parental educational attainments have the tendency to choose private school over public school. Parents who choose private school over public school tend to have higher parental involvement and perceive their children to have higher academic achievement.

Parents who exercise choice have similar parental characteristics. A summary of parental characteristics between public assigned school and school of choice is displayed in Table 40. Parents who exercise choice within public school system or beyond public school system tend to feel that their schools are of better quality and are safer. Parents who exercise choice tend to have higher expectations of their children's education and higher satisfaction with their schools.

Table 39

Summary of Parental Characteristics Between Public Schools and Private Schools

Variable	Public Schools	Private Schools
Parental education attainment	Lower education attainment	Higher education attainment
Family income	Lower family income	Higher family income
Parental involvement in their children's education	Lower involvement	Higher involvement
Parental expectation of their children's education	Lower expectation	Higher expectation
Perceived children's academic achievement	Perceiving lower achievement	Perceiving higher achievement

Table 40

Summary of Parental Characteristics Between Public Assigned School and School of Choice

Variable	Public Assigned School	School of Choice
Perceived school quality	Lower school quality	Higher school quality
Perceived school safety	Less safe school environment	Safer school environment
School located in neighborhood	Close to neighborhood	Not close to neighborhood
School size	Larger school size	Smaller school size
Parental satisfaction	Lower satisfaction	Higher satisfaction
Parental expectation of their children graduating from 4-year college	Lower expectation	Higher expectation

### Implications of the Study

This study investigated parental characteristics on school choice by using a nationally representative sample. Most of the other published studies used data from a school district, a state, or several states. This study also differs from most other research by using the National Household Education Survey of 1993 (NHES) rather than using National Educational Longitudinal Study of 1988 (NELS). This study analyzed four different school choices--public assigned school, public chosen school, private religious school, and private non-religious school, rather than only either public school system or private school.

The findings of this study have policy implication for the issues of parental characteristics and school choice. First, the challenge of how to fulfill parental needs and expectation lies in the multidimensionality of the school choice policy. The data suggested that parents who choose public school have similar parental characteristics, and parents who choose private school have similar parental characteristics. It is a challenge to have school choice policies that meet all family needs and expectation without increasing separation of students by race, social class, and cultural background. As Fuller and Elmore (1996) pointed out, context matters in the design and implementation of school choice policies. Policy-makers need to be aware of what kind of school choice policies should promote. Arsen, Plank, and Sykes (1999) also indicated that rules matters in producing different outcomes of school choice policies.

Second, the data also indicate that parents who exercise choice have similar parental characteristics: they were more satisfied with their schools. One of the issues about school choice is whether parental satisfaction is based on the action of choice or

the quality of the school. Driscoll (1993) pointed out that parents who choose schools, regardless of the type believe the school is better because it is selective. Its criterion of worth is its very selectivity, measured not by what students achieve or what teachers do but by the fact that not everyone gets admitted. Other than the fact that choice schools both in public and private school system are more selective, the data reveal little that makes them different in terms of academic achievement from other schools (Horn & Miron, 1999; Goldhaber, 1996; Gamoran, 1996). This self-fulfilling prophecy might be due to the very act of selection, rather than the child's genuine academic achievement and education. The evidence suggested that choice itself is not the engine for a real change. Allowing schools to become more selective may make people feel more positive or satisfied with the schools, but it does not appear to change the quality of the educational experience in any other measurable way.

Third, the results presented here should also sound a note of caution regarding the equity consequences of choice. The voucher program and charter schools will be crucial in determining who benefits from choice. The evidence from this study shows that Caucasian, upper-income families are clearly more likely to send their children to private schools. These families would be likely beneficiaries of any voucher program. The findings from this study also showed that poor and minority parents favor chosen schools for their children. These families would also be likely beneficiaries of any chosen schools including charter schools. Therefore, the evidence provided here shows that the competition between schools might be based not just on the quality of a school but also on the social class and racial composition of the student body. There is a warning sign of social segregation that parents do not act monolithically, responding to change in the structure of the educational system in a goal-oriental fashion. School choice opens up new opportunities for students, especially poor and



minority students, but also might open the door for increased racial segregation in the schools (Horn & Miron, 1999; Arsen, Plank, & Sykes, 1999), an issue which the nation has been wrestling with for decades.

Finally, the designers of school choice policy should look hard at the problem of non-choosing parents. Martinez's (1996), Wells' (1996), and Witte's (1996) studies reported that inner-city parents who chose chosen schools are those parents with relatively more education and higher family incomes. The results of this study, which is based on a national data set, showed that chosen school parents are those parents with lower family incomes. The scenes of school choice from local and national aspects are as follows. The top layer of the stratification is a parent with higher education, and higher family income who exercises choice by choosing private school. The second layer is a parent with higher education and higher family income who exercises choice by choosing a residential area with an attractive public suburban school. The third layer is an inner-city school parent with relative higher education and relative higher family income who exercises choice by choosing public chosen schools. The bottom layer is an inner-city school parent with relative lower education and relative lower family income who does not exercise choice. There is a warning sign of social stratification. A large part of the stratification problem seems to result from the bottom layer that parents and students simply do not choose, rather than from differing preferences among those who do choose (Lee, 1994; 1996; Well, 1996; Witte, 1996). If these families left in large numbers, the consequences for families who remained would undoubtedly be negative. Without additional external support for inner-city schools to improve their programs, and thus compete more effectively for students and families, choice would simply exacerbate the problem facing school districts with large poor and minority population.

