

Closing the Black-White Achievement Gap in High School: An Assessment of Evidence on  
Interventions to Improve Test Scores and College Prospects of African American Students

Amy Ellen Schwartz, Leanna Stiefel, Hella Bel Hadj Amor and Abigail Conover Carlton<sup>1</sup>

Institute for Education and Social Policy, New York University

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## EXECUTIVE SUMMARY

The achievement gap between African American students and their white peers is one of the enduring challenges facing the American public education system. Yet there is a surprising lack of research that examines ways to improve achievement among African American teens and, particularly, the efficacy of alternative educational policies in closing the gap between African American high school students and their peers. Much of the existing research takes a broader view, focusing on the achievement of all minorities or low-income students, or examines causes of the black-white achievement gap in the early grades. While the achievement gap between African American and white students closed substantially over the 1970s and 1980s, progress has slowed and possibly even reversed in recent decades. In light of this trend, researchers have begun to identify a set of factors that determine the achievement of African American teens and that may be sensitive to changes in policy and practice.

In this paper, we review policy levers that could potentially help close the achievement gap between African American and white high school students, and draw on the literature to glean recommendations for superintendants, principals and education policy makers. We address, in turn: policies to recruit and train teachers; policies to improve attendance, discipline and relationships among students and adults; policies to provide additional services to students; policies to increase the types of schools available to African American teens; policies to engage parents and communities; and policies to effectively use data. In the end, students of all races benefit from good educational practices, adequate resources and strong support. Policies and interventions to improve the performance of African American students will overlap significantly with those that would improve the performance of students of other races.

Relatively little literature examines ways in which to improve the achievement of African American teens, and, particularly, the efficacy of alternative educational policies in closing the gaps between African American high school students and their peers. Related literature often takes a broader view, focusing on the achievement of all minorities or even low-income students. Importantly, while many African American teens are indeed low-income, many low-income students are not African American but are white or Hispanic or Asian, making it difficult to draw conclusions from this strand of work for African Americans in particular. Further, much of the existing research focuses on the causes of the black-white achievement gap in the early grades, a smaller body on the college years, while the critical transition years into and in high school are little studied.

There is, in contrast, a good deal of evidence documenting and describing the nature of African American teen achievement drawing on a variety of data sources - including surveys of students, parents, teachers or administrators, national databases, and administrative databases. The bulk of the work is descriptive, however, relying on descriptive statistics, comparisons and other correlations, and very little work has attempted to draw a causal link between African American student achievement and the factors that influence it. Indeed, few interventions have been carefully evaluated and much further research is warranted to substantiate the effectiveness of recommended policies.

While the achievement gap between African American and white students closed substantially over the 1970s and 1980s, progress has slowed and possibly even reversed in recent decades (Lee, 2002; Neal, 2005). In light of this trend, researchers have begun to identify a set of factors that determine the achievement of African American teens and that may be sensitive to changes in policy and practice. This paper reviews these potential levers of change and draws on

the literature to glean recommendations for superintendents, principals and education policy makers. Interestingly, the recommendations are in many ways unremarkable – that is, some may seem obvious or would benefit all students in need, not just African Americans. In the end, students of all races benefit from good educational practices, adequate resources and strong support, and policies and interventions to improve the performance of African American students will overlap significantly with those that would improve the performance of students of other races.

We address, in turn: policies to recruit and train teachers; policies to improve attendance, discipline and relationships among students and adults; policies to provide additional services to students; policies to increase the types of schools available to African American teens; policies to engage parents and communities; and policies to effectively use data.

- **Recruit teachers who are**
  - **Highly qualified**

Students need good teachers and administrators. The vast controversy surrounding which teacher characteristics are associated with higher student achievement is beyond the scope of this paper, but there is at least some evidence that teacher education, including a degree in the field to be taught, certification, ability, content knowledge, and some experience are beneficial, at least in some circumstances.<sup>2</sup>

Hiring and training teachers is a key factor in improving the achievement of African American students, who are less likely to experience high quality instruction. Indeed, there is ample evidence that African American students are more likely to attend high-poverty, segregated schools with a higher concentration of new, less-experienced, uncertified teachers and

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<sup>2</sup> Darling-Hammond, 1999; Greenwald, Hedges, and Laine, 1996.

teachers from programs with limited time commitment to the profession, such as Teach for America.<sup>3</sup>

Yet evidence suggests that African American students are particularly likely to thrive with teachers who are effective and trained to give them the best possible preparation (Borman, Stringfield and Rachuba, 1998; Schott, 2008). As a number of authors suggest, highly-qualified teachers are better able to provide instruction that is particularly effective with African American students i.e., instruction that is personalized, student-centered, engaging, and culturally sensitive.<sup>4</sup> High quality teachers can also combat African American student disengagement, if there is such a thing.<sup>5</sup>

Suggested policies follow from this evidence. Many, including respected authors in this area, write that policies must be targeted to attract teachers to high-needs schools who are well-educated, certified and qualified to teach their subject.<sup>6</sup> Accordingly, suggested policies include: increasing teacher salaries for those willing to teach in high-needs schools, improving professional development and mentoring of new teachers to reduce teacher turnover, offering and recognizing alternate forms of teacher certification to attract non-traditional teachers into the field, and providing and actively recruiting teachers from pre-service teacher education programs that are found to be particularly effective, prepare teachers for teaching in particular types of schools, and encourage them to go into those schools.

- **Possibly African American**

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<sup>3</sup> Darling-Hammond, 1999; Hanushek and Rivkin, 2008; Kane et al., 2007.

<sup>4</sup> Gándara and Maxwell-Jolly, 1999; Borman, Stringfield and Rachuba, 1998; Losen, Orfield and Balfanz, 2006; Nettles, Millett and Oh, 2006.

<sup>5</sup> See the appendix for a discussion of disengagement and “acting white.”

<sup>6</sup> Boyd et. al., 2008; Darling-Hammond, 1999; Hanushek and Rivkin, 2008; Kane, Rockoff and Staiger, 2007.

The majority of African American students are taught by white teachers, yet African American teachers and administrators may be better equipped to teach and support African American students, and much literature advocates recruiting, training and retaining more of those teachers as a lever towards improving African American teen achievement.<sup>7</sup> The evidence is limited and mixed on whether racial congruence matters to outcomes. Often cited is early work by Ehrenberg, Goldhaber and Brewer (1995), using the National Educational Longitudinal Study of 1988 (NELS:88), which suggests that student learning is unaffected by the match between teachers' and students' race.

In terms of non-academic achievement, researchers have found effects using NELS:88 on teacher perceptions, which may influence the achievement gap through educational opportunities. Oates (2003) employs sophisticated models to compare the effect of African American and white teachers' perceptions on the standardized test performance of African American and white students and finds evidence that white teachers favor white students while African American teachers do not favor African American students. Applying an identification strategy that takes into account nonrandom sorting of students across and within schools, Dee (2005) finds large effects associated with race on teacher perceptions of student performance among poor and Southern students. Ouazad (2008) uses a national child-teacher matched longitudinal dataset and carefully controls for a range of confounding factors to conclude that non-African American teachers give lower assessments to African American children.

More generally, there seem to be positive effects of African American teachers on African American students in non-academic achievement. Gay, Dingus and Jackson (2003)

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<sup>7</sup> Clewell and Villegas, 1998; Cooper and Jordan, 2005; Graham, 1987; Joint Center for Political Studies, 1989; National Commission on Teaching and America's Future, 1996; Nettles, Millett and Oh, 2006; Villegas and Lucas, 2004; Wimberly, 2002.

examine a vast array of printed and electronic documents from widely various sources and suggest that African American teachers have higher performance expectations for African American students and improve African American students' outcomes in attendance, disciplinary referrals, dropout, satisfaction with school, identity, and self efficacy. Overall, they report a high level of agreement that more African American teachers are needed, not only to teach African American students but also to serve as role models for them and increase knowledge and awareness of ethnic, racial and cultural diversity among all students, which is expected to help close the achievement gap. Still, the authors caution that the data are "surprisingly thin and sparse" and that most of them are from small scale qualitative research of single or multiple case studies.

There are also pockets of evidence that African American teachers boost African American students' academic performance. The little research that Gay, Dingus and Jackson (2003) find on academics indicates that African American students perform better when taught by African American teachers and attend African American schools and programs. There is also more recent, quality evidence. Using data from Tennessee's Project STAR, which involved the random assignment of over 11,000 students in grades K through three, Bishop *et. al.* (2005) find that having an African American teacher in early elementary school improves the standardized test scores of African American students in later grades and increases the probability that African American students will take a college entrance exam. Dee (2004) also finds that having an African American teacher significantly increases the math and reading achievement of African American students. Using a sample of 100,000 Texas high school geometry students in 1997-98, 20,000 of whom are African American, Klopfenstein (2005) finds that increasing the percentage

of African American math teachers significantly raises the likelihood that an African American geometry student will enroll in a subsequent rigorous math course.

Conversely, Bishop *et. al.* (2005) find no evidence that scores on entrance exams improve when African American students are taught by African American teachers, and in an extension of Dee's 2004 work, Howsen and Trawick (2007) find no effect of race on student achievement once student innate ability and teacher gender are taken into account. Thus, overall, while much further research is warranted to confirm these potential positive findings, increasing the provision of high-quality African American teachers may hold promise as a lever of change.

Care must be taken however because, as Dee (2005) cautions, the processes by which African American teachers affect African American teen achievement are not well-known and little is known also about the effect of an influx of African American teachers on students in general. He suggests strengthening a specific policy of African American teacher recruitment with broader policies to improve teacher effectiveness, encourage high expectations and challenge students, and design effective professional development and performance incentive schemes. As research progresses, it will inform policies that would encourage breaking the link between the race of the teacher and student achievement, but are difficult to devise now as too little is known about the mechanisms in place.

