

**CULTURAL CAPITAL AND SCHOOL CHOICE PARTICIPATION:
WHO CHOOSES WHAT? EVIDENCE FROM THE HIGH SCHOOL
LONGITUDINAL STUDY OF 2009**

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ABSTRACT

This study examines the role of parental cultural capital as it pertains to whether a student attends a chosen school and whether the quality of the school a student attends is a function of cultural capital. Three theory-based factors representing cultural capital and three factors that represent facets of school quality were created using principal components analysis. Logistic regression was used to determine that cultural capital *does* play a role in whether a student attends a chosen school. In fact, one aspect of cultural capital, institutional engagement, is the strongest predictor of whether a student attends a chosen school. Linear regression models shed light on the role that different forms of cultural capital and choosing may play in the quality of school that the student attends. While the results are complex, I am able to conclude that cultural capital and choosing do play a role in the quality of school that a student attends, but community and school district characteristics, as well as parental socioeconomic status may play a stronger role. Models control for student and school district characteristics and school clustering effects. Suggestions for future research and implications for policy are discussed.

Keywords: cultural capital, school choice, social reproduction

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CHAPTER 1: INTRODUCTION

In recent years, the United States has grappled with how best to educate its students so that both the students and the country can prosper in an increasingly competitive and rapidly changing global economy. One potential solution advocated by policymakers and education reformers is to increase the availability of school choice programs (Mintrom, 1997; Wohlstetter, Smith & Farrell, 2013). School choice broadly refers to any program in which students and their parents are able to choose which school the student attends, as opposed to simply attending the traditional public school (TPS) in their community.

The issue of school choice has become increasingly prominent in national and local public education reform debates over the last twenty years. School choice refers to any program that allows a parent (or student) to exercise decision-making concerning the school the student attends, as opposed to school assignments based on geographic catchment areas. These programs take many forms, the popularity of which have waxed and waned over time: vouchers, open enrollment, tuition tax credits, magnet schools, homeschooling and more recently, charter schools and No Child Left Behind (NCLB) transfers.

The most popular form of school choice in the United States today is the charter school, in part due to provisions under NCLB that require school districts to restructure failing schools (Lubienski, Gulosino & Wetzel, 2009). One of the restructuring options is to convert the school to a charter school, which has resulted in a doubling of the number of charter schools since 2001 (NAPCS dashboard). Charter schools receive public

funding, usually in the form of a reimbursement based on per-pupil spending formulas, which varies by state. Charter schools can raise funds and receive private donations, but as public schools, they cannot charge tuition, presumably making them financially accessible to the masses. Although less common, some states and school districts offer school choice through the implementation of voucher programs in order to extend the option of private schooling to families who otherwise would be unable to access them due to financial constraints. Others offer a similar approach via tax credits. Magnet schools, which offer special programs (e.g., increased academic rigor, creative and performing arts focus) and often require that students meet specific admission criteria, are yet another form of school choice. The public has generally embraced these schools as a part of the public school landscape, although they are more common in large urban centers (Ryan, 1998). Intra-district transfer opportunities are required under the No Child Left Behind Act of 2001, which requires school districts to offer students the opportunity to transfer to a school that is making progress (i.e., meeting standardized test score goals) if their own neighborhood school is not making adequate progress as defined under the law.

Policymakers and school choice advocates believe that school choice programs such as these will improve schools because when students have the opportunity to choose the school they attend, they will attend high performing schools and the subsequent reduced enrollment in underperforming schools will pressure these schools to improve in order to retain students and avoid closure. In other words, they will put bad schools out of business by not compelling students to attend them (Chubb & Moe, 1990; Quade

1996; Wells, Grutzik, Carnochan, Slayton & Vasudeva, 1999). School choice proponents also believe that school choice increases access to quality schools for students of all backgrounds, not just those from higher SES families, addressing the common criticism that public school quality is a function of a school community's property values and income levels. However, the framework under which policymakers conceived these programs and made these predictions, rational choice theory, is an antiquated economic theory that does not account for human preferences and behaviors. Human preferences and behaviors, along with real life social and environmental limitations, have led to unanticipated outcomes that defy the logic upon which policymakers based these programs. Innumerable researchers have already documented evidence of this in their exploration of the unintended consequences of school choice programs, such as racial segregation (Frankenburg, Siegel-Hawley & Wang, 2010; Heise & Ryan, 2001, Henig, 1996; Propper & Wilson, 2010), class stratification (Bifulco, Ladd & Ross, 2007; Miron, Urschel, Mathis & Tornquist, 2010), and the role of parental agency in school choice program participation (Bifulco, Ladd & Ross, 2008).

Studies related to these unintended consequences represent a large portion of the extensive body of school choice-related research from the last twenty years. Many studies have focused on the impact, or academic outcomes, related to participation in school choice programs, often by comparing students attending chosen schools to those attending traditional public schools (Hoxby, 2003). Others have sought to shed some light on the way parents make decisions by examining the role of the quality of information that is available to parents. Still others have focused on school responses to

the choice environment, analyzing administrative reactions to the purported pressure of charter school enrollment in their district (Buddin & Zimmer, 2006).

Conceptual Framework

Theoretically, according to its originators and proponents, introducing school choice into a school district should replicate effects of business competition in the free market: public school districts would no longer have a monopoly and competition would force them to improve educational opportunities and outcomes for students in order to compete and stay open. The theory upon which school choice proponents base these programs, rational choice theory, assumes that individuals will generally make the decision that results in the acquisition of the maximum amount or value of a given good. In the case of school choice, the maximum good refers to attendance at the highest quality school, which is often narrowly defined by schools' standardized test scores. However, real life circumstances affect whether one has the ability to exercise such decisions and rational choice theorists fail to recognize that the value of a good may differ from one person to the next, based on their personal preferences and values. However, other social factors can explain school choice decisions and preferences.

One potential influencer of whether one chooses a school, and which may also provide insight into the type and quality of school that is chosen, is cultural capital. Lamont and Lareau (1988) describe cultural capital as “widely shared, high status cultural signals (attitudes, preferences, formal knowledge, behaviors, goods, and credentials) used for social and cultural exclusion” (156). Bourdieu asserts that the

educational system is a product and producer of the dominant culture, as it rewards those whose values are in consistence with it (Bourdieu & Passeron, 1973; Lareau, 2001). According to Bourdieu, to be successful in a given system, or *field*, students must have a *habitus*, or tastes and experiences, consistent with that which is valued in the system; “when an individual's habitus is consistent with the field in which he or she is operating, that is, when the field is familiar to and understood by the individual, he or she enjoys a social advantage” (Lee & Bowen, 2006, p. 197). Simply put, cultural capital refers to the intangible benefits of growing up in a household in which parents provide educational, social, and intellectual knowledge in consistence with that of the dominant culture (Bourdieu & Passeron, 1973; Lareau, 2001; Lee & Bowen, 2006).

Researchers have found that students from middle class and upper middle class families are better equipped to achieve academic success because of the cultural capital they have inherited from their families (Dumais, 2002; Roscigno, 1999), not because of their socioeconomic status alone. Cultural capital also offers a potential explanation for the research that shows that widespread school choice programs lead to socioeconomic stratification. Many researchers have described the schooling system’s “hidden curriculum,” which reinforces middle class norms and rewards those from middle class backgrounds; however, cultural capital is deeply engrained in one’s upbringing and goes beyond a cursory understanding of behavioral norms.

These intangible assets come into focus with the employment of a Bourdieusian conceptual framework that emphasizes the role of cultural capital, which plays a key part in social reproduction. Bourdieu describes three types of cultural capital: that which is

embodied, referring to one's preferences or tastes; objectified cultural capital, which describes the objects one possesses as an expression of their taste, such as books or musical instruments; and institutionalized cultural capital, which societal institutions confer, such as the classic example of educational qualifications (Bourdieu, 1983). Sociologists differ in their interpretation of how cultural capital operates, but it there general agreement that it refers to the benefits one reaps when one's tastes and associated activities are in alignment with those possessed by the dominant society.

Cultural capital may play an unknown role in school choice, and socioeconomic status is likely to mask this role. Although one may view cultural capital as a function of socioeconomic status, they are independent concepts that may affect school choice enrollment in different ways. It is possible for people with low socioeconomic status (SES) to possess high levels of cultural capital. For example, a custodial worker with relatively low socioeconomic status may have a great interest in the arts, and take his or her children to art museums and dance classes. While these children would have low parental SES, they may have higher levels of cultural capital than a student from a more economically advantaged background would if his or her parents were less interested in the arts. The low SES students with higher cultural capital may have advantages in applying to schools of choice, through the skills that they have acquired (i.e. cultural capital) or the connections they have made through their participation in these activities (i.e. social capital). Additionally, a thorough understanding of how cultural capital affects school choice participation may offer insight into some of the grouping effects observed in the studies that address SES and racial segregation under school choice

schemas. Furthermore, this understanding may provide insight into the choices that parents are making, especially the quality of the schools in which they choose to enroll their students.

Problem Statement

Scholars have produced an extensive body of research investigating the effectiveness of school choice programs in regards to their intended achievement effects as well as a myriad of other outcomes they produce (CREDO, 2009 & 2013; Davis & Cotter Mazzola, 2013; Fuller, 2000; Hoxby, 2002, 2009; Huerta, Fuller, Parker, & d'Etremont, 2011; Teske, Schneider, Buckley, & Clark 2000; Wexler & Huerta, 2000). While these studies, which report mixed findings and utilize varied methodologies, often raise more questions than answers, one emergent trend is the tendency of researchers to focus on simply whether or not a student attends a chosen school; there is a lack of focus on the quality of schools parents and students choose (Lacireno-Paquet, Holyoke, Moser & Henig, 2002). In more nuanced studies, the students whose parents “chose to choose” are then broken down into two subgroups: those who were able to exercise choice and those who wanted to but were unable, usually due to a lottery-based system. Researchers tend to compare these two subgroups, treating the students of parents who attempted to choose and were unable to as a control group to which the students attending chosen schools can be compared, as the parental aspects that would prompt one to attempt to choose are considered similar among both groups. The dichotomous nature of this type of research oversimplifies and implies judgment focused solely on whether or not one attends a school of choice and disregards the actual choice

parents and students make. There is a lack of research addressing the quality of schools that parents and students choose and whether there are differences among the parents and students choosing high quality and low quality schools.

Research Questions

In this study, I increase our understanding of school choice decision-making, sorting, and outcomes by examining the role of parental cultural capital in the quality of the schools that students attend when school choice is available. I also separate socioeconomic status into its individual factors, some of which may mask the role of cultural capital. Employing a Bourdieusian framework guided by Annette Laureau's conceptualization of cultural capital, this study uses data collected as part of the High School Longitudinal Study of 2009 to answer the following research questions:

1. What is the difference in cultural capital between students who attend chosen schools and those who attend assigned schools?
2. How do cultural capital, socioeconomic factors, and whether one chooses have an effect on the quality of the school that a student attends?

In consistence with established research, covariates include race, gender, prior academic achievement, academic ability, designation for receipt of specialized education, and a variety of contextual covariates, including urbanicity and school district charter school activity.

This study is necessary because it will improve understanding of not only who chooses, but also what they chose. The only existing study that attempts to do this is a study of charter schools in Washington, D.C. in which the researchers disaggregate the

charter school data into those which are “market-oriented” (i.e. employ business practices) and those which are “non market-oriented” (e.g. an African-centric school with the mission of serving marginalized students) (Lacireno-Paquet, Holyoke, Moser, & Henig, 2002). I use a nationally representative, longitudinal study to provide the most current information.

Significance of the Study and Policy Contributions

This study is significant for a number of reasons. The primary focus of this study is the exploration of the role of cultural capital, which school choice researchers have overlooked. In addition, in order to understand the role of cultural capital in whether one chooses, I produce an updated national profile of the students attending schools of choice. Although scholars have produced a myriad of studies related to the school-level effects of school choice, few narrow the focus to the student level and provide a national profile of the students attending schools of choice. Many studies have focused on student achievement, others have focused on unintended consequences such as segregation by race or ethnicity, stratification by parental socioeconomic status, and “cream-skimming” effects that lead to stratification by academic readiness (Lacireno-Paquet, Holyoke, Moser & Henig, 2002), but no recent studies give a nationally representative picture of the students who are participating in school choice programs and the types of schools they are choosing. Increased expansion of school choice programs in the absence of such research is demonstrative of the need for a study like this one.

Researchers have not explored the connection between cultural capital and school choice participation. Additionally, the existing research tends to describe trends in

individual school districts with widespread choice programs and does not describe national trends. In the fall of the 2009 school year, the Department of Education began collecting data from a cohort of ninth graders for the High School Longitudinal Study (HSLs). This study uses current data to examine whether cultural capital has an effect on the quality of school a student attends in school choice programs, which will contextualize and better understand existing research.

CHAPTER 2: REVIEW OF THE LITERATURE

Broadly, school choice refers to any program that enables parents to choose the schools their children attend by expanding their options beyond the traditional public schools (TPS). One's area of residence is the primary determinant of which TPS one attends, often resulting in schools that reflect patterns in housing, such as racial segregation and grouping based on socioeconomic status. Historically, parents have exercised a type of school choice in basing home purchasing decisions largely on local TPS quality. Economists refer to this as Tiebout choice, as it exemplifies Tiebout sorting, when people self-sort by purchasing homes in areas that best fit their income level while attempting to maximize their access to services, like high quality public schools. School choice typically describes any program which gives parents the option to enroll a student at a chosen public school other than the one the student would otherwise attend, as is the case with magnet schools, open enrollment lotteries and inter-district transfers; a publicly funded non-school district school, like a charter school; or a private school with the use of public funds via a tax credit or voucher system.

