COMPETING OBJECTIVES: AN IMPLEMENTATION AND EQUITY ANALYSIS OF THE VOLUNTARY INTERDISTRICT DESEGREGATION PROGRAM IN ST. LOUIS, 1999-2009

by

AIN AKILAH GROOMS

(Under the Direction of Sheneka Williams)

ABSTRACT

Voluntary interdistrict desegregation programs were designed specifically to address racial segregation in public schools by providing minority students from urban areas with free transportation to suburban schools. This study uses the voluntary interdistrict desegregation program currently in operation in St. Louis as its foundation, focusing on the ten year period following the lifting of the court order in 1999.

Parents of past program participants have openly admitted to enrolling their children because of access to a "better education." The purpose of this study was to investigate: (1) suburban implementation of the voluntary transfer program, (2) the financial resources available in St. Louis and in the suburban districts to which students have been assigned, and (3) the variation in the distribution of the resources available in the suburban communities and their effect on the graduation rates of the Black students. This policy analysis had two distinct subsections: an implementation analysis and an equity analysis. The implementation analysis, relying in part on Stone's (2001) civic capacity framework, examined suburban implementation of the policy. The equity

analysis, based on the framework created by Berne and Stiefel (1984), used weighted least squares and quantile regression analyses to investigate the variation in the distribution of the resources available in the suburban school districts and in the academic outcomes realized by Black students in suburban schools.

The results of the implementation and equity analyses indicated that suburban interest in continued participation the program was based primarily on funding and reimbursement, rather than diversity. The number of transfer students from St. Louis participating in the program had consistently declined over time. These results also revealed that district wealth (local tax effort) and geographic location within the county tended to have the greatest effect on achievement for Black students in the participating suburban districts. Overall, results indicated that despite interest in the program on the part of St. Louis families, control over the program remains in the hands of the suburban elite, and led to competing objectives: diversity versus resources.

Index: desegregation, integration, equal educational opportunity, interdistrict busing, resource allocation, civic capacity, school choice, geography of opportunity, equity framework

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AIN AKILAH GROOMS

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AIN AKILAH GROOMS

Major Professor:	Sheneka Williams
Committee:	Elizabeth DeBray
	Eric Houck
	Valija Rose

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
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DEDICATION

To Kenneth and Nefertiti,

the opposites.

Thank you for making me whole.

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They say the journey of 1,000 miles begins with a single step. The journey of these 69,950 words began with a single idea—one that made absolutely no sense. But, thanks to the guidance, support, advice, feedback, and tough love provide to me by my committee, that nonsensical idea morphed into something worth studying. I am eternal grateful to my committee members, Sheneka Williams, Elizabeth DeBray, Eric Houck, and Valija Rose, because I couldn't have accomplished any of this without them (even when I tried because they noticed and reeled me back in).

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CHAPTER 1

INTRODUCTION

Introduction

In 1954, the United States Supreme Court unanimously ruled, in the *Brown v. Board of Education of Topeka* case, that racial segregation was unconstitutional, and that separation of the races denied Black children the equal protection guaranteed by the Fourteenth Amendment. This case remains one of the most influential lawsuits of the past hundred years, and has helped in shaping not only the landscape of public education, but of society as a whole. The Supreme Court's decision initiated an ongoing nationwide discussion about equal educational opportunity. Horace Mann (1848) once declared that education was to be "'the great equalizer' of the conditions of men—the balance wheel of the social machinery" (para. 9), yet, despite the *Brown* decision, our country's history of racial, residential, and economic segregation continues to pose a tremendous obstacle to the creation of equal schools and an equal society.

Beginning in the 1940s, as millions of Blacks moved from the South to Northern cities during what is now known as the Great Black Migration, Whites began moving from the cities to the suburbs. In the 1960s, the White population in cities declined by 1.3 million (National Advisory Commission on Civil Disorders, 1968). Wells and Crain (1997) contend that the Great Black Migration was "second only to the suburbanization of the white middle class as the most profound social phenomena of twentieth-century

America" (p. 42). The movement of the White middle class from close-knit urban areas to the expansive suburbs introduced the idea that the suburbs were exclusive, and somehow better than living in the cities.

Schools were, and still are, a reflection of our communities, and as neighborhoods changed, so too did the schools. Public schools became more racially and socioeconomically segregated, as Black, Hispanic/Latino, and poor White children attended city schools, and middle and upper-middle class White children attended suburban schools. When White families left the cities, they took with them financial and political support for the schools (Morris, 2004; Schneider, 1992). As the divide between rich and poor (and between suburban and urban) grew, questions arose regarding the educational opportunities that were being provided in public schools across the country.

The Coleman Report

In 1966, the U.S. Department of Education released the report, *Equality of Educational Opportunity*, which became later known as the Coleman Report. This seminal report found that peer composition was the only resource that had a statistically significant effect on student achievement, and argued that Black students who attended integrated schools, and attended schools that had been integrated for a longer period of time, had higher achievement levels than those that did not.

The report also argued that Black students who attended predominately middle-class schools achieved more than the Black students that did not (Coleman et al., 1966). By arguing that with whom students attend school is as important as family background

when predicting academic achievement, the Coleman Report gave statistical support to the continued push toward using school desegregation as a tool for the provision of an equal educational opportunity.

Voluntary Interdistrict Desegregation Programs

Following the *Brown* decision, some states did not wait for federal guidance to desegregate their schools, and in the mid-1960s created their own localized programs to address these issues by involving both city and suburban schools and communities. The earliest of these voluntary programs pre-dated the 1974 *Milliken* decision in Detroit, which argued that suburban districts did not have to participate in desegregation programs if they were not found to have intentionally caused segregation, by almost ten years. The program in Rochester (NY) began in 1965, followed by programs in Boston (MA) and Hartford (CT) in 1966. During the 1970s and 1980s, programs began in Milwaukee (WI), Indianapolis (IN), St. Louis (MO), and East Palo Alto (CA). The program in Minneapolis (MN) began in 2001, while the most recent, in Omaha (NE) began in 2007.

These voluntary interdistrict desegregation programs were specifically designed to address racial isolation in suburban schools and educational inequities for urban students. The voluntary interdistrict desegregation programs offered educational opportunities to traditionally underserved students (predominately Black) from lower-income urban areas by providing them with free transportation to and enrollment in higher-achieving, higher-income schools in neighboring suburbs. These programs operated outside the guidelines established by the *Milliken* decision because the

suburbs chose to voluntarily accept the urban students into their schools. An in-depth description of past studies on voluntary interdistrict desegregation programs is provided in Chapter 2.

The voluntary interdistrict desegregation program in St. Louis will serve as the foundation for this study. The program was created in 1983 as a result of a 1972 federal school desegregation case, which found that St. Louis Public Schools violated the 14th Amendment rights of Black students (Wells et al., 2009). This 1972 school desegregation case, *Liddell v. St. Louis*, will be explained in greater detail in Chapter 3. The 1999 settlement agreement lifted the court order and made continued suburban participation entirely voluntary. Suburban school districts were then able to individually determine the parameters of their participation.

As part of the St. Louis voluntary transfer program, non-minority students who live in suburban school districts are able to apply to attend magnet schools in St. Louis city; however, students from St. Louis constitute the overwhelming majority of the overall number of students that participate. Approximately 6,300 students participate each year, and of those, 6,150 students are from St. Louis and are bused to one of 15 participating suburban districts (Voluntary Interdistrict Choice Corporation, 2012). In light of the fact that the significant majority of program participants attend school in the suburban districts, this study will focus specifically on the suburban implementation of the program, the resources available in those participating suburban districts, and the effects of those resources on the graduation rates of the Black students that participate.

Statement of the Problem

Voluntary interdistrict desegregation programs[1] were designed to address educational inequalities by providing minority students from urban areas with free transportation to higher-achieving public schools in suburban districts. Elements of these programs reflect the primary findings of the Coleman Report—that Black students have improved academic outcomes when attending integrated, middle-class schools.

Previous research on these voluntary interdistrict desegregation programs has been narrowly focused in nature, focusing either on policy creation and implementation (Wells et al., 2009), the decision-making process (Eaton, 2001, 2006; Wells & Crain, 1997), satisfaction with participation in the program (Armor, 1972; Eaton, 2001, 2006; Eaton & Chirichigno, 2011; Orfield et al., 1997; Wells & Crain, 1997), or high school test scores and graduation rates (Angrist & Lang, 2004; Eaton & Chirichigno, 2011). This research brings attention to both policy implementation and resource allocation.

Today, there is still no singular definition about equal educational opportunity, and the concept is used to refer to either *equality of inputs* (resources and funding) or *equality of outputs* (student outcomes). The prior research conducted on voluntary interdistrict desegregation programs has not expressly explored suburban implementation of the desegregation program, nor has the variation in the distribution of the resources provided in the suburbs been investigated or in the distribution of Black student achievement. Therefore, this research will assess the voluntary interdistrict

[1] The terms, voluntary interdistrict desegregation programs and transfer programs, are used interchangeably throughout this research when specifically referencing the program in St. Louis. In communication with the Voluntary Interdistrict Choice Corporation, program executives mentioned that they preferred to be referred to as a "voluntary transfer program."

desegregation program in St. Louis—which was designed to promote diversity—using both definitions of equal educational opportunity. In recent history, no comprehensive research study has combined policy analysis, resource allocation, and questions of educational equity and adequacy in this manner.

Purpose of the Study

Shortly following Coleman's initial argument that school composition matters, Adkins (1968) argued that suburban communities allocate significantly more funding to education than urban districts, and typically have "better qualified teachers, newer buildings, and higher educational standards" (p. 243). Schneider (1992) found that suburban residents began to "buy their own government" to control taxes and education spending.

This quantitative policy analysis, using data collected between 1999 and 2009, will examine the broader concept of equal educational opportunity using the voluntary transfer program in St. Louis as its context. To do so, this study will analyze: (1) suburban implementation of the voluntary transfer program, (2) the financial resources available in St. Louis and in the suburban districts to which students have been assigned, and (3) the variation in the distribution of the resources available in the suburban communities and their effect on the graduation rates of the Black students that participate. For the purposes of this study, *equality of inputs* is reflected through the analyses of suburban implementation (peer resources) and the distribution of funding (financial resources). *Equality of outputs* is reflected through the analysis of the graduation rates (student outcomes) of the Black students that participate.

Historically, the discussion in this country around desegregation and integration has specifically referred to the relationship between Black and White citizens. Although Black students are not the only participants in the dual transfer program in St. Louis, they constitute a significant majority; therefore, this research and the background literature pertain to Black students and families.

There is obvious strong support from St. Louis families for the program as evidenced by the constant stream of applications since 1983, yet it is the suburban communities that are ultimately the key to the continuation of the program. This research aims to explore the links between policy implementation, resource allocation, and educational equity in greater detail. To do so, three specific research questions are posed:

1) What factors determined suburban implementation of the voluntary transfer program between 1999 and 2009? How did suburban elites perceive their role in the provision of equal educational opportunities?
2) What were the differences in resources between St. Louis and the participating suburban school districts between 1999 and 2009?
3) To what extent were resources distributed equitably among the 15 participating suburban school districts between 1999 and 2009? To what extent do these resources explain the variation in the graduation rates of the Black students in suburban schools?

Overview of the Methods Used

This study of equal educational opportunity is comprised of two separate analyses: an implementation analysis and an equity analysis. The implementation analysis incorporates a media framing analysis and the civic capacity framework as outlined by Stone et al. (2001). The equity analysis is dependent upon the equity framework created by Berne and Stiefel (1984). Table 1 provides a description of the relationship between how each research question relates to the analysis used, and the corresponding definition of equal educational opportunity.

Table 1. Relationship between Research Question, Analysis, and Equal Educational Opportunity

Summary of Research Question	Analysis Used	Definition of Equal Educational Opportunity
1. Suburban Implementation?	Implementation	Input (Peer Resources)
2. Differences in Resources Available?	Equity (Descriptive Statistics)	Input (Financial Resources)
3a. Distribution of Resources in Suburbs?	Equity (Horizontal Equity)	Input (Financial Resources)
3b. Effect of Distribution of Resources in Suburbs?	Equity (Vertical Equity)	Output (Student Achievement)

The continuation of the program is dependent upon buy-in from the suburban elites, and the implementation analysis (research question 1) will examine the varying factors that affect suburban implementation of the program as school composition has long been considered an educational input (see Coleman et al., 1966). Crain (1968) suggests that there is a "phenomenon of the businessmen and others, who without

holding formal office, make up a civic elite that influences the government's actions" (p. 356). For the purposes of this study, the suburban elite, who may influence the district's continued participation in the voluntary transfer program, is defined as principals, superintendents, teachers, and parents that have a vested interest in suburban education. Through the use of media framing analysis, the implementation analysis will examine the civic capacity present in the participating suburban districts.

Descriptive statistics will be used to describe the differences between the resources available in St. Louis and in the participating suburbs (research question 2). A horizontal input equity analysis will be conducted to explore the variation in the distribution of resources among the 15 suburban districts (research question 3a) using the horizontal input equity framework outlined by Berne and Stiefel (1984). Suburbs are not uniform, and as such, it is necessary to uncover any fiscal and demographic disparities among the suburban communities.

Finally, the student outcomes (research question 3b) will be analyzed using a vertical output equity analysis, also outlined by Berne and Stiefel (1984). Urban families participating in suburban transfer programs have indicated their preference for "a better education" (Eaton, 2001; Wells & Crain, 1997) and this vertical equity analysis, relying on multivariate and quantile regression, will bring attention to significant predictors of academic success for the Black students that participate in the transfer program.

Significance and Implications

Everyone, regardless of racial background or political affiliation, can agree upon the necessity of a high quality education. In the past, a high school diploma was an indicator of success, but now, the next generation is expected to obtain, at minimum, an undergraduate degree. Previous studies of voluntary interdistrict desegregation programs conducted by Armor (1972), Eaton (2001, 2006), Orfield et al. (1997), and Wells and Crain (1997) illustrate the need for additional research to address desegregation and equal educational opportunity.

The implementation analysis of the voluntary transfer program in St. Louis, combined with the equity analysis examining the distribution of resources and achievement, will contribute to both policy and research. There are only eight voluntary interdistrict desegregation programs currently in operation (there is no longer a program in Indianapolis), and the majority of the extensive research on such programs has been conducted in Boston, Hartford, and St. Louis. Although this study could be viewed as an extension of the prior research on the St. Louis program, it approaches the questions of desegregation and equity from a different perspective, and seeks to investigate the interests of the suburban districts in the voluntary transfer program and their decisions to continue supporting or terminate altogether their involvement.

The passing of the No Child Left Behind Act (NCLB) in 2001, with its increased focus on standards and accountability has caused parents, policymakers, and educators to become increasingly concerned with academic achievement. NCLB, with its support of charter schools, has made school choice an increasingly popular option. Charters,

magnets, and vouchers are the three most popular choice options, but these select voluntary interdistrict desegregation programs remain one of the oldest (albeit limited) options available. This study will also contribute to school choice literature by bringing renewed attention to this choice option, which has continued to operate for decades in several sites despite varying local and national political climates.

This research may also serve as a catalyst for future discussions that address the power dynamics between cities and suburbs, the growing differences between urban and suburban schools, and the resource disparities between suburban districts. This research can provide guidance for state-level, and perhaps federal-level, policies designed to address both resource and achievement inequalities. Until such time when all students (regardless of their race, class, neighborhood, or assigned school) are afforded the same access to the structures and systems present in successful schools and are held to the same high academic standards, voluntary interdistrict desegregation programs allow some students from the city the opportunity to benefit from attending higher-achieving suburban schools.

Dissertation Outline

This dissertation contains seven chapters. Chapter 1 introduces the study, and provides the problem statement, a brief context, the purpose of the study, an overview of methods used, and the significance of the study. Chapter 2 includes a review of the literature pertaining to equal educational opportunity, voluntary interdistrict desegregation programs, the geography of opportunity and school choice, media framing analysis, civic capacity, and the equity framework. Chapter 3 provides a

detailed description of the context of the study, including the 1972 lawsuit, the 1983 and 1999 settlement agreements, and current program elements. Chapter 4 outlines the data collected and methods employed. Chapter 5 presents the results of the implementation analysis, and discusses the factors affecting suburban implementation of the transfer program and levels of suburban civic capacity. Chapter 6 presents the results of the equity analysis, using district-level financial and student achievement data gathered between 1999 and 2009. Finally, Chapter 7 presents the conclusions of the study, as well as its broader implications.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

The review of literature covers the six topics central to this dissertation: (a) equal educational opportunity, (b) the geography of opportunity and school choice, (c) voluntary interdistrict desegregation programs, (d) media framing analysis, (e) civic capacity, and (f) the equity analysis. Table 1 outlines the relationship of each of these topics to the overall study.

Table 2. Literature Review Topics and their Relationship to the Overall Study

Topic	Relationship to Study
Equal Educational Opportunity	Broad Concept Under Review
The Geography of Opportunity and School Choice	Policies Under Review
Voluntary Interdistrict Desegregation Programs	General Context of the Study
Media Framing Analysis	Frameworks Used for the Analyses
Civic Capacity	
Equity Analysis	

Equal Educational Opportunity

This section will review literature about the concept of equal educational opportunity, specifically as it relates to the academic achievement of Blacks since the pivotal 1954 *Brown v. Board* decision. To date, there has not been one consistent

definition of the term. The general concept of equality of opportunity has also been broached in sociological, philosophical, and political circles. Confusion arises from the question of whether the term should be used to define equality of access to inputs, namely, access to peer and financial resources, or should instead be used to define equality of outputs, also known as educational outcomes (Campbell, 1973; Coleman, 1975b; Hallinan, 1988; Howe, 1992). This study will incorporate both definitions of equal educational opportunity.

The attention on equality of educational opportunity began in 1944, when Swedish economist Gunnar Myrdal penned the book, *An American Dilemma*. Myrdal argued that the key to the resolution of America's race problem was a focus on education, believing first, that an increase in educational opportunities for Blacks would lead to the end of racial segregation, and second, that integration was the manner by which Blacks could access these opportunities. While Myrdal (1944) promoted the benefits of integration for Blacks, he simultaneously dismissed the benefits of being a member of the Black community, by stating, "we assume that it is to the advantage of American Negroes as individuals and as a group to become assimilated into American culture, to acquire the traits held in esteem by the dominant White culture" (as cited in Allen & Jewell, 1995, p. 88). Ten years later, the U. S. Supreme Court ruled segregation unconstitutional in the *Brown v. Board of Education* (1954) case because it "deprives children of the minority group of equal educational opportunities" (para. 1). In his opinion, Chief Justice Earl Warren listed *An American Dilemma* as one of the sources used in the Court's decision.

Ten years following the *Brown* decision, the achievement gap between Black and White students remained, despite all efforts made to increase the number of integrated schools. As part of the 1964 Civil Rights Act, U.S. Congress required the U.S. Commissioner of Education to conduct a survey of educational opportunities. In 1966, the U.S. Office of Education released the *Equality of Educational Opportunity* report, now known as the Coleman Report. At the time, it was the second largest social science study conducted in the United States. Prior to the report, it was believed that the study would find glaring differences in the financial resources of predominately Black and predominately White schools, which would then explain the achievement gap between those groups of students (Kahlenberg, 2001; Wong & Nicotera, 2004). Instead, the report found that disparities between the financial resources of Black and White schools were much smaller than anticipated, and that the effect of the family background on student achievement was more profound than the effect of school differences (Coleman et al., 1966). This finding remains influential, especially as discussions and research about school composition evolved to include socioeconomic integration.

Equality of Inputs

The *Brown* decision and the Coleman Report brought increased attention to the effects of school composition and school quality on student achievement. The Coleman Report found that families and socioeconomics matter most, but also found that school facilities had an effect on student achievement. However, the effect of facilities on achievement was more pronounced for Blacks than for Whites (Coleman et al., 1966). School facilities can be viewed as a function of the community's financial resources, as

local property taxes are primarily responsible for the funding of public schools. The subsections that follow will explore both of these input factors, school composition and financial resources, in greater detail.

School composition and peer effects.

Campbell (1973) suggested that "the more equal the choice and the access across groups, the more equal the opportunity across groups" (p. 469). He also asserted that those whose social standings provide the broadest range of information are those who stand to make the most intelligent choices. French sociologists Bourdieu and Passeron developed the idea of cultural capital in order to analyze the impact of culture on the class system, describing cultural capital as the preferences and attitudes generally associated with middle- and upper-class families (Lamont & Lareau, 1998). Lamont and Lareau (1988) based their work on that of Bourdieu and Passeron, and developed a succinct, more inclusive definition of cultural capital, where it is seen as "institutionalized, i.e., widely shared, high status cultural signals (attitudes, preferences, formal knowledge, behaviors, goods and credentials) used for social and cultural exclusion" (p. 156). The cultural capital present in middle class communities is now generally regarded as "the norm."

Scholars argue that it is therefore necessary to provide those with the least amount of cultural capital, or as Campbell (1973) suggests, those whose social standings do not provide information in order to make intelligent choices, with a medium for increasing their cultural capital, thereby improving their decision-making. Roscigno and Ainsworth-Darnell (1999) argued that, "if cultural capital is predicated, in part, on the

social position of its possessor and consequential micropolitical processes, the subordinate racial status of blacks may limit their ability to convert cultural capital and educational resources into academic success" (p. 161). Based on the Coleman Report, which provided the impetus for such research, Blacks are those with the least amount of cultural capital.

Wells and Crain (1994) suggest that Blacks from low-income families would benefit from the cross-racial ties created by desegregation. Although cross-racial ties are weak in desegregated institutions, Blacks would be linked to more affluent people, while their strong ties would only connect them to family and friends that are not. Wells and Crain (1994) point out that Wilson, author of *The Truly Disadvantaged,* and other social scientists believe that the greatest obstacle for academic and economic success for urban Blacks is their isolation from White, middle class opportunities.

It would, however, be erroneous to assume that there are no successful all-Black schools. Morris (2004) argued that the lack of research on successful minority schools is "irresponsible," and it is important to believe that "Blacks have something of value" (p. 105). Calmore (1992) points out that middle-class Blacks also value their attachment to the Black community, even at the expense of integration. Some researchers argued that, "only white ethnocentrism could lead to the belief that all blacks would want to live in predominately white areas" (as cited in Calmore, 1992, p. 1498). There remains a dearth or research on successful Black schools, yet these schools would provide a useful context for the continued study of peer effects and school composition.

Yosso (2005) defines community cultural wealth as "an array of knowledge, skills, abilities and contacts possessed and utilized by Communities of Color to survive and resist macro- and micro- forms of oppression" (p. 77). Minorities, especially those from low-income backgrounds, are consistently viewed from a deficit perspective, and it is commonly assumed that minorities "lack the social and cultural capital required for social mobility" (p. 70). Morris (2004) suggests that successful all-Black schools operate as community pillars, similar to role that schools played in Black communities prior to integration.

Scholars also suggest that socioeconomic integration, or having lower-income students attend middle-class schools, can provide a wealth of opportunities to those lower-income students and do much to improve their academic achievement (Kahlenberg, 2006; Rothstein, 2004). Some argue that teachers tend to communicate more easily with students who participate in "elite" status cultures (i.e. middle and upper class students) and possibly perceive them as more intellectually able (DiMaggio, 1982). Others argue that higher-status schools are more likely to have explicit norms and behaviors that encourage high achievement and discourage discipline issues (Israel & Beaulieu, 2004). Rothstein (2004) wrote, "ambitions are contagious: if children sit next to others from higher social classes, their ambitions grow" (p. 130), and asserted that there are differences in the childrearing practices of the average lower-class parent versus the practices of a middle-class parent and in their social circles, which lead to differences in the academic achievement of their children.

Kahlenberg, another strong proponent of socioeconomic integration who focuses on issues of class rather than race, stated that the "single most promising step for raising achievement of low-income students" is attending high-quality, middle-class schools (2006, p. 13). Test scores from the 2005 National Assessment of Educational Progress (NAEP) found that low-income students attending a more affluent school scored more than a half-grade higher on the fourth-grade math test than did middle-class students attending a low-income school (Kahlenberg, 2006). However, it must be acknowledged that race and class remain highly interrelated in our society.

Eckland (1978) suggests that, "it is not the percentage of whites in a school that necessarily affects black performance, but WHO these whites are" (as cited in Wells & Crain, 1994, p. 544). The case for focusing on the classmates with whom a student attends school is framed by early work done by Cicourel and Kitsuse in the 1960s, showing that many suburban teens have grown up in environments where higher education is taken for granted and is expected. Rosenbaum, Reynolds, and DeLuca (2002) found that the lack of knowledge and information about how to achieve personal and academic goals presented the greatest obstacle for Black students attending White, middle-class, suburban schools.

A critique of the Coleman Report was that it was not a longitudinal study, and various studies since then have looked at achievement over time. These additional studies have confirmed that attending a middle-class school provides a better educational atmosphere than attending a high-poverty school (Kahlenberg, 2001). A 1986 report published by the Office of Educational Research and Improvement

(Kennedy et al., 1986) found that all students in a school fall behind academically, regardless of individual socioeconomic status, as the percentage of poor students in the school increases.

Another critique of the Coleman Report argued that the report assumes that racial integration in schools automatically equates to equal educational opportunities for Black students (Campbell, 1973; Wong & Nicotera, 2004). Allport (1954) used intergroup contact theory to study the interactions of students of various racial backgrounds, and noted that the key variables of positive intergroup contact are equal status, a common goal, and institutional support. While his research is focused primarily on prejudice, it can be assumed that these variables are necessary for the realization of equal educational opportunities as well. However, Armor (1972) argued that, in the case of METCO (Boston's voluntary transfer program), "there is no 'equal status' between the middle- and upper-middle-class white suburban students and the lower-class black students" (p. 111). Armor's conclusion about the lack of equal status among races and/or classes serves as a reminder about the importance of school composition in the provision of an equal educational opportunity, and the difference between desegregating a school and actively integrating one.

Of additional note is Allport's focus on institutional support, especially because inequalities continue to exist within racially and/or socioeconomically integrated schools. Hallinan (1988) found that, "the organizational differentiation of students in school act as determinants of educational opportunities for students" (p. 258). Guiton and Oakes (1995) asserted that although curriculum differentiation may address the

different needs of students, it also invites questions about unequal opportunities. Kahne (1994) suggested that tracking, or ability grouping, represents the commitment (whether positive or negative) to students' educational outcomes more than any other mode of school organization, because tracking tends to imply a particular future for a particular child. Oakes (1986) argued that tracking leads to neither excellence nor equity for students.

Research from the voluntary interdistrict desegregation program in St. Louis found that many Black students were placed in remedial classes in the suburban schools, while Advanced Placement and Honors classes were overwhelmingly White (Wells et al., 2009). A report conducted on the track placement of Black students bused from Boston to a participating suburb as part of its transfer program found that 33% of the 264 METCO students in grades K-12 were assigned to special education, as compared with 18% of the non-METCO student population. A breakdown of METCO students by school finds that 48.6% of METCO students at the city's high school, and 51.5% and 34.1% of the METCO students at each of the two middle schools were placed in special education classes (LaMura, 2008). It remains clear that student assignment in desegregated schools needs to be continuously and rigorously analyzed.

Over the past several decades, numerous studies have provided support for the research originally offered by the Coleman Report—that peer composition matters. However, it has also been found that simply putting groups of students together in a school does not adequately address or solve the problem of access and achievement.

There remain additional concerns about deficit theories and racial stereotypes, and the true definitions of desegregation and integration.

Financial resources.

Coleman et al. (1966) found that once family background was controlled, the financial resources of schools had little effect on student achievement. This implied that schools and funding had no impact on achievement (Biddle & Berliner, 2003). In the years following the Coleman Report, scholars continued to analyze the results of the study, specifically reviewing the effects of financial resources on achievement. Many found that school resources did not matter, even in light of the critiques of Coleman's methodology. Jencks et al. (1972), Smith (1972), and Hanushek and Kain (1972) all concluded that financial resources had a limited effect on student achievement.

In 1969, Arthur Wise penned the book, *Rich Schools, Poor Schools*, and offered a different perspective on the issue of financial inputs and schools. Wise (1969) wanted "to determine whether the absence of equal educational opportunity in a state, as evidenced by unequal educational expenditures, may constitute a denial by the state of the equal protection of its law" (p. 4). In the opinion of the Court in the *Brown* decision, Chief Justice Earl Warren (1954) stated that education is the most important function of both state and local governments and that, "the great expenditures for education... demonstrate our recognition of the importance of education...Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms" (para. 9). While the Coleman Report and other studies argued that school funding had no effect on achievement, Wise noticed that pupil funding varied

greatly between school districts within individual states, and argued that, "the burden remains of defending the current variation in education spending" (1969, p. 141). He assisted in bringing attention to the idea that financial resources are input factors critical for realizing equal educational opportunity.

As the debate continues about what exactly constitutes a high quality education and how to provide it within the school walls—especially for underserved populations—so too does the debate continue about how to fund a high quality education. Beginning in the 1960s, as the variation in property wealth per district became more apparent in states across the country, school finance issues began to draw political attention. The initial aim of school finance litigation was to provide to schools in areas with low property wealth a level of funding equal to those schools in districts with high property wealth. This litigation was focused on three constitutional rights: the Equal Protection Clause under the 14th Amendment to the U.S. Constitution, the Equal Protection Clause of state Constitutions, and finally, the education clauses of state Constitutions. These three rights correspond to each of the three "waves" of school finance litigation.

The first wave of school finance litigation.

The first wave of school finance litigation began in 1968 with the *McInnis v. Shapiro* case in Illinois. These cases argued that the state's funding system was inequitable and did not distribute funds based on the needs of the districts. The plaintiffs further asserted that the system was a violation of the Equal Protection Clause of the 14th Amendment. The State won the case and the U.S. District Court ruled that the State's funding formula reflected a rational policy and that the discrepancies in

funding “do not amount to invidious discrimination” (McInnis, 1968, para. 32). The Court noted that the Illinois General Assembly affirmed that there was a need for additional funds to provide all students with an equal education, but that there was no Constitutional requirement to make funds available based only on pupil needs.

A similar case was again brought to the U.S. District Court. In the *Burress v. Wilkerson* (1969) case in Virginia, the plaintiffs also argued that the distribution of education funds was unconstitutional. The Court dismissed the case, stating the funding discrepancies were due to the county’s inability to raise additional local funds to match amounts raised by other counties. The Court stated that they “have neither the knowledge, nor the means, nor the power to tailor the public money to fit the varying needs of these students throughout our State” (para. 6), leading to the introduction of the “fiscal neutrality” principle.

Following these cases, Coons, Clune, and Sugarman (1970) introduced the idea of “fiscal neutrality,” which argued that states should design funding systems where spending per pupil would not be related to district wealth per pupil, but rather on the wealth of the state as a whole. This principle assisted in providing plaintiffs with standards that could be assessed by courts, in an effort to avoid rulings similar to the *McInnis* case (Guthrie, Springer, Rolle, & Houck, 2007; Odden & Picus, 2008; Underwood, 1995). The 1971 Serrano v. Priest case in California was the first to use this principle.

In 1971, the *Serrano v. Priest* case in California was the first to use the “fiscal neutrality” principle. The plaintiffs presented facts about the variation in education

spending across the state, arguing that the court should use strict scrutiny and that the plaintiffs were members of a "suspect class," and had been discriminated against (Odden & Picus, 2008). The California Supreme Court ruled that the state's funding scheme "invidiously discriminates against the poor because it makes the quality of a child's education a function of the wealth of his parents and neighbors" (Serrano, 1971, para. 1). The Court ruled that the educational opportunities of students in poor districts were inferior to those of students in higher wealth districts, and that the funding formula did not meet the requirements of the Equal Protection clause of either the U.S. or the California Constitutions.

In 1973, the *San Antonio Independent School District v. Rodriguez* case was brought before the U.S. Supreme Court. The case had originally been ruled in favor of Rodriguez by the Texas State Trial Court, but the state appealed. In a 5-4 decision, the Supreme Court found that the state system did not discriminate against the poor (because it is an assumption that only the poorest people live in the poorest districts), did not interfere with the provision of a fundamental right, and did not violate the Equal Protection clause of the 14th Amendment. In the opinion of the Court, Justice Powell (1973) stated,

> Apart from the unsettled and disputed question whether the quality of education may be determined by the amount of money expended for it, a sufficient answer to appellees' argument is that, at least where wealth is involved, the Equal Protection Clause does not require absolute equality or precisely equal advantages (para. 24).

The second wave of school finance litigation.

This second wave of litigation, which lasted through the late 1980s, framed equity cases as violations of the equal protection clauses in state constitutions. In the *Robinson v. Cahill* case in 1973, the state court ruled that the New Jersey state funding system did not violate the state constitution, ruling in much the same way that the U.S. Supreme Court ruled in the *Rodriguez* case—finding that education is not a fundamental right, nor is property wealth a suspect classification. However, the Court did find that the funding formula was a violation of the state's education clause because it did not create a "thorough and efficient" educational system, and was therefore unconstitutional (Odden & Picus, 2008). In 1976, the New Jersey Supreme Court closed the school system and demanded that the legislature design a new funding system.

In 1976, the *Priest v. Serrano* case (Serrano II) returned to the California Supreme Court. This time, the court decided that education was a right under the state Constitution and that property wealth did represent a suspect classification. The Court stated that, "equality of educational opportunity requires all school districts possess an equal ability in terms of revenue to provide students with substantially equal opportunities for learning" (Serrano, 1976, para. 34), thus declaring the state system unconstitutional, and ordering the state to restructure the funding system

Does money matter?

Nestled within the discussion about the equality of funding is the question of how much money is necessary for schooling, or more specifically, does the amount of money spent matter for achieving high levels of student success? In an effort to study

this, researchers and economists rely on an education production function equation, where the contribution of individual input variables, including financial resources and student characteristics, are measured in relation to the output variable, namely student performance (Gamoran & Long, 2006; Odden & Picus, 2008). In the Coleman Report, Coleman et al. (1966) used the production function model to examine student achievement based on the inputs of variables, including school facilities and peer composition.

Hanushek (1981) argued that although schools had been consistently spending more money on education each year to support smaller class sizes and more experienced and better qualified teachers, there is still no consistent relationship between expenditures and student achievement. Hanushek (1996) later asked, "Can we specify concrete ways of spending additional money so that we can be reasonably assured of improvements?" (p. 44). Miles and Rothstein (1995) conducted a study which analyzed real school spending between 1967 and 1991, in response to the claim that achievement had not improved although spending had doubled. Their findings show that real school spending instead only increased by 61%, and that one-quarter of the growth in spending was aimed at regular education where outcomes are measured by test scores and graduation rates. Their data found that between 1967 and 1991, there was a 20% decrease in per pupil spending for regular education, and a 13% increase in per pupil spending for special education. Biddle and Berliner (2003) noted that this study, combined with additional evidence showing that schools are responsible for meeting the needs of disadvantaged students, "provides little support for the claim

that additional funding for schools has been 'wasted' because it did not generate higher levels of student achievement" (p. 12). The debate about whether money matters has not been settled.

Hanushek is widely regarded as having completed the most comprehensive analysis of education production functions, having reviewed 90 studies with over 375 separate production functions (Hedges, Laine, & Greenwald, 1994). He found that neither variations in teacher-student ratios nor in teacher education are systematically related to student outcomes. He argued that 85% of available estimates based on his review of the studies give little confidence of a positive relationship between teacher-student ratios and student achievement. Hanushek (1994, 1996) found that there is little reason to expect improved student outcomes from adding resources to schools that are already in existence.

Despite his thorough review of the research, some dispute Hanushek's claim that money does not matter in the pursuit of improved student outcomes. Hedges et al. (1994) and Hedges and Greenwald (1996) critiqued Hanushek, arguing that he focused solely on inputs relating to teachers, including teacher education and teacher-student ratios, when focusing on the variations in per-pupil expenditures would have provided more substantive conclusions. The authors conducted their own meta-analysis of the data and found that school resources are related to student outcomes, and the relationships are strong enough to be considered relevant.

Biddle and Berliner (2003) argued that increased student funding leads to increased student achievement. Hedges and Greenwald (1996), in reflecting on their

debate with Hanushek about the results of their respective work, and Gamoran and Long (2006) believe that the debate about financial resources and inputs has moved from whether or not money matters to a deeper examination of exactly how these resources matter in specific circumstances, for specific students, and for improved achievement.

Equality of Outputs

Through their study, Coleman et al. (1966) expanded the concept of equality to include the equality of outcomes. The subsections that follow review literature about the equality of life outcomes, the movement in school finance reform from equity to adequacy, (which includes the third wave of school finance litigation), and the achievement gap.

Equality of life outcomes.

Several years after his groundbreaking report, Coleman (1975b) stated that the idea of equality "seems to be more nearly one of education leading to equality of adult opportunity than of equal educational opportunity," and suggested that rather than education being the end goal, it should instead be viewed as "a means to an end achieved in adulthood" (p. 28). Coleman stated that, "the school's task is—besides increasing opportunity for all, through what it imparts—to reduce the unequalizing impact on adult life of these differential environments" (1975b, p. 29) in a reference back to his 1966 report which found that family background is more influential than school resources.

Scholars have critiqued Coleman's focus on equality of outputs, arguing that because choice is inherently implied in the definition of opportunity, and because choices to implement opportunities vary, then educational outcomes will vary as well (Howe, 1989). Campbell (1973), one of the original authors of the Coleman Report, argued that defining equal opportunity of outcomes is difficult because of the differing access to school environments and curricula as well as due to the diversity of values and lifestyles.

Campbell (1973) believed that there is a disagreement on what desirable equal outcomes are; therefore, we cannot assume that all groups desire the same outcomes. Howe (1989) noted that, for some, there is a fear that equality in educational outcomes will lead to a uniform society with few individual differences, but stated that, in a vein similar to Coleman, "the point of equalizing educational outcomes (for children) is simply to ensure that they are adequately prepared to evaluate and pursue the social outcomes to which their mature choices will lead" (p. 335). The manner through which schools now attempt to achieve equality of outputs has changed over time, especially in our current era of accountability.

In his book, *The Truly Disadvantaged*, William Julius Wilson (1987) discussed equality of life outcomes, and argued that the effects of concentrated poverty in poor neighborhoods create harmful cycles of unemployment and unequal educational and life opportunities, especially for those minorities from severely disadvantaged families. He references Fishkin's principle of equality of life chances, stating that supporters of the principle believe that one "should not be able to enter a hospital ward of healthy

newborn babies and, on the basis of class, race, sex, or other arbitrary native characteristics, predict the eventual positions in society of those children" (p. 117). Scholars contend that educational inequality is created by social and economic conditions that work in conjunction with governmental policies (including de jure and de facto segregation), and tend to affect Black children and children in high-poverty urban and rural areas the most (Chambers, 1987; Underwood, 1995). In addition to Wilson's work, scholars began to research how race and place intersect, giving rise to studies that examine the geography of opportunity.

Hallinan (1988) asserted that equality of educational outcomes informs the equal distribution of societal rewards, including power, status and wealth. The author pointed to other social justice movements, including the Civil Rights and Women's Rights Movements, which were influenced by the notion of equal distribution of social means. These social justice movements stressed equality of group opportunity (Wilson, 1987). Wilson (1987) further stated that equality of life chances is different from equality of individual or group opportunity because it recognizes that the problems faced by individuals in the most disadvantaged situations may not be clearly related to past discrimination. Fishkin states, "children growing up in homes affected by these disadvantages may be deprived of an equal life chance because their environments effectively inhibit the development of their talents or aspirations" (as cited in Wilson, 1987, p. 117). Wong and Nicotera (2004) believe that the social science research conducted by Wilson suggests that in order to truly address inequalities, the discussion must be extended to include socioeconomic class.

Shifting from equity to adequacy.

In the 1980s, school finance litigation began to shift from ensuring that an equal amount of funding is spent across districts (equality of inputs) to ensuring that all students are receiving an adequate education (equality of outputs), referring also to the education clauses in state constitutions. Some felt that the attention focused only on the amount of money used to fund public schools was too disconnected from tangible educational goals, especially that of student achievement (Odden & Picus, 2008). The shift from a focus on equal spending to one on academic results and accountability was spurred by the 1983 report, *A Nation At Risk* (NAR), which criticized the state of American public education at the time and argued that the country was being "eroded by a rising tide of mediocrity" (National Commission on Excellence in Education [NCEE], 1983, para. 1). The focus on accountability remained strong through the passing of 2001's No Child Left Behind Act.

Released almost twenty years after the Coleman Report, NAR again brought educational outcomes to the forefront. Data from the report found that over 10% of all 17-year-olds were functionally illiterate, and that SAT scores had declined between 1963 and 1980. NAR also argued that teenagers did not possess the "higher order skills" that were expected of them (NCEE, 1983). NCEE (1983) wrote that, "the twin goals of equity and high-quality schooling have profound and practical meaning for our economy and society, and we cannot permit one to yield to the other either in principle or in practice" (para. 23). The 1982 Gallup Poll was referenced in NAR, and found that the public considered education the foundation of both a strong economy and a strong military

presence. The public also had "no patience with undemanding and superfluous high school offerings," and the recommended curriculum should "far exceed the strictest high school graduation requirements of any State today, and they also exceed the admission standards of all but a handful of our most selective colleges and universities" (para. 33). NAR gave rise to the national focus on the equality of outputs, but did not turn as much attention to equality of inputs.

Clune (1997) defined educational adequacy as an education program that produces "high minimum educational outcomes for all children" (p. 342). In what is considered the foundation of the adequacy litigation movement (also known as the third wave of school finance litigation), the 1989 *Rose v. Council for Better Education* case was brought before the Kentucky Supreme Court. The case eventually led to the Kentucky Education Reform Act of 1990 (KERA). The state's Supreme Court found that the state's education system was a violation of the state's education clause and was deemed "constitutionally deficient" (Rose, 1989, para. 1). KERA led to education reform in three distinct areas: curriculum, governance, and finance (Commonwealth of Kentucky, 1990). Many states followed similar adequacy guidelines, including Alabama, Arizona, California, Massachusetts, and Texas (Underwood, 1995). As a result of the *Rose* decision, state funding formulas shifted away from the assumption that all children learn equally to acknowledging that different students have differing needs.