- **Train teachers (provide professional development) to**
  - **Manage cultural, racial and ethnic diversity**

There is some evidence that suggests African American students may be particularly sensitive to whether teachers engage all the students in their classrooms and may benefit from different teaching methods (Borman, Stringfield and Rachuba, 1998; Schott, 2008). Despite increasing racial and ethnic diversity among students, Knight and Wiseman (2005) note that the

majority of teachers are white, English-speaking, middle class, and female; teachers increasingly find themselves teaching students from a wide variety of cultural, religious, ethnic, and racial backgrounds that differ from their own. As we have seen above, the evidence on which types of teachers perform best in a diverse classroom is mixed. Grant and Sleeter (1986) argue that good teaching practices need not vary based on classroom demographics. However, several authors advocate for teaching approaches and practices that take home culture into account so that student learning is enhanced.<sup>8</sup>

While there seems to be a growing body of literature on teacher quality in general,<sup>9</sup> there is less research focused on the need for different teaching methods to deal with racial and ethnic diversity, and there is debate over which in-service teacher education strategies and practices will actually promote the competence of teachers with racially diverse students.<sup>10</sup>

Still, some consensus is emerging that there are instructional models and approaches school districts can provide teachers that appear to be more effective in a culturally diverse classroom, especially by providing professional development opportunities focused on diversity management (Knight and Wiseman, 2005; Mercado, 2001). Ferguson (2007) and Wimberly (2002) advocate training teachers so they are able to teach, engage and build relationships with students of different backgrounds, to tailor instruction to the specific needs of these different students, and to have them all reach high achievement levels. They suggest professional development programs grounded in research, that make use of the most effective tools, including technological tools, and that raise in teachers the awareness of racial as well as cultural and

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<sup>8</sup> Ferguson, 1998; Gallego et. al., 2002; Mehan et. al., 1995.

<sup>9</sup> Sanders and Rivers, 1996; Wright, Horn and Sanders, 1997; Ferguson and Ladd , 1996.

<sup>10</sup> Knight and Wiseman, 2005; Zeichner and Hoefl, 1996.

socioeconomic diversity in their classrooms.<sup>11</sup> Additionally, Knight and Wiseman (2005) suggest professional development focused on building intercultural skills and knowledge among teachers of diverse populations.

- **Resolve conflict**

The Advancement Project and The Civil Rights Project Report (2000) recommend classroom management and conflict resolution training for teachers, administrators and counselors to deal with the discipline issues that appear to disproportionately affect African American teens and are an added challenge to their academic success. Recommendations include getting principals and teachers to make careful use of discipline and match the punishment to the crime, avoiding, for example, suspensions or special education referrals for slightly disruptive or difficult students (more on this below).<sup>12</sup>

- **Expect high achievement from African American students**

There is evidence that adolescents who express confidence, positive attitudes and determination about their future and goals outperform peers that have a low “future time perspective” (Adelabou, 2008). Researchers find that confidence is often fueled by the high expectations, interest and encouragement of parents, teachers and other school adults.<sup>13</sup>

Teachers’ expectations are a way to orient students toward success through two main channels. First, teachers might provide higher quality instruction to students from whom they

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<sup>11</sup> See Ferguson (2005) on the challenges of choosing effective teacher professional development programs.

<sup>12</sup> Specifically, the authors suggest “schools should monitor disciplinary referrals by teachers to ensure fair application of disciplinary codes. Monitoring may expose problems such as poor classroom management, discriminatory treatment, or singling out of particular children. Where teachers overuse disciplinary referrals, additional training should be provided.” (p.20) And “positive approaches to discipline, opportunities for teachers and students to bond, training for teachers classroom management techniques, clearly understood codes of conduct and discipline focused on prevention of problems. However, the work involved in successfully transforming a school’s culture is a daunting task that requires a steadfast commitment from the principal, teachers, staff, parents and community. To achieve this transformation, adults must analyze their own behaviors as well as the behaviors of their students, and be open to changing practices that may no longer fit with the school’s overall mission.” (pp.viii-ix)

<sup>13</sup> Gándara and Maxwell-Jolly, 1999; Kerpelman, Eryigit and Stephens, 2008; Stewart, 2006; Wimberly, 2002.

expect more (McKown and Weinstein, 2008).<sup>14</sup> Second, high expectations might motivate students.<sup>15</sup> On the contrary, teachers' attitudes or stereotypes based on ethnicity or the socio-economic status of the student body start self-fulfilling prophecies of negative outcomes.<sup>16</sup>

Some evidence suggests African American students do less well with teachers who do not expect and obtain high achievement.<sup>17</sup> As a specific example, Jussim *et. al.* (1996) use data on 1,600 sixth graders' in 1982-83 and find that teachers' perceptions affected the math performance of African American students three times as much as it did performance of whites. Similarly, McKown and Weinstein (2008) find that teachers' expectations explain about 0.3 standard deviations of the end-of-year reading achievement gap. Another strand of literature points out that expectations predict students' trust in teacher authority and therefore affect student discipline (Gregory, 2005).

Consequently, the literature advocates policies targeted at adults. Yet, according to Rumberger and Palardy (2005), research on the potential to change teacher expectations is inconclusive. For example, it is not clear that manipulating factors related to teacher expectations (such as the quality of instruction and amount of homework assigned) raises expectations. Rather, changing expectations may require more in-depth cultural changes that, in turn, call for strong political will and perseverance. Evidence that low expectations have generally settled in by the time students reach high school points to the importance of addressing these issues early on (Kerpelman, Eryigit and Stephens, 2008; Terenzini, Cabrera and Bernal, 2001).

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<sup>14</sup> A more specific discussion of perception of students among African American teachers can be found in the "Recruit Teachers who are African American" section of this paper.

<sup>15</sup> Brophy and Good, 1970; Weinstein and Middlestadt, 1979; Darley and Fazio, 1980.

<sup>16</sup> Steele and Aronson, 1995; Steele, 1997; McKown and Weinstein, 2002, 2003.

<sup>17</sup> Jussim et al., 1996; Borman, Stringfield and Rachuba, 1998; Ferguson, 2003; Schott, 2008; McKown and Weinstein, 2008.

Various authors advocate policies aimed at school personnel and parents.<sup>18</sup> These include integrating components into professional development for teachers and staff in high minority schools that train, encourage and convince them to have high and explicit expectations for their African American students. These expectations would aim to be similar to those for their white and/or more advantaged peers, and would hold African American students to the same high standards, including high outcomes and doing one's homework.

Policies aimed at teachers and parents would provide training and programs to encourage teens to make challenging choices and to raise their own expectations. These programs could also recognize and celebrate African American students' academic accomplishments, help students cope with negative peer pressure, and provide and encourage opportunities for involvement in rewarding endeavors such as extracurricular activities and community service. District officials can also encourage the community to play a role if, for example, local businesses were to award prizes to students for high achievement.

- **Design school policies to**
  - **Increase attendance**

As in other areas of life, one key to success in school is “showing up” and poor attendance impedes learning and academic achievement. As an example, Balfanz, Herzog and Mac Iver (2007) and Losen, Orfield and Balfanz (2006) find that achievement among African American students improves when they attend school regularly. Further, the effects may be cumulative or long-lasting. African Americans with good attendance in middle schools are less

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<sup>18</sup> Borman, Stringfield and Rachuba (1998); Gándara and Maxwell-Jolly (1999); Kerpelman, Eryigit and Stephens (2008); Losen, Orfield and Balfanz (2006); Schott (2008).

likely to drop out of high school.<sup>19</sup> Thus, policies aimed at improving attendance may effectively improve performance.

To be specific, these authors suggest several policies to improve student attendance: tracking attendance closely and responding quickly to every absence; promote the value of attendance and providing incentives; have school staff and parents communicate to explain absences and address underlying causes for absenteeism; and for more severe cases, involve social services and community supports. As an example, Kerpelman, Eryigit and Stephens (2008) suggest engaging local businesses to recognize and reward teens with good attendance. Attendance may also be higher in small schools, as we discuss further below.

While the basic premise that students need to attend school in order to learn is intuitively appealing, whether – and to what extent – these policies work and what they “cost” is unknown. Indeed, interpreting the causal impact of attendance on outcomes is complicated because, with the exception of long bouts of physical illness, low attendance is likely an indicator of a troubled relationship with schooling. Thus, while low attendance may lead to lower performance, it may also be the case the low performance reduces attendance. Thus disentangling these effects in future work will be important.

That said, increasing attendance is a particularly promising lever of change because schools already monitor it and improvements can occur relatively quickly, in as little time as a year.

- **Reduce disruption due to disciplinary action**

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<sup>19</sup> While the Balfanz, Herzog and Mac Iver (2007) study is not exclusively about African American students, the sample is primarily African American (64 percent), the rest being 19 percent white, 12 percent Hispanic and 5 percent Asian.

Problems with behavior and discipline inhibit learning both for the individual students involved and for their classmates. Disruptive behavior affects all students by diverting classroom time away from teaching, and the disciplinary consequences – which may include suspension or merely missed classes – translate into reduced class time and missed work. Ultimately, missed work may lead to lower grades, greater likelihood of dropping out and so on. Balfanz, Herzog and Mac Iver (2007) and Borman, Stringfield and Rachuba (1998) describe the disrupted flow of the work that occurs in classrooms when students misbehave, and The Advancement Project and The Civil Rights Project (2000) document the negative impact of misbehavior on achievement.

There is ample evidence that African American teens are disciplined more often than their peers, suggesting improvements in this area will have disproportionate benefit for African American students. African American students are two to five times more likely to be suspended than white students, and African American boys in particular are disproportionately likely to receive classroom penalties and institutional punishments such as suspensions (Irvine, 1990; Monroe, 2006). However, a descriptive study of a National Center for Education Statistics (NCES) survey of a nationally representative sample of over 1,200 principals and disciplinarians in elementary, middle and high schools (Skiba and Peterson, 1999) as well as an analysis of discipline in 19 middle schools in two Midwestern cities serving more than 50,000 students (Skiba, Peterson and Williams, 1997) support the claim that African American boys are no more disruptive than their peers, thus suggesting that teachers may be more sensitive to the behavior of these students than the behavior of their white and female peers. Monroe (2005) is of the opinion that teacher stereotypes may play a role in disciplinary action toward African American youth.

The NCES survey indicates that the zero tolerance policies adopted by many schools may exacerbate racial discrepancies because they do not consider the severity of the infraction (Skiba

and Peterson, 1999). Jones and Shen (2003) call these policies inflexible, rigid and severe, and the case study evidence in the Report on Zero-Tolerance Policies (2000) indicates that such policies often result in the suspension or expulsion of students for relatively minor offenses. However, research based on four national surveys and more than 1,200 court studies also shows that strict discipline of this nature can be beneficial if it is evenly enforced and viewed as fair by the students (Arum, 2003).

