
THE INTEGRATION ANOMALY

Comparing the Effects of K–12 Education
Delivery Models on Segregation in Schools

Benjamin **Scafidi**, Ph.D.

OCTOBER **2015**

Friedman
Foundation

*For
Educational
Choice*

About the Friedman Foundation for Educational Choice

The Friedman Foundation for Educational Choice is a 501(c)(3) nonprofit and nonpartisan organization, solely dedicated to advancing Milton and Rose Friedman's vision of school choice for all children. First established as the Milton and Rose D. Friedman Foundation in 1996, the Foundation promotes school choice as the most effective and equitable way to improve the quality of K-12 education in America. The Friedman Foundation is dedicated to research, education, and outreach on the vital issues and implications related to school choice.

edchoice.org

THE INTEGRATION ANOMALY

Comparing the Effects of K–12 Education
Delivery Models on Segregation in Schools

Benjamin **Scafidi**, Ph.D.

OCTOBER **2015**

Table of Contents

Executive Summary	1
Introduction	4
How to Measure Segregation Across Schools and Across Neighborhoods.....	5
Placing Individuals in Two Distinct Groups to Measure Segregation.....	5
What Level of Geography to Use to Measure Segregation	5
What Measuring Stick to Use	6
Trends in Neighborhood and Public School Segregation.....	6
Macro Trends in Neighborhood Segregation	6
Recent Trends in Public School Segregation	7
The Puzzling Divergence	8
Neighborhood and School Segregation within Individual Metropolitan Areas 2000–2010.....	8
Segregation by Income Across Communities.....	11
The Present State of Integration in the Public Education System	12
Racial and Ethnic Integration and Parental Choice in Education.....	12
Claim that Increased Parent Choice Would Improve Racial Integration Across Schools.....	12
Claim that Increased Parental Choice Would Not Improve Racial Integration Across Schools.....	13
Evidence.....	13
Charter Schools	14
Segregation Within Schools.....	15
International Evidence on the Impact of School Choice Programs on Segregation.....	16
Evidence about the Effects of American School Choice Programs on Segregation	17
Simulation Studies.....	18
Is Government Compulsion the Solution to Promoting Race and Class Integration in K–12 Education?	21
Increasing Integration by Government Compulsion	21
Americans—When Free to Choose—Are Choosing to Increase Integration by Race.....	23
Historically Government Compulsion Has Led to More Racial Segregation in Some Arenas.....	23
Recommendations for School Choice Program Design.....	23
School Choice Program Design DO’s	24
School Choice Program Design DON’Ts.....	24
We Have a Good Idea of Where the Status Quo Policy Will Lead Regarding Integration.....	26
Prior Recommendations about the Design of School Choice Programs	26
Future Research	28
Appendix 1: Changes in Neighborhood and School Segregation in 215 Metropolitan Areas.....	29
Appendix 2: Summary of Research Used to Make Recommendations About the Design of School Choice Programs.....	35
About the Author	41

List of Tables

Table 1: Trends in Segregation, 2000 to 2010..... 9

List of Figures

Figure 1: Number of Metropolitan Areas with the Following Changes
in Racial Segregation, 2000 to 2010 10

Figure 2: Average Change in Racial Segregation as Measured by the DI, 2000 to 2010 10

Figure 3: Percentage of Students Living in Metropolitan Areas
by Change in Racial Segregation, 2000 to 2010 11

Executive Summary

Relative to the traditional delivery model for K–12 education in America, will school choice lead to more or less integration across America’s schools? That question drives some of the debate around parental choice programs. African Americans have historically been segregated from other American students, and consequently, policy discussions have often focused on the segregation they experience. Policies that further segregate schools may harm educational opportunities and lead to less racial harmony in our communities.

To shed light on the actual impact of school choice on segregation, one has to understand the counterfactual—the state of segregation under the current public education system. In the late 1960s and ‘70s, the trend in public school racial segregation followed the trend in neighborhood segregation. That is to say both improved as American neighborhoods and public schools became more racially integrated. However, beginning in the early 1980s, American public schools have continued to become more racially segregated, even as American neighborhoods have become more racially integrated among African Americans and others. Given the strong link between neighborhoods and public school attendance zones, this divergence is a puzzle.

There is another pronounced trend that may have an impact on the quality of schools available to families—income segregation. Researchers have found that, between 1970 and 2009, the percentage of families living in either an “affluent” or in a “low-income” neighborhood more than doubled—from 15 percent to 33 percent. The trends toward more income segregation across American neighborhoods have only accelerated since 2001.

Whether we like it or not, studies show a significant relationship between families’ access to peer resources and their children’s academic achievement. And the increases in racial and income segregation in American public schools are likely problematic in terms of student outcomes given the substantial evidence regarding peer effects, which show children achieve

more when surrounded by higher-achieving peers.

It is in this policy context—the decades-long intensification of racial segregation among public schools and significantly increased income segregation across neighborhoods—that this report seeks to address the impact of school choice. In it, I analyze new trends in school segregation and review relevant studies on the effects of choice on integration.

Although efforts to integrate schools within individual public school districts are noble, they will not promote much integration by race and income because the vast majority of segregation occurs between districts. Not currently required by law, any efforts to promote integration across public school district lines also are likely doomed, as the geography of districts has become much larger over time through school district consolidations.

School choice holds great promise for reversing at least some of the damage done by the decades-long trend of greater public school segregation by

- (a) uncoupling the decisions of where to live and where to send children to school, and
- (b) allowing schools to provide non-uniform educational offerings, thereby giving parents reasons to choose schools that go beyond just “peer quality.”

It is important to note that the existing evidence on private school choice programs in the United States indicates that those policies have led to greater racial integration in schools.

Based on the historical evidence on housing and school segregation and the myriad studies reviewed in this report, I recommend the following school choice program design features in order to maximize academic benefits to students and take to heart the concerns of those worried about the increases in race and class segregation that have been present in the American public education system for more than three decades.

The school choice program “Do’s”:

- **Universal scholarships.** Offer scholarships to all families regardless of income. Scholarships to higher- and middle-income families will give them more incentive to live closer to employment centers in what we now know as lower-income communities—where scholarship programs will allow new, high-quality school options to open to serve existing and new residents. Universal school choice will also empower low-income families to send their children to schools located in neighborhoods only higher-income families may currently access. Universal scholarships will also maximize the amount of competition in the school marketplace and build political support for more generous scholarship amounts—and both will enhance student outcomes.
- **Progressive scholarships.** Provide larger scholarships to students from lower-income families and students with special needs. Larger scholarships give schools more of an incentive to enroll students who may be more expensive to teach or who come from limited means. It also gives those families more power and influence within their schools by giving them more opportunities for “exit.” Finally, it gives disadvantaged students an opportunity to attend schools their families currently cannot afford.
- **External accreditation.** Require that public and private schools that admit students with taxpayer-funded scholarships to be accredited by an external and independent accrediting body—or to immediately pursue accreditation in the case of new schools. Along with the enforcement of anti-discrimination laws, including the revoking of their tax-exempt status, accreditation will limit entry and persistence of any schools with “pernicious” intents, which is a fear of school choice skeptics. While accreditation raises operating costs, limits entry, and has other ill effects, it may be an unfortunate, yet politically necessary, compromise.

- **Aid parents in choosing.** Civil society can create online platforms, like GreatSchools.org, and organizations to help parents maximize the benefits of choice by finding the schools that are best for the specific interests and needs of their children.

The school choice program “Don’ts”:

- **Centralized accountability via standardized testing.** Case studies have found that using student test results to grade schools decreases integration in public schools, as white and higher-income parents avoid schools with lower average achievement scores. In addition, under a choice system, this centralized accountability will give public and private schools an incentive to not admit “low-performing” students, in order to boost their accountability rankings, which may have occurred in public school rezoning decisions and under Chile’s school choice program.
- **Requirements on schools of choice.** Curricular requirements, restrictions on who may teach, testing mandates, and any other government requirements on public and private schools under a choice system will lead to more segregation across schools as school offerings become homogenous. If schools are largely the same, families of means will sort into schools with the highest peer quality, and high housing costs—the “price” of attending a public school—will screen out lower-income families. This screening of low-income students from exclusive public schools appears to have been occurring for decades under the current public education system.
- **Mandate “equality.”** Capping private school tuition to scholarship amounts, requiring schools to admit students via lottery, and other program features that sound like they will promote integration will have unintended consequences and likely increase segregation. Such features would limit channels of competition between schools that are beneficial for students. Those “equality” features also give wealthier households

more of an incentive to flock together in wealthier communities—so that most or all students in the school admissions lottery will be from wealthy households, or so they can access exclusive public schools and avoid low-cost private ones.

- *Controlled choice or mechanism design approaches.* Controlled choice and mechanism design approaches do not permit any or very much of the virtuous channels of competition that would be present under a pure school choice program. A controlled choice program thus throws the baby out with the bathwater—while school integration may be promoted or at least not made worse, there may be little or no benefits for student outcomes from competition and choice. Mechanism design approaches may allow more families into their most preferred schools relative to controlled choice, but appear to be leading to small increases in segregation, according to recent research.

Based on my read of the logic and evidence, I conclude that the highly-segregated U.S. public education system will likely continue its decades-long trends and become even more segregated by class and—unless economic disparities between groups lessen—by race as well. It appears that well-designed school choice programs, where parents are given the freedom to choose the schools they deem best for their children, are the last best hope to reverse these trends of more segregation across public schools. Interestingly, many more aspects of American life have become more racially integrated in recent decades when individuals have had freedom to choose—marriage, adoption, neighborhoods, etc. The one glaring anomaly is public education, where families, except for the affluent, have not had freedom to choose.

The academic and policy debates over racial and income segregation and school choice are charged to say the least. Perhaps analyzing them together more than doubles that charge. Authors of some of the studies reviewed in this report are firmly on one side or the other of the debate. I ask readers to consider the logic and evidence presented and in the context from

which it comes—even if some of the logic or evidence comes from someone across the policy divide or if some of the logic or evidence contradicts one’s prior beliefs. I endeavored to do that myself. Instead of name-calling or ignoring contrary arguments or evidence, let us reason and dialogue together.

Introduction

Although the debate over the merits of giving parents enhanced school choice is concerned with many issues, an important one is whether school choice will lead to more or less racial integration across schools relative to the traditional delivery model of K–12 education in the United States.¹ That issue was recently brought to the forefront of the debate about allowing low-income Louisiana students who attended failing public schools to be offered vouchers to attend private schools. Concerned that the voucher program would increase racial segregation across schools, the Civil Rights Division of the U.S. Justice Department sued to stop the Louisiana Scholarship Program (LSP) in August 2013 “unless and until the State receives authorization from the appropriate federal court overseeing the applicable desegregation case.”² Essentially, the federal government wished to require that federal judges approve all vouchers issued under the LSP—to ensure that vouchers supported court-mandated desegregation efforts that began in the 1970s to stop forcible racial segregation across public schools. While the federal government quickly withdrew its request to stop the program, the U.S. Justice Department will receive timely data that allows it to monitor the impact of the LSP on school integration.³

Racial integration of schools is important for at least two reasons. First, interracial contact in schools may promote better understanding and appreciation of those who are of a different race or ethnicity than oneself. Second, there is strong evidence that African American students experienced worse academic outcomes in legally and forcibly segregated public schools, all else equal.⁴

The purpose of this report is to put existing evidence about racial segregation into context while considering whether enhanced school choice opportunities for families will lead to more racial integration or segregation across schools. To design school choice programs that promote integration, policymakers can use insights from the historical evidence of segregation in the public education system, the U.S. and international research on the impact of school

choice programs on segregation, and the economic analyses of how families choose neighborhoods and schools for their children.

This report first analyzes the historical trends in racial segregation across neighborhoods and public schools within metropolitan areas. From the late 1960s to 1980, both of these trends improved, meaning neighborhoods became more racially integrated as did public schools. However, after 1980, there was a puzzling divergence in those trends. Neighborhood racial segregation decreased, while public school segregation increased.

What would happen if parents were allowed more choice over where their children attend school? Through competition and choice, (i) K–12 schools may compete to use their resources more efficiently; (ii) new schools may open in communities with low quality schools; (iii) schools may specialize in a way that allows them to provide better educational opportunities for target populations; and (iv) wealthy donors may provide seed funding to start schools to serve disadvantaged neighborhoods. Each of those channels of competition are beneficial for students. However, some school choice skeptics believe that under a school choice program (v) schools may compete by offering “pernicious” offerings such as pro-Ku Klux Klan instruction or instructional programs that ignore mathematics, or (vi) they believe schools will cream-skim the best students in order to reap the benefits of positive peer effects and to attract more effective teachers. For those concerned about the disadvantaged, the goal should be to maximize the benefits of competition and choice from the first four channels listed above and seek program design features that avoid the latter two negative channels.

The next section discusses methodological issues regarding the measurement of neighborhood and school segregation. The third section shows the historical trends in neighborhood and public school segregation to elucidate the counterfactual, segregation in the public education system.

The fourth section contains a description of the logic

and evidence regarding the issue of the effects of school choice on racial and economic integration across schools. The fifth section considers whether government compulsion is an effective mechanism of promoting integration. The final section concludes that well-designed school choice programs are the best way to promote integration in schools and in communities and recommends specific school choice program “Do’s” and “Don’ts.”

Greg Forster’s 2006 study, *Freedom from Racial Barriers: The Empirical Evidence on Vouchers and Segregation* summarized the logical arguments why school vouchers would reduce racial segregation, discussed what are and are not valid methods and data for analyzing the issue, and reviewed the existing evidence on the impact of school choice programs on racial integration.⁵ The present report offers an update of Forster’s 2006 study.

How to Measure Segregation Across Schools and Across Neighborhoods

To measure racial segregation, researchers must address three issues: (a) how to place individuals into two distinct groups, (b) over what level of geography to measure racial segregation, and (c) what method to use to calculate racial segregation.

Placing Individuals in Two Distinct Groups to Measure Segregation

In the United States, African American families historically have faced the most restrictions on their free choices over where to eat, where to work, where to live, and where to send their children to school. The sources of those restrictions on the liberty of African Americans include prejudice and violence from whites and from explicit government encouragement and enforcement. For example, it was not until the unanimous U.S. Supreme Court decision in the 1954 case *Brown v. Board of Education* that governments

were prevented from enacting laws and policies that required that African American children attend separate public schools from other children.

Given this history, researchers and policymakers have been interested in measuring the segregation between African Americans and whites and the consequences therein. However, a 1997 change in the way the U.S. government collects data on the race and ethnicity of Americans has led researchers in recent years to measure segregation between African Americans and all others—e.g. “black-nonblack”.⁶ I follow the new convention in this report.⁷ Finally, like other researchers, I use the term black-nonblack when describing measures of segregation for ease of exposition.

What Level of Geography to Use to Measure Segregation

A Core Based Statistical Area (CBSA) is a geographic designation of groups of counties that correspond to metropolitan and micropolitan areas. In short, counties within a CBSA are communities of interest that share a common housing and labor market. While researchers sometimes calculate measures of segregation for individual counties, individual states, whole regions, or the entire U.S., such an approach is not meaningful. For example, when deciding where to live and where to send their children to school, households consider the dwellings and schools in the communities of interest where they desire employment. That is, a metropolitan or micropolitan area is the set of relevant neighborhoods and schools that have reasonable access to area employment centers. For example, if someone has a job in Laredo, Texas, they would not consider neighborhoods and schools in Dallas, Texas, which is more than 400 miles away. Similarly, if one wishes to live in metropolitan Atlanta, several counties would allow commutes to employment in large employment centers like Downtown, Midtown, Buckhead, Dunwoody, Sandy Springs, and Alpharetta, even though counties in metropolitan Atlanta are geographically large. Each of those employment centers are in Fulton County, but workers can and do

live in several other counties and access jobs in those employment centers.⁸

It is difficult to measure segregation between two sets of individuals when one group is small in number—because small changes in location patterns will produce large changes in measured segregation. Given they represent communities of interest with common housing and labor markets and given they are large enough to not allow small location changes to skew segregation measures, I consider trends in black-nonblack housing and school segregation in larger CBSA metropolitan areas. Hereafter, I refer to these areas as “metropolitan areas”.

What Measuring Stick to Use

There are several measuring sticks that are commonly used to measure racial segregation. Each allows a somewhat different angle from which to view segregation. In this report I use the dissimilarity index (DI) to consider racial segregation across neighborhoods and public schools. The DI ranges from 0 to 100 and measures the extent to which two groups of individuals are located in equal proportions in all neighborhoods (or schools). The exact value of the DI is best interpreted as the proportion of individuals of either group who would have to change neighborhoods (or schools) in order to achieve perfect racial integration—if only one group could move. For example, a DI equal to 70 for a given metropolitan area would indicate that 70 percent of either one group or the other would have to change neighborhoods in order for each neighborhood in the metropolitan area to have the same racial composition.