Clune (1997) suggested that although education results in a varied skill set, the task of defining minimum outcomes may not be difficult, as benchmarks would be outlined by the particular curriculum. He also suggested that the implementation of

educational adequacy must also focus on high-poverty schools. Chambers (1987) argued that schools serving high numbers of minority and poor students fail to meet minimum educational standards. Chambers, a lawyer and civil rights leader, offered support of the call-to-arms raised by *A Nation at Risk*, contending that minimum educational standards would prevent the isolation of poor minority children.

The *Goals 2000: Educate America Act*, later known as the precursor to the No Child Left Behind Act of 2001 (NCLB), supported the efforts of the states to develop "clear and rigorous standards for what every child should know and be able to do, and supports comprehensive State- and district-wide planning and implementation of school improvement efforts focused on improving student achievement to those standards" (U.S. Department of Education, 1994). Minorini and Sugarman (1999) suggested that the adequacy lawsuits "appear to argue that each school district must have adequate resources, given its circumstances and the nature of its pupils, to be able to offer an educational program that reasonably promises to teach at least most of them to reasonably high standards" (p. 63). Adequacy became a tool through which to bridge the gap between inputs and outputs.

The achievement gap.

In light of Coleman's belief that education should lead to equality in adult opportunities, one could point to the achievement gap as a very basic indicator of the inequality of educational outcomes. The term, achievement gap, ("Achievement Gap", 2011) most commonly refers to the differences in grades, test scores, high school

completion and college graduation rates between Black and/or Hispanic/Latino students and their White peers.

As mentioned in the earlier section on school composition as an educational input, Rothstein (2004) argued that "children from lower social classes and from many racial and ethnic minorities, even in the best schools, will achieve less, on average, than middle class children" (p. 14). Coleman et al. (1966) found that Black children perform at lower levels than White children, as early as the first grade. Additional findings suggest that, based on norm-referenced tests, "the average White high school graduate would perform as well on standard achievement tests as the average Black college graduate" (p. 464). Educational initiatives specifically designed to address the achievement gap became a national focus.

In the 1970s and 1980s, the achievement gap closed, where the academic achievement of White students (National Assessment of Educational Progress [NAEP] test scores) did not increase or decrease, but the achievement of Black students rose. Beginning in the 1990s, this trend was reversed: the achievement of White students increased, while the achievement of Black students declined. Similar findings exist using SAT scores—the gap between Black and White students narrowed in the late 1980s, and then have stabilized or increased since then (Lee, 2002). Research by the NCES found that Black students still trailed White students by two grade levels on the 2011 NAEP Math and reading tests ("Achievement Gap", 2011), and pointed also to socioeconomic factors, supporting research aimed at promoting racial and socioeconomic integration.

Scholars suggest that the changes in the achievement gap have followed trends in school segregation. Using the Common Core of Data, Orfield and Yun (1999) found that in the South, school districts were re-segregating. In 1996, the percentage of Black students in majority White schools fell to 34.7%, down from a peak of 43.5% in 1988.

The passing of NCLB in 2001 focused on school accountability and made the closing of the achievement gap a national priority. According to the U.S. Department of Education, "Schools are now held **specifically accountable** [bold in original] for the annual progress of African American students" (U.S. Department of Education, 2012). It was the original intent of NCLB that all students, regardless of background or language proficiency, would achieve proficiency in mathematics and reading by 2014, and that all students would graduate from high school. Scholars point out that these benchmarks are forced upon students that already attend highly unequal schools, especially those in high-poverty neighborhoods (Wells, Holme, Revilla, & Atanda, 2004), contributing to the discussion around how the inequality of inputs cannot provide equality of outputs.

Recent NAEP scores found that, in 2007, on average, White students continue to outperform Black students, and that Black students scored lower than the national average. In grade 4, White students outscored Black students by 26 points on the mathematics test and by 27 points on the reading test. In grade 8, White students outscored Black students by 31 points on the mathematics test and by 26 points on the reading test. Lower-income White students (eligible for either reduced-priced or free lunch) also outperformed lower-income Black students on mathematics and reading test in both fourth and eighth grades. The smallest gap was by 13 points on the fourth grade

reading and mathematics tests, and the largest gap was by 21 points on the eighth grade reading test (Vanneman, Hamilton, Anderson, & Rahman, 2009). Despite efforts and standards outlined by NCLB, the achievement gap persists between racial and socioeconomic groups.

Data from the National Center for Education Statistics (NCES), for the Class of 2009, found that large gaps still exist in the high school graduation rates of different groups of students (Stillwell, Sable, & Plotts, 2011). According to the data, the average freshman graduation rate (meaning that the student graduated on time, in four years) was 82% for White students, 66% for Hispanic/Latino students, and 64% for Black students. Black students also exhibited the highest percentage of dropout rates (the number of students who drop out in a single school year), 7%, as compared to White students, 3%, and Hispanic/Latino students, 6 %.

Recent college enrollment data gives a more positive outlook to the achievement gap, however slight, and shows an increase in the number of Bachelor's degrees awarded to Black students (Aud et al., 2011). In 1990, a total of approximately 12 million students were enrolled in colleges and universities—77.5% were White, 9.6% were Black, and 6.1% were Hispanic. By 2009, 17.6 million students were enrolled, where 62.1% were White, 14.7% were Black, and 13.4% were Hispanic. Although White students still constitute the majority of college students (their numbers have not declined, only the percentage of total college students), the number of Blacks and Hispanic students has increased substantially.

Yet, despite increased enrollment over time, additional data finds that college graduation rates have not increased at the same rate (Aud et al., 2011). The six-year graduation rate for the college freshman that enrolled in 1996 (and graduated in 2002) was 58.1% for White students, 38.9% for Blacks, and 45.7% were Hispanic. The six-year graduation rate for college freshman that enrolled in 2002 (and graduated by in 2008) was 60.2% for Whites, 40.1% for Blacks, and 48.9% for Hispanics. Increased rates of graduation were evident across all three racial groups, but Black students still lag behind.

Equal Educational Opportunity Applied to this Research

In its ruling in the 1954 *Brown* decision, the U.S. Supreme Court stated that the "segregation of children in public schools solely on the basis of race deprives children of the minority group of equal educational opportunities" (Brown, 1954, para. 1). Since this decision, there has been an evolving debate on whether equal educational opportunities are provided through equality of inputs (financial resources) or through the equality of outputs (academic outcomes).

Scholars contend that racial and/or socioeconomic integration provides an equal educational opportunity to of Black students (Coleman et al, 1966; Kahlenberg, 2004; Rothstein, 2004; Wells & Crain, 1994, 1997) and serves to combat the social and economic conditions that operate in conjunction with governmental policies (Chambers, 1987; Underwood, 1995). Others have disputed the claim that integration will improve achievement (Armor, 1972; Campbell, 1973; Coleman, 1975a), and argue that additional solutions are needed. There remains no clear answer.

Beginning in the 1970s, White flight caused the cities to remain lower-income and minority, while the suburbs became increasingly White and affluent. This *de facto* segregation caused public schools to reflect their communities, ultimately creating a gap between urban and suburban schools. There has not yet been a study conducted on voluntary interdistrict desegregation programs which specifically examines the suburban implementation of the program, the financial resources available in the participating suburban districts, and the factors predicting the graduation rates of the Black students that participate. These two factors correspond directly to the two definitions of equal educational opportunity: equality of inputs (peer composition and financial resources) and equality of outputs (achievement outcomes).

This research seeks to address equality of both inputs and outputs as they relate to the voluntary transfer program in St. Louis and, and will use equal educational opportunity as its broad conceptual framework. None of the studies previously conducted on voluntary interdistrict desegregation programs have relied on equal educational opportunity in this manner.

The Geography of Opportunity and School Choice

The most basic school choice decision is that of personal residence. Where one lives is generally determined by how much one can afford to pay, however, past historical and political events in this country, based largely on race, has had a strong influence on housing patterns, and continues to do so. Prior research on neighborhood demographics provides a framework for understanding how personal preferences and

subsequent decision-making play a role in maintaining segregation in schools and communities.

As Du Bois (1903) famously stated, “The problem with the twentieth century is the problem of the color line” (p. 13). Wells and Crain (1997) asserted that race plays an significant role in the shaping of our communities, stating that “the color line envelops us all, limiting the housing we rent or purchase, the schools our children attend, the transportation we have access to, and the network of friends and associates with whom we share information” (p. 8). Squires and Kubrin (2005) further explained that, “where one live and one’s racial background are both social constructs which, on their own, and in interaction with each other, significantly shape the privileges (or lack thereof) that people enjoy” (p. 48). Almost a century after the comments made by Du Bois, race continues to be as much a part of the conversation as socioeconomic class, and these two combined extend the discussion to include issues of privilege.

Studies conducted in Detroit in the mid-1970s and again in the early 1990s found that less than one third of the White families interviewed would be willing to live in a neighborhood in which half of the homes were owned by Black families (Farley, Steeh, Kryson, Jackson, & Reeves, 1994). In her study on neighborhood composition, Charles-Zubrinsky (2000) found that although the majority of respondents preferred to live in an integrated neighborhood, 19 percent of Whites, 32 percent of Hispanic/Latinos, and 40 percent of Asians did not include Black families in their neighborhood preferences.

Despite the effects that many researchers associate with *place*, Galster and Killen (1995) contend that geography is not typically included in the definition of “equal

opportunity," and further argue that inequalities based on geographic location can affect individual opportunities and decision-making and lead to harsh social consequences. In their work on racial disparities and children's health, Acevedo-Garcia, Osypuk, McArdle, and Williams (2008) studied various neighborhoods across the country, and define high-opportunity neighborhoods as those whose indicators include, "availability of sustainable employment, high-performing schools, healthy environments, access to high-quality child care, neighborhood safety, and institutions that facilitate civic engagement" (p. 324). Many families do not have much of a choice in determining where they live, and it is clear that neighborhood demographics can have substantial impacts on children and families.

A teacher interviewed by Eaton (2006) in her study of Hartford's voluntary desegregation program voiced her concern regarding the future of a student who attended a low-performing elementary school, asking, "How on Earth might this kid connect with the opportunities of mainstream society from which his neighborhood and city were isolated? Could he then navigate in the world beyond the North End of Hartford?" (p. 17). High-opportunity neighborhoods, as described, are those where privilege and access to opportunity is the norm, and those in low-opportunity neighborhoods often do not realize how their surroundings may impede their opportunities.

In 1966, a woman named Dorothy Gautreaux filed a lawsuit against the Chicago Housing Authority arguing that they had discriminated against Black families by placing them in substandard housing. The case, *Hills v. Gautreaux* (1976) eventually reached

the U.S. Supreme Court, and the Court ruled in favor of Gautreaux, stating that the entire metropolitan area of Chicago must be considered for housing options, not just the city proper. Eventually, direct efforts were made to combat residential segregation through the creation of suburban residential relocation programs for low-income Black families. Two such programs were the Gautreaux Program in Chicago and the Moving To Opportunity (MTO) program in Baltimore, Boston, Chicago, Los Angeles, and New York.

The Gautreaux Program was a "social experiment" (Rosenbaum et al., 2002) that grew out of the *Hills v. Gautreaux* lawsuit in Chicago. Through this program, Black families who lived in public housing were offered vouchers to move to low-poverty, mostly-white sections of Chicago or its surrounding suburbs. Between 1976 and 1998, over 7,000 families participated in the program. The MTO Program was a randomized experiment which began in 1994, and sorted families into three groups: those offered vouchers to move to low-poverty neighborhoods, those offered vouchers without neighborhood restrictions, and a control group who did not receive any housing vouchers and were eligible for public housing (Sanbonmatsu, Kling, Duncan, & Brooks-Gunn, 2006). Approximately 4,600 families were served through the program. The Gautreaux program grew out of a federal lawsuit and the MTO program was sponsored by the U.S. Department of Housing.

Results of the programs varied, but it is necessary to note an important distinction between the two programs: the Gautreaux program was designed to offer families the opportunity to relocate to a more racially-integrated neighborhood, while

the MTO program provided families a means of moving to a more affluent neighborhood, regardless of race. Families that participated in the MTO program tended to relocate to wealthier neighborhoods, though still racially segregated (Duncan & Zuberi, 2006). These details reflect the constant need to simultaneously address race and class.

De Souza Briggs (2005) notes that while housing integration may be an indicator of access to opportunity, access to good schools is a more direct measure of future success. Research on the Gautreaux program indicates that participating children had higher satisfaction with teachers and better attitudes about school, but some scholars argue that due to the small sample size, there is a possibility of bias (Sanbonmatsu et al., 2006). Additionally, research found that the Gautreaux program displayed evidence of "intergenerational residential successes," where participants that moved to the suburbs as children continued to live in lower-poverty, more educated neighborhoods as adults as compared to the communities they originally moved from (Duncan & Zuberi, 2006).

Participant responses also illustrated the educational benefits from moving to the suburbs and having direct, tangible access to the middle class. A respondent explained that her daughter is "the first person in my entire family that graduated from college, so I think it was the influence of kids…wanting a future…and knowing how to make it happen" (Rosenbaum et al., 2002, p. 79). The authors note that there was a significant increase in the self-efficacy of the Gautreaux program participants, and that the participants gained new social capital through interaction with new social contacts and the exposure to new opportunities.

Conversely, research found that participating in the MTO program had minimal impact on school quality and academic performance (de Souza Briggs, Ferryman, Popkin, & Rendon, 2008; Duncan & Zuberi, 2006) although studies did note that mothers participating in the MTO program exhibited decreased levels of depression (Duncan & Zuberi, 2006). Sanbonmatsu et al. (2006) contend that simply focusing on neighborhood improvements cannot be the sole factor in addressing the obstacles faced by low-income families.

Results also indicated that some participants in the MTO program potentially "undid some of the possible advantages of their placements in middle-class neighborhoods" (Sanbonmatsu et al., 2006, p. 683) by choosing to continue sending their children to their original neighborhood schools due to local school choice policies (de Souza Briggs et al., 2008; Sanbonmatsu et al., 2006). Overall, research on the two programs found that neither option provided a solution for lower-income families; moving to a "better" neighborhood did not necessarily yield the academic successes that many hoped for.

It is important to remember Yosso's (2005) research on community cultural wealth, and to recognize that although low-opportunity neighborhoods do not have all of the access and privilege of high-opportunity neighborhoods, they do provide residents with the "knowledge, skills, and abilities…to survive and resist macro and micro forms of oppression" (p. 77). Rather than always considering what these neighborhoods lack, it is critical to celebrate what they do possess.

The change in the demographics of city residents during the early twentieth century brought about new policies aimed at preventing Black families from gaining access to the housing that white city and suburban residents had long enjoyed. Logan and Alba (1993) explain a model called *place stratification*, where some racial groups and places are placed in a hierarchy, where "more advantaged groups seek to preserve social distance from less advantaged groups" (p. 244). This model supports the *geography of opportunity*, and brings attention to the policies that maintained the separation of races and classes, despite legal challenges to residential segregation. The stratified development of metropolitan cities is not only a result of policy decisions made by the government, but also of those made by the non-profit sector (Squires & Kubrin, 2005). The geography of opportunity is evident when comparing high- and low-opportunity neighborhoods and who has access to what.

Small and Newman (2001) assert that being poor and living in a poor neighborhood increases the likelihood of being unemployed, dropping out of school, being involved in crime and becoming pregnant out of wedlock. Some, including William Julius Wilson in his book, *The Truly Disadvantaged*, refer to this group as "the underclass". This group is defined by those "who dwell within America's borders but aren't connected to, have little first-hand knowledge of, the customs, protocols, and opportunities that materialize up the social ladder" (Eaton, 2006, p. 64). While many studies offer support for such observations, one can refer to the report by the Kerner Commission (National Advisory Commission on Civil Disorders, 1968), which points to the larger, institutional beginnings of such poor neighborhoods,

> Segregation and poverty have created in the racial ghetto a destructive environment totally unknown to most white Americans. What white Americans have never fully understood but what the Negro can never forget—is that white society is deeply implicated in the ghetto. White institutions created it, white institutions maintained it, and white society condones it (p. 1).

Conversely, many researchers feel that there is no actual "culture of poverty"; Gorski (2008) explained that, "the myth of a 'culture of poverty' distracts us from a dangerous culture that does exist—the culture of classism" (p. 34), disputing claims that poor people are unmotivated, as some have argued. Data from the National Center for Children in Poverty (2008) finds that 55 percent of children in low-income families have at least one parent that is employed full-time, year-round. Here, we find that it is the type of job, not whether or not the parent is working, which directly impacts socioeconomic status. In a study conducted on the 100 largest metropolitan areas, Acevedo et al. (2008) found that the average white child lives in a neighborhood that has a poverty rate of 7 percent, the average African American child lives in a neighborhood with a 21 percent poverty rate, and the average Latino child lives in a neighborhood with a 19 percent poverty rate. Poverty rates at 10 percent or lower generally indicates a low-poverty, or high-opportunity neighborhood, and poverty rates at 20 percent or higher are generally considered high-poverty neighborhoods.

National data shows that "the average black family earning $60,000 or more lives in a neighborhood with a higher poverty rate than the average white family earning under $30,000" (Logan, Oakley & Stowell, 2003, p. 16). Acevedo-Garcia et al. (2008)

conducted a separate analysis specifically focusing on poor African American, Latino and White children, and found that even the poorest White children live in better neighborhoods (14 percent poverty rate) than the average African American and Latino children. This speaks to the need for a greater understanding of personal choices and the geography of opportunity and their impact on children, families, and neighborhoods.

With the passing of the 2001 No Child Left Behind (NCLB) Act, strict accountability standards were imposed upon public schools across the country, with all students required to test at grade level in both Math and Reading by 2014. The NCLB standards brought parents the opportunity to exercise non-charter school choice options—schools that failed to make Adequate Yearly Progress (AYP) for two consecutive years would have to allow their students the choice to instead attend a non-failing school in the district. The underlying assumption here is that all families actually have options from which to choose.

Holme and Wells (2008) contend that, "neither the supply nor the demand of NCLB choice is a function of simple district recalcitrance, but rather the product of severe inequality and racial and social-class segregation across district boundaries" (p. 150). A central argument to the school choice option currently provided by NCLB is that students are only able to choose alternate schools within their same assigned district. This severely limits options for students who attend failing schools in failing districts, or in low-opportunity neighborhoods.

The number of students enrolled in Needs Improvement schools grew from 1.5 million in 2003 to 6.1 million in 2005 (Richards, Stroub & Holme, 2011). Owens and Sunderman (2006) found that the schools that are most likely to be identified as Needs Improvement schools are highly segregated and enroll a disproportionate number of minority and low-income students in a state.

A 2004 report by the Citizens Commission on Civil Rights found that there were such a high number of Needs Improvement schools in certain districts that parents did not have enough successful schools from which to choose. In the 2004-2005 school year, in the districts with at least one Needs Improvement school, 42 percent of the schools in that same district are labeled as Needs Improvement; however, nationally, only 7.8 percent of schools have been determined to be Needs Improvement schools (Richards et al., 2011). The 2006 Department of Education report found that although only 36 percent of the nation's Title I schools are located in urban districts, two-thirds of the schools identified as needing improvement in order to make AYP are located in those same districts. Urban district officials were forced to offer as options to parents schools that could possibly be placed on the Needs Improvement list the following year (Holme & Wells, 2008). In essence, families in low-performing districts virtually have little to no schools to choose from under NCLB policies, which is especially disheartening when many of those policies were designed to address the achievement gap and produce equal outcomes for all students.

Another issue raised about the NCLB school choice transfer plan is that the responsibility to request the transfer is placed squarely on the shoulders of the family.

The families must make an effort to find a non-failing school, assuming that one exists in their assigned district, while the receiving school has the choice about whether or not to actually accept the transfer student. Given this, research on students in predominately urban and poor school districts finds that the numbers of students that have actually requested transfers is very low. The Harvard Civil Rights Project conducted a study in 10 urban school districts and found in 7 of the 10 districts, less than 2 percent of eligible students actually requested a school transfer (Holme & Wells, 2008). These data raise concerns about not only the choice options available to families, but the information and resources provided to support their decision-making processes.

The Geography of Opportunity and School Choice Applied to this Research

Tiebout (1956) explained that consumers will relocate based on their preferences, and will choose a community that best satisfies said preferences. Parents with financial means can choose to relocate to better, higher-achieving school districts or place their children in private schools, while those parents who cannot must continue to send their children to their assigned schools or sign up for the local charter school in hopes of being chosen in the school's lottery.

In the past few years, there have been cases where Black women from urban communities have been arrested for exercising school choice by allegedly falsifying school records in order to enroll their children in nearby suburban schools. These families were not participants of voluntary interdistrict desegregation programs nor were these cases of open enrollment. Wells, Warner, and Grzesikowski (2013) argue that in these cases, mothers were "choosing schools based not on an ideology of a

market but rather on their knowledge that few institutions—be they public *or* private, government run *or* market driven—operate effectively when most of their constituents are poor people of color (italics in original)" (p. 188). These examples of mothers going to great lengths to enroll their children in suburban schools point to the need for further research about school choice, specifically the choices present and available in urban, predominately minority communities, and the decisions that parents make.

Voluntary interdistrict desegregation programs present a feasible (and popular yet limited) school choice option for those families in urban communities that do not have the means to physically relocate to the suburbs, unlike the families who participated in the Gautreaux and Moving to Opportunity programs. These programs also offer to families markedly different school options than those offered by urban district charter schools (Wells et al., 2013). Only a small number of students participate in these voluntary transfer programs, as compared to the numbers of students in the urban sending districts. This also demonstrates that these programs are supported by limited suburban investment. For example, in the 2010 school year, 6,150 Black students from St. Louis participated in the program, out of a total of 25,046 enrolled in the St. Louis Public Schools (SLPS), of whom 20,186 were Black (Missouri Department of Education, 2013). This does not take into account the numbers of Black students attending charter, magnet, or private schools.

The research done on several voluntary transfer program by Armor (1972), Crain and Strauss (1985), Eaton (2001, 2006), Orfield et al. (1997), and Wells and Crain (1997) illustrate the need for additional research to bridge the gap between race and place,

between cities and suburbs, and between schools and society. This study presented here aims to continue this line of research by including policy implementation and an equity analysis as a means of conducting a deeper examination of the limited suburban support.

The school choice policy described earlier in this section, NCLB intradistrict choice, shows that minority students attending failing city schools are essentially bounded by the color line, and often have few successful schools from which to choose; in fact, St. Louis Public School District lost its accreditation in 2007, and it was not provisionally restored until 2012. Through the voluntary transfer program outlined in this research, Black students in St. Louis are able to attend higher-performing suburban schools, and are still able to return to the comforts of their homes and communities.

One should not assume, however, that all of the Black families that participate in this transfer program are below the poverty line, nor should one assume that all of the participating suburbs are much wealthier than St. Louis city. It is clear, though, the impact of race, class, and place on the participating families and on their decision to participate in the program for access to "a better education" (Eaton, 2001; Orfield et al., 1998; Wells & Crain, 1997), and this study serves to uncover aspects of this relationship in greater detail.

Voluntary Interdistrict Desegregation Programs

Lawsuits were filed in state and federal courts aimed at removing the effects of *de facto* segregation in schools and in communities, which arose as people began to relocate. These lawsuits were filed in order to provide an equal educational opportunity

to traditionally underserved (or more specifically, minority and/or low-income) students. These suits raised concerns about and brought awareness to residential segregation, access to quality education, and the disparities between urban and suburban school districts, especially in regard to resources and achievement.

This section begins with a brief timeline of the legal and historical context, offering a snapshot of how the Supreme Court struggled, and continues to struggle, with the intricate legalities intertwined with issues of desegregation and inequality in our public school system and in our communities. As this study uses the voluntary transfer program in St. Louis as its context, it is impossible to understand the rationale for the creation and continuation of this program without first understanding the national (and legal) perspective.

The U.S. Supreme Court's 1896 decision in the *Plessy v. Ferguson* case upheld separate but equal accommodations for persons of different races. The Court further asserted that this decision violated neither the Thirteenth nor the Fourteenth Amendment of the U.S. Constitution (Plessy, 1896). The sole dissenter, Justice John M. Harlan (1896, para. 25), argued,

> Sixty millions of whites are in no danger from the presence here of eight millions of blacks. The destinies of the two races in this country are indissolubly linked together, and the interests of both require that the common government of all shall not permit the seeds of race hate to be planted under the sanction of law.

The 1954 *Brown* decision overturned the *Plessy* ruling, yet the country was slow to respond. Following the influential *Brown* ruling, many states were did not

immediately embrace desegregation, even after the United States Supreme Court unanimously passed the *Brown II* ruling (1955), which ordered the end of segregation "with all deliberate speed." This ruling granted power to the U.S. District Courts to oversee local plans for integration.

In June 1963, President Kennedy addressed the nation, the day after the National Guard oversaw integration at the University of Alabama, and urged Congress "to act, to make a commitment it has not fully made in this century to the proposition that race has no place in American life or law" (Kennedy, 1963). Following Kennedy's assassination in November 1963, and at the insistence of President Lyndon Johnson, Congress passed the Civil Rights Act of 1964. This act outlawed voter discrimination and discrimination in public settings, including restaurants, movie theaters, and hotels. More specifically, Title IV of the Act encouraged desegregation of public schools and authorized the United States Attorney General to file desegregation suits if necessary, but did not authorize busing as a means of desegregation (United States Congress, 1964). Title VI also directed the withholding of federal funds from public schools if racial discrimination was found to exist (United States Department of Justice, 2013). Despite such federal efforts, racial segregation in schools did not immediately end.

As part of the Civil Rights Act of 1964, Congress ordered a study by the U.S. Commissioner of Education to review the lack of educational opportunities for minority students. The report, titled *Equality of Educational Opportunity* (EEO), was eventually released in 1966, and became known as the Coleman Report. Among its many findings, the report found that in the decade since the *Brown* decision, most U.S. students,

regardless of race, still attended highly segregated schools, in both the South and the North (Coleman et al., 1966). The Report's most significant finding, however, pertained to school composition, asserting that school composition mattered, since Black students who attended integrated, predominately middle-class schools, had higher achievement scores than the Black students that did not. Report findings also contended that higher achievement for students from both high- and low-poverty families was associated with a student body that had higher overall wealth (Coleman et al., 1966; Gamoran and Long, 2006; Viadero, 2006). This report began the line of research aimed at integrating schools, both racially and socioeconomically.

A lawsuit filed in North Carolina in 1971 argued that the Charlotte-Mecklenburg school system was still racially segregated despite the desegregation plan put forth by the state's District Court in 1965. The unanimous decision by the United States Supreme Court in the *Swann v. Charlotte-Mecklenburg* (1971) case focused on *de jure* segregation, and held that the "objective is to eliminate from the public schools all vestiges of state-imposed segregation that was held violative of equal protection guarantees by *Brown v. Board of Education* in 1954" (para. 4). This decision also marked the beginning of the use of busing as the primary means of desegregation, where the Court suggested that a free transportation program be used to promote "majority-to-minority" transfers (Swann, 1971). The busing program in Charlotte became the first of many across the country.

Two years later, in their 7-1 ruling in the *Keyes v. School District No. 1* (1973) case in Denver, the United States Supreme Court ruled on behalf of Keyes, and disputed the

School Board's claim that racially neutral school assignment policies, (in this case, the "neighborhood school" policies), were not based on segregation, but rather on housing patterns. This decision addressed *de facto* segregation, and the Court held that segregation in one portion of a school system creates the presumption that "unlawful segregative design" was present in other parts of the school system as well, leading to the creation of a dual school system (Keyes, 1973). Following this decision, and on remand by the District Court, Denver adopted a citywide desegregation plan in 1974.

In 1974, the *Milliken v. Bradley* case was brought before the United States Supreme Court. This case addressed busing programs as a means of desegregation, specifically in Detroit, where the lower courts ordered the inclusion of the surrounding 85 suburbs of Detroit into the desegregation plan. In their 5-4 decision, the Supreme Court ruled on behalf of Milliken, and argued that desegregation plans could not extend into the suburbs if those suburban districts had not shown evidence of *de jure* segregation, or having intentionally caused the segregation of public schools. This decision is critical in that it placed an important limitation on busing programs across the country.

In his dissenting opinion, Justice Marshall (1974, p. 814) stated, "it may seem to be the easier course to allow our great metropolitan areas to be divided up each into two cities—one white, the other black—but it is a course, I predict, our people will ultimately regret." Likewise, in his dissent, Justice Douglas (1974) stated that, "when we rule against the metropolitan area remedy, we take a step that will likely put the problems of the blacks and our society back to the period that antedated the 'separate

but equal' regime of *Plessy v. Ferguson*" (p. 759). The *Milliken* decision essentially legitimized the geography of opportunity by allowing the division of metropolitan areas along racial and socioeconomic lines.

Judicial decisions about school integration continued well after the *Milliken* decision. In 2007, the Supreme Court ruled on the *Parents Involved in Community Schools v. Seattle School District No. 1* (PICS) case. The case raised the issue of whether using a student's racial classification for student assignment purposes was a violation of the Equal Protection Clause of the U.S. Constitution. In its 5-4 decision, the Court ruled in favor of PICS, arguing that using a race-based student assignment plan was unconstitutional. In his dissent, Justice Stephen Breyer (2007) argued that the decision "undermines *Brown*'s promise of integrated primary and secondary education that local communities have sought to make a reality" (para. 2). Justice John Paul Stevens (2007) concurred with Breyer, stating in reference to the Court's use of the *Brown* decision to inform the *PICS* decision, that "The Chief Justice fails to note that it was only black schoolchildren who were so ordered; indeed, the history books do not tell stories of white children struggling to attend black schools" (para. 2). The research on high- and low-opportunity neighborhoods also links race and class, and the consequences of the PICS decision are becoming increasingly noticeable.

Opposition to Busing Programs

The Supreme Court rulings aimed at dismantling segregation in the public schools did not sway a significant portion of the elected officials, including then-President Richard Nixon. Following the 1971 *Swann v. Charlotte-Mecklenburg* ruling,

both Democrats and Republicans pushed anti-busing policies, including an attempt to amend the federal Constitution and proposing to cease the funding used to purchase fuel for school buses (Jacoby, 1999). President Nixon ("Bus Stop", 1971) stated, "I have consistently opposed the busing of our nation's schoolchildren to achieve racial balance, and I am opposed to the busing of children simply for the sake of busing" (para. 1). Forced busing programs became battlegrounds over various sociopolitical concerns.

In his March 1972 national address, while calling for an immediate end to busing, President Nixon simultaneously pushed for the creation of the Equal Educational Opportunities Act, which was ultimately passed in 1974. Nixon (1972) stated that this Act would require the granting of equal educational opportunities and that "for the first time in our history, the cherished American ideal of equality of educational opportunity would be affirmed in the law of the land" (para. 11). He explained that rather than continue with busing, a commitment should instead be made to improving the neighborhood schools in the poorest cities and rural areas.

Almost ten years after his monumental *EEO* report, Coleman reversed his earlier views about busing programs, stating, "Programs of desegregation have acted to further separate blacks and whites rather than bring them together" ("New Coleman Report", 1972). Coleman (1975a) believed that busing led to "White flight", where many middle-class White families left cities and moved out into the surrounding suburbs, leaving the responsibility of integration to Blacks and working-class Whites. Armor conducted a six-year study in the 1970s, and compared the projected white flight without busing against the realized White flight in 23 Northern and Southern cities. He found that the

projected White flight should have been 2 to 4%, but with busing, the average rate of White flight was 15%. He also concluded that 30 to 60% of White flight was due to forced busing ("Forced Busing and White Flight", 1978). Although forced busing programs were touted as remedies for segregation, they actually began to cause segregation in city schools as affluent White families left for the suburbs.

Coleman further explained, "Busing has subjected middle-class white parents to things that they don't want—the possibility of lower reading levels and greater discipline problems in their children's classrooms," and opined that busing was not beneficial. Coleman stated that while he did still believe in the value of integration, he believed that integration would depend on voluntary factors, including interracial marriage ("New Coleman Report", 1975). Coleman (1975a) asserted that, "insofar one intended consequence of integration is an increase in achievement of black children, the intent is largely defeated" (p. 10), and stated in 1983, that "the assumption that busing would improve achievement of lower-class black children has now been shown to be fiction" (Jacoby, 1999). According to Coleman, forcing groups of diverse students together did not have the expected results.

Following the Coleman Report, additional research was published about the effects of integration on the academic achievement of Black students. Crain (1971) conducted a study on 1,600 Blacks living in Northern metropolitan areas, and found that those who had attended integrated schools were more likely to have graduated from high school and attended college. Integrated schools in the North were judged more favorably by study participants in the categories of curriculum, facilities, and the quality

of students. He also hypothesized that the main effect of integration was not necessarily on academic achievement, but rather, integration changes the motivation of the student, having argued that students in integrated schools are more studious and college bound. Finally, Crain (1971) also raised some sociological points in his study. He found that the Black respondents who attended integrated schools were more likely to live in integrated neighborhoods and had less anti-White feelings.

Prior Research on Voluntary Interdistrict Desegregation Programs

Voluntary interdistrict desegregation programs presented another medium through which to study integration and its effect on the academic achievement of Black students. Several scholars, including Armor (1972), Crain and Strauss (1985), Wells and Crain (1997), Orfield et al. (1997), and Eaton (2001, 2006) have published qualitative studies about the voluntary interdistrict desegregation programs in Boston, Hartford, and St. Louis, especially as they pertain to race, student achievement, personal experiences, and peer effects. Angrist and Lang (2004) and Eaton and Chirichigno (2011) have published quantitative studies about Boston's transfer program. Wells et al. (2013) do note, however, that the majority of these studies are not methodologically sound as they could be because of issues of student and family self-selection into these voluntary programs.

In the first, and for a long time, the only study on Boston's transfer program, Armor (1972) found that "busing does not lead to significant measurable gains in student achievement or interracial harmony…The available evidence thus indicates that busing is not an effective policy instrument for raising the achievement of black

students or for increasing racial harmony" (p. 115), but does argue that despite his results, voluntary busing programs should not be halted. Interestingly enough, his report was completed three years before Coleman reversed his own view on busing.

To support his claim that the program did not improve the academic achievement of the Black students that participated in Boston's transfer program, Armor (1972) found that although the students involved in the program had higher test scores than the control group (Black students that did not participate), their grade point averages were one-half a grade point below the control group, and dropped even further by the second year. Armor does note that this may be due to the fact that Black students would be faced with different academic competition in a suburban school and may not be prepared for their particular school environment. Armor also found startling results relating to post-secondary achievement: although participating students were more likely to start college than the control group (84% compared to 56%), by their sophomore year in college, the retention rate of the bused and control groups were fairly similar, 59% and 56% respectively. Of note is that the Black students that participated in the transfer program were more likely to be enrolled in "higher-quality" four-year institutions, while the control group attended "regular" institutions (Armor, 1972). The college enrollment statistics point to equality of outcomes between transfer and resident students—parents wanted access to a "better" education so that their children could realize the same academic achievement and postsecondary success that suburban students have.

Orfield et al. (1997) note that because Armor's report was so critical of the busing program, it essentially halted any requests by program officials for studies until 1995 when Orfield and the Civil Rights Project at Harvard University began their study. Rather than just surveying students involved in the program and their siblings as Armor had done, Orfield et al. (1997) surveyed all participating students (3,200 at that time) and their parents, achieving a 75% response rate.

Results from the Harvard study found that parents reported that suburban academic offerings were one of the "most important" reasons for enrolling their children in Boston's transfer program, explaining that "they want the best possible education for their children, and they are willing to make great sacrifices to get it" (Orfield et al., 1997, p. 8). This parallels Armor's (1972) research that found that "a better education" was the main reason to participate. In neither study was integration a main reason for participating in the program; in fact, in Armor's (1972) report, 75% of the participating transfer students surveyed responded that they would "prefer to attend their own community school if it were as good as the suburban schools" (p. 113). In her study of Boston's voluntary interdistrict desegregation program, Eaton (2001) finds that 61 out of 65 former participants said that they would repeat their educational experiences if given the choice, even those with negative memories relating to culture shock and isolation; one former participant explains, "I just said it over and over again and it got me through, I think, just saying those words: 'a better education'" (Eaton, 2001, p. 27). Regardless of the year in which the data was collected from program participants, access to a "better" education was the impetus for participation.

Studies by Orfield et al. (1997) and Eaton (2001) show very high levels of satisfaction of the program; however, it could due to the fact that it is a voluntary program so it is safe to assume that parents approve of the program. Program satisfaction is also evident by the thousands of families still on the waiting list, hoping to get their name called each year (Schworm, 2009). By 2009, the waitlist for Boston's program had reached over 12,000 students for 3,000 spaces.

Busing programs have not only raised questions about the achievement of Black students, but also about the achievement of the White students with whom they interact. A quantitative analysis done by Angrist and Lang (2004), which reviewed peer effects in a suburb that participated in Boston's transfer program, found that the test scores of the Black transfer students had a negative effect on the school's average test scores, but did not have significant effects on the achievement of individual White students.

Despite years of satisfaction, there are some that question the academic results of participation in voluntary interdistrict desegregation programs. Although the study by Eaton and Chirichigno (2011) found that transfer students in Boston's program had higher graduation rates than their Boston counterparts, a 2009 review of Boston's transfer program conducted by *The Boston Globe* found that they were not attending the same highly-selective colleges as the White students from the participating suburban high schools, similar to findings from Armor's 1972 study. The article also reveals that program executives had not previously tracked college attendance and retention (Schworm, 2009). When asked why the Black transfer students more

commonly attend two-year colleges, instead of four-year colleges, the Executive Director explained, “They are doing it to save money and we encourage that. The demographics of our students are different from their suburban classmates’, and money is a huge issue for them” (para. 7). Some students in the program reported that they were not pushed by college advisors to apply to more selective colleges. Additional data finds that from 2004-2008, approximately 30% of METCO students went to two-year career or technical schools, as compared with the state average of 22% and the suburban average of 10% (Schworm, 2009). These data reflect the larger issue of tracking and the expectations of diverse students in desegregated schools.

Crain and Strauss (1985) conducted a study that tracked the occupations of participants from the voluntary interdistrict desegregation program in Hartford, CT. Their study was focused on those who participated between 1968 and 1971. They found that the 61% of participants were employed in sales and white-collar jobs, compared to 42% of Black students who attended the segregated urban schools. Their results indicated the program participants were more likely to be employed in the private sector, rather than in government positions, and were more optimistic about their chances for promotion. Employers were more likely to hire Black employees with a high school diploma from a suburban school. Crain and Strauss (1985) asserted that, “Black graduates of desegregated schools hold better jobs because they are more confident in their relations with whites” (p. 28). Research has also found that Black transfer students show a “consistent, continued increase in performance on Stanford Reading and Mathematics from the 8th to the 10th grades” (Wells & Crain, 2005, p. 69).

where Black students in magnet schools, segregated schools, or integrated city schools did not show the same level of achievement.

Wells and Crain (1997) conducted research on Black students in St. Louis who attended predominately White, middle-class, suburban high schools through participation in the transfer program. Their results indicated that Black students benefitted from access to the well-connected acquaintances that they would not have had in their assigned minority urban schools. Their research found that where only 27% of students in urban schools (whether Black or White) graduated, 50% of the urban students that transferred to suburban schools graduated. Additionally, 65% of the transfer students that graduated were college bound.

Voluntary Interdistrict Desegregation Programs Applied to this Research

Since the *Brown* decision, integration in schools has been an interest of parents, educators, and policymakers alike. Despite the Supreme Court rulings in the 1974 *Milliken* and 2007 *PICS* decisions, voluntary interdistrict desegregation programs continue to operate and their popularity shows no signs of waning. Although these transfer programs are unique, they provide an alternative setting, different from neighborhood schools and from other school choice programs, in which to conduct research pertaining to desegregation and integration. Some scholars, however, argue that not enough attention has been paid to this school choice program that allows Black children to move beyond the boundaries of their urban school districts.

The oldest of the voluntary transfer programs have been operating for almost fifty years, yet little is known about their successes. Transfer programs offer minority

families from urban areas another school choice option, in addition to charters, magnets, vouchers, and open enrollment plans. There are many open enrollment programs in operation across the country but they are not based on a specific diversity goal. Rather, parents can choose to send their children to any school in any district, assuming there is space available. As the attention paid to school choice options increases, it is important to focus attention on a choice option that has been recently overlooked, especially given the programs' focus on addressing racial, socioeconomic, and educational inequalities.

Wells et al. (2013) suggest that policymakers must bring renewed attention to the choice policies that attempt to bring equality to educational opportunities. The authors further contend that voluntary transfer programs not only offer different school options for urban families as compared to the options provided through urban choice programs, but also provide different educational and social contexts for students and families because in more affluent communities, public institutions are more attentive to the needs of students.

Media Framing Analysis

Kirby et al. (1973) found that newspaper journalists constitute almost 10% of a city's elite civic leaders. Pan and Kosicki (1993) define framing analysis as a method of news analysis which investigates how public policy discourse is constructed, contending that these analyses go beyond the agenda-setting literature to examine "the diversity and fluidity in how issues are conceptualized" (p. 70). Media framing analysis is the first

framework used in this study, and combined with the civic capacity framework, constitutes the implementation analysis.

Neuman, Just, and Crigler (1992) noticed that several conceptual themes, or "frames" emerged as they studied the how the media presents information about certain topics as well as in the public's response to them. These five frames were economic, conflict, perceptions of control, the human impact of issues, and the application of moral values. The authors found that the frames "helped subjects to determine the personal relevance of the issues, to provide linkages among issues, and to formulate arguments from which opinions could be drawn" (p. 62). Their research found that media stories were dominated by the conflict frame (29 percent) where the only 6 percent of the public's response to stories were dominated by the conflict frame. Conversely, the human impact frame (36 percent) dominated the public's response to news, but only accounted for 18 percent of the stories presented by the media.