Particularly promising as a locus for improving the performance of African American students is to both reform discipline policies, to the extent that these students are disciplined more than their peers, and address student behavior, as misbehaved students disrupt the rest of the class, including other African American students in the classroom. Research suggests that disciplinary policies should incorporate behavior management strategies that are culturally familiar to students and that those administering discipline should become acquainted with culturally-specific behavior norms (Monroe, 2005). Additionally, Monroe (2006) recommends that teachers explain classroom policies, procedures and the implications of those rules to students and work to implement these policies fairly across students. Jones and Shen (2003) suggest that schools implement “minimum tolerance” policies in place of zero tolerance programs and create mandatory alternative educational opportunities for student offenders.

While classroom interventions appear promising, it is important to note that the relationship between poor behavior and outcomes – and changing behavior – is complicated by the interrelationship between these and by the importance of the family and community in determining behavior. Misbehavior may be a sign of problems students are facing at home or school (due to undiagnosed learning disabilities perhaps), the absence of role models, or psychological distress. Improving behavior might require engaging mentors, families and social

services to understand the underlying causes and provide the appropriate services, such as mental health referrals.

- **Foster relationships among students and adults**

As documented above, the high expectations of adults help shape student confidence which in turn bolsters student performance.

While we addressed teacher training policies in this area, another strand of policy would foster relationship-building among students and adults in the schools as early as middle school. As an example, Wimberly (2002) describes the Personal Adult Advocate model of the National Association of Secondary School Principals, which pairs each student with an adult who shows interest, listens, answers questions, monitors progress in school, and provides information and guidance, especially on schooling, college-going and career options, as well as emotional support. Based on evidence from work with college undergraduates, similar successes could be obtained by pairing students with a faculty member in their field or a job in a local industry (Gándara and Maxwell-Jolly, 1999).

- **Provide**

- **Academically advanced courses e.g., college preparatory courses, advanced placement and gifted and talented programs**

Many authors find that African American students are less likely to enroll in challenging courses – including advanced placement (AP) courses, gifted programs and the like - due, in part, to the dearth of such courses in the poor schools they attend. Adelman (2006) and Attewell and Domina (2008) find that students in poorer communities have less access to demanding coursework than students in wealthier communities, such as higher-level math courses, a state of affairs that cannot be explained by differences in prior achievement.

A significant body of research finds that African American students who have challenging courses available often perform well, although additional support may be needed to match the performance of white or Asian students – and we address these supports below.<sup>20</sup> Such coursework is associated with higher test scores at the end of high school and increased chances of receiving a bachelor’s degree.<sup>21</sup> Gladieux and Swail (1999) and Martinez and Klopott (2005) argue that academic rigor and strong social and academic support were the most important predictors of college enrollment and completion, especially among low-income and minority students. Some of the research is criticized for methodological flaws such as selection bias, omitted variable bias and measurement error but careful, more sophisticated studies that have addressed these issues seem to confirm the positive relationship between more intense coursework and achievement, although the effect may be small.<sup>22</sup>

Thus, improving the college success of African American students may well be accomplished by increasing their participation in challenging instructional programs, composed of a sequence of rigorous courses that develop advanced skills and include gifted and talented programs and college preparatory courses.

- **Opportunities to combine academic and vocational curricula**

Career Academies generally refer to programs within schools that combine academic and career-related courses around a theme, with partnerships with local employers. Academies provide a personalized and supportive learning environment and a rigorous and applied

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<sup>20</sup> e.g., Borman, Stringfield and Rachuba, 1998; Cota-Robles and Gordan, 1999; Gándara and Maxwell-Jolly, 1999; The College Board, 1999; Losen, Orfield and Balfanz, 2006; Nettles, Millett and Oh, 2006; Rumberger and Palardy, 2005; Stewart, 2006; Schott, 2008.

<sup>21</sup> Adelman, 1999, 2006; Horn, Kojaku and Carroll, 2001; Perkins et al., 2004; and Bowen, Kurzweil and Tobin, 2005.

<sup>22</sup> See Dougherty et. al., 2006; Giroto and Peterson, 1999; and Meyer, 1999 for critiques; and Adelman, 2006; Attewell and Domina, 2008; Giroto and Peterson, 1999 for example of the more sophisticated studies.

curriculum that are expected to increase student engagement. This way, students learn about career options and acquire skills and experience. Academies took off in the early seventies in an effort to reduce dropout rates and increase college-going and access to the labor market.

Evidence on the success of Career Academies comes from extensive rigorous work by MDRC over the years as well as evidence from California on school-to-career programs (Neumark, 2004) and literature reviews.<sup>23</sup> Additional evidence comes from less-career focused reform programs such as Talent Development or other, similar Philadelphia-based programs.<sup>24</sup> It includes limited evidence on the impact of such programs for African American teens and indirect evidence through the impact on students at high risk of dropping out. These types of programs are found to experience some success, particularly with some subgroups of students (those least likely to do well in a regular high school and young men) and some outcomes (especially labor market outcomes).

It remains unclear whether, when successful, these programs outperform regular high schools, and they are not an easy solution to implement fully and on a large scale. Still lessons can be learned from the ways in which they achieve their successes.

They tend to be small learning communities with carefully-structured programs that provide interpersonal and academic supports, including a coherent curriculum, a stable teaching workforce, counselors with clearly delineated roles and responsibilities, covering course, college and career advisement, and role models. Expectations of teachers and students are high. Thanks to heterogeneous population of students, some of the benefits for high-risk groups may derive from exposure to highly-engaged low-risk peers. In some programs, students move forward

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<sup>23</sup> For MDRC's work, see for example, Kemple, 1997, 2001; Kemple and Rock, 1996; Kemple, Poglinco and Snipes, 1999; Kemple and Scott-Clayton, 2004; Kemple and Snipes, 2000; Smith, 2002. Castellano, Stone and Stringfield (2003), Cohen and Besharov (2002) and Harrison (2004) are examples of extensive literature reviews.

<sup>24</sup> Furstenberg and Neumark (2005, 2007); Jordan et. al. (2000); Kemple, Herlihy and Smith (2005).

together from middle to high school. Some programs offer GED preparation. Learning about and experiencing work opportunities, especially through internships, seems particularly helpful to the future employment of African Americans. Challenges include addressing test scores improvements, perhaps by finding ways to better align curricula with standards and training and encouraging teachers to teach accordingly, and design assessments that value the specificity and richness of the curriculum and discourage teaching to the test.<sup>25</sup>

- **Information on college options, application processes and financial aid**

There is ample evidence that information about college – including requirements, costs, financial aid, and application procedures – is insufficient. African Americans generally rely on schools for information and guidance on the college-going process.<sup>26</sup> Accordingly, Kerpelman, Eryigit and Stephens (2008) and Wimberly (2002) encourage schools to organize activities that provide opportunities for students to interact with the adults in their school, especially potential role models of the same race – for example by having African American college students perform community service in the schools.

The evidence shows that minority students are concentrated in lower-price colleges, such as two-year colleges, as well as less selective colleges and universities.<sup>27</sup> Several studies show that college costs and financial aid are important predictors of college attendance and completion, particularly for minority and low-income students (Kane, 1994, 2003; Martinez and

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<sup>25</sup> See also Castellano, Stone and Stringfield (2003) for a detailed list of recommendations, including structural reform supports (curriculum integration from middle school to college, career exploration beginning in middle school, small career clusters, scheduling for longer learning times, partnerships with business and colleges), increasing capacity for reform supports (interdisciplinary teacher teams with common planning times, improved professional development, work-based learning opportunities), and pedagogical reform supports (high standards, supports, frequent assessments, interdisciplinary curriculum, technology integration), combined with district- or systemic-level support focused on a small number of agreed-upon goals, tied to measures of school improvement, associated with an effective plan for disseminating information, whole school buy-in, and tailoring to local contexts.

<sup>26</sup> Freeman and Thomas, 2002; Losen, Orfield and Balfanz, 2006; Terenzini, Cabrera and Bernal, 2001; Wimberly, 2002.

<sup>27</sup> Baum and Payea, 2004; Wirt, 2004; Thomas and Perna, 2004.

Klopott, 2005). At the same time, additional research indicates that minority students are negatively impacted due to a lack of information about college costs and financial opportunities. The availability of grant aid, more than loans, seems particularly important; a growing body of evidence suggests that grant aid has a large direct effect on college enrollment and persistence by low-income students.<sup>28</sup>

Additional research suggests that changes in financial aid have a differential impact on minorities. African American students in particular seem to be more sensitive than white students to changes in need-based financial aid.<sup>29</sup> Linsenmeier, Rosen and Rouse (2002) engage in a quantitative analysis of the Northeastern University financial aid program that replaces loans with grant aid for low-income students and find that the likelihood of matriculation by low-income minority students increases by 8 to 10 percentage points.

The research on the importance of financial aid in the college-going decisions of minorities is not conclusive. Some authors argue that minority students are underrepresented in college admissions because these students are not acquiring college-ready skills in the K-12 system, and not because of inadequate financial aid or affirmative action policies.<sup>30</sup> In fact, Perna (2000) finds a negative relationship between loans and college enrollment among African Americans, but a strong relationship between social and cultural capital and college enrollment. Cameron and Heckman (1999, 2001) also challenge the relationship between financial aid and college going, arguing that conditioned on ability, responses to tuition are uniform across income groups.

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<sup>28</sup> Dynarski, 1999; Heller, 1997, 2002; Kane, 2003; Oliverez and Tierney, 2005; St. John, 2002; St. John, Tuttle, and Musoba, 2006; St. John et al., 2002; Van der Klaauw, 2002.

<sup>29</sup> Heller, 2002, 2004; St. John, 2003; St. John, Paulsen and Carter, 2005.

<sup>30</sup> Gladieux and Swail, 1999; Greene and Foster, 2003; Wei and Horn, 2002.

