

SCHOOL CHOICE

# ISSUES

IN THE STATE



**School Choice for Ohio:**

Many agree with the concept. Some disagree. And some simply want more information. As the public debate continues to grow louder about how best to provide a quality education to all Ohio children, it is critical to know the facts about school choice, and to have an understanding of how school choice programs have had an impact on communities, parents and students around the country. All of this analysis is done with one goal in mind: The best possible education for all of Ohio's children.

## **Segregation Levels in Cleveland Public Schools and the Cleveland Voucher Program**

Prepared By:  
**Dr. Greg Forster**

Senior Fellow

Milton and Rose D. Friedman Foundation

August 2006

**Study released jointly by the Milton and Rose D. Friedman Foundation  
and The Buckeye Institute.**

# OUR CHALLENGE TO YOU

Our research adheres to the highest standards of scientific rigor. We know that one reason the school choice movement has achieved such great success is because the empirical evidence really does show that school choice works. More and more people are dropping their opposition to school choice as they become familiar with the large body of high-quality scientific studies that supports it. Having racked up a steady record of success through good science, why would we sabotage our credibility with junk science?

This is our answer to those who say we can't produce credible research because we aren't neutral about school choice. Some people think that good science can only be produced by researchers who have no opinions about the things they study. Like robots, these neutral researchers are supposed to carry out their analyses without actually thinking or caring about the subjects they study.

But what's the point of doing science in the first place if we're never allowed to come to any conclusions? Why would we want to stay neutral when some policies are solidly proven to work, and others are proven to fail?

That's why it's foolish to dismiss all the studies showing that school choice works on grounds that they were conducted by researchers who think that school choice works. If we take that approach, we would have to dismiss all the studies showing that smoking causes cancer, because all of them were conducted by researchers who think that smoking causes cancer. We would end up rejecting all science across the board.

The sensible approach is to accept studies that follow sound scientific methods, and reject those that don't. Science produces reliable empirical information, not because scientists are devoid of opinions and motives, but because the rigorous procedural rules of science prevent the researchers' opinions and motives from determining their results. If research adheres to scientific standards, its results can be relied upon no matter who conducted it. If not, then the biases of the researcher do become relevant, because lack of scientific rigor opens the door for those biases to affect the results.

So if you're skeptical about our research on school choice, this is our challenge to you: prove us wrong. Judge our work by scientific standards and see how it measures up. If you can find anything in our work that doesn't follow sound empirical methods, by all means say so. We welcome any and all scientific critique of our work. But if you can't find anything scientifically wrong with it, don't complain that our findings can't be true just because we're not neutral. That may make a good sound bite, but what lurks behind it is a flat rejection of science.

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MILTON & ROSE D. FRIEDMAN  
FOUNDATION

Educational  
*Choice*



## About the Author



Greg Forster, Ph.D., is a senior fellow and the director of research at the Milton and Rose D. Friedman Foundation, where he conducts research and writes about school choice policy. He has conducted empirical studies on the impact of school choice programs in Milwaukee, Florida and Texas, as well as national empirical studies of participation in school choice programs and the impact of charter schools. He also has conducted empirical studies of other education topics, including accountability testing, graduation rates, student demographics and special education.

His research has appeared in the peer-reviewed publications *Teachers College Record* and *Education Working Paper Archive*, and his articles on education policy have appeared in the *Washington Post*, the *Los Angeles Times*, the *Philadelphia Inquirer*, the *Chronicle of Higher Education* and numerous other publications. He is co-author of the book *Education Myths: What Special-Interest Groups Want You to Believe about Our Schools — and Why It Isn't So*, from Rowman & Littlefield.

He received a Ph.D. with Distinction in political science from Yale University in 2002 and a B.A. summa cum laude from the University of Virginia in 1995. His book *John Locke's Politics of Moral Consensus* was published by Cambridge University Press in 2005.

## About the Milton and Rose D. Friedman Foundation



The Milton and Rose D. Friedman Foundation, dubbed “the nation’s leading voucher advocates” by the Wall Street Journal, is a non-profit organization established in 1996. The origins of the foundation lie in the Friedmans’ long-standing concern about the serious deficiencies in America’s elementary and secondary public schools. The best way to improve the quality of education, they believe, is to enable all parents with the freedom to choose the schools that their children attend. The Friedman Foundation builds upon this vision, clarifies its meaning to the public and amplifies the national call for true education reform through school choice.

## About The Buckeye Institute



The Buckeye Institute is a highly effective, independent institute that analyzes state and local government programs, taxes, and regulations in Ohio and offers policy alternatives consistent with a respect for individual liberty, private property and limited government.

The Buckeye Institute is committed to quality research and analysis.

We proactively develop our ideas with the assistance of 46 scholars from 23 universities and colleges throughout Ohio and then through our publications, lectures and special events, distribute those ideas to policy makers and key opinion leaders to make meaningful change.

## Acknowledgements

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## **Executive Summary**

Examining the widespread claims that private schools have high segregation levels and vouchers will lead to greater segregation, this study finds that both assertions are empirically unsupportable. Private schools participating in Cleveland's voucher program are much less segregated than Cleveland's public schools. This means that students using the voucher program are gaining access to a more integrated school experience. The study also examines segregation levels nationwide and finds no substantial difference between public and private schools. While these findings are descriptive rather than causal, they are sufficient to show that the claims made by opponents of voucher programs are without any empirical foundation.