Using choice to improve education is a serious and complex task that is not easily amenable to guidance by simple ideological principles. Policy-makers should take seriously both the distributional impacts of choice and the achievement effects for specific groups of students. Policy-makers are accountable not only for the beneficial effects of choice policies on those who choose, but also for the detrimental effects on those who, for whatever reason, fail to choose. Therefore, policy-makers are accountable not just for the enhanced consumer satisfaction of people who are already active choosers, but also for the overall improvement of opportunity and performance for all students.

### Limitations of the Study

The limitations of this study largely result from the fact that the study uses an existing database. Consequently the data were collected before the study was conceptualized and research questions formulated. However, the database is a rich one that facilitated the conduct of this study, although the nature of pre-existing data placed some modest limits on the study.

Since the data of NHES:93 were collected in 1993, there have been further developments pertaining to school choice. Although the nature of the phenomenon exposed in this study perhaps still exists, it would be interesting to compare parental perceptions/perspectives as illustrated in this study with the current parental perceptions/perspectives. Second, items for type of school choice in this study included assigned, chosen, religious private, and non-religious private schools. It might be more complete for this study to have another category within assigned school such as urban assigned school and suburban assigned school. Therefore, the patterns of public assigned school may be explained in a more meaningful way.

Fourth, the data for this study are quantitative and perceptual. It would be ideal to have some in-depth qualitative data to investigate the difference between parental perception of school choice and school location such as inner-city schools and suburban schools.

### Directions for Future Research

This study also suggests some directions for future inquiry. First, there are parental perspectives that we should consider when designing a school choice policy. However, we should take into account other groups' perspectives, such as teachers' perspectives and practicing school leaders' perspectives both in public school system and private school system. Their input is important regarding designing a school choice policy. There is much research to be done in this area.

Second, data of school choice are far too aggregate. For meaningful headway to be made, future work may need to be done in qualitative approaches--focus groups, or interviews to substitute the quantitative results.

Third, it might be interested to see students' actual academic achievement rather than parental perception of their children' academic achievement in relation to school choice.

Finally, there remains much to be learned about the causation between parents and choice in public and private schools or within the public school system. In order to find the causation between parents and school choice, an experimental design for parental school choice is called for.

## **Appendix A**

### **Protocol Clearance From the Human Subjects Institutional Review Board**

Human Subjects Institutional Review Board

Kalamazoo, Michigan 49008-3899

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**WESTERN MICHIGAN UNIVERSITY**

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Date: 30 July 1999

To: Jianping Shen, Principal Investigator  
Chi-Lin Hsieh, Student Investigator for dissertation

From: Sylvia Culp, Chair *Sylvia Culp*

Re: HSIRB Project Number 99-07-09

This letter will serve as confirmation that your research project entitled "The Effects of Family Characteristics on School Choice" has been **approved** under the **exempt** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may **only** conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

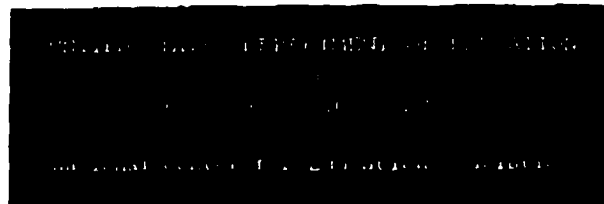
Approval Termination: 30 July 2000

## **Appendix B**

### **Letter of Permission From National Center for Education Statistics**

JUL-09-99 FRI 09:37 AM NCES

FAX NO. 2022191736

**MEMORANDUM**

July 8, 1999

To whom it may concern:

The National Household Education Survey (NHES) was conducted in 1991, 1993, 1995, 1996, and 1999. The National Center for Education Statistics, the sponsor of the surveys, has developed a public release version of the data for each of the collection years. These public release data are designed for use by the general public and have been tested to assure against potential respondent disclosure. More specifically, the data are checked to protect the anonymity of the respondents. Miss Chia-lin Hsieh has permission to use the School Safety and Discipline component of the 1993 public release data. She also has permission to use any of the other public release NHES data as does any other individual wishing to use them.