As an illustration, consider a metropolitan area in which 20 percent of its residents are African American and 80 percent are not. Suppose the metropolitan area has two neighborhoods. If all African Americans lived in one neighborhood and all nonblacks lived in the other neighborhood, the DI would be equal to 100 indicating complete racial separation. Thus, 100 percent of African Americans would have to move to the nonblack neighborhood (or 100 percent

of the nonblacks would have to move to the African American neighborhood) in order to achieve perfect racial integration. Alternatively, suppose that both neighborhoods contained 20 percent African Americans and 80 percent nonblacks. In this situation, the DI would equal zero, indicating perfect racial integration. The zero indicates that no individuals from either group would have to move in order to achieve perfect racial integration. The DI is widely used in the academic, legal, and policy literatures on segregation.⁹

Below, I use the DI to measure black-nonblack neighborhood and school segregation in large metropolitan areas in the United States. The time period under study is 2000 to 2010.

Trends in Neighborhood and Public School Segregation

This section describes the macro trends in neighborhood and public school segregation in the U.S., the puzzling divergence in neighborhood and public school segregation between 1980 and 2000, and the trends in neighborhood and public school segregation after the year 2000 for each of 215 large metropolitan areas.

Macro Trends in Neighborhood Segregation

In a 2012 paper, Edward Glaeser and Jacob Vigdor report their calculations of the black-nonblack dissimilarity index (DI) for each metropolitan area in the United States using each decennial Census from 1890 to 2010.¹⁰ For each metropolitan area, Glaeser and Vigdor calculated the DI to measure black-nonblack segregation across neighborhoods within each metropolitan area. They used Census tracts as their definition of a “neighborhood,” where Census tracts averaged 4,256 people per tract. In Table 3 of their study, they report the black-nonblack segregation for the “average” black resident in the U.S. for each decennial

Census. They find that black-nonblack segregation across neighborhoods within metropolitan areas increased each decade from 1890 to 1970. Specifically, the DI increased from about 46 to just below 80 between 1890 and 1970. These numbers imply that 46 percent of either group would have had to move in order for there to be perfect racial integration across neighborhoods in 1890. However, by 1970, almost 80 percent of one group or the other would have to move to achieve perfect racial integration.

After peaking in 1970, black-nonblack neighborhood segregation has declined in each subsequent decade. Thus, American neighborhoods are now substantially more racially integrated than they were in 1970. Neighborhood segregation in 2010 is back near to the levels that were present in 1920 with the DI equal to about 55. Thus, racial segregation across neighborhoods increased dramatically between 1890 and 1970 and has decreased almost as dramatically over the subsequent 40 years.¹¹ That said, a DI of 55 is deemed large by most segregation researchers.¹²

Recent Trends in Public School Segregation

Given the historical organization and governance of public schools in America, racial segregation across public schools has been closely related to racial segregation across neighborhoods. With localized attendance zones, individual public schools have typically drawn students from the neighborhoods that physically surround their schools. As noted by Charles Clotfelter, “patterns of residential segregation powerfully shape patterns of school segregation.”¹³

From the late 1960s to 1980—or thereabout (depending on the study methods), there was a sharp decline in racial segregation across American public schools. Thus, the patterns for neighborhood and school segregation were similar between 1970 and 1980—both American neighborhoods and public schools became more integrated by race and ethnicity.

However, after the early 1980s, public school

segregation increased across American public schools. The following three empirical studies confirm this re-segregation of public schools.

Research published in 2012 by Gary Orfield and colleagues for the UCLA Civil Rights Project shows that racial isolation for African American public school students fell significantly between 1969 and 1980.¹⁴ For example, the percentage of African American students who were enrolled in public schools that enrolled at least 90 percent minority students fell by almost half—from 64.3 percent in 1968–69 to 33.2 percent in 1980–81. The percent of African American students in majority-minority public schools—where more than 50 percent of students were minorities—fell from 76.6 percent to 62.9 percent over this time period.¹⁵

However, after the 1980–81 school year, public school segregation increased. The UCLA Civil Rights project shows that by the 2009–10 school year, 74.1 percent of African American students attended majority-minority public schools—up from 62.9 percent in 1980–81. Also in 2009–10, 38.1 percent of African American students attended public schools that were between 90 percent and 100 percent minority.¹⁶ I want to note that this study does not find a clear trend for racial segregation in public schools between 2001–02 and 2009–10. That is, by some measures students experienced slightly more racial segregation over this time period, but other measures used show that students experienced slightly less racial segregation.

This method of measuring segregation used by Orfield, et al. is not ideal, as some of the increase in “segregation” is actually the changing racial composition of America during these time periods. During the study period, the proportion of public school students who were nonwhite was increasing, which—holding segregation levels constant—would by itself increase exposure to nonwhites among students of all races and ethnicities. That said, the changes in racial exposure calculated by Orfield et al. are larger than the changes in racial composition, which indicates an increase in racial segregation across public schools after 1980.

A second study on this topic was published in 2001 and

authored by Charles Clotfelter. In contrast to Orfield, et al., Clotfelter used an empirical approach very similar to the approach described in the “How to Measure Segregation” section and employed in the next subsection of this report. Clotfelter analyzed changes in school segregation for 238 metropolitan areas between 1987 and 1996. He found a modest increase in school segregation over that time period. This evidence is consistent with the findings in Orfield, et al.

A third study, by Sean Reardon and John Yun, found that black-white school segregation increased modestly in the southeastern U.S. between 1990 and 2000, and during the same time period neighborhoods in this region became more racially integrated.¹⁷ Reardon and Yun used an empirical approach very similar to the approach used in this report and in Clotfelter’s study. I am not aware of any methodologically sound analysis that did not find that public school segregation increased between 1980 and 2000.

The researchers who conducted those studies used data on the racial and ethnic composition of public school students collected by the National Center for Education Statistics at the U.S. Department of Education. The database is called the Common Core of Data (CCD), and it is an annual census of all public schools in the United States. I use this same database in my analysis discussed later in this report. The CCD predated and is not related to the Common Core State Standards.

The Puzzling Divergence

The prior two sections cited historical evidence on the national trends of neighborhood racial segregation and public school racial segregation in the United States. There are large academic, legal, and policy literatures on those two topics, and the neighborhood and school segregation trends described above are not in dispute. That is, I am not aware of a single study or researcher who disputes these trends:

- Neighborhood and public school segregation both declined between the late 1960s and 1980.

- Neighborhoods continued to become more racially integrated between 1980 and 2000, but public schools became more racially segregated.

The consensus in these literatures is likely due to the fact that the trends in neighborhood and public school racial segregation are documented using census data. Neighborhood racial segregation is documented using the decennial U.S. Census, and public school segregation is documented in the annual CCD census of public school enrollments. Both data sources are publicly available.¹⁸

Researchers agree that neighborhood racial segregation increased significantly between African Americans and nonblacks between 1890 and 1970, but these two groups had significantly more racial contact in American neighborhoods after 1970. Thus, American neighborhoods tended to be significantly more racially integrated in 2010 relative to 1970.

In the late 1960s and the 1970s, the trend in public school racial segregation followed the trend in neighborhood segregation—both improved as both American neighborhoods and public schools became more racially integrated. But, at some point just after 1980, there has been a puzzling divergence in these trends. Since the early 1980s, American public schools have become more racially segregated as American neighborhoods have become more racially integrated. Again, these facts are not in dispute.

Given the strong link between neighborhoods and public school attendance zones, this divergence that began in the early 1980s is a puzzle.

Neighborhood and School Segregation within Individual Metropolitan Areas 2000–2010

This section provides data on the trends in black-nonblack neighborhood and public school segregation between 2000 and 2010 for 215 large metropolitan areas.¹⁹ The data on neighborhood segregation for each metropolitan area were computed by Edward

Glaeser and Jacob Vigdor in a report for the Manhattan Institute.²⁰ The data on public school segregation for these metropolitan areas was computed for the present study using the CCD from the National Center for Education Statistics at the U.S. Department of Education.²¹ I used information on the racial composition of third grade students in each public school to compute public school segregation for each metropolitan area in the United States. Like Glaeser and Vigdor, I use the dissimilarity index (DI) to measure black-nonblack segregation.

As stated previously, it is not meaningful to measure segregation when there are very few African American students in a metropolitan area, as small changes in neighborhood or school locations can cause wide swings in measured segregation. Thus, I only report information on segregation for the 215 metropolitan areas that had at least 200 African American third grade students in 2010.²²

The appendix contains the specific DIs for 2000 and 2010 that measure both black-nonblack neighborhood and public school segregation. As mentioned above, the DI ranges from 0 to 100, with 0 indicating perfect racial integration and 100 indicating perfect racial segregation. The index number is best interpreted as the percent of one group or another who would have to relocate in order to achieve perfect racial

integration—if only one group were to move. Perfect racial integration is when then percent of African Americans in each neighborhood or school is exactly equal to the percent of African Americans in the entire metropolitan area. Of course, this would be the case for nonblacks as well.

Table 1 contains a summary of the 2000 to 2010 trends in racial segregation. Of these 215 large metropolitan areas, 60 had patterns of neighborhood and public school segregation that moved largely in tandem. That is, the changes in neighborhood and public school segregation for the 60 metropolitan areas were within 2 DI points of each other as measured by the changes in the dissimilarity indices for neighborhoods and public schools between 2000 and 2010. For example, the appendix table shows that the neighborhood DI decreased by 3.2 points in Bowling Green, KY between 2000 and 2010, which indicates a modest increase in black-nonblack neighborhood integration. Bowling Green public schools also became more integrated over that time period with the DI falling by 2.6 points. While neighborhoods integrated at a slightly faster rate than public schools in the Bowling Green metropolitan area, the difference is not large enough to be considered a divergence in the overall pattern of black-nonblack segregation. Given that most public schools have attendance zones largely based on neighborhoods, similar patterns in neighborhood

TABLE 1 Trends in Segregation, 2000 to 2010

Neighborhood Segregation	Public School Segregation	Number of Metropolitan Areas	Percent of Metropolitan Areas
Same Trend	Same Trend	60	27.9%
Down More	Down	28	13.0%
Down	Up	55	25.6%
Up	Up More	6	2.8%
Up More	Up	1	0.5%
Down	Down More	60	27.9%
Up	Down	5	2.3%

Source: Neighborhood segregation data come from the appendix of Edward Glaeser and Jacob Vigdor, *The End of the Segregated Century: Racial Separation in America's Neighborhoods, 1890-2010*, Civic Report No. 66 (New York, NY: Center for State and Local Leadership at the Manhattan Institute, 2012) http://www.manhattan-institute.org/pdf/cr_66.pdf. The public school segregation data was computed from the 1999-00 and 2009-10 files of the Common Core of Data, which is compiled by the National Center for Education Statistics at the U.S. Department of Education, <https://nces.ed.gov/ccd/>.

and school segregation are to be expected. Thus, it is surprising that only 28 percent of large metropolitan areas had changes in neighborhood and public school segregation that were similar.

However, in many metropolitan areas there was a divergence between neighborhood and public school segregation trends between 2000 and 2010. For instance, Table 1 shows that in another 60 metropolitan areas both neighborhood and school segregation declined, but school segregation declined by at least two or more DI points. Therefore, in the 60 metropolitan areas public school segregation declined more rapidly than neighborhood segregation. Another 28 metropolitan areas had the opposite pattern—neighborhood segregation declined by at least two or more DI points relative to school segregation. Thus, neighborhood segregation declined more rapidly in these 28 metropolitan areas.

However, in 55 metropolitan areas—about one-quarter of the total under study—neighborhood segregation declined, while public school segregation increased from 2000 to 2010. The reverse was true in only five metropolitan areas.

Figure 1 provides another way of summarizing the national trends in neighborhood and school segregation within metropolitan areas. Between 2000 and 2010, 198 of the 215 large metropolitan areas experienced improved racial integration across neighborhoods. That represents 92.1 percent of all metropolitan areas under study. The other 17 metropolitan areas had the same level or only modestly higher levels of racial segregation across neighborhoods in 2010 relative to 2000.

Figure 2 shows that the changes in black-nonblack neighborhood segregation in the metropolitan areas

FIGURE 1 Number of Metropolitan Areas with the Following Changes in Racial Segregation, 2000 to 2010

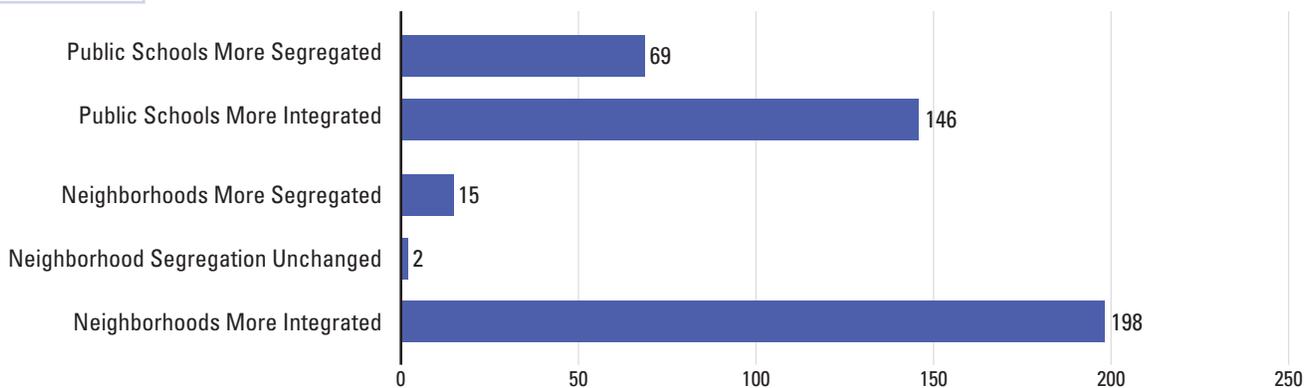
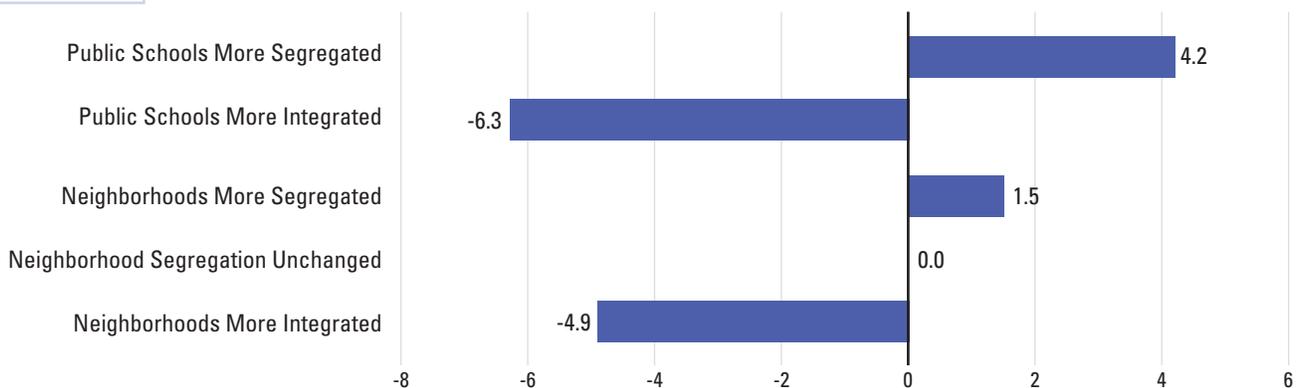


FIGURE 2 Average Change in Racial Segregation as Measured by the DI, 2000 to 2010



that experienced increased segregation were very modest—an average increase of 1.5 DI points.

Regarding public school segregation, 146 out of 215 metropolitan areas had improved racial integration across schools (see Figure 1). The remaining 69 metropolitan areas have public schools that were moderately or significantly more racially segregated in 2010 as compared to 2000. In the 69 metropolitan areas that experienced an increase in black-nonblack public school segregation, the average increase in the DI was 4.2 index points (see Figure 2).

Figure 3 shows that 18.4 percent of American public school students lived in metropolitan areas where racial segregation across public schools increased moderately or significantly between 2000 and 2010. Only 1.5 percent of public school students lived in metropolitan areas where neighborhoods became moderately more segregated by race during the decade. Another 0.9 percent of students experienced no net change in racial segregation across neighborhoods.

To summarize, American neighborhoods in almost all large metropolitan areas became more racially integrated between 2000 and 2010. Also, about two-thirds of metropolitan areas had public schools that became more racially integrated during this time period. The remaining one-third had public schools that became moderately or significantly more racially segregated.

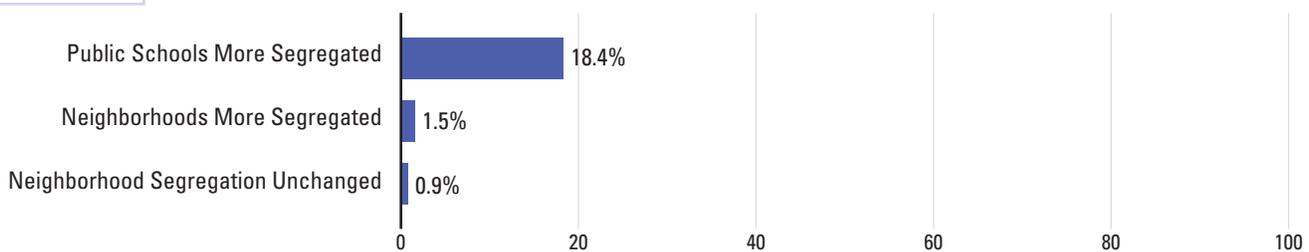
While not as stark as the 1980 to 2000 divergence, the 2000 to 2010 trends in neighborhood and school

segregation do not move together as closely as one would expect given the preeminence of neighborhood public schooling.