While there is no scholarly consensus on which factors have the greatest impact on college choices among African American students, several possible courses of action emerge from the research. Schools should attempt to improve access to information about college options, costs, and financial aid among African American students, and ensure that students are able to ask questions about these materials (Grodsky and Jones, 2007; Oliverez and Tierney, 2005). School counselors can and should play an important role in helping minority students with their college decisions (Muhammad, 2008). College preparation programs, particularly those that effectively involve parents, may also be helpful (Perna and Titus, 2005). Additionally, many authors have concluded that African Americans are more sensitive to the availability of financial aid which suggests that more grants and other need-based financial aid should be available.<sup>31</sup> Providing an early guarantee of aid can also positively impact college preparation and enrollment.<sup>32</sup>

- **Opportunities and incentives such as PSAT/NMSQT and SAT policies**

Encouraging African American teens to take college entrance exams may affect their outcomes. Several states and districts have taken steps to increase the number of poor and minority students who take the PSAT/NMSQT, SAT or ACT with the goal of motivating students towards advanced coursework and college planning (College Board, 2005). These policies may increase the number of students applying to college in a number of ways. First, taking any of these exams may signal to students and their schools that they are capable of doing more advanced college-level work. Second, it increases their prospects for college success. And third, it offers access to resources on the college application process and financial aid, for example, online resources for students where they can view their score report, obtain study plans

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<sup>31</sup> Heller, 2002, 2004; Linsenmeier, Rosen and Rouse, 2002; St. John, Paulsen and Carter, 2005.

<sup>32</sup> St. John et. al., 2002; St. John and Hu, 2004; St. John, Tuttle, and Mussoba, 2006.

and connect to college profiles. This increased access to information on colleges, programs and financial aid may help students who had not previously thought of applying to college pursue further educational options.

Little research is available on the impact of such policies beyond participation rates. Most of this research comes from the College Board itself. These analyses have primarily examined the relationship between PSAT/NMSQT scores and high school achievement, including participation and performance in AP courses and have generally found that SAT scores are significantly correlated with graduation rates, with some variation by ethnicity and gender, including lower graduation rates for African Americans (Burton and Ramist, 2001). Still, the recent experience of several states holds promise.

Evidence from Florida suggests that administration of the PSAT/NMSQT or the Preliminary ACT (PLAN) to all tenth graders free of charge was followed by increases in test-taking overall,<sup>33</sup> including an above-average increase in SAT test-taking by African Americans (by 10 percent versus 8 percent on average) (Duval School District, 2007).<sup>34</sup> Participation rates also increased in Montgomery County, Maryland, which started implementing a Universal PSAT/NMSQT program in 2003, with significant increases among minority, as well as special education and English language learner, students although their participation remained statistically significantly lower than among white, general education students (Von Secker, 2004, 2005).

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<sup>33</sup> [www.collegeboard.com](http://www.collegeboard.com), retrieved December 16, 2007.

<sup>34</sup> Required testing, subsidized testing for at least some students and/or incorporation of SAT or ACT into standardized testing programs are also in place in Illinois, Maine, Michigan, Mississippi, North and South Carolina, Tennessee, and Virginia, and under consideration in Vermont (Education Commission of the States, 2007; Maine Department of Education website, 2007; Olson, 2006; Virginia Department of Education, 2007).

Scheduling of the test might also help increase test-taking: in 2006, the New York City Department of Education (NYCDOE) began offering the PSAT/NMSQT free-of-charge and during the school day, rather than on the weekend, to all 10<sup>th</sup> and 11<sup>th</sup> grade students. Early evidence suggests that these policies have increased test-taking; in January 2007, NYCDOE reported that 75 percent of 10<sup>th</sup> and 11<sup>th</sup> graders took the PSAT/NMSQT in fall 2006 compared to 31 percent the previous year.

Further, incorporating the SAT or ACT into standardized testing programs, for example as a high school exit exam, may have an additional impact. In Colorado, all 11<sup>th</sup> graders are required to take the ACT, which not only functions as a standardized means of assessing the high schools throughout Colorado, but also as a key to the college application process. Since 2001, in-state undergraduate enrollment in Colorado increased by 12 percent, especially rising among minority student populations, which the Colorado Department of Education attributes, in part, to the increased participation in the ACT (Colorado Department of Education, 2006; Olson, 2006).

- **Supplementary academic and extracurricular support**

There is evidence from both small and large studies, including careful quantitative studies, that while disadvantaged students are less likely to participate in compensatory educational activities, students who receive additional services perform at higher levels and have higher expectations than those who do not.<sup>35</sup> This is particularly true of African American students, especially those who take advanced courses. There is also evidence of improved discipline (Monroe, 2005), psychological adjustment (Fredrick and Eccles, 2006), sense of belonging – including better relationships with teachers and less perceived racial discrimination

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<sup>35</sup> Faircloth and Hamm, 2005; Flowers, 2007; Fredrick and Eccles, 2006; Kerpelman, Eryigit and Stephens, 2008; Lipscomb, 2005; Stewart, 2006; Terenzini, Cabrera and Bernal, 2001.

(Faircloth and Hamm, 2005), and higher expectations of attaining a bachelor's degree (Lipscomb, 2005).

The literature suggests many options to address a range of weaknesses and challenges that face African American teens. Policies could include the provision of remediation for students who begin high school underprepared from middle school, makeup sessions for failing students, counseling, tutoring, academic programs specifically designed to support and engage African American students, dropout prevention programs, programs for students who are returning to high school after long suspensions, incarceration or pregnancy, and extra-curricular activities.<sup>36</sup> Flowers (2007) suggests that particularly helpful are opportunities to use the library as a place to study, discuss courses, potential careers, and art and humanities with instructors, participate in classroom discussions, work on practical projects, and gain access to gym facilities.

Researchers suggest that programs be available to all students in need, tailored to their achievement levels and begin as early as the ninth grade, which is often when students make the decision to drop out. Supplementary education is a growing sector, which has been the subject of little evaluation to date. High-achieving students from wealthy backgrounds are known to make much use of it, so it seems worth exploring its potential for low-achieving minority students.<sup>37</sup>

Although core course failure (reading and math) in middle school is a high predictor of later dropout, preventing a ripple effect can help get a student back on track. Fortunately, schools have information on course failure, facilitating intervention and support. Balfanz, Herzog and Mac Iver (2007) suggest a number of policies, such as providing students who fail a course with

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<sup>36</sup> The Civil Rights Project at Harvard University, 2005; Cota-Robles and Gordan, 1999; Losen, Orfield and Balfanz, 2006; The College Board, 1999.

<sup>37</sup> Notably, financial rewards for high achievement are increasingly being used across the nation, but it is too early to gauge of their success. The scant available evidence (see for example Gootman (2008) on New York City) is mixed and has not yet addressed the particular potential of such incentives for African American teens.

appropriate instruction and classroom support, additional coursework to make up for material not mastered, advance preparation for upcoming topics, and small group instruction and individual tutoring.

Finally, partaking in high school sports is noteworthy, with a positive effect on the educational attainment and earnings of African American boys (Eide and Ronan, 2001).<sup>38</sup>

- **The importance of peer groups**

- **In schools**

With school resegregation on the rise, it is important to examine the impact of peer effects on student achievement, particularly among minority students. A significant body of research focuses on the effects that students' peers have on their academic performance. While school desegregation initially led to more peer diversity at the school level, evidence shows that the average percentage of African Americans' classmates who are white has declined in recent years, and over 50 percent of all African American and Hispanic students in the United States attended high minority schools (defined as schools in which 75 percent or more of the students were African American, Hispanic, Asian/Pacific Islander, or American Indian/Alaska Native) in 2005-06 (U.S. Department of Education, 2008).

Several researchers have found that a racially heterogeneous student body has a positive effect on minority student achievement. Stiefel, Schwartz and Chellman (2007) show that the racial achievement gap is greatest across segregated schools rather than within integrated ones. Similarly, Guryan (2004) finds that desegregation plans led to a decline in the dropout rates of African American students while desegregation had little or no effect on the dropout rates of

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<sup>38</sup> We found little evidence on participation in the arts. Flowers, whose 2007 study focused on African Americans, concluded that it did not substantially influence achievement.

white students. There is also evidence that test scores are lower at schools with a higher African American enrollment share (Hanushek, Kain and Rivkin, 2004).

The above evidence suggests that schools would benefit from enhanced desegregation efforts, yet several researchers question the benefits and effectiveness of such programs. Angrist and Lang (2002) study Metco, a long-running desegregation program of the Boston public school district, and find that positive peer effects are modest and short-lived. Babcock (2006) uses micro-level data on social networks to determine that an individual's education attainment and probability of attending college increases with the connectedness of her cohort (as measured by friendship ties) and that connectedness is associated with a less racially heterogeneous cohort within a given school. Other authors find that student body composition matters, but the percentage of students living in poverty is a better indicator of the challenges schools face in enhancing student achievement than is the racial-ethnic composition.<sup>39</sup>

While part of the literature suggests that expanded inter-racial contact improves both academic and labor market outcomes for African Americans (Rivkin and Welch, 2006), others have concluded that being part of a more racially diverse school may not be so beneficial or may even be negative in some respects (Babcock, 2006; Fryer and Levitt, 2006). Therefore, it is unclear whether policies should attempt to create more integrated schools. Furthermore, if peer effects are similar across the test score distribution, a reallocation of students will have little impact on the overall school average (Hanushek et. al., 2003). Given the costs and efforts associated with school desegregation programs, and in light of mixed results on the effectiveness of such programs, they should be considered cautiously. Rumberger and Pallardy (2005) suggest

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<sup>39</sup> Murnane, Willett, Bub and McCartney, 2006; Rumberger and Pallardy, 2005.

that altering school policies and practices, namely addressing teacher expectations and academic climate, may have a larger impact.

- **In classrooms**

One of the most prominent policies in the debate over classroom-level diversity is student tracking. Tracking refers to the practice of assigning students to classrooms based on ability, and as such, is a specific policy that constrains the ability of students to mix. Proponents argue that teachers will be able to tailor instruction to groups of students with homogenous skill levels, teaching will be easier and learning will increase. There is usually a higher academic track and a lower, vocational track.

Tracking raises both effectiveness and equity issues. Is tracking effective and if so, is it more effective than other ways to group students? Is it equitable i.e., do all students benefit equally? These are critical questions as there is evidence that tracking is extensive and that poor and minority students are more likely to be enrolled in lower tracks.<sup>40</sup> Answers to these questions will depend on whether the groups created are truly homogeneous, and there is early evidence to the contrary: based on a review of studies which she describes as rigorous, Hallinan (1994) suggests that factors other than ability, such as scheduling and teacher resources, affect tracking and how students are tracked varies across schools, and students often change tracks within and across years.