The History of School Choice in America

Although economists conceived of "school choice" over half a century ago, it has only become prominent in national and local public education debates relatively recently. The notion of school choice was proposed by Milton Friedman in 1955 and it has taken many forms, the popularity of which has waxed and waned over time: vouchers, open enrollment, tuition tax credits, magnet schools, home schooling and more recently, charter schools. The topic of school choice is extremely controversial, and in

order to understand it and the research about it, one must understand the political and economic context from which it arose.

Historically, parents have chosen their students' schools by factoring public school quality into their home purchasing decisions (Tiebout, 1956); local public school quality contributes to housing values and parents attempt to purchase homes in areas with high quality public schools. Milton Friedman notes that where one purchases one's home is the only way for a parent to exercise school choice in the absence of vouchers unless a family can afford private or parochial school (1955). In areas with less Tiebout sorting, parents are more likely to utilize private schools (Hoxby, 2000, Urquiola, 2005).

During the early years of the Cold War, Americans became acutely aware of their nation's position and status among other countries. In 1947, President Truman established the first presidential commission to analyze the country's education system, resulting in the multivolume Higher Education for American Democracy report. It was between this time and the height of the second "Red Scare" when Milton Friedman (1955) first conceptualized a system in which the application of market principles might improve America's traditional system of public education. Friedman described a system with what are essentially school vouchers, private schools and charter schools. Friedman suggested that such a system would "make for more effective competition among various types of schools and for a more efficient utilization of their resources" (1955, p.8). In essence, Friedman conceptualized the first school choice program, foreshadowing the recent calls for market driven solutions as a panacea for the perceived shortcomings of American public schools.

Around the same time, the Supreme Court announced its decision in the landmark case *Brown v. the Board of Education of Topeka Kansas*, declaring that racially separated schools were unconstitutional (1954). After *Brown II* (1955), many school districts grappled with desegregation for decades; they faced resistance from segregationists but were under court orders to desegregate. School choice played an integral role in the way school districts responded to the *Brown* decision. A notorious and extreme response was that of Prince Edward County, Virginia. The county closed the public schools for five years from 1959-1964 rather than desegregate, but few people understand the role that school choice played in this situation: the county issued tuition grants and tax credits (i.e. vouchers) that white parents used to send their students to whites-only private schools. Yet, other forms of school choice played prominent roles in response to the *Brown* case to promote desegregation. In the 1960s and 1970s, school districts opened special admission or “magnet” schools designed to bring students out of their racially isolated neighborhoods. This often included inter-district transfer options for students. Via this choice process, school officials could increase the racial diversity of individual school populations.

Skepticism and criticism of the nation's schools continued throughout the 1960s and 1970s as policymakers attempted to address desegregation, rapid social changes, civil unrest, and the economic stagnation of the mid-1970s. An increasing perception that “the educational foundations of our society [were] being eroded by a rising tide of mediocrity” led to the 1983 establishment of The National Commission on Excellence in Education which produced the landmark report, *A Nation at Risk: The Imperative For Educational*

Reform. The commission called for immediate, sweeping reforms to the education system and evoked a sense of urgency by stating, “If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war.” In response to *A Nation at Risk*, legislators and politicians at all levels of government sought education reform measures, such as school choice, resulting in the widespread availability of school choice programs by the early 1990s.

Although controversial, the idea of school vouchers was especially popular during the 1980s under President Ronald Reagan, and again under George W. Bush’s administration. In 1990, the first widespread voucher program was implemented in Milwaukee, Wisconsin; it is still in operation with over 15,000 students using vouchers. Some states and school districts have implemented voucher programs in order to extend the option of private schooling to families who otherwise would be unable to access them due to financial constraints and “to ensure that families are choosing schools, rather than schools choosing students” (Arsen et al., 1999, p.vii). However, in 1995, a federal judge ruled that a voucher program in Cleveland, Ohio was unconstitutional because nearly all of the students using vouchers were using them to enroll in parochial schools, which the judge determined to violate the separation of church and state. Then, in 2002, the Supreme Court overturned that ruling, potentially clearing the way for voucher implementation throughout the country. The largest planned voucher program, the Florida Opportunity Scholarship Program, never went into effect; in 2006, a judge interpreted it as a dismantling of public schools, a violation of the state constitution,

which establishes and requires a public education system.¹ As of 2018, voucher programs for low-income students exist in New Orleans (established in 2006 after Hurricane Katrina effectively destroyed New Orleans' public schools), Indiana, Ohio, Milwaukee, and Washington, DC, although the U.S. Congress, which funds Washington DC's voucher program, only provides funding for it on an intermittent basis. Still other states offer voucher-like scholarships solely to students with special needs in order to comply with the Individuals with Disabilities Education Act. Although the voucher debate has calmed since its 1990s resurgence, an even more fervent debate eventually replaced it.

The most significant educational development in the 1990s was the establishment of charter schools. In 1991, Minnesota passed the first state charter school law, followed by California in 1992 (Hill & Lake, 2010). Throughout the 1990s, various states passed laws establishing charter schools, which are public schools because they receive public funding, usually in the form of a reimbursement based on per-pupil spending formulas, which vary by school district. Charter schools can raise funds and receive private donations, but as public schools, they cannot charge tuition, theoretically making them financially accessible to the masses. When charter schools have more applicants than available seats, schools typically use a lottery system to determine who is able to enroll. One researcher explains the role of charter schools in the school reform movement as follows:

¹ The Opportunity Scholarship Program continues to serve students attending underperforming public schools, but students must use the funds to attend a higher performing public school. Florida has a separate tax credit program for private school tuition that is funded by charitable contributions.

The basic premise of charter school reform is that it allows educators, parents, and/or entrepreneurs to receive public per-pupil funding to operate schools that are autonomous from many of the rules and regulations of the public system, including student assignment policies. Thus, they not only have a great deal of autonomy in terms of their curriculum and daily operations, they also have far more autonomy over their enrollments than the public schools. In exchange for this autonomy, charter schools are supposed to be held accountable for student outcomes. (Wells, 2005, p.39)

After many states passed charter school legislation in the 1990s, during the 2000s, charter schools rapidly spread so that by 2015, forty-three states and the District of Columbia had charter schools, with an estimated two million students attending them (Ed Reform, 2017).

Legislators' perceptions of public education as being in a dire and urgent state, coupled with their interest in school choice programs, led to the enactment of the 2001 No Child Left Behind Act (NCLB). NCLB codifies accountability for public schools by mandating that students who attend schools that do not meet "adequate yearly progress" have the choice to attend different schools. It includes provisions requiring these underperforming schools to restructure, which often takes the form of conversion to a charter school, if they do not improve within an allotted time. Upon signing NCLB, President George W. Bush explicitly stated

[We] trust parents to make the right decisions for their children. Any school that doesn't perform, any school that cannot catch up and do its job, a parent will have these options – a better public school, a tutor, or a charter school. We do not want children trapped in schools that will not change and will not teach. (Press Release, 2002)

These NCLB provisions echo Friedman's assertions that "competitive private enterprise is likely to be far more efficient in meeting consumer demands than nationalized

enterprises” and underscores the belief that consumers, or in this case, parents, will make decisions that maximize outcomes (1955, p.5-6). Less than three months after NCLB passed the Senate, the terrorist attacks of September 11, 2001 occurred, forcing Americans to reassess their place in the world with a renewed sense of urgency. This sense of urgency has intensified as Americans feel an increased sense of uncertainty about the nation’s position among other countries in an era marked by global trade, terrorism, and rapid technological advances. Reflecting both this uncertainty and American loyalty to capitalist ideals, school choice programming, especially in the form of charter schools, has surged in popularity.

The fervor for school choice reached a fever pitch in 2011, when so many school choice programs were established or expanded in the first half of 2011 that by July, an anonymous editorialist in the Wall Street Journal declared the year as the “Year of School Choice” (Anonymous, 2011). In Baltimore, Maryland, over 15,000 people attended a School Choice Fair at the Camden Yards baseball stadium, which was triple the number of attendees from the previous year (Calvert, 2011). In Florida, state leaders value school choice so much that the state had “Florida's School Choice Month” *twice* in 2011. In September 2010, outgoing Governor Charlie Crist labeled the month in which his term would end, January 2011, as such and later that year, new Governor Rick Scott announced that November 2011 would be “Florida's School Choice Month.”

Theoretical Frameworks for Understanding School Choice Research

Two major fields of study dominate the discourse in school choice programs, each with its own theoretical basis. Neoliberal economists tend to employ rational choice

theory and explore whether Friedman's predictions regarding school choice programs' intended consequences were accurate (i.e., whether school choice improves academic outcomes). Sociologists tend to focus on the unintended consequences of these programs as results or methods of social stratification, a focus that fits within a Bourdiesian framework.

Intended Consequences

A large and conflicting amount of research pertains to the impact of charter schools on the academic outcomes of students (CREDO, 2009 & 2013; Davis & Cotter Mazzola, 2013; Fuller, 2000; Hoxby, 2002, 2009; Huerta, Fuller, Parker, & d'Etremont, 2011; Teske, Schneider, Buckley, & Clark 2000; Wexler & Huerta, 2000). Methodologies vary and yield mixed results, even among studies of the same schools during the same time. In some cases, interest groups fund these studies, raising questions of partiality and researcher bias. While some studies tout the benefits of charter schools overall, others focus on specific content areas (Betts & Tang, 2008; Guy, 2011; Sass, 2006) or compare outcomes for students who remained in charter schools and those who transferred back to neighborhood schools (Zimmer, Gill, Booker, Lavertu, & Witte, 2012).

Many of the impact studies do not account for all of the micro-level factors that affect student achievement. For example, when researchers controlled for student mobility, they found that “students make considerably smaller achievement gains in charter schools than they would have in public schools” and that evidence suggests “that about thirty percent of the negative effect of charter schools is attributable to high rates of

student turnover” (Bifulco & Ladd, 2006, p.6). Although even the strongest charter school advocates concede that there is great variation in the quality of charter schools, proponents of school choice conclude, “despite many challenges, the charter idea has expanded opportunities and increased student achievement” (Hinojosa, 2009, p. 25).

Response to Competition

While school choice advocates believe that market competition will pressure underperforming traditional public schools to improve, researchers have found little evidence to corroborate that belief. Instead, schools respond to the potential competition and the commoditization of students by using funds for marketing purposes instead of their intended use, to support student learning and academic achievement. A significant study on how school districts respond to the presence of charter schools contextualizes the reactions of the public schools within the “marketized” environment. While reformers intend to create incentive structures that induce more innovative and effective instruction, organizations often react to these competitive pressures by instead adopting behaviors at other levels of the organization. In particular, many engage in marketing and promotional activities having to do with symbolic management of a school’s image rather than substantive changes in its educational processes. These behaviors demonstrate that the incentives guiding schools' organizational behavior have shifted away from those intended by theorists and reformers, suggesting a need to reconsider the theory of school change underlying these reforms (Lubienski, 2005).

Lubienski reiterates and emphasizes the contrast between theoretical, intended consequences of school choice programs, and the actual consequences that occur when schools respond in practice:

While the theoretical basis of competition-based reforms is both logically coherent and compelling, the research emerging on how these forces actually work when applied to schooling indicates that schools are not always responding to competitive incentives in the ways that the theory predicts... While the underlying theory holds that competitive pressures will induce change and improvement in educational processes, research indicates that organizations often respond instead by developing promotional strategies to succeed in the marketplace. (Lubienski, 2005)

The researcher also reports that many of the schools engaging in this diversion of funds are the ones “that can least afford it”: the schools with limited resources and low student achievement. For these schools, where each student’s per pupil funding is significant, the pressure to invest in marketing for student recruitment and retention is greater.

Additionally, in their marketing campaigns, schools must often make efforts to attract higher performing students to offset potential declines in achievement data because of the redirection of funds meant for teaching and learning (Lubienski, 2005). In a follow-up study, the same researcher examined school marketing information and concluded that schools target students from particular racial and socioeconomic classes, thereby selecting (or “cream-skimming”) their student bodies (Lubienski, 2007). All of this advances Lubienski’s conclusion that “market-like incentives are corrupted when applied to education” (2005, p. 464).²

² A troubling effect arises from this increased emphasis on marketing and school reputation; researchers have found an inverse relationship between the heightening reputation of the school and its students' academic achievement. Once students are accepted to high profile, reputable schools, students are less motivated to learn because they realize the exchange value of their credential from the reputable school, regardless of their actual knowledge acquisition (De Fraja & Landeras 2006).

Unintended Consequences

Opponents and critical researchers of school choice have focused on three main outcomes that they produce: racial segregation, socioeconomic stratification, and separation by academic readiness. Although some might argue that these sorting patterns are predictable, they are generally considered unintentional consequences of school choice because the primary intended consequences are increased student academic outcomes and increased pressure for schools to improve.

Racial Segregation

School choice advocates assert that school choice programs will open access to quality education for minority students, as their parents are easily able to withdraw their children from their neighborhood schools and enroll them in higher performing schools. Additionally, the theory that the quality of education will increase overall supports their belief that school choice programs create a win-win situation. However, society has not realized this vision and instead, school choice programs have led to a resegregation of students in many parts of the country (Bifulco & Ladd, 2007; Garcia, 2008; Lubienski et al., 2009; Miron et al., 2007; Ni, 2007, 2012; Renzulli, 2006; Saporito & Lareau, 1999; Weiher & Tedin, 2002; Zimmer et al., 2009). Historically, parents have used school choice to thwart desegregation efforts, allowing parents to send their students to schools with homogenous student populations with ethnic and religious backgrounds that matched their own (Propper & Wilson, 2010). Interestingly, from the 1970s through the early 1990s, school districts used choice policies to facilitate desegregation efforts (e.g.,

the creation of magnet schools with racial balancing quotas, busing initiatives). However, possibly due to increased accountability standards, school choice programs supporting those ends have essentially disappeared, along with any desegregation progress that they fostered. Evidence suggests that this trend toward a resegregation of students based on race is significant and pervasive.