- Private schools participating in Cleveland's voucher program were 18 points less segregated than Cleveland public schools on the segregation index, which compares the racial composition of schools to the racial composition of school-age children in the greater metropolitan area. To put this finding in perspective, in a metro area whose school-age population was 50 percent white, a school that was 60 percent white and a school that was 78 percent white would differ by 18 points on the segregation index.
- This confirms the findings of previous research in Milwaukee, Cleveland and Washington D.C. that private schools participating in voucher programs are substantially less segregated than public schools in the same cities.
- In the nation's 100 largest metro areas, the difference between segregation levels in public and private schools is trivial – less than two points on the segregation index. To put this in perspective, in a metro area whose school-age population was 50 percent white, a school that was 68 percent white and a school that was 70 percent white would differ by two points on the segregation index. It is unlikely that a reasonable observer would consider this a substantial difference between public and private schools.

## Introduction

For more than 50 years, it has been one of the major policy goals of the U.S. education system to reduce segregation levels in public schools. However, even after the removal of legal barriers to integration, the gradual enlightenment of public opinion on racial matters and decades of enormous efforts to make school integration a reality, America's schools still are heavily segregated by race. While many factors are at work, this is mainly a result of residential segregation. For various reasons, Americans tend to live in racially homogeneous neighborhoods, and this fact is reflected in school attendance patterns.

It often is claimed that private schools are heavily segregated by race and that school vouchers, which allow parents to use their portion of government education funding at the public or private school of their choice, lead to greater segregation. U.S. Rep. Jesse Jackson Jr. of Illinois claims that "the underlying political foundation and dynamic of the [voucher] movement is avoidance of racial integration."<sup>1</sup> Hugh Price of the Urban League says vouchers "will wind up subsidizing segregation."<sup>2</sup> David Berliner of Arizona State University, a prominent defender of the public school monopoly, declares that "vouchers add another means to segregate our citizens, this time using public money."<sup>3</sup> Berliner has even accused vouchers of leading to genocide: he once testified to the New Mexico state legislature that "voucher programs would allow for splintering along ethnic and racial lines. Our primary concern is that voucher programs could end up resembling the ethnic cleansing now occurring in Kosovo."<sup>4</sup>

The Cleveland voucher program has not been immune from similar attacks. In a recent analysis of student achievement data from the Cleveland program, Clive Belfield of Queens College flatly asserts that "consistently, there is greater student segregation as a consequence of vouchers or choice."<sup>5</sup>

These claims are unfounded. This study finds that Cleveland private schools participating in the city's voucher program are much less segregated than Cleveland public schools. On the segregation index, which measures the difference between the racial composition of a school and the racial composition of the school-age population in the greater metro area, private schools in the voucher program are less segregated than public schools by 18 points. Students using Cleveland's voucher program are gaining access to a more integrated school experience. This confirms the findings of previous research in Cleveland, Milwaukee and Washington D.C. that vouchers move students from more-segregated public schools into less-segregated private schools.

## Why Would Vouchers Reduce Segregation?

The argument that vouchers will lead to greater segregation is frequently heard, although it is not frequently checked against the available evidence to see if its claims are true. On the other hand, it has been difficult for the argument that vouchers will not increase segregation to get a hearing. As a result of this one-sided public discussion, many people tend to dismiss out of hand the empirical evidence showing that private schools in voucher programs are actually less segregated than public schools. People have difficulty accepting empirical evidence that they don't find plausible, and as long as they only hear one side of the voucher debate regarding segregation, they don't find the evidence showing lower levels of segregation in private schools to be plausible. If we first consider the reasons why vouchers might be expected to reduce segregation levels, this will facilitate a more fair evaluation of the available evidence.

In the current government monopoly system, school attendance is determined by where people live. This makes it especially difficult for public schools to avoid reproducing the segregation that arises from housing patterns. Widespread residential segregation virtually ensures that the public school system will remain heavily segregated in spite of all efforts to the contrary.

Efforts to desegregate public schools by busing students over long distances every day have not been successful. Busing is very unpopular with white and minority families alike, even when those families desire integration.<sup>7</sup> This is primarily because busing is very expensive and it is burdensome for the families, who may have to get their children up before dawn and wait until evening for their return. Parents cannot be legally required to bus their children across municipal lines, so some families, specifically those with the financial means, escape from burdensome busing policies by moving to the suburbs.

The other major approach to public school desegregation has been “magnet school” and “public school choice” policies. The idea behind this approach is to let parents choose which public schools to attend, in the hope that this will break down the geographic barriers that cause segregation in public schools. But these efforts also have failed to generate sufficient migration of students across geographic lines. This is not to say that magnet schools and public school choice are necessarily bad policy – they have other benefits and drawbacks independent of their effects on segregation. However, it must be acknowledged that the available evidence does not provide much support for the theory that they can substantially reduce segregation.<sup>8</sup> The public school system doesn't seem to be able to offer parents strong enough attractions to induce them to accept longer commutes to school. Even the investment of huge sums of money in magnet schools has not drawn a sufficient number of suburban children into central cities.

