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Understanding the Achievement Gap

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Educators across Arkansas and the nation are sharpening their focus on “achievement gaps,” or those areas in which less-advantaged students perform poorly compared to their more advantaged peers. The No Child Left Behind Act, nationally, and the Lake View case, in Arkansas, are driving state and local education policymakers to address these achievement gaps to ensure that all student subgroups perform at high standards. Reducing these achievement gaps can have myriad social benefits, not the least of which is reducing racial inequality in educational achievement and future inequality in employment and earnings.

WHAT ARE ACHIEVEMENT GAPS?

When researchers and policymakers refer to educational achievement gaps, they are generally referring to the disparities between white and minority students in school grades, test scores, course selection, and college completion. That is, white students, on average, still score higher on standardized achievement tests and are more likely to graduate high school and college than are black and Hispanic students. In addition, the concept of the achievement gap has recently been applied to differences in achievement between affluent and poor students.

NATIONAL ACHIEVEMENT GAPS

The National Assessment of Educational Progress (NAEP), known as the “Nation’s Report Card,” is a national test that tracks educational progress nationally and state-by-state and also presents the achievement gaps in states and regions. According to the NAEP and other measures, the national racial gaps in reading and math were

shrinking throughout the 1970s and early 1980s. However, that progress slowed somewhat in the late 1980s and early 1990s. As of 1996, “the median black student still scored at the 20th to 25th

percentile of the white distribution” (Grissmer, Flanagan, & Williamson, 1998). The 2003 NAEP Grade 4 and Grade 8 math and reading scores for white and black students, however, suggest that the fluctuating gap is once again narrowing. For example, the national Grade 4 math achievement gap (that is, the difference in the average scaled score between white and black students) has decreased over the last decade. Similarly, the national Grade 8 math and Grade 4 reading gaps have also decreased over the last decade, while the Grade 8 reading gap has held steady over the past five years. Nationally, the current racial gaps seem to be decreasing; however, that is not the case in Arkansas.

GAPS IN ARKANSAS

The 2003 NAEP results and state level data indicate that the Arkansas black-white student achievement gap is significant, growing, and larger than the national gaps. According to a 2003 Arkansas News Bureau story, Arkansas has “the biggest gap among the 16 Southern Regional Education Board states.”

Arkansas’ 2003 NAEP scores show that the Grade 4 math, Grade 8 math, Grade 4 reading, and Grade 8 reading black-white achievement gaps have increased over the past five years and are larger than the achievement gaps nationally.

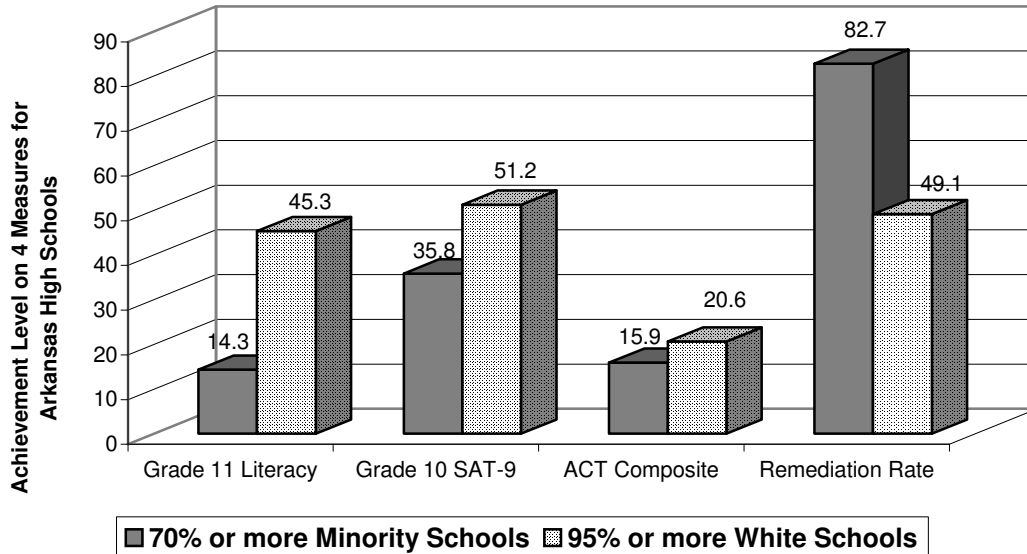
To gain a perspective on the current racial gap in Arkansas, we categorized Arkansas high schools by racial composition. Across the state, 136 high schools had enrollments in 2002-2003 that were almost entirely white (schools with 95 percent or more white students). Conversely, 32 high schools had 70 percent or more minority students. Comparing the academic results of these “mostly white” high schools with the results of the “mostly minority” high schools demonstrates the degree of the achievement gaps in Arkansas. The students in the mostly white high schools have lower rates of

college remediation and perform better on the ACT exam, the SAT-9 test, and the Grade 11 Literacy exam than do their peers in mostly minority Arkansas high schools.