The Civil Rights Project at the University of California recently studied segregation patterns in charter schools (Frankenburg, Siegel-Hawley & Wang, 2010). In this study, the authors analyze the data for forty states and the District of Columbia to identify the percentage of students attending "racially isolated" schools. They found that "charter schools are more racially isolated than traditional public schools in virtually every state and large metropolitan area in the nation" (Frankenburg et al., 2010, p.80). The same researchers also found that "charter schools attract a higher percentage of black students than traditional public schools, in part because they tend to be located in urban areas. As a result, charter school enrollment patterns display high levels of minority segregation, trends that are particularly severe for black students" (Frankenburg et al., 2010, p.4). Charter school advocates erroneously explain the high percentage of African American student enrollment in charter schools as a reflection of the need for charter schools in high minority, urban areas, but the higher level of racial isolation in these schools relative to the neighborhood schools shows that charter schools only exacerbate segregation.

Many studies use different sources of national level data and reach the same conclusion: charter schools increase segregation by race. These studies validate

predictions made by Heise and Ryan (2001) in their review, *The Political Economy of School Choice*, in which the authors analyzed the marginalized voices of suburban parents, who historically have the most influence in policy decisions, in the school choice debate. According to the authors, these parents already exercised school choice by purchasing homes in neighborhoods where the home value is dependent on the school district in which it is located (Heise & Ryan, 2001). Because of this, the authors predict that school choice will remain somewhat limited, and unless political and economic dynamics change substantially; we should continue to see school choice plans confined to single districts. Within single districts, we should expect to see mostly limited choice plans that allow some students to attend specialized non-neighborhood schools, either public or private, but that also preserve the traditional neighborhood school.

The authors go on to predict that the limited nature of these plans will lead to “at best, limited academic improvement, little to no gain in racial and socioeconomic integration, and little productive competition among schools” (Heise & Ryan, 2001, p. 2048). The data reflecting segregation trends related to school choice prove their predictions quite accurate. The implications of this increased level of segregation are disturbing and the effects are readily apparent in analysis of the impact of charter schools on the achievement gap between minority and non-minority students.

Researchers have documented the correlation between increased segregation and the widening of the achievement gap in studies of areas with large charter school populations, most notably in North Carolina, where the charter school population doubled between the years 2000 and 2007. Over 30,000 students in North Carolina attend charter

schools, and 20,000 more students are on wait lists to attend one. Researchers studied the impact of school choice on segregation and the achievement gap in North Carolina and found that “charter school families have tended to select schools with students more similar both racially and socioeconomically to their own children than the students in their prior traditional public school. As a result, the charter schools are more racially segregated than the traditional public schools” (Bifulco & Ladd, 2007, p.3). Another group of researchers reported that families chose racially similar schools to those that they previously attended and that Black students often attended schools of choice with higher percentages of Black students than their assigned school (Zimmer et al., 2009). Studies have repeatedly found that some charter schools disproportionately enroll white students and some disproportionately enroll minority students (Institute on Race & Poverty, 2008).

Socioeconomic Stratification

In an EMO study, the authors found class-based segregation of students and noted two extremes that persist in charter school data: charter schools with very high parental incomes and charter schools with very low parental incomes (Miron, Urschel, Mathis & Tornquist, 2010). The authors found that income-based segregation was more prevalent in charter schools than the respective public school districts and that “most charter schools were divided into either very segregative high-income schools or very segregative low-income schools. Between 70% and 73% of the schools were in the extreme categories of the scale” (Miron et al., 2010, p. 3 – 4). Therefore, depending on the makeup of the local public school, the parents' socioeconomic status and their

motivation for sending their student to a charter school, the school their child attends will likely be either predominantly high income or low income. In North Carolina, students from socioeconomically disadvantaged households are more likely to attend public schools, and even more so if they are a racial minority. When researchers compared the data of the households living in a catchment area to the data of the students enrolled in the corresponding school, they found that percentages of poor children in neighborhood schools is greater than in their corresponding catchment areas and this difference is greater when the majority of children living in a neighborhood are racial minorities. These patterns reflect the withdrawal of wealthier children from public schools and into private, charter, and magnet schools. The result is that poor and minority children are much more concentrated in high-poverty public schools than they would be if all children attended their local schools (Saporito & Sohoni, 2007).

The fact that lower income families are more likely to stay at their neighborhood school partially explains the class segregation that results from higher income families opting for charter schools. In their article, "Information, School Choice and Academic Achievement: Evidence from Two Experiments," Hastings and Weinstein (2008) suggest that low-income families may place a lower priority on a school's test scores, and that those families who are concerned about a school's academic performance may not be able to exercise choice due to financial constraints. The authors allude to the financial cost involved with just gathering the data on school performance, which makes choosing schools, or not choosing and remaining in a neighborhood school, based on location and ease of access all the more rational (Hastings & Weinstein, 2008).

So while theoretically, school choice policy should “level the playing field” by opening access to underprivileged students, in practice, it does not. While factors such as proximity would influence any parent's decision as to which school their child would attend, the weight of certain factors may increase as the parents' income decreases. For example, if a family is socioeconomically disadvantaged, the parents may not have a car or the means to pay for public transportation for their student to attend a high performing charter school that is further from their home than the neighborhood school.

Stratification by Academic Readiness

The most logical explanation of what happens in an environment in which district run schools and charter schools is discussed in Lacireno-Paquet, Holyoke, Moser and Henig's article, “Creaming Versus Cropping: Charter School Enrollment Practice in Response to Market Incentives” (2002). In this study, the authors distinguish between creaming, recruiting higher performing students, and cropping, discouraging the enrollment of students with special needs, who are often lower performing. In their analysis of Washington, D.C. charter schools, the authors found that “market-oriented charters are not focusing on an elite clientele, but they are less likely than the other two types of schools [nonmarket-oriented charter schools, which effectively operate as neighborhood school alternatives, and traditional public schools] to serve some high need populations” (Lacireno-Paquet, Holyoke, Moser & Henig, 2002, p. 145). If a charter school does not have a large enough Special Education or ESOL student population to require the availability of a full range of services on a full-time basis, parents are likely to enroll their student in a local public school, where his or her needs will be addressed. A

recent study comparing the enrollment of students with disabilities in the New Orleans Recovery School District supports these findings, as the authors of that study found that students with disabilities were far less likely to enroll in charter schools (Wolf, 2010).

While there is a clear and undeniable trend in “cropping,” it is difficult to find other studies, particularly ones that use national data sets, which replicate these findings, largely due to the availability of data. In the Civil Rights Project study, the authors note, “major gaps in multiple federal data sources make it difficult to answer basic, fundamental questions about the extent to which charter schools enroll and concentrate low-income students and English Language Learners” (Frankenburg et al., 2010, p. 5). The data from the EMO-operated schools is somewhat representative of national data and the researchers found that those charter schools “consistently enrolled a lower proportion of special education children than their home district” (Miron et al., 2010, p. ii).

Past research has shown that charter schools have less capacity for special education children. Thus, parents tended to select away (or were counseled away) from charter schools” (Miron et al., 2010). In the EMO school analysis, the authors also found English Learners to be “consistently underrepresented in charter schools in every comparison. While one-third of the EMO schools had an EL population similar to the sending district, the distribution was highly skewed, with well over half the EMO schools being segregated” (Miron et al., 2010, p. ii).

A common argument against school choice and charter schools is the potential for a “creaming” effect. Charter school advocates contend that because charter schools

cannot implement enrollment policies such as entrance exams or minimum standards of achievement, creaming (or a siphoning of the best and brightest students away from the public schools) does not occur and never could. Again, this argument is cogent in a theoretical sense, but not in practice. The most logical explanation of what happens in an environment in which district run schools and charter schools is discussed is explained by researchers who distinguish between “creaming,” or recruiting higher performing students, and “cropping,” or discouraging the enrollment of students with special needs, who are often lower performing. In their analysis of Washington, D.C. charter schools, the authors found that

market-oriented charters are focusing on an elite clientele, but they are less likely than the other two types of schools [nonmarket-oriented charter schools, which effectively operate as neighborhood school alternatives, and traditional public schools] to serve some high need populations. Rather than skimming the cream off the top of the potential student population, market-oriented charter schools may be “cropping off” service to students whose language or special education needs make them more costly to educate. (Lacireno-Paquet, Holyoke, Moser & Henig 2002, p.2)

Even in large public school systems, which are well equipped to provide services for students with disabilities and students who speak English as a second language (ESOL), if the enrollment of these types of students at a particular school is small, the available services will be limited (i.e. the ESOL or Special Education teacher might be at the school on a part-time basis due to the small caseload of students). Therefore, if a charter school does not have a large enough Special Education or ESOL student population to require the availability of a full range of services on a full-time basis, parents are likely to enroll their student in a local public school, where his or her needs will be addressed. A recent study comparing the enrollment of students with disabilities in the New Orleans

Recovery School District supports these findings, as the authors of that study found that students with disabilities were far less likely to enroll in charter schools (Wolf, 2010).

Shortcomings in the School Choice Literature

Although researchers know a great deal about school choice and its outcomes – or at least we think we do – we know very little about the factors that influence people’s choices when it comes to schools. Recently, researchers have started to address this by conducting qualitative studies in which they interview parents and students about choosing schools. In one study, the researcher found that school choice has positive effects for students when the school is “viewed positively by the community” (Heath, 2013). In another, researchers examined the role of parental identity in the school choice process and determined that parents make schooling decisions that align with their perceptions of themselves (Cucchiara & Horvat, 2014).

Others have tried to understand parent decision making by studying school districts that “match” students to schools or that have a system-wide application process. Such systems are prevalent in large, urban school districts, including Philadelphia, New York City, Chicago, and Boston, among others. Some researchers have focused on the efficiency of these systems, in which students rank their preferred schools and school officials “match” them with a school (Abdulkadiroglu et al., 2005a; 2005b; Ergin & Sonmez, 2006), while others have focused on the actual rankings that students assign. In one study, researchers found that some parents astutely assigned high rankings to less desirable schools that would likely admit their student, rather than the

student's first choice school, in order to guarantee admission to a school that they found acceptable (Hastings et al., 2005).

Cultural capital can explain the findings from these studies. As stated previously, cultural capital refers to “widely shared, high status cultural signals (attitudes, preferences, formal knowledge, behaviors, goods, and credentials) used for social and cultural exclusion” (Lamont & Lareau, 1988, p. 156). Cultural capital influences parenting techniques, which Lareau explains by differentiating parenting styles into two types: concerted cultivation, which is middle class parents generally employ, and natural growth, which working class parents more often use (2003). With concerted cultivation, parents treat the child as an adult-in-training and play a very active role in the child's development. In concerted cultivation, the parent bestows his or her cultural capital – via tastes, behaviors, preferences, etc. – upon the child in a systematic way. Parents who practice the natural growth parenting style believe that adults should treat their children as children and allow them to develop with less parental interference. These parents also tend to be more trusting of systems and authority figures, such as government institutions and schools. These parenting styles associated with cultural capital make it reasonable to infer that a relationship between cultural capital and the act of choosing a school, as well as the access to and preference of a school of higher quality, may exist. If choosing a school of high quality were a function of cultural capital, this would provide insight into the findings related to the unintended consequences of school choice, like segregation, SES sorting, and academic readiness stratification.

CHAPTER 3: METHODS

This study expands on existing research that evaluates the role of school choice as a mechanism of social reproduction by exploring the roles of parental cultural capital and school choice in the quality of school that a student attends. I sought to answer two main research questions: (RQ1) Does cultural capital differ between students who attend chosen schools and those who attend assigned schools? In other words, might there be an association between cultural capital and whether a parent chooses a child's school? (RQ2) How do cultural capital, socioeconomic factors, and whether one chooses differ amongst students attending schools of varying quality? This question goes beyond the association of cultural capital and the act of choosing and delves into the actual choice parents report making; in other words, do parents with different cultural capital and socioeconomic resources choose differently? My view is that both cultural capital and school quality are subjective (i.e. the role of cultural capital and its conduciveness to success may be contextually or environmentally specific, just as different facets of school quality have different marginal utility to different people in different contexts), and this study explored these issues quantitatively to set the groundwork for future studies that include qualitative methods to explain these quantitative findings. In this chapter, I describe the data sources I used to explore these questions, including technical information supporting their reliability; describe the rationale and methods for selecting this study's sample; identify, operationalize, and describe this study's measures and covariates; describe the methods used to address this study's research questions; and review the data-related limitations of this study.

Data Sources

I obtained the data for this study from national surveys completed by the National Center for Education Statistics (NCES) and the U.S. Census Bureau. The restricted-use version of the High School Longitudinal Study of 2009 (HSLs) base-year data served as the primary data source. I augmented the HSLs data with data from NCES's Common Core of Data. At the school-level, I added data from the Public Elementary/Secondary School Universe Survey. At the school-district level, I added data points from the School District Finance Survey (F-33) for the 2008-2009 school years. HSLs is a strong source of data because of its large sample size and the breadth of the study. Additionally, as NCES releases future waves of HSLs data, there may be opportunities to expand upon the research presented in this study.