After 50 years of failed efforts, it seems unlikely that the public monopoly system is going to be desegregated anytime soon. Private schools, by contrast, typically draw students from a much larger geographic area than public schools. Because private schools offer a superior education and other attractions that parents want for their children but cannot get at public schools, parents are more willing to accept longer commutes to them.<sup>9</sup> What's more, the greater desirability of private schools gives parents a reason to overcome any qualms they may have about desegregation. Parents are more likely to trust private schools to handle the challenges of a multiracial classroom environment. For example, private schools have more freedom to implement effective discipline policies, and are thus more able to prevent racial tensions among students from escalating into bigger trouble. Federal data confirm that racial disruptions occur much less frequently in private schools.<sup>10</sup>

This means private schools have the potential to mitigate the effects of residential segregation in a way public schools cannot. But in the absence of vouchers, families must pay to send their children to private schools. This imposes a serious restriction on access to private schools, hindering their ability to draw children of different races across geographic boundaries. While public schools face a geographic barrier to desegregation, private schools face

a monetary barrier.

There is, however, one big difference. It is much easier to overcome the monetary barrier than it is to overcome the geographic barrier. School vouchers empower parents to enter the private school market, breaking down the monetary barrier and making it easier for them to seek schooling across geographic boundaries. This would result in a greater mixing of students of different races. This is why vouchers may successfully desegregate schools where previous policy options have not.

For some, vouchers will always be associated with segregation. This is because southern segregationists briefly seized upon vouchers in the 1950s as a way of maintaining access to segregated schools in the face of public school integration efforts. But the association of vouchers with segregation is unfair. Public schools have a much longer and stronger historical association with segregation than school vouchers. The connection between vouchers and segregation was brief and fleeting, leaving no lasting impact whatsoever on students and schools – a statement that cannot be made about segregation in public schools. The modern school choice movement has no connection to this passing segregationist episode. Many of its leaders are minorities themselves; all of them abhor discrimination. Schools participating in voucher programs are held to strict state and federal antidiscrimination laws that forbid any form of racial segregation. And, as we will see, the evidence shows that vouchers are in fact moving children from more segregated public schools into less segregated private schools.

## Inadequate Methods for Measuring Segregation

Unfortunately, most of the previous research on school segregation is fundamentally compromised by inadequate definitions of segregation. For obvious reasons, a study that defines segregation in the wrong way cannot provide any meaningful information on segregation levels in schools.

Researchers usually use the racial makeup of a larger administrative unit – such as a school district, a municipality or a private school system – as the standard against which segregation in individual schools is measured. This problem is present, for example, in commonly used segregation measures such as the Index of Dissimilarity, the Index of Exposure and the Gini Index.<sup>6</sup> All this approach really does is measure the evenness of the racial distribution within the chosen administrative unit. It ignores any segregation caused by the structure of the administrative unit itself. Much of the segregation in the public school system occurs because school districts and municipal boundaries themselves are segregated, so studies using this approach effectively mask the real level of segregation.

Jay Greene of the University of Arkansas provides an instructive example that shows how this problem undermines the validity of such measures of segregation. In studies using the prevailing method, a school that is 98 percent white is considered perfectly integrated if it is located in a school district that also is 98 percent white. The school receives this perfect score even if the 98-percent-white school district is located right next door to another district that is 98 percent minority. Clearly we should consider this segregation, but the prevailing method masks segregation when it occurs at the district level. Greene issues a concise verdict on what studies like this really are saying: “The schools are well integrated, given that they are horribly segregated.”<sup>11</sup>

Another common problem in the existing research on school segregation is the failure to compare similar grade levels. Elementary schools tend to be more segregated than secondary schools because they draw from a smaller geographic area. In addition, the proportion of elementary and secondary schools is not the same between the public and private sectors. Private schools are more likely than public schools to be elementary schools. This means that a comparison of all public schools and all private schools will create a false impression of greater segregation in private schools. To get an accurate picture of segregation levels, we must compare elementary schools to elementary schools

and secondary schools to secondary schools.

A good example of this inadequacy can be found in the book *School Choice and Diversity: What the Evidence Says*. The centerpiece of the book is a study by John Yun of the University of California at Santa Barbara and Sean Reardon of Stanford University that purports to show that private schools are more segregated than public schools.<sup>12</sup> Yet, in the same volume, Greene shows that this study suffers from fundamental flaws in methodology, the most important of which is its failure to compare like grades to like grades.<sup>13</sup> All the study really shows is that private schools are disproportionately elementary rather than secondary.