Race may be one factor that affects tracking and homogeneity. Hochschild (2003) reviews evidence that indicates that, while tracking is not determined by race directly, it is indirectly discriminatory on the basis of class, and achievement tests, which are the grounds for

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<sup>40</sup> Condrón, 2008; Hallinan, 1994; Rees, Argys and Brewer, 1996.

ability tracking, may be racially biased. Thus it is particularly important to the achievement of African American teens to review the relevant evidence on tracking.

Research conducted over the past decade includes some high-quality, careful, sophisticated studies, taking advantage of large rich datasets.<sup>41</sup> Findings are mixed and the research community has been debating whether research has correctly identified the existence and magnitude of effects and whether available data and statistical techniques can do so.<sup>42</sup>

It appears that peers' ability and race affect student achievement at all levels (Hanushek et. al., 1999). There is a fairly widespread consensus that lower-achieving students would benefit from attending class alongside their higher-achieving peers and evidence that African Americans are particularly disadvantaged by being surrounded by other minority students.<sup>43</sup> There is more disagreement on the effect on students in the upper tracks, where instruction is often found to be of higher quality and students learn faster (Hallinan, 1994), and these students may be negatively affected (Rees, Argys and Brewer, 1996; Condrón, 2008) or unaffected (Zimmer, 2003) by de-tracking.

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<sup>41</sup> For example, it includes production functions estimated with a nationally representative survey conducted by the NCES that effectively isolate the effect of track on student achievement (Rees, Argys and Brewer, 1996); achievement growth models with fixed student and school-by-grade effects, using a unique matched panel data set which tracks three successive cohorts of Texas public *elementary* students as they progress through school, beginning with students who attended third grade in 1992, and with over 200,000 students in over 3,000 public schools in each cohort (Hanushek et. al., 1999); cross-country comparisons using a difference-in-difference approach to account for country heterogeneity and isolate the effect of tracking by comparing differences in outcome between primary and secondary school across tracked and non-tracked systems (Hanushek and Wossmann, 2006); and national longitudinal data from the first- and third-grade waves of the Early Childhood Longitudinal Study-Kindergarten Cohort and propensity score matching (to address selection issues) to estimate the impact of tracking on reading gains compared to what instruction would have been for students at various levels of ability had they been assigned to heterogeneous classes (Condrón, 2008).

<sup>42</sup> Betts and Shkolnik, 1999; Rees, Argys and Brewer, 2000.

<sup>43</sup> Rees, Argys and Brewer, 1996; Betts and Shkolnik, 2000; Condrón, 2008; Hanushek et. al., 2003; Hanushek and Wossmann, 2006; Hoxby, 2000; Schindler-Rangvid, 2003; Summers and Wolfe, 1977; Sund, 2006, 2007; Winston and Zimmerman, 2003; Zimmer, 2003.

Overall, results may be too inconclusive to warrant policy changes, effects may be too small, and whether costs to some students outweigh benefits to others is unclear.<sup>44</sup> At the very least, Sund (2007) suggests that tracking does not appear to be the most efficient way to allocate students when the goal is to raise educational output in high school.

Thus, it seems that, rather than taking a stance on tracking, the most practical recommendation would be to find ways to improve tracking where it prevails. As some of this research, as well as research reviewed in previous sections, suggests, quality instruction and challenging curricula are key, and perhaps the priority is to ensure that they be available across tracks (Hallinan, 1994; Hochschild, 2003).<sup>45</sup>

- **Reduced special education referrals**

The placement of African American students in special education classes is a complex, long-standing problem. The magnitude of the problem of over-representation of minority students, especially African American males, was noted in every literature review on special education examined for this paper. Farkas (2003) notes that, although there are no hard data to demonstrate clear patterns of racial discrimination on the part of teachers, African American students are more likely to be referred to special education because of perceived deficits by educators – lower skills, ability and maturity than same age white students – and because educators tend to have lower expectations of African American students and judge their misbehavior more harshly.

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<sup>44</sup> Condrón, 2008; Hanushek et. al., 1999; Hanushek and Wossmann, 2006; Hochschild, 2003

<sup>45</sup> Hallinan also suggests providing supports, incentives and rewards, to reduce inequality across tracks; Integrating non-tracked classes and other school activities so students may benefit from exposure to higher-ability peers and peers with different demographic and other characteristics; taking into account non-academic talents when grouping students to increased heterogeneity along non-academic lines; employing assignment criteria that increase integration if they do not threaten homogeneity in ability; and assigning students carefully and monitor progress to make the appropriate adjustments.

Unfortunately, the literature is not voluminous on specific recommendations to address this issue. Authors generally recommend broad policies that address the sources of the low performance and fewer opportunities that African American teens have, such as poverty, segregation, and unequal school funding, quality and resources or narrower areas covered elsewhere in this paper, such as hiring more African American teachers, training teachers to teach for diversity and tracking, and they advocate further research into these domains as well as special education placement (Artiles et. al., 2002; Blanchett, 2006; Farkas, 2003).

One exception is Salend *et. al.* (2002) who, based on a literature review, recommend designing policies and programs that address special education referrals, assessments, placements and services, with a focus on diversity and inclusion, in an effort to reduce racial bias and cultural misinterpretation in the special education referral process. They suggest that schools should use alternatives to traditional assessments before recommending students for special education, and English language learners should have their skills assessed in their primary language first. They emphasize the importance of involving diverse faculty in special education referrals and assessments, as well as the importance of adapting special education curricula and teaching styles to the needs of a diverse student population. Behavior management strategies and discipline issues also need to be culturally and linguistically modified. More general recommendations will help as well, such as improving relationships among teachers, students and families, and involving families and the local community as part of a supportive school environment.

- **Offer structural options such as**
  - **Small learning environments**

The school size debate dates back at least half a century to James Contant's (1959) support for the large comprehensive high schools developed at the turn of the 20<sup>th</sup> century. A large body of research has emerged on the benefits and costs of small school reform in recent years as an increasing number of small schools have emerged across the country, particularly in urban areas.

Fowler and Walberg (1991) and Fowler (1992) review literature theorizing that schools with approximately 1,500 students or fewer result in superior outcomes for minority and poor youth. Many reasons are proposed to explain a small school advantage for disadvantaged students: that social aspects of the school serve as an intervening variable between size and student performance; that there are high perceived expectations in small schools for all students; that teachers and administrators have more ability to nurture student needs, which are higher for disadvantaged students; that there are more opportunities to participate in extracurricular activities; and that there is better student behavior.<sup>46</sup>

Some empirical analysis suggests that small schools provide benefits to all student types relative to large schools. Lee and Smith (1995), for example, find that smaller schools produce achievement gains for all students, but also that the distribution of those gains across socioeconomic status and race is more equitable in smaller schools. Other researchers find that large schools do not have particularly negative effects on disadvantaged students, and small schools better serve disadvantaged students not only vis-à-vis absolute achievement levels (Howley et al., 2002; Bickel et. al., 2000), but also with respect to achievement gaps (McMillen, 2004). None of these studies, however, addresses the potential selection bias or endogeneity of the school choice decisions.

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<sup>46</sup> Barker and Gump, 1964; Lindsay, 1982; Gottfredson, 1985; Entwisle, 1990; Haller, 1992; Lee and Burkham, 2003.

Small school size has been shown to provide positive social as well as academic environments for students; research has shown more positive personal interactions between teachers and students, between teachers and teachers, and between teachers and administrative staff in small high schools, which may, in turn, contribute to small schools' higher student outcomes (Finn and Voelkl, 1993). Many researchers attribute this positive social and academic environment to the fact that teachers in small high schools interact with fewer students and are thus able to tailor their teaching to students' needs and provide personalized assistance to students who need additional help (Lee and Loeb, 2000; Wasley et. al., 2000).

In addition to the social benefits, some research has shown that students in small high schools have higher achievement outcomes than those in large schools. Lee and Smith (1995) found a positive relationship between student gains in reading, math, history and science, and small high school size. Moreover, small schools are more likely to be violence-free and have better-behaved students, which, in turn, has been found to contribute to higher attendance and lower dropout and truancy rates (Raywid, 1997; Wasley, et al. 2000). Additionally, Lee and Loeb (2000) argue that the more focused curriculum in many small high schools enables almost all students to have similar academic experiences regardless of their interests, abilities or social background, resulting in higher academic achievement overall, as well as achievement that is more equitably distributed.

However, additional research suggests that small schools may create unintended consequences for equity and segregation. Contrary to most analyses of school size that used NELS: 88, Schneider, Wyse and Keesler (2007) examine the Education Longitudinal Study of 2002 (ELS: 2002) using hierarchical linear modeling and propensity score matching techniques. The authors find that small schools may have detrimental effects for certain groups of students.

Another concern is that creating smaller schools can cause overcrowding in the remaining large high schools, which may have consequences for inequality if these schools are predominantly attended by minorities and low-income students. Small schools may not be as good for minority children as they are for whites as Perry (2003) notes, pointing to the evidence of small schools in Boston and Cambridge, Massachusetts.

Despite the criticisms of some researchers, the majority of research on small schools points to the promise of these types of reform. Small schools have the potential to improve student academic performance as well as the learning and social environments within the school. However, Fine and Somerville (1998) note that: “Experience and research make very clear that school size does indeed matter – but they also make clear that ‘small’ is no silver bullet” (p. 104). Lee and Smith (2001) argue that small size is a “facilitating factor for creating organizational features of schools that we have shown to be important determinants of learning” (p. 157). Therefore, it becomes important to understand the performance of small schools within their organizational context, especially since many small high schools, notably those created by recent reform movements, are start-up organizations.

- **Themed schools focusing on African American culture**

The Afro-centric curriculum reform movement developed in the late 1960s as parents demanded more culturally inclusive curricula and more representation of African American history and culture. In theory, an Afro-centric curriculum is expected to help raise the achievement of African American teens because it is adapted to African American teens’ learning and testing styles and intertwines African American culture into pedagogy and curriculum (Giddings 2001; Ginwright, 2000). As Lewis *et. al.* (2006) further explain, it aims to inspire them to succeed, boost their shared orientation, increase their connection to school, and

get them interested in social change. Lewis *et. al.* (2006) cite a 1992 study by Joan Ratteray where alumni of Afro-centric schools praise their schools for report a number of positive characteristics about their schools, including the rigorous, culturally-sensitive academic curricula, a family-like school climate, good relationships with teachers, and small size.