High School Longitudinal Study

The High School Longitudinal Study is one of many longitudinal studies administered by NCES. The study tracks students' high school experiences and their post-secondary outcomes, emphasizing students' interests, opportunities, and outcomes related to math and science. The study includes scores from a math test administration and survey data from six sources: the Student Questionnaire, Parent Questionnaire, Administrator Questionnaire, Counselor Questionnaire, Math Teacher Questionnaire, and the Science Teacher Questionnaire. HSLs includes information about 24,658 ninth grade students who attend 944 public and private schools.

The base-year data for HSLs (wave 1) includes information for 21,444 students and were collected during fall 2009, students' freshman year of high school. The designers of HSLs selected schools within three strata: school type (public or private), geographic region, and urbanicity. Only schools enrolling both ninth and eleventh grade students were eligible for the study. To ensure a nationally representative sample, NCES researchers subdivided geographic regions for sampling purposes. The study was designed to include 800 schools, including 600 public schools, 100 Catholic schools and 100 private schools, representing approximately 2.9% of public schools and 2.9% of private schools, with Catholic schools oversampled (8.3%) compared to other private schools (1.8%). For the purposes of this study, it is worth noting that the designers of the HSLs did not differentiate charter schools from traditional public schools for sampling purposes; however, they are identifiable as a type of public school.

School administrators, counselors, math teachers, students, and their parents or guardians completed questionnaires. The questions covered a variety of topics, with the school employees answering questions about school characteristics and the parent and student questionnaires focused on student and family level characteristics, as well as their interactions with the school (Ingels et al., 2011). In addition, students completed a computer-based survey and a mathematics assessment of algebraic reasoning and problem-solving skills. The assessment was adaptive with the difficulty of the second portion dependent on the student's performance on the first part of the test. The data set includes three measurements of each student's math assessment score: a theta score, an IRT-estimated score, and a standardized theta score. The IRT-estimated score, which

reflects a student's expected score based on test items that measure specific skills, was used to produce the standardized theta score (mean=50, SD=10) for each student. This was done to account for assessment non-completion (e.g. due to time constraints or lack of motivation to complete the assessment) and the study's designers recommend using the standardized theta for analytic purposes (Ingels et al., 2011).

Overall, the HSLs:09 had low levels of missing cases, but the study officers imputed some independent variables. The study authors assert that imputation is necessary because survey data are generally not missing completely at random and that if the imputation procedure is effective, the results are more reliable than if they used incomplete data. The authors imputed the scores for items where there were legitimate skipped items and excluded non-responses due to non-applicability of the item (Ingels, 2009). First, the researchers used other information sources (e.g. enrollment information, other questions on the student's questionnaire, parent-provided information, etc.) to complete missing data for categorical data. For example, students' genders were determined by identifying whether their names were typical of males or females. After that, they used weighted sequential hot-deck (WSHD) imputation to complete missing cases for items with very low non-response rates (under 2%). The items with higher non-response rates were from the parent questionnaire. The researchers used a nonparametric classification and regression tree (CART) to create imputation classes and then used WSHD. Researchers imputed the items with the lowest rates of non-response first and they imputed related items together. Additionally, the authors applied weights to ensure reliability. They then analyzed distributions, flagged variables with differences of greater

than 5% and reran the imputation procedure until it was below 5%. For the continuous variables of math ability (theta score), standard error of math ability (theta SEM), and SES, the researchers used a Multiple Imputation (MI) procedure. The completion rate for the math assessment was 96.9% and the study authors generated five sets of imputed values for the missing theta score and theta score standard error values using SAS PROC MI (Markov Chain Monte Carlo model). The researchers used SUDAAN software to select the imputed values and to compute the means and standard deviations and select the best values. The researchers could not impute responses on the survey response items for parents who did not return the parent questionnaires. The response rate for parent questionnaires was 67.4%. More information about HSLs is available online at <http://nces.ed.gov/surveys/hsls09/index.asp>.

Common Core of Data Public Elementary/Secondary School Universe Survey

The Common Core of Data Public Elementary/Secondary School Universe Survey (CCD) is an annual survey that provides basic demographic information about schools, students, and teachers. It is publicly available. I used information from the 2008-2009 school year survey to supplement the data in HSLs because information from that year's data would have been the most recent data available at the time of the HSLs data collection. I added CCD variables to the HSLs data using the NCES school identification code.

I used the information from the CCD for three purposes: to verify information reported by the administrator in the HSLs survey, to complete school-level missing values, and to supplement the HSLs data with variables that were potentially relevant to

this study. Information reported by administrators was generally consist with the values reported by administrators. Two variables with missing values were updated using CCD information. These were the variables representing school type (whether a school was a traditional public school, vocational, magnet program, or charter school) and the variable indicating the percentage of students receiving free or reduced price lunch.

I added several variables from the CCD dataset. The CCD variable representing the school's urbanicity was also added because it provides a more detailed scale of urbanicity; HSLS categorizes a school's urbanicity into four categories (Urban, Suburban, Town, and Rural), while the CCD data uses a twelve-category scale. The other variable added to the dataset was the NCES identification number for the school's local education agency (LEA), or school district, which was necessary for the inclusion of financial data collected at the school district level. Additional information about the CCD Public Elementary/Secondary School Universe Survey is available at <https://nces.ed.gov/ccd/pubschuniv.asp>.

Local Education Agency Finance Survey

NCES administers the Local Education Agency (School District) Finance Survey (F-33) in collaboration with the U.S. Census Bureau. When the Governments Division of the Census Bureau collects information for its Survey of Local Governments: School Systems, it also collects information for submission to NCES. NCES then releases its own version of the survey with a greater level of detail than that released by the Census Bureau. The data collected through this survey pertain to school district level financial information, including revenues and expenditures. I appended school district level fiscal

variables from the School District Finance Survey to the HSLs dataset using the NCES LEA identification number obtained from the CCD survey.

The School District Finance Survey contains many variables with potential relevance to this study. I merged indicators of long-term district-level stability, including various forms of debt and capital expenditures, as well as potential indicators of investment in educational quality, such as various types of instructional expenditures to the HSLs data. Due to the variation in school district size, the variable indicating the total number of students in the school district was also included so that I could calculate the revenue and expenditures on a per pupil basis.

Included among the added variables were the total amounts of funding, as well as the amount of funding from the federal, state, and local levels. I included these variables so that I might account for federal funding (either direct or state-distributed federal funding, such as Title I or block grants) that might mask the financial burdens of high-needs school districts. I consider school funding from local revenues to be a valuable indicator of community-level investment in public schools.

Finally, in alignment with the focus of this study, the variables that indicate the dollar amount of each school district's payments to private and charter schools was included. I did this for two main reasons. First, it adds a *general* indicator of whether school choice is available. Although some school districts engage in a practice of assigning students to private and/or charter schools for compliance purposes (e.g., if district schools cannot meet student needs mandated by IDEA, the district may assign the student to a designated private or charter school that can), and the extent of this practice

is unknown, it is reasonable to expect the number of these cases to be relatively limited. Secondly, these variables, especially when considered together, serve as proxies for the level of school choice taking place within a school district. Additional information about the School District Finance Survey is available at <https://nces.ed.gov/ccd/f33agency.asp>.

Sample

This study focuses on public school choice behavior for students entering ninth grade. The population for this study was public school students in the HSLS dataset, which includes 20,658 students. However, the sample was reduced to only include students whose parents completed the parent questionnaire for the base-year data collection (n=13,664). This was necessary because the main variables used in this study are from the parent questionnaire responses. This includes whether the parent reported choosing the student's school and the parent responses used to construct some of the factors representing cultural capital.

Measures

The analytical models in this study contain observed and latent variables that I included based on existing research and the potential to contribute to existing research on school choice behavior. These variables were obtained from survey data reported by parents, students, and administrators, information collected from school district officials, and a mathematics assessment administered as part of the HSLS study, as well as school district level data collected through the Census Bureau. I outlined descriptions of the outcome variables and covariates for each research question in the following section.

Outcome measures

The main outcome measures are school choice (i.e. does a student attend a chosen school) and school quality. I discuss these outcome measures in detail in the context of the two research questions.

School Choice

The outcome variable for the first research question, which explores if cultural capital differs between students attending assigned and chosen public schools, is school choice. On the HSLs parent surveys, parents indicated whether they chose their student's school, the student attended an assigned school, or that the student attended an assigned school, but the parent would have chosen it (HSLs variable *p1schchoice*). Responses were recoded into a simple dichotomous variable, *chose*, which simply indicates whether the respondent chose the student's school or it was assigned (i.e., 0=school was assigned/not chosen; 1= school was chosen; "would have chosen" responses were coded as assigned). Out of 12,555 respondents to this survey item, 21.31% reported that they chose their student's school. It is worth noting that 14.24% of survey respondents with students attending charter schools indicated that they did *not* choose the school. This could reflect situations in which students are assigned to charter schools or it may be attributable to respondents' interpretation of the question (e.g., respondents may have indicated that they did not choose the school if it was not their first-choice).

School Quality

The second research question requires an outcome variable that reflects school quality. As described in Chapter 2, quantifying school quality is both controversial and challenging. Attempts to create a single, summative rating of school quality were unsuccessful, but the depth and breadth of information in the HSLs dataset allowed for the construction of multiple measures of school quality. Ultimately, I derived three indicators of school quality from base-year student survey responses, administrator survey responses, and school-level data supplied by NCEs using principal components factor analysis. These factors represent school peer characteristics, school challenges, and student behavior. In-depth descriptions of these factors, and the variables upon which they are constructed, follow the description of the methods used to create them.

To construct these factors, I reduced the data to the school-level. Some data points were obtained through administrator survey responses and thus were already school-level. Other student-level variables, such as the NCEs-created scales of student engagement and belonging, as well as student scores from the NCEs-administered math test, were summarized to the school level (i.e. school means were calculated). I describe these variables further in the context of the factor analysis results.

Principal components factor analysis with Varimax rotation rendered factors reflecting three facets of school quality. I summarize the factors in Table 3.1. I took additional steps to exclude variables that decrease the reliability of the individual factors and the overall scale, which has a Cronbach's alpha reliability coefficient of .838. I list the reliability information in Table 3.2.

Table 3.1 Summary of Principal Components of School Quality

Factor Loadings			
Item	Factor 1	Factor 2	Factor 3
School mean math theta score	.675		
Percentage of college-going graduates	.696		
Percentage of working graduates	-.672		
Percentage of FRLP eligible students	-.527		
School mean scale of engagement	.580		
School mean scale of belonging	.612		
Absenteeism		.762	
Dropout		.723	
Apathy		.646	
Lack of preparation		.812	
Verbal abuse of teachers			.790
Student in-class misbehavior			.824
Student disrespect of teachers			.845

Factor 1 = School Peer Characteristics, Factor 2 = School Challenges, Factor 3 = Student Behavior

Table 3.2 Reliability of School Quality Factor Analysis Variables

Construct	Cronbach's Alpha	Alpha if item deleted	Mean	SD	N
School Peer Characteristics	.793 (6)		.236	.984	532
School mean math theta score		.722			
Percentage of college-going graduates		.751			
Percentage of working graduates		.768			
Percentage of FRLP eligible students		.753			
School mean scale of engagement		.781			
School mean scale of belonging		.787			
School Challenges	.810 (4)		.057	.974	532
Absenteeism		.779			
Dropout		.762			
Apathy		.761			
Lack of preparation		.741			
Student Behavior	.792 (4)		-.192	.902	532
Verbal abuse of teachers		.772s			
Student in-class misbehavior		.757			
Student disrespect of teachers		.614			

Peer characteristics. The peer characteristic factor ($\alpha=.793$) is composed of three variables that reflect school level means of scales that HSLs researchers created and three variables reflecting percentages of the school population. The three school-mean variables derived from the HSLs data reflect the mean student theta score on the study mathematics assessment, the mean scale of students' sense of school engagement, and the mean scale of students' sense of school belonging. These scales are reliable and more information about them, including the student variables that were included in the construction of the engagement and belonging scales, is in the technical appendix to HSLs (Ingels, 2009). The three percentage variables reflect the percentage of students who received Free or Reduced Lunch, the percentage of 2009 graduates going to a four-year university upon graduating, and the percentage of 2009 graduates going directly into the workforce after graduating from high school. Descriptive statistics for these items are in Table 3.3.

Table 3.3 Descriptive statistics for variables related to school peer characteristics

Variable	N	Mean	SD
School mean math theta score	759	50.32	4.84
Percentage of college-going graduates	757	45.23	21.29
Percentage of working graduates	759	17.21	14.43
Percentage of FRLP eligible students	757	40.68	22.58
School mean scale of engagement	555	.01	.30
School mean scale of belonging	562	-.03	.32

School challenges. The school challenges factor ($\alpha=.810$) is based on administrators' perceptions of the severity of the "problems" their schools face with student absenteeism, students dropping out, student apathy, and students' lack of preparedness for school, as

reported in the base-year Administrator Questionnaire portion of the HSLs. For these items, administrators reported their perceptions of various problems on a four-point Likert scale. For consistency, I reversed the coding of these variables so that a higher value on the item would correspond with increased school quality. In the HSLs coding of the variables that measure administrators' perceptions of school challenges, study designers assigned a lower value (1) to responses indicating that the item was "not a problem" and the highest value (4) to the responses indicating that the item was a "serious problem." I report a summary of the items included in those factors in Table 3.4.