Segregation by Income Across Communities

There is another pronounced trend that may impact the quality of schools available to disadvantaged families—income segregation. Using data from the U.S. Bureau of the Census, Sean F. Reardon and Kendra Bischoff show that in 1970 only 7 percent of American families lived in “affluent” neighborhoods. They deem neighborhoods as “affluent” when the median income in the neighborhood was more than 50 percent higher than the median income of the metropolitan area as a whole. By 2009, 14 percent of families lived in such affluent neighborhoods. While higher income households became more isolated from others, low income households did so as well. From 1970 to 2009, the percentage of families living in neighborhoods with median incomes below 67 percent of the median income for the entire metropolitan area increased from 8 percent to 17 percent. The percent of Americans living in neighborhoods with median incomes between 80 and 125 percent of the overall metropolitan median—“middle-income” neighborhoods—fell from 65 percent to 44 percent during the 1970 to 2009 time period. Thus, over a 40-year period, American neighborhoods became much more segregated by income. Reardon and Bischoff also show that these trends toward more income segregation across American neighborhoods have accelerated since 2001.²³

FIGURE 3 Percentage of Students Living in Metropolitan Areas by Change in Racial Segregation, 2000 to 2010



The decades-long increases in racial and income segregation are likely problematic from the standpoint of outcomes for students from low-income households, given the substantial evidence regarding peer effects. That is, there is a large body of research that finds that academic and other outcomes for students are better when they are surrounded by higher achieving peers—even after controlling for a large number of other variables known to impact student achievement. More sorting of students across schools by race and class will harm disadvantaged students if it lowers the achievement levels of their peers. Students from higher income backgrounds benefit from this sorting as the achievement of their peers has increased.²⁴ There is also evidence from several states that public school teachers gain valuable teaching experience at the start of their teaching careers and then move to teach in public schools with more advantaged students.²⁵ Two large empirical literatures suggest that both of these channels that result from increased race and income segregation—lower peer quality and teacher effectiveness—harm academic outcomes for disadvantaged students. Finally, more segregation of groups across schools can also lead to decreases in racial understanding between groups, as individuals from different backgrounds have less contact with each other.

The Present State of Integration in the Public Education System

School choice skeptics routinely suggest that allowing parents more freedom over where to send their children to school will lead to the sorting of students by race and class across schools. The evidence presented in this section has shown:

- 1) There is significant sorting by race and class across American public schools.
- 2) While American neighborhoods have become more racially integrated since 1980, American public schools have become more racially segregated.

Policymakers and researchers need to keep these

baseline facts in mind when considering whether school choice programs are likely to increase or decrease segregation across schools—relative to the traditional American delivery mechanism for K–12 education.

The rest of this report provides a discussion of the issue of school choice and integration.

Racial and Ethnic Integration and Parental Choice in Education

In this section, I discuss the issue of whether giving parents greater opportunities for school choice will or will not lead to greater integration across schools. The first two subsections list the claims that increased parental choice in education (a) would and (b) would not improve racial integration across schools. The third subsection presents a discussion of the voluminous body of empirical evidence that relates to this issue.

Claim that Increased Parent Choice Would Improve Racial Integration Across Schools

(In metropolitan areas) “the public school has fostered residential stratification, by tying the kind and cost of schooling to residential location.”

–Milton and Rose D. Friedman²⁶

This claim, often made by school choice proponents, is that the current public school system leads to more racial segregation across schools because it ties schools to residential location. As long as neighborhoods are segregated by race—regardless of the reason—the claim is that public schools also will be segregated by race. This same reasoning applies to income segregation as well.

Greater school choice, however, lowers the cost to parents of changing schools for their children. That is, it allows parents to live in one public school attendance zone, but send their children to another school, public or

private, located anywhere convenient to their residence or their place of employment. School choice supporters claim that school integration would be less directly tied to neighborhood integration, as parents could use school choice opportunities to access a wider variety of schools, not just the single public school for which their residence is zoned.

Another argument for this claim is that under a system of universal school choice, individual schools would be more likely to specialize than occurs in public schools today. Under a system of greater parental choice, individual schools would have a powerful financial incentive to serve specific niches of students, such as children with special needs or children with strong aptitude or interest in math and science, the arts, bilingual education, Montessori education, Waldorf education, religious education, vocational education, etc. Under a public education system funded by school choice mechanisms, even if some parents have school diversity preferences, it is more likely parents would sort their children into schools to meet the specific interests and needs of their children. Under the current system, where public schools are fairly homogenous and are becoming increasingly so via school finance and policy centralization, the race and income makeup of their schools are, oddly enough, some of the only factors parents can control.²⁷

Suppose parents do not have a preference for same-race classmates for their children. Rather, suppose parents desire the best possible education for their children. If public schools are homogenous in terms of offerings, then parents with means will sort into expensive neighborhoods in order to garner a higher-achieving peer group for their children. There is strong evidence that students benefit from being surrounded by higher-achieving peers. Such a system leaves families of lesser means unable to make that same choice.

Claim that Increased Parental Choice Would Not Improve Racial Integration Across Schools

The claim by some school choice skeptics is that more

choice over where to send their children to school would allow parents more ability to satisfy their preference for same-race classmates for their children. If parents want to send their children to school with same-race classmates under the current public school system, they must move to a school attendance zone that has residents who are primarily the same race as themselves. If members from another race move in, it is costly to move to a new school attendance zone—moving expenses, home sales expenses if you are a homeowner, social costs on children that result from moving schools (in terms of lower academic achievement, leaving friends), etc. Alternatively, the children could be sent to a private school, but the family would incur the full tuition costs at the private school. Given those probable expenses, it is costly to move children away from a neighborhood public school under a public education system without school choice options. Thus, school choice skeptics say the current public education system is better because it reduces the incentive to self-segregate by making it expensive for families to do so. Alternatively, greater school choice lowers the cost of finding a new school for parents, as they do not necessarily have to change their place of residence.

So the claim of school choice skeptics is that families may remain in their present neighborhood—avoiding moving costs—and enroll their children in a public or private school of choice that has more same-race students than the neighborhood public school. In other words, all else equal, they believe that giving parents the means to choose where to send their children to school will lead to more racial segregation across schools as long as parents have any preference that their children have classmates of the same race.

Evidence

School choice skeptics and proponents differ in their beliefs about the impact of parent empowerment on segregation. There is a large body of research from different areas of study that can be used to shed light on this issue. However, it is not feasible to discuss in detail each of the literally hundreds of studies that can inform us. Nevertheless, in this subsection I endeavor

to discuss studies that are representative of the varied findings and thinking in these large literatures that cover different areas of study.

In addition, some studies have fatal data or methodological defects. Those data and methodology issues were discussed previously in the “How to Measure Segregation” section. I do not review such flawed studies, as their results are not meaningful. For example, it is not accurate to consider increases in the exposure of African Americans to all nonwhites as evidence of increases in segregation. Why? Given the large population increase of Latinos and Asians in the United States, both whites and African Americans were bound to experience more exposure to nonwhites. As another example, the mass suburbanization of African Americans in some metropolitan areas does not necessarily imply increasing segregation in the receiving communities, which may be a false inference if one studied only a single school district or county.

To gauge whether segregation is increasing, one must analyze changes in segregation in the metropolitan area as a whole. While all empirical studies have limitations, as discussed below, the studies reviewed here do not have fatal flaws that render their findings meaningless. A final example of fatally flawed analysis involves comparing the racial composition of one school—perhaps a charter school located in a neighborhood with a large percentage of African Americans to the racial composition of an entire school district or metropolitan area. Such a comparison does not offer evidence on the issue of whether that individual charter school led to more or less racial segregation. In a 2005 book chapter, Jay P. Greene explained in detail some of the data and methodological problems in measuring segregation.²⁸

Next, I discuss (a) the credible research from several areas of study and (b) what that evidence means for the relationship between school choice and integration. I categorize the findings from several areas of study in the following manner and discuss each category in turn:

- The effect of charter schools on segregation
- Segregation within schools

- International evidence on the impact of school choice programs on segregation
- U.S. evidence on the impact of school choice programs on segregation
- Simulation studies

Each category of evidence has limitations, and those limitations are mentioned in each subsection. I am not impugning any of the research discussed below. Most, if not all of it, is excellent from a data and methodological point of view. That said, voters and policymakers should be careful when translating any research into policy design and into expectations about the likely effects of new policy—because all research has limitations and all research needs to be put in context when translating results into policy.

Charter Schools

Supporters of the claim that giving parents more school choice would lead to more racial segregation across schools often cite evidence from charter schools.²⁹ Charter schools are public schools of choice that are not governed by local public school boards. All students in the catchment area of the charter school—typically, but not always, the entire school district—have the option of attending a neighborhood public school or the charter school. Thus, the presence of a charter school in a district provides enhanced school choice for parents—choice above and beyond moving to a new residence or paying the full tuition costs at a private school.

There are several studies that compare the percent of African American students in individual charter schools to the percent of African American students in the public school districts where the charter schools are located. These studies tend to find that African American students are more racially isolated in the charter schools that their parents chose for them, as compared to the public school district where they reside.³⁰ Such evidence may not shed light on actual changes in interracial contact because district-level

data may not paint an accurate portrait of the racial composition of the specific public schools that African American students actually left. Those African American students, in some or many cases, may have left segregated neighborhood public schools for less segregated charter schools—and studies that use data aggregated to the district level are not able to ascertain whether the percentage of African American students in the charter schools are lower or higher than the percentage of African American students in the specific schools that students actually left.

The best evidence on the impact of charter schools on racial segregation across schools comes from longitudinal data on individual students where the researchers know the racial composition of neighborhood public schools and charter schools for sector “switchers.” When researchers know the racial composition of a given student’s neighborhood public school in one year and the racial composition of that student’s charter school the next year, after the sector switch is made, then researchers may accurately compare racial isolation in neighborhood public schools and charter schools—for those switchers. For kindergarten students enrolling in school for the first time and students switching from private schools, these data do not allow an analysis of the change in racial isolation across schools.

In 2010, the RAND Corporation published a large study of the impact of charter schools on racial segregation.³¹ From their analysis of traditional public schools (TPS) and charter public schools in Chicago, Denver, Milwaukee, Ohio, Philadelphia, San Diego, and Texas, the researchers concluded

Overall, across the two analyses, it does not appear that charter schools are systematically skimming high-achieving students or dramatically affecting the racial mix of schools for transferring students. Students transferring to charter schools had prior achievement levels that were generally similar to or lower than those of their TPS peers. And transfers had surprisingly little effect on racial distributions across the sites: Typically, students transferring to charter schools moved to schools with racial

distributions similar to those of the TPSs from which they came. There is some evidence, however, that African American students transferring to charters are more likely to end up in schools with higher percentages of students of their own race, a finding that is consistent with prior results in North Carolina (Bifulco and Ladd, 2007).³²

The Bifulco and Ladd study, referenced in the quote above, used longitudinal data on individual public school students and found large effects of charter schools on racial segregation in North Carolina. Bifulco and Ladd found African American students in North Carolina left neighborhood public schools that were on average 53 percent African American and moved to charter public schools that were 72 percent African American.³³ This finding contrasts in magnitude with the results in the RAND study, which showed that charter schools led to only minor increases in racial integration or racial segregation in the seven cities and states they considered.

Evidence of the impact of charter schools on segregation is not necessarily transferable to what would happen under a broader school choice program. New charter schools are costly to start in terms of the time and effort required to garner approval by a charter authorizer. This costly process could limit the opening of charter schools in disadvantaged communities. Under a program that allows choice to private schools, such as a voucher program, new private schools could open without going through a costly approval process. Also, charter authorizers may have a bias toward or against authorizing charter schools in disadvantaged communities, which would limit their generalizability to broader school choice programs.

Segregation Within Schools

The ideal analysis with regards to school segregation would also analyze segregation within schools. Charles Clotfelter, Helen Ladd, and Jacob Vigdor showed that in North Carolina public schools, there was substantial segregation between classrooms—even within the

same school. Also, African American students were more likely to be assigned novice teachers relative to white students, and a significant amount of that disparity was due to the assignment of teachers within individual public schools.³⁴ Perhaps segregation across classrooms and disparate assignment of novice and veteran teachers is one reason why African American students in North Carolina (and perhaps elsewhere) are willing to leave neighborhood public schools for more segregated charter schools. Given this evidence, researchers and policymakers should seek to understand why African American parents are freely choosing to move to schools with higher proportions of African American students. Perhaps African American families are exercising this choice because their children are better off in some respects in their new schools of choice.³⁵

Two studies have compared within-school segregation between public and private schools. Both find private schools are more integrated within the school walls as compared to public schools. First, in a 1998 study, Jay P. Greene analyzes a national sample of 12th grade classrooms and found that 54 percent of public schools classrooms were racially homogenous, while only 41 percent of private school classrooms were racially homogenous. Further, private school students were more likely to be in classrooms with a racial composition similar to the national average—37 percent of private school students were in classrooms that “looked like America,” while only 18 percent of public school classrooms “looked like America.”³⁶

The second study comes from Jay P. Greene and Nicole Mellow. They visited a random sample of public and Catholic school lunchrooms in Austin, TX and San Antonio, TX. They noted to what extent students ate lunch in racially mixed groups. They report that 64 percent of private school students ate lunch with at least one student of a different race. The corresponding figure for public school students was 50 percent.

More evidence on within-school segregation needs to be compiled—both within public and private schools—and how within-school segregation changes after the creation of school choice programs.

International Evidence on the Impact of School Choice Programs on Segregation

There is international evidence from large-scale school choice programs in New Zealand, Sweden, and Chile. The international evidence shows that, under certain rules and regulations, school choice can increase racial (and economic) segregation across schools.

In 1989, New Zealand abruptly changed its centralized and bureaucratic education system to one that allowed universal school choice. Edward Fiske and Helen Ladd showed that the school choice program led to significant increases in race and class segregation across New Zealand schools for a few likely reasons. Although parents were allowed to choose schools, significant government regulation of individual schools remained. In addition, individual schools were categorized into deciles by the government to prioritize the needs of schools for the purposes of obtaining extra resources. The deciles were based on the race, ethnicity, and income of their student populations, and decile rankings of schools were publicized. Not surprisingly, parents endeavored to move their children from lower decile schools to higher decile schools—where lower decile schools had more minority and low-income students. Individual schools were not required to admit students by lottery when they were oversubscribed. Based on this evidence, Fiske and Ladd make a compelling case that school choice programs should learn from the New Zealand experience and adopt program features that will not necessarily exacerbate racial and income segregation across schools.³⁸

Since 1992 Sweden has permitted school choice to public schools outside of one’s school attendance zone and to independent (i.e. private) schools. Prior to the creation of vouchers to private schools, less than 1 percent of Swedish students attended a private school. Evidence from Sweden shows that private schools are more likely to have foreign-born students and students with more educated mothers than public schools. However, Anders Björklund and colleagues also find that the likelihood of attending a private school with a “general pedagogical profile” does not appear to be related to family background. This category of schools represents

the majority of private schools in Sweden. Thus, the sorting of foreign-born and highly-educated families appears to be concentrated in specialized schools, which may be due to a better matching of student needs and interests to particular schools. Björklund and colleagues also report that upper secondary schools in Stockholm experienced an increase in segregation by family income immediately after a government policy change to require school admissions based on student grade point averages. The dissimilarity index increased from 23 immediately before the policy change to 32 immediately after. If family income is positively correlated with student achievement, then that government mandated admissions requirement would necessarily increase segregation across schools by income—even if private schools did not exist.³⁹

In 1979, 12 percent of Chilean students received some government subsidy to attend private schools, while an additional 7 percent attended private schools and received no subsidy. However, there was a large education policy change that began in 1981. Since 1981, all Chilean parents have been offered vouchers to send their children to private schools. By 2009, 55 percent of students in Chile attended a private school, with 48 percent receiving a taxpayer-funded voucher.⁴⁰ Juan Pablo Valenzuela and colleagues report in a 2014 paper that socio-economic (SES) segregation across schools, as measured by the dissimilarity index, increased by 4 points between 1999 and 2006.⁴¹ In a prior paper, published in 2012, Gregory Elacqua noted that school segregation across many dimensions appeared to be lower in Chile than in many countries, including England, Bolivia, the United States, and the Netherlands.⁴² Of course, myriad factors, other than greater school choice, may have caused the lower levels of socioeconomic segregation across schools in Chile. Elacqua also reports that socioeconomic segregation decreased in 2008, the year after the government began giving voucher enhancements to low-income students of 50 percent above the base voucher. It will be interesting to see the long-run effects of this weighted student funding on socioeconomic segregation in Chile.