Sincerely,  
Christopher D. Chapman

Project Director  
1999 National Household Education Survey

## BIBLIOGRAPHY

- Alves, M., Pryde, P. L. (1993). Comments and general discussion. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- American Educator (1993). Myths and facts about private school choice. American Educator: The professional Journal of the American Federation of Teachers, 17(3), 26.
- Anderson, D. (1992). The interaction of public and private school systems. Australian Journal of Education, 36(3), 213-236.
- Arons, S. (1982). Educational choice: Unanswered question in the American experience. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Arsen, D., Plank, D., Sykes, G. (1999). School choice policies in Michigan: The rules matter. E. Lansing, MI: Michigan State University.
- Ausbrooks, C. Y. (1997). Values education in schools: Are public school, choice schools, and private schools different? ERS Spectrum, 15(4), 3-9.
- Ball, W. B. (1982). Parents in court. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Bastian, A. (1989). Response to Nathan: Choice is a double-edged tool. Educational Leadership, 47(2), 56-57.
- Beers, D., & Ellig, J. (1994). An economic view of the effectiveness of public and private schools. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Best, J. W., & Kahn, J. V. (1993). Research in education (7<sup>th</sup> ed.). Boston: Allyn and Bacon.
- Bhagavan, M. (1996). The discourse of school choice in the United States. Educational Forum, 60(4), 317-325.
- Bierlein, L. (1993). A national review of open enrollment/choice: Debates and descriptions. AZ: Arizona State University Morrison Institute for Public Policy.



- Bierlein, L. A. (1995). Charter schools: A new approach to public education. NASSP Bulletin, 79(572), 12-20.
- Bierlein, L. A. (1996). Charter schools: Initial findings. Denver: Education Commission of the States.
- Biller, L. W. (1995). School choice: AN educational myth or a panacea? NASSP Bulletin, 79(572), 33-40.
- Blank, R. K., Levine, R. E., & Steel, L. (1996). After 15 years: Magnet schools in urban education. In B. Fuller, R. F. Elmore (Eds.), Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.
- Bomotti, S. (1996). Why do parents choose alternative schools? Educational Leadership, 54(2), 30-32.
- Boyer, E. L. (1994). Blending the neighborhood school tradition with "Choice within schools". In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Bracey, G. W. (1994). The fourth Bracey report on the condition of public education. Phi Delta Kappan, 78(2), 114-127.
- Bridge, R. G., & Blackman J. (1978). A study of alternatives in American education, Vol. IV: Family choice in schooling. Santa Monica, CA: The Rand Corporation.
- Brown, F. (1992). The Dutch experience with school choice: Implication for American education. In P. Cookson (Ed.), The choice controversy. Newbury Park, CA: Sage.
- Bryk, A. S., & Lee, V. E. (1993). Science or policy argument? A rejoinder to Chubb and Moe. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Budde, R. (1996). The evolution of the charter concept. Phi Delta Kappan, 78(1), 72-73.
- Burt, W. D. (1982). The new campaign for tax credits: "Parochiaid" misses the point. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Carlson, R. (1996). Reframing and reform. White Plains, NY: Longman.
- The Carnegie Foundation for the Advancement of Teaching. (1992). School choice. Princeton, NJ: Author.

- Carnoy, M. (1995). Is school privatization the answer? Data from other countries help burst the voucher bubble. American Educator, 19(3), 29-30.
- Chitty, C. (1997). Privatisation and marketisation. Oxford Review of Education, 23(1), 45-62.
- Choy, S. P. (1998). Public vs. private schools. Principal, 77(5), 28, 30-32.
- Chriss, B. (1992). The rise and fall of choice in Richmond, CA. Economics of Education Review, 11(4), 395-406.
- Chubb, J. E., & Moe, T. M. (1990). Politics, markets, and America's schools. Washington, D.C.: The Brookings Institution.
- Chubb, J. E., & Moe, T. M. (1993). The forest and the trees: A response to our critics. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Cohen, M., & Finn, C. E. (1993) A dialogue between tow educators. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Coleman, J. S., Hoffer, T., & Kilgore, S. (1982). High school achievement: Public, Catholic and private schools compared. New York: Basic Books.
- Conns, J. E., & Sugarman, S. D. (1982). Educational tax credits versus school vouchers: Comment on the California tuition tax credit proposal. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Conway, G. E. (1992). School choice: A private school perspective. Phi Delta Kappan, 73(7), 561-563.
- Cookson, P. (1994). School choice: The struggle for the soul of American education. New Haven, CT: Yale University Press.
- Cookson, P. W. (1992). The choice controversy. Newbury Park, CA: Sage.
- Cookson, P. W. (1993). Assessing private school effects: Implications for school choice. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Cookson, P. W. (1994). School choice: The struggle for the soul of American Education. New York: Yale University.
- Cookson, P. W., & Shroff, S. M. (1997). Recent experience with urban school choice plans (ERIC/CUE Digest number 127). New York: Teachers College, Columbia

University, Eric Clearinghouse on Urban Education, Institute for Urban and Minority Education. (ERIC Document Reproduction Service No. ED 413 388)

