

Disparities in Educational Opportunity: The Academic Achievement Gap, Teacher Quality, and No Child Left Behind

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INTRODUCTION

In the United States, there remains an enduring and substantial gap in academic achievement between African American students and their White and Asian American peers. African Americans, on average, score lower on tests of academic proficiency, are retained in grade at higher rates, graduate from high school, go to college and graduate at rates considerably lower than their White peers (Aud, Fox, & KewalRamani, 2010; Paige & Witty, 2010; Roper, 2008). The achievement gap continues to manifest itself well into adulthood, negatively affecting income and other labor market outcomes (Aud et al., 2010; Neal & Johnson, 1996) through both unemployment and underemployment. Because these outcomes often lead to increased poverty and other negative social outcomes, the academic achievement gap has become an issue of national policy focus. One approach to closing the achievement gap, to ensure that all students have highly qualified teachers in core subject areas, has been incorporated into major education policy through the No Child Left Behind Act of 2001 (NCLB) (U.S. Department of Education, 2004).

The premise that high quality teachers are crucial to improving education is widely supported by the education community, policymakers, and parents (Darling-Hammond & Berry, 2006; Jones, 2009; U.S. Department of Education, 2010). Through Title I and Title II components of the NCLB, policymakers have implemented national efforts to improve educational outcomes and increase the number of highly qualified teachers, especially for low-income and minority students. By the 2006-2007 school year, the vast majority of core academic classes were taught by teachers with at least the minimal credentials outlined in the legislation, yet the academic achievement gap remains stubbornly persistent.

There are a number of issues that impact the effectiveness of the teacher quality components of NCLB. One of the most salient to the academic achievement gap is the unequal distribution of high quality teachers. Minority and low-income students are disproportionately taught by teachers with the least preparation and the weakest academic backgrounds (Murnane & Steele, 2007; Peske & Haycock, 2006).

THE NEED FOR QUALITY TEACHERS

A significant body of research indicates that students perform better with more highly qualified teachers (Boyd, Lankford, Loeb, Rockoff, & Wyckoff, 2008; Darling-Hammond, 2000; Rivkin, Hanushek, & Kain, 2005) and that improvements in teacher qualification can result in improved student achievement, especially among high poverty schools

(Boyd et al., 2008). However, schools which have predominantly minority and/or low-income students often have teachers that are new to the profession with little experience or who are less likely to have a strong background in their subject area. These are both areas that research indicates negatively impact academic achievement, especially for minority children who often enter the classroom less prepared than their White peers. Because of the relationship between teacher quality and student outcomes, it is critical that disadvantaged students have well qualified teachers (Clotfelter, Ladd, & Vigdor, 2004; Darling-Hammond & Berry, 2006; Murnane & Steele, 2007; Peske & Haycock, 2006).

NO CHILD LEFT BEHIND

The No Child Left Behind Act of 2001 represents a major effort by the federal government to address the need for large scale school reform and to improve educational outcomes. One of the major goals of this legislation includes closing the achievement gap between high and low performing students, especially the achievement gaps between minority and nonminority students, and between disadvantaged students and their more advantaged peers. Strategies to accomplish this goal include improving teacher and principal quality and increasing the number of highly qualified teachers in the classroom (U.S. Department of Education, 2004). Through statutory language and policy mechanisms, the NCLB attempts to address the academic achievement gap, recognizes the need for and sets requirements for a highly qualified teaching force, and provides states with resources to help carry out this policy (Darling-Hammond & Berry, 2006; U.S. Department of Education, Office of Planning, Evaluation and Policy Development, 2009).

Under NCLB, individual states must set standards for determining whether or not individual teachers can be designated as highly qualified. These standards apply to all teachers of academic core subjects; English, reading or language arts, mathematics, science, foreign languages, government and civics, economics, arts, history and geography as well as those teaching Limited English Proficient (LEP) students and students with disabilities. At a minimum, highly qualified teachers must have a bachelor's degree, full state certification, and demonstrate subject matter competency in each academic subject. Because states set their own standards, policies concerning teacher qualifications vary significantly. States differ widely, for example, on the passing scores new teachers must meet in order to demonstrate content knowledge on assessments as well as on credit given to existing teachers for prior years of experience (Learning Point Associates, 2007; RAND Corp., 2007; U.S. Department of Education, Office of Planning, Evaluation and Policy Development, 2009).