In a 2015 study, Fatima Alves, Gregory Elacqua and four other coauthors find that in 2010 Chilean students

from families with higher socioeconomic status were more likely to choose high-performing schools outside of their neighborhood relative to other families. Private schools in Chile are allowed to charge fees above voucher amounts. In addition, choice schools face accountability pressures which “likely drive schools to select their students by academic ability in order to improve their chances of achieving higher results on the national standardized exams and school rankings.”⁴³

Unfortunately, none of these studies on New Zealand, Sweden, or Chile has access to what most would consider ideal data—measures of segregation between schools for several years before the implementation of enhanced school choice programs along with the data several years after enhanced parental choice was permitted. Such pre-program data would allow for before and after analyses and a look at whether the timing of the creation of the school choice programs led to different trajectories in segregation relative to the years leading up to the creation of the programs.

Even with ideal data, it would be difficult to ascertain the counterfactual—what the trend of segregation between schools would have been if these school choice programs had never been created. As discussed above, public school segregation by race and class in the United States has increased even without the creation of large-scale school choice programs.

Different countries have different cultures, income distributions, and different histories as well as current patterns of racial, ethnic, and religious comity or animosity. Thus, the effects of school choice in one national context may not apply to another.

Evidence about the Effects of American School Choice Programs on Segregation

In a 2013 study, Greg Forster reviewed the evidence about the effect of private school choice programs in Milwaukee, Cleveland, and Washington, D.C. on racial integration. Each of those three programs were means-tested voucher programs, where only low-income parents were offered taxpayer-funded

vouchers to attend private schools. Seven of the eight studies reviewed found that giving parents vouchers to attend private schools led to increased racial integration. Each of the seven studies considered the effects of the voucher programs on the racial composition of schools faced by switchers—students who moved from a public school to a private school using a voucher. One study reviewed by Forster, which was part of the School Choice Demonstration Project, had access to longitudinal student data from Milwaukee beginning in 1994. Because the Milwaukee school voucher program began in 1990, the researchers could not determine how vouchers had an impact on segregation in the earliest years of the program. After 1994, the researchers could not detect significant effects of the Milwaukee voucher program on segregation across Milwaukee schools. However, the Milwaukee voucher program had a very large impact on the distribution of students across sectors. In 1994, 75 percent of Milwaukee private school students were white, and in 2008 only 35 percent of Milwaukee private school students were white. Of this evidence, Greg Forster concluded, “This seismic shift was the result of the voucher program.”⁴⁴

Forster’s study also reviewed studies of the impact of voucher programs on political tolerance. Five studies found students who were offered vouchers tended to express more tolerant views toward their “least favorite” groups—relative to public school students who were not offered vouchers in a randomized lottery. That is, these students who won the lottery and were offered a voucher tended to be more tolerant of the rights of those they considered undesirable. Two studies found no effect of voucher programs on political tolerance.⁴⁵

Research of the early impact of the newly-created Louisiana Scholarship Program (LSP) finds that it has resulted in decreased segregation in public schools where students leave with scholarships. However, Anna Egalite’ and Jonathan Mills also find there has been no overall effect on segregation in receiving schools. For Louisiana public school districts that remain under desegregation orders, the LSP has had a larger effect on desegregating schools—public schools

that experienced an exit of students via scholarships became more racially integrated, as did the receiving schools. Given data limitations, the authors are not able to analyze the changes in the racial composition of schools experienced by all students who received scholarships—they are only able to analyze changes in segregation for about 17 percent of voucher recipients.⁴⁶

Research from existing U.S. school choice programs is perhaps the most relevant for predicting the likely effects of new U.S. school choice programs on segregation. However, new school choice programs in the U.S., like the ones in Indiana and especially Nevada, provide more generous scholarship amounts and will be offered to a larger proportion of students than the school choice programs analyzed in the studies mentioned above. Future research should analyze these more comprehensive school choice programs.

Simulation Studies

The final evidence I wish to review comes from a long literature that uses simulation models of location and school choice. Such studies create theoretical models of how households choose communities where they live and where they send their children to school. These models are then “calibrated” to real data to generate parameters that allow the model to explain the real-world data. The parameters indicate to what extent factors in the model explain household decisions about where to live and where to send their children to school. For example, if in a given theoretical model, real-world data suggest that a neighborhood school with test scores of one standard deviation above average result in housing prices that are 20 percent above average, then the model is calibrated to produce such a result. These calibrated models are used to simulate changes in policies to make predictions, in this case, of where families will live and send their children to school.⁴⁷

Although important early research on these simulation models was conducted by a variety of authors, the most recent and largest amount of simulation model research, which builds on that early work, comes in

a series of papers by Thomas Nechyba.⁴⁸ Like early research shows, Nechyba points out that the American public education system is in actuality “quasi-public,” to use his term. Specifically, he points out that to attend a given traditional public school, children’s families must be able to afford to live in that public school’s attendance zone. That is, under the traditional American education system, private school attendance was rationed by tuition prices. To attend a given private school, one must be willing and able to pay the tuition price. Slots in public schools have been rationed as well—by housing prices. To attend a given public school, one must be willing and able to pay the housing price in the school attendance zone. Nechyba writes, “Residence-based admission to publicly-funded schools therefore creates an actual public school system that, while nominally offering free public education to all, restricts access to high-quality schools to higher-income households...public school rationing mechanisms lead to relatively high levels of residential and school segregation.”⁴⁹ While tuition is the price of attending a private school, housing costs are the price of attending a public school. This understanding of the traditional education system in America forms the basis of his simulation models of the location and school choices of families with children.

In his simulation models, Nechyba analyzes five channels for competition that would arise under a system of parental choice. The first three channels are beneficial for student outcomes, but the latter two likely benefit some students at the expense of others or are harmful altogether. His channels for competition are:

- 1) Schools may compete “vertically” to use their financial resources more efficiently. Families will be drawn to these more efficiently-managed schools because their students will get more benefits per dollar spent on their educations.
- 2) Schools may compete “locationally” by locating in areas with “low-performing” schools, giving students better school options in their communities.

- 3) Schools may compete “horizontally” by offering specific programs that benefit specific populations of students whose needs are not being met in relatively homogenous traditional public schools. These schools may not be better for all students, but may be better for some student populations.
- 4) Schools may compete by offering an educational program targeted to “pernicious” groups.
- 5) Schools may compete by “cream-skimming” the best students in order to attract other good students and to attract more effective teachers who may prefer such students.⁵⁰

I offer a sixth channel of how schools would compete under a school choice program:

- 6) Altruistic schools. Billionaires who have collectively given hundreds of millions of dollars to public schools or to public school reform efforts would have an additional way to improve education under school choice—they could provide seed money to multiethnic groups of individuals to start excellent and integrated schools, where the students’ tuition would largely be financed by taxpayer-funded vouchers, tax-credit scholarships, or education savings accounts.⁵¹ This altruism would be a form of funding “social entrepreneurship,” where donors seek to fund private individuals and groups to solve complex social problems. Social entrepreneurship is common in many realms outside of K–12 education.⁵² School choice would permit a dramatically greater scope for social entrepreneurship in K–12 education.

Private schools under the current education system likely compete via one or more of these channels. Under a choice system, any autonomous schools—public or private schools that were free of government regulation of their admissions and educational programs—would also likely compete via one or more of those channels.

Using his simulation models, Nechyba shows the

extent to which different designs of school choice programs promote—or retard—each of the first five channels of competition and the effects on students and the sorting of students among schools. Importantly, he compares these outcomes with regards to students and the sorting of students under various school choice programs to outcomes and sorting under the current public education system. This comparison is largely ignored in studies and in debates about the merits of school choice. For example, school choice opponents may be quick to point out that a given private school cream-skims top students via high standards for admissions. But they may ignore that a given public school cream-skims top students via expensive owner-occupied housing and zoning that excludes multi-family housing from being constructed in their communities. Properly understood, the issue is: what is the level of integration under one education delivery model relative to the level of integration under another?

There are three broad implications drawn from the research on housing and school choice using simulation models:

- 1) "... public and private school choice plans may lead to greater competition with more or less segregation of different types depending on how such plans are implemented."⁵³
- 2) School choice programs will lead to a "migration of households from relatively higher-income communities to relatively lower-income communities"⁵⁴
- 3) A school choice proposal that "... adds a new channel through which private schools can compete must necessarily reduce the importance of the other channels"⁵⁵

The first implication suggests that school choice proponents and anyone worried about the sorting of students across schools should pay close attention to the design of school choice programs.

The second implication suggests that school choice has

great potential to offset at least some of the growing income segregation that has occurred across American neighborhoods in recent decades.

The third implication suggests that specific school choice programs should seek to promote the channels of competition that are beneficial for students—allowing schools to have maximum flexibility over their resources, their locations, and their educational and other programs. Such freedoms will limit any negative channels of competition, as Milton and Rose D. Friedman suggested in 1980:

"Let schools specialize, as private schools would, and common interest would overcome bias of color and lead to more integration than now occurs."⁵⁶

Thus, the increases in segregation by race and class across American public schools may be due to the growing programmatic homogenization of the public education sector.

Implications (2) and (3) from the simulation model approach are consistent with a 2005 study by Miguel Uriquola that finds metropolitan areas with more public school choices—both more districts and more schools within districts—have more sorting of children across schools by race and class. They are also consistent with the evidence from Sean F. Reardon and Kendra Bischoff that class segregation across neighborhoods has increased to a large degree over several decades, especially in recent years.⁵⁷ These empirical findings are just the converse of implications (2) and (3). That is, the simulation models imply that when public schools do not compete horizontally because they are becoming more homogenous, there will be more sorting by student types across public schools and neighborhoods. And this implication is consistent with the increase in sorting among public schools seen in recent decades in the United States.

The implications from these simulation studies comport with logic. However, the simulation models were created to explain retrospective patterns of neighborhood location and school choice. Important factors that help determine neighborhood location

and school choice decisions may be omitted from these models, and these omitted factors could change in the future in ways that lead to future school choice decisions, for example, to be different than what is predicted by these simulation models.

Is Government Compulsion the Solution to Promoting Race and Class Integration in K–12 Education?

In the section that follows this one, I use historical evidence and the studies reviewed above to suggest that school choice is the best and perhaps the only possible way to increase integration in American schools, and neighborhoods too. But first, in this section, I evaluate the arguments that government compulsion is the best way to promote integration.

Increasing Integration by Government Compulsion

Through a series of U.S. Supreme Court decisions beginning in the late 1960s, there was a significant and noble attempt by the courts to affirmatively integrate American public schools.⁵⁸ In those decisions, the Supreme Court ordered that school districts take affirmative steps like busing students, pairing and clustering formerly black and white schools, and the redrawing of school attendance zones to achieve more equal distributions of black and white students across public schools.

The evidence suggests that those affirmative steps did lead to large increases in interracial contact in public schools—for a short time. In a 1987 report for the U.S. Commission on Civil Rights, Finis Welch and Audrey Light find that there were large decreases in racial segregation between 1967 and 1985 in 117 of 125 large school districts under study.⁵⁹ They found that, on average, the dissimilarity index (DI) declined by 21.7 percent within these individual school districts during

the time period of implementation of desegregation efforts.

However, those school districts tended to experience “white-flight” immediately before, during, and after the implementation of desegregation programs. The best evidence on the magnitude of white flight that was caused by desegregation efforts comes from a 2005 study by Sarah Reber and a 2011 study by Nathaniel Baum-Snow and Byron Lutz. Those studies find desegregation efforts decreased white enrollments in central city districts by 6 percent to 12 percent.⁶⁰ Thus, as public school districts experienced more racial integration due to affirmative desegregation efforts, the percentage of white students in these districts declined rather dramatically over time. A large majority of this white-flight was due to families moving to new public school districts rather than paying for private schools.⁶¹ However, a study by Steven Rivkin indicates that by analyzing a longer period of time it appears the suburbanization of whites was occurring independent of school desegregation efforts—that is, perhaps school desegregation efforts merely hastened the suburbanization of whites that would have eventually occurred—albeit more gradually.⁶²

“Integration has been most successful when it has resulted from choice, not coercion.

—Milton and Rose D. Friedman⁶³

Two changes—one legal and one practical—make it highly unlikely that government compulsion will play a significant role in integrating American schools now and in the foreseeable future. First, in the 1974 case *Milliken v. Bradley*, the U.S. Supreme Court decided that there was no legal requirement for states and public schools to take affirmative steps to integrate students across public school district lines, unless the district lines were drawn with the intent to segregate students by race.⁶⁴

Second, suppose jurisprudence changed. Suppose the U.S. Supreme Court required states to take affirmative steps to integrate schools across district lines. Integration through these means would be difficult from a practical standpoint, as public school districts

have become dramatically larger in geographic size over the past 75 years and in recent decades as well. From 1940 to 1970, there was a very large consolidation of public school districts with the number of districts declining by 85 percent. There were further, but more modest, declines after 1970. For example, from 1987 to 2013, there was an additional 16 percent decrease in the number of public school districts.⁶⁵ Physically moving students from far distances to attend schools in other districts for the purpose of integrating schools by race is costly in terms of money, students' time, and in the loss of family and community life. Thus, any benefits that accrue from any increased integration should be weighed against these tremendous costs. In addition, the historical evidence cited above suggests government attempts to force integration across district lines could cause suburbanization to move even further away from cities—for families that can afford the extra costs of commuting to their jobs.

Even if federal jurisprudence changed, it is highly unlikely that any government attempts to integrate schools across district lines would overcome these practical barriers.

While researchers do not dispute the trends in racial segregation across neighborhoods and public schools, there has long been a raging debate about the causes.⁶⁶ For example, some researchers believe the end of busing and court-ordered desegregation efforts were major causes of the increase in public school segregation after 1980. Beginning in the 1970s, hundreds of public school districts were placed under court supervision because they had been running “dual” education systems—one for white students and another for black students. These districts had to move to neighborhood schooling—instead of sending African American students to black-only schools. Importantly, as stated above, districts had to take affirmative steps to integrate schools racially even beyond neighborhood schooling. After achieving court-approved racial balance in their schools, the districts needed court permission for changes in attendance zones and other policies that may have an impact on the level of integration among their schools.⁶⁷ After 1990, school districts began to be released from court supervision if the courts deemed

their school districts to be running a “unitary” system of education for all races.

The end of court-ordered desegregation efforts after 1990 appears to have contributed to increasing public school segregation within the impacted public school districts.⁶⁸ In his 2011 study, Byron Lutz compares changes in racial segregation within school districts that were no longer under court-supervised desegregation orders to segregation within school districts that remained under such court supervision. His research indicates that, ten years after release from court supervision, within-district segregation was about 10 points higher as measured by the DI. His research methodology suggests that this 10-point increase in the DI was caused by the end of court supervision. Similar research published in 2012 by Sean F. Reardon and colleagues and research published in 2006 by Charles Clotfelter and colleagues find similar results—the end of court-ordered desegregation increases racial segregation within the impacted school districts. At their time of writing, Reardon and colleagues report that almost half of 483 medium and large public school districts that were under court ordered supervision in 1990 had been released from these court-supervised desegregation orders.⁶⁹

Segregation across public schools in a given metropolitan area results from racial sorting among schools within the same school district and from racial sorting between school districts. Although the end of court-ordered supervision appears to have led to increases in racial segregation within public school districts, a large majority of public school racial segregation is between school districts.

Using data from the 1999–00 school year, Charles Clotfelter calculates that just over 69 percent of racial segregation across schools is due to segregation between public school districts. Almost 7 percent is due to differential enrollment rates in private schools, while the remaining 24 percent is due to within-district segregation.⁷⁰ Thus, efforts to integrate schools within districts will only increase integration to a small degree.

While a full discussion of these debates is beyond the scope of this paper, the best evidence to date suggests:

- The end of court-ordered desegregation efforts has led to more racial segregation across public schools within the impacted public school districts.
- The large majority of racial segregation within metropolitan areas is between public school districts—and this segregation was not directly impacted by the change in jurisprudence.

Americans—When Free to Choose—Are Choosing to Increase Integration by Race

Along with neighborhoods, other walks of American life have become more racially integrated in recent decades as well. The rate of interracial marriages more than doubled between 1980 and 2010, according to statistics compiled by demographer William H. Frey. In 2010, 15 percent of all marriages were between individuals of different races or ethnicities. Currently about 40 percent of all adoptions involve parents of one race or ethnicity and adopted children of a different race or ethnicity. Now, nonblacks are more willing to vote for African American political candidates. In the 1950s, only 37 percent of Americans said they were willing to vote for an African American presidential candidate, but by the 1990s the corresponding percentage was 95 percent.⁷¹ Thus, when making free choices, Americans are voluntarily choosing more racial integration. Of course, the positive trend in voluntary integration is different than earlier periods in American history.