Unfortunately, Afro-centric curricula and schools are not widespread, therefore, the research base is thin and provides insufficient evidence on success. Few schools in the country offer an Afro-centric curriculum and reform efforts in that direction have not necessarily put into practice. Giddings (2001) reports on efforts in Philadelphia in the 1990s, for example, but the reform seems to have been largely unimplemented. Further, Afro-centric schools may not be all that appealing to African American families. Bifulco and Ladd (2006) find that many parents, especially those without a college education, will not choose those schools over other options when available, in part because of reluctance to send their children to highly segregated schools.

There is limited evidence of success from small studies conducted during the 1990s. Asante (1992) employs qualitative research methods and finds that children who benefited from an Afro-centric education were more motivated, disciplined and successful in school. Manley's (1994) surveys and interviews reveal an increased interest in schoolwork on the part of less-motivated, lower performing students. The study by Ratteray (Lewis *et. al.*, 2006) finds positive effects of Afro-centric schools on African Americans' college preparatory test performance, high school graduation, college enrollment rates, and applications to high status jobs.

Still there is a lack of large, longitudinal quantitative studies in this area to provide definitive answers, allow for comparisons, and disentangle the role of Afro-centric curricula from those of confounding factors such as selection, the range of choices available, and parents'

education and socio-economic status, whence the limited evidence so far (Cooper and Jordan, 2005; Manley, 1994).

This is a conundrum. Clearly, more research is needed to better understand if and how Afro-centric schools could benefit African-American teens, but the challenge is then to convince school districts that such curricula hold potential and are at least harmless, and to adopt them on a large enough range to allow for quality evaluations.

- **Single-sex schools**

Would single-sex schools enhance the achievement of African American teens? Glasser (2008) provides the arguments hailed by supporters and opponents of single sex education. First, supporters argue that boys need to be taught separately so they will not dominate discussions and activities, and to address their academic underachievement and distractions. As confirmation, the US Department of Education (USDOE) (2008) reports on site visits in which principals and teachers express beliefs that the main benefits of single-sex schooling are indeed fewer distractions from learning and higher achievement.

Opponents of single-sex education, on the other hand, claim that educating children together better prepares them for the “real world” and enhances equity between the sexes.

The evidence is mixed: USDOE’s (2008) systematic literature review includes 53 percent of studies that report no effects, 10 percent with mixed results (depending on sex and grade level) and 35 percent that find positive effects of single-sex schooling. The lack of conclusive evidence may be related to implementation issues: USDOE (2008) also describes site visits in eight single sex schools that result in little evidence of substantive modifications of curricula to address specific needs of boys or girls.

Hubbard and Datnow (2005) also report that the educational experience varies by gender

and across ethnic and racial groups, suggesting potential for single-sex education for some groups in spite of the inconclusive evidence overall. Evidence for African Americans seems equally mixed, however. Singh *et. al.* (1998) compare two single-sex and two coed fifth grade classes (a total of 90 students) and find that class grades are sometimes higher in single sex classes but other times the same. There was no clear pattern in standardized test scores. The authors hypothesize that single-sex schooling, through reorganization of the classroom environment, exerts a stronger influence on class grades. Such small studies make it difficult to control for the effect of confounding factors, as is confirmed by Hubbard and Datnow's (2005) two-year ethnographic study of poor, minority students in single-sex schools in California. For them, single-sex schools does indeed show some success but this success was due only in part to their single-sex nature, and more due to organizational features, good relationships between students and teachers and high resources.

Perhaps the answer lies in further study of successful single-sex schools to understand and replicate other features that may be responsible for their success.

- **Charter schools**

While charter schools have been proliferating since the first law was passed in 1991, and served more than 825,000 students in 2004 (Stoddard and Corcoran, 2007), it is unclear whether they are successful in general and, in particular, with African American students (Zimmer and Buddin, 2005).

There is some evidence, mostly from the elementary and middle school levels, that average achievement is the same or higher and improves at a faster pace in regular public schools than in charter schools, including for African American students.<sup>47</sup> Even when pockets of

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<sup>47</sup> Bettinger, 2005; Carnoy *et. al.* 2006; Nelson *et. al.*, 2004.

success are identified (e.g., higher high school completion and college entry for multi-grade charter high schools in Chicago as in Booker, Gill, Zimmer, and Sass, 2008), it is nearly impossible to generalize.

Further, there is evidence from large, longitudinal datasets that charter schools start off at a disadvantage but then their students catch up and sometimes overtake their regular public school counterparts after a few years; examples of this can be seen in Florida (Sass, 2006), Wisconsin (Witte, 2007), and Texas (Booker, 2007). Yet these successes do not seem to benefit minorities (Nelson et. al., 2004), even in evidence also supported by data from large school systems [see Bifulco and Ladd (2006) on North Carolina and Zimmer and Budding (2006) on Los Angeles and San Diego].

Overall, the inconclusive evidence from elementary and middle schools and the limited research at the high school level due to the dearth of relevant comprehensive data sources seem to call for more research on whether and how charter schools can improve African American teen achievement before policy can be designed and implemented with confidence.

- **Engage**
  - **Parents and communities in supporting students**

Parents can foster student achievement in several ways. Their support, involvement, and expectations, especially those of mothers, have been widely shown to affect students' expectations and outcomes, including grades and attendance, as well as the likelihood that they will continue on to college.<sup>48</sup> Mothers seem to play a particularly important role in the case of

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<sup>48</sup> Brooks-Gunn and Markman, 2005; Charles, Roscigno and Torres, 2007; Grodsky and Jones, 2007; Ferguson, 2005; Kerpelman, Eryigit and Stephens, 2008; Murnane et. al., 2006; Stewart, 2006; Taylor and Lopez, 2005.

African American students. Taylor and Lopez (2005) find that the degree to which parents organize their homes affects both their own involvement and their children's outcomes.<sup>49</sup>

Some authors urge caution as more research is needed on African American parent involvement and resources that can affect their children's education (Nettles, Millett and Oh, 2006), yet others have suggestions for policy, especially for helpful components of parenting programs. Kerpelman, Eryigit and Stephens (2008) recommend parents learn to praise their teenage children and encourage them to be positive and ambitious when it comes to their education, to actively participate in curricular and extracurricular activities, and to discount negative peer pressure. Charles, Roscigno and Torres (2007) propose that parents reinforce their children's desire and expectations to go to college by helping them establish goals and plans to reach them, including courses to take and activities to undertake, and formulate together a plan for financing college-going, based on own resources and financial aid information. The evidence in Taylor and Lopez (2005) suggests that, in addition to encouraging parents to have high expectations for their children, school leaders should find ways to get parents more involved by encouraging them to attend meetings and events in the school and following their children's homework and by finding resources and programs that parents can use to better organize their homes and home lives.

Thus, it appears that parenting programs hold promise as a policy tool to raise African American student achievement and, although further research is warranted, Ferguson (2005, 2007) points to a number of such programs that have exhibited some evidence of success with respect to raising the performance of African American teens. These programs focus on teens

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<sup>49</sup> They indicate that African American teens appear to respond well to routines and organization, which teach them accountability, a sense of duty, persistence, and other skills that help them in school. Teens raised in these circumstances are found to attend school regularly, focus, behave, fulfill homework requirements, perform at higher levels, and have fewer disciplinary and emotional problems.

and parents reading together regularly at home or school, working on homework together and spending more time on learning activities rather than watching television.

Programs to help parents *beyond* their interactions with their children show promise as well, especially if they can help make up for the resources poor African American parents may not have that other parents do. Such programs include: helping close resource disparities by providing parents with books and learning materials to help their children at home; facilitating relationships between parents and school staff; helping parents gain access to services such as physical and mental health care; and stress, home and family management.

Since the evidence on programs for the parents of African American teens is limited, it may be instructive to consider insight from programs aimed at younger children. Some programs have proven successful at improving parenting skills and some of those have helped improve school readiness as well (Brooks-Gunn and Markman, 2005). Home- and center-based programs that are aimed at poor families, and in fact reaching primarily minority families, and that specifically address parenting skills, improve care, discipline and parent-child relationships are promising. Center-based programs seem most effective in that they also improve school readiness, and some family literacy programs help as well. These programs are particularly effective with minority parents, which helps to reduce the racial gap.

- **Use Data to Monitor Programs and Identify Successful Interventions**

Many schools and districts are committed to raising the achievement of their African American students. Data, and in particular data on student subgroups, are now routinely collected in the context of increased accountability and No Child Left Behind. Researchers recommend that district leaders leverage these data investments to monitor African American student progress as early as middle school, make adjustments to programs and services, and identify and

share successful practices (to replicate) as well as failing ones (to revise or abandon).<sup>50</sup> School staff need information in a timely manner and they need help in learning where to start in the analysis of the sometimes vast amounts of data available and how to use findings as incentives, encouragement and for learning. Guidance and training, as well as involving a range of stakeholders across the district in a safe environment, are key to providing the knowledge and necessary levels of comfort and trust to effectively obtain and use vast amounts of data to improve teaching and learning.<sup>51</sup> Additionally, commissioning rigorous evaluations of the programs and reforms already in place would confirm their potential and help spread best practices.

Richard Murnane and colleagues have devised DataWise, a plan to help schools use data to improve student achievement, through a collaboration between Boston Public Schools and Harvard Graduate School of Education faculty and students.<sup>52</sup> DataWise organizes the work into three phases broken down into a series of clear steps.<sup>53</sup> The preparation phase lays the groundwork for learning from student assessment results. First, it enables group work, including cross-school collaboration. The second step is the actual learning of how to use assessments, mastering relevant software and analytical tools and incorporating other sources of data.<sup>54</sup> The inquiry phase comes next, in which school staff put together and examine data, describe and compare student subgroups, identify and discuss questions and problems, and relate them to

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<sup>50</sup> Cota-Robles and Gordan, 1999; The College Board, 1999; Losen, Orfield and Balfanz, 2006; Nettles, Millett and Oh, 2006; Balfanz, Herzog and Mac Iver, 2007.

