

**School Choice by Mortgage or by Design:  
Implications for the Black-White Test-Score Gap**

Patrick J. Wolf<sup>o</sup> – Georgetown Public Policy Institute

**PEPG 03-10**

**Preliminary draft**  
**Please do not cite without permission**  
[wolfp@georgetown.edu](mailto:wolfp@georgetown.edu)

Prepared for the conference:  
"50 Years after *Brown*: What Has Been Accomplished and What Remains to Be Done?"

---

<sup>o</sup> The author gratefully acknowledges the research assistance of Elizabeth Quilligan and Ashley Zollinger.

## I. INTRODUCTION

The Supreme Court ruling in *Brown versus the Board of Education of Topeka, Kansas*, struck a crucial blow for the cause of equality of opportunity for African Americans. Prior to *Brown*, African American students in many parts of the country, but especially in the south, were educated separate from white children and in schools that were long on hope and determination but short on educational resources. The central purpose of *Brown* was to create an educational landscape where the color of a child's skin was not determinative of the educational achievement and life prospects of an individual child. However, equality of educational opportunity proved to be one thing in theory but quite another in fact. Although the *Brown* ruling and its subsequent implementation across the country eventually produced an environment in which the government-sanctioned segregation of students by race ceased, and in some cases was even replaced by the government-mandated integration of public schools by race, a disturbing and persistent gap between the test-score performance of African American and white students was identified in the early 1970s and continues to this day.

In this paper, we consider the history and causes of the so-called "Black-White Test Score Gap" and the possible role of residential assignment to public schools in producing, magnifying, and perpetuating the Gap. Parental school choice is discussed as an alternative to residential assignment and evaluated based on the promise it may hold to redress some of the causes, and thereby shrink the size, of the Black-White Test Score Gap. Though far from definitive, the research to date suggests that school choice policies may move African American educational achievement closer to an approximate level of equality of educational opportunity than the standard policies of educational decision-makers who have been yoked to traditional practices of assignment to public schools by residence.

## **II. HISTORICAL CONTEXT**

### **Residential Assignment**

Assignment to schools based on residence is a practice as old as the public school system itself. Horace Mann's vision for government-run public schools in every community relied heavily on residential assignment of a sort. Most towns in Massachusetts were small in the 1830s, and could, at best, support only a single public school. Residential assignment was a great convenience to education officials. It ensured that a relatively stable and predictable cadre of students would attend the new public schools. Residential assignment also relieved administrators of the burden of making potentially complicated and politically controversial decisions about which students should attend which schools. Mann's vision was for every elementary school to be of roughly equal and high quality, so assignment to schools by residence would seem to be inconsequential to the quality of education one received. Moreover, a core purpose of Mann's public school system was to promote civic values of patriotism and communal spirit. At the time, assignment to public schools by residence seemed to dovetail nicely with the public purposes of education.

### **Racial Discrimination**

The shameful history of slavery and race-based discrimination proceeded almost coterminous with the tradition of public schooling in the U.S. Even as supporters of public schooling justified their system as a means to provide equal educational opportunity to all children, the norms and practices in many localities tolerated and even mandated dramatic educational inequities by race. In the era of post-Civil War Reconstruction, systems of "Negro" schools sprang up within public school districts, providing a modicum of education to the

children and grandchildren of former slaves who were either covertly or overtly barred from attending the “white” public schools in their own communities. The clear recognition that such a separation inherently resulted in most black children receiving inferior educations and engendered limited prospects for upward mobility was the central motive for the *Brown* versus *Board* ruling.

### **The Black-White Test-Score Gap**

Since the National Assessment of Educational Progress (NAEP) was first administered in 1971, it has confirmed the existence of a disturbing gap in educational achievement between whites and Asians on one hand and African Americans and Latinos on the other (Jencks and Phillips 1998). Given America’s legacy of slavery and discrimination particularly against African Americans, the achievement gap specifically between them and white students has been especially worrisome and the subject of much analysis and conjecture. Abigail Thernstrom (2004) describes the Test Score Gap as “the nation’s most important civil rights issue.”

As presented in Figures 1 and 2, for about the past decade, the size of the educational achievement gap between African Americans and whites has been about one standard deviation in the distribution of achievement on the 11<sup>th</sup> grade NAEP in both reading and math. Essentially, this means that 80 percent of white students score above the average African American student in these essential subject areas. More starkly, the magnitude of the Gap suggests that the average African American student in 12<sup>th</sup> grade demonstrates achievement levels in reading and math typical of a white student in 8<sup>th</sup> grade.

[Figures 1 and 2 about here]

Perhaps more disturbing than the size of the Test-Score Gap is its’ persistent. With the exception of a stretch during the 1980s, when the positive effects of school integration interacted

with those of a booming economy (Grissmer, Flannigan and Williamson 1998), substantial progress towards closing the Test-Score Gap has been virtually non-existent. Even though funding for public schooling more than doubled in real terms 1971-2001, and average per-pupil spending in large cities, where over 30% of African-American students live, surpassed average per-pupil spending outside of large cities (Casserly 2004, viii), the Test-Score Gap remains stuck at about one standard deviation of the achievement distribution.

In the modern information age the Black-White Test-Score Gap has severe implications for the quality of life of many African Americans. Studies by Chaplin (1998) and others have established that the economic returns to educational attainment and achievement are increasingly large. The better students perform on achievement tests, the more money they are likely to earn in their lifetimes, all else equal. Educational achievement also has been associated with other quality of life indicators such as health and longevity. So long as African Americans continue to lag far behind whites in educational achievement, they will lag in other important personal and social factors as well.

### **III. REASONS FOR THE GAP**

Why do African Americans achieve at levels significantly below whites? Scholars have advanced a number of theories to explain the existence and persistence of the Test-Score Gap (Jencks and Phillips 1998). They can be grouped broadly into three categories: home environment, peer groups, and the quality of the educational program. Figure 3 presents a general schematic of how these three factors appear to conspire to leave the typical African American student significantly behind the typical white student in educational achievement at the end of high school. One should be careful to avoid viewing the conceptual scheme as deterministic. Many African American students escape or defy the logic of the figure and

perform at academic levels above the typical white student, and many white students fall below the performance level that the figure forecasts for them. However, based on what we know to date, the three factors of family, peers, and schools appear to play significant roles in generating the racial gap in achievement on average. Theorists have further postulated that each of these direct influences on achievement is closely correlated with a major pre-existing condition or cause. Family resources and educational practices inside the home are believed to be significantly correlated with race, student peer-groups with residential choice, and school quality with school resources. Although the last of these purported connections -- that of school resources influencing school quality -- has not been consistently supported by the evidence (ergo the dotted line connecting the two in the figure), all three of the connections will be discussed in turn.

### **Race and the Home Environment**

A particularly disturbing aspect of the Black-White Test Score Gap is the fact that about half of the lower average performance of African American students at the end of their elementary and secondary schooling experience is explained by lower achievement levels at the very start of their education (Jencks and Phillips 1998). This finding, that the typical African American student starts out significantly behind his or her white peers, has led a number of researchers to postulate either that African Americans are inherently inferior to whites in cognitive capacity (Hernstein and Murray 1994) or that the typical African American family trails most white families in the possession of certain family resources and home practices known to influence future educational achievement (Phillips et al 1998). The idea that blacks are genetically pre-determined to be less smart than whites, besides being extremely distasteful on its face, has been rather convincingly dispelled by further analysis (e.g. Nisbett 1998), to the great

relief of many. The argument that African American families tend to have less “social capital” has much stronger empirical support and deserves further consideration here.