Table 3.4 Descriptive statistics for variables related to school challenges, unweighted

Variable	Category	Frequency	Percent
Student absenteeism is a problem at this school.	Not a problem	58	9.35
	Minor problem	309	49.84
	Moderate problem	197	31.77
	Serious Problem	56	9.03
Students' dropping out is a problem at this school.	Not a problem	109	17.58
	Minor problem	320	51.61
	Moderate problem	145	23.29
	Serious Problem	46	7.42
Student apathy is a problem at this school.	Not a problem	58	9.32
	Minor problem	275	44.21
	Moderate problem	213	34.24
	Serious Problem	76	12.22
Students' coming unprepared to learn is a problem at this school.	Not a problem	53	8.58
	Minor problem	271	43.85
	Moderate problem	235	38.03
	Serious Problem	59	9.55

Student behavior. The student behavior factor also uses variables derived from the base-year Administrator Questionnaire portion of the HSLS. For these items, administrators reported the frequency of various problems on five-point Likert scales. Recoding was not required for the HSLS variables that reflect the frequencies of student behavior, as lower values were assigned to high frequencies of undesirable behavior and higher values were assigned to lower frequencies (e.g. 1=daily, 5=never). The student behavior factor is composed of administrators' reports of the frequencies of students' verbal abuse of teachers, students' in-class misbehavior, and students' acts of disrespect towards teachers in their own schools. I listed a summary of the items included in those factors in Table 3.5.

Table 3.5 Descriptive statistics for variables related to student behavior, unweighted

Variable	Category	Frequency	Percent
Frequency of student verbal abuse of teachers at this school	Daily	23	3.70
	Weekly	107	17.20
	Monthly	129	20.74
	Occasionally	334	53.70
	Never	29	4.66
Frequency of student in-class misbehavior at this school	Daily	292	47.33
	Weekly	202	32.74
	Monthly	47	7.62
	Occasionally	75	12.16
	Never	1	.16
Frequency of student acts of disrespect for teachers at this school	Daily	111	17.85
	Weekly	212	34.08
	Monthly	127	20.42
	Occasionally	170	27.33
	Never	2	.32

Limitations of the school quality measures. These measures of school quality are only indicators that, while not absolute, may suggest or hint at the quality of the school. Their construction, and the extent to which they reflect what is happening in the school, required the acceptance of several assumptions.

The first assumption was that administrator perception data are both comparable and reliable. This means that I assumed that I could take the administrator responses at face value and I did not attempt to control for items such as student population demographics, administrator-student race match, administrator experience, etc. To do so would have created a separate study beyond the scope of this work. Instead, I assessed reliability by screening responses for variation.

The second assumption was that data elements were reasonably static. Several items reflect snapshots of data based on one point in time. I assumed that student demographics, like the percentage of economically disadvantaged students, and outcome measures, such as the percentage of students immediately enrolling in a 4-year college, did not change dramatically from year-to-year and that if cohort effects were present, the other data points would mitigate them. In addition, administrators completed the surveys in the fall of 2009, after students in the sample already enrolled in the schools. While this is not ideal, as it potentially introduces recursiveness into analytic models, I assumed that administrators would answer the school climate questions based on their long-term knowledge of the schools' challenges and that, in the absence of sweeping reforms, their perceptions would not vary dramatically with time.

A third assumption was that the student groups chosen within the school were truly representative of the entire school. In other words, I assumed that administrators chose the class or classes of students who participated in the study at random, as advised by the study officials. This impacts school level variables such as the mean math score, the scale of engagement, and the scale of belonging.

While these assumptions are relevant to the interpretation of this study, I was comfortable making them for two key reasons. Foremost, the nature of this study is exploratory, not causal. Construction of a causal model would require controls and data quality assurances beyond that which is available in this dataset. Secondly, I trust the integrity of school administrators. Furthermore, even a less scrupulous administrator would have no incentive to manipulate responses for this study (e.g., by selecting the school's most advanced math class as study participants or reporting a school climate perceptions in an ideal light).

Student-Level Covariates

Many student-level observed variables reflecting basic characteristics of the student and the student's parents were included in this study to address both research questions. I created three dichotomous variables to indicate the race or ethnicity of students in the sample: Asian, Black, and Hispanic. Participants' racial identity identification was restricted to a single group. The Asian and Black indicators include only non-Hispanic students. The Asian group included Pacific Islander students. The Hispanic student group included Hispanic students of known and unknown race. In the reduced sample of public school students, 8.3% identified their race as Asian and 9.8%

identified themselves as Black. Hispanic ethnicity was indicated by 16.5% of students; it should be noted that Hispanic ethnicity in this study is inclusive of Hispanic students of *all* races. Thus, the racial reference group includes students who are non-Hispanic, non-Black, and non-Asian (i.e., non-Hispanic white, Native American, and multiracial students).

The gender of students in the sample is 49.3% female and 50.7% male. I identified students with disabilities using the HSLs variable that indicates whether the student has an Individualized Education Plan (IEP), which I generated based on a parent survey item that had a high rate of missingness (56.14%). I recoded this variable to reflect whether the student was *known* to have an IEP and it identifies 11.5% of students. This is reasonably consistent with national trends, as the percentage of American students with IEPs in 2008-09 was 13%. I derived students' status as an English Learner (EL) via an item from the parent questionnaire. Like the IEP variable, the EL variable in HSLs had a high percentage of missingness (38.15%) and I recoded it to indicate that the student was *known* to have been identified as an EL. This led to the identification of 8.9% of the sample as known ELs. This is also consistent with national trends at the time.

HSLs researchers created the urbanicity-adjusted index of socioeconomic status using data for all students in the study. The values range from -2 to 3, and in this study's sample, the mean socioeconomic status value was -.05 with a standard deviation of .81. The mean student standardized theta score for the mathematics assessment, which has a range of 0-72, was 51.48 (SD=10.16). I converted students' self-reported 8th grade

math and science grades to a GPA with the intention of capturing a measurement of prior academic achievement. The scale range is 0 – 4 and was computed by assigning numerical values between zero and four to the letter grade students earned for each class (e.g., a value of four reflects earning an A in both classes, a three may reflect earning an A and a C or two Bs, etc.). I describe these variables, which reflect basic student background characteristics, in Table 3.6. Whether a student’s parent indicated that he or she chose the school, the outcome variable for RQ1, is also included as a covariate in the analyses conducted to answer RQ2. The other student-level covariate that is central to this study is cultural capital.

Table 3.6 Summary statistics for student-level covariates

Variable	N	Mean	SD
Asian	13,647	.083	.275
Black	13,647	.098	.296
Hispanic	13,647	.165	.371
Female	13,663	.493	.499
Students known to have a disability	13,664	.115	.318
Students known to be English Learners	13,664	.087	.281
Parental socioeconomic status	13,323	-.049	.814
Academic ability	13,168	.067	.979
Prior academic achievement	12,925	3.069	.858
Parent chose the school	12,555	.213	.409

Cultural Capital

Similar to the process I used to construct the measures of school quality, I used principal components analysis (PCA) with Varimax (orthogonal) rotation to identify measures of cultural capital. First, variables were assessed for their theoretical suitability to reflect cultural capital, screened for response rate (i.e. missingness), and screened for skewness.

I rotated the principal components matrix loadings to obtain orthogonal factors via Varimax rotation. Examination of the KMO (Kaiser-Meyer Olkin measure of sampling adequacy) indicated that the sample was adequate for factoring. Factors with factor loadings $\geq .30$ were retained (Table 3.7) and items were evaluated for whether their removal would decrease the factor or the total scale reliability, in which case it was removed (Table 3.8). Ultimately, this iterative process revealed a three-factor solution, which I retained as factor scores.

Table 3.7 Summary of Principal Components of Cultural Capital

Factor Loadings			
Item	Factor 1	Factor 2	Factor 3
Talk about science course selection	.768		
Talk about math course selection	.798		
Talk about other course selections	.782		
Talk about college	.616		
Talk about jobs/careers	.590		
Talk about personal problems	.541		
Parent attended general school meeting		.429	
Parent attended a PTO meeting		.398	
Parent attended a conference with teacher		.389	
Parent attended a school event		.696	
Parent served as a school volunteer		.653	
Parent participated in a school fundraiser		.688	
Student participated in sports		.522	
Parent and student went to a play or concert			.463
Student participated in scouting or club			.301
Parent took student to science museum			.571
Parent and student worked on computer			.367
Parent attended science fair			.533
Parent helped with a science fair project			.512
Parent and student discussed STEM article			.481
Parent visited a library with the student			.564
Student participated in the arts			.330

Factor 1 = Parent-Child Communication, Factor 2 = Institutional Engagement, Factor 3 = Cultivation Efforts

Table 3.8 Reliability of Cultural Capital Factor Analysis Variables

Construct	Cronbach's Alpha	Alpha if item deleted	Mean	SD	N
Parent-Child Communication	.798 (6)		.050	.997	10,337
Talk about science course selection		.751	.502		12,593
Talk about math course selection		.742	.603		12,764
Talk about other course selections		.745	.624		12,663
Talk about college		.777	.837		12,769
Talk about jobs/careers		.785	.861		12,769
Talk about personal problems		.797	.635		12,717
Institutional Engagement	.664 (7)		.024	.996	10,337
Parent attended general school meeting		.632	.149		12,528
Parent attended a PTO meeting		.640	.228		12,497
Parent attended a conference with teacher		.651	.263		12,490
Parent attended a school event		.601	.229		12,526
Parent served as a school volunteer		.616	.180		12,521
Parent participated in a school fundraiser		.605	.243		12,519
Student participated in sports		.655	.531		12,380
Cultivation Efforts	.603(9)		-.016	.994	10,337
Parent and student went to a play or concert		.553	.595		12,459
Student participated in scouting or club		.591	.222		12,380
Parent took student to science museum		.561	.511		12,459
Parent and student worked on computer		.587	.856		12,459
Parent attended science fair		.571	.154		12,459
Parent helped with a science fair project		.589	.376		12,459
Parent and student discussed STEM article		.564	.645		12,459
Parent visited a library with the student		.576	.635		12,459
Student participated in the arts		.581	.354		12,380

Parent-child communication. The first factor captures parent-child communication ($\alpha=.789$), and reflects one concept of concerted cultivation. It is composed of six variables derived from the Student Questionnaire that reflect whether the student talked to either parent about college ($\bar{x} = .50$), adult careers ($\bar{x} = .60$), personal problems ($\bar{x} = .63$), and course planning for math ($\bar{x} = .84$), science ($\bar{x} = .86$), and other classes ($\bar{x} = .62$). These variables capture the amount of efforts parents are investing in their children's' futures by ensuring that their children are enrolled in appropriate classes and that their children are thinking about their own futures. Parents with less cultural capital tend to trust systems to do what is best for their children, including school systems of course selection, tracking, and college and career planning.

Institutional engagement. The second factor, institutional engagement ($\alpha=.665$), reflects parental willingness or ability to engage with institutions (i.e., schools) on an ongoing basis. It is composed of six variables. Five of these variables reflect whether the parent had participated in various school events since the beginning of the current school year. They include parent-reported indicators of whether the parent had attended a school meeting ($\bar{x} = .80$), parent-teacher organization meeting ($\bar{x} = .34$), parent-teacher conference ($\bar{x} = .54$), or school event ($\bar{x} = .64$); and whether the parent had participated in a fundraiser ($\bar{x} = .47$) or volunteered at the school ($\bar{x} = .24$). These indicators demonstrate parents' engagement or connectivity to the school community. The seemingly unrelated sixth variable, whether the student participated in organized sports within the last twelve months ($\bar{x} = .53$), consistently loaded with these questionnaire items. Although the questionnaire indicated that sports participation was *not* limited to

sports based at the school, one can surmise that for students in high school, most organized sports are taking place at the school. Furthermore, participation in non-school based organized sports requires ongoing parental engagement with the host organization, explaining the association between sports participation and institutional engagement.

Cultivation efforts. The third factor is cultivation efforts ($\alpha=.603$), and reflects parents' efforts to nurture the social, academic, and non-academic development of their children through various activities. It is composed of nine dichotomous variables derived from questionnaire items that ask parents whether they had participated in various activities with their child in the last twelve months. The items included in this factor represent whether the student participated in scouts or another group of club outside of school ($\bar{x} = .36$); whether the student participated in performing or visual arts outside of school ($\bar{x} = .22$); and whether the parent took the student to a play, concert or live show ($\bar{x} = .51$), took the student to a science or engineering museum ($\bar{x} = .86$), worked or played with the student on a computer ($\bar{x} = .15$), attended a school science fair with the student ($\bar{x} = .38$), helped the student with a science fair project ($\bar{x} = .64$), discussed a STEM program or article with the student ($\bar{x} = .64$), or visited a library with the student ($\bar{x} = .34$). While some of these variables are STEM-specific (due to the goals of the HSLS study), they provide insight into parents' efforts to foster cultural capital, and the reliability of this factor would likely increase if the questions were less-tailored to STEM-related activities. Regardless, these items provide reasonable proxies for general activities (e.g., it is reasonable to deduce that parents who help their students with science fair projects are likely to help their students with other school projects, or that parents and students

who discuss STEM articles probably engage in conversations about other article and world events). Although the frequency at which parents and students participated in these activities is unknown, these simple indicators provide insight into whether parents are engaging in a parental style that is aligned with concerted cultivation efforts or one based on a theory of natural growth when considered together.

It is worth noting that parent education level, an important aspect of cultural capital, was not included. This was due to its inclusion in the HSLS-generated index of socioeconomic status. Inclusion of parent education in the cultural capital constructs would preclude the retention of SES as a covariate, as doing so would introduce collinearity and violate OLS assumptions. Thus, I decided to exclude parent education from cultural capital constructs in order to retain SES as a covariate. Furthermore, SES was not found to be correlated with the cultural capital factors (Table 3.9).