- Coons, J. E., & Sugarman, S. (1978). Education by choice: The case for family control. Berkeley: University of California Press.
- Crain, R. L. (1993). New York City's career magnet high schools: Lessons about creating equity within choice programs. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Crawford, J., & Freeman, S. (1996). Why parents choose private schooling: Implications for public school programs and information campaigns. ERS Spectrum, 14(3), 9-16.
- Darling-Hammond, L., & Kirby, S. N. (1985). Tuition tax deductions and parent school choice: A case study of Minnesota. Santa Monica, CA: Rand Corporation.
- Darling-Hammond, L., & Kirby, S. N. (1988). Public policy and private choice: The case of Minnesota. In T. James & H. M. Levin (Eds.), Comparing public and private schools: Vol. 1. Institutions and organizations. New York: Falmer.
- David, M. (1997). Diversity, choice, and gender. Oxford Review of Education, 23(1), 77-87.
- Dekis, J. H. (1987). Should government help kids attend public school? Christianity, 31, 52-53.
- Dianda, M. (1995). Teacher characteristics: Who teaches in charter schools? In Corwin, R. G. and Flaherty, J. F. (Eds.), Freedom and Innovation in California's Charter School. Los Alamitos, CA: Southwest Regional Laboratory.
- Dougherty, K. J., & Sostre, L. (1992). Minerva and the market: The sources of the movement for school choice. In P. Cookson (Ed.), The choice controversy. Newbury Park, CA: Sage.
- Driscoll, M. E. (1993). Choice, achievement, and school community. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- duPont IV, P. S. (1994). A "GI Bill" for educating all children. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Ehrenberg, E. L. (1996). Getting to school: A proposal for a Federal school choice transportation tax credit. Journal of Law and Education, 25(2), 199-217.

- Elam, S. M., Rose, L. C., & Gallup, A. M. (1996). The 28th annual Phi Delta Kappa/Gallup poll of the public's attitudes toward the public schools. Phi Delta Kappan, 78(1), 41-59.
- Elmore, R. F. (1988). Choice in public education. In W. L. Boyd & C. T. Kerchner (Eds.), The politics of excellence and choice in education (pp. 79-98). New York: Falmer.
- Elmore, R. F. (1990). Choice as an instrument of public policy: Evidence from education and health care. In W. H. Clune & J. F. Witte (Eds.), Choice and control in American education. New York: Falmer.
- Elmore, R. F., & Fuller, B. (1996). Empirical Research on educational choice: What are the implications for policy-makers? In B. Fuller, R. F. Elmore (Eds.), Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.
- Erickson, D. A. (1986). Choice and private schools dynamics of supply and demand. In Daniel C. Levy, (Ed.), Private Education: Studies in Choice and Public Policy. New York: Oxford University Press.
- Fabri, L. A., & Sloan, C. A. (1992). Parental perceptions of choice. Catalyst for Change, 21(2), 14-16.
- Feeney, T. (1994). Why educational choice: The Florida experience. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Fennimore, B. S. (1996). Equity is not an option in public education. Educational Leadership, 54(2), 53-55.
- Fine, M. (1993). Democratizing choice: Reinventing, not retreating from, public education. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Finn, C. E. (1989). The choice backlash. National Review, 41, 30-32.
- Finn, C. E., Bierlein, L. A., & Manno, B. V. (1996). Charter schools in action: A first look. Washington, DC: Hudson Institute Educational Excellence Network.
- Fisher, D. (1982). Family choice and education: Privatizing a public good. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Fossey, R. (1994). Open enrollment in Massachusetts: Why families choose. Educational Evaluation and Policy Analysis, 16, 320-334.

- Fowler, F. C. (1992). American theory and French practice: A theoretic rationale for regulating school choice. Educational Administration Quarterly, 28(4), 452-472.
- Fox, L. P. (1987). Home school curricula: Constitutional issues (Doctoral dissertation, University of North Carolina at Greensboro, 1990). Dissertation Abstracts International, 48-05A, 1069.
- Frey, D. E. (1982). The tuition tax credit: uncertain directions in public policy. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Friedman, M. (1962). Capitalism and freedom. Chicago: University of Chicago Press.
- Friedman, M. (1997). Public schools: Make them private. Education Economics, 5(3), 341-344.
- Fuller, B. (1996). Is school choice working? Educational Leadership, 54(2), 37-40.
- Fuller, B., & Elmore, R. F. (1996). Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.
- Fuller, B., Elmore, R. F., & Orfield, G. (1996). Policy-making in the dark: Illuminating the school choice debate. In B. Fuller, R. F. Elmore (Eds.), Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.
- Gainey, D. D. (1995). Public school choice: Let the education buyer beware. NASSP Bulletin, 79(572), 62-68.
- Gallup, A. M. (1986). The 18th annual Gallup Poll of the public's attitude toward the public schools. Phi Delta Kappan, 68(1), 56.
- Gamoran, A. (1996). Do magnet schools boost achievement? Educational Leadership, 54(2), 42-46.
- Garner, W. T., & Hannaway, J. (1982). Private schools: The client connection. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Geske, T. G. (1997). Charter schools: A viable public school choice option? Economics of Education Review, 16(1), 15-23.
- Gintis, H. (1995). The political economy of school choice. Teachers College Record, 96(3), 492-511.
- Glenn, C. L. (1992). Do parents get the schools they choose? Equity and Choice, 9(1), 47-49.

