

## Opportunity and Equity: Enrollment and Outcomes of Black and Latino Males in Boston Public Schools



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This report, Opportunity and Equity: Enrollment and Outcomes of Black and Latino Males in Boston Public Schools, was prepared by the Center for Collaborative Education, based in Boston, Massachusetts, and the Annenberg Institute for School Reform at Brown University, based in Providence, Rhode Island, on behalf of the Boston Public Schools. This Phase I report is part of a larger study, Analyzing Enrollment, Outcomes, and Excellent Schools for Black and Latino Male Students in the Boston Public Schools, of which Phase II identifies promising school and district practices and policies associated with increased engagement of, and improved outcomes for, Black and Latino males that will ultimately help lead to their increased success in school, college, and careers. This full report, its Executive Summary, and companion reports may be viewed and downloaded at www.cce.org and at www.annenberginstitute.org.

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## Letter from the Superintendent

To our community,

Just as Boston was first in the nation to establish a free public education in 1635, in many ways the journey toward equity and excellence for all students began here as well. In 1849, the father of five-year-old Sarah Roberts sued the City of Boston for blocking her enrollment in an all-white school because she was black. She lost the case, but six years later Massachusetts changed the law and banned segregated schools.

In the generations that have followed, our city has taken bold steps toward true educational equity. We have also faced significant setbacks and challenges. Sarah Roberts'fight is not yet won, but we are honored to engage in the struggle.

In 2013 Superintendent Carol R. Johnson commissioned a study to examine the root causes of and potential solutions to the achievement gaps that exist for Black and Latino boys in the Boston Public Schools. Just as in other large cities across the nation, these students tend to consistently have the lowest academic performance on virtually every measure. We believe these students also have the greatest opportunities for success.

Finding solutions will have positive impacts for everyone-- and will make the Boston Public Schools the first district in the nation to successfully eliminate these gaps for all students. To succeed, we must be willing to investigate why these challenges have persisted. We must seek out authentic solutions and discuss their implementation openly and honestly with the entire community.

We are grateful to the Barr Foundation for joining our effort, which has allowed us to commission the Center for Collaborative Education and the Annenberg Institute for School Reform at Brown University to develop the study we are discussing today. Many
people inside and outside BPS provided data and shared their own stories. Their contributions will have a positive impact on our entire community.

This report includes many recommendations that deserve careful consideration. We are already putting many of them in place, including:

- Expanding early education: Last year a Harvard study found that our pre-k program may be the most effective in the nation at closing achievement gaps. Mayor Martin J. Walsh is leading the effort to dramatically expand BPS early education, which will ensure long-term equity and access for all students at all levels.
- Teacher diversity action plan and hiring autonomy for schools: We are recruiting and retaining a team of highly-qualified, effective educators that better reflect the diversity of the students we serve. We are extending hiring autonomies to more school leaders and supporting them so they can attract the very best teachers to Boston. Our strategy is working: this fall one in four new teachers identifies as African-American, which is the highest percentage in seven years.
- Expanding inclusive opportunities: The BPS Inclusive Schools Network is growing. Each year we are adding more schools to the network, which ensures students with disabilities can learn alongside their non-disabled peers. This expansion allows us to offer inclusive opportunities to far more Black and Latino students, who have not had enough access to these programs in the past.
- Expanding dual-language opportunities and strengthening supports for English Language Learners: Students who are fluent in more than one language are more likely to succeed in the 21 st century economy. Whether a student is learning English as a second language or wishes to become fluent in a language other than English, dual-language schools offer a pathway to future success. We are also strengthening the entire support for English Language Learners. In 2014, 88 percent of former English Language Learners have reached proficiency in English Language Arts in 10th grade, compared to 41 percent in 2007.
- Reducing suspensions and expulsions through a student-led Code of Conduct: We are reducing chronic absenteeism and have changed our policies around discipline thanks to input from students, parents and experts.

We have already seen clear signs of progress: In 2006, the dropout rate among African-American students in BPS was 10 percent. Since then we have cut it by more than half, to 4.5 percent. For Latino students, in 2006, the annual dropout rate was 11 percent. We have since cut it to 5.2 percent. Although these are the lowest levels we have ever recorded, we can and must do so much better.

As a community we agree that every child, regardless of race, income, ability or home language deserves to have the very best public education possible. We are not there yet. We asked the authors of this report to take a tough, hard look at what our students experience so we can confront and defeat inequities that remain.

To succeed we must be quick, we must be deliberate and we must be united. On behalf of Mayor Martin J. Walsh, the Boston School Committee, our great teachers,
school leaders, staff, parents and students, thank you for joining us in the critical work of transforming education. Here in Boston, in the city that launched the struggle for educational equity, we stand ready to set the standard for world-class opportunity and excellence for every student.