Table 3.9 Correlation matrix: SES and cultural capital factors

	SES	Parent-child Communication	Institutional Engagement	Cultivation Efforts
SES	1.0000			
Parent-child Communication	0.2022	1.0000		
Institutional Engagement	0.2735	-.0205	1.0000	
Cultivation Efforts	0.1704	-0.0138	0.0005	1.0000

Location and School District Covariates

Location and school-district (LEA) level variables were considered in an attempt to capture the roles of urbanicity, school funding, community resources (i.e., community SES), and choice availability. I merged the detailed urbanicity variable from the CCD

Public Elementary/Secondary School Universe Survey. I derived the others from the School District Fiscal Survey. Data elements from both sources were matched with the HSLs data using NCES unique identifiers. Summary statistics are in Table 3.9.

The calculation of school finance-related variables confirmed the great variation in education spending and school funding schemas throughout the nation, even when calculated on a per-pupil basis. For example, the mean per pupil funding among LEAs included in this study is \$10,085.76, and the standard deviation of 3,068.63 reflects the wide variation in school funding, which has a range of \$5,390.11 to \$36,435.41 per pupil. To supplement and improve upon the per-pupil funding variable, I calculated a variable that represents the percentage of funding that comes from local sources (i.e., local school and property taxes) by dividing the dollar amount that a LEA received from local sources by the total dollar amount they received for the school year. This variable represents LEA-level resources (i.e. community level SES) which could be masked by state and federal funding in the per-pupil funding variable (e.g. if a state has a fair or equitable school funding formula, a financially burdened LEA in a low SES area may have a similar, or higher, per pupil funding amount to that of a more affluent area. Federal funding also may mask funding inequities at the per-pupil level if an under-resourced LEA received a high level of funding through federal block grants.) The percentage of funding from local sources varied from as low as .23% to 93.68%, with LEAs receiving a mean of 41.51% of their funding from local sources (SD=18.43). To represent choice availability, I used the variable representing the percentage of revenue that an LEA

spends on charter school payments. These payments offer a fuzzy measure of choice activity within districts.

Table 3.10 Summary statistics for school district-level covariates

Variable	N	Mean	SD
Urbanicity	645	6.548	3.339
Per pupil funding (in thousands of USD)	642	10.101	3.078
Charter school activity	645	.184	.859
Funding from local sources	645	41.47	18.31

Charter schools operate as independent LEAs, creating a unique problem for these LEA-level variables. To account for this, I assigned each charter school to the LEA-identifier for the public-school district in which the charter school is located and operates. This decision aligns with the intended interpretation of those variables and the goals of this study.

Analytic Strategy

I used Stata 13 to prepare the data for this study and conduct analyses. As previously described, in some cases, I recoded variables to clarify the interpretation of models. I describe the analytical strategies employed to answer the research questions below.

Who Chooses? The Role of Cultural Capital in Attending a Chosen School

To answer the first research question, I use logistic regression to determine whether parental cultural capital significantly differs between students who attend assigned schools and those who attend chosen schools. First, I use a null model to assess the odds of attending a chosen school by pure chance. Then, I use the aforementioned covariates to build out a logistic regression model (Model 1) that controls for student and

parental background characteristics (e.g. gender, prior academic performance, academic ability, race) and school district characteristics (e.g. urbanicity, charter school activity). Next, I add the three cultural capital factors to assess whether they improve the model and how their inclusion affects the roles of the covariates.

What Do They Choose? Cultural Capital, Choosing, and School Quality

To answer the second research question, which builds on the first question and delves into the choice that parents and students made, I use a series of linear regression models to determine whether cultural capital and school choice relate to the three facets of school quality that I examine in this study. The linear regression models included student, parent, and school district covariates and controlled for school-level cluster effects. I build a model for each of the three indicators of school quality: peer characteristics, school challenges, and student behavior. For each of the three indicators of school quality, I present null models, models with student and location covariates, and a model with cultural capital factors. As part of the processes of answering both research questions, I incorporate interaction terms into the models to test and account for inter-individual differences within covariates when appropriate. In Chapter 4, I discuss the results when the covariates are included (Model 1) and how these results differ in the presence of cultural capital (Model 2).

Limitations

There are several limitations to the applicability of this study. First, while the prospect of contributing to school choice research using a national dataset excited me initially, I quickly realized why it might be better to focus on school choice at the local

level. Variation in the education landscape of this country is too vast to properly control for every item influencing school choice and school quality. One must have a deep understanding of the political landscape, funding schemas, and the culture of the area being study. This is impossible with a national dataset. While I took steps to ensure the reliability of the results statistically, the nature of the dataset made it difficult to interpret results. The same results would be much easier to interpret if they were specific to a town or even a state with which I am highly familiar.

Although private schools and homeschooling may represent the oldest forms of school choice, this study is delimited to public school choice. This is due to the inability to account for home-schooled children and the effects of scholarship programs and various forms of vouchers (e.g., certificates, state tax credits) that parents may use to enroll students in parochial and private schools. The inclusion of private schools would skew results, especially since students using vouchers are typically from low-income households with low-performing local public schools and typically would not have the financial means to attend a private school. For this reason, although data related to private school enrollment are available in the dataset, I analyze public schools only.

This study uses information from the parent questionnaires that the study officers collected as part of HSLS. Therefore, I can only complete analyses for students whose parents completed the questionnaire. Exploratory analyses revealed that there were statistically significant differences between the students (e.g., their math scores) whose parents were survey completers and students whose parents did not return the survey. Although the generalizability is limited to students of parents who completed the survey,

this study still provides insight into the role of cultural capital in school choice decision-making.

Another limitation stems from the factors that I constructed for this study. While I based the factors for cultural capital soundly in theory, cultural capital is not something that is typically of interest to quantitative researchers. It typically is not measured and, while it is observable, most sociologists would not consider it quantifiable. Therefore, while I grounded my construction of indicators of cultural capital in theory and this research may shed some light on the role of cultural capital, its use is limited. Similar limitations exist for school quality. I am of the belief that many or most indicators of school quality simply reflect the population of the students enrolled at the school (i.e., their parental SES). I was able to construct indicators of school quality that do not correlate with student SES and may capture aspects of school quality. While school quality may be quantifiable in an objective sense based on a given set of criteria, I do not believe that school quality is definable in a way that is applicable to all schools or appeals to the values of all people.

Still another limitation emerges around the variable related to school choice. There was a lack of congruency between administrator's responses to the questionnaire item in which they indicate whether their school participates in a school choice program and the responses of their students' parents. Parents often indicated that they chose the school when the administrator indicated no choice availability. When one parent out of dozens indicated that he or she chose the school, especially when the administrator indicated that choice was not available, it calls the parent's response into question. It

may be a valid, accurate response, or it may be erroneous. Parent responses to these questions may even be an indicator of parental satisfaction with their choice. If a district has a school choice program and the student's third choice school was the only school to admit him or her, the parent may indicate that the student attends an assigned school because it was not the *first* choice. Even still, parents of students receiving their first choice school might still indicate that the student attends an assigned school because ultimately the school district made the placement decision. Conversely, parents whose students attend an assigned school may indicate that they chose the school because local schools play such a large role in real estate purchases; the parents essentially chose the school by choosing to purchase a home in that school district. Interestingly, the study designers dropped this variable from future waves of the HSLS, so it is not possible to investigate this variable or its stability within HSLS any further.

Summary

The High School Longitudinal Study served as the primary source of data for this study due to the high quality of NCES's data collection and sampling strategy, its large sample size, and the extensive and varied information it includes. The parent questionnaire provides a myriad of variables reflecting parental behaviors that capture school choice and reflect cultural capital, and variables from the administrator questionnaire sufficed to identify facets of school quality. Analysis of HSLS data is of particular interest because it provides the opportunity to explore school choice behavior at a national level, which researchers typically study at district and state levels. The ability to augment HSLS with information from the CCD Public Elementary/Secondary

School Universe Survey and the School District Finance Survey strengthens the logistic and multivariate analyses that I completed to answer the research questions in this study.

CHAPTER 4: RESULTS

This chapter explains the analyses that I completed in order to determine whether there is a difference in cultural capital between students who attend chosen schools and those who attend assigned schools and whether there are differences in cultural capital and choosing behavior amongst students attending schools of varying quality. First, I explain the logistic regression and its results that answer the first research question: Is there a difference in cultural capital between students who attend chosen schools and those who attend assigned schools? The findings from the logistic regression shed light on the significant community, parent, and student characteristics that are associated with attending a chosen school, including the role of cultural capital. In other words, the logistic model gives us a better idea of who chooses.

Next, I explain the linear regression models that address the second research question: How do cultural capital, socioeconomic factors, and whether one chooses differ amongst students attending schools of varying quality? The complex findings from these models provide more insight into the roles of cultural capital and school choice participation when it comes to school quality, giving us a better idea of *what* parents and students choose (or what they get when students attend assigned schools).

I explain the significant findings, some surprising non-significant findings, and changes that occurred when I added new variables to the models. Implications for policy and suggestions for future research follow in Chapter 5.

Cultural Capital and Choosing Behavior

The first research question addresses whether there is a difference in cultural capital between students who attend chosen schools and those who attend assigned schools. I used a logistic model to answer this question because the dependent variable is dichotomous. The dependent variable is whether the parent chose the school, which I derived from the parent questionnaire. The independent variables of interest are the factors that capture facets of cultural capital related to parent-child communication, institutional engagement, and cultivation efforts. I detailed the factor analysis and information about individual items within the factors in Chapter 3. Covariates include location specific characteristics related to urbanicity and school funding, and student background characteristics, such as parental SES, prior academic achievement, and race and ethnicity.

A logistic regression model was fit to determine whether cultural capital helps explain whether a student attended a chosen or assigned school. I do not intend for this model to be predictive; rather, I intend for it to determine whether the role of cultural capital is statistically significant in a model that includes other background characteristics. Stepwise logistic regression that accounted for school-level clustering produced the results in Table 4.1. The results of the logistic regression indicate the log odds ratio (B) of the outcome occurring, which in this case is attending a chosen school. The beta value (B) is converted to an odds ratio value, $EXP(B)$, to reflect the change in odds of the outcome occurring based on a one unit change in the indicator. In the case of the dichotomous variables, the results indicate the change in the likelihood of

the event occurring based on whether a student meets that criterion, as compared to students who do not (e.g., the change in the odds based on whether a student is female or whether a student is of Hispanic ethnicity).

The results outlined in Table 4.1 provide several important insights into the likelihood of whether a student attends a chosen school. Although the role of cultural capital is most relevant to this study, the significant covariates are equally important as they provide context for understanding the results related to cultural capital. Thus, I discuss the results related to location and student characteristics first, followed by the results related to cultural capital and its role in school choice behavior.

The null model presented in Table 4.1 reflects the correct classification of 78.69% of the students in the model. The percentage of correctly classified students increases to 79.59% when I added location and student level characteristics to the model. The results reported under Model 1 show that location and student characteristics might indicate whether a student is more or less likely to attend a chosen school.

Location is a strongly associated with whether a student attends a chosen school. For every unit increase on the twelve-point urbanicity scale, students were 6.3% more likely to attend a chosen school. This means that a student who attends school in a large city is 6.3% more likely to attend a chosen school than a student in a medium-sized city, and 12.6% more likely to attend a chosen school than a student in a small city, and so on.

LEA charter school activity was included in the model to approximate the level of school choice available to students within the particular LEA, represented by the

percentage of revenue that an LEA spends on charter school payments. Results indicate that increased charter school activity in a district does increase the likelihood of a student attending a chosen school. The effect is an 18.0% increase for each percentage point of a district's revenue that goes to charter school payments. In other words, with all else being similar, a student attending a district that spends 14% of its revenue on charter school payments is 18% more likely to attend a chosen school than a similar student in a district that spends 13% of its revenue on charter school payments. Due to variation in school spending, this effect is not easy to interpret. This could reflect an increased likelihood of attending a chosen school due to the increased availability of charter schools. It might also capture small districts that lack resources to educate students with very high needs, so it is most efficient to assign these students to special needs schools that function as charter schools. While it is difficult to interpret this particular finding at the national level, the effect is significant and it controls the rest of the findings for charter school activity.

Lastly, LEA funding from local sources was also associated with attending a chosen school. For each percentage point difference in funding that comes from local sources, a student experiences a 0.7% change in the likelihood that he or she will attend a chosen school. While this might sound small, it means that if there are two similar districts and one relies on the state and federal government for 50% of its revenue, and the other relies on the state and federal government for 30% of its revenue, a student in the first district is 14% *less* likely to attend a chosen school. The variation in the percentage of school funding coming from local revenue is vast, ranging from .23% to

Table 4.1 Summary of logistic regression analysis for variables associated with school choice

	Null Model			Model 1			Model 2		
	B	SE	EXP(B)	B	SE	EXP(B)	B	SE	EXP(B)
Location Characteristics									
Urbanicity				3.20***	.020	1.063	2.96**	.021	1.061
LEA Charter School Activity				2.56**	.080	1.188	2.63**	.086	1.207
LEA funding, local sources				-2.50**	.003	.993	-2.80**	.003	.991
Student Characteristics									
Asian				3.39***	.179	1.506	3.03**	.192	1.482
Black				3.49***	.153	1.439	2.86**	.165	1.403
Hispanic				1.89	.105	1.180	1.99*	.114	1.207
Female				2.20*	.056	1.117	2.06*	.061	1.119
Cultural Capital									
Parent-Child Communication							-1.14	.028	.968
Institutional Engagement							2.20*	.034	1.072
Cultivation Efforts							4.94***	.035	1.160
Constant	- 25.51***	.014	0.27	-9.97***	.032	.195	-9.30***	.035	.204
Observations		12,555			10,849			8,944	
% Correctly classified		78.69%			79.59%			79.87%	
Pseudo R2		.0000			.0199			.0243	

Notes: All models were clustered by school. * $p < .05$. ** $p < .01$. *** $p < .001$.