- Goenner, J. N. (1996). Charter schools: The revitalization of public education. Phi Delta Kappan, 78(1), 32-36.
- Goldhaber, D. D. (1996). Public and private high schools: Is school choice an answer to the productivity problem? Economics of Education Review, 15(2), 93-109.
- Goldhaber, D. D. (1997). School choice as education reform. Phi Delta Kappan, 79(2), 143-147.
- Goldring, E. B. (1991). Parental involvement and public choice in education. International Journal of Educational Research, 15(3-4), 229-352.
- Goldring, E. B., & Bauch, P. A. (1993). Parent involvement and school responsiveness: Facilitating the home-school connection in schools of choice. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.
- Greene, J. P., & Peterson, P. E. (1996). Methodological issues in evaluation research: The Milwaukee school choice plan. Occasional Paper 96-4. Cambridge, MA: Department of Government, Harvard University. (ERIC Document Reproduction Service No. ED 402 682)
- Hakim, S., Seidenstat, P., & Bowman, G. W. (1994). Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Hamm, C. (1982) Constraints on parents' rights concerning the education of their children. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Hanks, D. B. (1997). School choice programs: What's happening in the States, 1997. Washington, DC.: Heritage Foundation. (ERIC Document Reproduction Service No. ED 412 320)
- Hanushek, E. (1992). The trade-off between child quantity and quality. Journal of Political Economy, 100, 84-117.
- Harmer, D. (1994). School choice: Why you need it--How you get it. Washington DC: Cato institute.
- Hart, G. K., & Burr, S. (1996). The story of California's charter school legislation. Phi Delta Kappan, 78(1), 37-40.
- Haveman, R., Wolfe, B., & Spaulding, J. (1991). Childhood events and circumstances influencing high school completion. Demography, 28, 133-157.

- Hawley, W. (1996). The predictable consequences of school choice. Education Week, 16, 47, 56.
- Henig, J. R. (1996). The local dynamics of choice: Ethnic preferences and institutional responses. In B. Fuller, R. F. Elmore (Eds.), Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.
- Hetland, T. (1994) The Milwaukee choice program. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Hill, P. (1996). The educational consequences of choice. Phi Delta Kappan, 77(10), 671-675.
- Hill, P., & Grover, H. J. (1993). Comments and general discussion. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Hill, P. T. (1994). Public schools by contract: An alternative to privatization. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Hill, P. T., Pierce, L. C., & Guthrie, J. W. (1997). Reinventing public education: How contracting can transform America's schools. Chicago: The University of Chicago Press.
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (1998). Applied statistics for the behavioral sciences. Boston: Houghton Mifflin.
- Hirschman, A. A. (1970). Exit, voice, and loyalty. Cambridge, Mass: Harvard University Press.
- Hlebowitsh, P. S. (1995). Can we find the traditional American school in the idea of choice? NASSP Bulletin, 79(572), 1-11.
- Horn, J., & Miron, G. (1999). Evaluation of the Michigan public school academy initiative. Kalamazoo, MI: Western Michigan University.
- Ishak, N. M. (1999). An analysis of parental and peer attachment and its determinant factors. Unpublished doctoral dissertation, Western Michigan University, Kalamazoo, MI.
- Jencks, C. (1985). How much do high school students learn. Sociology of Education, 58, 128-135.

- Johanek, M. (1992). Private citizenship and school choice. In P. Cookson (Ed.), The choice controversy. Newbury Park, CA: Sage.
- Jones, W. A., Ambrosie, F. (1995). What are the challenges inherent in schools of choice? NASSP Bulletin, 79(572), 21-32.
- Kane, J. (1992). Choice: The fundamentals revisited. In P. Cookson (Ed.), The choice controversy. Newbury Park, CA: Sage.
- Kane, T. J. (1996). Lessons from the largest school voucher program: Two decades of experience with Pell grants. In B. Fuller, R. F. Elmore (Eds.), Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.
- Kean, T. H. (1994). Three privatization models for public schools. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Kerchner, C. T., & Boyd, W. L. (1988). What doesn't work: An analysis of market and bureaucratic failure in schooling. In W. L. Boyd & C. T. Kerchner (Eds.), The politics of excellence and choice in education (pp. 99-116). New York: Falmer.
- Kiecolt, K. J., & Nathan, L.E. (1985). Secondary analysis of survey data. Beverly Hills: Sage Publications.
- Kolb, F. A., & Rose, R. (December, 1990/January, 1991). Controlled choice in Fall River, Massachusetts. Educational Leadership, 48(4), 38.
- Kottkamp, R. B., & Nault, R. L. (1982). Salient considerations in program choice: The student perspective. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Krathwohl, D. R. (1998). Methods of educational and social science research. White Plains, NY: Longman.
- Laitsch, D. (1998). School choice and privatization efforts: A legislative survey. Washington, DC.: AACTE Publications. (ERIC Document Reproduction Service No. ED 425 126)
- Lange, C., & Ysseldyke, J. E. (1994). How school choice affects students with special needs. Educational Leadership, 52(3), 84-85.
- Lankford, H., & Wyckoff, J. (1992). Primary and secondary school choice among public and religious alternatives. Economics of Education Review, 11(4), 317-337.