It also is important not to compare student populations made up only of pre-kindergarten or kindergarten students. Access to and voluntary participation in these grade levels is heavily uneven. White parents seem to be more likely than minority parents to desire kindergarten participation for their children and are definitely more likely to have the means to purchase it in private schools where it is not available in public schools. In most states only part-time kindergarten is available in public schools, and white parents may be more likely to seek out and purchase full-time kindergarten in private schools. This cannot help but skew the results of any segregation analysis. For example, a research team led by Gary Ritter of the University of Arkansas purports to show that private schools are more segregated than public schools. However, since Ritter's data set includes only the highly unrepresentative grade of kindergarten, it is impossible to say whether he really is measuring a difference between public and private schools or only a difference in access to kindergarten programs.<sup>14</sup>

## **Previous Research Using Valid Empirical Methods**

The best way to measure segregation is by comparing schools to the racial composition of the larger metropolitan area in which they are located. By looking at the whole metropolitan area rather than a particular administrative unit such as a school district, we can detect levels of segregation that most studies miss. A second-best way employed by some studies is to measure the occurrence of racial homogeneity – for example, measuring the percentage of schools that are more than 90 percent white or more than 90 percent minority.

Some may wonder why the percentage of students who are white or non-white is the standard for measuring segregation. Certainly it is true that, with increasing numbers of Hispanic and Asian persons in the population, the binary black/white view of racial issues is obsolete. Given this, there may be interest in other measures of racial composition. However, the public's primary concern regarding school segregation is the continued existence of large numbers of schools that are very heavily white or very heavily non-white. To test for the presence of these schools, measuring percent white versus percent minority is appropriate.

Only two previous studies have been conducted comparing segregation in public and private schools without falling afoul of the methodological problems described above. Some methodological issues do limit their applicability. Both examine representative samples rather than a comprehensive data set that includes all schools, and one includes data from only two cities and is not easily replicable. These issues do not render the studies invalid or fundamentally flawed, but they do limit the strength of the conclusions we can draw from them.

On the other hand, these studies have the particular advantage of looking at classroom-level data rather than aggregate school-level data. It is the daily experience of students in classrooms that we care about most. Some practices, such as ability tracking or within-school magnet programs, have the effect of reintroducing segregation at the classroom level even in schools that appear to be racially mixed at the school level. We haven't accomplished much if we produce well-integrated schools with heavily segregated classrooms.

In the first of the two studies, Greene examined data from a national representative sample of 12th-grade classrooms in public and private schools. He found that more than half of public school students (54 percent) were in

racially homogeneous classrooms – that is, their classrooms were more than 90 percent white or more than 90 percent minority. Only 41 percent of private school classrooms were similarly homogeneous. Private school classrooms also were more likely to be similar in racial balance to the national student population, which was 74 percent white; 37 percent of private school students and 18 percent of public school students were in classrooms that were between 65 percent and 85 percent white.<sup>15</sup>

In the second of the two studies, Greene and Nicole Mellow of the University of Texas at Austin visited a random sample of lunchrooms in public and private schools in Austin and San Antonio. They measured how often students sat in racially mixed groups at lunch, finding that 64 percent of private school students and 50 percent of public school students sat in a group with at least one student of a different race. Adjusting statistically for city, seating restrictions, school size and grade level, they found that 79 percent of private school students and 43 percent of public school students sat in mixed groups.<sup>16</sup>

In addition to these two studies comparing public and private schools generally, there are five previous studies of voucher programs and segregation that do not fall afoul of methodological problems. These are school-level rather than classroom-level studies, but they provide valid data on the effects of vouchers on segregation.

The only previous study of the Cleveland voucher program was conducted by Greene. Examining elementary and middle schools, he found that 19 percent of voucher recipients attended private schools that fell within 10 percentage points of the racial composition of the metropolitan area, compared to 5 percent of Cleveland public school students. He also found that 61 percent of public school students attended racially homogeneous schools (more than 90 percent white or 90 percent minority), compared to half of voucher recipients.<sup>17</sup>

Two studies of the Milwaukee voucher program were conducted by Howard Fuller and George Mitchell of Marquette University. In the first study, they compared Milwaukee public elementary schools to Catholic elementary schools participating in the voucher program. They found that 58 percent of public elementary students and 38 percent of Catholic elementary students attended schools that were racially homogeneous (more than 90 percent white or 90 percent minority).<sup>18</sup>

In the second study, they Fuller and Mitchell compared Milwaukee public schools to all private schools participating in the voucher program. They found that in public schools 54 percent of elementary students and 37 percent of secondary students attended racially homogeneous schools. Students attending religious schools in the voucher program were less likely than public school students to be in racially homogeneous schools (35 percent in elementary schools and 12 percent in secondary schools) while students at non-religious schools in the program were more likely to be in racially homogeneous schools (88 percent and 50 percent). Since there were significantly more voucher students in religious schools than in non-religious schools, voucher students as a whole were less likely than public school students to be in racially homogeneous schools; Fuller and Mitchell's data tables indicate that, overall, 50 percent of elementary students and 16 percent of secondary students in voucher-participating private schools were in racially homogeneous schools.<sup>19</sup>

In a third study, Fuller and Deborah Greiveldinger, then of the American Education Reform Council and currently at the Friedman Foundation, compared racial enrollments in Milwaukee public schools with those of private schools participating in Milwaukee's voucher program. They found that in Milwaukee public schools, 58 percent of elementary students and 44 percent of secondary students were in racially homogeneous schools. Students attending religious schools in the voucher program were less likely than public school students to be in racially homogeneous schools (41 percent and 30 percent). In non-religious schools, elementary students were more likely to be in racially homogeneous schools (73 percent). There was only one non-religious private secondary school in the data set, and it was not racially

isolated. Voucher students as a whole were less likely than public school students to be in racially isolated schools; the data tables indicate that 50 percent of elementary students and 29 percent of secondary students were in racially homogenous schools.<sup>20</sup>