93.6%, so one can see how much this particular attribute can influence a student's likelihood of attending a chosen school.

Several student characteristics are also statistically significant. Race, ethnicity, and gender are all associated with school choice behavior. Asian students are 50.6% more likely to attend a chosen school than their non-Asian counterparts. Black students are 43.9% more likely to attend chosen schools than their non-Black counterparts. Hispanic students are 18.0% more likely to attend chosen schools than their non-Hispanic counterparts. These racial and ethnic differences in school choice behavior likely reflect patterns in racial and ethnic residential segregation. It seems that some racial and ethnic groups tend to reside in areas with distinct patterns of urbanicity and charter school activity. I found interactions between urbanicity and these demographic variables, but they were extremely complex and nonlinear. I chose to exclude the interactions from the model because it seemed that to include them would over fit the model to the dataset. Essentially, I opted to ignore the interactions between race and location characteristics because the interactions describe sorting patterns there exist in the data, not true findings. Gender also plays a role in whether students attend schools of choice, as female students who are otherwise similar to male students are 11.7% more likely to attend a chosen school. This finding may represent national gender-gap trends in education engagement or it may reflect parental attitudes about their sons and daughters (i.e., parents may take a more active role in the school selection process for their daughters than their sons due to gender biases).

To my surprise, many student characteristics that I expected to relate to attending a chosen school were not. One surprisingly non-significant characteristic was socioeconomic status. I expected students with higher SES parents to choose more, as parents with higher SES might have more agency to seek out opportunities for their students. They may possess the skills and resources that are necessary to overcome barriers that schools of choice use to exclude lower SES students (e.g., requiring medical records beyond those required by public schools, expensive uniforms, or time commitments to the school), and navigate the application and enrollment processes for attending a chosen school. On the other hand, higher SES parents may select schools via Tiebout sorting (i.e., exercising school choice via residence selection) and report that their student attends an assigned school, even though the school assignment is a function of a prior choice made by the parent. Students' prior academic achievement does not appear to play a role in whether they attend chosen schools. I expected students with higher grades to be more likely to attend a chosen school, since grades can reflect self-selection via student motivation or interest in education. I expected that students and parents who care about selecting schools would also care about the students' academic performances. However, this may be masked by the lack of variation in prior academic achievement (i.e., due to grade inflation).

The effects of Special Education and English Learner statuses were not significantly associated with attending a chosen school. I expected Special Education status to have a negative impact on a student's likelihood to attend a chosen school, as district-run schools typically have more resources to provide robust special education

services, but there was no significant effect. English Learner status was also insignificant, but this may be attributable to the limitations of the dataset and whether English Learners are fully represented among parents submitting questionnaires. Both of these populations, Special Education students and English Learner students, may have population-specific school choice options available, such as in charter schools with programs for students with dyslexia or bilingual programs, these schools are probably not common enough to be captured in this dataset. This could also be attributable to interpretation of the question about choosing.

In summary, in the absence of cultural capital, students are more likely to attend schools of choice if they are non-white females living in high density urban centers with relatively lower locally-sourced school funding and high charter school activity. However, much of this changes when cultural capital is considered.

In Model 2, I included the three facets of cultural capital that I constructed via the methods described in Chapter 3: parent-child communication, institutional engagement, and cultivation efforts. Two of these facets, institutional engagement and cultivation efforts, were significant influencers of attending a chosen school, and the inclusion of cultural capital had interesting effects on the variables that were significant in Model 1. Parent-child communication was not statistically significant. This may be attributable to the high affirmative response rates within the scale items that reduced variation within the factor. However, institutional engagement and cultivation efforts played significant and positive roles in attending a school of choice. A one-point difference on the scale of Institutional Engagement, which has a range of approximately six points, is associated

with a 7.2% increase in the likelihood of attending a chosen school. In other words, if two students are otherwise similar, but one has a parent whose institutional engagement is one point higher, that student is 7.2% more likely to attend a chosen school. I interpret this finding to reflect that a parent who is more likely to attend school events and take an active role in the school community is more likely to play an active role in choosing his or her student's school. This makes sense because parents whose cultural capital (i.e., habitus) aligns with the middle class culture of schools will feel more comfortable and be more inclined to participate in school activities. A one-point increase on the scale of cultivation efforts, which has a range of approximately five points, is associated with a 16.0% increase in the likelihood of attending a chosen school. The cultivation efforts factor reflects parental habits like taking their children to museums, libraries, and the theater. The relationship between these habits and choosing the student's school is suggestive of parents taking a more active role in their children's experiences (engaging in the concerted cultivation parenting style described by Lareau). It may also reflect parental habitus: parents who are comfortable engaging with cultural institutions may be more comfortable enrolling their students in chosen schools and navigating the school selection process.

Including cultural capital in Model 2 improves the model's power and changes the effects of some of the location and student characteristics that I described in reference to Model 1. Inclusion of the cultural capital factors modestly strengthens the relationship between LEA charter school activity and attending a chosen school. The role of urbanicity is similar when cultural capital is included. While Asian and Black students

are still more likely to attend a chosen school, the impact of being Asian or Black is slightly lower when cultural capital is considered. The impact of being Hispanic increases slightly, with the odds of attending a chosen school increasing from 18.0% to 20.7% when a student is Hispanic. Interestingly, inclusion of cultural capital in the logistic model is significant while socioeconomic status continues not to be a significant predictor of whether one attends a chosen school. Existing research emphasizes the role of socioeconomic status in attending a chosen school, but this finding suggests that it is cultural capital, not SES, that is associated with school choice behavior. Thus, since cultural capital is related to choosing behavior, the cultural capital variables are retained for the analyses that address whether choosing and cultural capital are related to the quality of school that a student attends.

School Quality as a Function of Cultural Capital, Socioeconomics, and Choosing

The second research question addresses whether there is a relationship between cultural capital, attending a chosen school, and the quality of the school that a student attends. I represent the dependent variable, school quality, with three factors that capture different aspects of school quality: peer characteristics, school challenges, and student behavior. I provide information about the factor analysis and the individual items within the factors in Chapter 3. The independent variables include cultural capital and an indicator of whether the parent chose the student's school. Similar to the logistic regression, covariates include location and student background characteristics.

School Quality: Peer Characteristics

I report the analyses addressing the peer characteristics component of school quality in Table 4.2. Model 1 demonstrates that on its own, choosing appears to be a significant indicator of school quality related to peer characteristics, suggesting that parents who choose their student's schools are choosing schools based on student outcomes and student demographics. In Model 2, I introduce covariates that explain some of the variance (28.27%).

First, several location characteristics relate to school quality. Increased urbanicity is associated with higher school quality, local investment in schools, and LEA funding are all associated with increased school quality. In other words, schools that are located in dense areas with high per pupil funding generated from local revenue tend to be of high quality. School district funding from local revenue, which reflects the SES of the community, has the greatest influence of the community level factors. It makes sense that community SES would influence the peer characteristics component of school quality, which captures items such as the percentage of students going to 4-year college and mathematics test scores. These three items together seem to profile different types of schools. I can easily think of examples of highly esteemed public school districts in near-city suburbs with very high taxes and very high per pupil spending. I can also think of several lower performing school districts in urban centers where per pupil funding is relatively high but the state and federal governments provide nearly all of the district's funding. Still, one more community level covariate is significant: charter school

Table 4.2 Summary of regression analyses for variables associated with school quality: peer characteristics

Variable	Model 1		Model 2		Model 3	
	B	SE	B	SE	B	SE
Choosing	2.31**	.073	2.28*	.132	0.43	.054
Community covariates						
Urbanicity			3.39***	.054	3.42***	.015
LEA funding			1.87*	.000	1.84*	.000
Charter school activity			-2.31*	.050	-2.16*	.050
Local investment in schools			4.15***	.003	4.24***	.003
Student covariates						
Socioeconomic status			4.72***	.026	3.81***	.030
Prior academic achievement			2.47**	.025	1.83*	.026
Academic ability			5.27***	.002	4.81***	.002
Female			.77	.025	-1.29	.031
Interaction: Female & Choosing					2.62***	.050
Black			-1.64	.106	-1.63	.094
Asian			-0.42	.127	-1.18	.224
Interaction: Asian & Choosing					1.75*	.259
Hispanic			-3.53***	.080	-3.78***	.082
Student with disability			.42	.057	.94	.059
Cultural Capital						
Parent-child communication					2.54**	.018
Institutional engagement					.28	.006
Cultivation efforts					1.09	.020
Constant	4.27***	.051	-7.49	.22	-6.80	.216
Observations	8,736		7,360		6,288	
R-squared	.008		.283		.273	
F	5.34		18.46		13.04	

Notes: Standard errors are adjusted for school clusters; * $p < .10$. ** $p < .05$. *** $p < .01$.

activity. Charter school activity is associated with *lower* school quality. However, whether charter school activity is a cause or an effect of lower school quality is unknown. Charter school activity may cause a decline in school quality because charter schools are cream-skimming students or diverting funds from public schools. Alternatively, low performing public schools may have necessitated reform, and charter schools exist as a response to the low-performing schools. While both explanations are plausible, and one explanation may apply to some school districts while the other explanation applies to others, this dataset lacks sufficient data to fully explain this finding.

Student and parental characteristics in the model are also significant. Student academic ability has the strongest association with attendance at a high quality school, but parental SES and student prior academic achievement are also strongly associated with school quality. It makes sense to consider these three variables together because they are somewhat correlated (math ability and SES have a correlation coefficient of .429 while math ability and prior academic achievement have a correlation coefficient of .481). Students from higher SES households with a history of higher achievement (i.e., higher grades) and greater academic ability are more likely to attend higher quality schools. While gender and race are not significant in the model, being of Hispanic ethnicity is strongly associated with attending schools of lower quality. This finding may suggest that Hispanic students face more barriers than students of other ethnic backgrounds face when it comes to enrolling in higher quality schools. It is worth noting that English Learner status is *not* associated with school quality.

When I account for cultural capital in Model 3, the results become much more complicated. First, cultural capital may play a role in the quality of school a student attends, but only the parent-child communication aspect of cultural capital is significant. The association is positive: increased parent-child communication is associated with attending higher quality schools. The peer characteristics factor includes measures of student engagement and student belonging, which may be influenced by parent-child communication. For example, if a student is more engaged in school, the student might talk to their parent about school more, or vice versa. Parental institutional engagement and cultivation efforts do not seem to play a role in this facet of school quality. The effects of the location characteristics are generally the same as those in Model 2 but the association between school quality and student characteristics become more complex. While parental socioeconomic status, student math ability, and student prior achievement continue to be strong correlates of school quality, the impact of each of these three items decreases when cultural capital is included. Hispanic students continue to be less likely to attend a higher quality school than non-Hispanic students when cultural capital is included. Interestingly, in the presence of cultural capital, gender seems to have a relationship with attendance at a higher quality school, but only when a female student attends a school of choice. A similar effect appears for Asian students: Asian students are not significantly more or less likely to attend a higher quality school, but when Asian students attend chosen schools, it is more likely to be a school of higher quality. It is noteworthy that these interactions only occur in the presence of cultural

capital. It is also noteworthy that the inclusion of cultural capital decreases the fit and classification value of the model.

School Quality: School Challenges

I report the analyses addressing the school challenges component of school quality in Table 4.3. Model 1 demonstrates that on its own, choosing does not seem to be associated with this particular aspect of school quality. Model 2 includes covariates that help explain 15.96% of the variance in the model. Some location characteristics are associated with school challenges, including LEA funding and local investment in schools. Lower LEA funding is associated with increased quality (i.e., less school challenges) while increased local investment in schools is significantly associated with increased school quality. Urbanicity and charter school activity were not significantly associated with school quality related to school challenges.

Student and parental characteristics are also significant in the model. Similar to the findings for the peer characteristics component of school quality, parental socioeconomic status and math ability are associated with increased school quality. However, increased prior academic achievement is associated with *decreased* school quality. This finding is surprising, as it suggests that higher quality schools enroll students with lower prior academic achievement. One possible explanation might be that schools with fewer school challenges place less of an emphasis on grades, or they may experience less grade inflation. Also similar to the findings related to peer characteristics, gender, race, ethnicity, and disability status were not significant.

Table 4.3 Summary of regression analyses for variables associated with school quality: school challenges

Variable	Model 1		Model 2		Model 3	
	B	SE	B	SE	B	SE
Choosing	.48	.070	.92	.055	.76	.057
Community covariates						
Urbanicity			.50	.015	.80	.015
LEA funding			-2.17*	.000	-1.91*	.000
Charter school activity			-1.30	.007	-1.44	.009
Local investment in schools			5.69***	.017	5.51***	.015
Student covariates						
Socioeconomic status			3.76***	.029	2.60***	.030
Prior academic achievement			-2.30**	.026	-2.94***	.029
Academic ability			3.39***	.002	3.29***	.003
Female			.13	.037	.45	.042
Black			.11	.088	.20	.087
Asian			.03	.091	-1.18	.224
Hispanic			.96	.087	.92	.098
Student with disability			.61	.052	-.44	.057
Cultural Capital						
Parent-child communication					.01	.023
Institutional engagement					1.45	.029
Interaction: Institutional engagement & choosing					2.73***	.028
Cultivation efforts					-.19	.020
Constant	2.03*	.060	-1.60	.267	-6.80	2.16
Observations	8,736		7,360		6,288	
R-squared	.000		.1596		.1569	
F	.23		7.43		6.27	

Notes: Standard errors are adjusted for school clusters; * $p < .10$. ** $p < .05$. *** $p < .01$

When I account for cultural capital in Model 3, the results are similar. Cultural capital does not seem to be associated with the school challenges aspect of school quality. However, a positive and significant relationship between attending a higher quality school, choosing the school, and institutional engagement emerged. In other words, students whose parents engage in school activities and choose their school are more likely to attend higher quality schools. Similar to the analyses examining school quality related to peer characteristics, inclusion of cultural capital decreases the fit and classification value of the model.