- Lawton, S. B. (1992). Issues of choice: Canadian and American perspectives. In P. Cookson (Ed.), The choice controversy. Newbury Park, CA: Sage.
- Lee, D. R., & Sexton, R. L. (1988). The public school lobby vs. educational vouchers. USA Today, 117, 79-81.
- Lee, V. E. (1994). Parental choice of schools and social stratification in education: The paradox of Detroit. Educational Evaluation and Policy Analysis, 16(4), 434-457.
- Lee, V. E., Bryk, A. S. (1989). A multilevel model of the social distribution of high school achievement. Sociology of Education, 62, 190-208.
- Lee, V. E., & Bryk, A. S. (1993). Science or policy argument? A review of the quantitative evidence in Chubb and Moe's politics, markets, and America's schools. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Lee, V. E., Croninger, R. G., & Smith, J. B. (1994). Parental choice of schools and social stratification in education. Educational Evaluation and Policy Analysis, 16, 434-457.
- Lee, V. E., Croninger, R. G., & Smith, J. E. (1996). Equity and choice in Detroit. In B. Fuller, R. F. Elmore (Eds.), Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.
- Levin, H. (1990). The theory of choice applied to education. In Choice and Control in American Education. Vol. 1, The Theory of Choice and Control in Education, edited by William H. Clune and John F. Witte. New York: Falmer.
- Levine, D. U., & Tyson, L. (1990). Participation, productivity and the firm's environment, In A. S. Blinder (Ed.), Paying for productivity: A look at the evidence. Washington, D. C.: Brookings Institution.
- Lewis, J. F. (1995). Saying no to vouchers: What is the price of democracy? NASSP Bulletin, 79(572), 41-51.
- Lieberman, M. (1989). Privatization and educational choice. New York: St. Martin's Press.
- Lieberman, M. (1990). Public school choice. Lancaster, PA: Technomics.
- Lindle, R. (1991). Parent, teachers, and the language of school choice. Planning and Changing, 22(2), 79-93.
- Lockheed, M., & Jimenex, E. (1996). Public and private schools overseas: Contrasts in organization and effectiveness. In B. Fuller, R. F. Elmore (Eds.), Who

chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.

Lovell, M. C. (1978). Spending for education: The exercise of public choice. Review of Economics and Statistics, 60(4), 487-495.

Maddaus, J. (1988). Parents' perceptions of the moral environment in choosing their children's elementary schools. Paper presented at the Annual Meeting of the Association for Moral Education, Pittsburgh, PA, November. ED 321873.

Malen, B., Kranz, J. (1989). The effect of Tuition-tax-credit deduction proposals on social values: An analysis of probable costs and consequences. Journal of Education Finance, 15(2), 244-268.

Manley-Casimir, M. E. (1982). Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.

Manushek, E. (1992). The trade-off between child quantity and quality. Journal of Political Economy, 100, 84-117.

Martinez, V. (1995). The consequences of school choice: Who leaves and who stays in the inner city. Social Science Quarterly, 76(3), 485-501.

Martinez, V., Godwin, K., Kemerer, F. R. (1996). Public school choice in San Antonio: Who chooses and with what effects? In B. Fuller, R. F. Elmore (Eds.), Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.

Martinez, V., Kemerer, F., & Godwin, K. (1993). Who chooses and why? Baseline demographic report. San Antonio School Choice Project. Denton: University of North Texas, Center for the Study of Education Reform. (ERIC Document Reproduction Service No. EA 025 031).

Martinez, V., Thomas, K., & Kemerer, F. (1994). Who chooses and why: A look at five school choice plans. Phi Delta Kappan, 75(9), 678-681.

Mattews, L. J., & Hansen, J. M. (1995). Choice within schools can help students, schools, and society. NASSP Bulletin, 79(572), 69-76.

Meier, D. W. (1997). Can the odds be changed? Educational Policy, 11(2), 194-208.

Menge, J. (1994). The evaluation of the New Hampshire plan: An early voucher system. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.

- Molnar, A. (1996). Charter schools: The smiling face of disinvestment. Educational Leadership, 54(2), 9-15.
- Moore, D., & Davenport, S. (1990). School choice: The new, improved sorting machine. In W. Boyd & H. Walberg (Eds.), Choice in education: Potential and problems. Berkeley, CA: McCutchan.
- Muller, C. (1993). Parent involvement in Catholic schools. Private School Monitor, 14(1-2), 14-17.
- Murphy, J. (1996). Why privatization signals a sea change in schooling. Educational Leadership, 54(2), 60-62.
- Nathan, J. (1987). Results and future prospects of state efforts to increase choice among schools. Phi Delta Kappan, 68, 746-752.
- Nathan, J. (1989). Before adopting school choice, review what works and what fails. American School Board Journal, 176(7), 28-30.
- Nathan, J. (1994). What Minnesota has learned about school choice. Phi Delta Kappan, 75(9), 682-688.
- Nathan, J. (1996). Early lessons of the charter school movement. Educational Leadership, 53(2), 16-20.
- National Center for Education Statistics. (1994). National Household Education Survey of 1993: School Safety and Discipline Data File User's Manual. U.S. Department of Education Office Educational Research and Improvement. Washington, D.C.
- Nault, R. L., & Uchitelle, S. (1982). School choice in the public sector: A case study of parental decision making. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Newman, J. W. (1995). Comparing private schools and public schools in the 20<sup>th</sup> century: History, demography, and the debate over choice. Educational Foundations, 9(3), 5-18.
- Office of Educational Research and Improvement. (1992). Getting started: How choice can renew your public schools. Washington, D.C.: U.S. Department of Education.
- Ogawa, R. T., & Dutton, J. S. (1994). Parental choice in education: Examining the underlying assumptions. Urban Education, 29(3), 270-297.
- Ogawa, R. T., & Dutton, J. S. (1997). Parent involvement and school choice: Exit and voice in public schools. Urban Education, 32(3), 333-353.