“We have diversity everywhere, except in schools.
-Michael Alves, education consultant and proponent of public school desegregation⁷²

I am not suggesting that America is perfectly racially integrated—nor is Frey. I am merely suggesting that there is ample evidence that the trend lines are heading in the direction of more integration and that this increase in integration is occurring via the free choices of Americans and without government compulsion. It is very likely that the limited school choice programs,

which exist in the U.S. presently and are fostering school integration, would have had a very different impact on segregation across schools in 1970, given the large improvement in the racial attitudes of whites over this time period.

Historically Government Compulsion Has Led to More Racial Segregation in Some Arenas

In the distant and not-so-distant past, American governments have contributed to racial segregation by limiting the choices of African Americans through redlining (not insuring mortgages in largely African American neighborhoods), segregating public housing by race, Jim Crow laws, anti-miscegenation laws, and massive resistance to school integration efforts.⁷³ Of course, these vile and discriminatory government actions would not have been enacted or persisted without the support of a majority of the voting population, which has historically been overwhelmingly white. Even today, exclusionary zoning policies, often for reasons of protecting the environment, have limited housing opportunities for low-income residents in many communities and large cities, such as San Francisco.⁷⁴ That said, government restrictions on the choices of African Americans and of low-income families leads to a more segregated society. Thus, in some cases, government compulsion has prevented racial integration from occurring.

Recommendations for School Choice Program Design

Many of us share the goal of greater racial and economic integration in schools, and in neighborhoods. Unfortunately, the current trends are going largely away from this goal, especially with regards to economic integration. Based on the historical evidence and on the studies reviewed above, I believe that giving parents greater school choice is perhaps the only practical way we can promote significant improvements in school and neighborhood integration. In particular, we can

learn from prior experience and logic about how to design school choice programs in ways that promote integration. To that end, I recommend specific “Do’s” and “Don’ts” of school choice program design. These “Do’s” and “Don’ts” were informed by the myriad studies reviewed earlier in this report. An appendix contains a taxonomy of the studies that informed the recommendations below.

School Choice Program Design DO’s

Given the historical evidence on housing and school segregation and the studies discussed previously, I propose the following school choice program design features in order to maximize benefits to students and take to heart the equity concerns of those worried about the increase in race and class segregation that has been present in the American public education system since 1980. The school choice program “Do’s”:

- **Universal scholarships.** Offer scholarships to all families regardless of income. Scholarships to higher- and middle-income families will give them more incentive to live closer to employment centers in what we now know as lower-income communities—where scholarship programs will allow new, high-quality school options to open to serve existing and new residents. Universal school choice would also empower low-income families to send their children to schools located in neighborhoods only higher-income families may currently access. Universal scholarships will also maximize the amount of competition in the school marketplace and build political support for more generous scholarship amounts—and both will enhance student outcomes.
- **Progressive scholarships.** Provide larger scholarships to students from lower-income families and students with special needs. Larger scholarships give schools more of an incentive to enroll students who may be more expensive to teach or who come from limited means. It also gives those families more power and influence within their schools by giving them more

opportunities for “exit.” Finally, it gives disadvantaged students an opportunity to attend schools their families currently cannot afford.

- **External accreditation.** Require that public and private schools that admit students with taxpayer-funded scholarships to be accredited by an external and independent accrediting body—or to immediately pursue accreditation in the case of new schools. Along with the enforcement of anti-discrimination laws, including the revoking of their tax-exempt status, accreditation will limit entry and persistence of any schools with “pernicious” intents, which is a fear of school choice skeptics. While accreditation raises operating costs, limits entry, and has other ill effects, it may be an unfortunate, yet politically necessary, compromise.⁷⁵
- **Aid parents in choosing.** Civil society can create online platforms, like GreatSchools.org, and organizations to help parents maximize the benefits of choice by finding the schools that are best for the specific interests and needs of their children.⁷⁶

School Choice Program Design DON’Ts

Given the previous discussions, I propose that school choice program designs do not contain the following provisions. By avoiding these provisions, school choice programs will maximize the benefits to students and take to heart the equity concerns of those worried about the increase in race and class segregation that has been present in the American public education system since 1980. School choice program “Don’ts”:

- **Centralized accountability via standardized testing.** In a group of case studies, Amy Stuart Wells has found that using student test score results to grade schools has been shown to decrease integration in public schools, as white and higher-income parents avoid integrated schools with lower average achievement scores.⁷⁷ In addition, under a choice system, this centralized

accountability will give public and private schools an incentive to not admit “low-performing” students, in order to boost their accountability rankings—which may have occurred under the current public school system through school rezoning policies and in Chile’s school choice program.⁷⁸

- **Requirements on schools of choice.** Curricular requirements, restrictions on who may teach, and any other government requirements on public and private schools under a choice system limit horizontal competition and will lead to more segregation across schools as school offerings become homogenous. That is, if schools are largely the same, families of means will sort into schools with the highest peer quality, and high housing costs will screen out lower-income families—which appears to have been occurring for decades under the current public education system.
- **Mandate equality.** Capping private school tuition to scholarship amounts, requiring schools to admit students via lottery, and other program features that sound like they will promote equity and integration will have unintended consequences and likely increase segregation. These so-called “equality” provisions will limit the channel of competition where schools compete horizontally and give wealthier households more of an incentive to live in higher-income communities—so most or all students in the school admissions lottery will be from higher-income households or so they can go to exclusive public schools and avoid low-cost private ones
- **Controlled choice or mechanism design approaches.** While I applaud public school districts like New York City that have endeavored to provide more diverse school offerings and public school choice, a true system of school choice that maximizes the beneficial channels of competition among schools is not “controlled” or “designed” from above. Controlled choice programs—“choice” programs that limit parental choices in the interest of promoting school integration necessarily limit

horizontal, vertical, and locational competition.⁷⁹ Schools that are undersubscribed may or may not be closed by central authorities—even if schools are closed, are the employees out of a job or merely transferred to another school? Entry of private schools is limited or nonexistent. And, if schools know they will be filled with students, they have little incentive to use their resources more efficiently. Mechanism design approaches have been used to match the school preferences of families with available slots in schools. Interesting and exciting work has been done to improve matching algorithms to give more families their most preferred choices and to limit strategic gaming by more sophisticated choosers.⁸⁰ That said, mechanism design approaches have the same pitfalls as controlled choice—relative to a true school choice program, there is less incentive for schools to diversify their offerings through horizontal completion, less incentive for schools to be more efficient with their resources through vertical competition, and hard or soft limits on the entry of new schools which limits locational competition. To conclude, controlled choice and mechanism design approaches do not permit any or very much of the four virtuous channels of competition that would be present under a pure school choice program. Under a controlled choice program, school integration may be improved or not made worse, but there are little or no benefits to students from competition. Mechanism design approaches may allow more families into their most preferred schools relative to controlled choice, but appear to be leading to small increases in segregation.⁸¹ Both controlled choice and mechanism design approaches throw the baby out with the bathwater with respect to the benefits of competition.

As discussed above, the design of school choice programs will have an impact on the resulting levels of school integration. For example, if—like New Zealand—a school choice program requires public reporting of only data on the poverty levels and racial composition of schools and limits the differences between public and private schools—it

is likely that school choice will lead to more racial segregation. If the main differences between schools are the demographics of the students, then parents will sort based on student demographics—and this claim is supported by the New Zealand evidence. This claim is also consistent with the evidence about segregation across public schools and neighborhoods in studies by Uriquola and Reardon and Bischoff.⁸² Requirements of standardized testing, Common Core State Standards, input regulations, etc. for private schools who accept taxpayer-funded vouchers, for example, likely will lead to more racial segregation across schools relative to a voucher program with few requirements for private schools. That said, overall racial integration may be higher in voucher programs, but not as high as it could be, with lots of government-imposed requirements on private schools as the neighborhood location and school choice decisions are separated. Restrictions on private school autonomy limit the diversity of school offerings which limits opportunities for families to sort themselves among schools based on their curricular and extracurricular needs; therefore, families are more likely to sort themselves based on race and class—because, oddly enough, that would be the only parameter they would be allowed to choose.

We Have a Good Idea of Where the Status Quo Policy Will Lead Regarding Integration

For two decades, 1980 to 2000, public schools became more segregated by race as neighborhoods became more racially integrated. From 2000 to 2010, public school integration tended to lag improvements in neighborhood integration. For decades public schools have become significantly more segregated by income class, especially in recent years.

If we maintain the status quo, these negative trends are likely to continue. I believe they would continue because of the historical evidence and because of the evidence from simulation models of housing and school choice discussed in Nechyba.⁸³ Further, while I support proposals to integrate schools within

individual school districts, those efforts will not promote much integration by race and class because the vast majority of segregation is across districts. While not currently required by law, any efforts to promote integration across public school district lines are doomed because districts have become very large geographically over time through school district consolidations.

Perhaps enhanced school choice—of the kind that allows schools to offer diverse educational offerings—can ameliorate segregation. I agree with Nechyba, who said,

“The policy decision is considerably more nuanced than the caricature of ‘vouchers’ or ‘no vouchers.’ The real question lies in how vouchers and general choice proposals can be structured to best address educational concerns while paying attention to important social considerations.”⁸⁴

Those who care deeply about the fortunes of disadvantaged students and about racial and class segregation across schools should seek to influence the design of school choice programs in order to maximize the forms of competition that are beneficial for students and to promote integration via progressive scholarships and external accreditation of schools of choice. And they should avoid “equality” proposals that “sound good,” but will likely have the unintended consequence of increasing racial and class segregation in the American K–12 education system. Finally, advocates for the disadvantaged should remember they have two goals—promoting integration and promoting other good outcomes for students. If a given education policy—school choice or otherwise—leads to modest increases in segregation, that negative outcome should be weighed against other outcomes when judging whether one supports the given policy.

Prior Recommendations about the Design of School Choice Programs

The present study is not the first to make recommendations about how to design school choice

programs to promote integration. For example, a 2008 report by Roslyn Arlin Mickelson, Martha Bottia, and Stephanie Southworth for the Education and the Public Interest Center provides a set of recommendations that are largely the opposite of mine.⁸⁵ For instance, Mickelson et al. recommend that we “[decline] public sector cooperation with private voucher programs” (page 22) and “Hold charters and voucher schools to the same accountability standards as private schools.” (page 21)

There are at least two reasons for the difference in recommendations between the present study and the Mickelson et al. study. First, the Mickelson et al. study seemingly contains internal contradictions. For example, on page 13 Mickelson et al. write, “There is evidence from Milwaukee that voucher students attended racially identifiable schools, although the schools may be less segregated than Milwaukee Public Schools.” However, on page 21 of their study, Mickelson et al. lead their first recommendation with these words, “Because unregulated choice leads to de facto segregation” Well, choice did not lead to segregation in any of the studies of the effects of American voucher programs on segregation reviewed in 2006 by Greg Forster and cited on page 13 by Mickelson et al. As another example, on page 10, Mickelson et al. consider the racial composition of American private schools and note that about 75 percent of private school students are white, which is higher than the percentage of public school students who are white. This fact is portrayed as evidence that private schools promote segregation. However, in the preceding paragraph—still on page 10 of Mickelson et al.—the authors note that the majority of voucher recipients in Milwaukee, Cleveland, and Washington, D.C. are African American. This fact is portrayed as evidence that school choice programs will promote segregation. Thus, Mickelson et al. portray programs that take African American students from public schools that are more heavily African American and allow their parents to send them to private schools that are disproportionately white as somehow causing more segregation.

A second reason for differing conclusions in the

present study and Mickelson et al. is that the present study considers a wider range of evidence, including baseline data on the puzzling divergence in trends between public school and neighborhood segregation, evidence from American voucher programs, international evidence from school choice programs, insights from simulation studies, evidence from Americans choosing integration in walks of life where they have freedom of choice (neighborhoods, adoption, marriage, etc.), the history of government compulsion promoting segregation, and historical trends in school district consolidation that make public school desegregation efforts impractical—because most segregation is across districts. And school districts have become geographically larger over time via consolidations. To be fair, some of the evidence I cite was created after the publication of Mickelson, et al.

A full critique of the Mickelson et al. study is beyond the scope of this paper. Thus, I direct readers to their study and ask that you draw your own conclusions about their consideration of evidence and their policy recommendations. That said, I do agree with much in their study, such as their acknowledgement that segregation within traditional public schools is likely to be larger than within school segregation in schools of choice (page 15). I also agree that disadvantaged students should be given larger scholarships or vouchers in order to allow them to be more attractive to schools of choice, to allow them to pay for any transportation needs, and to make more schools affordable to them (page 21).

While I applaud the authors’ commitment to school integration, I respectfully disagree with many of their recommendations. My read of the logic and evidence suggests that giving parents greater school choice is the last best hope to reversing at least some of the negative segregation trends that have been occurring in American public schools. I believe many of their recommendations will lead to increased segregation.

Future Research

Future research on school segregation should consider several open questions, including

- What are the sources of the puzzling divergence in neighborhood and public school segregation that began after 1980?
- More research into the causes of the increase in income segregation across neighborhoods over the past 40 years.
- Measuring and analyzing changes in segregation levels experienced by Latinos and Asians.⁸⁶
- Creating consistent historical measures of school segregation, reaching as far back into the 20th Century as possible. As described in this report, Edward Glaeser and Jacob Vigdor have done this in their 2012 study with regards to neighborhood segregation.
- More evidence on within-school segregation—both within public and private schools—and how within-school segregation changes after the creation of school choice programs.
- Analyzing school segregation in new large scale school choice programs as states are now beginning to implement programs that are closer to Milton and Rose D. Friedman’s vision of universal school choice.

Appendix 1:

Changes in Neighborhood and School Segregation in 215 Metropolitan Areas

Metropolitan Area	2010 Neighborhood DI	2000 Neighborhood DI	2010 School DI	2000 School DI	2000 to 2010 Segregation Trends
Abilene TX	37.1	40.7	33.0	42.8	Neighborhood Down, School Down More
Akron OH	58.3	65.1	63.0	70.1	Segregation Trends the Same
Albany GA	50.4	53.5	65.2	59.6	Neighborhood Down, School Up
Albany-Schenectady-Troy NY	58.5	60.7	67.8	67.6	Neighborhood Down, School Up
Albuquerque NM	24.3	26.8	39.8	38.1	Neighborhood Down, School Up
Alexandria LA	59.2	61.6	61.4	44.9	Neighborhood Down, School Up
Allentown-Bethlehem-Easton PA-NJ	41.8	48	42.9	49.4	Segregation Trends the Same
Amarillo TX	48.5	57.5	41.8	51.6	Segregation Trends the Same
Anchorage AK	37.3	39.5	45.3	41.3	Neighborhood Down, School Up
Anderson SC	40.5	40.8	44.4	40.3	Neighborhood Down, School Up
Ann Arbor MI	53	50.4	56.5	56.6	Neighborhood Up, School Down
Anniston-Oxford AL	44.1	48.6	49.3	56.5	Neighborhood Down, School Down More
Asheville NC	47.5	58.4	43.9	60.3	Neighborhood Down, School Down More
Athens-Clarke County GA	38	41.4	52.2	50.3	Neighborhood Down, School Up
Atlanta-Sandy Springs-Marietta GA	54.1	61	56.9	64.6	Segregation Trends the Same
Atlantic City-Hammonton NJ	50.8	57.8	50.0	64.4	Neighborhood Down, School Down More
Auburn-Opelika AL	33	37.6	36.8	42.2	Segregation Trends the Same
Augusta-Richmond County GA-SC	44	43.3	49.4	51.1	Neighborhood Up, School Down
Austin-Round Rock-San Marcos TX	38.2	42.2	37.3	43.7	Neighborhood Down, School Down More
Bakersfield-Delano CA	40.1	42.6	46.4	47.5	Segregation Trends the Same
Baltimore-Towson MD	62.2	66.6	64.2	72.2	Neighborhood Down, School Down More
Baton Rouge LA	55.9	59.5	67.5	64.5	Neighborhood Down, School Up
Battle Creek MI	54.4	59.7	53.9	64.3	Neighborhood Down, School Down More
Beaumont-Port Arthur TX	58.5	64.1	67.0	67.2	Neighborhood Down More, School Down
Binghamton NY	49.7	49.4	53.8	53.1	Segregation Trends the Same
Birmingham-Hoover AL	64.3	68.3	68.4	75.9	Neighborhood Down, School Down More
Bloomington-Normal IL	34.8	34	49.1	48.1	Segregation Trends the Same
Boston-Cambridge-Quincy MA-NH	57.6	62.6	65.8	66.7	Neighborhood Down More, School Down
Bridgeport-Stamford-Norwalk CT	56.2	60.7	56.4	59.5	Segregation Trends the Same
Brunswick GA	52	54.5	47.8	44.3	Neighborhood Down, School Up
Buffalo-Niagara Falls NY	69.9	75.6	69.1	73.2	Segregation Trends the Same
Burlington NC	36.2	35.6	29.9	28.9	Segregation Trends the Same
Canton-Massillon OH	54.5	58	58.3	64.5	Neighborhood Down, School Down More
Cape Coral-Fort Myers FL	54.5	65.6	41.4	35.7	Neighborhood Down, School Up
Cedar Rapids IA	40.5	45.7	49.3	51.4	Neighborhood Down More, School Down
Champaign-Urbana IL	50.9	49.4	59.8	53.8	Neighborhood Up, School Up More
Charleston WV	58.8	59.5	61.4	70.1	Neighborhood Down, School Down More

