

THE MATHEMATICS AND SCIENCE ACHIEVEMENT GAP BETWEEN RESEGREGATED AND DESEGREGATED SCHOOLS

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During the 1990s many school districts abandoned school desegregation initiatives and quietly resegregated the public schools. In 1986, the city of Norfolk ended mandated busing for desegregation and returned to neighborhood schools. This shift resulted in the creation of 11 schools that were more than 95 percent African American. After 17 years of resegregation, the achievement gap between resegregated schools and desegregated schools continues to exist. The purpose of this paper is to examine the trends in the achievement gap between resegregated and desegregated schools in the Norfolk Public schools District.

Introduction

The Achievement Gap between European Americans and African American students has been a concern for more than two centuries. As Lucas (2000) noted President Thomas Jefferson addressed this problem in 1785. As we progress through the twenty first century, the achievement gap continues to be problematic. A review of research findings indicated that between 1988 and 1998 the gap between African American and European American students increased (Jencks, 1998)

Historically, African Americans score lower than European Americans on standardized measures of achievement (Trent, 1998, Jencks and Phillips, 1998). According to Jencks and Phillips (1998), this gap between the two groups begins before children enter kindergarten and continues into adulthood. Data from the Center for Educational Statistics Report (1997) indicate that during the 1970's approximately 25 percent of European American children, ages 3 and 4 attended preschool. This same percentage was found among African

American children. However, by 1991, only 31 percent of African American children were enrolled in preschool while 40 percent of their European American counterparts were in attendance. This nine percent gap in attendance rates may contribute significantly to the achievement gap between the groups.

Additional analyses of data from the National Assessment of Educational Progress (NAEP), indicate that the academic performance in reading, mathematics and science for 9 year old African American children is significantly lower than their European American counterparts. A closer review of the findings suggests that at age 17, there is still a statistically significant gap between the two groups. These data also indicated the gap has narrowed over the last two decades (National Center for Educational Statistics, 1997.) The reading gap narrowed from 1.25 standard deviations in 1971 to 0.69 standard deviations. The gap in mathematics also declined from 1.33 to 0.89 in 1996. Although the achievement gap has nar-

rowed somewhat, the typical African American student scores below 75 percent of the European Americans on standardized tests. (Jencks and Phillips, 1998)

There is also a significant gap in the SAT scores of college bound African American and European American students. A review of 1993 SAT scores revealed that African American children performed 91 points lower on the verbal section and 106 points lower in mathematics. This gap narrowed from the previous two decades. In 1976, the scores were 119 (verbal) and 139 (mathematics). Further analyses of NAEP data indicate that the gains made by European American children in mathematics and reading have increased since 1988. However, the gains made by African American children have declined in reading and remained constant in mathematics (The Condition of Education, 1997). The gap narrowed between the 1972 and 1988 by about one-half (Haycock, 1997.) African Americans showed the most gains among children who began school in 1968 through 1972 and from 1976 through 1980. The reading gap between African Americans and European Americans was 30 points; however, the gap narrowed to 18 in 1988 and increased to 30 again in 1992 (Haycock, 1997.)

Given these research findings, The purpose of this paper is to examine the relationship between the achievement gap and school resegregation in the Norfolk Public Schools.

Resegregation and The Achievement Gap in Norfolk

On May 17, 1954, the United States Supreme Court declared that the practice

of segregating students in public school districts unconstitutional. The city of Norfolk began a plan of "Massive Resistance" to the *Brown* decision. However, in 1958 the city was ordered by the Virginia Federal District Court to desegregate the schools. The city resisted the desegregation mandate and litigation continued until 1971 when a federal judge approved a desegregation plan that required cross-town busing between paired schools. The public schools in Norfolk did not desegregate until January 1970. The school district utilized clustering and pairing techniques as methods of desegregation. Busing was instituted to facilitate the integration of the public schools.