- O'Neil, J. (1990). Piecing together the restructuring puzzle. Educational leadership, 47(7), 4-10.
- O'Neil, J. (1996). New options, old concerns. Educational Leadership, 54(2), 6-8.
- Page, L., & Levine, M. (1996). The pitfalls and triumphs of launching a charter school. Educational Leadership, 54(2), 26-29.
- Paulu, N. (1989). Improving schools and empowering parents: Choice in American education. Washington, DC: US Government Printing Office.
- Pearson, J. (1993). Myths of educational choice. Westport, CT: Praeger.
- Peeler, T. H., & Parham, P. A. (1994). A public-private partnership: South Pointe Elementary School of Dade County, Florida. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Petronio, M. A. (1996). The choices parents make. Educational Leadership, 54(2), 33-36.
- Plank, S., Schiller, K. S., Schneider, B., & Coleman, J. S. (1993). Effects of choice in education. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Premack, E. (1996). Charter schools: A status report. School Business Affairs, 62(12), 10-15.
- Quade, Q. L. (1993). Educational choice: Getting there from here. Momentum, 24(4), 19-20.
- Rasell, E., & Rothstein, R. (1993). School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Rasmussen, R. (1981). A study of alternatives in American education, Vol. III: Teachers' responses to alternatives. Santa Monica, CA: The Rand Corporation.
- Raywid, M. A. (1987). Public choice, yes, vouchers, no! Phi Delta Kappan, 68, 762-769.
- Raywid, M. A. (1992). Choice orientations, discussions, and prospects. In P. Cookson (Ed.), The choice controversy. Newbury Park, CA: Sage.
- Rinehart, J. R., & Lee, J. E. (1991). American education and the dynamics of choice. New York: Praeger.

- Ritzen, J. M. M. (1997). School finance and school choice in the Netherlands. Economics of Education Review, 16(3), 329-335.
- Rogus, J. F. (1996). School choice: Where do we go from here? School Business Affairs, 62(12), 34-37.
- Rubenstein, M. C., & Adelman, N. E. (1994). Public choice in Minnesota. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Saks, J. B. (1997). The voucher debate: Should public money follow kids to private schools? American School Board Journal, 184(3), 24-28.
- Sandy, J. (1992). Evaluating the public support for educational vouchers: A case study. Economics of Education Review, 11(3), 249-256.
- Schiller, K. S. (1993). Are they schools of choice? A response to Sosniak and Ethington. Educational Evaluation and Policy Analysis, 15(1), 99-108.
- Schlens, V. J. (1990). Public school choices: An ERIC/ChESS sample. Religion & Public Education, 17(3), 395-399.
- Schmookler, A. B. (1993). The illusion of choice. Albany: State University of New York Press.
- Schneider, B. (1996). Public school choice: Some evidence from the National Education Longitudinal Study of 1988. Educational Evaluation and Policy Analysis, 18(1), 19-29.
- Schneider, B., Schiller, K. S., & Coleman, J. S. (1996). Public school choice: Some evidence from the National Education Longitudinal Study of 1988. Educational Evaluation and Policy Analysis, 18(1), 19-29.
- Shanahan, T., & Walberg, H. J. (1985). Productive influences on high school student achievement. Journal of Educational Research, 78, 357-363.
- Shanker, A. (1992). Bush's new voucher program: G. I. bull. The New Republic, 207(30), 23.
- Shanker, A. (1993). Public vs. private schools. National Forum: Phi Kappan Phi Journal, 73(4), 14-17.
- Shanker, A., & Rosenberg, E. (1992). Do private schools outperform public schools? In P. Cookson (Ed.), The choice controversy. Newbury Park, CA: Sage.

- Shanker, A., & Rosenberg, B. (1994). Private school choice: An ineffective path to educational reform. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Sontheimer, K. C. (1994). Privatizing higher education. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Sosniak, L. A., & Ethington, C. A. (1992). When public school "choice" is not academic: Findings from the National Education Longitudinal Study of 1988. Educational Evaluation and Policy Analysis, 14(1), 35-52.
- Spring, J. (1982). Dare educators build a new school system? In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Strate, J. M., & Wilson, C. A. (1991). Schools of choice in the Detroit metropolitan area. Detroit, MI: Center for Urban Studies/College of Urban, Labor and Metropolitan Affairs, Wayne State University.
- Sukstorf, M. E., Wells, A. S., & Crain, R. L. (1993). A final word on Chubb and Moe. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Thiessen, E. J. (1982). Religious freedom and educational pluralism. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Thomas, K. (1997). Who leaves and why? A study of attrition from a public school choice program. ERS Spectrum, 15(2), 19-27.
- Tirozzi, G. N. (1996). American Education at a crossroads: Reinvestment vs. disinvestment. School Business Affairs, 62(12), 5-9.
- Tomlinson, S. (1997). Diversity, choice, and ethnicity: The effects of educational markets on ethnic minorities. Oxford Review of Education, 23(1), 63-76.
- U.S. Department of Education, National Center for Education Statistics (1991). Digest of Education Statistics. Washington, DC: NCES.
- U.S. Department of Education. (1989). The President's education summit with governors: Joint statement. Washington, DC.
- U.S. Department of Education. (2000). What stands out among these schools. <http://www.ed.gov/pubs/urbanhope>