John McDonough
Interim Superintendent
Boston Public Schools

# Opportunity and Equity: Enrollment and Outcomes of Black and Latino Males in Boston Public Schools 

## Introduction and Literature Review

## Rationale and Policy Context

This research study aims to better understand the diversity of experiences and backgrounds among Black and Latino male students in Boston Public Schools (BPS) by examining enrollment and outcomes of Black and Latino males relative to their female peers and their male peers from other racial backgrounds. Specifically, we designed this study to provide a more nuanced analysis of engagement and performance of Black and Latino male students by disaggregating enrollment and outcome data not only by major racial/ethnic groups, but also by geographical region of origin and by different racial groups within regions. A companion study will share case studies of BPS schools in which Black and Latino males perform well compared to BPS schools with similar demographics. Through this latter study, we aim to identify promising school and district practices and policies associated with increased engagement and improved outcomes for Black and Latino males.

## National policy context

From a national perspective, the educational attainment of Black and Latino students has been a concern and focus of education reform for several decades. However, disparities in access, opportunity, and achievement persist. Of particular concern, graduation rates of Black and Latino males continue to lag behind those of their female peers and their male counterparts from other racial backgrounds (Aud, Fox, \&

KewalRamani, 2010; Lee \& Ransom, 2011). Empirical evidence suggests that Black and Latino male students are more likely than any other group to:

- be suspended and expelled from school (Fergus \& Noguera, 2010);
- be identified as having a learning disability and placed in special education (Losen \& Orfield, 2002);
- be absent from gifted and talented programs, Advanced Placement and honors courses, and international baccalaureate programs (Noguera, 2008).

Recognizing these statistics early this year, President Obama announced My Brother's Keeper, a multi-funder, cross-sector initiative aimed at removing systemic barriers and creating greater opportunities for boys and men of color from birth through college and career (White House, 2014). A government cross-agency task force recommended that practitioners and policy-makers focus on implementing evidence-based approaches, increasing data collection and reporting, and addressing not only academic, but also socio-emotional and health needs of Black and Latino youth (Johnson \& Shelton, 2014).

Several large cities have already begun to invest significant resources in improving access and outcomes for Black and Latino male students in their district schools. District leaders at the Oakland Unified School District (OUSD) started the African American Male Achievement Initiative (AAMAI) in 2010. Leaders in the district seek to create the conditions in schools and communities for its African American males to succeed (Oakland Unified School District, 2011; Feldman et al., 2012). This initiative embraces partnerships among the district, schools, and families, and uses ongoing data analysis to monitor students as "on track," "at risk," or "off track." The initiative has created several programs aimed not only at academic engagement, but also leadership development.

In 2011, the Open Society Institute funded an Expanded Success Initiative (ESI) in New York City that created a challenge for public high schools to redesign schools to better serve Black and Latino male students. To understand the motivations and experiences of high school students in the awarded schools, researchers from the University of Pennsylvania's Graduate School of Education, led by Shaun Harper, conducted in-depth qualitative research of ESI schools (Harper \& Associates, 2013; Villavicencio, Bhattacharya, \& Guidry, 2013). This research is helping to spread best practices for Black and Latino males throughout forty schools in New York City.

The No Child Left Behind Act ([NCLB], 2002) brought needed attention to the lagging achievement of different groups. Nonetheless, its reliance on standardized tests as the only measure of performance may not necessarily have improved achievement (Darling-Hammond, 2007). The state-administered annual high-stakes testing has affected curriculum, pedagogy, and assessment in ways that restrict content and creativity. With today's national focus on Common Core State Standards, college and career readiness, and twenty-first-century skills, district leaders and teachers must find ways to engage Black and Latino male students with culturally relevant, rigorous curriculum that prepares them for college and career.

## Boston policy context

The current and recent administrators of Boston Public Schools have shown a commitment to equity, as demonstrated by a number of policies and initiatives. The district received the Broad Prize in 2006 for its Focus on Children under Superintendent Thomas Payzant (Boston Public Schools, 2013b). The Acceleration Agenda of Superintendent Carol Johnson (2009-2014) sets ambitious targets for rapidly improving
student achievement across all grade levels and has three clear goals for students: Massachusetts Comprehensive Assessment System (MCAS) proficiency, closing access and achievement gaps, and college and career readiness (Boston Public Schools, 2010). In addition, district leaders have adopted an Achievement Gap Policy with twelve explicit goals and strategies to achieve those goals (Boston Public Schools, n.d.). They have also invested in staffing to create implementation plans for this policy. District administrators acknowledge access and achievement gaps across four dimensions: race/ethnicity, gender, disability, and language. One stated academic target is to reduce the achievement gap by race/ethnicity to fewer than five percentage points in proficiency.