Neuman et al. (1992) write, "we are challenged by a stream of research which finds that what people learn from the news media is so dismally disappointing that the United States has become 'a nation at risk'" (p. 2). Twenty-five years later, we find that the media is still being used to shape how the general public views schools and schooling, as well as placing the blame for failing urban schools on the shoulders of education professionals (Annenberg Institute, 1998). Shipps, Fowlkes, and Peltzman (2006) use the analysis of newspapers in Chicago and Cleveland to determine whether educational journalism serves as a resource for sustaining civic capacity and educational reform. Through their research, Shipps et al. (2006) found that trustee journalism

(neutrality in reporting) and public journalism (reporting on the problems defined by local communities) were the prevalent journalistic styles in both cities around issues of education. The authors suggest that, "journalistic coverage might be a separate tangible resource for maintaining civic capacity" (p. 386), supporting previous research that journalists constitute a portion of elite civic leaders.

Fleming-Rife and Proffitt (2004) take the use of framing theory to study media reporting of education policy one step further by comparing 1953 and 1954 newspaper coverage of the *Brown* decision in the mainstream Topeka, KS, newspaper with coverage in the city's Black newspaper. Through their analysis, the authors found three dominant frames: a conflict frame (emphasizing conflict between individuals, groups, or institutions), a consequences frame (emphasizing penalties if the Supreme Court followed through with their desegregation ruling), and a dominant/subordinate frame (emphasizing the power of the dominate White culture over the Black community).

The conflict frame was most commonly used in reporting stories about the desegregation of schools in the mainstream Topeka newspaper, focusing on segregation versus desegregation. Although conflict was also used in the Topeka's Black newspaper, it was used to show opposition within the Black community, highlighting differences in the support of desegregation and integration. The consequence frame used in the mainstream newspaper "sought to brace its public for potential threat to its way of life" (Fleming-Rife & Proffitt, 2004, p. 249), while, after the passing of the *Brown* decision, the Black newspaper used the consequence frame to highlight the losses of jobs for Black teachers. The dominant/ subordinate theme was also present in both Topeka

newspapers. The authors wonder if the third frame was present in the Black newspaper due to the use of the 1939 Clark doll study, which pointed to the inferiority complex experienced by Black children in segregated communities. Overall, Fleming-Rife and Proffitt (2004) find that both newspapers reported stories about school desegregation primarily using the conflict frame, with secondary themes of protest, resistance, and compliance.

Civic Capacity

Civic capacity, the second framework used in this study and used in conjunction with media framing analysis, "about various sectors of the community coming together in an effort to solve a major problem" (Stone, Henig, Jones, & Pierannunzi, 2001, p. 4). In their in-depth eleven-city study, the Civic Capacity Urban Education Project (CCUEP), specifically included key community stakeholders outside of the traditional education community, and determined how these stakeholders "generally set and define their priorities and how formal and informal patterns for cooperation keep conflicts from generating stalemates or cyclical tugs-of-war" (p. 24). Stone et al. (2001) use civic capacity to understand the differing levels of support of public education and urban school reform by various policy actors/stakeholders, and collected data from 11 cities: Atlanta, Baltimore, Boston, Denver, Detroit, Houston, Los Angeles, Pittsburgh, St. Louis, San Francisco, and Washington, DC.

Stone et al. (2001) outlined the policy consequences of the cooperation between policy actors. The necessary community participants include traditional stakeholders, such as parents, educators, and local and state officeholders, as well as non-traditional

education stakeholders, including the business community and local non-profits (Annenberg Institute, 1998; Stone, 2001). Similarly, Portz, Stein, and Jones (1999) contend that civic capacity "entails creating both *civic* alliances across socioeconomic sectors as well as institutional *capacity* to implement policies and programs [italics in original]" (p. 19). The scholars that utilize the civic capacity framework to specifically address public education and urban school reform acknowledge that civic capacity is not a generic process that can be easily applied to just any community issue but, rather, the use of civic capacity requires the specific application to the topic (Shipps, 2003; Stone, 2001; Stone et al., 2001). Education is a particularly salient topic to study as it affects the significant majority of a city's constituents and also impacts various sociopolitical issues, including taxation, employment, and crime.

Civic capacity research around issues of urban education did not begin with the work of Stone and his associates, although their work remains one of the most widely cited. In their RAND report, Hill, Wise, and Shapiro (1989) argue that city schools had "too many liabilities to attract the help of ambitious politicians, cost too much to interest business and taxpayers, and provide services too low in quality to retain the support of the middle class" (p. 3). The authors contend that city schools were isolated from the city's larger civic, economic, and political strands due to the economic recession of the 1980s that reallocated funding away from urban programs (including transportation, housing, and public schools). Additionally, the school reform initiatives stemmed by the release of the 1984 report, *A Nation At Risk*, did not have the intended positive results in city schools.

Hill et al. (1989) focused on six urban school systems (Atlanta, Cincinnati, Memphis, Miami, Pittsburgh, and San Diego) and attempted to bring attention to the strategies used and coalitions formed that allowed school reform efforts to be sustained. The authors found that the six cities had several common characteristics which invited sustained reform, including a business community that linked its success to the local economy, engaged civic leaders, an educated adult population, and civic foundations invested in the community.

Marschall and Shah (2005) contend that civic capacity can be situated within the agenda-setting literature, especially because necessary components of both agenda setting and civic capacity include, first, issue definition and, second, action (Birkland, 2001; Heck, 2004). The three-step "cycle of public engagement" as outlined by the Annenberg Institute (1998) also has strong similarities to the agenda-setting literature: the cycle begins with starting a dialogue, then moves through converting dialogue into action, and finally ends with building structure and a sustaining leadership. It must also be understood that school reform is not a simple straightforward process from issue definition through consensus and action, but rather, is a "contested process, with simultaneous, multiple coalitions contending for some of the same resources and seeking their own opportunities" (Shipps, 2003, p. 869), despite the relationship between agenda-setting and civic capacity.

The focus on urban school reform was not the first attempt at using civic capacity to study sociopolitical decision-making at the city level. An early study of school desegregation included a focus on the involvement of civic leaders. Kirby, Harris,

Crain, and Rossell (1973) found that, in determining the elite civic leaders in the 91 northern and western cities studied (southern cities were purposely excluded), business leaders constituted the overwhelming majority of elite civic leaders (65%), followed by newspaper journalists (8%), civic association executives (7%), and clergy (6%). Their study expressly examined which stakeholders had the most influence in school desegregation decision-making processes and the resulting patterns of support and opposition, while, at the same time, studying more broadly the ways in which cities make decisions regarding their constituents.

Portz et al. (1999), focusing solely on three cities (Boston, Pittsburgh, and St. Louis) found that race matters in the development of civic capacity. The authors contend that one cannot simply state that the lack of civic capacity might reflect disinterest in a majority-minority school system by White political and business leaders. Instead, the history of racial divisions between community leaders and between institutions must be studied in order to understand its effect on the progression of strong civic bonds.

Past Studies of Civic Capacity focused on St. Louis

St. Louis was included as one of the cities studied in Stone et al.'s (2001) CCUEP study. They found low levels of civic mobilization around education, with small levels of involvement by local businesses and very little involvement by parents, teachers, and the superintendent. Additionally, their research found that while the business sector played a substantial role in school desegregation in St. Louis, it played a "modest" role in

education reform (p. 84), noting that education becomes a smaller priority as other city issues prevail.

In their review of parent groups as policy actors and their impact on school reform, Stone et al. (2001) note, "because middle class parents are much better positioned to play this game than their lower-class cohorts, parental oversight is less likely to deal with education problems related to concentrated poverty than to guard resources available to middle-class parents" (p. 85). The authors found that parents did not focus on systemic issues but instead on the issues pertaining directly to the schools their children attend.

Overall, Stone et al. (2001) found that although it is possible that the level of civic capacity can depend on the manner in which race is seen as political part of the school system, the racial composition of a city and its socioeconomic conditions do not predict civic capacity. Instead, two major findings about levels of civic capacity produced as a result of this research are: first, community and educational activists see more problems with schools than do educational professionals, and second, the perceptions of educational problems by the elite are strongly related to the levels of civic mobilization. In St. Louis, its low levels of civic capacity were reflected by low levels of involvement by non-educational stakeholders and a lack of consensus on the problems and related solutions.

Portz et al. (1999) also released a study on the civic capacity present in St. Louis as part of the CCUEP study. The authors found that St. Louis had a weak relationship between elected school officials and business leaders, and at the time of the writing, the

business sector was not considered a major component of school desegregation debates. As enrollment in the city's voluntary interdistrict desegregation program increased, community stakeholders began to focus their debates on the costs and inconvenience of the busing program rather than on the opportunities for increased academic achievement.

The Media Framing Analysis and Civic Capacity Frameworks Applied to this Research

Despite the fact that the federal court ruling that initiated the voluntary interdistrict desegregation program in St. Louis was over 30 years ago, the notion exists that court orders have "preempted local leadership" around issues of education (Stone et al., 2001, p. 84). Since the 1999 settlement agreement that ended court-ordered segregation, the participating suburbs have approved program extensions, with the transfer program currently extended through the 2018-19 school year. However, the suburban districts are able to individually determine their level of involvement within the program. This study will use a backward-mapping approach to implementation analysis. Elmore (1979) suggested that this approach assumes that "the closer one is to the source of the problem, the greater is one's ability to influence it" (p. 605) based on the needs of the "street-level bureaucrats" (McLaughlin, 1987). The implementation analysis included within this larger policy study is used to investigate the varying levels of suburban implementation of the policy.

The inclusion of the civic capacity framework as a component of the implementation analysis is critical in that the program remains reliant upon the support of various suburban elites in order to be sustained. That is not to say that the policy

elites in the city of St. Louis are unimportant, but given the high numbers of applicants interested in enrolling their children in suburban schools, it is evident that program is supported by city residents and urban policy elites alike. Additionally, prior research on civic capacity (e.g. Stone et al., 2001) has focused on the urban context. Race matters in civic capacity, as does a city's history of racial divide between community and political leaders and institutions (Baum, 2004; Portz et al., 1999; Stone et al, 2001). It is therefore necessary to investigate suburban investment in the transfer program over time as it affects so many urban families.

In this research, the suburban elites are the "street level bureaucrats" influencing policy at its lowest level of implementation. The media framing analysis examines the manner by which factors specifically related to the voluntary transfer program, its continuation, and the perceived role of the suburban elites in the provision of an equal educational opportunity are described and related to the general public. The data gathered from the framing analysis provides a greater understanding of the civic capacity present in the participating suburban districts.

Wells et al. (2004) state that there is a gap in the school desegregation literature, which should focus on how desegregation policy is shaped by local and political contexts. The voluntary interdistrict desegregation program in St. Louis warrants an examination of its implementation and resulting civic capacity, with a focus on suburban elites, due to its social, political, and fiscal contexts. This research will attempt to fill the gap mentioned by Wells et al. by examining how the voluntary transfer program has been sustained between 1999 and 2009 in light of, or despite, the varying degrees of

suburban fidelity to the program. As the lines between cities and suburbs begin to blur, and specifically as the students participating in this transfer program have one foot in both worlds, it is necessary to include all interested parties in such research.

Equity Analysis

Public school funding has been necessary as long as schools have been in existence. In 1647, Massachusetts passed Ye Olde Deluder Satan Act, where each town was required to set up a school that would be supported through taxation by the parents in the town. By the 1800s, most states funded their public schools primarily through local property taxes. The district boundaries created by the state caused a wide variation in the property wealth of districts, which, in turn, affected how much each district could raise and spend per pupil (Odden & Picus, 2008). School finance continues to be a controversial topic (National Education Access Network, 2012).; school finance lawsuits have been filed in 45 out of the 50 states.

Equity Framework

Berne and Stiefel (1984) developed a framework to more easily analyze the equity and adequacy of state funding formulas. The equity framework is the third used in this larger policy analysis. To determine whether resources are distributed fairly, Berne and Stiefel developed three equity analyses: input equity (the distribution of financial resources), output equity (the distribution of student achievement, i.e. test scores), and outcome equity (the distribution of long-term student results, i.e. income and occupation).

Berne and Stiefel (1984) also developed the three equity principles used to determine the equity of a particular analysis (input, output, or outcome). Those three principles are: (1) horizontal equity, or the equal treatment of equal students, (2) vertical equity, or the acceptable unequal treatment of unequal students, and (3) equal opportunity equity (also known as wealth neutrality), or the lack of a relationship between resources and an illegitimate characteristic, such as the district's or family's fiscal capacity.

Finally, in order to assess the degree of equity, the scholars outlined the various quantitative statistics used to measure each equity principle. The horizontal equity principle measures the dispersion of a distribution and relies on univariate statistics. The vertical and equal opportunity equity principles measure the statistical relationship between variables, and rely on regression-based bivariate or multivariate statistics.

Since its inception, numerous studies have used, and continue to use, the equity framework created by Berne and Stiefel as a guide to determine the equity of education spending within a particular district or state, or in a comparison of states. Especially important are the more recent equity studies conducted after the 1989 *Rose* decision. Following the *Rose* decision in Kentucky, many lawsuits were filed across the country, with states calling for reform in their respective education funding formulas. Despite the best efforts made by states to improve educational inputs, outputs, and outcomes, equity studies find that education funding is still inequitable.

Picus, Odden, and Fermanich (2001) conducted an input equity analysis of Kentucky's funding formula, using ten years of district-level financial data to conduct

240 separate equity analyses. Their study found that the fiscal equity in Kentucky over the ten-year span had improved, and the formula has met and/or exceeded standards since the 1989 *Rose* ruling.

In their study, Picus et al. (2001) used various horizontal and vertical equity statistics, including the McLoone Index and the coefficient of variation (both which specifically measure horizontal equity). The McLoone measures the ratio of the actual spending for the districts below the median to what the spending would be if the spending in those districts were raised to the median level. The coefficient of variation is calculated by dividing the standard deviation by the mean, in order to determine the variation about the mean (average), or the percentages of the observations that fall within one standard deviation of the mean. Across all ten years, the McLoone Indices did not fall below 0.90 (1.0 represents perfect equity), and the coefficients of variation had declined over the ten years, from 0.143 in 1991 to 0.108 in 2000 (0.0 represents perfect equity).

Rubenstein, Schwartz, Stiefel, and Bel Hadj Amor (2006) used regression-based vertical equity methods to conduct an input equity analysis in order to study intradistrict resource allocation in public elementary and middle schools in New York City, and in Cleveland and Columbus, Ohio. The authors examined the extent to which student and school characteristics explain the variation in funding and teacher characteristics. Vertical equity results found that schools with higher percentages of poor children had lower percentages of teachers with Masters degrees. Additional results found that those teachers were paid less, although the overall spending in schools may have

increased as poverty levels in schools increased. The authors stated, "providing more equitable and adequate opportunities for high student performance across all schools may, therefore, require fundamental rethinking of the ways in which resources are allocated to schools and to students, not simply to school districts" (p. 543), suggesting that resource allocation alone was not sufficient for improving student outcomes.

Verstegen and Driscoll (2009) conducted an input equity analysis, incorporating all three equity principles, to study the Illinois state school funding system and found that the Illinois state system was inequitable, and that it was an "unjust and disparate system that curtails equal opportunity for children and youth in schools and classrooms" (p. 58). The equity results were based on pupil-level data collected from the state's 879 school districts.

The Verstegen Index, studying the top half of the distribution, was 1.14 using baseline data, while the McLoone Index, studying the bottom half of the distribution, was fairly stable at 0.91. These equity results indicate that disparity is greater for the top half of the distribution than it is for the bottom half. The equal opportunity equity analysis displayed a strong relationship between education funding and a district's fiscal capacity. Correlation results, which measure the strength of the relationship between two variables, indicated that the relationship between the funding and district wealth was 0.65, where a correlation of zero would indicate the lack of a relationship. The square of the correlation coefficient describes the proportion of the variance (difference) in one variable that can be attributed to another variable. In this study, the square of the correlation coefficient was 0.43 using baseline data, indicating that 43% of

the variation in funding was predicted by the district's wealth capacity. As with the correlation coefficient, there should be no relationship between the two variables.

Berne (1994) noted that most equity studies traditionally focused on inputs, usually measured in dollars, and there has been little attention paid to the equity of outputs, measured by student achievement. Iatarola and Stiefel (2003) used this idea to analyze inputs, as measured by the distribution of resources, as well as to analyze outputs, as measured by student achievement in New York City public elementary and middle schools. The authors used financial, school-level and achievement data from the New York City Board of Education to study the 660 public elementary schools and 180 public middle schools in the district. They conducted various equity analyses, using the range and coefficient of variation to study horizontal equity principle, and regression analysis to study both the vertical and equal opportunity equity principles.

In the input equity (resources) analysis, the horizontal equity results found that, generally, schools in New York City were inequitable with coefficients of variation over 0.10 for the teacher resource variables. Vertical input equity analysis results found that while pupil/teacher ratios were smaller in schools with harder to educate students, teacher salaries and other teacher characteristics were lower in those same schools. Equal opportunity input equity results found that the higher the percentage of non-white students in an elementary school, the lower the base funds, while the opposite was true for middle schools. These results also show that elementary schools in the suburbs received more funds per pupil as compared with city schools, while geography did not matter for middle schools.

The results of their output equity study used standardized reading test scores at the elementary school level and found large disparities. In their horizontal output equity analysis, the coefficient of variation was 0.317. The vertical output equity analysis found that schools with higher percentages of students eligible for free or reduced lunch and/or classified as Limited English Proficient scored lower; however, these results support theories that "performance varies with factors usually associated with higher levels of educational need" (Iatarola & Stiefel, 2003, p. 76). The equal opportunity output equity results found that elementary schools with higher percentages of students who are non-white perform lower, and schools in the outer suburbs perform better. Their results also indicate, though, that there was little change in the distribution of these scores over time. Iatarola and Stiefel (2003) contend that their input and output analyses show "predictable inequities with schools that educate needier and nonwhite students scoring lower" (p. 77); however, they note that it is difficult to draw conclusions, as there are virtually no comparable studies that focus on output equity.

Equity Analysis Applied to this Research

There is a broad range in the analyses and statistics used to examine the equity concepts of education finance, especially due to the breadth and depth of the research. Equity studies also allow for a range in the specific level of attention, whether student-, school-, or district-level. This variety in research design confirms that there is no singular way to assess equity and adequacy, and reaffirms the necessity for the continuation of such studies.

There was no comparison study for the achievement (output) equity study as the study conducted by Iatarola and Stiefel (2003) was the first time that outputs had been analyzed in this way. As such, it is difficult to draw conclusions. While there have been similar international analyses conducted (albeit very few), the United States is so culturally, historically, and demographically unique that a comparative analysis is virtually impossible.

This study will analyze the voluntary transfer program in St. Louis, using the concept of equal educational opportunity, to examine the variation in both the distribution of the resources available in the participating suburban districts and in the graduation rates of the Black students that participate. To do so, two equity analyses will be conducted to address both equality of inputs and equality of outputs: an input equity analysis, which will focus on the financial resources present in the participating districts, and an output equity analysis, which will focus on the long-term achievement (college graduation/retention and employment) of program alumni.

There has not been an equity analysis conducted on the urban and suburban districts that choose to participate in the voluntary interdistrict desegregation programs. Comprehensive analyses of these transfer programs and these particular suburban districts offer additional means by which to study the disparities between districts.

As evidenced by the literature, transfer students and their parents choose to participate in these desegregation programs in an effort to receive "a better education"—better than the education they assumed they would receive in their assigned urban schools. There seems to be an underlying belief that participation in a

transfer program will lead to the attainment of the same educational and life outcomes that suburban White parents expect of their children and this study uses suburban high school graduation as the indicator of achievement. This study also aims to uncover fundamental questions pertaining to equal educational opportunity and postsecondary success, including whether the participating suburban districts are providing transfer students with an education sufficient enough to gain entry into the middle-class life deemed successful by societal standards.

Summary

Howe (1992) wrote that the meaning of equal educational opportunity is dependent upon the policy under discussion. School choice policies have garnered much attention in recent years, as evidenced by the influx of media attention on charter schools and in the numbers of new schools appearing across the country. Using the voluntary transfer program in St. Louis as a lens through which to study school choice brings awareness to a choice option historically grounded in the Civil Rights Movement. Issues of racial, social, and residential segregation continue to plague this country, and it is necessary to approach this research with the clear understanding that these interrelated topics should not be separated from the study of education, equity, and achievement.

Upon initial review, when using voluntary interdistrict desegregation programs as the context of this research, it seems that participating students from St. Louis are indeed receiving the inputs outlined by numerous scholars as necessary for receiving an equal educational opportunity and positively impacting academic achievement—they

are attending integrated schools with middle-class peers in districts with greater resources. It is not enough to stop the research there, however.

Included in this research is an analysis of the implementation of the transfer policy by the individual suburban schools districts following the lifting of the court order in order to determine whether there are varying levels of support among the participating districts. This study will also examine the variation in the distribution of the resources available in the suburban districts and the effects of those resources on the high school graduation rates of the Black students that participate. The purpose of this study is not to find fault in the voluntary transfer program, but rather to conduct a deeper examination of the program using quantitative method. As we find ourselves in an era of accountability, it is important that the analysis of the policy implementation, as well as of the equality of inputs and outputs, provide ample opportunity for learning, growth, and improvement.

CHAPTER 3

THE CONTEXT OF THE STUDY: ST. LOUIS

Introduction

To understand the implementation and equity analyses conducted in this research, it is necessary to first become familiar with the program itself. This chapter provides a detailed description of the voluntary transfer program in St. Louis, and outlines its origins, the 1983 and 1999 settlement agreements, and current program implementation.

Liddell v. Board of Education of the City of St. Louis

Immediately following the monumental 1954 *Brown* decision, the secretary of the city's Board of Education publicized the city's plan to integrate the public school system, stating, "It is the general policy of the Board of Educational to begin the integration process in September, 1954, and to complete it by opening day of school in September, 1955" (as cited in Heaney & Uchitelle, 2004, p. 10). However, attendance zones were redrawn to promote neighborhood schools, and White students who had been newly assigned to predominately Black schools were able to remain in their original school through graduation (Freivogel, 2002; Heaney & Uchitelle, 2004). These loopholes in the plan provided obstacles to the integration of the school system.

Additional factors also prevented the immediate integration of St. Louis Public Schools. Beginning in 1950, and through the 1970s, over 400,000 White residents left

the city for the neighboring suburbs, while simultaneously, the Black population in the city grew. By 1970, the Black population in St. Louis had grown to approximately 41%, from 18% in 1950. With the change in population came instances of housing discrimination, where Black residents were confined to particular areas of the city (Heaney & Uchitelle, 2004). In a process known as "redlining," homeowners in the least desirable and most high-risk zones were not granted loans from the Home Owners Loan Corporation. Black neighborhoods, along with several working-class white neighborhoods were consistently "redlined" (Wells & Crain, 1997). The refusal to integrate was not solely on the part of students and families, or residence; teachers and administrators did not attempt to desegregate the schools either (Heaney & Uchitelle, 2004). The city's insistence on neighborhood schools guaranteed that Black residents in segregated neighborhoods would continue to attend segregated Black schools.

In October 1954, the Missouri State Commissioner of Education announced that integration had been a success. He pointed toward the fact that, "in 54 school districts with an enrollment of 15,992, a total of 449 Negro pupils have been integrated into white schools" (Heaney & Uchitelle, 2004, p. 73). Interestingly, St. Louis was awarded "All America City" status by the National Municipal League (now known as the National Civic League) in 1956 for "its progress achieved through intelligent citizen action" (Heaney & Uchitelle, 2004, p. 74). However, a 1969 survey conducted by the Survey Research Center analyzed racial attitudes in large cities and found that St. Louis was among the least liberal (Heaney & Uchitelle, 2004). In the 15 years following the *Brown* decision, the city had still not made major strides toward integrated schools.

White flight still affected the city and left vacant seats in predominately White neighborhood schools, but due to zoning and housing discrimination, overcrowding was still prevalent in the city's Black schools. The district began a process known as "intact busing," where groups of Black students would be bused to White schools with empty seats. Through this policy, the Black students arrived after the White students were already in class, and were kept in self-contained classrooms, ate lunch separately, and then departed the school after the White students had already left (Freivogel, 2002; Wells & Crain, 1997). Black students were not being fully integrated into the schools in terms of classroom and social interaction, but instead were brought to schools under a "separate but equal" paradigm.

In 1972, frustrated with the lack of progress toward integration, a group of Black parents filed a class-action lawsuit in the district court against the St. Louis Public School system, individual board members, the superintendent, and district superintendents. The parents, led by Minnie Liddell, had grown frustrated with the rezoning, and the opening and closing of Black schools across the city (Heaney & Uchitelle, 2004; Wells & Crain, 1997). The parents "began to see a pattern of the Board treating the Black students like pawns on a chessboard" (Wells & Crain, 1997, p. 90). In *Liddell v. Board of Education of the City of St. Louis*, the defendants denied that they had operated the schools in a discriminatory matter toward Black students, and did not deprive them of equal educational opportunities. However, some Black teachers in Black schools took offense to the lawsuit, arguing that the lawsuit implied that "they were saying that we [Black teachers] couldn't teach" (Heaney & Uchitelle, 2004, p. 80). Given the positive

role that Black schools had played in the Black community prior to the *Brown* decision (Foster, 1996; Morris, 2004; Siddle Walker, 1996), the lawsuit was especially disconcerting to the Black teachers in St. Louis Public Schools.

In December 1975, an agreement on the *Liddell* case was reached by consent decree. Through the decree, the city's Board of Education could deny that it supported segregation in the public school system but it explicitly agreed to actions that would result in integration. An objection was filed by the teachers union because of the proposal to increase the percentage of minority teachers to 30% over the next few years. In 1979, the judge rejected the NAACP's proposal to use racial percentages in student assignment (Heaney & Uchitelle, 2004), and ruled that the primary reason for racial imbalance in the schools was due to the neighborhood school plan.

In May 1980, the judge and the district court found that both the City and the State were responsible for both the de jure segregation of the city and of the school system, and approved a desegregation plan that would start in the 1980-1981 school year (Heaney & Uchitelle, 2004; La Pierre, 1987). The ruling specifically stated,

> To make every feasible effort to work out with the appropriate school districts in the St. Louis County and develop, for 1980-81 implementation, a voluntary, cooperative plan of pupil exchanges which will assist in alleviating the school segregation in the City of St. Louis, and which also insures that inter-district pupil transfers will not impair the desegregation of the St. Louis school district ordered herein, and submit such plan to the Court for approval by July 1, 1980 (Liddell, 1980, para. 12a).

In addition to this voluntary plan, which became known as the 12(a) plan, the Court also ordered a mandatory plan. In paragraph 12(c), school districts were ordered to "develop and submit to the Court by November 1, 1980, a suggested plan of inter-district school desegregation necessary to eradicate the remaining vestiges of government-imposed school segregation in the City of St. Louis and St. Louis County" (Liddell, 1980, para. 12c). Additional litigation became an option as the suburban districts of St. Louis County were added as defendants to the integration case (La Pierre, 1987). These three plans, the 12a voluntary plan, the 12c mandatory plan, and litigation around interdistrict remedies approached school integration from a variety of angles.

The State, a group of White parents, and a group of Black parents each appealed these decisions for different reasons (Heaney & Uchitelle, 2004). The State appealed because it felt it was required to pay too much toward the desegregation plan. The group of White parents appealed because it felt that it would be unfair for White students to move from an all-White school to an integrated school. Finally, the group of Black parents appealed because it believed the plan did not affect all of the schools in the city district, as there would still be some all-Black schools in the Northern areas of the city.

The judge ordered that the State resubmit a desegregation plan by February 1981 and subsequently resigned due to health reasons. In July 1981, the newly appointed judge approved the desegregation plan, which included interdistrict transfers, the opening of specialized magnet schools, programs designed to foster cross-racial experiences, staff exchanges between city and suburban schools, and ordered the

Missouri Department of Education to be responsible for the transportation of students across county lines (Heaney & Uchitelle, 2004). The details of this plan, which eventually became the voluntary transfer plan currently in use, are outlined in the next section.

1983 Settlement Agreement

In March 1981, Edward Foote (1982), chairman of the court-appointed desegregation committee, released a report entitled, *An Education Plan for Voluntary, Cooperative Desegregation*, which ultimately became the basis of the voluntary plan approved in 1983. His plan had three broad elements: interdistrict transfers that would reduce racial segregation, the creation of magnet programs and schools, and educational programs aimed at promoting cross-cultural experiences for student of different races.

Under the Court's voluntary 12(a) plan, informed by Foote's report, suburban districts with enrollments at or under 8,000 students had to accept 50 transfer students from St. Louis, while those districts with enrollments over 8,000 were required to accept 100 transfer students. Each year, suburban districts would be required to make additional space available in their schools to meet the plan's requirement of 25% minority student enrollment (La Pierre, 1987). The number of transfer students required to enroll in suburban districts in the first year was extremely minimal, ranging from at least 0.6% of districts under 8,000 to, at most, 1.3% of districts over 8,000.

Important to note were the 1982 demographics of the participating school districts. At the beginning of the school year, St. Louis Public School (SLPS) totaled

59,117 students, of which 49,610 (79%) were Black. Over 30,000 Black students attended majority-Black schools in the Northern part of the city. St. Louis County, comprised of 23 school districts, totaled 130,951 students (not including those that attended the Special School District, which serves students with educational and physical disabilities). Approximately 27,523 suburban students (21%) were Black—the majority of which (74%) were concentrated in six districts close to the Northern (predominately Black) side of the city. Those districts had Black student enrollments of at least 40%. Of the 17 remaining suburban districts, ten had Black enrollments under 4%, six had Black enrollments between 12 and 22%, and one had a Black enrollment at just under 30% (La Pierre, 1987). Table 3 outlines the 1982 demographics of the 23 suburban school districts.

Only five suburban districts (Clayton, Kirkwood, Pattonville, Ritenour, and University City) initially agreed to participate in the interdistrict transfer program approved by the Court—the 12(a) voluntary plan—while 18 rejected the plan. In August 1981, legal proceedings were set in motion in the remaining districts to implement the 12(c) mandatory plan (La Pierre, 1987). The Court also questioned whether refusal of the plan meant violation of the law, because, in essence, the suburban districts had chosen to support segregation (Heaney & Uchitelle, 2004). The 12(c) mandatory plan included the consolidation of existing school districts into one larger metropolitan district, a uniform tax rate for the consolidated district, and mandatory student assignment by race (La Pierre, 1987; Heaney &Uchitelle, 2004; Wells et al., 2009). The

State argued that it was unfair to mandate interdistrict transfers and district consolidation without a hearing (La Pierre, 1987). The trial began in January 1982.

Table 3. 1982 Demographics of the 23 St. Louis County School Districts

District	Total Enrollment	Black Enrollment	Black Enrollment as a % of Total Enrollment
Affton	2,067	3	0.2%
Bayless	1,336	2	0.2%
Brentwood	834	182	21.8%
Clayton	1,573	20	1.3%
Ferguson-Florissant	12,669	5,137	40.6%
Hancock Place	1,447	5	0.3%
Hazelwood	17,129	2,981	17.4%
Jennings	2,332	1,285	55.1%
Kirkwood	4,496	764	17.2%
Ladue	3,060	391	12.8%
Lindbergh	5,546	44	0.8%
Maplewood	1,436	416	29.0%
Mehlville	9,675	31	0.3%
Normandy	7,127	6,195	86.9%
Parkway	20,693	410	2.0%
Pattonville	6,535	243	3.7%
Ritenour	6,456	839	13.00%
Riverview Gardens	5,060	2,156	42.6%
Rockwood	10,354	98	1.0%
Valley Park	629	3	0.5%
Webster Groves	3,640	723	19.9%
University City	5,627	4,341	77.2%
Wellston	1,261	1,254	99.5%

Source: La Pierre, 1987

The Court of Appeals narrowly defined its 1982 decision, known as *Liddell V*, regarding the 12(c) mandatory plan. Components of this plan either had no direct effect on the suburban districts or involved voluntary action. The Court also ruled that the State bear full responsibility for program funding, including incentives and transportation costs (La Pierre, 1987). Additional provisions to the plan included

improvements to the city's all-Black schools, creation of additional magnets in the city and county districts, and additional incentives for interdistrict transfers.

Concerns about the mandatory plan varied by group. The Liddell group focused on the needs of Black students, especially those in the predominately Black, northern areas of the city. The NAACP also joined the Liddell group in its concern over Black students in the city, as well as of those in the six predominately Black suburban districts. The suburban districts were concerned with district consolidation and the enrollment of White students in city schools. St. Louis City was concerned with how the desegregation plan would affect tax revenues, while St. Louis County was worried about how the program would affect housing (La Pierre, 1987). These concerns, and the groups, reflect underlying issues of race, class, privilege, and place.

A settlement was finally reached in 1983. The State Attorney General John Ashcroft opposed the plan because it was an "outrageous expenditure of public funds" (Heaney & Uchitelle, 2004, p. 122). In an interview with the mediator appointed by the district court, the concerns of the suburban parents were outlined: "they needed reassurance on the no-white-transfer-in [policy] which, of course, meant that the burdens of desegregation were going to be borne by…those who had been victimized by segregation" (Heaney & Uchitelle, 2004, p. 120). As with many events following the *Brown* decision, the responsibility to integrate was placed on the shoulders of Black students and families.

The formal Settlement Agreement was created in February 1983. Components included the elements formulated by Foote in 1981 (interdistrict transfers, magnet

schools, and improvements to city schools), and the following additional elements: hiring goals for Black teachers and administrators, a teacher exchange program between city and county schools, and the creation of the Voluntary Interdistrict Coordinating Council. The Council, funded by the state, provided support for the participating families, and each school district elected a representative to serve.

The 16 suburban schools districts with low Black student enrollments were required to increase the percentage of Black students by at least 15% of their current enrollment, though not to exceed 25% of total enrollment. Voluntary participation avoided interdistrict litigation against those districts for five years. The seven remaining districts with Black enrollments over 25% were not obligated to host transfer students from SLPS. In fact, the four suburban districts with Black enrollments over 50% (Jennings, Normandy, University City, and Wellston) had to either create magnet schools in their counties to increase their White student population or enroll their Black students in one of the 16 suburban districts with predominately White enrollments. The 3 districts with Black enrollments between 25 and 50% (Ferguson-Florissant, Maplewood, and Riverview Gardens) were required to only facilitate the enrollment of their White students in city magnet schools (La Pierre, 1987). A map of the St. Louis County suburban school districts can be found in Figure 1. Wellston School District merged in Normandy County following the 2010 school year (Singer, 2009), and Meramec Valley School District is not included in these analyses.

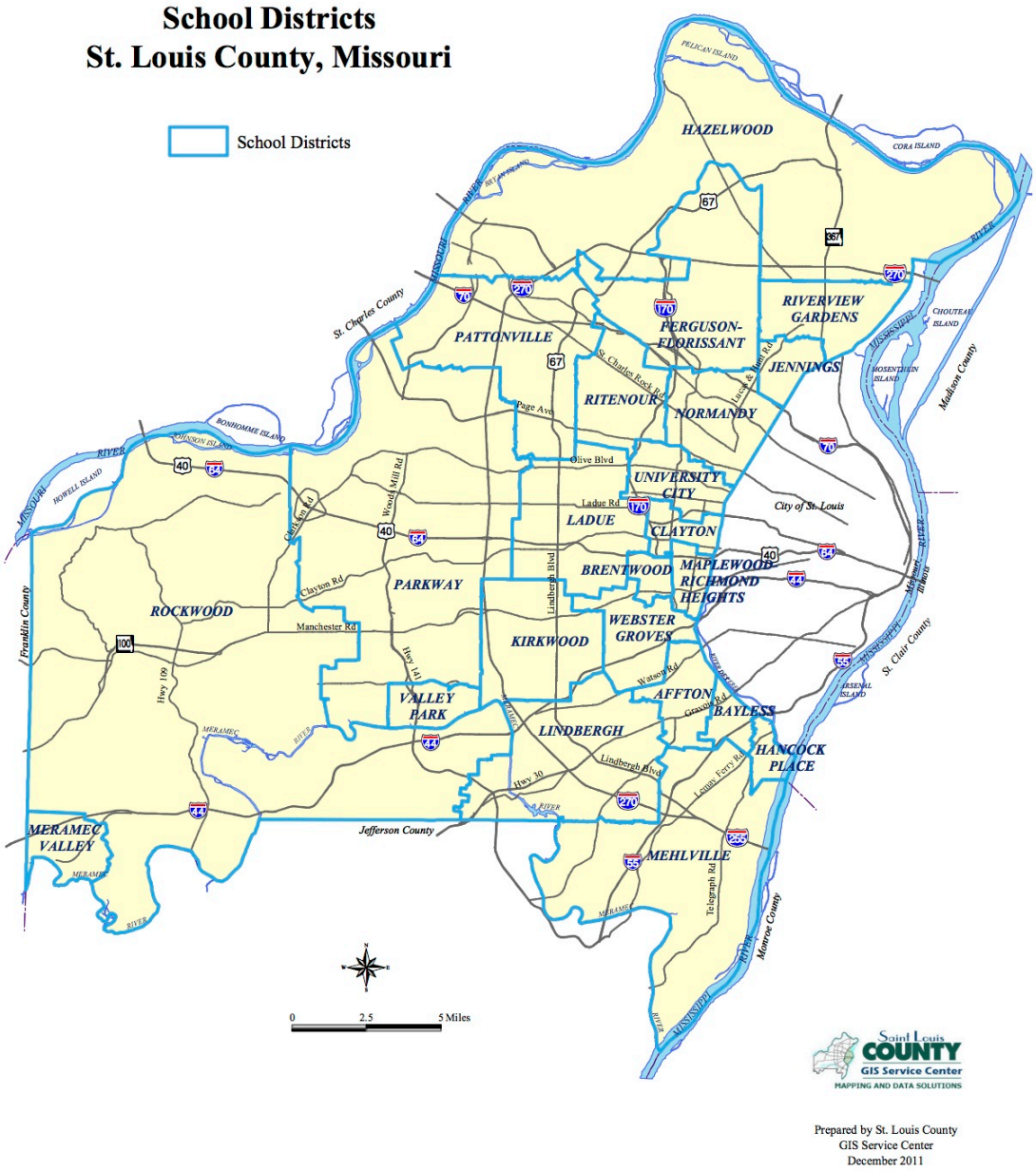

Figure 1. St. Louis County School Districts
Source: St. Louis County GIS Service Center, 2011

One district declined to implement the plan. University City, a predominately Black suburban district, believed that its participation would not alleviate segregation in SLPS, and also argued that the funding used to improve education programs and school buildings in the city did not effectively serve its students. The district ultimately argued that the program was unfair because, similar to SLPS, it was a majority-Black (approximately 75%) school district. The City of St. Louis also declined to adopt the settlement agreement because of funding concerns (La Pierre, 1987), arguing that the financial costs to city residents outweighed the costs to county residents and was inequitable. The City also argued that the tax increase ordered by the Court was unconstitutional.

Following a fairness hearing, rulings were made by the district court and the Court of Appeals. The Court of Appeals made two distinct amendments to the agreement. First, it did not approve the use of state funding for county-to-county transfers of students, although it was voted that they could continue those transfers without the benefit of funding. This primarily affected the four predominately Black suburban districts. Second, it placed a limit on the number of interdistrict transfer students that could participate, capping it at 15,000, possibly in an effort to limit state costs (La Pierre, 1987). University City agreed to adopt the plan, and the Settlement Agreement was implemented in SLPS and the 16 predominately White suburban districts at the start of the 1983 school year.

1999 Settlement Agreement and Program Extension

In the fall of 1997, the Missouri legislature appointed a committee to review how to end the school desegregation case in St. Louis. In a press conference, the Attorney General suggested phasing out the program and using $100 million to build new schools in the city's Black neighborhoods for the transfer students to instead attend (Freivogel, 2002). The city's first Black mayor, Freeman Bosley, also supported ending the voluntary transfer program, proposing instead to focus on the needs of city residents by improving public schools and city life (Braun, 1993; Walters, 1994). However, faced with the potential loss of financial support for his campaign, the Attorney General reversed his opinion and ultimately supported the continuation of the transfer program (Freivogel, 2002). These decisions and opinions marked the beginning of the importance placed on funding in the continuation of the transfer program.

By 1999, following a lengthy process, a bill was passed which ended the court-ordered desegregation of the city's public schools and terminated most components of the 1983 Settlement Agreement, but kept both the dual transfer program and city magnet schools. The bill was passed through the combined support of the suburban Republicans, who realized the program's financial benefit to their districts, and the urban Democrats, who supported desegregation. The 1999 settlement agreement proposed continued financial support for the transfer program through a sales tax increase for city residents in order to raise $40 million to replace the $60 million that had formerly been provided by the courts (Freivogel, 2002). This agreement also gave the responsibility of the voluntary transfer program to the Voluntary Interdistrict Choice

Corporation (VICC). VICC was originally the state-funded organization, the Voluntary Interdistrict Coordinating Council, which oversaw the transfer program, but following the settlement agreement, it changed its name and became and independent 501-c-3 organization.

City residents had to vote on the bill in order for the 1999 Settlement Agreement to take effect. Community organizations, such as Civic Progress (a city-wide business organization who had previously reported on the transfer program's overall economic benefits to the city) sent out mailings in support of the two-thirds cent sales tax increase, stressing that the tax increase would end court-ordered desegregation. The *St. Louis Post-Dispatch* published ongoing editorials, each day highlighting a student that participated in the program, for the thirty days leading up to the vote (Freivogel, 2002). Not all local organizations were in favor of the provisions of the 1999 settlement agreement; the St. Louis Teachers Union opposed the tax increase. The president of the union argued that the goal of improving city schools "is now being so overshadowed by everyone's zeal to settle the case (that) we have neglected consideration of one of the most important factors in improving our school system – teachers" (Dine, 1999). The teachers union viewed teachers as the resource necessary for improving city education, instead of the funding used to support the transfer program.