Ever since the release of the pioneering Coleman Report (Coleman 1969), most education analysts have acknowledged the importance of family demographics and the educational environment in the home in predicting future student educational achievement. Although family income and parental education levels, what is commonly termed “socioeconomic status” (SES), tend to be strong predictors of student educational performance in general, controlling for only those two factors seems to have little influence on the size of the Gap (Phillips et al 1998, p. 104). However, a number of additional elements of educational capital, such as household size and parenting practices, tend to cluster with family SES. When a broad set of “family indicators” is controlled for in estimations of the Test Score Gap, the Gap closes significantly. In a careful review of a number of empirical studies of the effects of family conditions and practices on the Gap, Phillips and her colleagues estimate that perhaps as much as half of the Test Score Gap can be explained by differences in the home environment (Phillips et al 1998, 104). As a result, the “achievement tracking” arrows in Figure 3 for the effects of the home environment on ultimate test-scores point steeply up for whites and steeply down for African Americans.

### **The Influence of Residential Choice on Student Peer Groups**

One reason why background characteristics of students, such as their race and home environment, predict future educational achievement so disturbingly well is because they also influence a number of important downstream decisions and conditions that in turn impact learning. One such decision of potentially great educational import is a family’s choice of residential location. A family’s chosen neighborhood has a significant impact on the peer group

that will surround children during their formative educational years. All else equal, parents seek to live in a “good” neighborhood, populated by other children who they expect will have a positive behavioral and educational influence on their own children that will then be reinforced by assignment to high quality neighborhood public schools. Residential choice thus appears to be a pivotal decision for the parents of school-age children. With one stroke of the pen on a mortgage document or apartment lease, they can obtain both positive peer-group influences for their children as well as assured entry to a specific public school.

How significant are the beneficial educational effects of positive peer-groups on student achievement? By a number of accounts, they are quite large. In a study of the determinants of educational achievement in schools in 19 OECD countries, including the U.S., Dronkers and Robert (2003) found that the average family wealth, parental education, and parental value of education among a student’s educational peers are all statistically significant independent predictors of academic performance. The Dronkers and Robert conclusions about the importance of peer groups to educational achievement are by no means isolated. A long series of data-rich education studies (e.g. Coleman 1969, Levin 1976, Hess and Leal 1997, Weiher 2000, Nielsen and Wolf 2001) have documented the consistently important effects of school peer-group characteristics on test score performance.

Although “white students” should not be automatically equated with “positive peer group influences”, in the U.S. much of the assessment of the extent that peer group conditions influence the Black-White Test Score Gap has focused on the desirability of educating African Americans in either a racially diverse school or one in which white students represent a sizable majority. In an influential study, Phillips (1997) estimated that switching young African American students from an all-black school to a 90% white school would boost their reading test scores by nearly

one-fourth of a standard deviation, on average. Hoxby (2003, p. 37) approximately confirms Phillips' estimate, arguing that the highest defensible estimation of peer-group determinants of changes in student achievement is 30%, which is certainly an over-estimation of some magnitude. Grissmer and his colleagues (1998) draw upon indirect evidence to conclude that the significant but temporary reduction in the Test Score Gap in the 1980s may have been due to more African American students being educated together with white students – the vision of integration that largely motivated the *Brown* decision.

If “good” neighborhoods with positive educational peers and high-quality schools are the ticket to potentially dramatic educational gains, then how do African American families get there? The disappointing answer is that too few do. Several rigorous econometric studies (e.g. Hoxby 2003; Nechyba 2003; Epple and Romano 2003; Barrow 2002) have documented that income constraints and residual racial discrimination in metropolitan area housing markets conspire to prevent most African American families from locating in “good” neighborhoods. Family income and wealth are so important to residential location that, under conditions of pure assignment to schools by residence, with no public or private school choice options, Epple and Romano (2003, p. 231) claim that public schools would be perfectly stratified by income. In her study of the effects of school district test scores on residential location decisions of families in Washington, D.C., Barrow (2002, p. 184) estimates that white families with children are willing to pay an extra \$7,335 per year to live in a district with average Scholastic Achievement Test scores 100 points above the national norm of 903. Barrow also found that high income families spend extra money within DC to purchase private school educations instead of paying inflated mortgage rates in the suburbs. By studying survey responses by census track, she determined

that “45 percent of households with children in the Northwest section of D.C. have a child aged 6 to 17 enrolled in private school.” (Barrow 2003, p. 180)

Is a lack of family income all that is keeping many African American families from gaining access to desirable student peers and schools through residential choice? Unfortunately, the answer is no. Barrow discovered, to her apparent surprise, that when they relocate, “African-American and white households do not choose the same communities...[due to] differences in income, differences in preferences, and housing discrimination.” (2002, p. 166) These differences led Barrow to analyze the results separately by race throughout her report. White families in metropolitan areas such as D.C. appear to be free to behave rationally in the face of residential assignment to schools, moving to new locations based on the quality of the local schools. She describes African American families with children as circumstantially constrained from selecting residences based on school quality. As a result, they tend to end up in districts with low-performing schools even when they have the resources to live in “better” neighborhoods. Barrow explains that a number of studies have documented the continued presence of racial discrimination in the housing markets in and around D.C., and concludes that “The location decisions of African-American households reflect [and subsequently reinforce] the existing segregation in the area more strongly than the estimates for white households.” (2002, p. 170) Hoxby confirms that this disturbing condition is not limited to the D.C. area, as low-income African American students in several metropolitan areas that have been the subject of school voucher evaluations “are 14 times more concentrated geographically than the corresponding white population, 7 times more concentrated than the corresponding Hispanic population, and 6 times more concentrated than the corresponding Asian population.” (2003, pp. 48-49)

As a result of this strong evidence that African American families are limited in their ability to practice what has been called educational improvement through “Tiebout Choice” (e.g. Hanushek, Kain and Rivkin 2001), a solid line appears between the white and black streams in the Residential Choice column of Figure 3, indicating how racial discrimination appears to be operating to prevent many African American families from increasing the future educational achievement of their children via residential relocation.

### **The Influence of School Resources on the Quality of Assigned Schools**

We are left to consider whether or not the final link in the proposed causal chain connecting general conditions under residential assignment to the Black-White Test Score Gap might be a point of leverage where public policy might intervene to close the Gap. Education researchers long considered achievement to be the product of a production function, somewhat like widget-making. Since inputs are central to the production of widgets, they were thought to be the main drivers of educational achievement as well. If African Americans are achieving significantly less than whites, it must be that less money is being mobilized to educate them. That certainly was the case before *Brown*, when many African Americans were educated in resource-starved segregated schoolhouses. However, since the Test-Score Gap was first identified, educational spending on African Americans has increased mightily, but the Gap persists (Jencks and Phillips 1998). Moreover, Hanushek (1996) and others (e.g. Peyser and Costrell 2004) have established empirically that variation in educational spending is not consistently associated with educational achievement in elementary and secondary schools.

But are we spending enough on African American students? Some scholars argue no. As discussed above, social capital at both the family and community levels makes important contributions to educational achievement for students. Social capital is especially lacking in the

urban neighborhoods heavily populated by African American families. Thus, to make up for the social capital deficit in many African American communities, schools need to spend much more on them to obtain acceptable levels of achievement (Hedges and Greenwald 1996).

We also might reason that, for educational purposes, each dollar is not equally helpful. The boost in achievement that is obtained by spending a marginal dollar on education depends upon the current level of spending (the lower the current level, the bigger the boost) and the educational efficacy of what the marginal dollar purchases. Increased expenditures that facilitate smaller class sizes in the early grades or the hiring of higher quality teachers are more likely to boost achievement than are increased expenditures that are absorbed by administrative expenses or increased salaries for the existing stock of teachers (e.g. Jencks and Phillips 1998). At best, increased educational resources hold the prospect of closing the Gap only if they are spent on the right things and on the neediest students. Since, in general, they are not deployed so productively, throwing more money at schools appears to hold little prospect of closing the Test-Score Gap.