<sup>51</sup> See as example experiences: Chattanooga, Tennessee (Vaughan and Kelly, 2008); Naperville, near Chicago (Chiszar, 2008); and Midwestern schools and districts (Shen and Cooley, 2008).

<sup>52</sup> Boudett et. al., 2005; Boudett, City and Murnane, 2005, 2006; Murnane, City and Singleton, 2008; Murnane, Sharkey and Boudett, 2005; Sharkey and Murnane, 2003.

<sup>53</sup> For a fuller summary of the process, see Shirley Key's review of Bourdett, City and Murnane (2005) at <http://www.lib.msu.edu/corby/reviews/posted/boudett.htm>. For the design of professional development around data use, see in particular Boudett et. al. (2005).

<sup>54</sup> See for example: Shen and Cooley, 2008; Mishook et. al., 2008; and Vaughan and Kelly (2008) on valuable data sources and indicators and how to leverage them.

instructional practices, both current and best ones. Finally, a plan for instructional improvements is designed, implemented and assessed in the action phase.

## **SUMMARY**

Our review of the research to unearth levers of change in the academic achievement of African American teens has identified many interesting ideas, summarized below. The evidence on most is limited. The few promising strategies are probably effective with all children, not just African Americans, and especially with poor children – which may make related suggestions for reform more palatable. Not all of the areas we explore are equally promising. In particular, ways to structure schools beyond creating small schools seem to warrant much more research and evaluation. On the other hand, providing students with more information on college going and enabling them to take college entrance exams for free may be particularly promising levers, as they seem feasible and their cost is relatively low. There is much hope for the success of African American teens in school, the workforce and society.

- **Recruit teachers who are:**
  - **Highly qualified**
  - **Possibly African-American**
- **Train teachers (professional development) to:**
  - **Manage cultural, racial and ethnic diversity**
  - **Resolve conflict**
  - **Expect high achievement from African American students**
- **Design school policies to:**
  - **Increase attendance**
  - **Reduce disruption due to disciplinary action**
  - **Foster relationships among students and adults**

- **Provide:**
  - **Academically advanced courses e.g., college preparatory courses, advanced placement and gifted and talented programs**
  - **Opportunities to combine academic and vocational curricula**
  - **Information on college options, application processes and financial aid**
  - **Opportunities and incentives such as PSAT/NMSQT and SAT policies**
  - **Supplementary academic and extracurricular support**
  - **The importance of peer groups:**
    - **In schools**
    - **In classrooms**
  - **Reduced special education referrals**
- **Offer structural options such as:**
  - **Small learning environments**
  - **Themed schools focusing on African American culture**
  - **Single-sex schools**
  - **Charter Schools**
- **Engage:**
  - **Parents and communities in supporting students**
- **Use :**
  - **Data to monitor programs and identify successful interventions**

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## APPENDIX A

### **Do African American students oppose academic achievement because it is considered “acting white?”**

There is a fair amount of literature on the disengagement of African American students from school, especially boys, from the early grades all the way up to college, and some on the relationship between disengagement and lower academic achievement and lesser likelihood of college-going (Balfanz, Herzog and Mac Iver, 2007; Borman, Stringfield and Rachuba, 1998; Ford, Grantham and Whiting, 2008; Gándara and Maxwell-Jolly, 1999; Terenzini, Cabrera and Bernal, 2001).

The evidence is not entirely convincing however. First, this is one area where it is difficult to disentangle race and poverty. Second, at the core of the strand of literature that specifically examines African Americans is increasingly controversial, somewhat older work (by Ogbu and others) suggesting that African American students do not pursue high achievement for fear of being accused of “acting white.” Fordham and Ogbu’s 1986 ethnographic study of a high school in Washington, D.C., for example, is cited countless times in support of this argument. Yet Ogbu himself, in more recent work (2003, 2004) argues that his 1986 paper was misunderstood and that, instead, based on his own previous work, “few students (...) reject good grades because it is “White.” (...) What the students reject that hurt their academic performance are “white” attitudes and behaviors conducive to making good grades.” (Ogbu, 2004) In his ethnographic study of an upper-middle-class suburb (Ogbu, 2003), he finds that acting white and

peer pressure are one of several factors to which African American students attribute their minimum effort in school and he stresses the importance of community forces.

Much of the more recent evidence leans toward positive attitudes of African American students towards schooling and high achievement, and mitigated effects of “acting white.” Common findings include African American students being no more or less likely than other ethnic groups to be praised or criticized for high achievement by their peers, “acting white” being often more related to students’ language use, interests and social interactions rather than their achievement, and a strong ethnic identity being positively associated with hopes and expectations. This work includes:

- Larger, quantitative studies:
  - Fryer (2006) and Fryer and Torelli (2005), using Adhealth, a nationally representative sample of more than 90,000 students, from 175 schools in 80 communities, who entered grades 7 through 12 in the 1994 school year find that oppositional culture is limited to a subset of American schools, mostly racially integrated public schools.
  - Charles, Roscigno and Torres (2007) estimate regression models with a sample of 14,000 students from NELS:88 and find that background inequalities are the determinant of the black-white gap in college attendance, through their effect on family investments and achievement.
  - Using data from the Maryland Adolescence Development In Context Study (MADICS), examining 24 outcomes for a non-nationally representative sample of 1,500 middle and high school students in the early 90s, and regression analyses on pooled cross sections, Harris (2006) find that their results challenge enough tenets of the prevalent theory that researchers and policymakers should be at least open to alternative explanations. African

American youths want to learn; they simply are not acquiring skills necessary for academic success.

- Based on survey data of almost 7,000 school students in several districts nationwide, acting white is not about achievement but personal style (Ferguson, 2006, 2007)

- Smaller, ethnographic work:

- No evidence of oppositional culture in interviews and existing data from eight North Carolina secondary public schools. Further, racialized peer pressure against high academic achievement is not prevalent in all schools. The analysis also shows similarities in the experiences of African American and white high-achieving students, who are accused of “acting high and mighty” rather than “Acting white.” (Tyson, Darity and Castellino, 2005)

- No such evidence in interviews with African American and white students in one desegregated secondary school (Diamond, Lewis and Gordon, 2007)

- Or from a qualitative study of African American children attending two low-income urban *elementary* schools in California. (Lewis and Kim, 2008)

- Kerpelman, Eryigit and Stephens (2008) survey 374 African American high school students in a rural, southern public school, and find that ethnic identity is one of the strongest predictors of future education orientation

- Literature reviews:

- Overall, no evidence of oppositional culture (Downey, 2008)
- For Diamond (undated working paper), it is more about classrooms, schools, neighborhood and resources, and perhaps how they interact with oppositional culture.

## APPENDIX B

### Reading List

Attewell, P. & Domina, T. (2008). Raising the Bar: Curricular Intensity and Academic Performance. *Educational Evaluation and Policy Analysis*. 30(1): 51-71.

*Using national transcript data, the authors examine inequality in access to an advanced curriculum in high school and assess the consequences of curricular intensity on test scores and college entry. Inequalities in curricular intensity are primarily explained by student socioeconomic status effects that operate within schools rather than between schools. They find significant positive effects of taking a more intense curriculum on 12th-grade test scores and in probabilities of entry to and completion of college. However, the effect sizes of curricular intensity are generally modest, smaller than advocates of curricular upgrading policies have implied.*

Cameron, S. V. & Heckman, J. J. (2001). The Dynamics of Educational Attainment for Black, Hispanic and White Males. *Journal of Political Economy*. 109(3): 455-499.

*This paper estimates a dynamic model of schooling attainment to investigate the sources of racial and ethnic disparity in college attendance. Parental income in the child's adolescent years is a strong predictor of this disparity. This is widely interpreted to mean that credit constraints facing families during the college-going years are important. Using NLSY data, we find that it is the long-run factors associated with parental background and family environment, and not credit constraints facing prospective students in the college-going years, that account for most of the racial-ethnic college-going differential. Policies aimed at improving these long-term family and environmental factors are more likely to be successful in eliminating college attendance differentials than short-term tuition reduction and family income supplement policies aimed at families with college age children.*

Dee, T. S. (2005). A Teacher Like Me: Does Race, Ethnicity, or Gender Matter? *American Economic Review*. 95(2): 158-165.

*The results presented here indicate that the racial, ethnic, and gender dynamics between students and teachers have consistently large effects on teacher perceptions of student performance.*

Ferguson, R. (2003). Teachers' Perceptions and Expectations and the Black-White test score gap. *Urban Education*. 38(4): 460-50.

*Scholars have documented that Black students enter kindergarten with weaker reading skills than their White counterparts and that this disparity sometimes persists through secondary school. This Black-White performance gap is even more evident when comparing students whose parents have equal years of schooling. This article*

*evaluates how schools can positively affect this disparity by examining two potential sources for this difference: teachers and students. It provides evidence for the proposition that teachers' perceptions, expectations, and behaviors interact with students' beliefs, behaviors, and work habits in ways that help to perpetuate the Black-White test score gap.*

Fryer, R.G. & Levitt, S.D. (2004). Understanding the Black-White Test Score Gap in the First Two Years of School. *Review of Economics and Statistics*. 86(2): 447-464

*In previous research, a substantial gap in test scores between white and black students persists, even after controlling for a wide range of observable characteristics. Using a newly available data set (the Early Childhood Longitudinal Study), we demonstrate that in stark contrast to earlier studies, the black-white test score gap among incoming kindergartners disappears when we control for a small number of covariates. Real gains by black children in recent cohorts appear to play an important role in explaining the differences between our findings and earlier research. The availability of better covariates also contributes. Over the first two years of school, however, blacks lose substantial ground relative to other races. There is suggestive evidence that differences in school quality may be an important part of the explanation. None of the other hypotheses we test to explain why blacks are losing ground receive any empirical backing.*

Hanushek, E.A., Kain, J.F., Markman, L.M., Rivkin, S.G. (2003). Does Peer Ability Affect Achievement? *Journal of Applied Econometrics*. 18(5): 527-544.