Despite varied levels of opposition, the settlement agreement passed. Through the settlement agreement, VICC also received two $25 million payments to be used for transportation to the suburbs for the city transfer students. The 1999 Settlement Agreement also allowed for the gradual decrease in the number of transfer students

served. The 16 predominately White suburban districts agreed to keep transfer enrollment at 85 percent of the 1998-99 transfer enrollment for the first three years of the settlement, with a reduction to 70 percent of the 1998-99 transfer enrollment in years four through six. Beginning in the seventh year following the settlement, there would be no minimum transfer enrollment required for the participating districts (VICC, 2012). Because Hazelwood reached its goal of 25% minority enrollment, it chose to discontinue participation in the program altogether. At the time of the settlement agreement, two districts (Ladue and Ritenour) decided to no longer enroll new transfer students.

Table 4 shows the demographics of the participating districts at the time of the 1999 settlement agreement, including the total number of Black students, transfer students as a percentage of the total number of Black students, and the change in the percentage of total Black students from 1982. Most of the 15 participating suburban districts experienced a substantial increase in the Black student population as a result of enrolling transfer students. By 1999, the minimum Black enrollment as a percentage of total enrollment reached 14% (up from 0.2% in 1983) while the maximum Black enrollment as a percentage of total enrollment reached 28.6% (up from 21.8% in 1983). Transfer enrollment constituted the significant majority of Black student enrollment in the participating suburbs in all but three districts. In the three districts with transfer enrollments at less than 50% of total Black enrollment, Ladue (46.0%) and Ritenour (5.0%) stopped enrolling additional transfer students in 1999. The third district, Webster Groves (42.1%) continues to enroll transfer students. Lindbergh, who has the

highest transfer enrollment as a percentage of its Black student enrollment at 92.2%, stopped enrolling additional transfer students in 2007 as did Pattonville (51.2%).

Table 4. 1999 Demographics of 15 Participating Suburban School Districts

District	Total Enrollment	Total Black Enrollment	Transfer Enrollment (% of Total Black Enrollment)	Black Enrollment as a % of Total Enrollment	%change from 1982
Affton	2,650	381	331 (86.9%)	14.4%	14.3%
Bayless	1,458	214	180 (84.1%)	14.7%	14.6%
Brentwood	914	249	180 (83.5%)	27.2%	5.4%
Clayton	2,461	531	479 (90.2%)	21.6%	20.3%
Hancock Place	1,721	356	317 (89.0%)	20.7%	20.4%
Kirkwood	5,001	1,250	662 (53.0%)	25.0%	7.8%
Ladue*	3,321	780	359 (46.0%)	23.5%	10.7%
Lindbergh**	5,226	1,014	935 (92.2%)	19.4%	18.6%
Mehlville	12,000	1,548	1,338 (86.4%)	12.9%	12.6%
Parkway	20,547	3,575	2,846 (79.6%)	17.4%	15.4%
Pattonville**	6,688	1,722	882 (51.2%)	25.7%	22.0%
Ritenour*	6,450	1,936	98 (5.0%)	30.0%	17.0%
Rockwood	21,175	3.096	3,095 (100%)	14.6%	13.7%
Valley Park	1,024	298	244 (81.9%)	29.1%	28.6%
Webster Groves	4,028	1,101	464 (42.1%)	26.1%	6.2%

*no longer accepting new transfer students as of 1999; **no longer accepting new transfer students as of 2007
Source: Common Core of Data, 2013

Since the Settlement Agreement, the voluntary transfer program has had two five-year extensions. VICC's Board of Directors unanimously approved the first extension in 2007, extending both the program and new student enrollment through the 2013-2014 school year. The 15 predominately White suburban districts could decide individually whether to accept new students during the extension period, with the understanding that all currently enrolled students can continue in the program. At the

time of the first extension, two more districts (Lindbergh and Pattonville) decided not to admit any additional students. The second extension was approved in November 2012, extending the program through the 2018-2019 school year (VICC, 2012). There are now a total of four (out of 15) suburban districts no longer accepting new transfer students into their schools, but will allow those currently enrolled to graduate. The remainder of this chapter, as well as this study as a whole, focuses on SLPS and the 15 predominately White suburban districts[2] that participated in the program between 1999 and 2009.

Application Process

The voluntary transfer program in St. Louis remains a popular school choice option for the city's Black families, despite the city's magnets and increasing number of charter schools. VICC utilizes an extensive recruiting process by automatically sending applications for the transfer program to all Black students currently enrolled in St. Louis Public Schools. Black families are able to choose from selected suburban school districts paired with the attendance zone in which they live. At the beginning of the program, city families were eligible to choose from any suburban district, but due to increasing transportation costs, suburban districts were paired with city attendance zones.

Priority is given to students already enrolled in the transfer program but attending a suburban school outside of their assigned district, then to new applicants who have a sibling already enrolled in the program. Finally, the remaining applications are processed on a first-come, first-served basis. Students may be denied a space in a suburban school if there are no seats available or if there are significant disciplinary

[2] For the remainder of this study, the 15 predominately White suburban districts will be referred to as the participating suburban districts.

problems in the student's academic record. Families are not required to accept seats offered in suburban districts. Non-Black families living in selected suburban districts are eligible to apply to attend magnet schools in the city and can receive applications directly from the VICC website or office (VICC, 2012). Although this is a dual transfer program, the overwhelming majority of participants are Black students from St. Louis.

Enrollment Trends

During the first few years of the transfer program, the percentage of Black students in the participating districts ranged from 13 to 26%; however, only 5 of those districts actually reached their goal for 25% Black student enrollment (Freivogel, 2002; Morris, 2001). By 1987, over 9,300 city students were attending suburban schools. Although the numbers of Black students in suburban schools increased steadily, the numbers of suburban White students attending city magnet schools had not reached numbers that the program originators had hoped. Initially, the goal was for 2,500 suburban students to attend the city's magnet schools; however, approximately 600 White county students (14% of total enrollment in city magnet schools) attended, following a 41% withdrawal rate. Reasons that suburban parents cited for withdrawal from the transfer program included the long ride into the city and the lesser-quality academic programs in magnet schools (Freivogel, 2002; Heaney & Uchitelle, 2004; La Pierre, 1987). The then-state's assistant Attorney General reported that the state had not supported many of the city's magnet school proposals because there were not deemed "innovative enough" to attract suburban students from their district schools

(Wells, 1988). Suburban families felt disparities existed, even among the city's specialized schools.

The 1999 settlement agreement did not force a minimum enrollment upon the participating suburban districts and they were allowed to gradually reduce transfer student enrollment. Suburban districts then began phasing out a small percentage of available seats each year, at a rate of approximately five to six percent annually. Enrollment was at its peak of 14,227 participating students, including 1,249 suburban students attending city magnets, during the 1999-2000 school year. By the 2009-2010 school year, enrollment had dropped to a total of 6,314 participating students, including 167 suburban students attending magnet schools. Enrollment again fell during the 2012-2013 school year to 5,130 students, with 86 suburban students attending the city's magnets (VICC, 2012). Figure 2 displays enrollment trends over the 10 year span of this study.

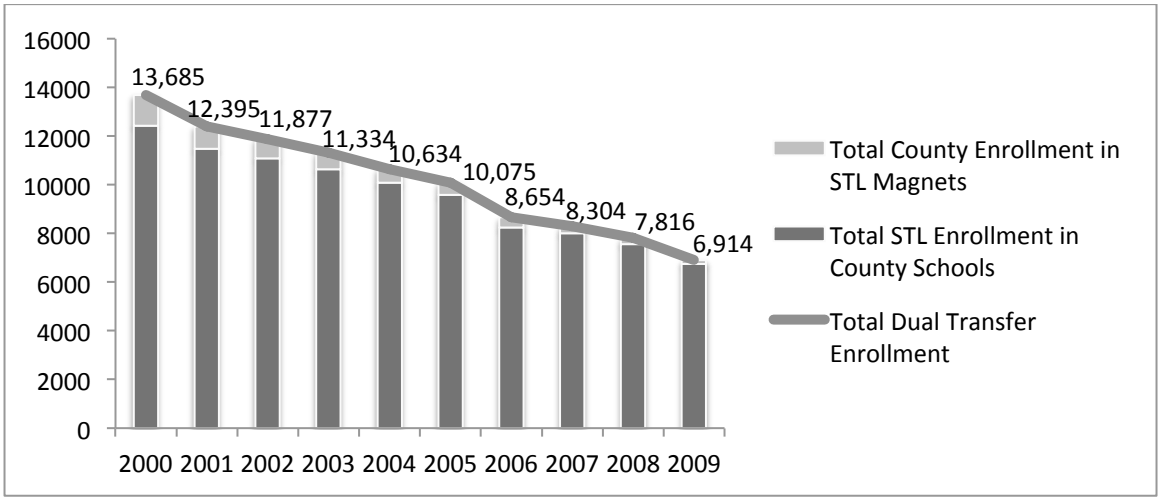

Figure 2. Enrollment Trends of the St. Louis Voluntary Transfer Program, 1999-2009
Source: Voluntary Interdistrict Choice Corporation, personal communication

The implementation and equity analyses included in this study concentrate on the ten years following the 1999 settlement agreement. It is no secret that there are, and have been, racial and socioeconomic differences between St. Louis and the participating suburban districts. Chapter 6 will explore the resource and demographic differences between the city and the suburbs, as well as differences among the suburbs, in much greater detail.

Program Funding

Through the first twenty years of the transfer program, almost $2 billion was paid into the voluntary transfer plan by both the state and the St. Louis Public School Board (Morris, 2001). The two major costs associated with the voluntary transfer plan are transportation for the students from the city to the suburbs and tuition reimbursements (incentives) for the participating districts. Suburban students attending city magnet schools are responsible for their own transportation. Transportation costs represent another difference between voluntary interdistrict desegregation programs, where free busing is provided by the state to students that participate in those programs, and other school choice transfer plans in use around the country, where students and families are responsible for their own transportation to their school of choice (Wells et al., 2009). At the height of its voluntary transfer program, with 14,000 students participating, transportation costs for the St. Louis program amounted to upwards of $30 million (Frankenberg, 2007). Funding issues and suburban reimbursement remain central to the continuation of the transfer program.

Under the original model of the transfer plan, prior to the settlement agreement, the participating districts received the equal per-pupil amount for each student transferring in, while the St. Louis Public School District was able to keep one-half of the per pupil amount for each student transferring out. The city magnet schools that accepted the suburban students received the full per-pupil funding for each transfer student, as well as additional funding for school improvement (Wells et al., 2009). During the first year of implementation, program costs for the dual transfers amounted to $2.1 million (Glaser, 2012). As previously mentioned, the State bore full responsibility for program funding.

Following the 1999 Settlement Agreement, suburban school districts received a reimbursement maximum of $9,100 per transfer student (VICC, 2012). As a result of persistent declining enrollment based on suburban discretion, the reimbursement rate is reviewed annually, as the majority of funding for the program is provided through the state foundation formula and sales tax revenue. As of 2012, the reimbursement rate for the suburban districts is capped at $7,000 per student, or the actual per-pupil cost of the district, whichever is less, although the average cost for a transfer student in the suburbs, including tuition (per-pupil amount) and transportation, is $11,928 (Glaser, 2012). Some districts are fully reimbursed for each transfer student while others lose anywhere between $500 to $10,000 per student.

Student Achievement

Participants in the voluntary transfer program in St. Louis, as well as in the other seven currently operating programs, report participating in the program, despite the

long bus rides, due to the access to the "better" education that is provided in the suburbs (Eaton, 2001; Orfield et al., 1998; Wells & Crain, 1997). Past studies conducted by VICC find that program participants have a higher graduation rate (between 80 to 100%, depending on the suburb) as compared with a 49% graduation rate in the St. Louis city schools. Data also shows higher attendance rates, 92% in the suburbs compared with 89% in the city, and higher achievement over time on the state standardized tests (VICC, 2012).

Data from 2011 found that the Black students in the transfer program outscored Black students in St. Louis Public schools, but that the Black students in the city's magnets and choice schools had the highest levels of achievement. However, despite achievement gains, questions remain about the achievement gap in suburban schools. In Clayton, there were only two Black students enrolled in Honors and/or Advanced Placement Math for an entire school year. Additionally, transfer students earned 19.9 on the ACT, as compared with the district average of 25.8. Finally, officials from the St. Louis Public School system raise concerns about the disproportionate number of Black students in the suburbs labeled as needing special education services—21.7% of transfer students receive services, as compared to 16% of students in St. Louis Public Schools and 15% of students statewide (Bock, 2012).

Conclusion

This chapter provided a brief, but detailed description, of the origins and current program elements of the voluntary transfer program in St. Louis. The program outlined here provides a context for understanding the larger issues of race, place, power, and

privilege that will be examined through the following implementation and equity analyses. Although gradually decreasing in size and scope, the voluntary transfer program in St. Louis remains a popular option among the city's Black families, one that originated from the fight that a Black mother brought to court in order to ensure that her son and other city children had the right to receive improved educational opportunities.

CHAPTER 4

DATA AND METHODS

Introduction

The majority of the previous research on voluntary desegregation busing programs and their participants has been qualitative in nature, where participants and their families were asked questions about their reasons for enrolling in the program and whether they would participate again (Armor, 1972; Eaton, 2001, 2006; Orfield et. al, 1997; Wells & Crain, 1997). Past quantitative studies about these busing programs have looked expressly at standardized test scores and/or high school graduation rates (Angrist & Lang, 2004; Eaton & Chirichigno, 2011). While it is critical to understand the individual decision-making resulting in program participation, it is equally important to analyze the factors affecting implementation of such programs, as well as their inputs and outcomes.

This study attempted to fill a gap in the literature by conducting a quantitative policy analysis, based on the concept of equal educational opportunity, that examines: (1) suburban implementation of the voluntary transfer program; (2) the financial resources present in St. Louis and in the suburban districts to which students have been assigned; and (3) the variation in the distribution of those available resources. This research differed from past quantitative research in that it is a ten-year longitudinal study and compares the inputs and outputs of the participating suburban districts to

each other. The purpose of this study was to explore the relationships between policy implementation, equal educational opportunity, educational equity, and academic achievement. In order to do so, three research questions were posed:

- What factors determined suburban implementation of the voluntary transfer program between 1999 and 2009? How did suburban elites perceive their role in the provision of equal educational opportunities?
- What were the differences in resources between St. Louis and the participating suburban school districts between 1999 and 2009?
- To what extent were resources distributed equitably among the 15 participating suburban school districts between 1999 and 2009? To what extent do these resources explain the variation in the graduation rates of the Black students in suburban schools?

This chapter explores the data and research methods used to address each of the three research questions. The quantitative research methods used include a media framing analysis, descriptive statistics, bivariate statistics, and weighted least squares (WLS) regression analyses. The media framing analysis was used to answer the first research question, with results reported in Chapter 5. Descriptive statistics was used to answer the second research question, based on data that collected via the Missouri Department of Education, the National Center for Education Statistics, the St. Louis County Department of Revenue, the U.S. Census Bureau, and the Voluntary Interdistrict Choice Corporation. The third research question used the equity framework created by Berne and Stiefel (1984) as its foundation. The input and output analyses relied on

bivariate statistics and weighted least squares and quantile regression analyses in order to analyze variations in district-level financial and achievement data. The results of the second and third research questions are reported in Chapter 6.

Description of the Data

This study consisted of two separate analyses—an implementation analysis (research question 1) and an equity analysis (research questions 2 and 3). The section that follows outlines the data used in the two analyses.

Data Used in the Implementation Analysis

To conduct the media framing analysis, four newspaper sources were used: the *St. Louis Dispatch*, the major city-wide daily newspaper; the *St. Louis Beacon*, an online media outlet established in 2007; and two suburban-only outlets, the *Suburban Journals of St. Louis*, published weekly in print and also online, and the *South County Times*, published online only. The range in media outlets provided for a more comprehensive view of, first, the way in which information is distributed to the general public, and, second, the manner in which the suburban elites perceive and describe the voluntary transfer program and their role in the provision of an equal educational opportunity for students from St. Louis. A total of 82 individual articles appearing between 1999 and 2009 were analyzed for this study.

The *St. Louis American*, the weekly newspaper focused entirely on issues pertaining to the Black community of St. Louis, was also considered for this study; however, the articles were from the perspective of the city's Black elite. While these perspectives are extremely valuable especially pertaining to desegregation and

educational equity, this research aims to investigate the perspective of the suburban elite, especially since they ultimately hold the future of the program, and its purse strings, in their hands. Therefore, this media outlet was not included in this research.

Data Used in the Equity Analysis

The district-level data used in the equity analysis was obtained from six different sources: the National Center for Education Statistics' Common Core of Data, the Common Core of Data's Local Education Agency Finance Survey (the F-33 file), the Missouri Department of Education, the St. Louis County Department of Revenue, the U.S. Census Bureau, and the Voluntary Interdistrict Choice Corporation. Berne and Stiefel (1994) suggest that district-level data has less variability than data collected at the school level, and can be less complex. Conversely, Card and Krueger (1996) argue that district-level aggregated data presents the opportunity for omitted variables. While there are important differences in district size and in the spending of elementary, middle, and high schools, the use of district-level data removes some of the variation found in school-level data, especially as education dollars are often allocated to specific categories (Berne & Stiefel, 1994). Less variation in the data is also helpful when comparing data and/or results from the two different sites. A detailed description of each of the variables follows with a summary in Table 5.

Six *spending* variables were included in this study: per pupil expenditures, per pupil revenue received from property taxes, per pupil revenue received from federal Title I funding, per pupil teacher salary used for instruction, the local tax effort (tax rate) for the school system, and the pupil-teacher ratio. Using the F-33 file, the number of

students, the average expenditures, the total revenue received from property taxes, the total federal revenue received from Title I funding, and the total teacher salaries for instruction were obtained. Based on this information, the per pupil amounts were calculated. The local tax effort was obtained from the Missouri Department of Education and the St. Louis County Department of Revenue. The pupil-teacher ratio was obtained from the Common Core of Data. Per pupil expenditures, per pupil revenue from property taxes, per pupil revenue from federal Title I funding, and per pupil teacher salary used for instruction were all adjusted for inflation and reported in 2009 dollars unless otherwise noted, using conversion factors from 2000 to 2008 (Sahr, 2013).

Teacher variables used in past equity studies have included the percentage of teachers in the district with at least a Master's degree and the average years of experience. These teacher variables are often used to illustrate the variations in teacher characteristics, and when classifying teachers as a school resource, in highlighting the variation in student access to these resources (see Iatarola & Stiefel, 2003; Greenwald, Hedges, & Laine, 1996; Hanushek, 1994, 1996; Rubenstein et al., 2006). However, based on the availability of data across the ten year span, per pupil teacher salary used for instruction was used as a proxy for average teacher salary.

Five *district* variables were also obtained from the Common Core of Data, the Missouri Department of Education, and the Voluntary Interdistrict Choice Corporation. These variables included the district enrollment, and the percentages of Black students, White students, students that qualify for free and reduced priced lunch, and the number of transfer students enrolled in each district. Using the number of Black students in

each district obtained from the Common Core of Data, and the number of transfer students provided by the Voluntary Interdistrict Choice Corporation, the percentage of Black students in each suburban district who transferred from St. Louis was calculated.

Table 5. Definition of Variables

Category	Variable Name	Description
Spending	PPE	Per Pupil Expenditures (in dollars)
	PPRevPropTax	Per Pupil Revenue from Property Taxes (in dollars)
	PPRevTitleI	Per Pupil Revenue from Federal Title I Funding (in dollars)
	PPSalInstruct	Per Pupil Teacher Salary Used for Instruction (in dollars)
	Local Effort	District Tax Rate (in mills) for the School System
	PupTchRatio	Pupil-Teacher Ratio
District	Enrollment	Number of Students in the District
	%BlackDistrict	Percentage of Black Students in the District
	%Transfer	Percentage of Black Students in the District that are Transfer Students from St. Louis
	%WhiteDistrict	Percentage of White Students in the District
	%FRL	Percentage of Students that Qualify for Free and/or Reduced Priced Lunch in the District
Achievement	%GradBlack	Percentage of Total Graduates who are Black
	GradBlack12	Graduation Rate for Black 12th Graders
Community	MedHome	Median Home Value (in dollars)
	MedFamInc	Median Family Income (in dollars)
	%BA	Percentage of Residents aged 25 and older with a Bachelor's degree
	%FamPov	Percentage of Families living in Poverty
	%BlackFamilies	Percentage of Black Families in the School District
	%WhiteFamilies	Percentage of White Families in the School District
	West	Whether the District is located in the western region of St. Louis County
	Distance	Distance (in miles) from St. Louis to the School District

Two *achievement* variables were included in the study: the percentage of total district graduates who are Black, and the graduation rate of Black 12th graders. Data

was obtained from the Common Core of Data and the Missouri Department of Education. Suburban participation is voluntary, and since 1999, each participating suburb has individually determined the number of spaces available for transfer students. The overall stated purpose of the transfer program is to promote racial integration in the metropolitan districts (VICC, 2012), and the percentage of total district graduates who are Black was used to describe the racial diversity present in each graduating class. Conversely, St. Louis parents have explicitly stated that "a better education" for their children was the impetus for participation, and therefore, the graduation rate of Black 12th graders is used to describe the educational outcomes for Black students in these suburban schools, based on the understanding that the majority of Black students in each district are transfer students. It was virtually impossible to track the reasons for student transfer by grade level (moving, dropping out, transfer to another school, etc.), or to determine which Black students were from St. Louis or from the suburbs; therefore, this study focused specifically on the graduation rates for the Black students in the 12th grade for each year of the study.

In calculating the graduation rate of the Black 12th graders using CCD data, rates over 100% (possibly due to repeating students graduating) were maximized at 100% to match the data provided by the Missouri Department of Education. No DOE data indicated a graduation rate, for any subset of students, over 100%. While the differences between the definitions of these two achievement variables appear slight, they both address the effectiveness of the program—first, through a policy perspective

(diversity in the suburban districts), and second, through an outcome perspective (the graduation rates of Black 12th graders).

In an effort to provide a snapshot of the larger demographic differences between St. Louis and the participating suburban school districts, this study also included data collected from the U.S. Census Bureau. All of the participating suburban school districts are located within the larger St. Louis County, which includes unincorporated areas. As a result, the census data used in these analyses are based on county subdivisions, defined by the Census Bureau as "the primary divisions of counties and statistically equivalent entities for the reporting of decennial census data" (U.S. Census Bureau, 2013b, para. 1). The six *community* variables obtained from the U.S. Census Bureau were: median home price, the percentage of residents aged 25 and older with a Bachelor's degree, median family income, the percentage of families in the school district living in poverty, and the percentages of Black and White families in the school district. Median home value and median family income were also adjusted for inflation and reported throughout this study using 2009 dollars, unless otherwise noted.

Physical distance (number of miles) between St. Louis and the suburban districts was included to provide an estimate of students' travel time. Integrationists that have advocated for busing in the past argued that, "the greater the distance the student travels to get to the school, relative to options available to him, the more the school should offer him when he arrives" (Campbell, 1973, p. 482). The number of miles between the sending and receiving districts is used to illustrate the divide between urban and suburban districts, and to determine in the analyses whether there is a

relationship between the resources available in a suburban district relative to its proximity to St. Louis. Finally, a geography (dummy) variable was included to illustrate whether the suburban district is located in the western region of St. Louis County. The western region was chosen as the focal point because the majority of participating districts (9 out of 15) are located there. Additionally, across the ten years of this study, the majority of all transfer students from St. Louis (62,860 out of 95,834 students, or 66%) have attended school in a western school district. St. Louis City is located in Eastern St. Louis County and is bordered on its east side by the Mississippi River.

Study Limitations

There are several limitations present in this study:

- **Financial data.** Only district-level financial data is used in this study. Because the data is not school-specific, it is possible that some important variations in the data may be overlooked.
- **Sample size.** The sample size for this study was only the 15 participating suburban districts. Researchers have suggested a ratio of 10 cases per each variable (Maxwell, 2000). However, Steinberg (2007) notes that policy research "often deliberately focuses on a small number of cases that show a unique departure from the norm—whether these are exemplary accomplishments or cautionary tales—and which therefore contain important lessons for the larger universe of policy practice" (p. 185). These 15 suburban districts are unique as they represent a "departure from the norm" in that they have volunteered to remain policy actors in a program

designed to address the larger metropolitan issues of desegregation and educational equity. In an effort to maximize the statistical significance of the various regression models, a composite database was created in which each suburban district in each of the ten years was assigned an individual case, totaling a sample size of 150 cases.

- **Self-selection.** The voluntary transfer program analyzed in this study is a completely voluntary, self-selected program. It can be argued that due of the support of their parents, program graduates would have achieved secondary and postsecondary success just as easily. The quantitative nature of this study does not take into account parental support and involvement or direct peer effects.
- **Use of newspaper articles.** The newspaper articles included in this study were the sole indicators of the civic capacity present in the participating suburban districts. Due to the time frame included in the research, media sources were used to capture the feelings and interests of suburban elites about the transfer program immediately during those specific ten years, rather than incorporating interviews conducted at the time of the writing of the research (in 2013), which would require respondents to reflect back between four and fourteen years ago. Additionally, due to employment changes, locating the necessary respondents posed concerns.

Methods Applied to the Research Questions

This study relied upon media framing analysis to examine suburban implementation of the policy and the civic capacity apparent in the participating communities, and utilized the equity framework to examine the variation in the distribution of educational resources among the suburban receiving districts and in the achievement of the Black students transferring into those districts. These particular 15 suburban districts chose to continue partnering with the St. Louis Public School system after the end of court ordered desegregation (even if they are no longer enrolling additional transfer students), and therefore, it is necessary to document the resources to which the transfer students have had continued access. These analyses cover the ten years between 1999 and 2009. The following section outlines the quantitative methods used to answer the three research questions.

Research Question 1: What factors determined suburban implementation of the voluntary transfer program between 1999 and 2009? How did suburban elites perceive their role in the provision of equal educational opportunities?

Theories of policy implementation have evolved as policymakers were challenged to move from theories focusing on the state as the singular policy unit to instead include various actors, institutions, socioeconomic conditions, and their effects on the policy process and policy results (Heck, 2004). Originally, policymaking was depicted as a stages model, where the process moved from issue emergence and agenda setting through implementation, and finally to evaluation and feedback. The major critique of this model was that it implied that policymaking proceeded step-by-

step, when, in fact, a policy may not arrive at every stage, or may not fully complete each stage (Birkland, 2001). Such critiques gave rise to additional theories of policy implementation.

The bottom-up, or backward-mapping, approach presents an opposite view of the implementation process, by suggesting that those at the lowest level of implementation should instead provide the necessary information to inform the creation of a particular policy. This information should be based on their particular needs and beliefs (Elmore, 1979; Sabatier, 1986). Elmore (1979) suggested that this approach assumes that "the closer one is to the source of the problem, the greater is one's ability to influence it" (p. 605). This shifts the focus of analysis away from organizations and instead to individuals, coined by Lipsky as the "street-level bureaucrats" (McLaughlin, 1987). Hamann and Lane (2004) suggest that, "implementation is a process engaged in by context-embedded individuals that entails intertwined processes of interpretation, negotiation, sense making, bargaining, ambiguity management, and the exercise of discretion" (p. 427). Once the court order was lifted, continued implementation of the program was left to the discretion of the elites in the individual suburbs, considered here as the "street-level bureaucrats"—namely, those with the power to decide how many transfer students to enroll and at what cost (financial or otherwise) to their districts.

This approach recognizes that policy works through a network, rather than a singularly-defined system (Birkland, 2001). The implementation analysis conducted in this study will use a backward-mapping approach, relying on a media framing analysis, in

an attempt to uncover the factors affecting suburban implementation of the transfer policy, and how the factors are reported to the general public. This analysis will also allow for an investigation of the civic capacity apparent in the participating suburban districts around issues of desegregation, resource allocation, and equity.

A search of four media outlets (the *St. Louis Post-Dispatch*, the *St. Louis Beacon*, the *Suburban Journals of St. Louis*, and the *South County Times*) was conducted, focusing on articles that specifically mentioned the "voluntary transfer," "voluntary desegregation," or "interdistrict" program. The search yielded 82 articles that appeared between August 1, 1999 and July 31, 2009—the ten academic years following the passing of the settlement agreement.

The media framing analysis consisted of a content analysis conducted on the 82 individual articles. The articles were analyzed three times, once for each of the three frames: economic, human impact, or conflict. Each frame was then analyzed for recurring themes, and two themes per frame were generated.

Research Question 2: What were the differences in resources between St. Louis and the participating suburban school districts between 1999 and 2009?

Coleman et al. (1966) argued that family and socioeconomic background was the most important determinant of academic achievement. Parents of participants in other voluntary interdistrict desegregation programs have openly admitted to participating in the program because of access to the "better education" that is being provided in the suburbs (Armor, 1972; Eaton, 2001; Orfield et al., 1997; Wells & Crain, 1997). A descriptive statistical analysis on the district-level financial and demographic data

collected in St. Louis and in the suburban districts allowed for a comprehensive understanding of the range in racial and socioeconomic demographics of the school districts used throughout this study.

Research Question 3a: To what extent were resources distributed equitably among the 15 participating suburban school districts between 1999 and 2009?

A series of horizontal input equity analyses was used to determine the levels of equality in the distribution of the resources in the participating suburban districts only. Horizontal input equity was developed to assess the equality of the distribution of a particular resource across districts, arguing that equal students should be treated equally (Berne & Stiefel, 1984). The district-level variables used are explained in greater detail in Chapter 6, and include school, community and financial data.

Although there are several horizontal input equity measures that can be used, this analysis was conducted using the following four measures: range, coefficient of variation, McLoone Index, and Verstegen Index (Berne & Stiefel, 1984; Guthrie et al., 2007; Odden & Picus, 2008). The sample consisted of the 15 suburban districts that participate in the voluntary transfer program in St. Louis. These statistics will allowed data from the extremes, from the entire sample, and from the top and the bottom half of the distribution to be analyzed.

The range is the difference between the highest and lowest spending districts in the sample—the greater the range, the greater the inequity. However, because only two districts are used for the calculations, it is not always an accurate representation of the property wealth of the entire sample of districts. The range in sensitive to inflation

and uses inflation-adjusted dollars. The coefficient of variation is calculated by dividing the standard deviation by the mean. It is used to determine the variation about the mean (average) or the percentages of the observations that fall within one standard deviation of the mean (Picus et al., 2001). A coefficient of variation at or below 0.05 will represent equity (Berne & Stiefel, 1984; Guthrie et al., 2007; Odden & Picus, 2008), and unlike the range, the coefficient of variation will use all of the districts in the sample.

The previously mentioned calculations measure spending in either a majority or all districts in the sample, however, the McLoone Index focuses only on those districts below the median (or middle) level of spending. The McLoone measures the ratio of the actual spending for the districts below the median to what the spending would be if the spending in those districts were raised to the median level. Another difference between the McLoone Index and the other calculations is that, for the McLoone, a ratio of 1.0 represents equality and zero represents inequality (Berne & Stiefel, 1984; Guthrie et al., 2007; Odden & Picus, 2008). The Verstegen Index is a newer statistic, similar to the McLoone Index, but has a value of 1.0 or greater (Picus et al, 2001). The Verstegen is used to measure inequalities on the top half (above the median) of a dataset. Neither the CV, the McLoone Index, nor the Verstegen Index is sensitive to inflation, and as a result, actual dollars will be used for these calculations.

Research Question 3b: To what extent do these resources explain the variation in the graduation rates of the Black students that participated in the voluntary transfer program?

Wilson (1987) focused on equality of life outcomes, and argued that the isolation of Blacks from White, middle class opportunities poses the greatest obstacle to academic and economic success. Ladd (2008) suggested that an adequate education is specific to a particular context. For the purposes of this study, an adequate educational outcome, based on the data available, pertains to the graduation rates of Black students from suburban high schools.

Vertical output equity relies upon multivariate linear regression and was developed to determine the variation in achievement (Berne & Stiefel, 1984). In this study, vertical output equity analyses were conducted using each of the two *achievement* variables as the dependent variables in order to program effectiveness from either a policy (percentage of total district graduates who are Black) or an outcome (graduation rate of Black 12^{th} graders) perspective. The regression models will incorporate select variables from each of the three remaining resource categories. The vertical equity analyses were conducted via a weighted least squares (WLS) regression because the participating suburban districts vary in enrollment. Weighted least squares regression analyses are commonly used to adjust for heteroskedasticity, which occurs when the distance from an observation to the regression line varies depending on the value of the observation (Studenmund, 2001). The WLS regression analyses used either district enrollment (total number of students in the district) or transfer enrollment (total number of transfer students in the district) as the appropriate weighted variable.

The vertical equity measures used in this study were the correlation, square of the correlation coefficient (adjusted R^2), and the slope. The correlation coefficient, an

example of bivariate statistics, measures the strength of the relationship between two variables. A coefficient of zero equals perfect equity (no relationship), while coefficients closer to one (or negative one) are the most inequitable.

Vertical equity also utilizes linear regression analyses to explain the relationship between the differences in resources. The square of the correlation coefficient describes the proportion of variance, or difference, in one variable that can be attributed to another variable. The square of the correlation coefficient is measured between zero and 1.0, with a value of 1.0 indicating a perfect relationship between the two variables. The slope of the regression line measures how the changes in one variable affect changes in the other. The higher the slope, the more inequitable the relationship between the variables (Berne & Stiefel, 1984; Guthrie et al., 2007), as the slope of the line indicates the predicted units of change in the dependent variable resulting from a one-unit change in the independent variable (Huck, 2004). The slope also determines whether the association between the dependent and independent variables is positive (upward slope) or negative (downward slope) (Agresti & Finlay, 1997). A negative association, or downward slope, indicates an inverse relationship (Huck, 2004). The regression analyses conducted examined program effectiveness by investigating the positive and/or negative relationships between the policy and outcome indicators (*achievement* variables) and the various other district resources.

Although traditional regression methods are useful in measuring the average effect of independent variables on the dependent variable, researchers have argued that these types of regression analyses miss the effects of the independent variables at

differing points on the distribution of the dependent variable (Eide & Showalter, 1998; Houck, 2011; Konstantopoulous, 2009; Penner & Marcet, 2008; Reeves & Lowe, 2009). Reeves and Lowe (2009) suggest that, "the very success of education policy may hinge upon policymakers acquiring fine-grained knowledge of the varying responses to policy that are likely to occur in the target population" (p. 176); therefore, they, along with other scholars, point instead to quantile regression as a means of understanding the effects at specific percentiles across the distribution of the dependent variable.

Penner and Marcet (2008) suggest that educational research is generally focused on the differences in means, and suggest that this type of analysis does not always provide the most useful information. The authors further assert that traditional least squares regression models "implicitly assume that the top and bottom of the distribution are subject to identical processes" (p. 242). Given that there is no monolithic suburb, and that variations among the 15 participating suburban districts are evident, several quantile regression analyses were used in this study to understand the effects of the spending, district, and/or community variables along the distribution of the achievement variables.

Summary

Questions remain about the provision of an equal educational opportunity, especially for traditionally underserved students, despite the best efforts of educators, policymakers, and parents. The achievement gap between Black students from urban areas and White students from suburban areas is a subject that has been consistently studied from a variety of angles for decades. Attention is often rightly focused on the

disparities between urban and suburban districts. Families have chosen to participate in these voluntary transfer programs with the belief that they will be attending school in better districts. This research expands the discussion to include disparities between the participating suburban districts.

The use of the horizontal input and vertical output equity principles has proven useful in determining the equity of school finance funding formulas across the nation. Over the years, these analyses have helped bring attention to the differing provision, whether legitimately or illegitimately, of educational opportunities to particular groups of students. The equity framework has also raised questions about how equity (inputs), achievement (outputs), and adequacy (outcomes) can be addressed within and outside of the school walls.

Voluntary interdistrict desegregation programs have been studied qualitatively and quantitatively, yet there has been no study focused on the resources available in the participating suburban districts, nor on the relationship between the resources available and the academic achievement of the Black students that transfer in to the suburbs. Researchers agree that there have been too few studies that assess outputs and outcomes (Berne, 1994; Berne & Stiefel, 1999; Iatarola & Stiefel, 2003). This study contributes to the equity framework literature because of its focus on this group of specific suburban districts which continue to participate (at varying levels) in this voluntary program, especially as minority parents continue to seek educational opportunities for their children.

CHAPTER 5

RESULTS OF THE IMPLEMENTATION ANALYSIS

Introduction

The analysis presented in this chapter—conducting a media framing analysis in order to examine civic capacity—was used to answer the first research question: *What factors determined suburban implementation of the voluntary transfer program between 1999 and 2009? How did suburban elites perceive their role in the provision of equal educational opportunities?* As mentioned previously, suburban elite are defined in this study not only as superintendents responsible for making decisions about continuation in the voluntary transfer program, but also the parents, teachers, and principals that may influence those decisions. The future of the program rests in the hands of the suburban elites (civic capacity), and the examination of newspaper articles (media framing analysis) included here provided a glimpse of the factors that impact the implementation of the program. This analysis also investigated how these suburban elites perceive and describe their role in the continuation of the transfer program and in the provision of an equal educational opportunity for urban students. The media framing analysis was conducted on 82 articles appearing between 1999 and 2009 in four St. Louis area media outlets.

Media Framing Analysis

The framing analysis reflected three of the five frames outlined by Neuman et al. (1992): economic, human impact, and conflict. The *economic* frame addressed issues pertaining to budgets and resources, specifically as they relate to the funding guaranteed as a result of transfer student enrollment. The *human impact* frame brought attention to topics pertaining to diversity, fairness, and equality. Finally, the *conflict* frame outlined the "us" versus "them" perspective evident between city and suburban students and schools, especially in light of St. Louis Public Schools' loss of accreditation in 2007. These three frames directly correlated to the overarching interrelated concepts present throughout this study: resource allocation/equity analysis (economic and conflict frames), equal educational opportunity (human impact and economic frames), and civic capacity (conflict and human impact frame). Table 6 outlines the frames, and corresponding themes, found as a result of this media framing analysis.

Table 6: Frames and Themes as a Result of the Media Framing Analysis

Frame	Themes
Economic	Theme 1: Per Pupil Tuition Reimbursement Theme 2: 2003 Lawsuit over Funding Mismanagement
Human Impact	Theme 3: Diversity Theme 4: Discipline Procedures in Suburban Schools
Conflict	Theme 5: Dichotomy between City and Suburban Schools Theme 6: Suburban Reaction to SLPS' loss of accreditation

Economic Frame

The economic frame was the most common throughout the analysis, and appeared in 51 out of the 82 articles (62%). Within this frame, there were two prevalent themes: funding as it relates to program continuation or termination (30 out of 51 articles) and the 2003 lawsuit over the state's alleged mismanagement of transfer program funding (9 out of 51 articles).

Theme 1: Per Pupil Tuition Reimbursement

As mentioned, over half of the 51 articles within the economic frame discussed fiscal issues as a result of either program continuation or termination. Despite the program's popularity in the city, the future of the transfer program is entirely dependent on the investment of the participating suburban districts, and the threat of the loss of, or change in, funding directly impacts suburban involvement. Tuition reimbursements to the participating suburbs have gradually declined since the settlement agreement, from full reimbursement based on each district's per-pupil amount at the start of the program to partial reimbursement maximized at $9,100. As of 2012, payments were capped at $7,000 per student, regardless of district expenditures.

Article headlines about the funding of the transfer program included such phrases as: "budget problems," "future funding of busing troubles schools," "projected drop in money for schools adds urgency," "tax rate hinges on fate of desegregation program," "transfer program is in red," and "Parkway eliminates 43 full-time staff." While these headlines only represented a portion of the articles included in the

economic frame analysis, they clearly portray the tone of the articles to the reader. Although conflict appears evident in these headlines, for the purposes of this study, the *conflict* frame corresponds to the divergence between city and county schools.

A St. Louis parent stated that, "children are more than dollar signs" (Bower, 2002, p. C1), and a suburban parent gave a similar sentiment, saying, "these kids are more important than dollars and cents. Everybody benefits from the transfer program including kids in the district" (Bower, 2004b, p. C1). However, it becomes increasingly evident that the level of support for program continuation hinges on the amount of tuition reimbursed to the suburban district.

Many seem to question the "value" of desegregation, or suggest that districts must choose between suburban and city students. Continuing to accept transfer students without sustained levels of reimbursement would mean that, ultimately, suburban parents would be paying to educate St. Louis students, instead of the state as the policy initially proposed. An associate principal at a suburban high school stated, "I'm concerned if our communities will step up to the plate when asked to replace funds, or say integration is too expensive and not worth replacing," (Bower, 2002, p. C1). According to the then-Executive Director of VICC, Bruce Ellerman, "many districts would be asked to subsidize the cost of educating children they enroll from the city. The unanswered question that loomed over the meeting was whether suburban school districts would tolerate that expense" (Franck, 2002, p. B2). Others state, "There is also the question of allocation of resources…Since there is an achievement gap between the resident students and the deseg students, will the district devote more resources to the

deseg students than to the resident students?" (McClellan, 2004, p. C1), and wonder whether the cost of educating a transfer student is the same as educating a resident student (Bower, 2004e). A Clayton school board member states, in listening to their constituents, "Do they want us to spend less money and discount education value, or do they want us to ask for more money? Do they want us to spend money on resident service or diversity service?" (Bower, 2004b, p. C1). Still others, however, were clear in their lack of support for the transfer program. One suburban parent stated,

> When objectives compete, money wins. The School Board must decide whether our children or the children of another community will pay a price. We deplore the inequities of life. It's not my fault that some students have less educational opportunities. We've done them no wrong. We owe them nothing (Bower, 2004b, p. C1).

Although the settlement agreement was passed in 1999, and extended the program for an additional 10 years, concern about the program's future began in 2002 once suburban districts realized that they would no longer receive full tuition reimbursement for each transfer student by the 2004-05 school year (Franck, 2002). Ellerman clarified the budget cuts, stating, "Last year, the state paid about $80 million for transfer students to attend county districts. State budget cuts were expected to slash that amount by up to $8 million a year" (Bower, 2003b, p. B1). He further explained that the program cuts mean, "we're going to have to find some (formula) that distributes this pain equally to all districts" (Franck, 2002, p. 8) and later stated, "for school districts involved in the program, that shortfall will mean they either will need to

come up with their own money to educate transfer students, reduce the number of students or pull out of the program" (Mueller, 2003, p. 2). It appeared as though the budget cuts forced the participating districts to more closely examine the terms of their future participation and implementation.