Does the quality of a school even matter for educational achievement? Again, the careful analysis of Dronkers and Robert (2003), for example, suggests that it does. In their OECD analysis, they determined that government-supported, largely religious, private schools deliver actual value-added to students due to their better educational climate, independent of peer group effects. Their measures of a better educational environment were less student misbehavior, less teacher misbehavior, and higher teacher morale. These international results generally track with the findings from the “effective schools” literature (e.g. Purkey and Smith 1983). Moreover, their findings that better order and discipline and more dedicated and autonomous teachers independently contribute to student achievement have been at least partially confirmed in several

school choice studies (e.g. Chubb and Moe 1990; Wolf 2003). It appears that higher-quality schools can play a substantial role in shrinking the Black-White Test Score Gap, if only more lower-income African American students could find their way into them. The evidence presented above regarding the logic of our national educational system, dominated as it is by residential assignment to public schools, suggests that precious few of them are getting there.

#### **IV. WHY CHOICE MIGHT HELP**

Many social scientists and policy analysts recognize the shortcomings of the residential assignment system and the ways that school choice by mortgage might contribute to disparate outcomes such as the Black-White Test Score Gap. Those commentators who are skeptical of choice generally advocate direct government actions to break the chain in Figure 3 that we suspect is contributing to and perpetuating the Gap. Some, including the late Senator Daniel Patrick Moynihan, supported attacking the chain at its first link, by increasing the financial resources of low-income families, many of them African American. A large number of researchers, including Gary Orfield of the Civil Rights Project at Harvard, have advocated forced integration of schools, so that more African American students can mix with a set of generally higher SES peers. Others, such as Michael Casserly (2004), have pleaded for ever increasing funding levels for the schools that African American students attend. Several papers at this conference specifically address these topics with greater sophistication and expertise than I could possibly muster here. I would be surprised if any of them concluded that income equalization, busing, or pumping more money into school systems would, in isolation, significantly shrink the Gap.

A number of education studies suggest that school choice may be an effective policy instrument for closing the Black-White Test Score Gap over the next 25 years – not just because

other policy solutions have failed, but because there are solid theoretical reasons and empirical results that suggest that it might do so. Moreover, switching to a system of parental school choice targeted to low-income families, many of them African American, holds the potential to transform in positive ways all three major likely contributors to the Gap: home environment, peer group, and school quality. In general, school choice is theorized to be capable of transforming this situation in positive ways because it (1) enhances parental responsibility for education, (2) severs the link between residential location and both educational peer group and school assignment, and (3) pressures the schools that serve African Americans to improve.

The nascent empirical literature on school choice generally supports the theoretical claims that parental school choice would be better than residential assignment for educating many African American students. Coleman and his colleagues compared the achievement of white and black students in public schools with the achievement of roughly comparable students in private schools. They concluded that educationally disadvantaged students, including inner-city African Americans, appeared to benefit most from private schooling (Coleman and Hoffer 1987; Coleman, Hoffer and Kilgore 1982). This preliminary finding has been confirmed by increasingly sophisticated test-score analyses by Neal (1997), Figlio and Stone (1997), Howell et al (2002), and Barnard et al (2003).

For example, in their analysis of the test-score impacts of privately-funded voucher programs in three cities after several years, Howell and his colleagues (2002) found that African American scholarship users improved their performance by an average of nearly 7 National Percentile Rank points after two years, or approximately one-third of a standard deviation. No test-score impacts of the scholarships were observed for the smaller subgroups of Latinos and whites in the study. The voucher gains for African Americans were confirmed and extended in

the third year of the New York City evaluation, which was the most evidence-rich of the three randomized field trials. The voucher results were not universally positive, however, as Howell et al's test-score results for Washington, D.C. demonstrated no voucher effects in the third year, when voucher take-up rates dipped significantly (2002, p. 147). Even the positive voucher effects for African Americans in New York City, reported by both Howell et al (2002) and Barnard et al (2003), have been contested in an alternative analysis by Krueger and Zhu (2004a; 2004b), which itself has been contested (Howell and Peterson 2004; Peterson and Howell 2004). Still, when the smoke from the methodological dust-ups clears, there is a reasonably strong body of evidence suggesting that African American students in particular benefit from school choice.

The cruel irony was and is that low-income inner-city African Americans seem to have the most limited access to schools of choice, even though private schooling appears to benefit them more than members of other ethnic groups. When school choice is made available to low-income families, through public policy or philanthropy, studies indicate that African Americans apply for such programs in numbers that greatly exceed their share of the eligible population (e.g. Howell 2004). Low-income African Americans at the grassroots behave as if they know what social scientists are still trying to confirm conclusively: that school choice is especially important for the future educational achievement of their children.

Why does school choice appear to boost the achievement of African American students more than whites and Latinos? No study to date has been able to determine conclusively the basis for race-contingent choice impacts. As discussed above, African American students appear to face significant challenges to educational achievement due to economic and sociological factors that impact learning. It may be that school choice improves outcomes for African Americans in particular, and thus holds promise for closing the Test Score Gap, because the

transfer of African American students from residentially assigned public schools to schools of choice tends to bring with it upside gains in the home environment, peer group, and quality of school that a student attends. The basic logic of such claims is mapped out graphically in Figure 4. The apparent effect of school choice on the three factors is discussed below.

[Figure 4 about here]

### **The Influence of School Choice in Improving the Home Environment**

One of James Coleman's many significant contributions to the theoretical literature on education was his claim that private schooling and school choice had the potential to affect parents and families in ways that enhanced the social capital and home environment to the benefit of student achievement (Coleman 1988). Coleman's thinking about social capital and education built upon the original conceptualization of Glen Loury (1977), and has been further developed by Brandl (1998) and Campbell (2001), among others.

This claim that school choice might enhance the social capital within the home highlights important conceptual differences between residential assignment and parental school choice educational systems. Under residential assignment, parents are not required to play the dominant role in arranging for and overseeing their child's education. Many do, particularly if their higher level of SES provides them with the resources and strong inclination to do so. However, inner-city parents who are struggling to get by, many of them African American, might be sorely tempted to cut corners regarding educational practices and information-gathering, comforted by the expectation that the educational professionals in their neighborhood public school will take care of things. Residential assignment to schools can become a sort of crutch for parents, with potentially dire implications for the Black-White Test Score Gap.

The claim of Coleman and the other choice and social capital theorists is that, if you burden parents with more educational responsibilities, they will become more responsible. If it is up to them to select the schools that their children will attend, then they will go to the trouble of learning more about the schools in their community. This act, by itself, could represent a positive improvement in the home educational environment. Once parents have selected schools for their children, they should feel personally invested in the arrangement, and might become more involved in educational activities at home and at school. Some private schools even require such parental involvement in their schools. These predicted outcomes of choice hold the promise of reducing the Test Score Gap because they are likely to positively impact African American families, who on average suffer from a “social capital” deficit, more than white families, who already tend to engage in information gathering and supervisory activities through their relatively unrestrained exercise of school choice by mortgage.