In 1971, the Norfolk school district adopted and implemented a student assignment plan similar to that approved by the Supreme Court in the *Swann* case, which established guidelines for desegregating public schools. Under the Norfolk plan, students were assigned so that each school reflected the racial composition of the total system. The United States District Court of Virginia declared the school district unitary in February, 1975.

During the 1981-82 school year, The Norfolk School Board met to consider a reduction in cross-town busing for integration. A series of meetings was held with citizens throughout the city to discuss proposed plans. The primary issue concerned the status of African-American children in the city of Norfolk who were assigned to all African-American schools. Many parents contended that African-American children would suffer educationally and socially in these segregated schools. The school board members sought to eliminate such fears by proposing: an expansion of

pre-kindergarten programs to include four year olds from lower income homes; a program to increase parental involvement in schools attended primarily by African-American children; a school effectiveness program to ensure that poor children would learn at the same rate as the more affluent students (Virginia Pilot, May 30, 1982.)

When the school district implemented its desegregation plan in 1970, 57% of the systems 56,830 students were white and 43% were African-American. However, after more than 15 years of mandated busing for integration, enrollment dropped to 34,803 students. Of this number, 43% were white and 58 were African-American. As a result, a loss of more than 18,000 students, the Norfolk School Board suggested a new approach to desegregation. The school board voted to abolish cross-town busing for elementary school children. The revised desegregation plan assigned students to neighborhood schools, creating ten elementary schools that were more than 95 percent African-American.

This new neighborhood schools plan was unsuccessfully challenged in the United States District Court for Virginia. On May 6, 1983, Paul Riddick, Jr. (*Riddick v. Norfolk School Board*) filed a suit on behalf of all the African American elementary students in the city of Norfolk. The Norfolk School Board was named as defendant in the suit. The Plaintiffs charged that the school board intentionally adopted an elementary school assignment plan that was unconstitutional and that discriminated against the African American students because of their race. The plaintiffs demanded that the court declare the Norfolk Public Schools student assignment adopted on February 2, 1983 unconstitu-

tional. However, in 1984, a Virginia District Court ruled that the Norfolk Public Schools could end court mandated cross-town busing of elementary students for the purpose of desegregation. The court held that the neighborhood school plan adopted by the Norfolk School Board on February 2, 1983 did not discriminate against African American students because of their race. Additionally, the court ruled that the plaintiffs had failed to show that the school board's assignment plan was motivated by race.

Riddick et al. appealed the decision in the Fourth Circuit Court of Appeals. In 1986, the circuit court upheld the ruling of the district court. The Fourth Circuit Court of Appeals rationale for the decision was that although the court originally ordered the district to utilize busing as a means of desegregating the public schools, it withdrew from the case in 1975. In 1975, the court ruled that the Norfolk Public Schools system was unitary. However, the plaintiffs contended that the system had become more segregated since 1975. The court did not agree. and issued the following statement:

The Norfolk School Board is an integrated body, the school administration is racially balanced, the racial composition of faculty and staff is mixed, and the overwhelming majority of school children, of both races, at the elementary, junior, and senior high levels attend schools whose bodies are racially mixed.

The problem

In 1986, the plaintiffs attempted to get the United States Supreme Court to review

the circuit court's findings; however, the court refused to hear the case. The ruling of the Fourth Circuit Court of Appeals was left in tact without approval or disapproval by the high court. The ruling in Riddick has had a significantly negative impact on African American elementary students in the city of Norfolk. This ruling has left many African American students in racially isolated schools. As members of an increasingly diverse society, all children must be given opportunities to interact across racial, ethnic and socioeconomic lines. Isolation only contributes to the achievement gap between European American and African American students.

An analysis of data indicated that between 1990 and 1991, the achievement gap between the resegregated elementary schools in the city of Norfolk and their desegregated counterparts increased from 15 points to 17 points in grade three. The gap between the two groups in grade four increased from 8 points in 1990 to 18 points in 1991. (Walzer, 1991).

Research Question

The purpose of this study was to describe the trends in the achievement gap between Resegregated and Integrated schools in the city of Norfolk. The specific problem guiding this study is: What trends are evident in the achievement gap between Resegregated all African American schools and their integrated counterparts?