School districts reacted differently to the proposed budget cuts. Clayton's chief financial officer outlined the effects of budget cuts: "the district stands to lose money - $700,000 in the 2004-05 school year and $1 million to $2 million in each of following four years. And anywhere from 20 to 70 school employees, many of them teachers, could lose their jobs" (Bower, 2003c, p. C2). This was especially disconcerting for Clayton, as they have one of the highest per-pupil expenditures in the state. The Clayton School Board discussed proposing a tax increase over a three- or five-year period in order to supplement funding for the program lost from budget cuts (Trotto, 2002). The Superintendent stated, "Clayton doesn't want to send back the kids we have. We will need to replace tuition money with local money. That could require a tax increase in the future" (Bower, 2003b, p. B1). Evidently, not all districts chose to abandon the program at the prospect of losing money and instead chose to find alternate funding streams.

The Superintendent of the Mehlville school district describes the matter as "complex and controversial. Future decisions will affect the number of students and teachers attending and working in district schools" (McDonnell, 2003, p. 1). The district proposed to reduce transfer enrollment by 100 students, which would reduce revenue by $450,000, possibly resulting in "smaller salary increases, a reduction in the number of

employees and elimination of some programs unless additional revenue is found" (McDowell, 2003, p. 1). However, the very next paragraph of the article read,

> In other matters, the board accepted a landscaping proposal, which include improvements to an area in front of the school building from the science wing to the south end of the building and an open quadrangle at the center of the building. The new landscaping will include several new benches, trees, a walking path, and recycling bins as well as a 10-foot fountain (McDowell, 2003, p. 1).

Mehlville ultimately decided to reduce the number of students participating in the transfer program by 15 percent, beginning in 2005. A school principal said that he "regrets the decision but the district must be fiscally responsible" (Bower, 2004d, p. B1). Although many districts fear that the loss in funding from cuts to the desegregation program would result in a loss of staff, some argue that accepting fewer students from St. Louis would not affect the budget as much as initially expected: "losing the students would not have saved the district money either because many of the district's costs are fixed. For example, if two or three transfer students left a classroom, that class would still need a teacher" (Bower, 2004g, p. C1). A detailed explanation outlines the projected loss of funding in Clayton,

> Clayton is facing a deficit in 2005-06 under any scenario: a deficit of $1.979 million if it remained in the program; $2.185 million if it stopped taking new transfer students in 2005; or $2.243 million if it opted out entirely. The reason is that many of the district's costs are fixed – for instance, it's investment in

facilities. So the incremental cost for each student is lower, and hence, more affordable (Bower, 2004d, p. B1).

Clayton, along with most other districts, voted in June 2007 to continue participation in the transfer program for an additional five years, through the 2013-14 school year. Although districts agreed to continue the program, enrollment in all suburban districts has declined significantly since the settlement agreement. Wagman (2004) writes, "[Rockwood's] percentage of black students has been gradually dropping, from about 14 percent black to 11 percent this year. That's the effect of fewer city students participating in the busing program" (p. A1). This implies that families from St. Louis are not choosing to participate in the transfer program, rather than, as the analysis of the *economic* frame suggests, reflecting the fact that districts are choosing to enroll fewer transfer students into their schools due to smaller per-pupil tuition reimbursements.

Theme 2: 2003 Lawsuit over Funding Mismanagement

The second major theme apparent throughout the *economic* frame pertained to the 2003 lawsuit, although this theme appeared in substantially fewer articles. In 2003, St. Louis Public Schools and VICC sued the State for the mismanagement of the program's funding following the settlement agreement. Bower (2003a) writes, "The petition contends that state officials have used a different way of calculating the tax base for districts than was required by Senate Bill 781 in 1998. That method has 'substantially reduced' state aid to the plaintiffs" (p. B1). Lawyers for the plaintiffs allege that state had underpaid the city school district by about $120 million since 2001

(Bower, 2005), and assert that VICC had been underpaid by almost $35 million (Franck, 2005). Funding concerns were as salient for SLPS and VICC as they were for the suburban districts.

The case is described as a dispute over a very basic question: "Did the districts and the state misunderstand each other in negotiating the 1999 settlement agreement, or did the state back out of its obligations when the school funding fell short?" (Howard, 2005, p. B1). The lawyer for the State argued that the state "never intended to pay plaintiffs full funding for more than one year. Although the state paid in full again the second year, the agreement did not require it to keep paying at that level". The State filed a countersuit, arguing that SLPS should not have borrowed $52 million from a capital fund for classroom space (Howard, 2005), and referred to the fact that a federal judge allowed the city school district to,

> Tap into the $180 million promised to St. Louis schools as part of the federal desegregation settlement in 1999. The settlement stipulated that the money…could only be used to buy land or build schools for children who might someday return to city schools should county schools end their participation in the desegregation program ("Raiding the cookie jar", 2003, p. B6).

Additional analysis suggests that the participating suburbs supported the transfer program based on the amount of additional funding provided to them through tuition reimbursement. The lawyer representing VICC stated, "county districts got involved in voluntary desegregation in 1983 because they were promised full reimbursement for transfer students. That's what they received to 1999" (Bower, 2005,

p. B1). The lawyer representing St. Louis Public Schools also referred to the suburbs accepting students based on funding, stating,

> It was clear to everybody that to wind down the desegregation case, there had to be a replacement of funds that the court had ordered from the state. A guarantee of full funding…was understood to be the only obligation of the state of Missouri to settle the desegregation case (Bower, 2005, p. B1).

The lawsuit was eventually rejected by a circuit court judge in 2006, leaving the city school system and VICC unable to receive the $165 million they contend was owed to them. The judge concluded that, "the state fulfilled the funding obligations set out in the 1999 settlement agreement in the city-county desegregation case" (Giegerich, 2006, p. A10). Despite disputes over the reimbursement disparities, St. Louis families, VICC, and the suburban districts found common ground and have kept the program in operation.

Human Impact Frame

The human impact frame was the second most prevalent frame in the analysis, evident in 46% of the articles, or 37 out of 81. The two major themes within this frame pertained to diversity (29 out of 37 articles) and to discipline procedures within suburban schools (5 out of 37 articles).

Theme 3: Diversity

Many tout the benefits that participation in the transfer program has brought to their respective communities. A suburban superintendent stated, "A program like this is necessary. I hope it gets us closers to integrating society. If not, it has been a good try,"

(Bower, 2002). One suburban principal explained that he was "proud to be a part of a community that values diversity in a metro area so segregated" (Bower, 2004e). Some school officials stated, "We have a responsibility to do the right thing. You can't boil this down to economics. We value diversity. The world is global. We need to understand people of different cultures, people of different backgrounds" (Bower, 2004f, p. A1), thereby advocating for the program because of the larger lessons that students are able to learn.

Just as adults see the value in the transfer program, so do the participating students—both city and suburban. Transfer students and families have reported that they participate in the program because of access to a quality education (Bower, 2004f; Giegerich, 2007; Wells & Crain, 1997), but some also report that participation reinforces the importance of diversity. One transfer student stated that, "diversity is key" because "everything is not white. Everything is not black. The voluntary student transfer program has let students be exposed to things they would not normally see, not just different ethnic groups but students from different economic levels" (Bower, 2004d, p. B1). Another explained,

> I think that whites and blacks need to be together. I think it's a must. If not, then we're going to right back to the old days. We really are, because then it's just segregated again. South County-whites. City-blacks. Then, we have that separation again. And eventually that separation will spread more, and then we'll have a divided country again (Bower, 2004d, p. B1).

Historically, following the 1954 *Brown* decision when segregation in schools became illegal, Black students bore the bulk of the responsibility for integration. The transfer program in St. Louis is no different, as one suburban teacher explained, "Being one or two students in a class and having to speak for your race is something that whites are privileged never to do" (Giegerich, 2007c, p. A1). However, suburban students are also very vocal in their support of the program, especially because of the diversity it brings to their communities. In 2004, 700 students at Clayton High School staged a walkout to support continuation of the program. A suburban student decided to organize the protest because she believed that the discussions about the program "were all about the budget and not about the well-being of the student body" (Bower, 2004d, p. B1). Students carried signs reading, "Save diversity. Continue VST (voluntary student transfer)", "Desegregate, don't resegregate," and "Homogenize milk, not students" (Bower, 2004c, p. B2). This demonstrates the investment in the voluntary transfer program by suburban students.

Despite the walkout (and the eventual extension of the program), not all suburban students were supportive of the program. A suburban student in Clayton offered alternate means of integrating her community, "interracial friendships established in elementary school often fail to survive middle school and high school because of the geographical distance between where people live. Affordable housing in the district is the way to bring about diversity" (Bower, 2004d, p. B1). Another Clayton student asked why the district should pay if the state could not provide reimbursement for transportation, since "there are other ways to get an education." A suburban

student in Mehlville who was also a member of the committee that recommended a program cut to the district's school board, stated, "Ultimately we're disappointed that we had to suggest losing any kids at all. But you also have to look at facts, and there's a budget you have to stick to" (Bower, 2004d, p. B1). Similar to the adults, students in some suburban districts placed differing values on reimbursement and diversity,

School officials also questioned the program's continuation and its focus on diversity. One Clayton school board member explained, "The real question in Clayton is how to achieve diversity in the community. Some people feel the way to do it is through the desegregation program. Others think there are other ways to achieve diversity" (Bower, 2004b, p. C1). Although later apologizing for his comments due to public outcry, Clayton's School Board President stated, "perhaps a more homogenous district would be easier to teach" (McClellan, 2004, p. C1). If suburban school district personnel have difficulty in seeing the benefits of a diverse student body, how can teachers, parents, and students be expected to view the program any differently?

One suburban parent opposed isolated aspects of the transfer program, which she deemed unfair to suburban students. In Rockwood, students bused in from the city were able to earn coupons to McDonald's as a reward for good behavior on the bus. The parent opposed the reward program because "by treating kids differently, you are creating a much larger separation between them, and resentment is going to occur" (Shapiro, 2008, para. 28). She further explained, "Rockwood children view [the reward] program as a reward for the city kids, being given…for the same behavior that they are expected to uphold but, in turn, do not receive the same reward" (Shapiro, 2008, para.

31) and noted that city children have long bus rides because "it is a choice their parents have made" (Shapiro, 2008, para. 33). She argued for the reward program to be dropped "if it can't be rewritten to give everyone the same opportunity" because it "is being given for behavior that has nothing to do with education (and) it is limited to city children only" (Shapiro, 2008, para. 43). The principal responded, saying, "Fair doesn't mean equal. And Rockwood prides itself on meeting the diverse needs of all our students. Different students have different needs" (Shapiro, 2008, para. 30). This is a dispute over a different type of programmatic incentive, yet still reflects concerns pertaining to equality and fairness.

Conversations about diversity extended beyond simply counting groups of students in schools. Questions were raised about the diversity of the teaching staff, as well as issues of student assignment, also known as tracking. A Black suburban parent believed that the district should be more proactive in ensuring that the diversity among students is reflected in the teaching staff without sacrificing the quality of teaching, stating, "Minority students do better when that takes place. But the primary focus has to be making sure you have the best qualified teacher" (Hacker, 2001, p. A1). A transfer student questioned "how [districts] can preach diversity if [they] don't have a diverse staff?" (Tarlas, 2005, p. 1). Although only mentioned in one article, the issue of tracking in suburban schools was raised. A suburban teacher was "troubled to find that the remedial classroom had a large number of black students, while there wasn't a single one in the gifted classroom. That inspired her to start a support group to get black students into gifted education" (Hacker, 1999a, p. C1). Tracking remains a significant

concern in integrated schools, similarly noted in LaMura's (2008) study of the voluntary transfer program in Boston. It is still seen as a form of segregation where there are little to no minority students in advanced classes while disproportionately represented in remedial and low-level classes.

A suburban teacher also raised the issue of cultural sensitivity, explaining, "As principals and teachers, the scores distress and dismay us as well. Teachers must begin to look at whether they may unintentionally contribute to the achievement gap" (Tarlas, 2005, p. A1), while another district's Director of Assessment explained that there were 14 Black teachers out of the district's 117, noting, "I don't think we have 100 percent culturally aware staff" (Tarlas, 2005, p. 1). There exists a recognition among suburban teachers and administration that, first, suburban students are not the only ones that need to face their prejudices regarding diversity in their schools, and second, diversity should be reflected among the teaching staff and administration as well. However, more important than recognition of an issue is the proactive, and sustained, response to it.

Theme 4: Discipline Procedures in Suburban Schools

The lack of cultural sensitivity among suburban teachers and staff was also evident in the second theme within the *human impact* frame: discipline procedures. Following protests related to the 98-day suspension of a 12th grader transfer student following his first fight, the Mehlville Superintendent believed that a review of discipline procedures was necessary, stating, "We have got to get everybody to understand that we have to look at the way we treat each other as a basic tenet of how to make

everyone feel safe and secure" (Bower, 2003d, p. B2). Data found that, during the 2001-02 school year (just before the Mehlville incident), the suspension rates for Metro East-area students was 10 for every 100 White students and 23 for every 100 Black students. In analyzing the only the suspensions lasting 10 days or longer, the average suspension rate for Black students in the suburban districts is 4.48, as compared to a suspension rate of 1.36 for White students (Bower, 2004a, p. A1). Although more recent data would be useful, these data correspond to the aforementioned need for cultural sensitivity and awareness among suburban school personnel.

A Parkway school district report found that Black transfer students were more likely to be suspended than other students for behavior such as disruptions in class, fighting, and insubordination (Bower, 2004a, p. A1). A St. Louis Reverend, active in the local NAACP, explained the need for open, ongoing conversations,

> We need to have a dialogue about the misunderstandings. Black folks say this is race. White folks say this is safety. I say it is neither of the two. We are in fear. Fearful of black parents yelling at white administrators. We need to grow up . There needs to be ongoing conversation…Once we start trusting each other, then we can work on the big issue – educating children" (Bower, 2004a, p. A1).

Conflict Frame

The *conflict* frame appeared in the least number of articles throughout the analysis—25 out of the 81 articles, or 31%. Within this frame, two themes were apparent: the dichotomy between city and suburban schools (24 out of 25 articles) and

communities and the reaction of the suburban communities to St. Louis Public Schools' loss of accreditation (5 out of 25 articles).

Theme 5: Dichotomy between City and Suburban Schools

There was a stark contrast in the descriptions of the city and suburban communities included in some of the articles. Franck (2007) writes, "the St. Louis Public Schools need at least $194 million more a year to help struggling students overcome the ravages of poverty, youth violence, teen pregnancy, lead poisoning and a host of other social ills" (p. B1). In explaining the differences between the city and suburbs to suburban peers: "once, after his classmates asked what life was like in his neighborhood, the city's rough Academy section, he made a video. It showed abandoned buildings, alleys…prostitutes, and people sleeping in the streets" (Wagman, 2004, p. A1). The bus ride to attend school in the suburbs is described as "a trip to another world, one of upscale spas and salons, subdivisions baptized with names like 'the Estates at Winding Trails' and suburban lanes evoking canyons and ridges, farms and crests" (Giegerich, 2007c, p. A1). One high school principal decided to ride the bus from the city to the suburbs to gain some insight into the choices made by transfer students, and explained, "to get on that bus and see where a lot of our kids come from and what it takes them to get here is a very powerful experience" (Giegerich, 2007b, p. C4). It is not only those from suburban communities that paint St. Louis in a negative light. Parents of students in the transfer program explain that they enrolled their children "precisely because of the importance the community places on education" (Bower, 2002). St. Louis is consistently depicted from a deficit perspective, which may

make it difficult for suburban residents to want to welcome transfer students into their schools.

The description of city schools was equally alarming. The voluntary transfer program is depicted as operating "like an emergency visa for students leaving St. Louis public schools for districts in the county," as "a lifeline for city students" (Hampel, 2007, p. B1), as "a beacon of hope" (Bower, 2004e, p. B1), and as a "safety valve" (McClellan, 2007, p. B1). Many of the negative descriptions of St. Louis schools come from students and families that participate in the transfer program. One student stated, "You spend a day at one of those Belleville high schools and then a day at East Side and you would see. East St. Louis High is marked by fights in the hallways, large classes, and low expectations" (Wagman, 2004, p. A1). Parents of transfer students contend, "There are great teachers in the city but a lot of parents are not involved. In the city schools, they stay busy trying to discipline kids and stop fights. They don't have time to teach anything" (Bower, 2004f, p. A1). Another transfer student explained that the bus rides are "all worth it if you want to get a good education" (Giegerich, 2007c, p. A1). The negative stereotype placed on SLPS impacts the White suburban parents who may have considered sending their children to the city magnet schools.

Not everyone views the desegregation program as the aforementioned "lifeline" for city students, but instead perceives it to be a contributing factor to the power struggle between city and suburban schools. Some leaders in the Black community in St. Louis describe the program as a "brain drain, claiming that county schools would skim the best and brightest city school children, further undermining the city school

system" (Joiner, 2008, para. 4). The city's first Black mayor, Freeman Bosley Jr. also opposed the busing program because "the money spent on desegregation, which has now cost more than $1.5 billion, should have been spent to improve city schools, and by extension, shore up crumbling neighborhoods" (Joiner, 2008, para. 5). In this case, the argument over funding suggests that the monies should be used to support and improve city schools rather than send promising students away.

In describing the transfer program as a program designed for only "the most promising students" that have "parents who care" enough to enroll them, one journalist managed to condemn city students, parents, and schools all at once, writing,

> One problem with urban schools seems to be cultural. A lot of kids aren't trying. Maybe that's natural. Maybe if a kid doesn't have a parent pushing him or her, the child won't try. Some of these kids come from very difficult backgrounds—no father, a single mother too busy fighting her own demons to push her children to succeed in school. Teaching these kids is an uphill battle. The hope is that the negative home environment can be overcome with a positive school environment (McClellan, 2007, p. B1).

Lack of faith in St. Louis Public Schools has also affected suburban enrollment in the city's magnet schools. As part of the dual transfer program, suburban students can enroll in magnet schools throughout St. Louis, but "a lack of confidence in the St. Louis Public School system has sent county enrollment in city magnet schools plummeting to an all-time low." The PTO president of a magnet school blamed the decline in suburban student enrollment "on the district's inability to attract suburban parents" (Hampel,

2006, p. D1). SLPS enrollment is simultaneously affected by high numbers of Black students leaving for suburban districts and a dearth of suburban families enrolling in city magnets, despite available spaces.

Despite opposition to the program, and perhaps in light of the lack of confidence in the city schools, many regard the academic achievement of transfer students as signs of the necessity of the program. Ellerman states,

> The voluntary transfer program has led to significant improvement in black student achievement. In addition, the program has led to higher graduation and college enrollment rates among black kids and has resulted in more racial, cultural and economic diversity among students in participating school graders in the city" (Joiner, 2008, para. 8).

Access to suburban schools is viewed as the reason for increased achievement. Following the settlement agreement, a parent from St. Louis explained, "I'm not really certain about what's going on, but I just know that I'm not ready for my children to come back to city schools" (Hacker, 1999b, p. C5). One program graduate explained, "If it were not for the transfer program, I would not be where I am today. Lindbergh's caring teachers and small class sizes and the absence of discipline problems helped me succeed" (Bower, 2004f, p. A1). A participating student viewed the suburban district in which he attends school as "my intellectual horizon" (Tarlas, 2005, p. 1). In another district, "African American children enrolled in Rockwood score higher on the [state standardized exam] than those who attend St. Louis Public Schools" and "the graduation rates of white students is over 96 percent; for blacks it's about 92 percent, about double

the rate of black children in St. Louis Public Schools." The program supervisor acknowledges that the achievement gap between Black and White students is a problem at the school, as in other districts, "but we have significant programs in place and it's just a matter of time before the gap goes away" (Joiner, 2009, para. 18). However, despite achievement gains, one suburban district's school board president uses a deficit perspective to describe an increase in Black student achievement: "More African-American students are testing one level below proficient, instead of two or three levels below" (Tarlas, 2005, p. A1). Despite opposition about the transfer program from both urban and suburban elite and decision-makers, academic achievement persists among the transfer students. Still, based on previous data about tracking and discipline, more detailed student-level analyses are necessary.

Theme 6: Suburban Reaction to SLPS' Loss of Accreditation

The second theme within the *conflict* frame focused specifically on the St. Louis Public Schools' loss of accreditation in 2007. The district was granted provisional accreditation in 2012. City parents who do not participate in the transfer program sought out improved educational options for their children, including attempting to enroll them in county schools. This raised concerns among many suburban parents: "When Chris Jones fretted last week that the consequences of a state intervention in St. Louis Public Schools could 'devalue education in our community,' he echoed an opinion oft-expressed by other school board members over the past few months" (Giegerich, 2007a, p. B1). One district explained their policy on accepting out-of-district students that were not part of the transfer program: "The board has simple indicated that our

first priority is to educate the children of the Lindbergh School District and to serve our resident population" (Farish, 2007, para. 4). Or, in other words, "no district had decided to take extra students from poor-performing schools" (Hampel, 2007, p. B1). Decisions such as these serve to widen the existing gap between the city and the suburbs, between Blacks and Whites, and between lower- and upper-income families. These decisions serve as a constant reminder of the issues of race, place, and privilege.

Frames often overlap, and in the review of articles about the city schools' loss of accreditation, an overlap with the *economic* frame was evident. As a suburban parent mentioned, "when objectives compete, money wins." In discussing out-of-district students, one school board president stated, "And adding new students means having to add new staff. What happens when St. Louis City gets their accreditation back? Those students go back to St. Louis, and then we'd have to lay off these new teachers we've hired." He later explained, "there is the question of reimbursement from the city for non-resident student tuition. That still hasn't been resolved. There are just too many unanswered questions swirling around out there" (Farish, 2007, para. 11-12). Some disagree with the assertion that accepting non-transfer city students would negatively impact suburban schools:

> It would be unreasonable to expect any single district to absorb large numbers of city students, but a few students here and there would not break the back of well-heeled districts such as Ladue that are among the early door-slammers. It's unconscionable that not a single district, thus far, is will to make room for a

single St. Louis student. Surely, someone can launch a lifeboat ("Slamming doors", 2007, p. C14).

Civic Capacity

Stone et al. (2001) define civic capacity as "various sectors of the community coming together in an effort to solve a major problem" (p. 4). Here, as evidenced by the voluntary extension of the transfer program through the 2018-19 school year, the suburbs are invested in continuing the program. However, the results of the framing analysis indicated that the decision to extend the program was not unanimous among suburban stakeholders (including principals, School Board members, parents, and in some cases, students), nor was it firmly anchored in social justice.

Portz et al. (1999) studied the civic capacity present in St. Louis as it related to urban education. They found that the city's stakeholders focused debates about the transfer program around issues of costs rather than on the academic achievement of the participating students. Their study was conducted prior to the 1999 settlement agreement and focused on city elites, and the research presented in this study covers the ten years immediately following the settlement agreement and focuses on the suburbs, yet the results are strikingly similar. The transfer program has been, and will continue to be, dependent on suburban financial and social investment, and the framing analysis finds that the bulk of the conversations around the transfer program, and thus, the majority of the information provided to the general public, pertained to funding and specifically referenced budget cuts and the resulting impact on suburban students.

Shipps et al. (2006) contend that, "journalistic coverage might be a separate tangible resource for maintaining civic capacity" (p. 386). In this analysis, the two frames that overlapped the most were the *economic* (most common) and *conflict* (least common) frames. Although the *human impact* frame was the second most prevalent, the analysis found that the overall media coverage tended to focus on the numbers of Black students who would be entering into suburban schools and the funding to support them (economic frame) and why they were coming (conflict frame) rather addressing the value of increased and substantial diversity on communities (human impact frame). Although kept separate for the purposes of this analysis, the discussions of funding and budget cuts tended to reflect an "us" versus "them" mentality, where it appeared that continuing to accept students from St. Louis would force suburban parents to choose the education of city students, and by extension, the allocation of resources for those students, over their own.

Stone et al. (2001) found that the perceptions of educational problems by the elite are strongly related to the levels of civic mobilization. If overall program continuation can be viewed as general suburban civic capacity, then it is possible that, despite the systematic reduction in the number of spaces available to transfer students in suburban schools, there is also as a high level of suburban civic mobilization. It is important to note that suburban stakeholders were not highly mobilized to maintain the policy's intent of racial integration (noted by the gradual decline in the percentage of transfer students), but were instead mobilized around issues of funding and the "value" of diversity to suburban students. The framing analysis found that suburban elites tend

to perceive city students as threats to their schools—not as physical threats (typically), but as threats to the resources that are no longer supported via supplemental state funding—and therefore chose to steadily decrease their original levels of participation over time. In other words, suburban districts seemed highly mobilized to gradually phase out the transfer program.

Clayton was the only school district in which the students emerged as significant policy actors. The work of Stone et al. (2001) did not include students as policy actors, yet the case of the Clayton district provided ample evidence of student impact on suburban civic capacity. The school walkout in opposition to the potential termination of the program displayed student investment in their school and community, and in this case, the students can be viewed as influential stakeholders with high levels of civic mobilization. This also reinforces the notion that the power to continue, or terminate, the program remains in suburban hands—this time, student hands—and not necessarily in the hands of the transfer students that put forth the most effort in the program (i.e. long bus rides, isolation, etc.).

The themes apparent throughout the *economic* frame indicated that tuition reimbursement was the primary reason for sustained suburban participation and the driving force behind the varied levels of civic capacity at the individual suburban level. The allocation of suburban resources to benefit urban students also emerged as a factor behind the varied levels of suburban implementation, including discontinuation, of the transfer program. Clayton was the only district that considered supplementing the decreasing levels of tuition reimbursement with local taxation in an effort to continue

the program, while other districts decreased student enrollment or simply discontinued enrolling additional students into the program altogether.

Conclusion

In his description of the backward-mapping approach to policy implementation analysis, Elmore (1979) suggests that, "the closer one is to the problem, the greater one's ability to influence it" (p. 605). In general, we found that the suburban policy actors, including parents and school officials, were the ones closest to the "problem" of program continuation, and therefore, had the greatest power over its implementation. Only in Clayton did we have evidence of students as effective policy actors. In their research on policy implementation, Hamann and Lane (2004) used the state departments of education in Maine and Puerto Rico in their case studies, and found that as state education agencies become more active policy intermediaries, they maintain "policy-shaping power" (p. 447). The same could be said for the participating suburban districts.

Portz et al. (1999) contend that civic capacity relies on alliances among civic groups across all socioeconomic levels as well as the capacity to implement policies and programs, and Stone et al. (2001) describe civic capacity as cooperation between policy actors. Although the voluntary transfer program was created to "increase racial integration in metropolitan area public schools" (VICC, 2013), it was evident that suburban implementation of the policy, and therefore, suburban civic capacity, was contingent upon the financial support gained through participation. Urban investment in the program was evident, based on the numbers of applications received despite the

increased educational options available in St. Louis city, including charter and magnet schools, and the provisional accreditation of the city school system in October 2012, but what is unclear is the point at which the suburbs will no longer accept transfer students.

Now that the transfer policy is no longer under court order, the suburbs hold all of the power in maintaining or terminating the program, which diminishes the interests of the urban policy actors. Both the Portz et al. (1999) study and the Stone et al. (2001) study found St. Louis city to have low levels of civic capacity around issues of urban education and school reform. This, combined with the high levels of suburban civic capacity around the implementation of the transfer program and high levels of civic mobilization centered around the continued decline in transfer enrollment, signals the eventual end of the voluntary transfer program. This also represents a lack in collective metropolitan (urban and suburban) civic capacity around issues of diversity and educational equity.

Suburban stakeholders also have an impact on diversity in city schools. The opposite side of this dual transfer program (White, suburban students attending city magnet schools) is also experiencing declining enrollment, but based on individual choice rather than district policy. Diversity and achievement are two components explicit to the mission and success of the voluntary transfer program, yet the declining enrollments of White students in city magnets by choice suggests, first, the belief that city schools will not provide high-quality education; second, that Black students and families will continue to shoulder the burden of integration more often than White

students and families; and third, diversity and integration is not as important as academic achievement.

McClellan (2004) suggests that, “We have a hard time talking about race. Political correctness runs amok. We can't raise legitimate questions because we don't want to appear racist” (p. C1). Recent research suggests that “what is perhaps most significant about the growing support for these programs among suburban whites is how hard the once-upon-a-time resisters of desegregation come to fight to keep the plans alive when they are threatened politically or legally” (Wells et al., 2013, p. 196). However, defining how “hard” the suburbs fight is relative, as evidenced by the systematic decrease in the number of transfer students accepted into the St. Louis suburbs, and the reasons offered to support the waning of the program. The decrease in transfer enrollment in the suburbs, and the choice of suburban parents to no longer enroll in city magnet schools is a reflection of the declining importance placed on diversity and integration in schools and the increased importance placed on funding and resources, because “when objectives compete, money wins.”

CHAPTER 6

RESULTS OF THE EQUITY ANALYSIS

Introduction

In addition to the policy implementation analysis, this study specifically examined the distribution of resources across the 15 participating suburban districts, as well as those resources available in the St. Louis Public School system, between 2000 and 2009. This chapter presents the results of the analyses used to answer the second and third research questions of this study:

- What were the differences in resources between St. Louis Public Schools and the 15 participating suburban districts?
- To what extent are resources distributed equitably among the 15 participating suburban school districts? To what extent do these resources explain the variation in the graduation rates of the Black students in the suburban districts?

Although this dual transfer program includes suburban students attending magnet schools in St. Louis, the overwhelming majority of program participants are from St. Louis, and attend school in the suburban districts. The descriptive statistical analysis and the horizontal and vertical equity analyses focused on the 15 suburban districts and their financial and demographic relationships to St. Louis and to each other.

For the purposes of this study, the variables included reflect resources available to a "typical" student attending school in that district.

Review of Data

The district-level financial data used to examine the demographics and the resources available in the 16 participating districts (including St. Louis) were obtained from the National Center for Education Statistic's Common Core of Data and the Common Core of Data's Local Education Agency Finance Survey Data (F-33 file), the Missouri Department of Education, the St. Louis County Department of Revenue, the U.S. Census Bureau, and the Voluntary Interdistrict Choice Corporation. A total of 22 resource variables across four resource categories (spending, district, achievement, and community) were used in this study, as outlined in Chapter 4 (see Table 5). A brief description of the variables follows.

The Common Core of Data (CCD) collects data about all schools, districts, and state education agencies across the country. Variables obtained from the CCD and the Missouri Department of Education included: pupil-teacher ratio, the percentages of Black and White students and students that qualify for free and/or reduced priced lunch in the district, the percentage of graduates in the district that were Black, as well as the graduation rate of the Black 12th graders. Data received from the Voluntary Interdistrict Choice Corporation included the number of transfer students in each suburban district by year.

The F-33 file is a database that provides complete financial data, including revenues and expenditures, for all public school districts in the country. District-level

data was collected for the 16 participating districts (St. Louis Public Schools and the 15 suburban districts). These district-level data included the number of students, total expenditures, total revenue received from property taxes, total revenue received from federal Title I funding, and the total teacher salary amount used for instruction. Using this information, the per-pupil amounts for each of these variables were determined.

In past equity studies, teacher variables including the percentage of teachers in the district with at least a Master's degree and the average years of experience have been used. These teacher variables are often used to illustrate the differences in teacher characteristics (see Iatarola & Stiefel, 2003; Greenwald et al., 1996; Hanushek, 1994, 1996; Rubenstein et al., 2006). However, based on the availability of data across the ten year span, per pupil teacher salary used for instruction was used as a proxy for average teacher salary.

Finally, in an effort to provide a snapshot of the larger demographic differences between St. Louis and the participating suburban school districts, this study also included data collected from the St. Louis Department of Revenue and the U.S. Census Bureau. The local tax effort for each of the school districts included in the study was obtained from the Missouri Department of Education (St. Louis Public Schools) and the St. Louis County Department of Revenue (15 suburban districts). Because all of the suburban districts are located within the larger St. Louis County, which includes unincorporated areas, the census data used in these analyses are based on county subdivisions, defined as "the primary divisions of counties and statistically equivalent entities for the reporting of decennial census data" (U.S. Census Bureau, 2013b, para. 1).

Data was gathered from the 2000 Census and the 2010 Census. The six *community* variables included were: median home price, the percentage of residents aged 25 and older with a Bachelor's degree, median family income, the percentage of families in the school district living in poverty, and the percentages of Black and White families in the school district.

Physical distance (number of miles) between the sending and the receiving districts were also included to provide an estimate of students' travel time. Integrationists that have advocated for busing in the past argued that, "the greater the distance the student travels to get to the school, relative to options available to him, the more the school should offer him when he arrives" (Campbell, 1973, p. 482). The number of miles between the sending and receiving districts was used to illustrate the divide between urban and suburban districts, and to determine whether there is a relationship between the resources available in a suburban district relative to its proximity to the sending district.

Review of Methods

This study relied upon descriptive statistics, and both horizontal and vertical equity analyses to examine the variation in the distribution of educational resources among the suburban receiving districts only. These particular 15 suburban districts are unique in that they chose to continue partnering with the St. Louis Public School system after the end of court ordered desegregation (even if they are no longer enrolling additional transfer students), and therefore, it is necessary to document the educational

resources to which the transfer students will have continued access. These analyses cover the ten years between the 1999-2000 school year and the 2008-09 school year.

Horizontal input equity was developed to assess the equality of the distribution of a particular resource across districts, arguing that equal students should be treated equally (Berne & Stiefel, 1984). The appropriate equity thresholds used in this study were developed by Odden and Picus (2008) and include the range, the coefficient of variation, and the McLoone and Verstegen Indices. Of these equity measures, only the range is sensitive to inflation and, thus, will incorporate inflation-adjusted dollars (in 2009 dollars) as necessary.

The vertical output equity analyses used in this research rely upon multivariate linear regression (specifically WLS and quantile regression analyses) and were developed to determine the variation in achievement (Berne & Stiefel, 1984). For the purposes of this study, two series of vertical output equity analyses were conducted using the two *achievement* variables as the dependent variables. This was necessary in order to determine the effects of the district resources on the graduation rates of Black students in the suburban districts from either a policy (percentage of total district graduates who are Black) or an outcome (graduation rate of Black 12^{th} graders) perspective. The regression models incorporated select variables from each of the three remaining resource categories. The vertical equity analyses were conducted via a weighted least squares regression with district enrollment as the weighted variable to adjust for district size. A third and final series of vertical equity analyses were

conducted using the loss in per pupil reimbursement as the dependent variable in order to determine the effects of various resource variables on the loss of funding.

Findings

Research Question 2: What were the differences in resources between St. Louis Public Schools and the 15 participating suburban districts?

Prior to conducting the horizontal and vertical input equity analyses, it was necessary to conduct an analysis using descriptive statistics. The following tables outline the differences between the sending district, St. Louis, and the 15 receiving suburban districts between 2000 and 2009 for each of the variables across the four resource categories. Tables for each individual district, by variable and by year (in inflation-adjusted dollars), can be found in Appendices A through O. The following calculations include inflation-adjusted dollars.

As evidenced in Table 7, St. Louis Public Schools (SLPS) had a higher 10-year average per pupil expenditure amount ($13,532) as compared to the suburban average ($11,672) and received approximately five times the federal revenue from Title I funding per pupil ($585) than the suburban average ($118). Although SLPS had a higher average local tax effort across the ten years, the average per pupil amount of revenue received from property taxes was over $2,000 higher in the suburbs than in SLPS. These data indicated that higher property values in the suburban districts amounted to higher per pupil revenue from property taxes, despite tax rates lower than in St. Louis city. The average amount of teacher salary spent on instruction per pupil was less than $100 higher in the suburbs ($4,257) than in SPLS ($4,194). The average pupil-teacher ratio in

St. Louis was smaller than the average in the suburban districts, despite SLPS teachers being paid slightly less.

Table 7. Descriptive Statistics, Spending Variables by Percentile

School District	Adjusted PPE	Adjusted PPRev PropTax	Adjusted PPRev TitleI	Adjusted PPSal Instruct	Local Effort	PupTch Ratio
SLPS Average	13,532	3,799	585	4,194	4.8581	12.8
Suburban Average	11,673	5,977	118	4,257	3.8432	15.0
min	6,183	1,561	0	2,254	2.6000	10.9
10%	7,824	3,275	31	3,233	2.9800	11.7
25%	9,508	4,586	63	3,469	3.2378	13.2
50%	10,660	5,715	103	4,027	3.8637	15.5
75%	13,661	7,363	145	4,849	4.3039	16.7
90%	16.996	9,406	230	5,919	4.7515	17.4
max	26.423	11,302	430	7.300	5.2660	17.4

Source: Missouri Department of Education, 2013; National Center for Education Statistics, 2013b, St. Louis County Department of Revenue, 2013

Despite SLPS averages being higher than the suburban average for three of the six *spending* variables, the amounts varied greatly at the individual suburban level, with some suburbs spending, on average, almost double that of other suburban districts. Table 7 highlights suburban spending and revenue at the 10^{th}, 25^{th}, 75^{th} and 90^{th} percentiles, as well as the minimum and maximum amounts. Table 8 provides a closer look at the variations among the suburban districts, and illustrates the gains or losses received by students via transferring from St. Louis to a particular suburb.

The descriptive analysis of the five *district* variables (Table 9) showed that St. Louis remained a predominately Black school district across the ten years of the study while the suburban schools remained predominately White. The suburban school

districts were, on average, 20% Black, and ranged between a minimum of 7% to a maximum of almost 40%; some suburban districts were more noticeably diverse than others. Further analysis found that transfer students comprised approximately 63% of the Black student population in suburban schools, while SLPS lost an average of 25% of their Black students to the transfer program. The percentage of Black students who were transfer students ranged between 0% (all of the Black students in the district were suburban residents) to 100% (all of the Black students in the district were transfer students).

Table 8. Gains and Losses among Spending Variables in Transferring from St. Louis to a Suburban District, 10 year averages.

School District	Adjusted PPE	Adjusted PPRevPropTax	Adjusted PPRevTitleI	Adjusted PPSalInst	LocalEffort
SPLS Average	13,532	3,799	585	4,194	4.8581
	+/-	**+/-**	**+/-**	**+/-**	**+/-**
Affton	-3,176	1,945	-504	-666	-0.4869
Bayless	-6,398	-500	-439	-1650	-1.2619
Brentwood	2,661	4,117	-480	1498	-1.8274
Clayton	4,424	6,482	-502	2676	-1.4125
Hancock Place	-4,751	-2,028	-312	-665	-0.5063
Kirkwood	-2,519	2,917	-497	22	-0.9432
Ladue	3,626	5,914	-565	1453	-1.8431
Lindbergh	-2,650	1,646	-507	-162	-1.8679
Mehlville	-5,670	644	-507	-856	-1.248
Parkway	-2,237	2,543	-513	-57	-1.4201
Pattonville	697	3,840	-479	729	-1.0573
Ritenour	-4,074	27	-372	-646	-0.5078
Rockwood	-3,371	1,270	-517	-747	-0.5436
Valley Park	-2,949	1,487	-347	-182	-0.2205
Webster Groves	-1,498	2,361	-460	206	-0.077

Source: Missouri Department of Education, 2013; National Center for Education Statistics, 2013b, St. Louis County Department of Revenue, 2013

Of additional note was the percentage of students that qualify for free and reduced priced lunch. In SLPS, an average of 78.6% of students qualified, while almost

25% of suburban students qualified. However, the percentage of students that qualified in the suburban districts reached a maximum of 72.4% at one point, nearly mirroring SLPS. The suburban districts may be less racially diverse than SLPS, but were becoming increasingly socioeconomically diverse.

Table 9. Descriptive Statistics, District Variables by Percentile

School District	Enrollment	%Black District	%Transfer	%White District	%FRL
SLPS Average	39,422	80.4	-24.3*	15.1	78.6
Suburban Average	6,274	20.0	62.9	73.9	24.9
min	788	7.7	0.0	46.5	3.3
10%	1,055	11.0	7.4	64.8	6.8
25%	1,865	13.5	44.3	68.3	12.6
50%	4,156	20.9	75.4	72.9	19.1
75%	6,351	24.9	85.1	82.0	33.5
90%	19,520	28.3	90.1	84.5	51.7
max	22,721	39.2	100.0	87.4	72.4

*Indicates a loss of 24.3% of students as a result of participation in the transfer program
Source: National Center for Education Statistics, 2013a; Missouri Department of Education, 2013; Voluntary Interdistrict Choice Corporation, personal communication

Data on the *achievement* variables (Table 10) showed that SLPS has a larger average percentage of Black graduates as a percentage of total graduates—as they should considering there are many more Black students attending SLPS than suburban schools. The average graduation rate of Black 12th graders was slightly higher in SLPS (94.9%) than in the suburban districts (91.4%), although these data did not take into account the number of students that drop out of school or transfer throughout the school year.

Analysis of the *community* variables (Table 11) obtained from the U.S. Census Bureau finds that St. Louis residents were, on average, poorer, less White, and had less educational achievement than the residents of the participating suburban districts.

Median home values and median family incomes are both reported in inflation-adjusted dollars. Median home values were approximately $100,000 less and median family incomes were approximately $45,000 less, on average, in St. Louis than in the suburban school districts. There were also, on average, approximately five times as many families living in poverty in St. Louis (approximately 21%) than in the participating suburbs (approximately 4%).