Are the social capitalists correct to surmise that the extension of school choice will yield positive educational benefits, especially for African Americans, by transforming the behaviors of parents? The evidence to date on this question is decidedly mixed. Schneider, Teske, and Marschall (2000, p. 235) report that the existence of universal school choice in Montclair, NJ, is associated with statistically significant positive gains in all four measures of social capital that they examined: PTA membership, voluntarism, parent networking, and trust of teachers. However, Howell and his colleagues (2002) report mixed social capital impacts from their three randomized field trials of privately-funded scholarship programs in New York City, Dayton, OH, and Washington, DC. They report that, after two years of using a scholarship to attend private school, parents in DC were more likely to discuss school with their children and help them with educational activities outside of assigned homework (2002, p. 117). However, they also describe

how choice parents in Dayton, OH, were somewhat less likely to have worked on a school project or attend school activities with their private-school child (2002, p. 117). African American choice parents in New York City also reported slightly lower levels of engagement in the school community than the control group, although that impact was only statistically significant in one of the three years of the study (2002, p. 118).

What are we to make of these disparate results regarding the effect of school choice on parental social capital and the home environment? The Montclair study involved universal “forced” choice: all parents were expected to select their child’s public school, and there were no direct financial implications of the use of choice. Arguably, such conditions are ideal for identifying the social capital effects of school choice. Circumstances were different in the three-city study. The choice instrument in all three sites was a partial-tuition scholarship provided to low-income families. In focus group discussions, a number of parents described how they needed to work extra hours and scramble to finance their share of the private school tuition, and that they sometimes felt that they had less time to spend with their children. These mixed results on social capital should lead us to two tentative conclusions, for now: (1) the design of the choice policy influences the impacts that it will produce; and, (2) school choice’s best prospects for closing the Test Score Gap may be located further down the causal chain in Figure 4.

### **The Influence of Residential Choice on Educational Peer Groups**

In the sociological studies that preceded and followed in the wake of *Brown*, analysts concluded that coercive, state-sanctioned segregation of blacks into all minority schools negatively impacted their self-esteem and thereby inhibited their ability to succeed academically. School choice holds the prospect to avoid such negative effects of coercive segregation in either of two ways. First, school choice may be an instrument for reducing the racial segregation of

blacks both among and within schools. Several careful empirical studies of school choice programs in the U.S. and abroad suggest that schools of choice are actually better integrated by race and socio-economic status than residentially assigned public schools (e.g. Greene 1998; Gorard 2004). Like most school choice conclusions, these results have been disputed by other researchers using different analytic methods or studying different school systems (e.g. Fisk and Ladd 2000), but they are supported by a certain common sense logic. The evidence is overwhelming that low-income African Americans often are segregated into all-minority residential communities. As an alternative to the simple residential assignment of students to school, which would inevitably reproduce residential segregation in the schools absent governmental intervention, school choice enables African American students to cross school boundaries and enroll in private or charter schools that are populated with students from a wider geographic area than neighborhood public schools. Since geography is not fate for schools of choice, they may serve as integrating institutions. For example, if an African American student leaves a neighborhood public school that is 90% African American, as many inner-city public schools are, and enrolls in an urban private school that is 40% African American, their exercise of choice improves the racial integration of both the school that they left and the school that they joined. African American students who leave all-minority assigned public schools will tend to arrive at schools of choice with student bodies that are at least somewhat higher in SES, although that is by no means guaranteed in all cases.

Beyond opening up more diverse and higher SES schools to African Americans, school choice holds the prospect of closing the test-score gap via reductions in racial segregation within schools. As several researchers (e.g. Blank 1991; Chubb and Moe 1994) have established, many public schools that are racially integrated on paper are actually heavily segregated by race

within. African American students are disproportionately assigned to the lower, less challenging “tracks” in schools, meaning that they are educated separately from other students throughout the school day. In fact, such racial segregation within schools may be even more educationally harmful to African Americans than segregation among schools, since it sends a constant message that students like them are inferior. In response to this problem, many current public magnet school programs are converting to “whole-school” programs whereby the neighborhood members of the student body (predominantly minority) are more fully integrated into the school environment (Christenson et al 2004). Whole-school magnet schools are yet another example of how choice-induced deviations from strict residential assignment can better expose African American students to higher SES peers, with likely achievement benefits down the line.

Important research has further explored the question of students “fitting into” peer groups within schools, and the implications for student achievement. Akerlof and Kranton (2002) recently published an important theoretical and empirical assessment of the effects of school identity and student attitudes on educational achievement. Their research suggests that, under certain conditions, school choice will promote student achievement, especially for economically and educationally disadvantaged students who otherwise would have difficulty “fitting in” to the culture of a large public school. Student sense of belonging and educational effort depends on the extent to which a given school’s student ideal matches their own background and preferences. A large public school is forced to choose between promoting a particular image of the ideal, and alienating many students who do not fit in, or promoting no particular image and becoming “Shopping Mall High.” Neither strategy is productive for student outcomes and attitudes (Akerlof and Kranton 2002, 1169-1170).

School choice holds the prospect of improving the match between student attitudes and the school culture, and subsequently enhancing achievement for African American students, for several reasons. First, schools of choice are better able to define their culture in distinct ways, since they are not controlled by political authorities who are trying to satisfy the expectations of a broad political constituency (Chubb and Moe 1990). Second, schools of choice are freer than are public schools to define their school culture in terms of high expectations for achievement. Third, schools of choice tend to be smaller in scale (Howell et al 2002), meaning that their internal constituency is likely to be more focused in its dominant attitudes and preferences. Fourth, when given the opportunity, parents appear to choose schools at least partly based on a close match between the culture of the school and the needs of their particular child (Schnieder et al 1998). And fifth, schools of choice exhibit more frequent and meaningful communication between school and home, permitting both schools and parents to make accommodations in their preferences and cultural cues to arrive at a common standard that inspires students without alienating them (Akerlof and Kranton 2002; Howell et al 2002). Thus, it follows logically that schools of choice will tend to have cultures that are both more academic and a closer match to student attitudes and expectations than are assigned public schools. The close alignment of the prevailing culture of the school to the attitudes of students in choice schools will reduce alienation among students, better integrate lower SES students with a higher SES peer group, spur effort, and increase achievement.

All five reasons listed above for the closer match between school culture and student attitudes in schools of choice also increase the ability of choice schools to shape the attitudes of students in academically productive ways. A school culture that is more distinctive and less diffuse is more likely to acculturate students. A school culture that is more academic is

particularly likely to render student attitudes more oriented towards academic achievement, as that would be the way to “fit in” at the school. Conforming to a culture of academic achievement is more of an imperative at a small school, where non-conforming student cultures are both more apparent to school officials and less tolerated by them. Because parents have explicitly selected the more distinctive and academically-oriented cultures of choice schools, the students are likely to feel more pressure from home to fit-in to the very kind of school culture that promotes achievement. Finally, because both choice schools and the parents who have chosen them have made an investment in the partnership that is reinforced with regular communication, the likelihood of the arrangement alienating a student and depressing achievement are lessened. The preferences of the parents reinforce the culture of the school in delivering a consistent message that the student needs to care about achievement. The frequent flow of communication ensures that is happening or highlights the need for an intervention of some sort to help a particular student along.

This application of Akerlof and Kranton’s theory of identity and schooling to the case of school choice explains important empirical regularities regarding distinctive forms of schooling. For example, female students who attend single-sex schools appear to benefit academically from that distinctive form of schooling, all else equal (Bryk, Lee and Holland 1993). Single-sex schools for females are better able to define their mission as promoting academic excellence for girls and women. Students who share such aspirations are more likely to choose to attend such schools. Once the choice has been made, if academic excellence is not a strong preference of a particular enrollee, she will be subject to constant cultural cues and pressures to change her attitudes to better conform to the school’s culture. Especially if she began in a condition of educational or economic disadvantage, such an attitudinal change is likely to result in higher

levels of achievement than she would have realized in a public school with a less distinct and less academic culture.