Under the previous superintendent's leadership, significant strides were made in improving services and outcomes for the district's English language learners (ELLs), another group that had previously experienced gaps in access to quality educational programming. This focus was due in large part to the release of a report by the Mauricio Gastón Institute for Latino Community Development and Public Policy at University of Massachusetts Boston and the Center for Collaborative Education documenting the disparities in access and outcomes for ELL students (Tung et al., 2009), which in part led to a U.S. Department of Justice investigation and the resulting agreement with district leaders to better address the needs of ELL students. Through research, external partnerships, engagement of the school committee, an expert task force, and concerted investment at the district level, district administrators communicated a clear vision for ELL education, created a professional learning community dedicated to achieving that vision, and acted decisively with proven strategies (De Los Reyes, 2013). The district
leadership has shown that this model of a systemwide engagement with a problem of urgent concern can result in systemwide successful reform.

## U.S. Black and Latino Male Outcomes

## Gender achievement disparities

Disparities in achievement and attainment between males and females have been a growing topic of interest in recent years as girls and women have overtaken males in high school completion and postsecondary enrollment and completion. Fifty-eight percent of all new bachelor's degrees are awarded to women; women earn $66 \%$ of bachelor's degrees awarded to Black students and 61\% among Latinos. Major contributors to this trend have been the rapidly expanding opportunities for women in the labor market and the commensurate growth in the economic return on postsecondary education. Still, postsecondary attainment among men has not kept pace with the growth in economic returns, and researchers are increasingly looking to disparities in $\mathrm{K}-12$ educational trajectories to explain the growing gender gaps. Nevertheless, in the employment world in 2012 women earned only 76.5 cents for every dollar earned by men (Hegewisch \& Williams, 2013).

On average, girls score higher on reading tests and boys score higher on math tests (Buchmann, DiPrete, \& McDaniel, 2008; Coley, 2001; Villavicencio \& Grayman, 2012). Patterns are inconsistent across tests when disaggregated by age, socioeconomic status, and race; although in absolute terms, the gaps remain relatively small, and distributions of boys' and girls' scores have substantial overlap (Buchmann et al., 2008). Small gender gaps appear as early as kindergarten and grow as children move through school. Some researchers have found that gaps in reading proficiency favoring girls
appear to grow over the course of elementary school for students from low-income households but not for students of higher socioeconomic status (Entwisle, Alexander, \& Olson, 2007).

Researchers have suggested that cognitive skills, noncognitive skills, socialization, behavior, parental expectations, teacher expectations, and teachers' gender all may contribute to gender disparities in achievement and attainment (Buchmann et al., 2008; Buchmann \& DiPriete, 2006; Cornwell, Mustard, \& Van Parys, 2013; Jacob, 2002). Interestingly, girls have long received higher grades than boys across all subject areas (Perkins, Kleiner, Roey, \& Brown, 2004). Grades, which reflect not only proficiency in course content but also effort, behavior, conscientiousness, and teachers' subjective judgment (Lavy, 2004), may be more predictive of postsecondary enrollment and persistence than test scores (Roderick, Nagaoka, \& Allensworth, 2006). Entwisle et al. (2007) suggest that boys and girls may be socialized differently, with girls being encouraged to adopt identities and attitudes that are more compatible with classroom expectations than are boys.

Using data from the national Early Childhood Longitudinal Study, Cornwell, Mustard, and Van Parys (2013) found that elementary school boys receive lower teacherassigned grades than their performance on assessment tests would predict. Boys also receive lower ratings of noncognitive skills such as self-control and approaches to learning. In regression analyses, differences in noncognitive skills explained most of lower grades given to boys, though their explanatory power varied by race. White boys with noncognitive skills similar to girls' actually saw a grade premium, whereas Black and Latino boys with strong noncognitive skills still received lower grades than did their female counterparts with similar noncognitive skills.

Clearly, research confirms gender disparities in outcomes starting in elementary school and affecting life trajectories, and there is evidence that the causes of those gender disparities are largely socially constructed. Similarly, we and others provide evidence that a racial/ethnic opportunity gap compounds the disparities in outcomes for males who are Black or Latino.

## Racial/ethnic achievement disparities

Black and Latino males are caught at the nexus of a persistent racial/ethnic gap in educational opportunities and a growing gender gap. In 2013, 17\% of Black eighth graders and $21 \%$ of Latino eighth graders scored at the proficiency level or higher on the National Assessment of Educational Progress (NAEP) reading exam, compared to 46\% of White and $54 \%$ of Asian eighth graders. Similar patterns in achievement by race hold for eighth-grade performance on the NAEP mathematics exam (National Center for Education Statistics [NCES], 2013).