Table 10. Descriptive Statistics, Achievement Variables by Percentile

School District	%GradsBlack (policy)	GradRateBlack12 (outcome)
SLPS Average	78.8	94.9
Suburban Average	17.5	91.2
min	4.7	50.0
10%	7.8	80.7
25%	11.0	85.6
50%	18.0	92.1
75%	22.8	100.0
90%	26.1	100.0
max	39.8	100.0

Source: Missouri Department of Education, 2013; National Center for Education Statistics, 2013a

Table 11. Descriptive Statistics, Community Variables by Percentile

School District	Adjusted Med Home	Adjusted Med FamInc	%BA	%Fam Pov	%Black Fam	%White Fam	Dist
SLPS Average	108,538	40,870	13.7	20.9	50.3	44.0	-
Suburban Average	208,849	85,999	25.0	3.8	5.6	89.3	14.8
min	76,837	46,305	10.5	1.4	0.3	69.3	9.5
10%	110,735	55,142	11.6	1.7	0.6	81.2	9.8
25%	142,480	69,181	17.0	2.1	1.8	84.6	11.2
50%	192,386	86,981	30.0	3.2	3.7	90.9	12.9
75%	268,340	113,310	33.0	5.1	8.3	94.1	17.5
90%	370,670	116,458	33.5	7.1	13.5	96.7	21.2
max	372,600	116,972	33.8	10.5	26.3	97.0	28.2

Source: U.S. Census Bureau, 2013a

The percentage of Black families in St. Louis was 50.3% (accounting for 80% of the public school enrollment), while the percentage of Black families in the suburbs was almost negligible at 5.6%. Interesting, however, was that Black students accounted for an average of approximately 20% of the student population in the suburbs (Table 9), and as previously noted, transfer students made up 63% of the Black student population in suburban schools. Transfer students traveled an average of almost 30 miles round trip each day.

As mentioned, an average of approximately 25% of students attending suburban schools qualified for free and reduced priced lunch. Because there were so few families living in poverty in the suburbs, one could assume that the high rates of students qualifying for free and reduced priced lunch were due to the influx of transfer students from St. Louis. However, the percentage of Black students in the district who were transfer students was not highly correlated with the percentage of students that qualify for free and reduced priced lunch ($r=-.171$; $p=.037$). Other explanations for the inconsistencies between suburban families in poverty and the percentage of suburban students that qualify for free and reduced priced lunch could be that affluent suburban parents are enrolling their children in private schools or in city magnet schools, thereby skewing public school demographics.

It is also important to highlight some differences between the four districts who are no longer enrolling additional transfer students (Ladue, Lindbergh, Pattonville, and Ritenour), and the remaining 11 districts (Table 12). Taking select variables into account, the results indicated that, on average, the four districts no longer enrolling

additional transfer students had higher per pupil expenditures and higher per pupil revenue received from property tax. They also had a higher percentage of students that qualify for free and reduced priced lunch, lower average percentage of Black students that transferred from St. Louis, lower average median home values, and a higher percentage of suburban Black families.

Table 12. Differences between Suburbs Continuing to Enroll Transfer Students or Not

School District	Adjusted PPE	Adjusted PPRevPropTax	%Transfer	%FRL	Home Value	%Black Families
Not Enrolling New Students						
Average	12,932	6,656	5.0	26.0	190,213	10.0
Ladue	17,158	9,713	3.5	7.9	300,350	9.6
Lindbergh	10,882	5,445	11.3	13.5	135,250	0.5
Pattonville	14,229	7,639	6.2	30.0	200,400	11.1
Ritenour	9,458	3,826	0.4	54.0	124,850	20.1
Continuing to Enroll New Students						
Average	11,215	6,160	14.0	24.0	201,556	4.0
Affton	10,356	5,744	9.0	23.4	143,050	4.0
Bayless	7,134	3,299	10.1	40.9	135,520	0.5
Brentwood	16,193	7,916	21.1	17.5	300,350	9.6
Clayton	17,956	10,281	18.8	11.8	300,350	9.6
Hancock Place	8,781	1,771	18.1	63.3	115,400	1.9
Kirkwood	11,013	6,716	11.5	14.9	201,150	3.7
Mehlville	7,862	4,443	10.4	17.1	149,500	1.4
Parkway	11,295	6,342	12.1	12.3	200,400	3.7
Rockwood	10,161	5,069	10.4	10.2	276,600	2.0
Valley Park	10,583	5,286	20.4	40.0	177,700	3.5
Webster Groves	12,034	6,160	9.2	17.0	217,100	3.0

Source: National Center for Education Statistics, 2013a, 2013b; Missouri Department of Education, 2013; U.S. Census Bureau, 2013a; Voluntary Interdistrict Choice Corporation, personal communication

However, these four districts were neither the highest nor the lowest spending districts, nor were they the most or least racially and/or socioeconomically diverse

districts. Three out of the four districts no longer enrolling additional transfer students had the highest rates of suburban Black families, so they may feel that it is no longer necessary to participate in the program as a means of diversifying the district.

Research Question 3a: To what extent are resources distributed equitably among the 15 participating suburban school districts?

Parents in St. Louis have enrolled their children in the transfer program for access to "a better education" so it was necessary to examine the resources available among the 15 participating districts. The goal of these analyses was not to compare St. Louis to the participating suburban districts, but rather, to examine the variation in the distribution of resources among the suburban districts. A horizontal input equity analysis was conducted to answer the first part of the third research question. To calculate the horizontal equity of resources, four measures were used: the range, the coefficient of variation, and either the McLoone or the Verstegen Index (depending on the variable). The range was used in this study, rather than the restricted range or range ratio, due to the small sample size.

The horizontal equity analysis was conducted on 19 of the 21 variables. The geography and distance variables were excluded from these analyses because they were fixed values. The *community* variables were included in this analysis with the understanding that although transfer students do not have the direct access to those particular variables, they may experience an increase in their social and/or cultural capital through interactions with the resident students who do have direct access to those variables. Wells and Crain (1994) suggest that Black families can benefit from

cross-racial ties, even if they are weak, with affluent White families. The enrollment variable was only included in the range calculations.

The following tables (Tables 13-15) provide the horizontal equity statistics for the six *spending* variables across each of the ten years. The range is the difference between the highest and lowest resource amounts in the sample—the greater the range, the greater the inequity, and Table 13 provides the range across the *spending* variables. Over the ten years, the range in per pupil expenditures grew in the suburban school districts from approximately $11,000 to over $13,500, with a peak of over $19,000 in 2003. The range in the per pupil amount of revenue received from property tax increased by approximately $1,500 over the ten years, from $7,749 in 2000 to $9,298 in 2009, while the per pupil amount of federal revenue received from Title I funding increased by almost $300 across the same time span.

Table 13. Range, Spending Variables , Suburban Districts (n=15)

	2000	**2001**	**2002**	**2003**	**2004**
AdjustedPPE	11,258	12,141	11,527	19,189	12,081
AdjustedPPRevPropTax	7,749	7,473	8,580	8,445	8,896
AdjustedPPRevTitleI	164	162	215	207	255
Adjusted PPSalInstruct	3,507	4,072	4,470	4,324	4,040
LocalEffort	2.180	2.208	2.248	2.213	1.994
PupTchRatio	6.6	7.0	6.8	6.7	7.5
	2005	**2006**	**2007**	**2008**	**2009**
AdjustedPPE	10,837	11,004	10,126	10,442	13,644
AdjustedPPRevPropTax	9,017	9,512	8,997	9,365	9,298
AdjustedPPRevTitleI	336	322	270	319	430
Adjusted PPSalInstruct	4,282	4,481	4,411	4,773	4,901
LocalEffort	2.256	2.286	1.825	1.858	1.884
PupTchRatio	7.1	6.8	6.9	7.4	18.3

Source: Missouri Department of Revenue, 2013; National Center for Education Statistics, 2013a; St. Louis County Department of Revenue, 2013

The per pupil amount of teacher salary used for instruction increased by almost $1,500 over the ten years, from $3,507 in 2000 to $4,901. The local district tax effort declined slightly over the ten years, from 2.180 in 2000 to 1.884 in 2009. The range in the pupil-teacher ratio remained relatively stable between 2000 and 2008, but experienced a sharp increase in 2009. Although the range in local effort among the suburban districts decreased, there exists a growing gap between wealthy and less wealthy suburban districts, given the range in spending and in revenues received.

Table 14 outlines the coefficients of variation for the six *spending* variables. The coefficient of variation (CV), calculated by dividing the standard deviation by the mean, is used to determine the variation about the mean, or the percentages of the observations that fall within one standard deviation of the mean (Picus et al., 2001). A coefficient of variation at or below 0.05 represents equity (Berne & Stiefel, 1984; Guthrie et al., 2007; Odden & Picus, 2008). None of the variables reached appropriate levels of equity over the ten-year span.

Table 14. Coefficient of Variation, Spending Variables, Suburban Districts (n=15)

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
PPE	0.28	0.29	0.32	0.42	0.30	0.26	0.27	0.25	0.28	0.31
PPRev PropTax	0.38	0.36	0.37	0.38	0.41	0.42	0.39	0.39	0.40	0.39
PPRev TitleI	0.72	0.74	0.80	0.49	0.51	0.64	0.61	0.58	0.76	0.71
PPSal Instruct	0.23	0.25	0.28	0.28	0.26	0.28	0.26	0.26	0.27	0.26
Local Effort	0.20	0.18	0.19	0.16	0.15	0.17	0.17	0.15	0.16	0.16
PupTch Ratio	0.14	0.14	0.14	0.15	0.15	0.14	0.14	0.14	0.15	0.28

Source: Missouri Department of Revenue, 2013; National Center for Education Statistics, 2013a; St. Louis County Department of Revenue, 2013

Actual dollars were used for these calculations, as the coefficient of variation is not sensitive to inflation. The most inequitably distributed variable was the per pupil revenue received from federal Title I funding. In 2000, the CV was 0.72, reached a peak of 0.80 in 2002, and fell to 0.71 in 2009. The least inequitably distributed variable was the local tax rate, beginning at 0.20 in 2000 and reaching 0.16 in 2009. The 2009 CV for each of the six variables were very similar to the 2000 CV, but each variable experienced fluctuations over the course of the ten years, which resulted in growing inequality.

Table 15 provides data about the McLoone Index for each of the spending variables. Actual dollars, rather than inflation-adjusted dollars, are used in these calculations. The McLoone focuses only on those districts below the median level of resources, and unlike the coefficient of variation, a ratio of 1.0 represents equality and zero represents inequality (Berne & Stiefel, 1984; Guthrie et al., 2007; Odden & Picus, 2008). The McLoone measures the ratio of the actual resources for the districts below the median to what the resources would be if the resources in those districts were raised to the median level.

Table 15. McLoone Index, Spending Variables, Suburban Districts (n=15)

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
PPE	0.90	0.82	0.82	0.87	0.88	0.82	0.84	0.87	0.78	0.84
PPRev PropTax	0.77	0.72	0.77	0.76	0.77	0.76	0.68	0.65	0.68	0.66
PPRev TitleI	0.62	0.63	0.63	0.64	0.70	0.73	0.68	0.63	0.59	0.63
PPSal Instruct	0.87	0.83	0.83	0.82	0.86	0.84	0.85	0.87	0.86	0.82
Local Effort	0.83	0.82	0.82	0.89	0.88	0.88	0.88	0.90	0.90	0.89

Source: Missouri Department of Revenue, 2013; National Center for Education Statistics, 2013b; St. Louis County Department of Revenue, 2013

Based on these results, as with the coefficient of variation, the per pupil revenue amount received from federal Title I funding was the most inequitably distributed with a McLoone Index of 0.62 in 2000. Although the McLoone was 0.63 in 2009, it reached a low of 0.59 in 2008. The two most equitably distributed variables were the per pupil expenditure amount and the local district tax rate. The McLoone Index of the per pupil expenditures experienced growing inequality over the ten years, falling from 0.90 in 2000 to 0.84 in 2009, while the local district tax rate became more equal, improving to 0.89 in 2009 from growing from 0.83 in 2000.

Overall, none of the *spending* variables were equitably distributed across the 15 suburban districts during the ten-year time span. Participating families from St. Louis choose suburban districts based on city attendance zones, and while they are able to choose what they believe is a "better" school option, it is clear that they may not have access to the "best." These tables indicate growing fiscal disparities among the participating suburban districts.

Tables 16-19 provide similar horizontal equity statistics for the *district* variables, but also include the Verstegen Index. The Verstegen Index is the opposite of the McLoone, and instead studies those districts above the median, calculating the ratio of actual resources to what resources would be if they were lowered to the median level. This index has an equity level of 1.0 or greater (Picus et al, 2001). In this study, the Verstegen Index was used to examine inequalities among the districts with more racially isolated schools (higher percentages of White students). By concentrating on these

districts, this measure allowed for a deeper examination of the lack of diversity among the districts that participate in a program specifically aimed at increasing racial diversity.

Table 16 displays the range in *district* variables. The range in suburban enrollment remained relatively stable across the ten years, growing from 20,261 students in 2000 to 21,731 students in 2009. The ranges of the three measures of student demographics grew substantially, indicating a growing racial and socioeconomic divide among the participating suburban districts although district enrollment remained stable.

Table 16. Range, District Variables, Suburban Districts (n=15)

	2000	**2001**	**2002**	**2003**	**2004**
Enrollment	20,261	20,258	20,694	21,426	21,800
%BlackSchool	17.1	17.8	18.8	22.4	22.0
%Transfer	2,998	2,659	2,647	2,653	2,549
%WhiteSchool	18.1	19.3	20.7	24.5	26.0
%FRL	50.9	50.0	46.8	47.7	53.4
	2005	**2006**	**2007**	**2008**	**2009**
Enrollment	21,389	21,510	21,756	21,929	21,731
%BlackSchool	23.1	24.5	27.3	29.3	31.6
%Transfer	2,408	2,103	2,106	2,088	1,880
%WhiteSchool	28.4	32.1	36.2	39.0	40.7
%FRL	63.2	60.6	62.6	62.8	63.6

Source: National Center for Education Statistics, 2013a; Voluntary Interdistrict Choice Corporation, personal communication

The range in the percentage of Black students in the schools grew from 17.1% to 31.6% in the ten years, while the range in the percentage of White students grew from 18.1% to 40.7% across the same time period. The range in the percentage of students that qualify for free and/or reduced priced lunch also grew from 50.9% to 63.6%. The range in the percentage of Black students that transferred from St. Louis declined from 2,998 in 2000 to 1,880 in 2009. The gap between districts with higher and lower

percentages lessened over time, and is also consistent with the fact that all districts were, generally, enrolling fewer transfer students.

The coefficients of variation (CV) for the *district* variables are described in Table 17. Similar to prior CV calculations reflecting socioeconomic diversity in the suburban districts, specifically Title I funding, the most inequitably distributed *district* variable was the percentage of students that qualify for free and/or reduced priced lunch. There was a sharp increase in the CV between 2001 and 2002, from 0.57 to 0.95, but by 2005, the CV had decreased to levels similar to 2000.

The data from Table 17 indicates that suburban schools experienced an increase in the enrollment of less-wealthy students across the 10 years, but it is not clear that this increase is simply due to transfer student enrollment. The most equitably distributed variable was the percentage of White students in the schools, reaching appropriate levels of equity between 2000 and 2003, before beginning to exhibit increasing inequity. The percentage of Black students in school districts was increasingly inequitably distributed, growing from 0.27 in 2000 to 0.45 in 2009. This was also a reflection of schools becoming less diverse over the ten years, despite increases in the percentage of Black families in suburban districts, as districts began to individually determine the number of transfer students they would enroll.

The most inequitably distributed variable was the percentage of Black students that transferred in from St. Louis. Despite the decrease in the range, and the gradual reduction in enrollment, transfer students from St. Louis were not distributed equitably across all districts. Although certain levels of inequity should be expected based on the

program's initial guidelines of transfer enrollment constituting a specific percentage of district enrollment, and given the range in size of the suburban districts, the CV for the percentage of Black students that transferred remained severely inequitable (CV over 1.0) across all ten years.

Table 17. Coefficient of Variation, District Variables, Suburban Districts (n=15)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Enrollment	-	-	-	-	-	-	-	-	-	-
%Black	0.27	0.29	0.30	0.35	0.33	0.36	0.38	0.41	0.42	0.45
%White	0.08	0.09	0.09	0.10	0.11	0.12	0.12	0.13	0.14	0.14
%Transfer	1.12	1.09	1.10	1.17	1.17	1.17	1.19	1.23	1.26	1.26
%FRL	0.59	0.57	0.95	0.90	0.91	0.63	0.64	0.67	0.67	0.67

Source: National Center for Education Statistics, 2013a; Voluntary Interdistrict Choice Corporation, personal communication

The McLoone and Verstegen Indices for the *district* variables are displayed in Table 18 and 19. The McLoone Index was used for the percentage of Black students in schools and the percentage of students that qualify for free and/or reduced priced lunch (Table 18). The percentage of Black students in schools was again distributed inequitably, with a McLoone of 0.76 in 2000. Over the ten years, this distribution became increasingly inequitably distributed, reaching a McLoone of 0.57 in 2009, reflective of the decreasing numbers of transfer students admitted into the program. The percentage of students that qualify for free and/or reduced priced lunch was also inequitably distributed, with a McLoone of 0.74 in 2000, reaching a low of 0.55 in 2002, and then gradually increasing to 0.68 in 2009. These data coincided with prior horizontal equity analyses reflecting growing disparities between racial and socioeconomic diversity in schools. The percentage of Black students in the district who

transfer in from St. Louis was also inequitably distributed. Beginning at 0.53 in 2000, the McLoone reached a high of 0.57 in 2004, before falling to 0.32 in 2009.

Table 18. McLoone Index, District Variables, Suburban Districts (n=15)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Enrollment	-	-	-	-	-	-	-	-	-	-
%Black	0.76	0.72	0.76	0.70	0.71	0.61	0.60	0.59	0.58	0.57
%Transfer	0.53	0.51	0.52	0.50	0.57	0.47	0.45	0.35	0.33	0.32
%FRL	0.74	0.75	0.55	0.56	0.57	0.78	0.72	0.73	0.73	0.68

Source: National Center for Education Statistics, 2013a; Voluntary Interdistrict Choice Corporation, personal communication

The Verstegen Index was used to calculate inequalities among the percentages of White students in suburban districts, with higher values for these variables reflecting racially isolated schools (Table 19). Although pupil-teacher ratio is a spending variable, it is included here because a higher number is indicative of larger class sizes, and it was more appropriate to use the Verstegen Index rather than the McLoone. Again, the Verstegen Index concentrates on the top half of the distribution, with an index of 1.0 reflecting equity. The percentage of White students in schools became more inequitably distributed, with a Verstegen of 1.09 in 2000 increasing to 1.14 in 2009, similar to the CV trend. The pupil-teacher ratio was remained relatively equitably distributed, with a Verstegen of 1.06 in 2000 until 2008, when the Verstegen reached 1.26 in 2009.

Table 19. Verstegen Index, District and Spending Variables, Suburban Districts (n=15)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Enrollment	-	-	-	-	-	-	-	-	-	-
%White	1.09	1.11	1.10	1.12	1.09	1.10	1.11	1.12	1.13	1.14
PupTch Ratio	1.06	1.08	1.09	1.11	1.10	1.06	1.08	1.14	1.10	1.26

Source: National Center for Education Statistics, 2013a; Voluntary Interdistrict Choice Corporation, personal communication

These results indicated that the *district* variables, pertaining to school district demographics, were all inequitably distributed, regardless of whether the districts are in the top or bottom half of the distribution. The suburban schools have become, and remain, racially and socioeconomically segregated despite participation in the transfer program and/or changes in community demographics.

Horizontal equity statistics for the two *achievement* variables are found in Tables 20-22. Table 20 focuses on the range calculations. The range of the percentage of district graduates who are Black fluctuated over the ten years, beginning at 21.5% in 2000, reaching a low of 17.3% in 2002, and then ultimately a high of 31.4% in 2009. This parallels previous analyses which reflect an increase in racially isolated schools. However, the range in the graduation rate of Black 12th graders declined, from 34.8% in 2000 to 22.4% in 2009, meaning that although fewer Black students were enrolling in suburban schools, graduation rates were becoming more equitable over time.

Table 20. Range, Achievement Variables, Suburban Districts (n=15)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
%Black Grads	21.5	23.0	17.3	19.3	16.1	20.0	27.9	26.1	24.6	31.4
Black Grad12	34.8	25.8	29.4	17.8	16.5	12.2	33.3	22.0	19.3	22.4

Source: Missouri Department of Education, 2013; National Center for Education Statistics, 2013a

Table 21 shows that the coefficient of variation for the percentage of district graduates who are Black is inequitably distributed while the graduation rate of Black 12th graders is equitably distributed. The CV for the percentage of district graduates who are Black became more inequitable over time, from 0.34 in 2000 to 0.45 in 2009, as

fewer Black students from St. Louis enrolled in the suburban schools. Increasing diversity in the suburban communities (more suburban Black families) did not provide a counterbalance to declining transfer enrollment. The CV for the graduation rate of Black 12th graders became more equitable over time, from 0.11 in 2000 to 0.08 in 2009.

Table 21. Coefficient of Variation, Achievement Variables, Suburban Districts (n=15)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
%Black Grads	0.34	0.37	0.33	0.42	0.40	0.41	0.56	0.47	0.43	0.45
Black Grad12	0.11	0.10	0.10	0.14	0.10	0.05	0.12	0.09	0.07	0.08

Source: Missouri Department of Education, 2013; National Center for Education Statistics, 2013a

The McLoone Indices displayed in Table 22 reflected similar trends across time: increasing inequality for the percentage of district graduates who are Black (from 0.70 in 2000 to 0.63 in 2009) and increasing equality for the graduation rate of Black 12th graders (remaining stable at 0.89 in 2000 and 2009, with fluctuations). Again, although districts were enrolling fewer Black students from St. Louis into their schools across the ten-year span, graduation rates for Black students remained equitable.

Table 22. McLoone Index, School Variables, Suburban Districts (n=15)

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
%Black Grads	0.70	0.78	0.70	0.52	0.58	0.67	0.58	0.63	0.53	0.63
Black Grad12	0.89	0.90	0.91	0.88	0.89	0.96	0.88	0.94	0.94	0.89

Source: Missouri Department of Education, 2013; National Center for Education Statistics, 2013a

Finally, Tables 23-25 show the horizontal equity statistics for the *community* variables obtained from the U.S. Census Bureau. Only two years are included in these analyses because data was gathered from the 2000 Census and the 2010 Census.

Despite the limited data, it was still possible to observe the demographic change over time of the participating suburban communities. The distance and geography variable were not included in these analyses as they are fixed numbers.

The ranges depicted in Table 23 demonstrate, as with other horizontal equity analyses, that the 15 participating suburban districts were becoming more racially and socioeconomically isolated. The range in median home value grew by $60,000 in inflation-adjusted dollars and the range in median family income grew by approximately $10,000. The range in the percentage of families below the poverty line increased by 3%, and the ranges in the percentage of Black and White families both experienced substantial growth across the ten years. The only variable to experience a decrease, albeit slight, in its range was the percentage of residents aged 25 and older with a Bachelor's degree.

Table 23. Range, Community Variables, Suburban Districts (n=15)

	2000	**2009**
AdjustedMedHomeValue	$207,222	$266,200
%BA	23.3	22.4
AdjustedMedFamIncome	$59,250	$70,667
%FamPov	5.8	8.8
%WhiteDistrict	16.1	25.6
%BlackDistrict	13.5	25.7

Source: U.S. Census Bureau, 2013a

The coefficients of variation (CV) for the *community* variables were all inequitably distributed except for the percentage of White families in the district (Table 24). The CV for the percentage of Black families in the district was the most inequitably distributed, from 0.96 in 2000 to 1.05 in 2009, evidence of extreme inequality in the percentages of Black families in the participating districts. Consistent with the range

calculations, the CV for median home value, median family income, and the percentage of families living in poverty increased, while the CV for the percentage of residents aged 25 and older with a Bachelor's degree decreased slightly.

Table 24. Coefficient of Variation, Community Variables, Suburban Districts (n=15)

	2000	**2009**
MedHomeValue	0.37	0.40
%BA	0.37	0.32
MedFamIncome	0.25	0.29
%FamPov	0.52	0.55
%WhiteDistrict	0.06	0.08
%BlackDistrict	0.96	1.05

Source: US Census Bureau, 2013a

The McLoone Indices for the *community* variables are found in Table 25. The only equitably distributed variable was the percentage of White families in the district (calculated using the Verstegen Index, and concentrating on the upper half—or more racially isolated—districts). Although the McLoone Indices of the median home value, the percentage of residents aged 25 or older with Bachelor's degree, and the percentage of families living in poverty were all inequitably distributed, they each experienced a slight decrease in inequality over the ten-year span, meaning that the districts below the median in property value and residents' educational attainment are approaching median levels, and the gap is lessening between wealthy and less wealthy districts. Conversely, median family income and the percentage of Black families in the district became more inequitably distributed over the ten years, where less wealthy and less diverse districts became increasingly poorer and more segregated. Growing inequalities persist across particular race and socioeconomic variables in the suburban communities below the median.

Table 25. McLoone Index, Community Variables, Suburban Districts (n=15)

	2000	**2009**
MedHomeValue	0.69	0.73
%BA	0.52	0.55
MedFamIncome	0.76	0.73
%FamPov	0.64	0.65
%WhiteDistrict*	1.04	1.09
%BlackDistrict	0.50	0.48

*Verstegen Index
Source: US Census Bureau, 2013a

As evidenced by the various horizontal equity analyses, most of the variables pertaining to Black students and/or families were inequitably distributed across all ten years and across all four equity measures. This is important to note because the 15 participating suburbs have continuously committed to the transfer program's mission of school integration, yet the program policies and district transfer enrollment are left up to the discretion of the individual suburbs. As a result, levels of inequality have increased over time. The only equitably distributed variable pertaining to Black students was the graduation rate of Black 12th graders. This indicates that Black students, regardless of urban or suburban residents, or of the district in which they are attending school, are graduating from high school. Despite the variations in resources, or in school or community demographics, Black students remained successful in the suburban schools.

Additionally, the socioeconomic variables pertaining to students and/or communities were also inequitably distributed across most of the equity measures, except for the distribution of the local district tax effort, which has remained relatively equitable. However, due to variations in property wealth among the districts, per pupil

revenue from property taxes varied greatly. The distributions of the six *spending* variables demonstrated the variations in spending and wealth among the suburban districts. Finally, the variables reflecting White students and/or families were among the most equitably distributed across all years and variables (though not always reaching appropriate levels of equity), except for the range calculations. These data reflected the within-race socioeconomic disparities present in the suburbs, as gaps persisted between rich and poor in the increasingly White participating suburbs.

Overall, the horizontal equity analyses indicated that transfer students attended schools in a wide range of suburban districts. Resources were not equal across districts nor did transfer students have equal access to these resources, yet the Black students in the suburban districts (most of whom are transfer students) graduated from high school. While this study attempted to quantify particular levels of social and cultural capital available in the suburbs through the inclusion of the *community* variables, it cannot quantify the community cultural wealth (Yosso, 2005) or parental support available to the transfer students in their homes and communities, which may positively affect graduation rates. These results indicated that there is no monolithic suburb, which speaks to the larger issues of community diversity and interdistrict resource allocation across the state as a whole.

Research Question 3b: To what extent do these resources explain the variation in the graduation rates of Black students in the suburban districts?

Vertical output equity analyses were conducted to determine the effects of the resources on the graduation rates of Black students in the participating suburban

districts. The vertical equity analyses conducted address both dimensions of program effectiveness (policy and outcomes) as it relates to graduation rates for Black students in suburban districts. As noted in the horizontal equity analyses, the graduation rates of the Black 12th graders were among the most equitably distributed. These vertical analyses will, first, use the policy indicator (the percentage of total district graduates that are Black) and, second, use the outcome indicator (the graduation rates of Black 12th graders) as the dependent variables. The following analyses were conducted using weighted least squares (WLS) regressions with district enrollment as the weighted variable.

The percentage of Black students in the suburban districts who transferred from St. Louis and the percentage of students that qualify for free and reduced lunch were not found to be highly correlated ($r= -.171$, $p<.000$), making an interaction term unnecessary for the regressions. The percentage of students that qualify for free and reduced priced lunch was found to be highly correlated with each of the *community* variables corresponding to wealth and/or educational attainment (median family income, median home value, percentage of residents over the age of 25 with Bachelor's degrees, and the percentage of families living in poverty), and as such, the *community* variables were not included in the model. Additionally, the *community* variables were not included because there were only two years of data available (Census 2000 and Census 2010) resulting in far fewer cases available for inclusion (n=30).

Each district participated in the program throughout each of the ten years of the study, but by 2007, four districts had decided to no longer enroll additional transfer

students with the understanding that currently participating students would be able to graduate from their suburban high schools. A dichotomous variable, continue, had been created to distinguish between districts that continued enrolling additional transfer students, however, it was highly correlated with the percentage of Black students in a district that were from St. Louis ($r=.720$, $p<.000$), and thus, the "continue" variable was excluded from the analyses. Transfer enrollment declined across all participating districts, regardless of additional enrollments or continued participation, ultimately making the variable unnecessary.

Inflation-adjusted per pupil expenditures were found to be highly correlated with the inflation-adjusted per pupil amount of teacher salary spent on instruction ($r=.904$, $p<.000$), and as a result, per pupil salary spent on instruction was not included in the model. Inflation-adjusted per pupil expenditures were also found to be highly correlated with the inflation-adjusted per pupil revenue from property taxes ($r=.854$, $p<.000$), and therefore, per pupil revenue from property taxes was not included in the model. The percentage of students qualifying for free and/or reduced priced lunch was found to be highly correlated with the inflation-adjusted per pupil revenue received from federal Title I funding ($r=.768$, $p<.000$). The percentage of students that qualify for free and/or reduced priced lunch was included in the model as it was a better indicator of socioeconomic status.

The first vertical equity analysis attempted to determine the effectiveness of the program, based on its stated mission of increasing diversity in the participating suburban districts. The results of the first vertical equity analysis can be found in Table

26, using the policy indicator, the percentage of total district graduates who are Black, as the dependent variable. Seven independent variables were used in the first model:

Model 1:

%BlackGrad = AdjustedPPE + LocalEffort + West + Distance + FRL +

PercentTransfer + DistrictEnrollment (weighted) + error

The model explained approximately 74% of the variation in the percentage of total district graduates who are Black. All variables included in the model were statistically significant. The results indicate that the strongest predictor of the percentage of total district graduates who are Black is geography—as transfer students attend schools in the western areas of the county, the percentage of district graduates who are Black decreases. The northern areas of St. Louis city (and the surrounding northern suburbs—which no longer participate in the transfer program) are predominately Black, yet the distance a transfer student has to travel did not have nearly the effect on the dependent variable that geography did. These results indicate that to where a transfer student travels, not how far they travel, has an impact on the percentage of total district graduates who are Black. The "West" variable is the only geography variable included throughout the vertical equity analyses as most of the districts (9 out of 15) are located in the western region of the county, and across the ten years of the study, over 60% of transfer students attended schools in western districts.

The two variables pertaining to community wealth (per pupil expenditures adjusted for inflation and local tax effort) had a statistically significant effect on the percentage of district graduates who were Black. Local tax effort had the second

greatest effect on the percentage of total district graduates that are Black. Previous horizontal equity analyses found that although the gap in tax rates between suburban districts is decreasing, they still generate variations in per pupil expenditures and these results confirm that community wealth does not have an impact on district diversity (as based on program participation). The percentage of students that qualify for free and reduced priced lunch also (slightly) positively impacted the dependent variable, yet it was previously noted that one should not assume that the transfer students are the cause of an increase in the population of students that qualify for free and reduced lunch. District wealth and geography play a significant role in the variations in the percentage of total district graduates who are Black.

Table 26. Vertical Equity Regression Analysis, Percentage of Total District Graduates Who are Black by Weighted District Enrollment (using Adjusted PPE), 2000-2009 (n=150)

Independent Variables	**Unstandardized Coefficient B**	**Std. error**	**Standardized Coefficients**	**t**	**Sig.**
Constant	16.786	3.533		4.751	.000
AdjustedPPE	.000	.000	.178	3.391	.001
LocalEffort	1.230	.581	.103	2.115	.036
West	-5.105	.814	-.360	-6.272	.000
Distance	-.272	.065	-.256	-4.173	.000
FRL	.127	.027	.279	4.706	.000
PercentTransfer	-.102	.015	-.433	-6.954	.000

Adjusted R^2=.736; F-score=70.357, p<.000

A second vertical analysis was conducted to further examine the impact of district wealth on the percentage of total district graduates who were Black (Model 2). Beginning in 1999, through 2012, suburban districts were reimbursed at a maximum of $9,100 per transfer student (or their full per pupil expenditure, whichever was less), meaning that some districts actually lost money per transfer student. A new variable,

AdjustedPPELoss (also adjusted for inflation), replaced AdjustedPPE in the model and was created by subtracting $9,100 from the per pupil expenditure amount of each district. Table 27 shows the descriptive statistics of the loss in per pupil reimbursement, ranging from districts that did not lose any funding as their per pupil expenditures were less than the reimbursement amount of $9,100 to a district that lost almost $16,000 due to partial reimbursement.

Table 27. Descriptive Statistics, Loss in Per Pupil Reimbursement (in inflation-adjusted dollars), 10 year averages

Suburban Average	$2,203
min	$0
10%	$0
25%	$0
50%	$569
75%	$3,998
90%	$7,445
max	$15,817

Source: National Center for Education Statistics, 2013b

Model 2:

%BlackGrad = PPELoss + LocalEffort + West + Distance + FRL + PercentTransfer + DistrictEnrollment (weighted) + error

The results from Model 2 (Table 28) explained approximately 72% of the variation in the dependent variable. Unlike Model 1 (Table 26), neither the loss in per pupil reimbursement nor district wealth (local tax effort) was statistically significant. Being located in the western region of the county had the greatest statistically significant effect on the percentage of total district graduates that are Black. As with the first model, as students traveled west to attend school in a suburban district, fewer district graduates were Black.

Table 28. Vertical Equity Regression Analysis, Percentage of Total District Graduates Who are Black by Weighted District Enrollment (using AdjustedPPELoss), 2000-2009 (n=150)

Independent Variables	Unstandardized Coefficient B	Std. error	Standardized Coefficients	t	Sig.
Constant	23.944	2.730		8.772	.000
AdjustedPPELoss	.000	.000	.075	1.453	.148
LocalEffort	.966	.601	.081	1.609	.110
West	-5.586	.824	-.393	-6.778	.000
Distance	-.285	.068	-.269	-4.225	.000
FRL	.106	.027	.235	3.931	.000
PercentTransfer	-.114	.015	-.485	-7.711	.000

Adjusted R^2=.719; F-score=64.634, p<.000

In Chapter 5, the implementation analysis found that some suburban elites argued that their districts were losing money due to partial reimbursement for transfer students, and it therefore might be "fiscally responsible" to discontinue participation. Here, building on the results of the WLS regression in Table 28, a quantile regression analysis was conducted on Model 2 to determine the effects of resources across the distribution of total district graduates who are Black. The fourth column (the .50 quantile) included the results of the weighted least squares regression found in Table 28, and reflects the effects at the median level of the dependent variable.

The results of the quantile regression (Table 29) found that distance from St. Louis, being located in the western region, and the percentage of Black students that were transfers from St. Louis were the only statistically significant variables across the entire distribution of the percentage of total district graduates who are Black. In fact, being located in the western region had, by far, the greatest effect on the dependent

variable, similar to Models 1 (Table 26) and 2 (Table 28), and those districts experienced an decrease in the percentage of total district graduates who were Black.

The loss in per pupil reimbursement was not statistically significant at any point in the distribution, similar to the results of the WLS regression analysis of Model 2 (Table 28). The other variable pertaining to district wealth, the local tax effort, was statistically significant in the districts below the median in the percentage of district graduates who are Black. These results indicate that the local tax effort mattered in those districts with lower percentages of Black students, or the Whiter, less diverse suburban schools. However, the effect of the local tax effort declined as the percentage of total district graduates who are Black increased. Local tax effort was not statistically significant in the more diverse schools.

Table 29. Quantile Regression Analysis, Percentage of Total District Graduates Who are Black by Percentile, 2000-2009 (n=150)

	Quantile Unstandardized Coefficient (p-value)				
Variable	**.10**	**.25**	**.50 (WLS)**	**.75**	**.90**
Constant	17.704 (.000)	20.821 (.000)	23.944 (.000)	25.569 (.000)	31.811 (.000)
AdjustedPPELoss	5.24E-005 (.760)	6.23E-005 (.662)	.000 (.148)	3.69E-004 (.148)	3.35E-004 (.215)
Local Effort	1.891 (.008)	1.583 (.008)	.966 (.110)	.851 (.420)	-.483 (.666)
West	-6.947 (.000)	-7.357 (.000)	-5.586 (.000)	-6.752 (.000)	-4.793 (.002)
Distance	-.308 (.000)	-.345 (.000)	-.285 (.000)	-.352 (.003)	-.443 (.001)
FRL	-.016 (.612)	.056 (.036)	.106 (.000)	.138 (.004)	.240 (.000)
PercentTransfer	-.076 (.000)	-.094 (.000)	-.114 (.000)	-.097 (.000)	-.078 (.005)

In terms of student composition, the percentage of Black students in the district that transferred in from St. Louis was statistically significant across the entire distribution of the percentage of total district graduates that are Black; however, the variable did exhibit a negative effect. The percentage of students that qualified for free and reduced lunch was statistically significant across the entire distribution of the percentage of total district graduates that are Black, except below the 25th percentile, or in the less diverse districts. The effect of the percentage of students that qualify for free and reduced price lunch increased as the districts became more diverse.

In addressing the effectiveness of the program from a policy perspective, the results indicated that geography (being in the western region) and distance (how far a student travels) always matter, but to differing extents. Across Models 1 and 2, and in the first quantile regression analysis, being located in the western region had the most significant impact on the effectiveness of the policy in terms of district diversity—western districts had lower percentages of total district graduates that are Black. In the less diverse districts (those below the median level in the percentage of total district graduates that are Black), the local tax effort had the second highest effect on the dependent variable, but was not statistically significant in the more diverse districts. Additionally, the effect of local tax effort declined as districts became more diverse. Although also statistically significant across the entire distribution of the dependent variable, the percentage of Black students who transferred in from St. Louis had only a negligible (yet negative) effect on the percentage of total district graduates that are Black.

A second series of vertical equity regressions were conducted to determine which resources affected graduation rates, via the outcome indicator, or the graduation rate of Black 12th graders. The policy indicator addressed the ratio of Black graduates to White graduates by year while the outcome indicator specifically addresses the percentage of Black 12th graders that successfully complete their education in suburban districts. In each instance, transfer students represent the significant majority of the Black students in the suburban schools. Seven independent variables were used in the third model and the results are found in Table 30:

Model 3:

BlackGrad12 = AdjustedPPE + LocalEffort + West + Distance + FRL +

PercentTransfer + DistrictEnrollment (weighted) + error

Table 30. Vertical Equity Regression Analysis, Graduation Rate of Black 12th Graders by Weighted District Enrollment (using AdjustedPPE), 2000-2009 (n=150)

Independent Variables	**Unstandardized Coefficient B**	**Std. error**	**Standardized Coefficients**	**t**	**Sig.**
Constant	49.972	7.591		5.661	.000
AdjustedPPE	.001	.000	.393	4.402	.000
LocalEffort	4.915	1.249	.328	3.394	.000
West	3.313	1.749	.185	1.894	.060
Distance	.377	.140	.282	2.697	.008
FRL	.054	.058	.095	.935	.351
PercentTransfer	.092	.031	.311	2.297	.004

Adjusted R^2=.232; F-score=8.521, p<.000

The model explained only 23% of the variation in the graduation rates of Black 12th graders. Similar to the first model (Table 26), the two variables pertaining to community wealth (per pupil expenditures adjusted for inflation and local tax effort) were statistically significant. In this model, local effort was the strongest predictor of

the graduation rates of Black 12th graders. Being located in the western region had the second greatest effect on the dependent variable; however, in this case, location exhibited a positive effect on the dependent variable. While being located in the western region of the county explained a decrease in the percentage of total district graduates that are Black, it also explained an increase in the graduation rates of Black 12th graders.

The results of Model 3 (Table 30) indicated that the percentage of students that qualify for free and reduced lunch did not have a statistically significant effect on the graduation rate of Black 12th graders. The percentage of Black students in the district that are transfer students did have a minimally statistically significant effect on the dependent variable. Despite the effects of geography and community wealth on the graduation rates of Black 12th graders, the majority of the variation in the graduation rates of Black 12th graders remained unexplained by the model.

A fourth model was constructed to examine the outcome perspective, similar to the second model, which replaced per pupil expenditure with the loss of per pupil reimbursement, also adjusted for inflation. Seven variables were also used in the fourth model. Results are found in Table 31.

Model 4:

GradRate12 = AdjustedPPELoss + LocalEffort + West + Distance + FRL +

PercentTransfer + DistrictEnrollment (weighted) + error

The results of the fourth model (Table 31) were similar to the results of Model 3 (Table 30), where the fourth model explained approximately 23% of the variation in the

graduation rate of Black 12th graders. Similar to Model 3, the percentage of students that qualify for free and reduced lunch was not statistically significant. Interestingly, being located in the western region of the county was not statistically significant, but the distance from St. Louis was. Local tax effort had the greatest statistically significant effect on the graduation rates of Black 12th graders, and the loss in per pupil reimbursement, while statistically significant, had a negligible effect.

Table 31. Vertical Equity Regression Analysis, Graduation Rate for Black 12th Graders by Weighted District Enrollment (using AdjustedPPELoss), 2000-2009 (n=150)

Independent Variables	**Unstandardized Coefficient B**	**Std. error**	**Standardized Coefficients**	**t**	**Sig.**
Constant	55.571	5.694		9.759	.000
AdjustedPPELoss	.001	.000	.371	4.339	.000
LocalEffort	4.925	1.253	.329	3.391	.000
West	2.466	1.719	.138	1.434	.154
Distance	.396	.141	.296	2.813	.006
FRL	.031	.056	.054	.546	.586
PercentTransfer	.083	.031	.281	2.702	.008

Adjusted R^2=.230; F-score=8.412, p<.000

A second quantile regression analysis was conducted to determine the effectiveness of the program from an outcome perspective across the distribution of the graduation rates of Black 12th graders. The analysis used Model 4, with the graduation rate of Black 12th graders as the outcome variable. Results of the second quantile regression analysis can be found in Table 32. The fourth column (the .50 quantile) included the results of the weighted least squares regression found in Table 31, and reflected the effects at the median level.