Sample/ Data Sources

The *Iowa Test of Basic Skills* (ITBS) were analyzed for 1991, 1992, 1993, 1994, 1995, and 1996. In 1997 the school district began administering the Stanford

Achievement Test in place of the ITBS.. The *ITBS* composite test results reflect performance in Reading, Language Arts and Mathematics. The scores represent the percent of students scoring above the 50th percentile in the resegregated and desegregated schools. Additionally, scores on the 1998, 1999, 2000, and 2001 *Standards of Learning Tests (SOL)* in mathematics and science for fifth grade resegregated students and their desegregated counterparts were computed. The scores reflect the percent of students who passed the *SOL* in the schools.

Findings

Analysis of data (figure 1) indicated that composite test scores for the resegregated schools continued to fall below those students attending desegregated schools in the city

In 1992 the gap increased from 21 points in to 30 points in 1993 and grew to 33 points in 1994. A decline of ten points occurred from 1995 to 1996.; however, the gap widened by 9 points in 1997. Analysis of these data indicated that the Resegregated all African American schools poorly when compared to their desegregated counterparts.

Analysis of *SOL* mathematics test scores of fifth grade students (Table Figure 2) indicated an inconsistent trend in the gap. Although the scores for both resegregated and desegregated schools improved each year, the desegregated schools continued to perform better than the resegregated schools. It is encouraging to note that the mathematics gap is declining. The achievement gap declined from 29.47 points in 1999 to 11.36 in 2001.