Metropolitan Area	2010 Neighborhood DI	2000 Neighborhood DI	2010 School DI	2000 School DI	2000 to 2010 Segregation Trends
Charleston-North Charleston-Summerville SC	39	43.4	41.0	50.8	Neighborhood Down, School Down More
Charlotte-Gastonia-Rock Hill NC-SC	47.1	50.4	44.8	43.4	Neighborhood Down, School Up
Charlottesville VA	31.8	32.9	36.0	43.7	Neighborhood Down, School Down More
Chattanooga TN-GA	62.8	68.6	68.1	45.2	Neighborhood Down, School Up
Chicago-Joliet-Naperville IL-IN-WI	71.9	77.9	76.3	80.8	Segregation Trends the Same
Cincinnati-Middletown OH-KY-IN	68	73	73.5	81.1	Neighborhood Down, School Down More
Clarksville TN-KY	35.7	37.8	30.7	25.0	Neighborhood Down, School Up
Cleveland-Elyria-Mentor OH	71.5	76.7	76.2	80.1	Segregation Trends the Same
College Station-Bryan TX	34.8	40.9	30.1	36.9	Segregation Trends the Same
Colorado Springs CO	34	38.9	36.7	42.7	Segregation Trends the Same
Columbia MO	34.9	38.2	43.7	46.6	Segregation Trends the Same
Columbia SC	46.4	46.8	53.8	56.4	Neighborhood Down, School Down More
Columbus OH	60.3	62.1	63.7	69.7	Neighborhood Down, School Down More
Columbus GA-AL	52.3	55.9	54.7	55.6	Neighborhood Down More, School Down
Corpus Christi TX	31.1	35.1	31.5	38.6	Neighborhood Down, School Down More
Dallas-Fort Worth-Arlington TX	47.5	53.7	46.0	54.8	Neighborhood Down, School Down More
Danville VA	36.6	33.6	49.0	40.5	Neighborhood Up, School Up More
Davenport-Moline-Rock Island IA-IL	47.9	53	48.2	56.1	Neighborhood Down, School Down More
Dayton OH	65.6	72.4	71.2	74.0	Neighborhood Down More, School Down
Decatur AL	55.1	56.7	55.0	50.0	Neighborhood Down, School Up
Decatur IL	52.4	53.6	52.8	49.9	Neighborhood Down, School Up
Deltona-Daytona Beach-Ormond Beach FL	49.4	56.9	45.7	46.3	Neighborhood Down More, School Down
Denver-Aurora-Broomfield CO	56.7	60.2	56.5	62.2	Neighborhood Down, School Down More
Des Moines-West Des Moines IA	47.8	56.1	55.8	60.0	Neighborhood Down More, School Down
Detroit-Warren-Livonia MI	73.5	84.2	81.4	87.9	Neighborhood Down More, School Down
Dothan AL	45.1	44.8	49.4	34.1	Neighborhood Up, School Up More
Dover DE	26.2	31.8	32.7	27.2	Neighborhood Down, School Up
Durham-Chapel Hill NC	41.7	43.1	41.7	45.2	Neighborhood Down, School Down More
El Paso TX	38.5	43	49.3	56.2	Neighborhood Down, School Down More
Elkhart-Goshen IN	47	54.1	51.4	63.5	Neighborhood Down, School Down More
Erie PA	63.1	64.1	61.1	71.5	Neighborhood Down, School Down More
Evansville IN-KY	52.2	56	58.8	55.0	Neighborhood Down, School Up
Fayetteville NC	27.2	28.3	36.5	34.8	Neighborhood Down, School Up
Flint MI	67.6	76.5	74.4	80.0	Neighborhood Down More, School Down
Florence SC	35.8	39.2	36.8	30.6	Neighborhood Down, School Up
Florence-Muscle Shoals AL	41.5	42.8	51.7	49.3	Neighborhood Down, School Up
Fort Wayne IN	56.4	68.6	47.5	49.1	Neighborhood Down More, School Down
Fresno CA	39.1	42.1	46.0	46.1	Neighborhood Down More, School Down
Gadsden AL	65.6	68.6	65.2	75.1	Neighborhood Down, School Down More
Gainesville FL	39.3	41.6	45.7	40.3	Neighborhood Down, School Up
Gainesville GA	33.9	44.3	42.9	48.3	Neighborhood Down More, School Down
Goldboro NC	39.4	39.9	39.2	46.9	Neighborhood Down, School Down More

Metropolitan Area	2010 Neighborhood DI	2000 Neighborhood DI	2010 School DI	2000 School DI	2000 to 2010 Segregation Trends
Grand Rapids-Wyoming MI	59.1	63.2	62.6	69.9	Neighborhood Down, School Down More
Greensboro-High Point NC	49.8	51.2	47.9	50.5	Segregation Trends the Same
Greenville NC	27.5	29.7	22.6	22.3	Neighborhood Down, School Up
Greenville-Mauldin-Easley SC	41.5	45.7	35.4	41.7	Neighborhood Down, School Down More
Gulfport-Biloxi MS	39.9	44.2	43.6	43.3	Neighborhood Down, School Up
Hagerstown-Martinsburg MD-WV	39.7	54.4	39.9	50.6	Neighborhood Down More, School Down
Harrisburg-Carlisle PA	62.5	68.9	60.2	66.9	Segregation Trends the Same
Hartford-West Hartford-East Hartford CT	56.3	59.5	56.6	62.7	Neighborhood Down, School Down More
Hattiesburg MS	47.8	50.1	55.3	64.2	Neighborhood Down, School Down More
Hickory-Lenoir-Morganton NC	40	44.5	35.1	48.5	Neighborhood Down, School Down More
Hinesville-Fort Stewart GA	23.8	18	19.0	15.7	Neighborhood Up More, School Up
Honolulu HI	45.1	51.4	49.8	61.0	Neighborhood Down, School Down More
Houma-Bayou Cane-Thibodaux LA	42.2	45.3	47.0	56.2	Neighborhood Down, School Down More
Houston-Sugar Land-Baytown TX	47.8	56	47.3	56.7	Segregation Trends the Same
Huntsville AL	47.6	53.7	46.8	54.1	Segregation Trends the Same
Indianapolis-Carmel IN	63	70.4	68.5	64.6	Neighborhood Down, School Up
Jackson MI	58.5	65.7	55.5	69.2	Neighborhood Down, School Down More
Jackson MS	54.5	57	68.1	70.1	Segregation Trends the Same
Jacksonville FL	50.4	52.6	52.3	48.5	Neighborhood Down, School Up
Jacksonville NC	25.4	23.9	29.0	34.1	Neighborhood Up, School Down
Janesville WI	51.3	59.8	52.7	56.1	Neighborhood Down More, School Down
Jonesboro AR	42.1	41.9	54.7	51.7	Neighborhood Up, School Up More
Kalamazoo-Portage MI	47	49.1	60.1	63.1	Segregation Trends the Same
Kankakee-Bradley IL	57.9	68.7	61.7	71.1	Segregation Trends the Same
Kansas City MO-KS	57.7	68.6	59.8	71.8	Segregation Trends the Same
Killeen-Temple-Fort Hood TX	35.3	36.9	37.7	40.0	Segregation Trends the Same
Lafayette LA	44.3	48.9	40.8	51.3	Neighborhood Down, School Down More
Lake Charles LA	60.4	61.5	64.3	69.8	Neighborhood Down, School Down More
Lakeland-Winter Haven FL	39.7	50.1	23.9	23.0	Neighborhood Down, School Up
Lancaster PA	50.3	57.7	49.7	60.8	Neighborhood Down, School Down More
Lansing-East Lansing MI	50.7	53.5	61.9	60.8	Neighborhood Down, School Up
Las Vegas-Paradise NV	28.1	32.6	27.6	32.0	Segregation Trends the Same
Lawton OK	24.8	29.5	27.3	33.3	Segregation Trends the Same
Lexington-Fayette KY	45.1	47.3	46.7	44.5	Neighborhood Down, School Up
Lima OH	51.2	53.6	58.3	63.0	Neighborhood Down, School Down More
Lincoln NE	36.7	39	41.0	59.1	Neighborhood Down, School Down More
Little Rock-North Little Rock-Conway AR	56	60.2	59.7	58.6	Neighborhood Down, School Up
Longview TX	33	37.2	32.1	37.0	Segregation Trends the Same
Los Angeles-Long Beach-Santa Ana, CA	54.5	58.4	55.1	55.8	Neighborhood Down More, School Down
Louisville/Jefferson County KY-IN	56.2	62.8	49.2	46.6	Neighborhood Down, School Up
Lubbock TX	37.3	45	45.9	49.7	Neighborhood Down More, School Down
Lynchburg VA	35.8	36.4	43.2	41.9	Segregation Trends the Same

Metropolitan Area	2010 Neighborhood DI	2000 Neighborhood DI	2010 School DI	2000 School DI	2000 to 2010 Segregation Trends
Macon GA	50.2	53	57.6	57.2	Neighborhood Down, School Up
Madison WI	46.1	47.7	48.9	57.4	Neighborhood Down, School Down More
Memphis TN-MS-AR	59.1	63.8	64.2	62.3	Neighborhood Down, School Up
Miami-Fort Lauderdale-Pompano Beach FL	58.1	63.6	63.0	64.0	Neighborhood Down More, School Down
Milwaukee-Waukesha-West Allis WI	77.7	81	75.9	74.4	Neighborhood Down, School Up
Minneapolis-St. Paul-Bloomington MN-WI	48	56.1	52.0	63.1	Neighborhood Down, School Down More
Mobile AL	58	63.1	65.7	69.0	Segregation Trends the Same
Modesto CA	25.5	28.3	40.1	34.7	Neighborhood Down, School Up
Monroe LA	62.4	65.3	74.5	70.8	Neighborhood Down, School Up
Montgomery AL	52.5	55.3	64.6	59.8	Neighborhood Down, School Up
Muskegon-Norton Shores MI	71.8	75.8	73.0	74.6	Neighborhood Down More, School Down
Myrtle Beach-North Myrtle Beach-Conway SC	40.3	44.3	28.5	35.4	Neighborhood Down, School Down More
Naples-Marco Island FL	44.1	54.8	39.8	45.4	Neighborhood Down More, School Down
New Haven-Milford CT	54.4	60.1	55.0	60.6	Segregation Trends the Same
New Orleans-Metairie-Kenner LA	59.7	66.9	58.6	69.2	Neighborhood Down, School Down More
New York-Northern New Jersey-Long Island NY-NJ-PA	64.7	68.7	63.4	64.3	Neighborhood Down More, School Down
Niles-Benton Harbor MI	70.2	73.4	72.8	71.9	Neighborhood Down, School Up
Norwich-New London CT	47.3	51.3	47.3	54.7	Neighborhood Down, School Down More
Ocala FL	45.1	47.7	28.3	37.6	Neighborhood Down, School Down More
Oklahoma City OK	48.7	53.3	50.9	58.4	Neighborhood Down, School Down More
Omaha-Council Bluffs NE-IA	58.8	65.7	60.2	67.8	Segregation Trends the Same
Orlando-Kissimmee-Sanford FL	43.5	51.5	47.4	50.9	Neighborhood Down More, School Down
Oxnard-Thousand Oaks-Ventura CA	24.4	34.2	50.3	38.9	Neighborhood Down, School Up
Palm Bay-Melbourne-Titusville FL	44.8	47.6	42.5	40.5	Neighborhood Down, School Up
Panama City-Lynn Haven-Panama City Beach FL	43.4	47.6	48.5	45.2	Neighborhood Down, School Up
Pascagoula MS	51	55.4	55.2	56.5	Neighborhood Down More, School Down
Pensacola-Ferry Pass-Brent FL	46.5	49.8	53.6	57.3	Segregation Trends the Same
Peoria IL	69	70.7	82.7	79.1	Neighborhood Down, School Up
Philadelphia-Camden-Wilmington PA-NJ-DE-MD	62.6	67	62.9	65.5	Segregation Trends the Same
Phoenix-Mesa-Glendale AZ	31.2	34.3	32.9	38.5	Neighborhood Down, School Down More
Pine Bluff AR	60.2	58.7	69.1	64.9	Neighborhood Up, School Up More
Pittsburgh PA	64.9	68.4	69.9	73.2	Segregation Trends the Same
Port St. Lucie FL	40.9	56.9	34.7	49.6	Segregation Trends the Same
Portland-Vancouver-Hillsboro OR-WA	42.3	49.4	53.0	58.4	Segregation Trends the Same
Poughkeepsie-Newburgh-Middletown NY	41.7	48.4	45.5	55.2	Neighborhood Down, School Down More
Providence-New Bedford-Fall River RI-MA	47.2	52.1	49.6	53.5	Segregation Trends the Same
Racine WI	47.5	52.2	44.8	38.2	Neighborhood Down, School Up
Raleigh-Cary NC	38.6	39.1	29.8	30.3	Segregation Trends the Same
Reading PA	40.6	53.4	36.6	58.7	Neighborhood Down, School Down More
Reno-Sparks NV	25.7	28	28.6	42.0	Neighborhood Down, School Down More
Richmond VA	49.6	52.4	55.9	61.1	Neighborhood Down, School Down More
Riverside-San Bernardino-Ontario CA	32.6	37	38.9	39.4	Neighborhood Down More, School Down

Metropolitan Area	2010 Neighborhood DI	2000 Neighborhood DI	2010 School DI	2000 School DI	2000 to 2010 Segregation Trends
Roanoke VA	54.2	60.1	55.7	61.2	Segregation Trends the Same
Rochester NY	61.6	64.6	65.5	71.8	Neighborhood Down, School Down More
Rockford IL	52.8	58.6	56.3	53.7	Neighborhood Down, School Up
Rocky Mount NC	35.9	39.9	38.2	43.2	Segregation Trends the Same
Rome GA	44.5	53.8	56.7	67.1	Segregation Trends the Same
Sacramento--Arden-Arcade--Roseville CA	44.5	48.4	46.4	49.1	Segregation Trends the Same
Saginaw-Saginaw Township North MI	62.2	69.6	69.4	73.6	Neighborhood Down More, School Down
Salisbury MD	41.2	43.4	30.6	35.4	Neighborhood Down, School Down More
Salt Lake City UT	32.2	33.1	39.7	51.1	Neighborhood Down, School Down More
San Antonio-New Braunfels TX	42.1	47.6	47.1	51.8	Segregation Trends the Same
San Diego-Carlsbad-San Marcos CA	38.6	43.8	45.0	45.4	Neighborhood Down More, School Down
San Francisco-Oakland-Fremont CA	50.5	56.6	55.1	54.0	Neighborhood Down, School Up
San Jose-Sunnyvale-Santa Clara CA	25.3	25.6	41.9	35.4	Neighborhood Down, School Up
Sarasota-Bradenton-Venice, FL	50.3	64.1	41.8	51.8	Neighborhood Down More, School Down
Savannah GA	47	54.5	57.6	47.5	Neighborhood Down, School Up
Scranton--Wilkes-Barre PA	49.6	58.5	45.8	58.4	Neighborhood Down, School Down More
Sebastian-Vero Beach FL	45.6	57.6	29.0	19.1	Neighborhood Down, School Up
Shreveport-Bossier City LA	55.3	55.7	60.3	59.7	Segregation Trends the Same
South Bend-Mishawaka IN-MI	49.6	57.1	49.5	57.5	Segregation Trends the Same
Spartanburg SC	40	38.6	39.3	40.5	Neighborhood Up, School Down
Springfield IL	54.7	57.6	58.7	56.6	Neighborhood Down, School Up
Springfield MA	55.7	60.3	60.2	63.5	Segregation Trends the Same
St. Louis MO-IL	71	73.2	71.4	70.5	Neighborhood Down, School Up
Stockton CA	31.4	40.7	38.6	38.9	Neighborhood Down More, School Down
Sumter SC	33.5	39.3	36.8	30.4	Neighborhood Down, School Up
Syracuse NY	64.6	69.3	71.5	77.5	Segregation Trends the Same
Tallahassee FL	41.9	42.3	57.3	57.9	Segregation Trends the Same
Tampa-St. Petersburg-Clearwater FL	50.4	60.9	51.1	39.9	Neighborhood Down, School Up
Texarkana TX-Texarkana AR	41	41.9	48.0	53.2	Neighborhood Down, School Down More
Toledo OH	63	69.6	66.4	74.0	Segregation Trends the Same
Topeka KS	48	51.3	52.2	59.4	Neighborhood Down, School Down More
Trenton-Ewing NJ	55.6	59.6	61.1	65.3	Segregation Trends the Same
Tucson AZ	29.3	32.2	36.3	39.4	Segregation Trends the Same
Tulsa OK	51.7	55.8	54.6	63.1	Neighborhood Down, School Down More
Tuscaloosa AL	53.6	55	62.5	61.0	Neighborhood Down, School Up
Tyler TX	39.6	45.5	33.4	38.5	Segregation Trends the Same
Utica-Rome NY	61.2	63.4	62.9	68.4	Neighborhood Down, School Down More
Valdosta GA	43.5	43.5	56.1	52.3	Segregation Trends the Same
Vallejo-Fairfield CA	29.1	31.5	34.6	34.1	Neighborhood Down, School Up
Vineland-Millville-Bridgeton NJ	34.1	33.6	31.6	38.3	Neighborhood Up, School Down
Virginia Beach-Norfolk-Newport News VA-NC	44.9	44.9	47.8	47.6	Segregation Trends the Same
Waco TX	42.7	45.1	43.1	48.9	Neighborhood Down, School Down More