*Empirical analysis of peer effects on student achievement has been open to question because of the difficulties of separating peer effects from other confounding influences. While most econometric attention has been directed at issues of simultaneous determination of peer interactions, we argue that issues of omitted and mismeasured variables are likely to be more important. We control for the most important determinants of achievement that will confound peer estimates by removing student and school-by-grade fixed effects in addition to observable family and school characteristics. The analysis also addresses the reciprocal nature of peer interactions and the interpretation of estimates based upon models using past achievement as the measure of peer group quality. The results indicate that peer achievement has a positive effect on achievement growth. Moreover, students throughout the school test score distribution appear to benefit from higher achieving schoolmates. On the other hand, the variance in achievement appears to have no systematic effect.*

Hubbard, L. & Datnow, A. (2005). Do single sex schools improve the education of low income and minority students? An investigation of California's public single gender academies. *Anthropology and Education Quarterly*. 36(2): 115-131.

*Single-sex public schools are seen as a vehicle for improving the educational experiences of low-income and minority students. Our two-year ethnographic study of low-income and minority students who attended experimental single-sex academies in California indicates that improving achievement involves more than separating students by gender. Using students' and educators' voices, this anthropological study shows that these schools' successes were due more to the interrelated contributions of the schools' organizational characteristics, positive student-teacher relationships, and ample resources.*

Knight, S. L. & Wiseman, D. L. (2005). Professional Development for Teachers of Diverse Students: A Summary of the Research. *Journal of Education for Students Placed at Risk (JESPAR)*. 10(4): 387-406.

*This article summarizes findings from a research review of professional development for teachers of students from traditionally underrepresented populations, including those from diverse cultural, linguistic, and socioeconomic backgrounds. Questions addressed in this review include: (a) What constitutes professional development for teachers of diverse students? (b) How does professional development for teachers of diverse students impact teacher outcomes? and (c) How does professional development for teachers of diverse students impact student outcomes? Manual and database searches of studies conducted in the United States from 1986 to 2003 and published in peer-reviewed journals yielded 56 qualitative and quantitative studies after synthesis criteria were applied. Of these, 18 met the criteria for rigorous research. In general, findings suggest that little evidence exists for determining the effectiveness of various professional development approaches.*

Lee, V. E. & Burkam, D. T. (2003). Dropping Out of High School: The Role of School Organization and Structure. *American Educational Research Journal*. 4 (2): 353–393.

*In this study, we explore how high schools, through their structures and organizations, may influence their students' decisions about whether to stay in school until graduation or drop out. Traditional explanations for dropout behavior have focused on individual students' social background and academic behaviors. What high schools might do to push out or hold in their students have been systematically ignored. Using a sample of 3,840 students in 190 urban and suburban high schools from the High School Effectiveness Supplement (HSES) of the NELS:88 study, we use hierarchical linear modeling (HLM) methods to explore school effects on dropping out, once students' academic and social background has been taken into account. Our findings center on three features of secondary schools: curriculum, school size, and social relations. In schools whose curricula are composed mainly of academic courses, with few non-academic courses, students are less likely to drop out. Similarly, students in schools enrolling fewer than 1,500 students more often stay in school until graduation. Most important, students are less likely to drop out of high schools where relationships between teachers and students are consistently positive. The impact of positive teacher-student relations, however, is contingent upon the organizational and structural characteristics of high schools.*

Kane, T. J. (1994). College Attendance by Blacks Since 1970: The Role of College Cost, Family Background and the Returns to Education. *Journal of Political Economy*. 102(5): 878-911.

*College enrollment of black 18–19-year-old high school graduates declined from 1980 through 1984 then rebounded after 1984. This paper presents data from a time series of cross sections of 18–19-year-old youths from 1973 through 1988 to test the role of family background, direct college costs, local economic conditions, and returns to college in driving these trends. The evidence suggests that, on the one hand, increases in direct college costs were driving enrollment rates downward throughout the eighties. On the other hand, dramatic increases in average parental education for black youths exerted upward pressure on college enrollment by blacks, particularly*

in the latter half of the decade. The net effect of these two factors contributed to the pattern of decline and recovery observed during the eighties.

Lipscomb, S. (2005). Secondary school extracurricular involvement and academic achievement: a fixed effects approach. *Economics of Education Review*. 26: 463–472.

*Recent economic research has investigated the extent to which involvement in school-sponsored clubs and sports constitutes human capital investment. Through instrumental variables, the existing literature focuses on identifying long-term impacts in terms of educational attainment and wages. Instead, I use a fixed effects strategy to test whether activity participation provides an immediate return to student learning. Independent of individual ability, I find that athletic participation is associated with a 2 percent increase in math and science test scores. Club participation is associated with a 1 percent increase in math test scores. Finally, involvement in either type of activity is associated with a 5 percent increase in Bachelor's degree attainment expectations.*

Murnane, R.J., City, E.A., & Singleton, K. (2008). Using Data to Inform Decision Making in Urban School Districts: Progress and New Challenges. *Voices in Urban Education*. 18(Winter).

*Boston Public Schools has developed a set of tools and supports to enable schools to use state test scores effectively in planning instruction. One of the challenges every school district faces is to provide schools with the information and tools to educate children well. The challenge is particularly great in urban districts, which serve high concentrations of students living in poverty and students whose first language is not English. The life prospects for these students are critically influenced by the extent to which they master the skills needed to thrive in a rapidly changing society. Detailed understanding of the skills and knowledge that individual students have mastered is essential to making the best use of scarce instructional time. Having the tools to manage information on students' skills and to do so efficiently is essential to making use of that information.*

Rivkin, S. & Welch, F. (2006). Has school desegregation improved academic and economic outcomes for blacks? In E.A. Hanushek and F. Welch. *Handbook of the Economics of Education, Volume 2*. Amsterdam: Elsevier.

*A half a century has passed since the landmark decision *Brown v. Board of Education* (1954) overturned the doctrine of separate but equal in the realm of public education. This chapter attempts to summarize what we know about the impact of *Brown* on enrollment patterns and academic and economic outcomes for blacks. There can be little doubt that the decisions in *Brown* and several subsequent cases dramatically altered public education in the US. From 1968 to 1980 there is an almost 67 percent increase in the average percentage of blacks' schoolmates who are white in the US as a whole and a whopping 130 percent increase in the south despite the efforts of many whites to avoid the newly integrated schools. The discontinuous nature of the white enrollment changes following the implementation of desegregation programs provides strong evidence of a causal link between desegregation and white enrollment declines. Not surprisingly, programs that require student participation and urban areas with larger numbers of alternative school districts appear to evoke a larger enrollment response. This responsiveness along with other factors that determine the choices of neighborhoods and schools complicate efforts to identify desegregation program and racial composition effects on academic, social, and labor market outcomes.*

*The evidence on school demographic composition indicates that expanded inter-racial contact improves both academic and labor market outcomes for blacks. There is less evidence on desegregation program effects, and existing evidence is mixed. In recent years demographic changes across the nation have reduced the average share of blacks' classmates who are white despite the fact that segregation of blacks from whites has declined in all regions since 1980 except in the south, where the increase has been small. Importantly, it is the sorting of families among communities rather than districts' allocations of students among schools that limit the extent of inter-racial contact in the schools.*

Rumberger, R.W., & Palardy, G.J. (2005). Does Segregation Still Matter? The Impact of Student Composition on Academic Achievement in High School. *Teachers College Record*. 107: 1999-2045.

*The Coleman report, published 12 years after the Brown decision, confirmed that widespread school segregation in the United States created inequality of educational opportunity. This study examines whether racial and socioeconomic segregation, which is on the rise in the United States, is still contributing to the achievement differences among students. The study used data from the National Education Longitudinal Survey of 1988 to estimate multilevel models of achievement growth between Grades 8 and 12 in mathematics, science, reading, and history for a sample of 14,217 students attending a representative sample of 913 U.S. high schools. The study found that the average socioeconomic level of students' schools had as much impact on their achievement growth as their own socioeconomic status, net of other background factors. Moreover, school socioeconomic status had as much impact on advantaged as on disadvantaged students, and almost as much impact on Whites as on Blacks, raising questions about the likely impact of widespread integration. The impact of socioeconomic composition was explained by four school characteristics: teacher expectations, the amount of homework that students do, the number of rigorous courses that students take, and students' feelings about safety. The results suggest that schools serving mostly lower-income students tend to be organized and operated differently than those serving more-affluent students, transcending other school-level differences such as public or private, large or small. This article then addresses the question of whether such school characteristics can be changed by policies to reform schools and funding systems versus policies to desegregate schools.*

Steele, C.M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*. 69: 797-811.

*Stereotype threat is being at risk of confirming, as self-characteristic, a negative stereotype about one's group. Studies 1 and 2 varied the stereotype vulnerability of Black participants taking a difficult verbal test by varying whether or not their performance was ostensibly diagnostic of ability, and thus, whether or not they were at risk of fulfilling the racial stereotype about their intellectual ability. Reflecting the pressure of this vulnerability, Blacks underperformed in relation to Whites in the ability-diagnostic condition but not in the nondiagnostic condition (with Scholastic Aptitude Tests controlled). Study 3 validated that ability-diagnosticity cognitively activated the racial stereotype in these participants and motivated them not to conform to it, or to be judged by it. Study 4 showed that mere salience of the stereotype could impair Blacks' performance even when the test was not ability diagnostic. The role of stereotype vulnerability in the standardized test performance of ability-stigmatized groups is discussed.*

Tyson, K., Darity, Jr. W., & Castellino, D.R. (2005). It's Not "a Black Thing": Understanding the Burden of Acting White and Other Dilemmas of High Achievement. *American Sociological Review*. 70: 582-605.

*For two decades the acting white hypothesis—the premise that black students are driven toward low school performance because of racialized peer pressure—has served as an explanation for the black–white achievement gap. Fordham and Ogbu proposed that black youths sabotage their own school careers by taking an oppositional stance toward academic achievement. Using interviews and existing data from eight North Carolina secondary public schools, this article shows that black adolescents are generally achievement oriented and that racialized peer pressure against high academic achievement is not prevalent in all schools. The analysis also shows important similarities in the experiences of black and white high-achieving students, indicating that dilemmas of high achievement are generalizable beyond a specific group. Typically, high-achieving students, regardless of race, are to some degree stigmatized as “nerds” or “geeks.” The data suggest that school structures, rather than culture, may help explain when this stigma becomes racialized, producing a burden of acting white for black adolescents, and when it becomes class-based, producing a burden of “acting high and mighty” for low-income whites. Recognizing the similarities in these processes can help us refocus and refine understandings of the black–white achievement gap.*