Greene and Marcus Winters of the University of Arkansas examined the new voucher program in Washington D.C. They found that in public schools the percentage of students who are white differs from the percent white of the metro area by an average of 40 points, compared to 34 points for private schools participating in the voucher program. They also found that 85 percent of public school students attend racially homogeneous schools (more than 90 percent white or 90 percent minority), compared to 47 percent of students in participating private schools. When the definition of “racially homogeneous” is made stricter, such that schools need to be 95 percent white or 95 percent minority to qualify, the gap widens. While 84 percent of public school students attend racially homogeneous schools by this definition, 43 percent of students in participating private schools do so.<sup>21</sup>

There is, of course, much room for further contributions to the literature on these questions. In particular, the available evidence is only descriptive. Researchers have not yet developed an adequate empirical method for examining causal relationships in the relevant variables. In other words, many factors are at work in determining the segregation levels in private schools in Milwaukee, Cleveland and Washington D.C., and we cannot yet empirically measure the extent to which their lower segregation levels are a result of the voucher programs vis-à-vis other factors.

However, the existing research does support the conclusion that private schools are less segregated than public schools at the classroom level. It also supports the conclusion that private schools participating in voucher programs are less segregated than public schools. Thus, the evidence we have allows us to say that the daily experience of students in the classroom appears to be less segregated in private schools, and that voucher programs are helping students gain access to this more-integrated experience.

## **Method**

This study calculates a “segregation index” using a method similar to the one used by Greene and Winters in their study of the Washington D.C. voucher program. The federal Office of Management and Budget has defined a “metropolitan statistical area” for each city in the United States. Each of these areas is made up of one or more counties that have a high level of economic interdependence. By using these metropolitan areas as our unit of analysis, we avoided masking segregation that occurs at the level of administrative units, the pitfall that renders most of the existing research on segregation levels unreliable.

The definitions of the metro areas – that is, which counties are included in each metro area – are periodically updated. To maintain compatibility with other data sources, we used the metro area definitions issued in June 2003.<sup>22</sup> These definitions were in use during fall 2003, the same time that our school data were collected.

The first step in our analysis was to acquire 2003 Census population estimates by race for children of school age in the Cleveland metro area.<sup>23</sup> These figures are made available by age group. For elementary-age children, we added together the 5-9-year-old and 10-14-year-old age groups, and for secondary-age children we used the age group for 15-19-year-olds. We then divided the number of white children in the metro area by the total number of children in the area to obtain a “percent white” figure.

We then acquired enrollment data for all public and private schools in the city of Cleveland. Although our standard for measuring the segregation level is the racial composition of the population in the entire Cleveland metro area (which is necessary for the methodological reasons discussed above), we only examine schools within the city

limits because we want to look specifically at schools affected by the Cleveland voucher program, and the program is available only to city residents. Public and private school enrollment data are available from the U.S. Department of Education's National Center for Education Statistics.<sup>24</sup> The most recent year for which private school enrollments are available is 2003-04, so we used data from that year for both public and private schools. To identify which Cleveland private schools participated in the city's voucher program in 2003-04, we obtained a list of that year's participating schools from the Ohio Department of Education website.<sup>25</sup>

Only school-level data were available for use in the study. It would be better to have data at a finer level, such as by classroom or grade level. As we have seen above, studies examining schools at the classroom level suggest that public schools are more likely than private schools to be segregated by classroom, an effect that is masked by using school-level data. However, school-level data are still a valid and important level of analysis. We do not have a comprehensive, nationwide, publicly available data set that allows for a classroom-level analysis. We therefore used the best available data to provide a comprehensive nationwide analysis at the school level.

We then classified schools as elementary or secondary. For the reasons discussed above, it is crucial to compare elementary schools to elementary schools and secondary schools to secondary schools; comparing non-comparable grade levels introduces a serious level of error. We adopted the U.S. Department of Education's definitions of "primary" and "secondary" schools (although we use the term "elementary" rather than "primary"). We classified a school as elementary if its lowest grade was between pre-kindergarten and third grade and its highest grade was no higher than eighth grade. We classified a school as secondary if its lowest grade was between seventh and 12th grade, and its highest grade was 12th grade. Schools that were neither elementary nor secondary were excluded from the analysis to ensure a valid comparison between grade levels.

For reasons that also are discussed above, it is not appropriate to compare segregation levels in pre-kindergarten and kindergarten programs. We excluded from its analysis all schools that contained only pre-kindergarten or kindergarten students. Schools that contained at least one numbered grade level were retained in the data set.

For each school, we divided the number of white students by the total number of students to obtain a percent white figure. We then subtracted the metro area percent white figure from the school's percent white figure. Converting these to absolute values (that is, changing all negative results into positive results) produced a segregation measurement for each school.