Akerlof and Kranton (2002, 1171) conclude, “the sociological literature indicates that the difference between private and public schools goes beyond peer group effects and the selection (or self-selection) of students. Private schools pursue different social goals and have greater freedom to invest in the identity of their students.” Thus, again, we are conceptually pressed to consider school quality in close proximity to our analysis of peer group effects, as the two so often proceed hand-in-glove.

### **Choice-Induced School Resources and School Quality**

As mentioned, African American students, by and large, no longer attend public schools that are poorly funded. The question remains whether the greater resources being devoted to public schools serving African American students are being spent on the factors that research suggests boosts achievement for disadvantaged minorities. A number of qualitative case studies and general empirical analyses suggest that most students, and African American students in particular, benefit from schools with strict discipline that are maintained in good order and that focus on the mastery of basic skills before tackling more advanced material. The KIPP Academy charter schools which have quite rightly attained fame for effectively educating inner-city African Americans and Latinos are a clear example of such a model. Moreover, private schools that participate in voucher programs, although they typically have access to lower material resources than do inner city public schools, are given consistently strong marks by parents for their order and discipline (Howell et al 2002). Even advocates of class-size reduction as a reform alternative to school choice, such as Krueger and Whitmore (2002), reason that smaller classes hold promise for reducing the Black-White Test-Score Gap because they reduce the

likelihood of a disruptive student interfering with educational activities in the classroom. What Krueger and others would have school systems achieve via class-size reductions might similarly be obtained at the individual student level by switching from a disordered public school to a strict and well-ordered private or charter school. As some, though not all, school choice evaluations have shown, schools of choice also tend to have smaller class sizes in addition to better school-wide order and discipline (e.g. Howell et al 2002).

High expectations are another element of the quality of schools of choice. Most private and charter schools include universally high levels of expectations for student achievement as core elements of their mission statements. In most though unfortunately not all cases, high expectations are not just paper promises but infuse the educational environment. In the case of the KIPP Academies, universally high expectations for student achievement appear to define the culture of those charter schools (Thernstrom and Thernstrom 2003). Students spend extra hours in class, and extra days at the school, focused almost exclusively on academic activities. The drills that are the basis for achieving mastery of basic skills and core knowledge are rehearsed out loud and as a group, signaling that everyone is expected to perform them with proficiency. Parents and students who have participated in experimental evaluations of school choice programs consistently report that students who transfer to schools of choice are assigned more homework than comparable students in public schools (Wolf, Peterson and West 2001; West and Peterson 2001; Peterson, Campbell and West 2001; Myers et al 2003). A preliminary analysis of the impact of more homework on the educational achievement of students in the Washington, DC experiment suggests that such demands are one of the factors behind the test-score gains of voucher students (Wolf 2003).

These results from experimental choice evaluations in the U.S. have been replicated in the 19 OECD countries studied by Dronkers and Robert (2003). They report that time spent on homework and time spent on reading and math activities in school are significantly higher in both government-supported and fully independent private schools in those countries. Time spent on homework is a substantially important and robust predictor of test-score achievement for students in those countries, even after controlling for an extensive set of family background, peer group, and educational environment factors. The authors conclude that government-supported choice schools in particular deliver clear value-added to their students, at least partly because they demand more of them academically than do typical government-run schools.

Finally, market theory predicts that choice-induced competition will spur schools to improve their quality and focus more on achievement. Any competitive effect of choice on school performance might be especially helpful to African Americans. As Barrow (2003), Hoxby (2003), and others have shown, African Americans are more firmly anchored to low-income neighborhoods and low-performing public schools than are whites. School choice by mortgage does not pressure the schools that serve African Americans to improve to the extent that it pressures the schools serving white students to improve. School choice programs that provide African American students with easier school exit options hold greater promise for spurring the schools at risk of losing African American students to improve so as to retain them. Since most parents who participate in school choice programs list academic quality as an important reason for their school choice (Howell et al 2002), schools that are pressured to change are likely to reform themselves in ways that boost academic achievement even for the students who do not switch schools.

Research by Caroline Hoxby and Jay Greene support this competitive effects choice hypothesis. In her recent review of research on competitive choice effects in the U.S., Hoxby (2003) describes how many of the schools in her analyses that were subject to the highest degree of competition, though the initiation and expansion of choice programs, improved their student test scores the most. Jay Greene and his colleagues (Greene and Forster 2003; Greene and Marcus 2002) report similar results in such diverse locales as San Antonio, Milwaukee, and the state of Florida. Although some researchers question the extent to which such school improvements are choice-induced (e.g. Hess 2002; Camilla and Bulkley 2001), the evidence so far generally suggests that school quality in the public sector increases, perhaps especially for schools that serve African Americans, when more parents are permitted to choose their schools.

In sum, many schools of choice are likely to be better than assigned public schools for typical African American students because they focus on factors such as discipline, time-on-task, and extensive and challenging homework assignments. They also tend to be smaller, delivering education on a more manageable and personal scale. These elements of school quality that are more common in schools of choice hold some prospect for shrinking the Black-White Test-Score Gap if more African Americans are granted the opportunity to access them, as displayed in Figure 4.

## **V. THE CONTINGENCY OF CLOSING THE GAP THROUGH CHOICE**

Under what conditions might we expect school choice to narrow the achievement gap due to exposure to a higher SES peer group and conformity between a school culture of achievement and student attitudes? School choice would seem most likely to promote positive educational outcomes for disadvantaged students when (1) a large number of schools participate, so that a private school's existing higher SES student body and achievement identity are not overwhelmed

by the influx of new students; (2) students are younger, so that their identity is malleable and capable of adopting new aspirations; (3) choosers persist in their newly chosen school long enough to reap educational benefits; and (4) parents select schools whose SES peer group and achievement identity is slightly above their child's – not below, but not so far above that they will fail to embrace it and instead become alienated. The first three conditions were most clearly obtained in the New York City school choice experiment, which also demonstrated the largest and most consistent achievement gains for African Americans among the cities in the three-site analysis (Howell et al 2002). However, a cautionary note is in order. If the above is true, then the very “mass migration” that appears to be necessary to make a sizable dent in the Test-Score Gap via choice could water down the effect for individual students. Unless a lot of good private schools participate in choice programs or really good new schools emerge, large-scale choice programs could overwhelm the very conditions and institutions that provide hope for closing the Gap through school choice (Hill et al 2003).

## **VI. CONCLUSION – WHAT ARE THE PROSPECTS?**

It is important to acknowledge that this analysis of the potential for school choice to significantly shrink the persistent and disturbing Black-White Test Score Gap is necessarily speculative. No single, careful, empirical study to date has confirmed the strength of all the connections in the Figure 4 causal chain that would take the existing population of African American students and deliver them, through school choice, to educational outcomes that more closely approximate those of the population of white students in the U.S. Some empirical evidence supports each link in the chain, and some rigorous studies of school choice impacts on African Americans confirm that they end up better off than their public school peers due to the exercise of choice. Based on what we know so far, well-crafted school choice programs and high quality

schools of choice might cut the Test Score Gap approximately in half, as the New York City voucher experiment did, though that estimate is surely made with some degree of error. It is boiler-plate to call for more ambitious and extensive studies of the question, but the fact remains that education researchers need gainful employment, and careful and constructive work in assessing the extent to which expanded school choice could close the Gap surely would be effort well spent.