Responsibility for implementing the teacher quality provision of NCLB is shared between the federal government, which monitors state plans and activities as well as providing technical and other assistance to states; state governments, which have key responsibilities with regard to establishing policies and monitoring district compliance; and school districts, which work to ensure that teachers are pursuing highly qualified status (U.S. Department of Education, Office of Planning, Evaluation and Policy Development, 2009).

OUTCOMES

A study for the U.S. Department of Education on teacher quality under NCLB reported that between 2004-2005 and 2006-2007, the number of states with at least 90 percent of classes being taught by highly qualified teachers increased from 33 to 40. Teachers who were not highly qualified were more likely to be in middle schools than in elementary schools and more likely to be in high-poverty, high-minority, and urban schools than in others. Teachers in traditionally disadvantaged schools, even though considered highly qualified, were more likely to be new to the profession and less likely to have a degree in the field they were teaching (U.S. Department of Education, Office of Planning, Evaluation and Policy Development, 2009).

Data from the U.S. Department of Education's *2010 Status and Trends in the Education of Racial and Ethnic Groups* show that the most highly qualified high school teachers, those both certified and with a major in their main teaching assignment area, were more likely to be found in schools where the enrollment is predominantly White. This is true for math, science, and English classes. Conversely, the least highly qualified teachers, those who were not certified and did not have a major in their primary subject area, were most often found in schools that served predominantly minority students (See Table 1) (Aud et al.).

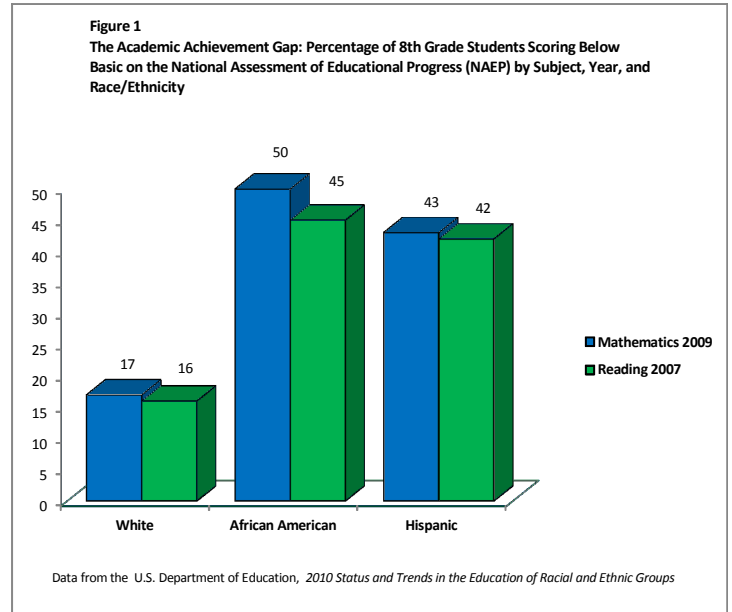
Table 1
Percentage of Public High School Teachers with a College Major and Standard Certification in Their Teaching Assignments by Race/Ethnicity: 2007-2008

	Enrollment Percentage	Major in Main Assignment	Certified with Major	Certified Without Major	Not Certified with Major	Not Certified Without Major
Math	>50% White	75.1	65.2	16.6	9.9	8.3
	>50% African Am.	56.0	48.6	19.3	7.4*	24.7
	>50% Hispanic	70.3	44.8	15.0	25.6*	14.7
Science	>50% White	84.8	73.3	11.2	11.5	4.0
	>50% African Am.	77.6	57.3	18.7	20.3	3.7*
	>50% Hispanic	80.5	64.7	10.6*	15.7*	8.9*
English	>50% White	83.9	70.3	9.9	13.6	6.2
	>50% African Am.	76.2	59.0	10.8*	17.1	13.0
	>50% Hispanic	72.8	53.2	12.0	19.6	15.2

Note. Data from the *2010 Status and Trends in the Education of Racial and Ethnic Groups*. For those percentages with an **, please interpret with caution.