When presenting this measurement as a "segregation index," we multiply it by 100 so it can be presented in a more intuitive whole-number format. The segregation index thus corresponds to percentage points. For example, a school that is 50 percent white in a metro area that is 60 percent white produces a segregation measurement of 0.1. We multiply this by 100 to produce a segregation index of 10, indicating that the school's percent white varies from the metro area's percent white by 10 percentage points.

We then used linear regression to compare segregation index values in public and private schools, applying a statistical control for each school's grade level (elementary or secondary) to ensure appropriate grade-to-grade comparisons.<sup>26</sup> To prevent small schools with anomalous results from distorting the analysis, we weighted the data by school enrollment. This ensured that each school had an impact on the results commensurate with its size.

In addition to examining Cleveland schools, we also wanted to examine segregation levels in public and private schools generally in the United States. To do this, we ran a similar analysis on all public and private schools located in the nation's 100 largest metro areas. We determined the 100 largest metro areas in 2003 by obtaining a set of total population estimates for all metro areas from the U.S. Census web site.<sup>27</sup> Unfortunately, enrollment data are not available broken down by race for public schools in the state of Tennessee, meaning four of the 100 largest metro areas (Nashville, Memphis, Knoxville and Chattanooga) had to be excluded from our analysis. Our statistical model in this analysis was

the same as for our Cleveland analysis, except that we added a statistical control for each metro area.<sup>28</sup>

## **Results**

The final data set in Cleveland included 147 public and private schools with more than 67,000 students.<sup>29</sup> Census data indicate that 66 percent of elementary-age children and 70 percent of secondary-age children in the greater Cleveland metro area are white; this provided the standard against which the schools in our data set were measured. Private schools participating in Cleveland's voucher program were less segregated than Cleveland public schools, with the difference equal to about 18 points on the segregation index. School grade levels did not make a statistically significant difference to segregation levels (see Table 1).

The final data set for our national analysis included about 47,000 public and private schools with more than 25 million students.<sup>30</sup> The difference between segregation levels in public and private schools was less than two points on the segregation index, with private schools being slightly more segregated than public schools. School level made a larger difference; secondary schools were less segregated than elementary schools, differing by just over three points on the segregation index (see Table 2).

Does this study show a substantial difference between public and private schools? There is no scientific test for what counts as a "large" or "small" difference; this is a matter of judgment, not scientific determination. However, a thought experiment can help us form an idea of whether a difference of less than two points represents a substantial variation between public and private schools.

Imagine you live in a metro area where the school-age population is 50 percent white. Consider the difference between two hypothetical schools in this area - one where 68 percent of the students are white and one where 70 percent of the students are white. Would a reasonable observer be more likely to say that the second school is substantially more segregated than the first, or that there is not a substantial difference in the level of segregation at the two schools?

While this is not a scientific test, it seems highly unlikely that a reasonable observer would call one school substantially more segregated than another if their segregation levels varied by two percentage points. Using that reasoning, we can say that the difference between segregation in public and private schools nationally is not

substantial.

On the other hand, a reasonable observer certainly would agree that in Cleveland the voucher-participating private schools are less segregated than the public schools. In a city where the school-age population was 50 percent white, a school that was 78 percent white would have to be considered more segregated than a school that was 60 percent white.

## Conclusion

Contrary to widespread claims, the empirical research finds that school vouchers do not put students into more segregated schools. In fact, all the available empirical research finds that vouchers in Cleveland – like vouchers in Milwaukee and Washington D.C. – are moving students into private schools that are substantially less segregated than the local public schools. The daily classroom experience of students in private schools exposes them to better racial mixing than the experience of students in public schools.

While these findings are descriptive rather than causal, they are sufficient to show that the claims made by opponents of voucher programs are without any empirical foundation. The existing research not only provides no support for their assertions, it all points in the opposite direction.

Private schools have a much greater potential to desegregate students because they break down geographic barriers, drawing students together across neighborhood boundaries in a way the government school monopoly cannot match even when it tries to do so. This potential is hindered by the monetary barrier that keeps many students from exercising the option of attending a private school. School vouchers overcome the monetary barrier, enabling private schools to make desegregation a reality.

**Table 1**

<b>SEGREGATION IN CLEVELAND PUBLIC SCHOOLS AND VOUCHER-PARTICIPATING PRIVATE SCHOOLS</b>		
	<b>Impact on Segregation</b>	<b>p Value</b>
<b>SCHOOL TYPE (PUBLIC)</b>	17.8	**0.002
<b>SCHOOL LEVEL (ELEMENTARY)</b>	2.1	0.606
<p><b>Note:</b> * = statistically significant at the <math>p &lt; 0.05</math> level                      ** = statistically significant at the <math>p &lt; 0.01</math> level                      *** = statistically significant at the <math>p &lt; 0.001</math> level                      Results are weighted by school enrollment.</p>		
<b>SIZE OF THE FINAL DATA SET</b>		
	<b>Schools</b>	<b>Students</b>
<b>PUBLIC</b>	116	59,654
<b>PRIVATE</b>	31	8,052