## References

- Akerlof, George A., and Rachel E. Kranton. 2002. "Identity and Schooling: Some Lessons for the Economics of Education." *Journal of Economic Literature*, 40, 1167-1201.
- Barrow, Lisa. 2002. "School Choice Through Residential Location: Evidence from the Washington, D.C. Area." *Journal of Public Economics* 86, 155-189.
- Barnard, John, et al. 2003. "Principal Stratification Approach to Broken Randomized Experiments: A Case Study of School Choice Vouchers in New York City." *Journal of the American Statistical Association* 98:462.
- Blank, Rolf K. 1991. "Educational Effects of Magnet High Schools." **Choice and Control in American Education: Volume 2**, William Clune and John Witte (eds.). New York: Falmer.
- Brandl, John E. 1998. *Money and Good Intentions are not Enough*. Washington, DC: Brookings.
- Bryk, Anthony S., Valerie E. Lee and Peter B. Holland. 1993. *Catholic Schools and the Common Good*. Cambridge, MA: Harvard University Press.
- Camilli, Gregory, and Katrina Bulkley. 2001. "Critique of 'An Evaluation of the Florida A-Plus Accountability and School Choice Program.'" *Education Policy Analysis Archives*, 9:7.
- Casserly, Michael. 2004. *Beating the Odds IV: A City-by-City Analysis of Student Performance and Achievement Gap on State Assessments, Results from 2002-2003 School Year*. Council of the Great City Schools, March.
- Campbell, David E. 2001. "Making Democratic Education Work." *Charters, Vouchers, and Public Education*, Paul E. Peterson and David E. Campbell (eds.). Washington, DC: Brookings.
- Chaplin, Duncan. 1998. "The Effects of High School Math and Science Courses on Future Earnings." *The Virginia Journal of Social Policy and the Law* 6:1, 115-126.
- Christenson, Bruce, et al. 2004. "Evaluation of the Magnet School Assistance Program, 1998 Grantees." Report to the U.S. Department of Education, Office of Innovation and Improvement. Washington, DC: American Institutes of Research.
- Chubb, John E., and Terry M. Moe. 1990. *Politics, Markets and America's Schools*. Washington, DC: Brookings.
- Chubb, John E., and Terry M. Moe. 1994. "Politics, Markets, and Equity in Schools."

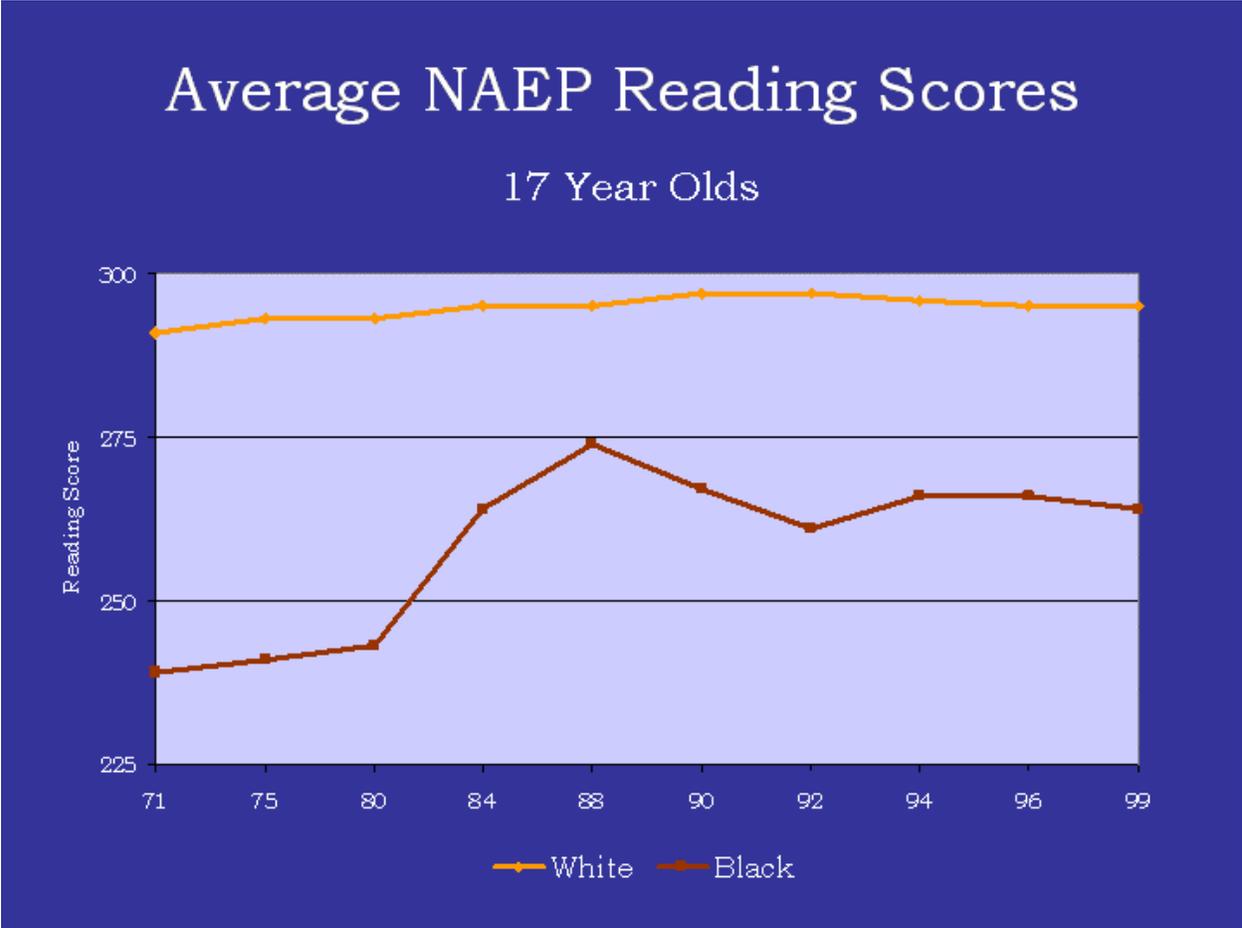
- Coleman, James S. 1969. *Equality of Educational Opportunity*. Cambridge, MA: Harvard University Press.
- \_\_\_\_\_. 1988. "Social Capital in the Creation of Human Capital. *American Journal of Sociology* 94:S, 95-120.
- Coleman, James S., Thomas Hoffer, and Sally Kilgore. 1982. *High School Achievement: Public, Catholic, and Private Schools Compared*. New York: Basic.
- Coleman, James S., and Thomas Hoffer. 1987. *Public and Private High Schools: The Impact of Communities*. New York: Basic.
- Dronkers, Jaap, and Peter Robert. 2003. "The Effectiveness of Public and Private Schools from a Comparative Perspective." European University Institute, Political and Social Sciences Department working paper, Badia Fiesolana, Italy, SPS No. 2003/13.
- Epple, Dennis, and Richard Romano. 2003. "Neighborhood Schools, Choice, and the Distribution of Educational Benefits." *The Economics of School Choice*, Caroline M. Hoxby (ed.). Chicago: University of Chicago Press.
- Figlio, David N., and Joe A. Stone. 1999. "Are Private Schools Really Better?" *Research in Labor Economics* 1:18, 115-140.
- Fisk, Edward B., and Helen F. Ladd. 2000. *When Schools Compete*. Washington, DC: Brookings.
- Gorard, Stephen. 2004. "School Choice Policies and Social Integration: The Experience of England and Wales." *Educating Citizens: International Perspectives on Civic Values and School Choice*, Patrick J. Wolf and Stephen Macedo (eds.). Washington, DC: Brookings (forthcoming).
- Greene, Jay P. 1998. "Civic Values in Public and Private Schools." *Learning from School Choice*, Paul E. Peterson and Bryan C. Hassel (eds.). Washington, DC: Brookings.
- Greene, Jay P., and Greg Forster. 2002. "Rising to the Challenge: The Effects of School Choice on Public Schools in Milwaukee and San Antonio." Manhattan Institute for Policy Research, Civic Bulletin 27.
- Greene, Jay P., and Marcus Winters. 2003. "When Schools Compete: The Effects of Vouchers on Florida Public School Achievement." Manhattan Institute for Policy Research, Education Working Paper 2.
- Grissmer, David, Ann Flannigan, and Stephanie Williamson. 1998. "Why Did the Black-White Score Gap Narrow in the 1970s and 1980s?" *The Black-White Test Score Gap*, Christopher Jencks and Meredith Phillips (eds.). Washington, DC: Brookings.