Figure 1
Composite Test Scores
IBST

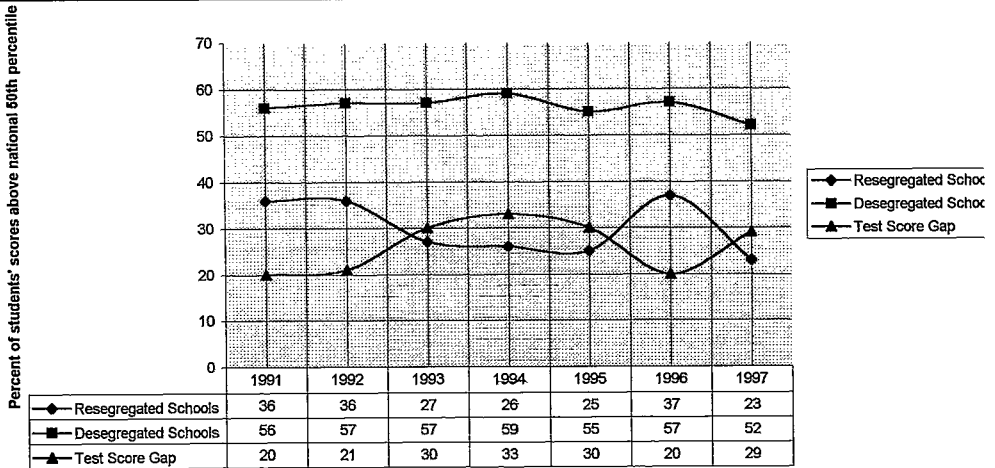


Figure 2
Mathematics Grade 6

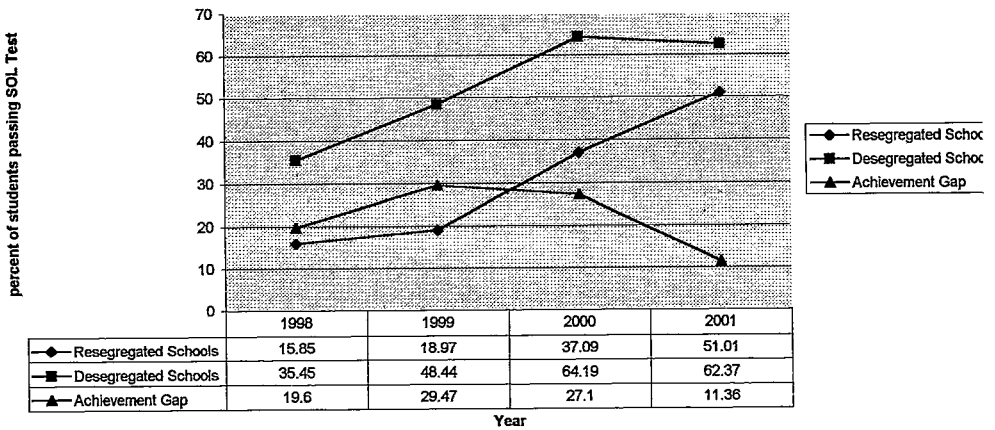
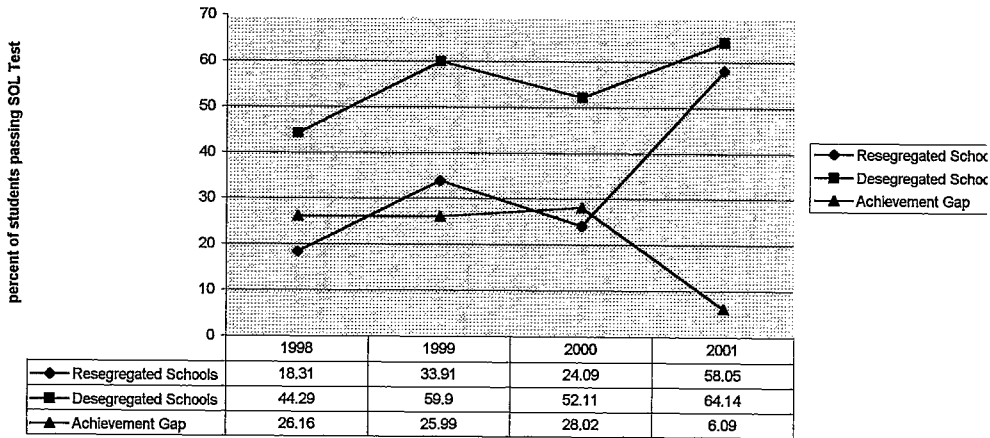


Figure 3
Mathematics Grade 5



The achievement gap has narrowed more significantly in science than mathematics for grade five students (figure 3). The resegregated schools continue to lag; however, the gap has narrowed from 26.16 points in 1991 to 6.09 points in 2001. Scores for both resegregated and desegregated schools declined in 2000. However, a sharp increase was noted for the resegregated schools in 2001 when the average for these schools increased from 24.09 to 50.09.

An analysis of ITBS standardized test scores indicated that the resegregated schools are performing poorly when compared to the desegregated schools. Additionally, a gap in mathematics and science is evident (as measured by the Virginia Standard of Learning Test.) The district has done a better job in narrowing

the achievement gap in science than in mathematics.

Discussion

The composite test scores of African American students in the Norfolk Public Schools continue to lag behind European American students. The findings from this analysis suggest that the district has made some progress in narrowing the achievement gap in mathematics and science. However, there are other gaps that must be addressed before the achievement gap can be eliminated. Perhaps the emphasis should be placed upon the economic, social and psychological gaps that exists between the segregated and resegregated schools. In considering these gaps, the words of Chief Justice Earl Warren should be considered:

"Segregation of white and colored children in public schools has a detrimental effect upon the colored children. The impact is greater when it has the sanction of the law; for the policy of separating the races is usually interpreted as denoting the inferiority of the Negro group. A sense of inferiority affects the motivation of a child to learn. Segregation with the sanction of the law, therefore, has a tendency to retard the education and mental development of Negro children and to deprive them of some of the benefits they would receive in a racially integrated school system (Brown v. Board of Education of Topeka, Kansas, 347 US 483, 1954.)

The district has limited the life chances of African American children by ignoring the plight of the powerless, and the poor. Unfortunately, almost fifty years after the Brown Decision, "Massive Resistance" to school desegregation continues in the city of Norfolk and the gaps continue to widen.

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