Compared with students in the mostly white schools, students in the high-minority schools had a passing rate on the Literacy exam that was only one-third as high (14 percent vs. 45 percent), a SAT-9 composite score that was roughly 15 percentile points lower (36th percentile vs. 52nd percentile), an ACT composite score that was more than 4 points lower (15.9 vs. 20.6), and a college remediation rate that was nearly twice as high (83 percent vs. 44 percent).

These data, along with the NAEP data, reinforce a concern highlighted in the *Lake View* case that many students across the state are not being provided a high quality education that will prepare them for the future. There is overwhelming evidence that such disparities in educational achievement manifest themselves later on in the form of success or failure in the labor market. Thus, it is clear that the racial achievement gaps in Arkansas' public schools pose a critically important challenge to the state's leaders and educators. The academic research on the achievement gap does offer advice and recommendations for facing this challenge.

Figure 1: Student Achievement in Mostly Minority and Mostly White High Schools in Arkansas, 2002-2003



IMPLICATIONS OF THE ACHIEVEMENT GAP

The seminal study on the Achievement Gap is the *Black-White Test Score Gap*, authored by Meredith Phillips and Christopher Jencks and published by the Brookings Institution. The study describes the sobering reality that the median African American student still scores below three-quarters of white students on most standardized tests and reaches several definitive conclusions:

- Differences in scores are real, which means that they simply are not due to biases related to the test content or questions;
- Differences are not due solely to poverty. There is evidence that affluent black students achieve at lower levels than affluent white or Asian students; and
- Differences are not based in genetic difference and thus are tractable. In fact, the test score differences have diminished over the past century, which indicates that these differences are more than genetic.
- Differences are important and have critical implications for differences in employment outcomes and future earnings.

Finally, the authors conclude that this gap is malleable based on the fact that black-white differences have narrowed over the past century and that the social and cultural environment has been shown to influence achievement scores.

CAN WE REDUCE ACHIEVEMENT GAPS?

Recently, and with good reason, education researchers have shown a renewed interest in seeking strategies to chip away at racial gaps in achievement, as well as at gaps related to socio-economic differences. Several recent studies reveal an optimistic tone, suggesting that researchers have already discovered some potential solutions. Of course, this is a complex problem that will require complex solutions. Gaps between affluent white and affluent minority students require different solutions, perhaps, than do gaps between rich and poor students.

However, Education Testing Services (ETS) recently investigated this problem in *Parsing the Achievement Gap* and suggested some relatively straightforward strategies as starting points for addressing achievement gaps. The ETS study focused on various characteristics of school and home life that are hypothesized to be correlated with academic achievement. In the schoolhouse, the study posited that factors such as curricular rigor, teacher preparation, teacher experience, class size, school safety, and classroom technology were related to academic achievement. ETS then investigated the extent to which students of different races and economic backgrounds experienced disparities in these factors. The findings were not surprising: white and wealthy students were more likely to be exposed to rigorous curricula, to well-prepared teachers, to small classes, and to the other factors associated with high achievement. Thus, a starting point in addressing the achievement gap might well include tending to these “schoolhouse differences” between the most and least advantaged students.

A recent Brookings Institution compilation, *Closing the Achievement Gap*, also highlighted several strategies that have shown promise. Offering hope to all schools, this work includes success stories, where schools have reduced the black-white college

entrance exam participation gap by 50 percent in schools where the vast majority of students qualify for free or reduced lunch and are minority. The strategies cited for such dramatic results include a curricula focused on reading and core academic skills, reduced class size, requiring all students to take “tougher” courses, annual testing and disaggregated achievement reporting, creating a high-achievement culture within the school, and offering vouchers to parents in big-city school districts. Given the replicated results of these efforts, they seem to be effective in addressing the gap. While the authors warn that these strategies are not a panacea, the growing list of potentially effective strategies is encouraging to those with a stake in decreasing achievement gaps.

CONCLUSION

In recent years, researchers have developed a renewed interest in narrowing the gap, finding its causes, and exploring its consequences. Today, the national black-white and socio-economic gaps are decreasing; however, numerous states, like Arkansas, are witnessing increases in the black-white achievement gap, relative to the national gap. A review of the literature and the data show the national achievement gap is a real problem, the Arkansas gap is particularly problematic, and recent empirical evidence suggests some effective strategies for reducing the gap.

This complete study can be found at http://www.uark.edu/ua/oep/Working_Papers/htm or by contacting the Office of Education Policy at the University of Arkansas at (479) 575-3773.

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