**Table 2**

<b>SEGREGATION IN PUBLIC AND PRIVATE SCHOOLS IN THE 100 LARGEST U.S. METRO AREAS</b>		
	<b>Impact on Segregation</b>	<b>p Value</b>
<b>SCHOOL TYPE (PUBLIC)</b>	<b>-1.9</b>	<b>***0.000</b>
<b>SCHOOL LEVEL (ELEMENTARY)</b>	<b>3.3</b>	<b>***0.000</b>
<p><b>Note:</b> * = statistically significant at the <math>p &lt; 0.05</math> level            ** = statistically significant at the <math>p &lt; 0.01</math> level            *** = statistically significant at the <math>p &lt; 0.001</math> level            Results are weighted by school enrollment.            Dummy variables were used as statistical controls for each metro area.</p>		
<b>SIZE OF THE FINAL DATA SET</b>		
	<b>Schools</b>	<b>Students</b>
<b>PUBLIC</b>	<b>36,470</b>	<b>23,282,398</b>
<b>PRIVATE</b>	<b>10,437</b>	<b>2,302,038</b>

## Endnotes

- <sup>1</sup> Jesse Jackson Jr., "Vouchers: Illegitimate Cure for Legitimate Concerns," *Madison Times*, July 5, 2002.
- <sup>2</sup> Zina Vishnevsky, "Education Needed to Thrive, Urban League President Says," *Cleveland Plain Dealer*, March 16, 2002.
- <sup>3</sup> David Berliner, et. al., "Will Vouchers Work for Low-Income Students?" Education Policy Project, CERAI-00-37, University of Wisconsin-Madison, Dec. 19, 2000.
- <sup>4</sup> *EIA Communiqué*, Educational Intelligence Agency, May 10, 1999.
- <sup>5</sup> Clive R. Belfield, "The Evidence on Education Vouchers: An Application to the Cleveland Scholarship and Tutoring Program," National Center for the Study of Privatization in Education, January 2006. To support this sweeping assertion, Belfield cites two studies. The first study only examines what factors affect parental decisions to purchase private schooling for their children; it offers no empirical data on whether there is greater segregation as an end result of parental decisions to purchase private schooling. The second study is the same Yun and Reardon study whose methodological shortcomings are documented below. It is worth noting that Belfield's analysis of student achievement in the Cleveland program is also methodologically unsound (see Greg Forster, "No, Private Schools Aren't Worse," Buckeye Institute, May 1, 2006).
- <sup>6</sup> Major studies using these methods include James Coleman with Thomas Hoffer and Sally Kilgore, *High School Achievement*, Basic Books, 1982; and Robert Crain, *Private Schools and Black-White Segregation: Evidence from Two Big Cities*, Institute for Research on Educational Finance and Government, Stanford University, ERIC document #259-430, 1984.
- <sup>7</sup> See Diane Ravitch, *The Troubled Crusade: American Education, 1945-1980*, Basic Books, 1985, p. 114-181; Richard A. Pride and J. David Woodard, *The Burden of Busing: The Politics of Desegregation in Nashville, Tennessee*, University of Tennessee Press, 1985; and David Frum, *How We Got Here: The 70's: The Decade that Brought You Modern Life - for Better and Worse*, Basic Books, 2000, p. 251-265.
- <sup>8</sup> The author is not aware of any studies adhering to valid empirical methods that find magnet schools or open enrollment policies are effective at reducing segregation. The best study of magnet schools of which the author is aware is a federal study of a non-representative sample of 292 magnet schools. It found that 43% of magnet schools did not reduce segregation at all, and a further 7% reduced segregation by less than one percentage point; only 17% reduced segregation by at least five percentage points (see Bruce Christenson, et. al. "Evaluation of the Magnet Schools Assistance Program, 1998 Grantees," U.S. Department of Education, 2003). A Public Policy Forum study of Wisconsin's open enrollment policy found that transfer students made up less than 1% of the student population in the average district (see "Districts Satisfied with Open Enrollment, Motivated to Retain & Attract Students," Public Policy Forum, December 30, 1998). Interestingly, according to a follow-up study, administrators mostly report that parents choose open enrollment for reasons of convenience, while the parents themselves mostly report that they choose it for reasons of school performance (see "Open Enrollment: Survey Suggests School Performance Matters," Public Policy Forum, December 23, 1999).
- <sup>9</sup> The finding that private schools provide superior academic results is supported by a large body of studies using the best scientific methods. The consensus among empirical studies on this issue is as strong as on any social policy question whatsoever. Seven studies using random assignment, the gold standard for scientific research, have found that students randomly chosen to receive vouchers had higher academic outcomes than similar students randomly chosen to remain in public schools (see Jay P. Greene, Paul E. Peterson and Jiangtao Du, "School Choice in Milwaukee: A Randomized Experiment," in *Learning from School Choice*, eds. Paul E. Peterson and Bryan C. Hassel, Brookings Institution, 1998; Cecilia Elena Rouse, "Private School Vouchers and Student Achievement," *Quarterly Journal of Economics*, May 1998; Jay P. Greene, "Vouchers in Charlotte," *Education Next*, Summer 2001; William G. Howell and Paul E. Peterson, *The Education Gap*, Brookings Institution, 2002; and John Barnard, Constantine E. Frangakis, Jennifer L. Hill and Donald B. Rubin, "Principal Stratification Approach to Broken Randomized Experiments: A Case Study of School Choice Vouchers in New York City," *Journal of the American Statistical Association*, June 2003).
- <sup>10</sup> See Jay P. Greene, "Civic Values in Public and Private Schools," in *Learning from School Choice*, p. 99.
- <sup>11</sup> Jay P. Greene, "Choosing Integration," in *School Choice and Diversity: What the Evidence Says*, ed. Janelle T. Scott, Teachers College Press, 2005, p. 30.
- <sup>12</sup> John T. Yun and Sean F. Reardon, "Private School Racial Enrollments and Segregation," in *School Choice and Diversity: What the Evidence Says*, ed. Janelle T. Scott, Teachers College Press, 2005. While Yun and Reardon use a segregation measure that compares schools to a larger administrative unit, and is thus inadequate for the reasons discussed above, they provide data tables that allow us to reconstruct their analysis using an adequate definition of segregation. Their data produce the same result (i.e. public schools are less segregated than private schools) even with this adjustment. Thus the problem of comparing like grade levels is the more important flaw in their analysis.
- <sup>13</sup> Greene, "Choosing Integration."
- <sup>14</sup> Gary Ritter, Alison Rush and Joel Rush, "How Might School Choice Affect Racial Integration in Schools? New Evidence from the ECLS-K," *Georgetown Public Policy Review*, spring 2002.
- <sup>15</sup> Jay P. Greene, "Civic Values in Public and Private Schools," in *Learning from School Choice*, ed. Paul Peterson and Bryan Hassel, Brookings Institution, 1998.
- <sup>16</sup> Jay P. Greene and Nicole Mellow, "Integration Where It Counts," *Texas Education Review*, spring 2000.
- <sup>17</sup> Jay P. Greene, "The Racial, Economic and Religious Context of Parental Choice in Cleveland," paper presented at the Association for Public Policy Analysis and Management meeting, November 1999.
- <sup>18</sup> Howard L. Fuller and George A. Mitchell, "The Impact of School Choice on Racial and Ethnic Enrollment in Milwaukee Private Schools," Institute for the Transformation of Learning, December 1999.
- <sup>19</sup> Howard L. Fuller and George A. Mitchell, "The Impact of School Choice on Integration in Milwaukee Private Schools," Institute for the Transformation of Learning, June 2000.