- Ubinas, W. E. (1994). Making choice an option for parents: East Harlem, New York. In S. Hakim, P. Seidenstat, & G. W. Bowman (Eds.), Privatizing education and educational choice: Concepts, plans, and experiences. Westport, Connecticut: Praeger.
- Wagner, T. (1996). School choice: To what end? Phi Delta Kappan, 78(1), 70-71.
- Walberg, H. J., & Alvarado, A. J. (1993). Comments and general discussion. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Walthers, K. (1995). Saying yes to vouchers: Perception, choice, and the educational response. NASSP Bulletin, 79(572), 52-61.
- Weeres, J. G. (1988). Economic choice and the dissolution of community. In W. L. Boyd & C. T. Kerchner (Eds.), The politics of excellence and choice in education (pp. 117-130). New York: Falmer.
- Wells, A. S. (1991). The sociology of school choice: A study of black students' participation in a voluntary transfer plan (Doctoral dissertation, Columbia University, 1991). Dissertation Abstract International, 52-11A, 3886.
- Wells, A. S. (1993). The sociology of school choice. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Wells, A. S. (1996). African-American students' view of school choice. In B. Fuller, R. F. Elmore (Eds.), Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.
- Wells, A. S., & Crain, R. L. (1992). Do parents choose school quality or school status? A sociological theory of free market education. In P. Cookson (Ed.), The choice controversy. Newbury Park, CA: Sage.
- West, A. (1992). Factors affecting choice of school for Middle class parents: Implication for marketing. Educational Management & Administration, 20(4), 212-222.
- West, A. (1995). Parents and the process of choosing secondary schools: Implications for schools. Educational Management & Administration, 23(1), 28-38.
- West, E. G. (1982). The public monopoly and the seeds of self-destruction. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Wiersma, W. (1995). Research methods in education. Needham Heights, MA: Simon & Schuster.

- Williams, T., & Carpenter, P. G. (1990). Private schooling and public achievement. Australian Journal of Education, 34, 3-24.
- Willms, J. D., & Echols, F. H. (1993). The Scottish experience of parental school choice. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Wilson, J. D., & Lazerson, M. (1982). Historical and constitutional perspectives on family choice in schooling: The Canadian case. In M. E. Manley-Casimir (Ed.), Family choice in schooling: Issues and dilemmas. Lexington, Mass: Heath Company.
- Windler, W. (1996). Colorado's charter schools: A spark for change and a catalyst for reform. Phi Delta Kappan, 78(1), 66-69.
- Wise, A. E., & Darling-Hammond, L. (1984). Education by voucher: Private choice and the public interest. Educational Theory, 34(1), 29-53.
- Witte, J. F. (1991). Milwaukee parental choice program. Milwaukee, WI: Milwaukee Public School. (ERIC Document Reproduction Service No. ED 348 429)
- Witte, J. F. (1992). Private school versus public school achievement: Are there findings that should affect the educational choice debate? Economics of Education Review, 11(4), 371-394.
- Witte, J. F. (1993). The Milwaukee parental choice program. In E. Rasell & R. Rothstein (Eds.), School choice: Examining the evidence. Washington DC: Economic Policy Institute.
- Witte, J. F. (1996). Who benefits from the Milwaukee choice program? In B. Fuller, R. F. Elmore (Eds.), Who chooses? Who loses? Culture, institutions, and the unequal effects of school choice. New York: Teachers College.
- Witte, J. F., Bailey, A. B., & Thorn, C. A. (1993). Third year report: Milwaukee parental choice program. Madison: University of Wisconsin, Department of Political Science.
- Witte, J. F., Thorn, C. A. (1996). Who chooses? Vouchers and interdistrict choice programs in Milwaukee. American Journal of Education, 104(3), 186-217.
- Witte, J. F., & Rigdon, M. (1992). Private school choice: The Milwaukee low-income voucher experiment. Paper presented at the annual meeting of the American Political Science Association, Chicago.
- Wood, R. C., & Smith, S. (1996). Critical components of charter schools: An analysis by state. School Business Affairs, 62(12), 28-33.



- Woods, P. (1996). Choice, class and effectiveness. School Effectiveness and School Improvement, 7(4), 324-341.
- Worthen, B. R., & Sanders, J. R. (1987). Educational evaluation: Alternative approaches and practical guidelines. White Plains, NY: Longman.
- Young, T. W., & Clinchy, E. (1992). Choice in public education. New York: Teachers College, Columbia University.