The results indicated that as the graduation rate of Black 12th graders increased, fewer variables were statistically significant. In the districts in which the vast majority of

the Black 12th graders graduated (at the 90th percentile), none of the variables were statistically significant, except the percentage of Black students that transferred from St. Louis. These results implied that variables other than those included in the model may have had an effect on the graduation rates of Black 12th graders.

Table 32. Quantile Regression Analysis, Graduation Rate of Black 12th Graders by Percentile, 2000-2009 (n=150)

	Quantile Unstandardized Coefficient (p-value)				
Variable	**.10**	**.25**	**.50 (WLS)**	**.75**	**.90**
Constant	30.048 (.000)	35.106 (.000)	55.571 (.000)	51.540 (.000)	100.00 (.000)
AdjustedPPELoss	.002 (.000)	1.745E-003 (.000)	.001 (.000)	1.488E-003 (.002)	8.47E-18 (1.000)
Local Effort	6.613 (.000)	6.480 (.001)	4.925 (.000)	7.214 (.000)	-1.31E-14 (1.000)
West	3.618 (.082)	2.477 (.324)	2.466 (.154)	4.114 (.132)	-1.78E-14 (1.000)
Distance	.833 (.000)	.525 (.012)	.396 (.006)	.182 (.415)	-2.66E-16 (1.000)
FRL	-.045 (.505)	.023 (.784)	.031 (.586)	.074 (.409)	-3.99E-16 (1.000)
PercentTransfer	.122 (.001)	.167 (.000)	.083 (.008)	.112 (.023)	2.04E-16 (.000)

Unlike in the first quantile regression analysis, the two spending variables, the loss in per pupil expenditures and local tax effort, were statistically significant and did have an effect on the graduation rate of Black 12th graders through the districts in the 75th percentile. Being in the western region was only statistically significant ($p<.10$) in the districts with the lowest graduation rates for Black 12th graders. The local tax effort had the greatest impact on the dependent variable, further suggesting that district

wealth, and not location, has the strongest effect on the graduation rate of Black 12th graders.

As stated, some suburban elite felt that it would be "fiscally responsible" to discontinue the program due to the loss of funding, and thus, a fifth, and final, model was created to examine the effects of particular variables on the loss of per pupil reimbursement. This model also differs from the previous four in that it uses the number of transfer students in each district as the weighted variable, rather than total district enrollment, because the loss in funding is directly related to the number of transfer students enrolled in the district. The two variables (loss in per pupil reimbursement adjusted for inflation and transfer student enrollment) were not highly correlated ($r=-.256$, $p<.002$). The model includes both the policy indicator (the percentage of total district graduates that are Black) as well as the outcome indicator (the graduation rate of Black 12th graders) as independent variables. Seven variables were included in the model and the results can be found in Table 33.

Model 5:

AdjustedPPELoss = FRL + West + South + PercentTransfer + LocalEffort + GradBlack12 + GradBlack + TransferEnrollment (weighted) + error

This model explained 32% of the variation in the loss of per pupil reimbursement. The variable with the strongest statistically significant effect was the local tax effort (an indicator of district wealth), indicating that wealthier districts enjoyed smaller losses in per pupil reimbursements despite not being fully reimbursed for each transfer student. This could also be due to the wealthier districts enrolling

fewer transfer students and therefore losing less money. The percentage of Black students in suburban district that transferred in from St. Louis was statistically significant (p<.10) while the second student composition variable, the percentage of students that qualify for free and reduced lunch was not statistically significant. Being located in the western region was statistically significant (p<.10) and was the second greatest predictor of the graduation rates of Black 12th graders. Districts in the western region experienced a decline in the loss in reimbursement.

Table 33. Vertical Equity Regression Analysis, Loss in Per Pupil Reimbursement by Weighted Transfer Enrollment, 2000-2009 (n=150)

Independent Variables	**Unstandardized Coefficient**		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. error**			
Constant	769.185	2000.879		.384	.701
FRL	9.420	15.011	.052	.628	.531
West	-793.492	411.550	-.163	-1.928	.056
PercentTransfer	-19.055	11.020	-.153	-1.729	.086
LocalEffort	-1469.917	307.040	-.364	-4.787	.000
GradBlack	141.223	39.107	.328	3.611	.000
GradBlack12	62.115	20.527	.231	3.026	.003

Adjusted R^2=.319; F-score=12.533, p<.000

Finally, both achievement variables, pertaining to the effectiveness of the program, were statistically significant. The policy indicator, the percentage of total district graduates who were Black, had a stronger effect on the loss in per pupil reimbursement than did the outcome indicator, the graduation rate of Black 12th graders. As districts became more diverse (a higher percentage of total district graduates that are Black), the loss in per pupil reimbursement increased. These results reflected suburban disinterest in enrolling additional transfer students, specifically due to loss in funding.

The third quantile regression analysis was based on Model 5. However, because some districts did not lose any money as a result of reimbursements for transfer students (see Table 27), this analysis concentrates on those districts at and above the 40th percentile. The third column (the .50 quantile) included the results of the weighted least squares regression found in Table 33. Results of the third quantile regression can be found in Table 34.

Table 34. Quantile Regression Analysis, Loss of Per Pupil Reimbursement by Percentile, 2000-2009 (n=150)

	Quantile Unstandardized Coefficient (p-value)				
Variable	**.40**	**.50 (WLS)**	**.60**	**.75**	**.90**
Constant	2140.041 (.336)	769.185 (.701)	3938.947 (.089)	2891.949 (.406)	-5892.516 (.259)
FRL	5.833 (.650)	9.420 (.531)	19.240 (.267)	12.211 (.640)	65.858 (.094)
West	-310.383 (.379)	-793.492 (.056)	-603.060 (.204)	-153.536 (.830)	460.695 (.667)
PercentTransfer	21.393 (.025)	-19.055 (.086)	-42.520 (.001)	-31.620 (.100)	23.014 (.423)
LocalEffort	-253.240 (.336)	-1469.917 (.000)	-857.959 (.016)	-1520.244 (.005)	-2653.573 (.001)
GradBlack	-1.673 (.960)	141.223 (.000)	53.733 (.234)	196.663 (.004)	412.864 (.000)
GradBlack12	9.226 (.600)	62.115 (.003)	31.875 (.179)	48.099 (.179)	117.613 (.029)

The results of the third quantile regression analysis showed a wide variation in the effects of the variables on the loss of per pupil reimbursement. Local tax effort had the greatest effect on loss in per pupil reimbursement in the WLS regression, but these results indicated that local tax effort was only statistically significant in those districts above the median in loss in per pupil reimbursement. This reflected how district wealth

could serve to balance the increase in district enrollment by supplementing the loss in funding. Being in the western region was only statistically significant ($p<.10$) at the median.

The effects of the student composition variables on the loss in per pupil reimbursement were different in the quantile regression analysis than in the WLS analysis. The percentage of students that qualified for free and reduced priced lunch was not statistically significant in the WLS model, while in this analysis, it was statistically significant only in those districts with the greatest loss in per pupil reimbursement (at the 90th percentile). The number of transfer students was not highly correlated with the percentage of students that qualify for free and reduced priced lunch ($r=-.421$, $p<.000$); however, there may be some overlap between those groups of students in the districts that are losing the most amount of reimbursement funding. The percentage of Black students in a district that transferred in from St. Louis was statistically significant in the WLS regression ($p<.10$) and the quantile regression results indicate that the variable was also significant in those districts below the 90th percentile.

Finally, the effects of the two achievement variables fluctuated by percentile. In the WLS regression, both variables (the percentage of total district graduates that were Black and the graduation rate of Black 12th graders) were statistically significant. In the quantile regression, those variables were only statistically significant at the median and highest levels of loss in per pupil reimbursement. The diversity of the districts (total percentage of graduates who are Black) and the academic achievement of Black students (graduation rates of Black 12th graders) exhibited the greatest effects in the

districts that lost the most funding. As the district diversity and Black student achievement increased, so too did the loss in per pupil reimbursement.

As mentioned, quantile regression is necessary to uncover the range in effects of independent variables across the distribution of the dependent variable. Geography (being located in the western region) and distance were statistically significant across all percentiles of the dependent variable in the first quantile regression analysis (policy effectiveness) but had different effects in the second quantile regression analysis (outcome effectiveness). Being located in the western region was only statistically significant in the districts at the 10th percentile in the graduation rate of Black 12th graders, while the distance variable was statistically significant in the districts at and below the median. Distance was not included in the third quantile regression analysis (loss of funding) but geography was statistically significant in the districts at the median.

Distance and/or geography had positive effects on the dependent variable in the second (graduation rate of Black 12th graders) and third (loss in per pupil reimbursement) quantile regression analyses. Previous analyses found that districts in the western county negatively affected the percentage of total district graduates who were Black (district diversity), increased the graduation rates of Black students (student outcomes), and decreased the loss in per pupil reimbursement (loss of funding).

Student composition in schools tells yet another story. The percentage of students that qualifies for free and reduced priced was statistically significant as district diversity (the percentage of total district graduates who were Black) increased but was not statistically significant when analyzing the graduation rates of Black 12th graders or

the loss in per pupil reimbursement. The percentage of Black students in the district that transferred in from St. Louis was statistically significant across the entire distributions of the percentage of total district graduates that are Black and the graduation rates of Black 12th graders, but not in the districts that lost the most in per pupil reimbursement. Based on the results of the three quantile regression analyses, student composition had varying effects on district diversity, Black student achievement, and loss in funding, but the percentage of Black students from St. Louis had a consistently statistically significant effect on the dependent variable, regardless of the model.

Conclusion

Horizontal and vertical equity analyses have proven useful in determining the equity of school finance funding formulas across the nation. Over the years, these analyses have helped bring attention to the differing provision, whether legitimately or illegitimately, of educational opportunities to particular groups of students. The results of the horizontal and vertical equity and quantile regression analyses presented in this study bring attention to issues of school demographics, student achievement, and financial resources in the districts that participate in the voluntary transfer program in the metropolitan St. Louis area.

The settlement agreement passed in 1999 was designed to continue the program for an additional ten years, and in 2007, the districts voted to continue the program for another five years, through the 2012-13 school year, and for another five years in 2012. Following the 2007 vote, districts were allowed to individually determine

the number of transfer students they would accept into their schools. While it is true that the majority of the participating suburban districts continue to accept new transfer students from St. Louis, the number of transfer students accepted is steadily declining.

Two conclusions can be drawn from the horizontal equity analyses. First, all suburbs are not equal, as evidenced by the levels of inequity present in per pupil revenue from property tax, per pupil expenditures, the percentage of residents age 25 and over with a Bachelor's degree, the percentage of students that qualify for free and reduced priced lunch, and median home values and family incomes. Just because a transfer student chooses and is assigned to a particular suburban district, assumptions cannot be made about the type of suburban community in which the schools are located. Second, the individualized program and policy decisions made by the suburban districts regarding enrolling additional transfer students reflect growing levels of inequity among the increasingly racially isolated schools.

Four vertical equity models were used to examine program effectiveness from either a policy perspective (percentage of total graduates who were Black) or an outcome perspective (graduation rate of Black 12th graders). A fifth model was used to examine loss in per pupil reimbursement. Overall results indicate that, on average, almost three times as much variation in Black graduation rates was explained via the policy models (Models 1 and 2) as opposed to the outcome models (Models 3 and 4). This implies that the individual transfer enrollment policy adopted by each participating suburban district has a greater impact on Black graduation rates than simply the number of Black students in the 12th grade. This is especially important given that transfer

students comprised a significant majority of the Black student population in the suburban schools. The fifth model (loss in funding) included both the policy and outcome variables, and while both were statistically significant, the majority of the variation in loss of funding was left unexplained by the model.

Two quantile regression analyses were conducted in an attempt to more closely examine the effects of resource variables across the distributions of the two achievement variables. The results of the two analyses were in stark contrast. In terms of policy effectiveness, geography (being located in the western region) was the greatest predictor of the total percentage of total district graduates that were Black. Local tax effort (a reflection of district wealth), while only statistically significant in those districts below the median, had a much smaller effect. In terms of outcome effectiveness, local tax effort had the greatest impact on the graduation rate of Black students in the majority of districts, while geography was only statistically significant in the districts at the lowest end of the distribution. The third quantile regression analysis examined loss of funding in greater detail and found that local tax effort mattered in those districts above the median while geography only mattered in those at the median.

These results indicated that either location or local tax effort had the greatest impact on the graduation rates of the Black students and in the loss of funding in the 15 participating suburban districts. While Coleman et al., among others, have argued that with whom a student attends school is important, these results imply that district wealth and where the district is located relative to a major city matter more. One could assume that district wealth and location is, in fact, a reflection of school composition.

The suburban districts have chosen to intentionally increase the percentage of Black students in their schools, despite the decreasing rate over time, and it is critically important to conduct further regression analyses to uncover additional predictors of the graduation rates of Black students, including peer effects pertaining to social and cultural capital and/or specialized funding. Additionally, future analyses must disaggregate between the Black suburban resident students and the Black transfer students in order to more accurately predict the graduation rates of the transfer program participants. Although school composition had less of a significant effect on graduation rates and funding in the models, the effects may be stronger (or weaker) when focused only on transfer students.

At the height of the program, almost 15,000 transfer students participated—the vast majority coming from the city—and despite smaller enrollment numbers due to individual enrollment policies adopted by the participating suburban districts, this program is still a popular school choice option among Black families in St. Louis. Attention is often rightly focused on the disparities between urban and suburban districts, yet as Black families continue to participate in this voluntary transfer program with the belief that their children will be attending school in better districts, this research rightfully expands the discussion to include disparities between the participating suburban districts.

CHAPTER 7

DISCUSSION, CONCLUSION, AND IMPLICATIONS FOR FUTURE RESEARCH

Introduction

The purpose of this study was to examine the suburban implementation and resource allocation evident in the urban-to-suburban component of the voluntary interdistrict desegregation program in St. Louis in the ten years following the end of court-ordered desegregation in 1999. Although this program is a dual transfer program, and non-Black suburban students are eligible to attend city magnet schools, this study focuses on the Black students from St. Louis attending suburban schools as they represent the overwhelming majority of program participants. Previous research on the voluntary transfer program in St. Louis, and on similar voluntary interdistrict desegregation programs, have been primarily qualitative in nature, and have explored issues pertaining to decision-making and policy creation, as well as race, student achievement, personal experiences, and peer effects (Armor, 1972; Eaton, 2001, 2006; Orfield et. al, 1998; Wells & Crain, 1997). Past quantitative studies have explored test scores and/or high school graduation rates (Angrist & Lang, 2004; Eaton & Chirichigno, 2011).

Following the end of the court order in 1999, continuation of the voluntary transfer program in St. Louis was made at the discretion of the individual participating suburban districts. Past studies on the voluntary transfer program in St. Louis, and on

civic capacity in St. Louis conducted by Stone et al. (2001), were from the perspective of the city participants and urban elite. Although Black families have chosen to participate in transfer programs because of access to "a better education" (Eaton, 2001; Orfield et al., 1998; Wells & Crain, 1997), it remains clear that the future of the transfer program rests in the hands of the suburban elite. This represents an ongoing struggle between the Black families who want to continue participating in the program and the suburban communities that ultimately hold the power to discontinue the program, exemplifying the suburban power persistent in metropolitan areas.

This study was based on the broader concept of equal educational opportunity, which is defined by both the *equality of inputs* (peer and financial resources) and *equality of outputs* (student achievement). This study addressed both definitions using the voluntary transfer program in St. Louis as the context, and included three components: (1) suburban implementation of the voluntary transfer program, (2) the financial resources available in St. Louis and in the suburban districts to which students have been assigned, and (3) the variation in the distribution of the resources available in the suburban communities and their effect on the graduation rates of the Black students in suburban schools. The first two components corresponded to the *equality of inputs* definition of equal educational opportunity. The third component of this study corresponded to the *equality of outputs* definition. To explore the equality of inputs and outputs, three specific research questions were posed:

1) What factors determined suburban implementation of the voluntary transfer program between 1999 and 2009? How did suburban elites perceive their role in the provision of equal educational opportunities?
2) What were the differences in resources between St. Louis and the participating suburban school districts between 1999 and 2009?
3) To what extent were resources distributed equitably among the 15 participating suburban school districts between 1999 and 2009? To what extent do these resources explain the variation in the graduation rates of the Black students in suburban schools?

This research consisted of two separate analyses: an implementation analysis and an equity analysis. The implementation analysis used a media framing analysis in an attempt to uncover the factors affecting suburban implementation of the transfer program, and how those factors are reported to the general public. Once the court order was lifted in 1999, suburban school districts could individually decide the extent of their participation in the program. As a result, transfer enrollment began to decline. This analysis also allowed for an investigation of the civic capacity, as outlined by the framework used by Stone et al. (2001), apparent in the participating suburban districts around issues of desegregation, resource allocation, and educational and social equity. The second analysis, the equity analysis, relied on the framework created by Berne and Stiefel (1984), and uses descriptive statistics, horizontal input and vertical output equity, and quantile regression to measure the distribution of the resources in the participating

suburban districts, as well as the effects of those resources on the graduation rates of the Black students in the suburban districts.

The data used throughout the study were collected from multiple sources. For the implementation analysis, used to answer the first research question, articles from four newspaper outlets in the city and surrounding suburbs were used. A search was conducted, focusing on articles which appeared between 1999 and 2009 that specifically mentioned the "voluntary transfer," "voluntary desegregation," or "interdistrict" program. These articles provided evidence of how the participating suburban districts decided to implement the voluntary transfer program following the end of the court order, and which factors affected those decisions. Additionally, the articles were able to provide a glimpse of the civic capacity evident in the suburban districts.

The data used in the horizontal and vertical equity analyses were gathered from six separate sources across the ten years and compiled into one composite database. Sources included: the National Center for Education Statistics Common Core of Data, the Common Core of Data's Local Education Agency Finance Survey, the Missouri Department of Education, the St. Louis County Department of Revenue, the Voluntary Interdistrict Desegregation Program, and the U.S. Census Bureau. A horizontal input equity analysis was used to address the second research question, and used the range, coefficient of variation, and the McLoone and Verstegen Indices as measures of equity. Five vertical output equity analyses were used to address the third research question, and results were based on weighted least squares and quantile regression analyses.

The remainder of this chapter discusses the major findings and implications of the study. In the section that follows, the results of each research question will be discussed in greater detail. The final section will discuss the implications for future research on the larger topics of desegregation, resource allocation, and equal educational opportunity.

Discussion

In the section that follows, the findings for each of the three research questions will be outlined in greater detail, as well as the relationship to equal educational opportunity.

Research Question 1: What factors determined suburban implementation of the voluntary transfer program between 1999 and 2009? How did suburban elites perceive their role in the provision of equal educational opportunities?

A total of 82 articles were used for the media framing analysis in order to investigate which factors determined continued suburban implementation of the voluntary transfer program. Fifteen suburban districts participated in the voluntary transfer program between 1999 and 2009, although not all districts decided to continue enrolling new transfer students from St. Louis. In that time span, across all of the districts, the numbers of participating transfer students declined over the course of the ten years.

The media framing analysis found three major frames used to describe the voluntary transfer program in the newspapers: an economic frame, a human impact frame, and a conflict frame. The *economic* frame reflected issues pertaining to budgets

and tuition reimbursement to the suburban district for enrolling transfer students. The *human impact* frame brought attention to topics of diversity, fairness, and equity, and the *conflict* frame outlined the "us" versus "them" perspective evident between the city and suburban schools and communities.

The economic frame was the most common throughout the analysis, appearing in almost 60% of the articles in the analysis, and within this frame, the major theme was tuition reimbursement. Per-pupil tuition reimbursements to the participating suburban districts had declined in the ten years following the settlement agreement, from full reimbursement according to each suburban district's per pupil tuition amount to a maximum of $9,100 per transfer student. As of 2012, suburban reimbursement is capped at $7,000 per transfer student. Program popularity among city residents is evident by the number of families continuing to apply to the program in hopes of being selected, but questions remained in the suburban districts about the cost of educating a transfer student (Bower, 2004e), and whether suburban residents feel that "integration is too expensive and not worth replacing" (Bower, 2002, p. C1). One suburban parent explained that while educational and socioeconomic disparities are unfortunate, "we [suburban residents] owe them nothing" (Bower, 2004b, p. C1). Some suburban parents believed that students from St. Louis were "more important than dollars and cents" (Bower, 2004b, p. C1), but suburban district officials argued that lower tuition reimbursement amounts would result in a loss of staff, and therefore, should choose to be "fiscally responsible" (Bower, 2004b) and reduce the number of transfer students enrolling in their districts.

A second theme in the economic frame, though appearing in substantially fewer articles, was about the 2003 lawsuit over the mismanagement of program funds following the 1999 settlement agreement. A lawyer for the plaintiffs asserted "county districts got involved in voluntary desegregation in 1983 because they were promised full reimbursement for transfer students" (Bower, 2005, p. B1). This supports the notion that program support and continuation is primarily dependent upon the amount of money received by the participating suburban districts for each transfer student rather than participating in order to address the larger metropolitan concerns of desegregation and equity.

The second most prevalent frame in the media framing analysis was the *human impact* frame, with diversity appearing as the dominant theme within this frame. One suburban principal stated that he was "proud to be a part of a community that values diversity in a metro area so segregated" (Bower, 2004g, p. C1), while a suburban superintendent acknowledged that "a program like this is necessary" (Bower, 2002, p. C1). Similarly, both transfer and suburban students alike noted the need for and value of diversity in their schools.

However, just as suburban parents and school administration were not unanimously supportive of continuing (or discontinuing) to implement the transfer program, neither were the suburban students. In 2004, although 700 students at Clayton High School in Clayton School District staged a walkout to support continuation of the transfer program, some suburban students questioned why the district should continue to pay if the state could not provide adequate reimbursement. Although the

need for integration and diversity in schools and communities was noted, opposition to the program was still based on funding and reimbursement concerns.

The second theme within the human impact frame was that of discipline procedures in the suburban schools. These articles also raised issues of diversity and cultural sensitivity necessary for suburban students, teachers, and families. The articles brought attention to the story of a transfer student in the 12th grade suspended for 98 days following a fight despite the fact that it was his first offense. A reverend from St. Louis, active in the local NAACP, noted, "We have to have a dialogue about the misunderstandings…There needs to be ongoing conversation…Once we start trusting each other, then we can work on the big issue—educating children" (Bower, 2004a, p. A1). The transfer program has been active in St. Louis County since 1983, and incidents such as these reinforce the idea that simply putting diverse groups of students together does not automatically equate to embraced diversity and understanding among teachers and/or students.

The final frame, *conflict*, appeared in the least amount of articles in the analysis. The major theme within this frame was the contrast between the city and suburban schools and communities. In the articles, the bus ride to the suburban communities is depicted as "a trip to another word…subdivisions baptized with names like 'the Estates at Winding Trails' and suburban lanes evoking canyons and ridges, farms and crests" (Giegerich, 2007c, p. A1), with the transfer program described as "an emergency visa for students leaving St. Louis public schools," and as "a lifeline for students" (Hampel, 2007, p. B1) or "a beacon of hope" (Bower, 2004e, p. B1). McClellan (2007) writes, "Teaching

these kids is an uphill battle. The hope is that the negative home environment can be overcome with a positive school environment" (p. B1). Continued media coverage presenting the transfer program in this manner highlights the program as a "savior" for city students, further underscoring the value placed on resources, the power of the suburbs to provide such resources, and the inability of the city to serve its residents.

The second theme within the conflict frame reflected the St. Louis Public Schools' (SLPS) loss of accreditation in 2007. This, coupled with the general lack of faith in SLPS and the deficit view of city families, brought increasing concern to suburban families. One suburban parent suggested that a state intervention in the city school system, or allowing city students who were not part of the transfer program to enroll in suburban schools, would "devalue education in [our] community" (Giegerich, 2007a, p. B1). Suburban districts explicitly stated that they "had decided not to take extra students from poor-performing schools" (Hampel, 2007, p. B1) These articles, although situated within conflict frame, also correspond to the economic frame in that the suburban elite did not want to share their resources (high value on education; high performing schools) with city student and families. In a sense, suburban decision-makers deemed city students "unworthy" of their resources.

The media framing analysis was used to examine the factors that determined continued suburban implementation of the voluntary transfer program. Stone et al. (2001) define civic capacity as "various sectors of the community coming together in an effort to solve a major problem" (p. 4). In this research, suburban implementation, and

the corresponding levels of implementation, serve as an indication of the civic capacity in the suburban districts around issues of integration and educational equity.

The media framing analysis found that the majority of articles, and thus, the majority of information presented to the general public about the transfer program, pertained to funding, and specifically referenced budget cuts and the impact of the potential loss of education funding (due to partial reimbursement for some districts) on suburban students. Additional information presented to the general public included the benefits of diversity and integration, yet there was an on-going deficit-laden description of St. Louis city, the school system, and its students.

Stone et al. (2001) found that levels of civic mobilization around educational issues are strongly related to perceptions about those issues. The ongoing implementation of the voluntary transfer program is an example of suburban civic capacity, however, the framing analysis suggests that suburban elites, including parents, administrators, and students, are mobilized around funding and reimbursement rather than around the policy's intent of racial integration. This is indicated by the systematic decline in the number of transfer students enrolled across all districts over time, even in Clayton schools where students staged a walkout in support of the program. The implementation analysis also suggested that suburban elites viewed transfer students as threats to their resources, and in some cases, to their communities, and therefore, chose to gradually reduce the number of transfer students.

It was evident that the three frames (and six themes) present in the media framing analysis overlap throughout this study. They also directly corresponded to the

three overarching concepts and/or frameworks present throughout this research: equal educational opportunity (human impact and economic frames), resource allocation/equity analysis (economic and conflict frames), and civic capacity (human impact and conflict frames).

In his study of the backward-mapping approach to policy implementation, Elmore (1979) notes that, "the closer one is to the problem, the greater one's ability to influence it" (p. 605). In this study, the participating suburban districts hold all of the power in maintaining or terminating the voluntary transfer program despite the interests of Black families in St. Louis and the urban elite. Suburban elites, or in a term coined by Lipsky, the "street-level bureaucrats", have made clear their priorities about the voluntary transfer program through the growing importance placed on tuition reimbursement, their refusal to share resources with city students, and the declining significance placed on diversity.

Research Question 2: What were the differences in resources between St. Louis and the participating suburban school districts between 1999 and 2009?

A descriptive statistical analysis was used to describe the differences in resources between St. Louis and the 15 participating suburban districts in order to lay the foundation for the resulting horizontal and vertical equity analyses. Data was divided into four categories: spending, district, achievement, and community variables. *Spending* variables included per pupil expenditures, per pupil revenue from property taxes, per pupil revenue from federal Title I funding, per pupil teacher salary used for instruction, the local district's tax effort, and the pupil-teacher ratio. The four

expenditure and/or revenue variables were reported in 2009 inflation-adjusted dollars. *District* variables included district enrollment, the percentage of Black and White students in the district, the percentage of Black students in the district that transferred from St. Louis, and the percentage of district students that qualified for free and reduced priced lunch. *Achievement* variables included the percentage of total district graduates that are Black and the graduation rate for Black 12th graders. Finally, the *community* variables included the median home value, median family income, percentage of residents over 25 with a Bachelor's degree, and the percentages of Black and White families, and families living in poverty. Median home value and median family income were also reported in 2009 inflation-adjusted dollars. Additional *community* variables included the geographic location of the suburban school district within St. Louis County (West or South) and its distance from St. Louis city.

Results indicate that St. Louis city had a higher average per pupil expenditure, per pupil revenue from federal Title I funding, and local tax effort, but lower per pupil revenue from property tax and per pupil teacher salary used for instruction. Due to increased property wealth in the suburbs, per pupil revenue from property taxes in the suburban districts was over $2,000 higher than in the city, despite lower tax efforts.

As expected, St. Louis Public Schools is a majority-minority school district, averaging a student body that was 80% Black, while the suburban districts averaged a student body that was 20% Black. The percentage of students that qualified for free and reduced lunch nearly mirrored the Black population in both the city and suburbs: 79% of St. Louis Public Schools qualified for free and reduced lunch, while 25% of suburban

schools qualified. Transfer students from St. Louis comprised the majority of the Black student population in suburban schools, at 63%, while St. Louis Public Schools lost an average of 25% of their student body to suburban districts through enrollment in the transfer program.

The two achievement variables (the percentage of total district graduates that are Black and the graduation rate of Black 12th graders) reflected the effectiveness of the transfer program from two distinct perspectives, policy and outcome. The policy perspective, the percentage of total district graduates that are Black, reflects the program's stated mission of increasing diversity in suburban districts. The outcome perspective, the graduation rate of Black 12th graders, corresponds to Black families choosing to participate for access to "a better education." Results of the descriptive statistical analysis find that the average total percentage of graduates that are Black in both the city and suburban district align with the percentage of Black students in the schools: 79% in St. Louis Public Schools and 17.5% in suburban districts. The average graduation rate for Black 12th graders is fairly similar between city and suburban schools, although slightly higher in city schools (probably due to a higher percentage of Black students in city schools). Ninety-two percent of Black 12th graders in suburban schools graduated, compared to 95% of Black 12th graders in St. Louis city schools.

Finally, an analysis of the Census data found that St. Louis residents are, on average, poorer, less White, and have less educational attainment than suburban residents. Homes in St. Louis cost an average of almost $100,000 less than homes in the surrounding suburbs (reflective of higher per pupil revenue from property taxes in

suburban schools) and St. Louis families have an average median income of approximately $45,000 less than suburban families (reflective of increased per pupil revenue from federal Title I funding in city schools). Black families constituted approximately 6% of suburban families, and comprised 50% of St. Louis families. Interestingly, although only 50% of St. Louis families were Black, 80% of the city's public schools were Black, raising questions about diversity in St. Louis and where the city's White students are attending school.

Research Question 3: To what extent were resources distributed equitably among the 15 participating suburban school districts between 1999 and 2009? To what extent do these resources explain the variation in the graduation rates of the Black students in suburban schools?

A series of horizontal equity analyses was conducted to determine whether resources were distributed equitably across the 15 participating suburban districts across the ten years of the study. The intent of the horizontal equity analyses was not to compare St. Louis city to the participating suburbs—the descriptive statistical analyses provided much of that information—but rather to investigate the variation in resource distribution among the 15 suburban districts that had agreed to enroll transfer students in their schools. The range, coefficient of variation, and McLoone and Verstegen Indices were used to determine the variations in the distribution of the variables.

Overall, the horizontal equity analyses found that most of the variables pertaining to Black students and/or poverty (reflecting district diversity, or the district's

attempt at achieving some level of diversity) were inequitably distributed across all years and across all equity measures. As districts were given the capability to individually determine their participation in the transfer program, and the extent of their participation, levels of inequity increased over time. The only equitably distributed variable was the graduation rate of Black 12th graders, implying that Black students (regardless if they are urban or suburban residents or the number of Black students in the district) are graduating from high school.

Among the six *spending* variables, the most inequitably distributed variable was per pupil revenue received from federal Title I funding, used to provide additional resources to disadvantaged students, while the least inequitably distributed variable was the local tax effort. Again, although the tax rates were more equitably distributed, because of the range in property values among the participating suburbs (a difference of over $266,000, in 2009, between the districts with the highest and lowest home values), this resulted in the continued unequal distribution of per pupil revenue from property taxes.

Among the *district* variables, one of the most inequitably distributed variable was the percentage of students that qualify for free and reduced priced lunch, an indication of increasing socioeconomic segregation among the participating suburban districts. It cannot be assumed that the unequal distribution of students that qualify for free and reduced priced lunch was simply because of the enrollment of transfer students from St. Louis. Districts became increasingly White over the ten years of the study. The percentage of Black students that transferred from St. Louis was the second

most inequitably distributed variable. This, combined with the unequal distribution of students that qualify for free and reduced priced lunch, reflected an increase of less-wealthy White students in the suburban districts. Given the changing demographics of suburban schools, just as questions were raised about where White students from St. Louis attend school, the same question could be posed about where wealthy White students from St. Louis County attend schools. Suburban schools were becoming increasingly racially and socioeconomically segregated over time as the distribution of students that qualify for free and reduced priced lunch was substantially more inequitably distributed than the percentage of Black students in suburban schools or the percentage of Black students in suburban schools that transfer from St. Louis.

As mentioned, the graduation rate of Black 12th graders (the outcome perspective of the effectiveness of the transfer program) was the most equitably distributed variable over time. This remained true despite the increasingly inequitable distribution of the total percentage of district graduates that are Black (the policy perspective of the effectiveness of the transfer program). Although fewer transfer students enrolled over time, graduation rates remained equitable.

The horizontal equity analyses of the Census variables demonstrated, similar to previous horizontal equity analyses, that the suburban districts (not just the schools) are becoming increasingly racially and socioeconomically segregated. The percentage of Black families was the most inequitably distributed variable among the 15 participating suburbs, understanding that the 8 northern suburban districts—the predominately Black suburban communities—no longer participate in the transfer program and are not

included in this analysis. Inequalities persisted among median home values, median family incomes, and the percentage of suburban families living in poverty.

The results of these horizontal equity analyses indicated that transfer students from St. Louis attend school in a wide range of suburban districts. Although many of the Black 12th graders graduated (regardless of urban or suburban residence), Black students, especially those from the city, did not have equal access to resources nor are equal resources present in the participating suburban districts. Looking past the issues of disparities between city and suburban communities, this research highlights larger issues of interdistrict resource allocation across a metropolitan area, and in broader terms, resource allocation across the state as a whole.

Following the horizontal equity analyses, vertical equity analyses were conducted in order to determine the effect of the variation in resources on the graduation rates of the Black students in the suburban districts. Weighted least squares and quantile regression analyses were used. Although the graduation rates of Black students were reported in the aggregate without separating suburban Black students from the transfer students, the majority of the Black students in the suburban districts (an average of 63%) transferred in from St. Louis. The two achievement variables, the percentage of total graduates who are Black (policy indicator) and the graduation rate of Black 12th graders (outcome indicator), were used as the dependent variables for the series of regression analyses.

The first series of regression analysis used the policy indicator as the dependent variable. The first model included variables from the spending (inflation-adjusted per

pupil expenditures and local tax effort), district (percent of students qualifying for free and reduced lunch and the percentage of Black students that were transfers from St. Louis), and community (geography—categorized as West—and distance) categories. District enrollment was included in the model as a weighted variable.

The model explained 74% of the variation in the percentage of total district graduates who are Black (Table 26). All variables included in the model were statistically significant. Being located in the western region had the strongest impact on the percentage of total graduates that are Black, and exhibited a negative effect. Distance also had a negative statistically significant effect on the percentage of total district graduates that are Black—the percentage of total district graduates that are Black declined as the districts were located to the west and farther away from St. Louis.

A second analysis was conducted based on the same model, but instead used the loss in suburban per pupil tuition reimbursement rather than per pupil expenditures. The loss in per pupil reimbursement was also reported throughout the study using inflation-adjusted dollars for 2009. Suburban districts were capped at a reimbursement of $9,100 per student (or their actual per pupil expenditure amount, whichever is less), causing some districts to lose money per transfer student. Results from the implementation analysis found that some suburban decision-makers felt that the loss of funding was fiscally irresponsible, making the inclusion of this variable necessary. This second WLS regression model also explained 72% of the variation in the percentage of total district graduates that are Black (Table 28). Unlike Model 1, the loss in per pupil reimbursement was not statistically significant in Model 2, nor was local tax effort. The

remaining four variables (west, distance, percentage of students that qualify for free and reduced priced lunch, and the percentage of Black students that transferred from St. Louis) were all statistically significant. Each statistically significant variable exhibited a negative effect on the dependent variable, expect the percentage of students that qualify for free and reduced priced lunch.

Again, being located in the western region had the greatest effect on the percentage of total district graduates that are Black, decreasing the percentages by 5% (Model 1) and 6% (Model 2). Variables related to spending were statistically significant in the first model but not the second. Student composition variables, while statistically significant, had minimal impact on the percentage of total district graduates that are Black. Interestingly, the percentage of students that qualify for free and reduced priced lunch had a positive (yet minimal) impact on the dependent variable, while the percentage of Black students that were transfers from St. Louis had a similarly minimal, yet negative, impact.

A quantile regression analysis was conducted on the second model to determine the effects of the independent variables along the distribution of percentage of total district graduates that are Black (at the 10^{th}, 25^{th}, 50^{th}, 75^{th}, and 90^{th} percentiles). These results indicate that distance, being located in the west, and the percentage of Black students that were transfers from St. Louis were the only statistically significant variables across the entire distribution of the percentage of total district graduates that are Black (Table 29). Local tax effort, which was not statistically significant in Model 2, was found to have an effect only in those districts below the median in the percentage

of district graduates that are Black—or the Whiter, less diverse districts. The effect of local tax effort decreased as the district diversity increased. Distance remained statistically significant, but had a negative effect on the dependent variable, similar to Models 1 and 2. The percentage of students that qualify for free and reduced priced lunch was statistically significant in the districts at and above the 25th percentile.

A second set of vertical equity analyses were conducted using the graduation rates of Black 12th graders (the outcome indicator) as the dependent variable. Model 3 used the same seven independent variables as Model 1 (inflation-adjusted per pupil expenditures, local tax effort, west, distance, percentage of students that qualify for free and reduced priced lunch, the percentage of Black students that transferred from St. Louis, and weighted district enrollment), and explained 23% of the variation in the graduation rates of Black 12th graders (Table 30).

The two *spending* variables were statistically significant, while the one of the two *district* variables (the percentage of students that qualify for free and reduced priced lunch) were not. Distance and being located in the western region were statistically significant as well. Local tax effort had the greatest effect on the graduation rates of Black 12th graders, and none of the variables had a negative effect. Western districts had higher graduation rates for Black 12th graders, unlike in the first two models where geography exhibited a negative impact on the percentage of total district graduates that are Black.

The fourth model included the same variables as Model 3, except replaced per pupil expenditures with the inflation-adjusted loss in per pupil reimbursement. This

model explained 25% of the variation in the graduation rates of Black 12th graders (Table 31). In this model, geography (being in the west) and the percentage of students that qualify for free and reduced priced lunch were the only two variables that were not statistically significant. Local tax effort again had the greatest effect. While statistically significant, the effects of the *spending* variables on the graduation rates of Black 12th graders, (per pupil expenditures in Model 3 and the loss in per pupil reimbursement in Model 4), were negligible.

A second quantile regression analysis was conducted to determine the effects of the variables along the distribution of the graduation rate of Black 12th graders (Table 32). As the graduation rates increased, fewer variables were statistically significant, and in the districts where the vast majority of Black students graduated (above the 90th percentile), none of the variables were statistically significant, except the percentage of Black students that transferred from St. Louis. Local tax effort had the strongest positive effect throughout the distribution of the graduation rate of Black 12th graders, while the loss in per pupil reimbursement was also statistically significant but had a negligible effect. Both distance and geography (being in the western region) were statistically significant through the districts in the 90th percentile.

A final model was created to determine the effects of variables on the loss in per pupil reimbursement because funding, and the loss of funding, is an integral element in the decision of suburban districts about whether to continue participation in the voluntary transfer program. Transfer student enrollment per district was included in the model as the weighted variable, with an additional six independent variables: west, the

percentage of students that qualified for free and reduced priced lunch, the percentage of Black students in the district that transferred from St. Louis, the local tax effort, the percentage of total district graduates who are Black, and the graduation rate of Black 12th graders.

This model explained 32% of the variation in the loss of per pupil reimbursement (Table 33). The percentage of students that qualify for free and reduced priced lunch was not statistically significant. Local tax effort had the strongest effect on the loss in per pupil reimbursement. Districts with increased tax efforts lost less money in per pupil reimbursement, possibly due to higher property values. Being located in the western region had the second strongest effect on the dependent variable ($p<.10$). Both of the *achievement* variables, the percentage of total graduates who are Black and the graduation rate of Black 12th graders, were statistically significant, and both reflect an increase in the amount of funding lost. The percentage of total graduates who are Black had a greater effect on loss in funding than the graduation rates of Black 12th graders. These results reflect possible reasons for the lack of suburban interest in enrolling additional transfer students.

The third and final quantile regression analysis examined the effects of these variables across the range in the loss of per pupil reimbursement. The results of this analysis (Table 34) show a wide variation in the effects of these variables on the loss of per pupil reimbursement. Local tax effort was statistically significant in the districts at and above the median, and as the tax effort increased, the loss in per pupil funding decreased, reflecting how district wealth can serve to balance the funding lost due to

the increase in transfer enrollment. Being in the western region was only statistically significant in those districts at the median in the amount of funding lost due to partial reimbursement

The effects of the two *achievement* variables fluctuated by percentile, and were only statistically significant at the median and highest levels of loss in per pupil reimbursements. Of the two achievement variables, the percentage of total district graduates that are Black had the greatest effect in the districts with the greatest loss in per pupil reimbursement. In the districts that lost the most funding (at the 90th percentile), local tax effort had the greatest impact of all of the statistically significant variables ($p<.10$), followed by the two achievement variables. These results imply that district wealth matter most in the districts that lost the most funding followed by the variables that represent student composition and district diversity (the percentage of students that qualify for free and reduced lunch and the percentage of total district graduates that are Black).

Conclusion

The results of the implementation analysis indicate that suburban interest in the program is based primarily on funding and reimbursement, rather than diversity. The equity results also reveal that district wealth (local tax effort) and geographic location (being in Southern region of the county) tend to have the greatest effect on achievement for Black students in the participating suburban districts. This is especially important given that the majority of Black students in the suburban schools are students that have transferred from St. Louis. District wealth and location relative to the city

matter the most when examining the voluntary transfer program and its program implementation and effectiveness.

In describing equal educational opportunity, the overarching concept used to study this transfer program, two definitions were outlined—equality of inputs (peer composition and financial resources) and equality of outputs (student achievement). Coleman et al. (1966) argued that peer composition is as important as family background, and Eckland (1978) suggested that the family background of White students is more important in affecting the achievement of Black students than the percentage of White students in a school. Those assertions may hold true in a context in which other variables are equal, such as per pupil expenditures, housing, metropolitan civic capacity, and most importantly, access to quality schools.