<sup>20</sup> Howard L. Fuller and Deborah Greiveldinger, "The Impact of School Choice on Racial Integration in Milwaukee Private Schools," American Education Reform Council manuscript, August 2002.

<sup>21</sup> Jay P. Greene and Marcus A. Winters, "An Evaluation of the Effects of D.C.'s Voucher Program on Public School Achievement and Racial Integration After One Year," Manhattan Institute, January 2005.

<sup>22</sup> Metro area definitions were obtained at the U.S. Census web site at <http://www.census.gov/population/estimates/metro-city/03mfips.txt>.

<sup>23</sup> County-level data were obtained from the U.S. Census web site at <http://www.census.gov/popest/counties/asrh/CC-EST2004-alldata.html>.

<sup>24</sup> Public school data were obtained from the Build a Table web page of the National Center for Education Statistics Common Core of Data (<http://nces.ed.gov/ccd/bat>); private-school data were obtained from the search web page of the NCES Private School Survey (<http://nces.ed.gov/surveys/pss/privateschoolsearch/index.asp>).

<sup>25</sup> The list was obtained at [http://www.ode.state.oh.us/school\\_options/scholarship/Forms/CSTPSchoolList0304.pdf](http://www.ode.state.oh.us/school_options/scholarship/Forms/CSTPSchoolList0304.pdf).

<sup>26</sup> Specifically, we assigned each school a dummy variable (0 or 1) for school type (public or private) and a dummy variable for school level (elementary or secondary). We then ran a linear regression with the segregation index as the dependent variable and these two dummy variables as the independent variables.

<sup>27</sup> These data were obtained from the U.S. Census web site at [http://www.census.gov/population/www/estimates/Estimatespercent20pages\\_final.html](http://www.census.gov/population/www/estimates/Estimatespercent20pages_final.html). They rely on the metro area definitions updated in December 2003 rather than the June 2003 definitions. Data based on the June 2003 definitions were unavailable. However, there was no need to use the same definitions when determining the 100 largest metro areas and when determining the percent white in the population of each metro area, so this has no effect on the analysis.

<sup>28</sup> Specifically, we assigned each school a dummy variable (0 or 1) for school type (public or private), a dummy variable for school level (elementary or secondary), and a dummy variable indicating whether it was located in each of the 96 metro areas included in the analysis (recall that four metro areas had to be excluded for lack of public school data). We then ran a linear regression with the segregation index as the dependent variable and these 98 dummy variables as the independent variables.

<sup>29</sup> A total of 14 participating Cleveland private schools and 59 Cleveland public schools were not included in the final data set either because of missing data or because they were not elementary or secondary schools.

<sup>30</sup> A total of the 9,831 private schools and 14,866 public schools were not included in the final data set either because of missing data or because they were not elementary or secondary schools.

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