Metropolitan Area	2010 Neighborhood DI	2000 Neighborhood DI	2010 School DI	2000 School DI	2000 to 2010 Segregation Trends
Warner Robins GA	23	29.9	31.1	36.5	Segregation Trends the Same
Washington-Arlington-Alexandria DC-VA	56.1	59.7	61.6	65.6	Segregation Trends the Same
Waterloo-Cedar Falls IA	61.6	69.1	63.2	71.1	Segregation Trends the Same
Wichita Falls TX	45.2	52.5	47.4	46.3	Neighborhood Down, School Up
Wichita KS	52.8	56.4	51.9	52.7	Neighborhood Down More, School Down
Wilmington NC	45.1	43.5	42.3	26.4	Neighborhood Up, School Up More
Winston-Salem NC	51.2	57	44.4	53.0	Neighborhood Down, School Down More
Worcester MA	47.3	48.1	54.7	50.9	Neighborhood Down, School Up
York-Hanover PA	47.7	67.8	51.6	71.8	Segregation Trends the Same
Youngstown-Warren-Boardman OH-PA	65.8	71.5	71.2	75.1	Segregation Trends the Same

Appendix 2: Summary of Research Used to Make Recommendations About the Design of School Choice Programs

Author(s)	Publication Year	Finding(s)
Segregation Trends in Public Schools		
Orfield et al.	2012	Between 1969 and 1980, more public school integration. After 1980, more public school segregation.
Baum-Snow and Lutz	2011	White enrollments in central-city public school districts declined due to affirmative desegregation efforts.
Clotfelter	2005	About 69 percent of school segregation in 1999-00 was due to segregation between public school districts.
Reber	2005	White enrollments in central-city public school districts declined due to affirmative desegregation efforts.
Reardon and Yun	2003	Increase in school segregation in the southeastern U.S. between 1990 and 2000.
Clotfelter	2001	Increase in public school segregation between 1987 and 1996.
Rivkin	1994	The suburbanization of whites was happening independent of affirmative school desegregation efforts. The latter may have merely hastened the former.
Welch and Light	1987	Large decreases in within-district racial segregation in 117 out of 125 large public school districts between 1967 and 1985. White flight to other public school districts occurred during the time of affirmative desegregation efforts, and this form of flight was significantly larger than white flight to private schools.
Effects of Charter Schools on Segregation		
Zimmer, et al.	2010	Study of charter schools in seven states, negligible effect of charter schools on segregation.
Bifulco and Ladd	2007	African American students in North Carolina left traditional public schools for charter schools that had larger proportions of African Americans.
Segregation within Schools		
Clotfelter, Ladd, and Vigdor	2005	African American students segregated within North Carolina public schools and more likely to have novice teachers than other students.
Greene and Mellow	2000	Catholic school lunchrooms more integrated than public school lunchrooms in two cities in Texas.
Greene	1998	Public school 12th grade classrooms more racially homogenous than private school 12th grade classrooms.

Author(s)	Publication Year	Finding(s)
Effects of International School Choice Programs on Segregation		
Alves et al.	2015	Students from higher socioeconomic backgrounds were more likely to choose schools outside of their neighborhoods than other families in Chile in 2010.
Valenzuela et al.	2014	Socioeconomic segregation increased under Chile's universal school choice program between 1999 and 2006.
Elacqua	2012	Under Chile's universal school choice program, its schools were more integrated than schools in England, Bolivia, the United States, and the Netherlands. Socioeconomic segregation decreased immediately after Chile began providing 50 percent voucher increases to low-income students.
Bjorklund et al.	2005	Universal school choice in Sweden did not increase segregation at most private schools, but there was an increase in segregation at specialty schools. After the government required school admissions to be based on grade point averages, there was an increase in segregation by family income.
Fiske and Ladd	2000	Universal School choice in New Zealand led to more class and ethnic segregation across schools.
Effects of American School Choice Programs on Segregation		
Egalite and Mills	2014	Some evidence that the Louisiana Scholarship Program reduced segregation in public schools that lost students, but had no effect on the racial composition of receiving private schools.
Forster	2013	Seven of eight studies found that means-tested voucher programs in Milwaukee, Cleveland, and Washington, DC increase racial integration. The eighth study found no effect of the Milwaukee voucher program on segregation.
Effects of Schol Choice on Civic Values		
Forster	2014	Forster reviews seven studies on the effect of voucher programs on political tolerance. He reports that five of the studies find that voucher students were more politically tolerant than other students. Two studies found no significant differences in tolerance between voucher and other students.
Simulation Studies		
Nechyba	2009 and 2011	Universal school choice programs, depending on the program design, can promote racial integration in schools and neighborhoods. Universal school choice leads higher income households to move to communities with currently lower average incomes.
Segregation in Other Walks of Life		
Frey	2014	<i>Adoption</i> - About 40 percent of all adoptions involve parents adopting children of a different race or ethnicity from themselves.
Frey	2014	<i>Marriage</i> - In 2010, 15 percent of all marriages were between individuals of different races or ethnicities
Frey	2014	<i>Voting</i> - In the 1950s, only 37 percent of Americans said they were willing to vote for an African American presidential candidate. By the 1990s, the corresponding percentage was 95 percent.
Bischoff and Reardon	2013	<i>Neighborhoods</i> - Since 1970 more segregation by income, especially since 2001.
Glaeser and Vigdor	2012	<i>Neighborhoods</i> - Since 1970 more racial integration.

Notes

1. Literally, this issue is one of racial and ethnic integration or segregation. For ease of exposition, I will refer to racial integration or racial segregation.
2. Elizabeth Harrington, “Holder Claims DOJ Never Sought to End Louisiana Voucher Program” *Washington Free Beacon* Apr. 7, 2014, ¶ 12, <http://freebeacon.com/issues/holder-claims-doj-never-sought-to-end-louisiana-voucher-program>.
3. Harrington, “Holder Claims DOJ Never Sought to End Louisiana Voucher Program.”
4. For example, see Sarah J. Reber, “School Segregation and Educational Attainment for Blacks,” *Journal of Human Resources* 45, no. 4 (Fall 2010), pp. 893-914, doi:10.3368/jhr.45.4.893. This study finds that the mechanism for the increase in educational attainment for African American students as a result of federal desegregation efforts was not contact with white students per se, but the levelling up of school resources for African American students who no longer received dramatically lower levels of spending per student. Also see Rucker C. Johnson, “Long-Run Impacts of School Desegregation and School Quality on Adult Attainments” (NBER Working Paper 16664, National Bureau of Economic Research, Cambridge, MA, 2014), <http://www.nber.org/papers/w16664.pdf>. Johnson also finds that the significant increase in school resources experienced by African American students after federal desegregation efforts led to big improvements in several adult outcomes for African Americans. However, research on academic outcomes in recent years suggests that contemporary racial segregation may not have important effects on academic outcomes for African American students—for example, see David Card and Jesse Rothstein, “Racial Segregation and the Black-White Test Score Gap,” *Journal of Public Economics* 91, no. 11-12 (Dec. 2007), pp. 2158-84, doi:10.1016/j.jpubeco.2007.03.006.
5. Greg Forster, *Freedom from Racial Barriers: The Empirical Evidence on Vouchers and Segregation*, School Choice Issues in Depth (Indianapolis: Friedman Foundation for Educational Choice, 2006), <http://files.eric.ed.gov/fulltext/ED508492.pdf>.
6. The US Census Bureau and the US Dept. of Education collect information on residents and students, respectively, by asking how individuals identify themselves in terms of race and ethnicity. Researchers use the reported race and ethnicity of respondents to create two distinct groups—segregation can be measured only if individuals are placed into two distinct groups. Beginning in 1997, US government agencies began allowing individuals to choose more than one racial or ethnic group to identify themselves, which has made creating these groups problematic. Prior to 1997, researchers analyzed segregation between African Americans and whites, between whites and Latinos, etc. However, in recent years researchers have categorized individuals as either “black” or “nonblack”. Please see the following two studies as examples and for further discussion of this issue: Charles Clotfelter, “After ‘Brown’: The Rise and Retreat of School Desegregation” (Princeton, NJ: Princeton Univ. Press, 2004); Edward Glaeser and Jacob Vigdor, *The End of the Segregated Century: Racial Separation in America’s Neighborhoods, 1890-2010*, Civic Report 66 (New York: Manhattan Institute, Center for State and Local Leadership, 2012), http://www.manhattan-institute.org/pdf/cr_66.pdf. Of course, segregation between all ethnic groups is worth study. Future research should analyze segregation between other groups of individuals, such as whites and nonwhites, Latinos and African Americans, Latinos and whites, Asians and whites, etc. The large growth of Latino and Asian students in American schools makes this broader topic of segregation between various groups a ripe area for further study.
7. Given the specific history of racial animosity in American, it would be ideal to measure neighborhood and school segregation between African Americans and whites as was done prior to 1997. Prior to that time, neighborhood segregation between African Americans and whites was declining. For example, see Reynolds Farley and William H. Frey, “Changes in the Segregation of Whites from Blacks during the 1980s: Small Steps Toward a More Integrated Society,” *American Sociological Review* 59, no 1. (Feb. 1994), pp. 23-45, <http://www.jstor.org/stable/2096131>. And, public school segregation between those groups began its increase—for example, see Steven Rivkin and Finis Welch, “Has School Desegregation Improved Academic and Economic Outcomes for Blacks?,” in *Handbook of the Economics of Education*, vol. 2, ed. Eric A. Hanushek and Finis Welch (Amsterdam: North Holland, 2006) pp. 1019-49. It is unknowable with available data how the segregation trends between African Americans and whites differ from the segregation trends between African Americans and nonblacks reported here and in all other research that uses data collected after 1997.
8. Of course, discrimination in housing markets or a lack of transit options may restrict housing choices for some. Those restrictions will lead to higher measured neighborhood segregation if segregation is measured at a metropolitan level. Such restrictions will not be completely considered if neighborhood segregation is measured at a county level, as an African American family, for example, may not have as much access to a different county than the one in which they reside.
9. For a good description of the calculation of the dissimilarity index and some other segregation indices, see “Calculation Formula for Segregation Measures,” Univ. of Mich., Populations Studies Center, Racial Residential Segregation Measurement Project, accessed July 23, 2015, <http://enceladus.isr.umich.edu/race/calculate.html>.
10. Glaeser and Vigdor, *Racial Separation in America’s Neighborhoods*.
11. *Ibid.*
12. For example, see Erica Frankenberg, “The Role of Residential Segregation in Contemporary School Segregation,” *Education and Urban Society* (2013), pp. 1-23, doi:10.1177/0013124513486288.
13. Clotfelter, “The Rise and Retreat of School Desegregation,” p.95. Clotfelter also notes that whites trying to avoid having many African American students in their children’s classrooms and schools may sort in whiter neighborhoods in order to enroll their children in whiter public schools. Thus, a desire for school segregation may cause residential segregation.
14. Gary Orfield, John Kucsera, and Genevieve Siegel-Hawley, *E Pluribus...Separation: Deepening Double Segregation for More Students* (Los Angeles: The Univ. of Calif., The Civil Rights Project, 2012), http://civilrightsproject.ucla.edu/research/K-12-education/integration-and-diversity/mlk-national/e-pluribus...separation-deepening-double-segregation-for-morestudents/orfield_epluribus_revised_omplete_2012.pdf.
15. *Ibid.*, table 2, p. 19.
16. *Ibid.*

17. Sean F. Reardon and John T. Yun, "Integrating Neighborhoods, Segregating Schools: The Retreat from School Desegregation in the South, 1990-2000," *North Carolina Law Review* 81 (2003), pp.1563-96.
18. Data from the decennial U.S. Census is available from www.census.gov, and data from the Common Core of Data (CCD) is available from <http://nces.ed.gov/ccd>.
19. Literally, the data used to compute neighborhood segregation come from the 2000 Census and the 2010 Census. The data used to compute school segregation come from the 1999-00 CCD and the 2009-10 CCD.
20. See note 10 above.
21. See note 18 above.
22. There were an additional 41 metropolitan areas that had at least 100 African American third grade students in 2010. The results for the additional 41 areas were not quantitatively or qualitatively different than the results reported in this section.
23. Kendra Bischoff and Sean F. Reardon, "Residential Segregation by Income, 1970-2009" (US2010, Discover America in a New Century, 2013), <http://www.s4.brown.edu/us2010/Data/Report/report10162013.pdf>.
24. A review of the literature on peer effects is found in Christopher Clark, Benjamin Scafidi, and John R. Swinton, "Do Peers Influence Achievement in High School Economics? Evidence from Georgia's Economics End of Course Test," *Journal of Economic Education* 42, no. 1 (2011), pp. 3-18, doi:10.1080/00220485.2011.536486.
25. Benjamin Scafidi, David L. Sjoquist, and Todd R. Stinebrickner, "Race, Poverty, and Teacher Mobility," *Economics of Education Review* 26, no. 2 (Apr. 2007), pp. 145-69, doi:10.1016/j.econedurev.2005.08.006.
26. Milton Friedman and Rose Friedman, "Free to Choose: A Personal Statement" (Orlando: Harcourt, 1980), pp. 166.
27. Benjamin Scafidi, "Reasons Why the Education System Has Become Increasingly Centralized," Friedman Foundation (blog), Dec. 12, 2013, <http://www.edchoice.org/Blog/December-2013/Reasons-the-Public-Education-System-Has-Become-Inc>.
28. Jay P. Greene, "Choosing Integration," in *School Choice and Diversity: What the Evidence Says*, ed. J.T. Scott (New York: Teachers College Press, 2005), pp. 27-41, http://www.uark.edu/ua/der/People/Greene/Choosing_integration.PDF.
29. There is a large number of poorly done studies on the impact of charter schools on school segregation. For a discussion of some of these studies and their flaws, please see Gary Ritter, Nathan Jensen, Brian Kisida, and Josh B. McGee, "A Closer Look at Charter Schools and Segregation: Flawed Comparisons Lead to Overstated Conclusions," *Education Next* 10, no. 3, (2010) pp. 69-73. <http://educationnext.org/a-closer-look-at-charter-schools-and-segregation>.
30. For one summary of these findings, see Gary Miron, Jessica L. Urschel, William J. Mathis, and Elana Tornquist, *Schools without Diversity: Education Management Organizations, Charter Schools and the Demographic Stratification of the American School System* (Boulder: Univ. of Colo. at Boulder: Education and the Public Interest Center; Tempe: Ariz. State Univ., Education Policy Research Unit, 2010), <http://epicpolicy.org/publication/schools-without-diversity>.
31. Ron Zimmer, Brian Gill, Kevin Booker, Stephane Lavertu, Tim R. Sass, and John Witte, *Charter Schools in Eight States: Effects on Achievement, Attainment, Integration, and Competition* (Santa Monica, CA: RAND, 2009), http://www.rand.org/content/dam/rand/pubs/monographs/2009/RAND_MG869.pdf.
32. Robert Bifulco and Helen F. Ladd, "School Choice, Racial Segregation, and Test-Score Gaps: Evidence from North Carolina's Charter School Program," *Journal of Policy Analysis and Management* 26, no. 1 (Winter 2007), pp. 31-56, doi:10.1002/pam.20226.
33. Ibid.
34. Clotfelter, Ladd, and Vigdor, "Who Teaches Whom? Race and the Distribution of Novice Teachers," *Economics of Education Review* 24 (2005), pp. 377-92, doi:10.1016/j.econedurev.2004.06.008.
35. There is substantial evidence that low-income parents, including low income African American parents, have important reasons for exercising school choice when given the opportunity. For a review of this evidence, see James P. Kelly III and Benjamin Scafidi, *More than Scores: An Analysis of Why and How Parents Choose Private Schools* (Indianapolis: Friedman Foundation for Educational Choice, 2013), <http://www.edchoice.org/MoreThanScores>.
36. Jay P. Greene, "Civic Values in Public and Private Schools," in *Learning from School Choice*, ed. Paul E. Peterson and Bryan C. Hassel (Washington, DC: Brookings Institution Press, 1998), pp. 83-106.
37. Jay P. Greene and Nicole Mellow, "Integration where it Counts: A Study of Racial Integration in Public and Private School Lunchrooms," *Texas Education Review* 1, no. 1, (2000) pp. 15-26.
38. Edward B. Fiske and Helen F. Ladd, *When Schools Compete: A Cautionary Tale* (Washington, DC: Brookings Institution, 2000).
39. Anders Björklund, Melissa A. Clark, Per-Anders Edin, Peter Fredriksson, and Alan B. Krueger, *The Market Comes to Education in Sweden: An Evaluation of Sweden's Surprising School Reforms* (New York: Russell Sage Foundation, 2005), <https://www.russellsage.org/publications/market-comes-to-education-sweden>.
40. Gregory Elacqua, Dante Contreras, Felipe Salazar, and Humberto Santos, "Private School Chains in Chile: Do Better Schools Scale Up?" *Policy Analysis* 682 (Washington, DC: Cato Institute, 2011), <http://object.cato.org/sites/cato.org/files/pubs/pdf/PA682.pdf>.
41. Juan Pablo Valenzuela, Cristian Bellei, and Danae de los Rios, "Socioeconomic School Segregation in a Market-Oriented Educational System. The Case of Chile," *Journal of Education Policy* 29, no. 2 (2014), pp.217-41, doi:10.1080/02680939.2013.806995.
42. Gregory Elacqua, "The Impact of School Choice and Public Policy on Segregation: Evidence from Chile," *International Journal of Educational Development* 32, no. 3 (May 2012), pp. 444-53, doi:10.1016/j.ijedudev.2011.08.003.
43. Fatima Alves, Elacqua, Mariane Koslinki, Matias Martinez, Humberto Santos, and Daniela Urbina, "Winners and Losers of School Choice: Evidence from Rio de Janeiro, Brazil and Santiago, Chile," *International Journal of Educational Development* 41 (Mar. 2015), doi:10.1016/j.ijedudev.2014.12.004 . They also study public school choice in Brazil and find similar results.
44. Greg Forster, *A Win-Win Solution: The Empirical Evidence on School*

Choice, 3rd ed. (Indianapolis: Friedman Foundation for Educational Choice, 2013), p. 20, <http://www.edchoice.org/WinWin>.