The results presented here suggest that financial resources (*spending* variables) are more significant, and have a greater effect on achievement, than peer composition (*district* variables). These results argue that peer composition, or with whom the transfer students attend school, and where, is, in effect, a result of the decisions based on financial resources, as the participating districts determine transfer enrollment by considering the amount of funding they stand to lose (or share with transfer students). In other words, in this study, peer composition is a component of financial decision-making, rather than a variable to be considered in tandem with financial resources.

Initial review of the voluntary transfer program suggests that transfer students are receiving the inputs, despite varying levels of said inputs, outlined by scholars as necessary for receiving an equal educational opportunity. These peer and financial

inputs include attending higher-performing schools, integrated schools, and schools in which White students exhibit levels of increased social and cultural capital, and can result in increased outputs, or higher academic achievement.

Regardless of discussing equality of inputs or outputs, it is evident that the 15 participating suburban districts hold the significant majority of the power in outlining urban participation. From the backward-mapping policy analysis approach, even suburban students, at times, can be regarded as the "street-level bureaucrats" substantially impacting the implementation of the voluntary transfer program. Most commonly, though, it remains that suburban school administrators, school boards, and parents, are the policy actors, or "elites" determining the direction of their individual transfer program. Urban decision-makers have virtually no control over the continuation of the program. While urban families may have some influence over the program, given its reliance upon their participation, their authority is slowly being phased out. Additionally, as indicated by the horizontal equity analyses, transfer students do not have equal access to resources, nor do they have equal access to equal resources. Given these examples of the lack of distribution of power, it is difficult to consider this program an example of equal educational opportunity. Rather, it appears to be one of selective opportunity--an opportunity that Black families in St. Louis brought to the courts but one that is slowly being minimized due to the importance placed on dollars and cents.

Implications for Future Research

This research can serve as a foundation for future discussions that address a variety of relevant topics and frameworks pertaining to educational, economic, and social policy. Such topics formed the basis of the literature review used as background for this research (see Table 2) and include power dynamics between cities and suburbs and between Blacks and Whites (civic capacity), location (geography of opportunity), financial disparities between cities and suburbs and among suburbs (resource allocation), the effects of various forms of school choice, and the increasing and decreasing value simultaneously placed on diversity and integration.

There will be always be a struggle between the lower- and upper-class, with the lower-class struggling to gain a foothold in society and the upper-class struggling to maintain theirs. While the voluntary transfer program in St. Louis attempts to address some of these social and educational policies, it still remains that the Black families from St. Louis have the most personal investment in the program, yet have the least amount of power in determining program participation and/or outcomes. These issues can never truly be addressed until affluent White residents choose to bear some of the responsibility for integration, and power is distributed equally across all stakeholders. As evidenced by the diminishing numbers of transfer enrollment combined with the decreasing numbers of suburban White families sending their children to city magnet schools, it remains clear that overall investment in the transfer program by White suburban families is as much of a hurdle as educational inequality itself.

The research presented here touches on the civic capacity present in metropolitan areas, especially pertaining to issues of education and equity. Suburban sprawl is evident across the country, and the changing demographics of suburban communities will cause power shifts and power struggles between urban and suburban families. Important to note is that issues of power are not solely isolated to relationships between Blacks and Whites; Hispanic/Latinos comprise a significant segment of the country's population, and are steadily gaining local and national civic and political power.

Examining how civic capacity is presented in the media may also serve a larger purpose. Baum (2004) contends that the "metropolitan collaboration necessary for improving urban schools would build regional capacity for addressing other complex problems" (p. 21). While previous studies on civic capacity have focused expressly on urban school reform (see Stone, 2001; Stone et al., 2001), this analysis focuses on how suburban policy actors view desegregation and schooling. As cities grow and develop, it is possible that understanding the civic capacity of larger metropolitan areas around issues of education is essential for addressing the additional sociopolitical concerns that come with expansion, including health, environment, housing, employment, and transportation. Race matters in civic capacity, in metropolitan areas (Baum, 2004; Portz et al., 1999), and in most aspects of daily life, and as suburban demographics continue to change, it is important to face the topic head on.

Topics related to components of the civic capacity framework also reflect the concept of regionalism. Past research on regionalism has investigated issues of

transportation, housing, and employment, while "few had paid serious attention to the potential of regional *educational* [italics in original] policy to promote opportunity for children" (Holme, Diem, & Mansfield, 2011). The authors note that regionalism is an underutilized policy tool that can effectively combat regional stratification along racial and socioeconomic lines, although past efforts have found resistance from participating suburbs.

Holme, Diem, and Mansfield (2011) conducted a study in Omaha, NE, in which 11 school districts across two counties dedicated themselves to participation in an interdistrict school choice plan that would promote socioeconomic desegregation without a court ruling. The program was signed into law in 2007. In their results, Holme et al. (2011) note that the process has not been without obstacles, and that the "suburban districts have been capitalizing on the ambiguity in the law to assert their interests and slowly chip away at the law's provisions" (p. 162). Finnegan and Stewart (2009) argue that a focus on metropolitan solutions "have been met with concerns by community members about their loss of local control and the detriment to their own children's educational opportunities" (p. 35). The results of this research on the voluntary transfer program in St. Louis combined with the study on the regional choice plan in Omaha provide a rich context through which to continue to study regionalism, civic capacity, power dynamics, and policy implementation, all aimed at a deeper investigation of uncovering tools and processes that can better support regional educational equity. This focus on civic capacity and regionalism may serve to bring

continued attention to the enduring conflict between the 1974 *Milliken* decision and the fragmentation of metropolitan areas along racial and socioeconomic lines.

The impact of location is also evident throughout this study and should be used as a basis for additional research in understanding the consequences of the geography of opportunity. Results of the analyses found that the location of the district within the county had a greater (or lesser) impact on program effectiveness—western districts exhibited less diversity (results indicated decreases in the total percentage of district graduates that are Black) but also indicated increased graduation rates for their Black 12th graders. Future analyses should include additional geography variables (specifically North and South) that can offer a deeper understanding of the impact of location/geography in a program such as this, and its effect on policy implementation, program effectiveness, and student achievement.

Past and present policies have separated people based on race, class, and/or place, and this research attempts to draw attention to the relationship between race and place in the St. Louis metropolitan area, especially as it pertains to education and equity. Educators and policymakers must do more to provide opportunities to the students that have been left behind in failing schools, and must recognize that one should not have to be on a bus for several hours a day in order to receive the benefits that others expect. While there is no magic pill that can easily eradicate the historical remnants of our country's ugly racial past, we should not, and cannot, isolate the public school system and require it to be the only place where equality of opportunity is attained. Housing, employment, and economic policies are equally responsible for the

current state of inequality, however, this research can be used to begin to investigate the broader impact of the geography of opportunity on other sociopolitical issues.

A component of the geography of opportunity is the distribution of resources across districts. The districts used throughout this study are not "typical" in the sense that they represent student composition in the average Missouri school district. Due to their participation in a program whose stated mission is to increase diversity, the participating suburban districts are unique. The use of the traditional equity framework in future studies can provide a more general investigation of resource allocation across the state, especially among the suburban and rural districts. The study presented here can also contribute to a growing line of research aimed at investigating the increasing levels of poverty evident in suburban districts (see also Kneebone & Berube, 2013; Pendall, Weir, & Narducci, 2012).

Future research specifically among the participating districts should incorporate a school-level analysis to provide a deeper understanding of the differences in educational inputs and outcomes for transfer students. In the future, however, every effort should be made to collect data from a longer time period (prior to 1999). Extending the study's time period to the program's inception in 1983 will allow for a comparison of the inputs and outcomes under court order to the inputs and outcomes presented here, post court order. A school-level analysis will also allow for the examination of other school composition and student support variables, including classroom-based student assignment (i.e. tracking) and special education, as well as to investigate the differences between Black city and suburban students. Additional

student support variables can be found in the F-33 files organized by the National Center for Education Statistics.

A study of the resource differences between the 15 districts that participated and the eight (predominately Black, northern) districts that did not may serve to address the larger variation in community, financial, and demographic resources in a particular metropolitan area. This type of study can be used to combine elements of civic capacity, resource allocation, and the geography of opportunity due to the similarities and dissimilarities between the predominately White and predominately Black suburban districts. This line of research can also contribute to the work being done by Morris (2004) and others on successful majority-Black schools.

Additionally, researchers should consider a mixed-methods study that can incorporate the various non-academic and non-financial factors that contribute to the postsecondary success of graduates of transfer programs such as these. A long-term study of the postsecondary achievement (including college graduation, employment, and current residence) of the graduates of the transfer program should be conducted to examine the results of participation in the program. If a goal of equal educational opportunity is indeed the equality of outcomes (and of life outcomes, as mentioned by William Julius Wilson), then it is critical to investigate achievement in a way that measures more than test scores and graduation rates of the Black students that participated.

As this research is primarily quantitative, future research can investigate the ways in which suburban students have also benefitted over the years from attending a

school that participated in a busing program. Just as the argument persists that Black students tend to be the driving force behind desegregation by attending predominately White schools while White students do not integrate predominately Black schools, so too does the assumption linger that Black students are the only ones that stand to gain from programs such as these. White students and families can benefit equally, and in order for the programs to be truly effective and promote integration and equality of opportunity, significant attention should be paid to the ways in which transfer students enhance their school environments and not just ways that stereotype urban families or solidify the disparities between urban and suburban schools and communities.

Voluntary transfer programs remain a viable school choice option for Black families in seven cities across the country and should continue to serve as a foundation for policy analysis, especially at this time when school choice, and specifically charter schools, has garnered much attention. Parents will continue to seek opportunities for their children, as evidenced by the recent string of arrests of mothers illegally enrolling their children in suburban schools. However, Black families are not the only ones making choices regarding the education of their children. Results from the analyses presented in this study argue that White families in the suburban districts and in the city may be choosing alternatives to their assigned public schools. Questions remain about the decision-making processes of Black and White families in the St. Louis metropolitan area, and about the educational opportunities available to their children. Although this study is at the "street-level," it may serve to provide an understanding of some of the choices made by families, regardless of race or class.

The program in St. Louis is one of few voluntary interdistrict choice plans that operate in this particular manner. Future research should incorporate comparative analyses among the seven programs (including Boston, East Palo Alto, Hartford, Milwaukee, Minneapolis, and Rochester), using this study as a framework to continue to investigate the intersection of civic capacity and/or regionalism, resource allocation, and policy implementation. These seven programs vary substantially in their location, legal origin, funding processes, and enrollment and implementation procedures, allowing for considerable quantitative and qualitative data collection and analysis. The program in Omaha was created too recently to include its results, but there may be some information gleaned from these potential analyses that may serve to strengthen the Omaha program, as well as any other future programs.

Lastly, although equal educational opportunity serves as the broad conceptual framework for this research, this study is ultimately about desegregation and integration. The ruling in the *Brown* case occurred over 50 years ago, and racial and socioeconomic inequalities still persist as a result of personal, structural, and institutional racism and classism. The intent of this study is not to promote integration as the only way for Black students to be academically and personally successful, nor to suggest that suburban schools are the only means of attaining an equal educational opportunity, but rather, to use this popular, long-running voluntary transfer program as a lens through which to study the complex and dynamic relationships between race, education, resource allocation, school choice, geography of opportunity, and power. As a suburban parent said, "when objectives compete, money wins," so it is critical to spark

dialogues among urban and suburban communities alike to ensure that diversity and equality remain as important as dollars and cents.

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APPENDICES

Appendix A. Resource Variable Statistics, Affton School District, 2000-2009

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
AdjustedPPE	8,769	9,698	9,740	10,141	10,332	11,419	10,752	11,168	10,876	10,660
AdjustedPPRevPropTax	4,475	5,151	5,187	5,188	5,336	5,289	6,764	6,711	6,508	6,832
Adjusted PPRevTitleI	48	46	59	123	100	102	91	67	60	112
AdjustedPPSalInstruct	3,232	3,360	3,243	3,352	3,469	3,607	3,580	3,720	3,736	3,978
Local Effort	4.31	4.104	4.114	3.995	4.008	4.948	4.948	4.223	4.366	4.736
PupTchRatio	16.9	16.4	16.6	16.1	16.5	16.4	16.5	16.6	16.9	16.3
Enrollment	2,650	2,584	2,637	2,571	2,526	2,481	2,507	2,500	2,517	2,458
%BlackDistrict	14.4%	13.2%	16.1%	12.6%	11.7%	11.6%	10.8%	10.0%	9.5%	9.4%
%Transfer	86.7%	89.3%	83.4%	86.1%	82.8%	77.0%	70.2%	61.0%	57.0%	53.4%
#Transfer	331	304	310	278	245	221	191	153	137	124
%WhiteDistrict	82.2%	83.2%	81.9%	83.4%	84.4%	84.6%	84.8%	85.0%	85.1%	84.4
%FRL	20.3%	19.5%	15.1%	14.9%	17.5%	26.8%	28.3%	29.4%	29.5%	32.5%
%GradBlack	6.4%	8.2%	9.4%	7.8%	7.0%	11.3%	13.5%	14.5%	10.9%	9.4%
GradBlack12	100%	100%	100%	93.3%	100%	100%	100%	93.1%	100%	100%
AdjustedMedHome	141,220									172,700
AdjustedMedFamInc	71,569									68,795
%BA	20.1%									25.1%
%FamPoverty	3.6%									6.1%
%BlackFamilies	3.1%									4.9%
%WhiteFamilies	93.0%									88.8%
Geography	Southern Region									
Distance	11.2 miles									

Appendix B. Resource Variable Statistics, Bayless School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	8,043	6,579	6,951	7,234	6,509	6,184	7,200	7,152	7,519	7,968
AdjustedPPRevPropTax	3,028	2,971	3,619	3,511	3,346	3,387	3,381	3,267	3,257	3,225
Adjusted PPRevTitleI	141	144	173	136	139	120	166	141	112	189
AdjustedPPSalInstruct	2,852	2,766	2,756	2,682	2,427	2,254	2,570	2,401	2,331	2,399
Local Effort	3.380	4.130	4.130	$3.959	4.097	3.497	3.336	3.140	3.140	3.211
PupTchRatio	16.8	17.3	17.4	17.4	18.7	18.7	18.3	18.2	18.5	18.6
Enrollment	1458	1438	1496	1510	1616	1615	1592	1617	1700	1712
%BlackDistrict	14.7%	14.3%	16.6%	11.1%	14.0%	12.2%	11.4%	11.0%	11.3%	10.7%
%Transfer	84.2%	93.4%	82.7%	95.8%	87.6%	84.4%	80.2%	74.7%	66.4%	57.6%
#Transfer	180	192	168	160	198	186	146	133	127	106
%WhiteDistrict	81.1%	81.7%	81.4%	82.7%	79.0%	80.2%	79.0%	78.6%	77.9%	75.6%
%FRL	33.4%	31.0%	23.7%	28.1%	37.6%	48.8%	50.2%	47.7%	21.8%	56.2%
%GradBlack	13.6%	12.8%	8.5%	5.9%	6.1%	7.8%	7.0%	8.2%	7.1%	9.0%
GradBlack12	93.3	100%	100%	85.7%	100%	100%	75.0%	100%	100%	100%
AdjustedMedHome	134,122									162,800
AdjustedMedFamInc	69,181									70,431
%BA	15.4%									19.4%
%FamPoverty	1.7%									4.1%
%BlackFamilies	0.3%									0.6%
%White Families	97.0%									94.0%
Geography	Southern Region									
Distance	10 miles									

Appendix C. Resource Variable Statistics, Brentwood School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	12,417	12,592	16,375	19,201	15,996	14,726	1,5586	16,670	17,961	20,407
AdjustedPPRevPropTax	,6149	6,002	6,291	6,997	8,702	8,676	9,053	8,971	9,417	8,902
AdjustedPPRevTitleI	25	24	35	102	161	164	142	137	111	150
AdjustedPPSalInstruct	5,028	5,127	5,227	5,984	6,166	5,899	5,751	5,866	5,921	5,951
Local Effort	2.795	2.742	.945	3.538	3.429	3.240	3.143	2.742	2.757	2.977
PupTchRatio	12.6	12.9	12.6	11.7	11.2	11.6	11.7	11.36	11.74	11.7
Enrollment	914	945	950	887	858	812	816	788	792	837
%BlackDistrict	27.2%	27.6%	27.2%	27.5%	28.3%	28.9%	25.6%	24.6%	24.0%	22.6%
%Transfer	83.5%	81.0%	86.0%	84.8%	82.7%	81.3%	78.0%	75.3%	73.2%	67.2%
#Transfer	208	212	222	207	201	191	163	146	139	127
%WhiteDistrict	66.0%	64.4%	65.3%	65.1%	65.3%	64.2%	68.1%	69.4%	69.4%	70.5%
%FRL	20.5%	20.4%	5.2%	6.4%	8.6%	25.7%	23.4%	20.7%	21.5%	22.8%
%GradBlack	18.6%	31.3%	17.5%	18.5%	23.0%	30.9%	24.5%	32.6%	23.9%	17.9%
GradBlack12	91.7%	83.3%	78.6%	90.1%	78.7%	94.4%	100%	88.2%	88.9%	100%
AdjustedMedHome	284,060									372,600
AdjustedMedFamInc	114,156									116,458
%BA	30.9%									33.5%
%FamPoverty	3.2%									2.2%
%BlackFamilies	10.9%									8.3%
%WhiteFamilies	84.6%									84.4%
Geography	Western Region									
Distance	9.5 miles									

Appendix D. Resource Variable Statistics, Clayton School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	18,887	18,721	18,478	18,073	16,776	17,020	18,204	17,279	17,695	18,421
AdjustedPPRevPropTax	9,508	9,093	9,177	9,304	10,415	10,838	11,302	10,733	11,207	11,235
AdjustedPPRevTitleI	30	28	31	57	125	109	115	104	43	188
AdjustedPPSalInstruct	6,359	6,837	7,225	7,007	6,468	6,536	7,051	6,811	7,104	7,300
Local Effort	3.300	2.938	3.075	3.622	3.769	3.925	3.716	3.254	3.230	3.682
PupTchRatio	11.5	11.0	10.9	11.4	11.9	12.3	11.5	11.5	11.1	11.1
Enrollment	2,461	2,452	2,442	2,497	2,687	2,628	2,529	2,666	2,590	2,605
%BlackDistrict	21.6%	21.6%	22.2%	22.6%	21.9%	22.4%	21.7%	20.9%	21.2%	21.4%
%Transfer	90.1%	89.7%	87.7%	90.8%	87.2%	82.7%	83.6%	82.4%	86.0%	84.0%
#Transfer	479	474	475	512	513	486	460	458	473	468
%WhiteDistrict	69.8%	69.2%	68.4%	64.6%	64.4%	67.4%	68.0%	67.6%	67.1%	66.7%
%FRL	12.0%	13.9%	3.9%	4.1%	5.6%	17.3%	15.3%	15.3%	13.9%	16.1
%GradBlack	17.3%	24.4%	18.5%	21.4%	21.5%	17.6%	19.4%	21.1%	21.5%	22.1%
GradBlack12	87.2%	100%	100%	97.6%	97.8%	93.0%	93.2%	100%	100%	100%
AdjustedMedHome	284,060									$372600
AdjustedMedFamInc	114,156									$116,458
%BA	30.9%									33.5%
%FamPoverty	3.2%									2.2%
%BlackFamilies	10.9%									8.3%
%WhiteFamilies	84.6%									84.4%
Geography	Western Region									
Distance	11.5 miles									

Appendix E. Resource Variable Statistics, Hancock Place School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	8,475	7,502	7,222	7,841	8,741	8,052	8,185	10,392	9,236	12,165
AdjustedPPRevPropTax	1,753	1,620	1,531	1,775	1,876	1,822	1,790	1,736	1,843	1,937
AdjustedPPRevTitleI	184	181	243	254	264	298	289	270	319	430
AdjustedPPSalInstruct	3,450	3,372	3,186	3,343	3,485	3,363	3,477	3,639	3,896	4,080
Local Effort	3.793	3.820	5.021	5.118	5.74	4.210	4.232	4.081	4.086	4.083
PupTchRatio	16.3	16.4	17.0	16.4	15.5	16.3	15.6	14.7	15.0	29.4
Enrollment	1,721	1,699	1,830	1,862	1,816	1,878	1,855	1,866	1,902	1,798
%BlackDistrict	20.7%	18.6%	19.1%	19.7%	19.8%	22.1%	21.2%	24.6%	24.9%	24.4%
%Transfer	89.0%	91.8%	84.9%	83.1%	86.4%	84.6%	76.8%	85.0%	81.6%	78.6%
#Transfer	317	290	297	304	310	351	302	390	387	345
%WhiteDistrict	77.0%	79.1%	78.7%	77.7%	77.9%	75.7%	75.5%	71.6%	71.1%	71.2%
%FRL	60.8%	58.2%	50.2%	51.2%	56.8%	72.4%	69.8%	71.0%	70.5%	71.7%
%GradBlack	25.0%	16.2%	18.2%	7.9%	13.2%	20.2%	4.7%	14.8%	23.2%	21.6%
GradBlack12	94.7%	91.7%	87.5%	50.0%	83.3%	94.4%	99.7%	21.3%	100%	89.3%
AdjustedMedHome	109,465									148,900
AdjustedMedFamInc	57,270									53,186
%BA	10.5%									13.7%
%FamPoverty	5.8%									8.9%
%BlackFamilies	1.5%									2.8%
%WhiteFamilies	95.8%									94.2%
Geography	Southern Region									
Distance	9.8 miles									

Appendix F. Resource Variable Statistics, Kirkwood School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	10,874	10,373	11,534	1,159	10,043	10,391	10,660	10,930	12,086	12,091
AdjustedPPRevPropTax	6,245	6,290	6,329	6,055	5,838	6,186	6,822	7,232	8,075	8,088
AdjustedPPRevTitleI	64	71	71	103	96	88	95	84	88	117
AdjustedPPSalInstruct	3,968	4,111	4,028	4,289	3,939	4,235	4,271	4,293	4,416	4,609
Local Effort	4.225	3.946	3.744	3.750	3.740	3.714	40.34	3.990	3.922	4.084
PupTchRatio	16.1	15.8	15.7	15.3	17.	16.7	15.9	15.8	15.5	15.7
Enrollment	5,001	4,984	5,136	5,188	5,731	5,335	5,303	5,266	5,219	5,322
%BlackDistrict	24.5%	24.1%	23.9%	23.7%	22.2%	22.6%	21.3%	21.5%	20.9%	20.0%
%Transfer	52.9%	54.9%	53.2%	52.9%	50.2%	52.0%	50.0%	50.3%	48.1%	46.5%
#Transfer	662	659	653	649	639	626	563	569	525	494
%WhiteDistrict	73.3%	74.2%	74.4%	72.7%	75.0%	75.2%	75.8%	75.5%	75.6%	76.1%
%FRL	20.5%	17.2%	8.9%	9.1%	8.1%	18.6%	17.5%	16.3%	16.2%	17.1%
%GradBlack	23.9%	19.8%	17.8%	20.4%	21.6%	22.8%	19.2%	20.3%	20.7%	26.0%
GradBlack12	88.8%	74.7%	76.8%	82.2%	83.5%	88.1%	93.0%	84.3%	91.0%	100%
AdjustedMedHome	200,871									241,000
AdjustedMedFamInc	93,828									102,835
%BA	29.1%									32.7%
%FamPoverty	1.7%									2.6%
%BlackFamilies	3.7%									3.7%
%WhiteFamilies	94.1%									92.8%
Geography	Western Region									
Distance	17.5 miles									

Appendix G. Resource Variable Statistics, Ladue School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	14,674	15,151	16,338	26,423	18,591	15,249	14,363	13,764	15,555	21,476
AdjustedPPRevPropTax	8,004	7,951	10,141	10,220	10,772	10,910	9,810	9,292	10,564	10,663
AdjustedPPRevTitleI	25	32	38	47	40	14	0	0	0	0
AdjustedPPSalInstruct	5,435	5,671	5,795	5,849	6,077	5,795	5,378	5,286	5,476	5,711
Local Effort	2.600	3.050	3.200	3.200	3.200	2.980	2.980	2.980	2.980	2.980
PupTchRatio	12.5	11.9	11.7	11.8	11.4	11.7	12.4	12.5	12.0	12.3
Enrollment	3,321	3,234	3,230	3,272	3,204	3,293	3,357	3,522	3,580	3,701
%BlackDistrict	23.5%	21.3%	20.1%	17.9%	17.5%	16.8%	16.8%	16.87%	16.9%	15.9%
%Transfer	46.0%	40.0%	35.3%	27.1%	19.9%	14.6%	11.0%	7.1%	3.5%	2.2%
#Transfer	359	276	229	159	112	81	62	42	21	13
%WhiteDistrict	71.2%	72.7%	73.2%	75.1%	74.6%	74.2%	73.2%	72.7%	71.5%	71.3%
%FRL	9.8%	8.2%	4.1%	6.6%	7.2%	9.2%	9.2%	8.4%	7.7%	8.1%
%GradBlack	27.8%	21.0%	25.8%	20.4%	22.9%	18.6%	24.4%	17.3%	18.0%	19.9%
GradBlack12	97.3%	85.7%	84.8%	96.8%	91.9%	88.9%	80.8%	83.9%	87.9%	100%
AdjustedMedHome	284,060									372,600
AdjustedMedFamInc	114,115									116,458
%BA	30.9%									33.5%
%FamPoverty	3.2%									2.2%
%BlackFamilies	10.9%									8.3%
%WhiteFamilies	84.6%									84.4%
Geography	Western Region									
Distance	12.4 miles									

Appendix H. Resource Variable Statistics, Lindbergh School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	9,104	9,684	10,798	10,313	10,646	11,161	9,830	10579	13,041	13,663
AdjustedPPRevPropTax	4,785	4,653	5,049	5,065	5,330	5,556	5,797	5,711	6,363	6,144
Adjusted PPRevTitleI	48	51	62	165	92	115	87	69	48	70
AdjustedPPSalInstruct	4,061	4,042	4,036	4,151	4,013	3,963	3,896	3,940	4,026	4,188
Local Effort	2.680	2.770	2.773	2.905	3.080	3.174	3.130	3.130	3.130	3.130
PupTchRatio	15.4	15.3	15.3	15.0	15.4	15.4	15.4	14.7	14.7	14.3
Enrollment	5,226	5,233	5,316	5,289	5,437	5,488	5,501	5,597	5,599	5,649
%BlackDistrict	19.4%	18.2%	17.7%	13.6%	13.7%	12.7%	10.5%	9.3%	8.2%	7.6%
%Transfer	92.2%	95.1%	92.5%	93.5%	91.1%	86.5%	81.6%	77.3%	72.1%	63.0%
#Transfer	935	909	872	671	678	601	471	403	330	272
%WhiteDistrict	78.7%	79.8%	80.1%	84.0%	83.8%	84.9%	86.2%	87.1%	87.8%	87.2%
%FRL	18.6%	17.4%	6.0%	6.8%	8.0%	18.2%	16.0%	15.0%	14.0%	15.1%
%GradBlack	18.5%	15.7%	16.7%	11.9%	11.3%	12.3%	4.8%	7.7%	6.5%	8.3%
GradBlack12	98.6%	90.1%	80.8%	100%	100%	100%	100%	87.1%	97.0%	95.1%
AdjustedMedHome	134,122									162,800
AdjustedMedFamInc	69,181									70,431
%BA	15.4%									19.4%
%FamPoverty	1.7%									4.1%
%BlackFamilies	0.3%									0.6%
%WhiteFamilies	97.0%									94.0%
Geography	Southern Region									
Distance	15.3 miles									

Appendix I. Resource Variable Statistics, Mehlville School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	7,629	7,553	7,691	8,286	8,251	7,824	7,977	7,957	7,824	7,831
AdjustedPPRevPropTax	3,800	3,729	4,376	4,363	4,493	4,632	4,720	4,756	4,735	4,829
AdjustedPPRevTitleI	26	32	37	87	105	92	95	89	74	139
AdjustedPPSalInstruct	3,490	3,432	3,415	3,360	3,501	3,296	3,229	3,198	3,221	3,239
Local Effort	3.569	3.942	3.961	3.823	3.901	3.589	3.576	3.141	3.147	3.452
PupTchRatio	18.1	18.0	17.7	18.1	17.1	17.6	17.3	17.4	17.3	16.9
Enrollment	12,000	12,001	12,054	11,979	11,727	11,582	11,308	11,089	11,275	11,141
%BlackDistrict	12.9%	16.6%	16.4%	12.9%	12.9%	13.4%	12.2%	11.0%	10.9%	10.3%
%Transfer	86.4%	86.7%	89.8%	91.4%	86.9%	85.8%	80.2%	77.1%	74.5%	69.4%
#Transfer	1,338	1,412	1,453	1,411	1,317	1,331	1,105	938	919	800
%WhiteDistrict	83.9%	83.3%	83.3%	83.5%	84.8%	84.1%	85.7%	85.7%	85.4%	85.6%
%FRL	18.3%	19.2%	8.0%	10.4%	11.5%	20.6%	21.3%	20.3%	19.8%	22.1%
%GradBlack	10.0%	9.9%	9.9%	10.1%	7.5%	9.5%	7.3%	10.0%	9.3%	10.5%
GradBlack12	100%	85.1%	81.2%	90.8%	84.4%	87.8%	73.8%	87.8%	82.3%	77.6%
AdjustedMedHome	143,337									183,900
AdjustedMedFamInc	74,418									69,254
%BA	16.0%									19.1%
%FamPoverty	3.8%									5.1%
%BlackFamilies	0.9%									1.9%
%WhiteFamilies	96.9%									94.9%
Geography	Southern Region									
Distance	12.9 miles									

Appendix J. Resource Variable Statistics, Parkway School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	10,454	10,978	10,506	10,902	10,958	11,518	11,649	11,343	12,074	12,566
AdjustedPPRevPropTax	5,680	5,720	5,867	5,663	6,087	6,373	6,451	6,505	7,444	7,634
AdjustedPPRevTitleI	20	20	27	81	90	106	99	87	80	113
AdjustedPPSalInstruct	4,280	4,204	4,035	4,018	4,120	4,174	3,998	3,901	4,160	4,479
Local Effort	3.603	3.455	3.511	3.451	3.610	3.453	3.427	3.230	3.230	3.410
PupTchRatio	16.4	16.6	16.8	16.7	16.3	16.1	16.5	16.5	15.2	14.6
Enrollment	20,457	20,433	20,525	20,354	19,578	18,994	18,787	18,432	17,927	17,467
%BlackDistrict	17.4%	17.1%	16.9%	16.7%	17.3%	17.1%	16.8%	17.0%	16.7%	16.1%
%Transfer	79.6%	77.9%	77.3%	78.9%	75.6%	74.1%	66.8%	64.0%	60.5%	56.7%
#Transfer	2,846	2,722	2,683	2,675	2,885	2,414	2,105	1,981	1,817	1,594
%WhiteDistrict	74.0%	73.0%	71.6%	71.1%	71.9%	71.1%	71.0%	70.7%	70.0%	70.4%
%FRL	13.8%	13.3%	3.5%	4.2%	5.0%	16.2%	16.4%	16.6%	17.0%	17.0%
%GradBlack	14.2%	16.6%	14.9%	13.0%	12.9%	13.5%	12.8%	11.6%	14.5%	15.5%
GradBlack12	87.6%	86.1%	84.3%	86.5%	82.3%	83.3%	88.0%	78.0%	80.7%	82.7%
AdjustedMedHome	201,079									239,333
AdjustedMedFamInc	96,515									94,479
%BA	32.9%									33.4%
%FamPoverty	2.2%									3.8%
%BlackFamilies	2.6%									4.7%
%WhiteFamilies	90.1%									83.6%
Geography	Western Region									
Distance	19.9 miles									

Appendix K. Resource Variable Statistics, Pattonville School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	11,277	13,404	16,095	16,086	13,932	14,192	12,486	13,442	14,666	16,709
AdjustedPPRevPropTax	6,654	7,101	7,355	7,608	7,387	7,880	7,490	8,432	8,226	8,321
AdjustedPPRevTitleI	99	66	49	131	126	127	127	122	106	105
AdjustedPPSalInstruct	4,731	4,948	4,854	5,174	4,973	4,971	4,681	4,848	4,913	5,134
Local Effort	3.939	3.943	4.046	3.892	4.034	3.835	3.787	3.428	3.433	3.671
PupTchRatio	13.7	13.4	13.6	12.9	13.8	13.3	13.4	13.0	14.3	12.7
Enrollment	6,688	6,461	6,460	6,216	6,273	5,874	5,994	5,753	5,654	5,586
%BlackDistrict	25.7%	24.8%	24.0%	24.0%	36.7%	23.9%	26.0%	25.6%	26.2%	27.3%
%Transfer	51.2%	45.0%	39.7%	30.3%	22.2%	18.1%	12.8%	10.1%	6.7%	4.3%
#Transfer	882	720	616	453	329	254	199	148	100	66
%WhiteDistrict	71.3%	71.9%	72.2%	70.8%	70.2%	69.5%	65.6%	65.5%	63.3%	61.7%
%FRL	28.1%	27.6%	20.8%	23.5%	25.3%	32.4%	37.7%	33.8%	35.1%	36.1%
%GradBlack	24.0%	21.0%	22.0%	23.0%	17.7%	20.4%	21.3%	25.2%%	21.5%	23.0%
GradBlack12	78.6%	83.9%	88.7%	100%	82.8%	83.3%	90.4%	86.4	93.7%	91.2%
AdjustedMedHome	12,2167									151,600
AdjustedMedFamInc	70,839									63,493
%BA	17.3%									17.4%
%FamPoverty	3.0%									5.4%
%BlackFamilies	6.5%									15.6%
%WhiteFamilies	89.6%									79.7%
Geography	Northern Region									
Distance	16.4 miles									

Appendix L. Resource Variable Statistics, Ritenour School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	9,346	8,357	9,042	10,009	10,244	9,432	9,533	9,766	9,274	9,578
AdjustedPPRevPropTax	3,634	3,631	3,850	3,826	3,895	3,931	3,897	3,886	3,900	3,810
AdjustedPPRevTitleI	173	178	202	235	244	216	226	221	224	211
AdjustedPPSalInstruct	3,344	3,343	3,495	3,544	3,638	3,629	3,631	3,604	3,493	3,647
Local Effort	4.780	4.60	44.648	4.546	4.555	4.304	4.304	3.739	3.754	4.270
PupTchRatio	18.1	17.9	17.4	17.5	17.2	17.0	16.8	16.9	17.1	16.3
Enrollment	6,450	6,436	6,300	6,350	6,174	6,101	6,154	6247	6,358	6,355
%BlackDistrict	30.0%	30.7%	31.4%	33.5%	33.6%	34.4%	34.7%	36.6%	37.5%	39.2%
%Transfer	5.0%	3.2%	1.8%	1.0%	0.4%	0.3%	0.1%	0.0%	0.0%	0.0%
#Transfer	98	63	36	22	9	6	2	1	1	0
%WhiteDistrict	65.7%	64.5%	63.0%	59.5%	58.8%	56.5%	54.1%	50.9%	48.5%	46.5%
%FRL	48.5%	40.8%	73.3%	44.3%	50.0%	56.1%	62.5%	63.0%	62.8%	68.3%
%GradBlack	25.3%	28.4%	25.3%	27.1%	27.4%	31.4%	32.6%	33.7%	31.1%	39.8%
GradBlack12	35.1%	74.2%	89.3%	89.9%	100%	91.7%	90.0%	80.7%	91.5%	90.3%
AdjustedMedHome	76,837									106,400
AdjustedMedFamInc	54,905									46,305
%BA	10.8									11.4
%FamPoverty	7.2									10.5
%BlackFamilies	13.8									26.3
%WhiteFamilies	80.9									69.3
Geography	Western Region									
Distance	14.8 miles									

Appendix M. Resource Variable Statistics, Rockwood School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	9,599	9,864	10,190	9,812	10,140	10,250	9,421	10,123	10,217	11,997
AdjustedPPRevPropTax	4,818	4,870	5,179	4,981	4,823	5,104	5,220	5,084	5,166	5,447
AdjustedPPRevTitleI	51	44	43	76	88	74	78	67	56	99
AdjustedPPSalInstruct	3,238	3,337	3,424	3,421	3,372	3,436	3,430	3,469	3,486	3,825
Local Effort	4.525	4.421	4.439	4.271	4.633	4.507	4.418	3.999	3.923	4.008
PupTchRatio	17.2	16.6	16.3	16.8	16.9	16.4	16.1	16.1	15.9	15.2
Enrollment	21,175	21,203	21,644	22,313	22,658	22,201	22,326	22,544	22,721	22,568
%BlackDistrict	14.6%	12.4%	12.6%	12.2%	11.7%	11.2%	10.3%	10.9%	11.1%	10.2%
%Transfer	100%	93.2%	88.2%	91.5%	87.7%	87.4%	84.0%	85.4%	83.1%	81.6%
#Transfer	3,095	2,538	2407	2,495	2,318	2,181	1,920	2,107	2,089	1,880
%WhiteDistrict	82.4%	83.7%	83.7%	83.8%	83.9%	83.7%	84.1%	84.1%	82.3%	82.7%
%FRL	14.8%	12.25%	3.3%	3.5%	3.4%	12.5%	12.6%	13.1%	13.0%	13.2%
%GradBlack	13.4%	12.4%	10.7%	10.8%	11.1%	11.7%	10.2%	9.9%	10.3%	11.5%
GradBlack12	100%	100%	93.5%	97.1%	100%	94.1%	100%	100%	96.7%	100%
AdjustedMedHome	248,941									353,300
AdjustedMedFamInc	113,029									116,972
%BA	32.3%									33.8%
%FamPoverty	2.1%									1.8%
%BlackFamilies	2.0%									2.0%
%WhiteFamilies	94.0%									91.1%
Geography	Western Region									
Distance	28.2 miles									

Appendix N. Resource Variable Statistics, Valley Park School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	12,739	10,263	9,723	10,358	9,650	9,975	10,282	10,741	10,560	11,542
AdjustedPPRevPropTax	4,674	4,567	5,342	5,403	4,918	5,292	5,731	5,329	5,584	5,999
AdjustedPPRevTitleI	107	106	129	231	295	350	322	217	204	423
AdjustedPPSalInstruct	3,860	3,946	3,801	4,088	3,705	4,022	4,145	4,105	4,035	4,415
Local Effort	4.217	4.950	5.008	4.964	4.954	4.753	4.561	4.131	4.272	4.565
PupTchRatio	13.9	13.5	14.5	13.6	15.2	15.4	13.7	13.8	13.9	13.6
Enrollment	1,024	1,037	1,110	1,101	1,200	1,098	1,042	1,054	1,034	1,021
%BlackDistrict	29.1%	28.2%	30.0%	29.1%	24.8%	26.2%	24.9%	28.9%	25.4%	23.6%
%Transfer	81.8%	64.6%	75.5%	75.3%	77.2%	72.2%	74.1%	74.7%	72.5%	72.2%
#Transfer	244	253	252	241	230	208	192	204	195	174
%WhiteDistrict	67.7%	67.4%	65.2%	66.0%	67.9%	66.5%	67.0%	65.0%	64.4%	64.7%
%FRL	45.8%	41.9%	21.3%	26.1%	23.5%	20.1%	49.7%	47.7%	46.7%	47.5%
%GradBlack	15.4%	15.6%	18.8%	22.7%	25.9%	16.7%	7.7%	22.6%	26.8%	18.6%
GradBlack12	100%	100%	70.6	100%	93.8%	90.9%	100%	92.3%	100%	100%
AdjustedMedHome	177,833									212,600
AdjustedMedFamInc	87,644									86,319
%BA	33.2%									32.6%
%FamPoverty	2.8%									5.3%
%BlackFamilies	2.5%									4.5%
%WhiteFamilies	91.3%									84.6%
Geography	Western Region									
Distance	21.2 miles									

Appendix O. Resource Variable Statistics, Webster Groves School District, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
AdjustedPPE	9,174	11,399	11,431	10,474	10,565	10,877	11,653	14,958	16,148	13,660
AdjustedPPRevPropTax	4,952	5,546	5,912	5,849	5,741	5,911	7,304	7,120	6,854	6,775
AdjustedPPRevTitleI	109	79	98	172	149	146	139	125	87	140
AdjustedPPSalInstruct	3,851	4,118	4,310	4,383	4,397	4,497	4,565	4,703	5,453	4,625
Local Effort	4.960	4.610	4.644	4.500	4.552	5.236	5.266	4.567	4.615	4.861
PupTchRatio	15.7	15.0	1407	14.8	14.9	14.6	14.1	14.2	14.5	14.5
Enrollment	4,208	4,167	4,145	4,116	4,186	4,105	4,068	4,103	4,303	4,369
%BlackDistrict	26.2%	26.4%	25.6%	25.4%	25.1%	26.0%	24.8%	24.3%	23.1%	22.7%
%Transfer	42.1%	40.72%	39.8%	37.4%	39.3%	41.1%	35.1%	34.0%	31.3%	28.3%
#Transfer	464	448	412	390	421	439	355	340	312	280
%WhiteDistrict	71.9%	71.3%	72.3%	72.3%	71.6%	71.2%	72.2%	72.6%	72.3%	73.8%
%FRL	17.5%	19.1%	12.5%	11.7%	11.7%	20.2%	19.7%	19.1%	19.5%	18.5%
%GradBlack	20.0%	2501%	24.8%	19.8%	20.4%	24.8%	26.1%	28.6%	21.8%	25.8%
GradBlack12	100%	100%	100%	100%	100%	87.8%	84.0%	100%	90.9%	96.7%
AdjustedMedHome	213,076									263,100
AdjustedMedFamInc	94,516									94,733
%BA	33.8%									32.6%
%FamPoverty	1.4%									3.8%
%BlackFamilies	1.8%									4.2%
%WhiteFamilies	95.4%									90.7%
Geography	Western Region									
Distance	11.2 miles									