Even though the number of classes taught by highly qualified teachers has increased substantially since NCLB was enacted, the concentration of less qualified teachers in certain schools has, no doubt contributed to the continued academic achievement gap between African

American and other minority students and White students. In 2009, one half of 8th grade African American students and 43 percent of 8th grade Hispanic students tested below basic in math. The percentage of White 8th grade students testing below basic in math was 17. This is a substantial difference and is similar to that for reading scores (See Figure 1) (Aud et al., 2010).



IMPLICATIONS

Although most teachers met their state's requirements for highly qualified teachers (94% in 2007), the percentage who were not highly qualified under NCLB was disproportionately higher for high minority schools (U.S. Department of Education, Office of Planning, Evaluation and Policy Development, 2009). This means that students who come into schools already underprepared are very often being taught by teachers who are least prepared to help them catch up to their peers (Peske & Haycock, 2006). Without substantial improvement in the equitable distribution of high quality teachers, the academic achievement gap will continue largely unabated.

RECOMMENDATIONS

Inequality in teacher distribution is a long-standing and complex issue with recruiting and retaining quality teachers for minority and low income students posing a major challenge for policymakers (Murname & Steele, 2007; Peske & Haycock, 2006). In order to increase the equitable distribution of high quality teachers to include all student groups, decision-makers must be willing to: (1) recognize and acknowledge that quality teachers for high-needs students are essential to closing the achievement gap, (2) determine what steps should be taken to remedy the current disparities, and (3) take the necessary steps to implement a redistribution of the teaching force.

POLICY REPORT

Even though improving teacher quality is obviously a critical issue, it appears to be stalled short of NCLB's 100 percent goal. With an economy that is only slowly recovering from the recent recession, teacher quality for some states or districts may be less of an issue than simply being able to maintain a minimal teaching force. Without substantial policy inducements to redistribute teaching assets, little may be accomplished toward improving teacher quality for all students or closing the achievement gap.

Incentives, especially financial incentives are a major issue in the distribution of teachers. This generally includes compensatory wages for teachers who are highly qualified and for those that teach in more challenging schools and districts. Recognizing and compensating for opportunity costs are also important in being able to recruit and retain quality teachers, especially those whose skills are in high demand outside the field of education (Murnane & Steele, 2007). Financial incentives are also important at the state and local level. A number of resources are available through federal NCLB Title II funds to develop and implement programs that improve teacher quality and to increase the number of highly qualified teachers (U.S. Department of Education, 2004).

Alternative certification programs are also a way to increase the number of high quality teachers. These programs can take advantage of individuals with credentials from fields other than education including older adults or those looking for a career change. However, these alternative programs must still provide adequate preparation (Darling-Hammond & Berry, 2006) and may experience the same issues with challenging environments as those from traditional teacher education.

There are a number of factors that impact the distribution of highly qualified teachers and for which education policies may have little or no effect. For example, the locale in which people are asked to teach can affect recruitment (Monk, 2007). Many schools are located in rural districts where there are fewer amenities such as shopping, restaurants, libraries, cultural events, and other activities to attract teachers. Urban districts may be negatively affected by high crime rates, poverty, and inadequate facilities (Kozol, 1991). Both rural and urban districts have been severely impacted by the economic recession and job prospects can be poor for spouses or partners of perspective teachers. These factors can influence, to varying degrees, the decisions that teachers make as to where they are willing to teach. Policymakers need to explore alternative ways to recruit and train high quality teachers while taking these factors into consideration (Boyd, Lankford, Loeb, & Wyckoff, 2005; Monk, 2007).

CONCLUSIONS

In order to help counter the disproportionate distribution of talented teachers, future reauthorizations of the 1965 Elementary and Secondary Education Act (ESEA) must provide ways and means to move high quality teachers into predominantly minority schools.

The current reauthorization proposal recognizes the need for high quality teachers in high-needs schools and maintains the provisions of NCLB but with additional flexibility. Notably, this legislation may include grants to provide differential compensation and career advancement opportunities to educators that teach in high-need schools. Other funds will maintain formula grants to high poverty school districts while significant changes will be made to better support achievement for all student groups, including low-income and minority students, English Learners, and students with disabilities (U.S. Department of Education, 2010).

Given increasingly scarce resources, focusing interventions on areas that will result in the greatest impact may be the best alternative for policymakers. High minority and low-income districts not only contribute the most to low academic performance measures but also stand to gain the most from improving teacher quality.

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