- Hanushek, Eric A. 1996. "School Resources and Student Performance." *Does Money Matter?* Gary Burtless (ed.). Washington, DC: Brookings.
- Hanushek, Eric A., John F. Kain, and Steven G. Rivkin. 2001. "Disruption Versus Tiebout Improvement: The Costs and Benefits of Switching Schools." National Bureau of Economic Research Working Paper Series. Cambridge, MA.
- Hedges, Larry V., and Rob Greenwald. 1996. "Have Times Changed? The Relation Between School Resources and Student Performance." *Does Money Matter?* Gary Burtless (ed.). Washington, DC: Brookings.
- Hernstein, Richard J., and Charles Murray. 1994. *The Bell Curve*. New York: Free Press.
- Hess, Frederick M. 2002. *Revolution at the Margins*. Washington, DC: Brookings.
- Hess, Frederick M., and David L. Leal. 1997. "Minority Teachers, Minority Students, and College Matriculations: A New Look at the Role Modeling Hypothesis." *Policy Studies Journal* 25:2, 235-248.
- Hill, Paul T., and others. 2003. *School Choice: Doing it the Right Way Makes a Difference*. Report of the National Working Commission on Choice in K-12 Education. Washington, DC: Brookings.
- Howell, William G. 2004. "Dynamic Selection Effects in Means-Tested, Urban School Voucher Programs." *Journal of Policy Analysis and Management* 23:2, pp. 225-250.
- Howell, William G., and Paul E. Peterson, with Patrick J. Wolf and David E. Campbell. 2002. *The Education Gap: Vouchers and Urban Schools*. Washington, DC: Brookings.
- Howell, William G., and Paul E. Peterson. 2004a. "Uses of Theory in Randomized Field Trials: Lessons from School Voucher Research on Disaggregation, Missing Data, and the Generalization of Findings." *The American Behavioral Scientist*, 47:5, 634-659.
- Hoxby, Caroline M. 2003. "School Choice and School Competition: Evidence from the United States." *Swedish Economic Policy Review* 10, 11-67.
- Jencks, Christopher, and Meredith Phillips. 1998. "The Black-White Test Score Gap: An Introduction." *The Black-White Test Score Gap*, Christopher Jencks and Meredith Phillips (eds.). Washington, DC: Brookings.
- Krueger, Alan B., and Pei Zhu. 2004a. "Another Look at the New York City School Voucher Experiment." *The American Behavioral Scientist*, 47:5, 658-698.
- Krueger, Alan B., Pei Zhu. 2004b. "Inefficiency, Subsample Selection Bias, and Nonrobustness: A Response to Paul E. Peterson and William G. Howell." *The American Behavioral Scientist*, 47:5, 718-728.

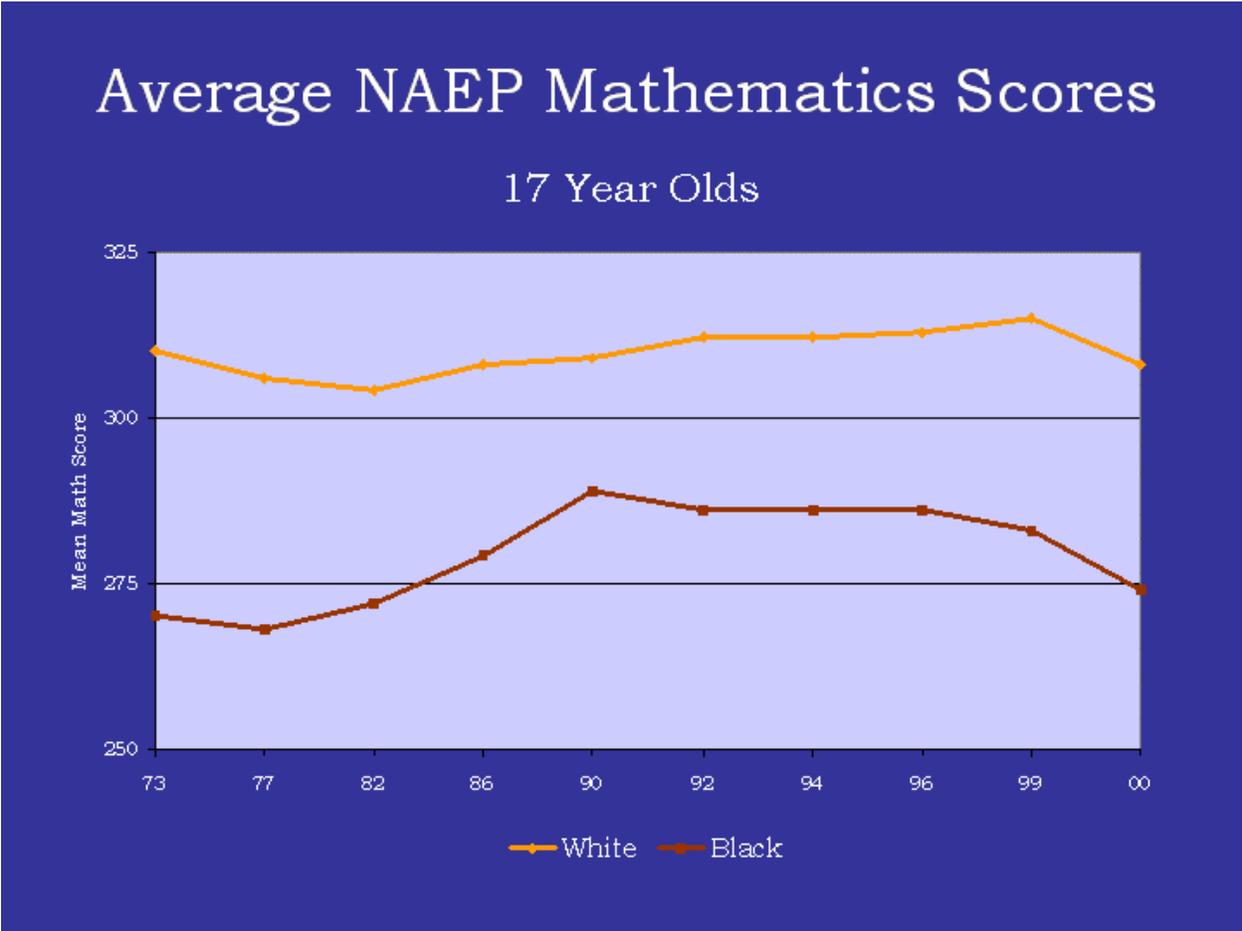
- Krueger, Alan B., and Diane Whitmore. 2002. "Class-size Reduction is a Wonderful Thing and Gosh-Darnit we Ought to Spend Gobs of Money Doing More of It." Uncertain source.
- Levin, Henry M. 1976. "Concepts of Economic Efficiency and Education Production." *Education as an Industry*, Joseph T. Froomkin, Dean T. Jamison, and Roy Radner (eds.). Cambridge, MA: Ballinger.
- Loury, Glenn. 1977. "A Dynamic Theory of Racial Income Differences." *Women, Minorities, and Employment Discrimination*, P.A. Wallace and A. Lemund (eds.). Lexington, MA: Lexington Books.
- Macedo, Stephan. 2002. *Diversity and Distrust: Civic Education in a Multicultural Democracy*. Cambridge, MA: Harvard University Press.
- \_\_\_\_\_. 2004. "Crafting Good Citizens." *Education Next* 4:2, pp. 10-15.
- Myers, David, et al. 2003. Final report on NYC.
- Neal, Derek. 1997. "The Effects of Catholic Secondary Schooling on Educational Achievement." *Journal of Labor Economics* 15:1, 98-123.
- Nechyba, Thomas J. 2003. "Introducing Choice into Multi-district Public School Systems." *The Economics of School Choice*, Caroline M. Hoxby (ed.). Chicago: University of Chicago Press.
- Nielsen, Laura B., and Patrick J. Wolf. 2001. "Representative Bureaucracy and Harder Questions: A Response to Meier, Wrinkle, and Polinard." *Journal of Politics*, 63:2, 598-615.
- Nisbett, Richard E. 1998. "Race, Genetics, and IQ." *The Black-White Test Score Gap*, Christopher Jencks and Meredith Phillips (eds.). Washington, DC: Brookings.
- Peterson, Paul E., William G. Howell. 2004. "Efficiency, Bias, and Classification Schemes: A Response to Alan B. Krueger and Pei Zhu." *The American Behavioral Scientist*, 47:5, 699-717.
- Peterson, Paul E., David E. Campbell and Martin R. West. 2002. "An Evaluation of the Children's Scholarship Fund Program." Report of the Program on Education Policy and Governance, Harvard University, Cambridge, MA.
- Peyser, James, and Robert Costrell. 2004. "Exploring the Costs of Accountability." *Education Next*, Vol. 4:2, 23-29.
- Phillips, Meredith. 1997. "Does School Segregation Explain Why African Americans and Latinos Score Lower than Whites on Academic Achievement Tests?" Paper prepared for the annual meeting of the American Sociological Association.