School Quality: Student Behavior

I conducted analyses related to school quality as represented by student behavior and outlined the results in Table 4.4. Model 1 suggests that attending a chosen school is associated with attending a school with less frequent student behavior challenges. Model 2 indicates that while choosing continues to play a significant role in school quality, some community and student characteristics also contribute. Increased charter school activity and increased community investment in schools both seem to contribute to *lower* school quality (i.e., more school behavior problems). While one might expect to see increase reform efforts via charter school activity in a district with student behavior problems, the association between community investment in schools and lower school quality is difficult to understand. Similarly, as parental socioeconomic status increases, the school challenges related to student behavior also increases (i.e. the quality of the school that a student attends declines, at least concerning student behavior). If nothing else, these findings suggest that student behavioral problems are more frequent in high SES school

Table 4.4 Summary of regression analyses for variables associated with school quality: student behavior

Variable	Model 1		Model 2		Model 3	
	B	SE	B	SE	B	SE
Choosing	2.14**	.096	3.04***	.073	2.91***	.072
Community covariates						
Urbanicity			-.66	.019	-.66	.018
LEA funding			1.31	.000	1.17	.000
Charter school activity			-2.26**	.016	-2.12**	.0180
Local investment in schools			-1.94*	.004	-1.80*	.004
Student covariates						
Socioeconomic status			-1.89*	.030	-.63	.033
Prior academic achievement			3.02***	.029	3.18***	.031
Academic ability			-1.22	.002	-1.18	.003
Female			.03	.035	.02	.043
Black			.44	.089	.34	.086
Asian			1.00	.169	.98	.191
Hispanic			1.49	.085	1.30	.088
Student with disability			-2.17**	.067	-1.17	.073
Cultural Capital						
Parent-child communication					-.59	.022
Institutional engagement					-.66	.024
Cultivation efforts					-.89	.020
Constant	-4.89***	.054	-1.15	.305	-1.21	.305
Observations	8,736		7,360		6,288	
R-squared	.011		.077		.061	
F	4.57		3.82		2.68	

Notes: Standard errors are adjusted for school clusters; * $p < .10$. ** $p < .05$. *** $p < .01$

districts. Prior academic achievement plays a significant and positive role in attending a school with less student behavior challenges. This matches the finding related to peer characteristics and contradicts the finding related to school challenges. Student disability status has a significant impact on school quality in this model only. Students with disabilities attend schools with more frequent student behavior challenges.

Model 3 reveals that cultural capital does not play a role in this aspect of school quality. Inclusion of cultural capital makes SES and disability status nonsignificant, yet cultural capital is not significant either. Furthermore, similar to the analyses related to the school challenges component of school quality, introducing cultural capital to the model *reduced* the variance explained.

Summary

In summary, it appears that cultural capital does play a role in whether a student chooses a school. When cultural capital manifests through parent-child communication, its role in choosing is inconsequential. However, when cultural capital manifests through institutional engagement and cultivation efforts, its role in whether one attends a chosen school is great and more important than other variables, including SES.

The relationship between cultural capital and school quality is much more complex, and it varies based on how one views school quality and in some cases, whether one chooses the school. Parent-child communication is only associated with the peer characteristics component of school quality. Institutional engagement is only associated with attending a school with fewer challenges when parents choose the school. Cultivation efforts do not appear to be associated with school quality. I discuss

these findings, their implications for policy, and suggestions for future research in Chapter 5.

CHAPTER 5: FINDINGS AND IMPLICATIONS

The purpose of this study was to explore whether cultural capital plays a role in whether a student attends a school of choice, and whether cultural capital and choosing impact the quality of the school that a student attends. I analyzed data from the HSL:09, the CCD, and the LEA Finance Survey with logistic and linear regression models. I constructed cultural capital factors based on a Bourdiesian framework using principal components analysis, resulting in factors related to parent-child communication, institutional engagement, and cultivation efforts. This chapter presents the conclusions and implications based on the findings I presented in Chapter 4.

Major Findings

I designed this study to determine whether cultural capital plays a role in whether students attend chosen schools and whether parental cultural capital and choosing can explain variation in the quality of school in which a student enrolls. The answer to the first research question is yes, there is a difference in cultural capital between students who attend chosen schools and those who attend assigned schools. However, the differences are complex. The strongest finding relates to the component of cultural capital that captures cultivation efforts. Otherwise, similar parents who highly engage in their children's development – by taking them to art shows and plays and helping them with science fair projects – are far more likely to choose their student's school. Parents who engage with schools are also more likely to choose their student's school. Both of these findings suggest that parents who feel comfortable interacting with institutions are more likely to participate in school choice. Students whose parents reported choosing

their school reported that they talked to their parents about courses and post-high school plans a little bit less often than students who attended assigned schools. It could be that parents whose ninth-graders attend chosen schools feel less of a need to discuss post-high school plans. Maybe they feel confident in their high school of choice or the schools of choice have prescribed curricula. Alternatively, maybe the parents discussed the decision to choose the high school so much that now that the student is in ninth grade, they are just allowing the child to enjoy school without pressuring the child about post-high school or college plans. However, the evidence is clear that cultural capital is related to attending a chosen school.

School Choice and School Quality

The second research question addresses how school choice participation, cultural capital, and socioeconomic factors differ amongst students attending schools of varying quality. First, school choice seems to matter most when we consider a school's quality as a function of its students' behavior. This makes sense for a few reasons. First, even parents with limited information about a school will know whether the school has major behavior challenges amongst its students by word of mouth alone. Second, schools of choice often have the ability to remove students who present behavior challenges. Thus, it makes sense that choosing a school and attending a school with less frequent behavior problems are related.

Interestingly, choice alone does not seem to make a difference when it comes to challenges that schools face. This suggests that the challenges related to absenteeism, dropout, apathy, and lack of preparation are just as problematic in schools of choice as

they are in assigned schools. However, when parents with high levels of institutional engagement choose their students' schools, they choose schools with fewer challenges. This could mean that parents who are engaged in school events choose schools that have fewer problems, or this could be capturing some schools in which parents are *required* to attend meetings and volunteer as a condition of enrollment. This would explain the relationship between these two variables, but I am not sure how widespread such practices are.

Another complex relationship between choosing and school quality emerges in the context of the peer characteristics facet of school quality. While choosing is associated with advantageous peer characteristics, cultural capital, particularly parent-child communication, mitigates the effect of choosing. Overall, choosing does play a role in school quality, but it is not as simple as school choice advocates suggest.

Cultural Capital, Socioeconomic Status, and School Quality

Cultural capital also plays a role in the quality of school that a student attends. One aspect of cultural capital is parent-child communication. While this aspect of cultural capital was unrelated to school quality as measured by school challenges and student behavior, it does seem to be related to the facet of school quality that the peer characteristics factor reflects. This factor captures schools' percentage of college-going graduates, the percentage of students entering the workforce, student engagement, student sense of belonging, and student academic ability. When I added parent-child communication to the model, it negated the effect of choosing for males and non-Asians. It increased the impact of choosing on school quality for female students and Asian

students. Essentially, when parent-child communication and all other covariates are the same, when parents choose the schools for their female or Asian students, they choose schools that are of higher quality. This interaction is difficult to interpret due to its complexity and what are likely to be cultural norms and/or sorting patterns that are beyond the scope of this study.

Cultural capital as represented by institutional engagement matters most when parents choose schools. Parents with higher levels of cultural capital than their otherwise similar peers who choose their students' schools tend to choose schools with fewer school challenges. However, the impact of institutional engagement is not significant when it comes to the peer characteristics or student behavior components of school quality. Interestingly, cultivation efforts, which play a strong role in whether one chooses, do not play a significant role in school quality.

However, parental and community socioeconomic status plays a strong role in the quality of school that a student attends. For peer characteristics and for school challenges, parental socioeconomic status makes a strong and significant contribution to the quality of school that a student attends. Local investment in schools, which captures SES at the community level, plays an even stronger role. The only exception is the factor related to student behavior challenges. This facet of school quality captures the frequency of verbal abuse of teachers, student in-class misbehavior, and student disrespect of teachers. High frequencies of these items are associated with higher parental and community SES. This may be due to administrator perceptions or class-related deference towards teachers.

While I reviewed the factors related to cultural capital and school quality individually, it is imperative to examine them together, as they are not standalone indicators. Overall, I can conclude that choosing, cultural capital, and socioeconomic status play roles in the quality of school that a student attends, but the interplay between these variables is complex, complicating interpretation of the findings.

Policy Implications

The first finding – that cultural capital is predictive of school choice participation – is important because it demonstrates that socioeconomic status is not the only way in which students are stratified into schools of choice. If policymakers were to design a system of school choice that truly leveled the playing field, they might include mechanism to account for SES, prior academic achievement, academic ability, race, and gender. However, they would need to consider the impact of cultural capital and how it influences parents’ propensity to participate actively in the school choice process. This is crucial because cultural capital reflects inherited and acquired advantages that SES constructs do not capture.

The second finding – that choosing, cultural capital, and SES all relate to school quality, albeit in different ways – also has implications for policymakers. If nothing else, the relationships teased out in this study cast more doubt on the applicability of a rational choice framework to public schools. Parents may or may not choose the “best” school based on performance outcomes, but they seem to attempt to choose the best school for their child based on their values and the options that are available to them.

Future Research Opportunities

This study raises the need for several veins of future research. First, there is definitely a need to investigate the role of cultural capital in the school choice process, particularly regarding barriers that may exclude parents who are less comfortable engaging with institutions. This dataset did not include information about requirements for enrollment, making it impossible. While I have seen reports on charter or magnet school barrier to admission (i.e., lists of requirements beyond those required by traditional public schools in the local school district), a study would need to collect information from these parents, prior to the school selection process, to assess their cultural capital.

This study also raises questions about the usefulness of socioeconomic status and whether there are better ways to measure one's likelihood of experiencing advantages in society. I would like to see a measure that captures the number of generations removed from poverty. Although it would not be possible to collect family histories, it may be feasible to ask survey respondents about grandparents' occupations and education levels. I think the cultural capital variables I constructed for this study might hint at that in a more meaningful way than SES does.

Furthermore, the study reinforces the need to understand *how* people choose their students' schools. There is a lack of reliable data about the factors that parents consider when they choose their child's school. There are obvious factors, like distance and transportation, admissions requirements, and program availability, but there are less

obvious factors as well, like how students and parents perceive themselves, schools, and their place in them.

Conclusion

Interestingly, cultural capital seems to predict school choice behavior far better than socioeconomic status. Although I had a hunch that cultural capital would play a role, I suspected that SES might mitigate its role entirely. However, it turns out that cultural capital plays a role in choosing when SES does not. In addition, although SES is a strong predictor of school quality, cultural capital plays a role as well.

Based on my experience teaching in urban public schools, I suspected that cultural capital would play a strong role both in predicting school choice interest and the quality of the school that the student attended. This suspicion arose from getting to know many of my students' parents and observing some differences in their attitudes and behaviors that SES alone would totally mask. My students' parents worked similar jobs, had similar levels of education attainment, and lived in the same public housing project. However, there were huge differences in the ways the parents interacted with their children and the types of activities they engaged in with their students. Nearly all parents attended parent-teacher conferences, so I was able to get to know parents who would likely have high and low levels of cultural capital as defined in this study.

In time, differences between the parents who were from backgrounds of generational poverty and those who were experiencing situational poverty emerged. Again, SES would not detect these differences because the parents had similar incomes, levels of occupational prestige, and education levels. Undoubtedly, all of these parents

wanted the best for their children, but the parents who were experiencing situational poverty seemed to interact with their children differently. Differences were most apparent when it came time for students to apply to high schools. The parents experiencing situational poverty were more likely to request information from staff members before the application process began, attend the district's school choice fair, and attend the high school open houses.

I realized that it was a function of cultural capital. It was not that the parents in situational poverty were interacting with their *children* in a different way; it was that their interactions with *institutions*, including schools, shaped their interactions with their children. I observed that the parents who described experiencing situational poverty were more comfortable engaging with institutions and raised their children in alignment with Lareau's parenting style of concerted cultivation. These parents often described ambitions to go back to school, steps they were taking to ensure that their children experience better outcomes than they did, and a commitment to experiencing upward socioeconomic mobility. They were comfortable engaging with institutions because their habitus allowed them to and because their parents and grandparents were. While the parents from backgrounds of generational poverty were less likely to engage with institutions, they were more likely to trust them to ensure that their children achieved their potential and secured appropriate outcomes. They would often express sentiments that they had gone to the local public school and they are okay, and their children will be, too.

Experiences with these students and parents shaped my motivation to do this study and my understanding of the results. These are exactly the kind of students that school choice programs are supposed to help. However, in addition to the barriers that schools establish to create hurdles for the most disadvantaged students, there are societal barriers that are more difficult to recognize. These barriers shape these students' opportunities and contribute to social reproduction in ways that are not readily apparent. If school choice programs are to persist and increase, we must consider the invisible force of cultural capital if we are ever to achieve an equitable education system.

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