45. Forster, *The Empirical Evidence on School Choice*.

46. Anna J. Egalite and Jonathan N. Mills, "The Louisiana Scholarship Program: Contrary to Justice Department Claims Student Transfers Increase Integration," *Education Next* 14, no. 1 (2014), pp. 66-69, http://educationnext.org/files/ednext_XIV_1_egalite.pdf.

47. For a description of simulation models and their utility, see Thomas J. Nechyba, "Income and Peer Quality Sorting in Public and Private Schools," in *Handbook of the Economics of Education*, vol. 2, (2011), pp. 1327-68. Lay readers may prefer the extensive discussion of this simulation research found in Thomas J. Nechyba, "The Social Context of Vouchers," in *Handbook of Research on School Choice*, ed. Mark Berends, Matthew G. Springer, Dale Ballou, and Herbert J. Walberg (New York: Routledge, 2009), pp. 289-308.

48. Early and important contributions to this literature were made by Dennis Epple, Richard Romano, Elizabeth Caucutt, and Patrick Bayer. Citations to and descriptions of their research are found in Thomas Nechyba, "The Social Context of Vouchers"; "Income and Peer Quality Sorting in Public and Private Schools."

49. Nechyba, "The Social Context of Vouchers," p. 293.

50. Nechyba, "The Social Context of Vouchers."

51. It is likely impossible to include this channel of competition into a simulation model. However, several billionaires have demonstrated their altruism in recent years by donating hundreds of million dollars to public schools and public school reform efforts. School choice programs merely give them another avenue to invest their donations on behalf of students and at least some would use their resources to seed new schools of choice that seek to promote equity. Evidence that these billionaires are proponents of equity include the fact that they did not use their millions to purchase another yacht or island. Of course, wealthy individuals and foundations are already providing seed grants for new charter schools.

52. For examples of social entrepreneurship, see <https://www.ashoka.org>.

53. See note 49 above.

54. *Ibid.*, p. 296.

55. *Ibid.*, p. 298.

56. See note 26 above.

57. Miguel Urquiola, "Does School Choice Lead to Sorting? Evidence from Tiebout Variation" *American Economic Review* 95, no. 4 (2005), pp. 1310-26, doi:10.1257/0002828054825484. Interestingly, Uriquola finds that more public school choices leads to less private school enrollment. Bischoff and Reardon, "Residential Segregation by Income, 1970-2009."

58. Clotfelter, "The Rise and Retreat of School Desegregation," pp. 25-30 provides a concise description of these court decisions requiring affirmative steps to integrate public schools by race.

59. Finis Welch and Audrey Light, *New Evidence on School Desegregation*, special report prepared at the request of the US Commission on Civil

Rights, June 1987, <http://files.eric.ed.gov/fulltext/ED293936.pdf>. The 125 school districts analyzed by Welch and Light contained about 20 percent of all American public school students and about 50 percent of minority public school students.

60. Sarah Reber, "Court-Ordered Desegregation: Successes and Failures Integrating American Schools since Brown Versus Board of Education," *Journal of Human Resources* 40, no. 3 (2005), pp. 559-90, doi:10.2307/4129552; Nathaniel Baum-Snow and Byron F. Lutz, "School Desegregation, School Choice, and Changes in Residential Location Patterns by Race," *American Economic Review* 101, no. 7 (Dec. 2011), pp. 3019-46, doi:10.1257/aer.101.7.3019.

61. Rivkin and Welch, "Has School Desegregation Improved Academic and Economic Outcomes for Blacks?," p. 1033, report that the percent of Black students enrolled in private schools more than doubled from 1960 to 2000, from 2.9 percent to 6.3 percent. During that time, the percent of white students in private schools declined from 16.4 percent to 13.4 percent. However, in the southern region of the United States, private school enrollment among whites bucked these trends and increased from 7.5 to 10.5 percent between 1970 and 1980—the time period with the most active public school desegregation efforts. While some of this increase was due to the migration of Roman Catholics to the south, surely much of this 3-percentage point increase was due to white flight from newly integrated public schools. That said, the declines in white enrollments in large public school districts reported in Welch and Light, *New Evidence on School Desegregation*, are far greater than 3 percentage points. These facts have led Welch and Rivkin and other researchers to conclude that white-flight to other public school districts was a much bigger cause of white enrollment declines in newly integrated public schools as opposed to movement to private schools.

62. Steven Rivkin, "Residential Segregation and School Integration," *Sociology of Education* 67, no. 4 (Oct. 1994), pp. 279-92, <http://www.jstor.org/stable/2112817>. A later study also finds that school desegregation efforts were not a large cause of long-term white-flight from urban school districts: Baum-Snow and Lutz, "School Desegregation, School Choice, and Changes in Residential Location Patterns by Race." Baum-Snow and Lutz report that between 1960 and 1990 there was a 26 percent increase in the white population in the U.S., and at the same time the white population in central cities declined by 13 percent. Based on their analysis, Baum-Snow and Lutz conclude that the white population of central cities would have declined by 10 percent, even without school desegregation efforts.

63. Friedman and Friedman, "Free to Choose: A Personal Statement," p. 165.

64. Clotfelter, "The Rise and Retreat of School Desegregation," pp. 30-33 provides a concise discussion of the 1974 Milliken v. Bradley decision and its implications.

65. Data on the historical number of public school districts in the United States can be found in Table 214.10 of the 2014 Digest of Education Statistics, https://nces.ed.gov/programs/digest/d14/tables/dt14_214.10.asp.

66. For a discussion over the debate over the causes of neighborhood racial segregation, please see Keith R. Ihlanfeldt and Benjamin Scafidi, "Black Self-Segregation as a Cause of Housing Segregation: Evidence from the Multi-City Study of Urban Inequality," *Journal of Urban Economics* 51, no. 2 (Mar. 2002), pp. 366-90, doi:10.1006/juec.2001.2249. Also see Ihlanfeldt and Scafidi, "Whites' Neighbourhood Racial Preferences and Neighbourhood Racial Composition in the United

States: Evidence from the Multi-City Study of Urban Inequality,” *Housing Studies* 19, No. 3 (2004), pp. 325-59, doi:10.1080/0267303042000204278.

67. Welch and Light, *New Evidence on School Desegregation*, offer a description of these court-ordered and supervised desegregation efforts.

68. Byron Lutz, “The End of Court-Ordered Desegregation,” *American Economic Journal: Economic Policy* 3, no. 2 (May 2011), pp. 130-68, doi:10.1257/pol.3.2.130.

69. Sean F. Reardon, Elena Grewal, Demetra Kalogrides, and Erica Greenberg, “Brown Fades: The End of Court-Ordered School Desegregation and the Resegregation of American Public Schools,” *Journal of Policy Analysis and Management* 31, no. 4 (Fall 2012), pp. 876-904, doi:10.1002/pam.21649. Reardon, et al., report that in 1990 there were 483 public school districts in the United States that were under court supervision regarding desegregation. Reardon, et al., only considered districts with at least 2,000 students. Charles T. Clotfelter, Jacob L. Vigdor, and Helen F. Ladd, “Federal Oversight, Local Control, and the Specter of ‘Resegregation’ in Southern Schools,” *American Law and Economics Review* 8, no. 2 (Summer 2006), pp. 347-89, doi:10.1093/aler/ahl002.

70. Calculations from the third panel of Clotfelter, “The Rise and Retreat of School Desegregation,” table A2.3, p. 73.

71. These statistics and others regarding Americans’ increasing embraces of racial and ethnic diversity come from William H. Frey, *Diversity Explosion: How New Racial Demographics are Remaking America* (Washington, DC: Brookings Institution, 2014), <http://www.brookings.edu/research/reports2/2014/11/diversity-explosion>.

72. Eric Shulzke, “‘Controlled Choice’: Does Mixing Kids Based on Family Income Improve Education?” *Deseret News* April 10, 2014, ¶4, <http://national.deseretnews.com/article/1265/Controlled-choice-Does-mixing-kids-based-on-family-income-improve-education>.

73. For example, see Richard Rothstein, “Public Housing: Government-Sponsored Segregation,” *The American Prospect*, Oct. 11, 2012, <http://prospect.org/article/public-housing-government-sponsored-segregation>.

74. Matthew Yglesias, “Can’t Talk San Francisco House Prices Without Talking Zoning,” *Moneybox* (blog), Nov. 23, 2013, http://www.slate.com/blogs/moneybox/2013/11/25/bay_area_zoning_if_you_want_to_talk_housing_you_have_to_talk_zoning.html.

75. I am normally leery of accreditation of K-12 schools and colleges, as it can require input-based policies that lead to excessive employment and spending in schools in order for schools to obtain and maintain accreditation. However, given that some small number of individuals would want to start schools that most would consider “pernicious”, such as Ku Klux Klan schools, I believe requiring accreditation of schools is the best way to prevent entry of these schools into the K-12 marketplace. With regards to practical politics, it may take only one such school in a given state to lead to a significant weakening or even an end to a school choice program. That said, supporters of educational excellence and the efficient use of taxpayer resources should be vigilant to prevent accreditation bodies from imposing costly input-based policies on schools. I am interested in hearing better ideas with regards of how to prevent schools with pernicious intent from forming.

76. For a discussion of this issue of how civil society can help parents make better school choices, please see Kelly and Scafidi *More than Scores*, pp. 27-28.

77. Amy Stuart Wells and Jennifer Jellison Holme, “No Accountability for Diversity: Standardized Tests and the Demise of Racially Mixed Schools,” in *School Resegregation: Must the South Turn Back?*, ed. John Charles Boger and Gary Orfield (Chapel Hill: Univ. of N.C. Press, 2005), pp. 187-211, http://www.jstor.org/stable/10.5149/9780807876770_boger.

78. Kate Taylor, “Race and Class Collide in a Plan for Two Brooklyn Schools,” *New York Times*, Sept. 22, 2015, <http://www.nytimes.com/2015/09/23/nyregion/race-and-class-collide-in-a-plan-for-two-brooklyn-schools.html>. Alves, et al., “Winners and Losers of School Choice.”

79. Vigorous defenses of controlled public school choice approaches to integrating schools—as opposed to school choice proposals such as vouchers—are found in Richard D. Kahlenberg, ed., *Public School Choice vs. Private School Vouchers* (New York: Century Foundation Press, 2003), <http://www.tcf.org/bookstore/detail/public-school-choice-vs.-private-school-vouchers>.

80. For example, see Atila Abdulkadiroglu, Parag A. Pathak, and Alvin E. Roth, “Strategy-Proofness versus Efficiency in Matching with Indifferences: Redesigning the NYC High School Match,” *American Economic Review* 99, no. 5 (Dec. 2009), pp. 1954-78, doi:10.1257/aer.99.5.1954.

81. Lori Nathanson, Sean Corcoran, and Christine Baker-Smith, “High School Choice in New York City: A Report on the School Choices and Placements of Low Achieving Students,” (New York: Research Alliance for N.Y. City Schools; N.Y. Univ., Steinhardt School of Education, Institute for Education and Social Policy, 2013), <https://steinhardt.nyu.edu/scmsAdmin/media/users/ggg5/HSChoiceReport-April2013.pdf>. It is not clear from this study or other existing research if segregation would have increased even if New York City or other school systems did not implement public school choice with mechanism design.

82. See note 57 above.

83. See note 50 above.

84. *Ibid.*, p. 304.

85. Roslyn Arlin Mickelson, Martha Bottia, and Stephanie Southworth, “School Choice and Segregation by Race, Class, and Achievement,” (Tempe, AZ: Education and the Public Interest Center, 2008), <http://nepc.colorado.edu/publication/school-choice-and-segregation-race-class-and-achievement>.

86. While there has been some work measuring segregation levels experienced by Latinos and Asians from others, more work needs to be done in this area, including trends in neighborhood segregation compared to trends in school segregation. See, for example, Kori J. Stroub and Meredith P. Richards, “From Resegregation to Reintegration: Trends in Racial/Ethnic Segregation of Metropolitan Public Schools, 1993-2009,” *American Educational Research Journal* 50, no. 3 (June 2013), pp. 497-531.

About the Author



Ben Scafidi is a professor of economics and director of the Education Economics Center at Kennesaw State University. He is also a senior fellow with both the Milton and Rose Friedman Foundation for Educational Choice and the Georgia Public Policy Foundation. Previously, he served as the director of education policy for the Georgia GOAL Scholarship Program, the first chair of the state of Georgia's Charter Schools Commission, a member of Georgia's Charter Advisory Committee, the Education Policy Advisor to Governor Sonny Perdue, on the staff of both of Governor Roy Barnes' Education Reform Study Commissions, and as an expert witness for the state of Georgia in school funding litigation. He received his Ph.D. in Economics from the University of Virginia and his bachelor's degree in Economics from the University of Notre Dame. Ben and Lori Scafidi and their four children reside in Kennesaw, Georgia.

The author thanks Paul DiPerna, Katie Brooks, Drew Catt, Greg Forster, Jay Greene, Abby Hayes, Richard Kahlenberg, Marty Lueken, Gerard Robinson, and seminar participants at the 2015 International School Choice and Reform Conference for helpful comments. The author also thanks Drew Vessely for a professional layout of the report. The views expressed and all remaining errors in this paper belong only to me.

Commitment to Methods & Transparency

The Friedman Foundation for Educational Choice is committed to research that adheres to high scientific standards, and matters of methodology and transparency are taken seriously at all levels of our organization. We are dedicated to providing high-quality information in a transparent and efficient manner.

All individuals have opinions, and many organizations (like our own) have specific missions or philosophical orientations. Scientific methods, if used correctly and followed closely in well-designed studies, should neutralize these opinions and orientations. Research rules and methods minimize bias. We believe rigorous procedural rules of science prevent a researcher's motives, and an organization's particular orientation, from pre-determining results.

If research adheres to proper scientific and methodological standards, its findings can be relied upon no matter who has conducted it. If rules and methods are neither specified nor followed, then the biases of the researcher or an organization may become relevant, because a lack of rigor opens the door for those biases to affect the results.

The author welcomes any and all questions related to methods and findings.

**Friedman
Foundation**
*For Educational
Choice*

One American Square
Suite 2420
Indianapolis, IN 46282
(317) 681-0745
edchoice.org

Dr. Milton Friedman, Founder
Nobel Laureate

Dr. Rose D. Friedman, Founder
Noted Economist

BOARD OF DIRECTORS

Dr. Patrick Byrne, Chairman
CEO, Overstock.com

Janet F. Martel, Vice Chairperson

Lawrence A. O'Connor, Jr., Treasurer

J. Scott Enright, Secretary
Executive Vice President and General Counsel, Emmis Communications Corp.

Robert C. Enlow
President & CEO, Friedman Foundation for Educational Choice

Charles H. Brunie

Dr. David D. Friedman
Professor, Santa Clara University

Greg Gianforte
Bozeman Technology Incubator

William J. Hume
Chairman of the Board, Basic American, Inc.

Fred S. Klipsch
Chairman, Hoosiers for Quality Education

Fred Reams
Reams Asset Management

Virginia Walden Ford
Education Activist

Dr. Michael Walker
President, The Fraser Institute Foundation

 facebook.com/edchoice

 twitter.com/edchoice