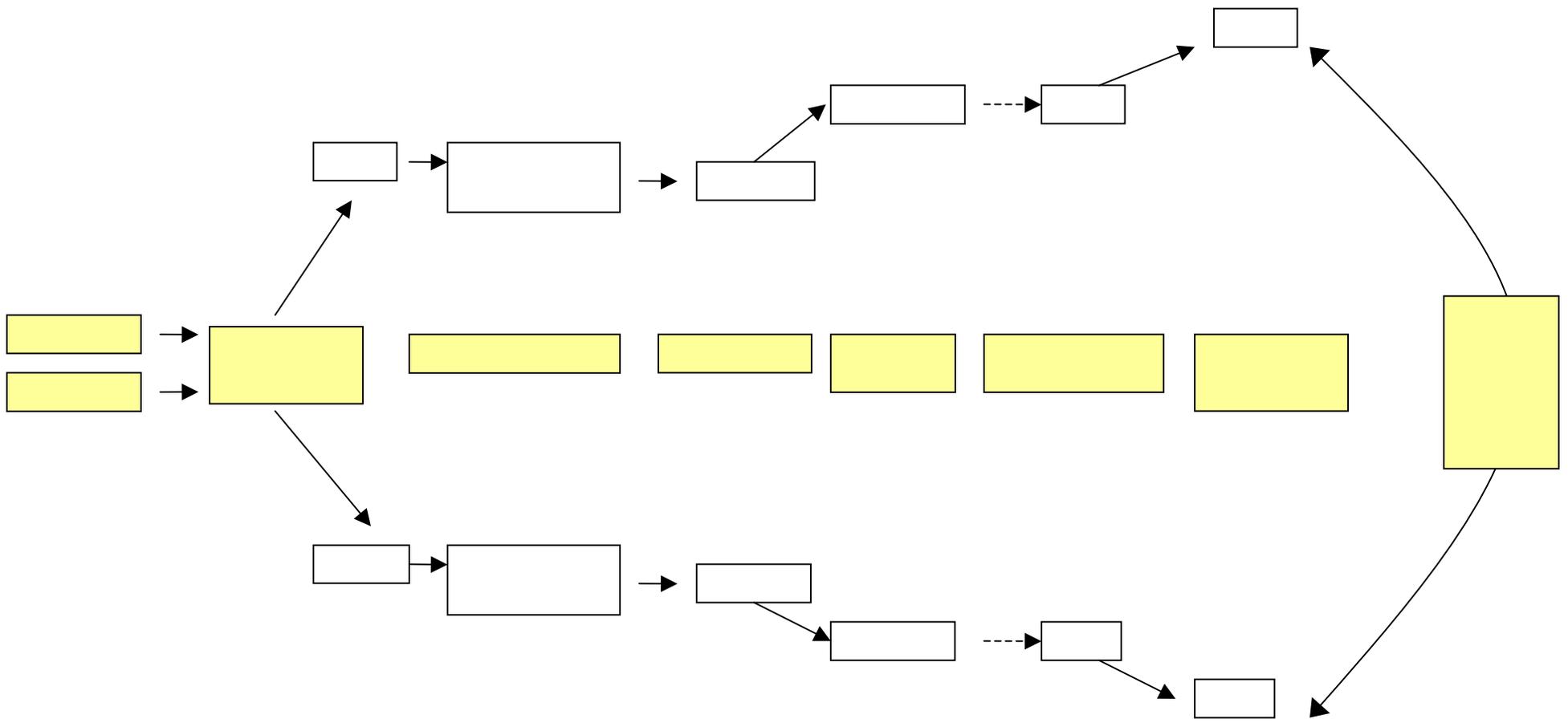
- Phillips, Meredith, et al. 1998. "Family Background, Parenting Practices, and the Black-White Test Score Gap." *The Black-White Test Score Gap*, Christopher Jencks and Meredith Phillips (eds.). Washington, DC: Brookings.
- Purkey, Stewart C., and Marshall S. Smith. 1983. "Effective Schools: A Review." *Elementary School Journal* 83, 427-452.
- Schneider, Mark, Paul Teske, Christine Roch, and Melissa Marschall. 1998. "Shopping for Schools: In the Land of the Blind, the One-Eyed Parent May Be Enough." *American Journal of Political Science* 41: 1201-23.
- \_\_\_\_\_. 2000. *Choosing Schools: Consumer Choice and the Quality of American Schools*. Princeton, NJ: Princeton University Press.
- Thernstrom, Abigail. 2004. "Martin Luther King's Unfinished Legacy." *The Boston Globe*, January 16.
- Thernstrom, Stephan, and Abigail Thernstrom. 2003. *No Excuses: Closing the Racial Gap in Learning*. New York: Simon and Shuster.
- Weier, Gregory. 2000. "Minority Student Achievement: Passive Representation and Social Context in Schools." *Journal of Politics* 62(3), 886-895.
- West, Martin R., and Paul E. Peterson. 2001. "Results of a School Voucher Experiment: The Case of Dayton, Ohio After Two Years." Report of the Program on Education Policy and Governance, Harvard University, Cambridge, MA, August, PEPG/01-04.
- Wolf, Patrick J. 2003. "Looking Inside the Black Box: What School Factors Explain Voucher Gains in Washington, D.C.?" Paper presented at the annual meetings of the American Political Science Association, Philadelphia, PA.
- Wolf, Patrick J., Paul E. Peterson and Martin R. West. 2001. "Results of a School Voucher Experiment: The Case of Washington, D.C. After Two Years." Report of the Program on Education Policy and Governance, Harvard University, Cambridge, MA, August, PEPG/01-05.

**Figure 1. The Black-White Test Score Gap in Reading**



**Figure 2. The Black-White Test Score Gap in Math**





**Figure 4. How School Choice by Design Might Reduce the Test-Score Gap**