## Postsecondary attainment disparities

Despite similar aspirations for postsecondary education as their female peers and peers of other races (Fergus, 2009), on average Black and Latino males complete less education than do their peers. Nationally, about $52 \%$ of Black and $59 \%$ percent of Latino males graduated from high school in 2010, compared to $78 \%$ for White, non-Latino males, and many states and large cities have graduation rates well below $50 \%$ for both Black and Latino males (Schott Foundation for Public Education [Schott Foundation], 2012). While postsecondary attainment rates have increased for all students, Black and Latino males lag in degree completion. Nationally in 2012, 33\% of American young adults (i.e., between ages 25 and 29) had completed at least a bachelor's degree, while
$16 \%$ of young Black men held bachelor's degrees, and only $11 \%$ of Latino men in the same age group held bachelor's degrees (Baum, Ma, \& Payea, 2013).

## Educational outcomes and economic access

Despite national attention on the challenges facing Black and Latino males, empirical data suggest that, in comparison to their peers, Black and Latino males experience higher rates of punitive school discipline that increase their risk of dropping out of school. For example, Black males are suspended at much higher rates than any other group of students. Data from the U.S. Department of Education estimate that, in the SY2009-2010, on average, 30\% of Black and $16 \%$ of Latino male high school students were suspended at least once, compared to $10 \%$ of White males (Losen \& Martinez, 2013). Disproportionate disciplinary actions that are associated with increased dropout rates result in a school-to-prison pipeline for low-income students of color, particularly Black and Latino male students (Balfanz, Byrnes, \& Fox, 2013; Schott Foundation, 2012; Losen \& Martinez, 2013; Noguera, 2012).

Furthermore, research suggests that disparities in educational outcomes contribute to gaps in career and earning potential and other life chances in adulthood. In 2010, Black men were incarcerated at a rate more than six times higher than that of White men, and Latino men were incarcerated at nearly three times the rate of White men (Glaze \& Parks, 2011). While Black and Latino men out-earn Black and Latina women, their average weekly earnings are well below national averages, and are below the averages of White and Asian workers of both genders (Bureau of Labor Statistics, 2013). Black men have the highest unemployment rate of any reported group (Bureau of Labor Statistics, 2014).

## Opportunities and Educational Attainment

Many have argued that a narrow focus on the "achievement gap" is problematic, because the causes of the gap are complex, historical, and systemic (Carter \& Welner, 2013). We highlight some of the systemic opportunity gaps that may explain the attainment gap statistics cited above, including socioeconomics, school quality, and the effects of racism.

## Socioeconomics, access, and educational attainment

A substantial body of theoretical and empirical work seeks to explain racial and ethnic gaps in school performance and educational attainment. The impact of socioeconomic status (including family income and parents' educational attainment) on academic achievement has been extensively documented (Morgan \& Todd, 2009; Reardon, 2011; Ladd, 2012; Villavicencio, Klevan, Guidry, \& Wulach, 2014). Black and Latino families, on average, have lower earnings and less wealth than national averages, and more than a third of Black and Latino families live in poverty (Children's Defense Fund, 2012). Nationally, $48 \%$ of fourth graders qualified for free and reduced-price lunch in 2009, while $74 \%$ of Black and $77 \%$ of Latino fourth graders qualified for free and reduced-price lunch (Aud et al., 2010).

## The impact of school quality and segregation on educational attainment

Beyond the impact of poverty on opportunity, attending schools with large numbers of low-income peers has been shown to have a negative effect on achievement (Ladd, 2012). Schools that educate large numbers of low-income students and students of color tend to employ less-experienced and less-qualified teachers (Boyd et al., 2008), and generally to have fewer supports and resources (Schott Foundation, 2012; Orfield, 2009;

Reardon, 2011; Villavicencio et al., 2014). Orfield (2009) found that, while the average White student in 2007 attended a school where $31 \%$ of students are poor, the average Black or Latino student attended a school with $57 \%$ to $59 \%$ of peers living in poverty, respectively. Black and Latino students are also highly segregated by race. In 2007, 39\% of Black and $40 \%$ of Latino students attended "intensely segregated schools," or schools with over $90 \%$ ethnic students of color (Orfield, 2009).

## Access to rigorous coursework and educational attainment

Even when they attend racially integrated schools, Black and Latino students are often tracked into less-rigorous course sequences (Oakes, 1999) and complete high school with weaker academic preparation for college than do their peers (Nora \& Crisp, 2009). Researchers have documented racial disparities in access to a whole range of resources and supports, often termed "opportunity to learn," which include: "1) early childhood education, 2) student-centered learning, 3) well-resourced community schools, 4) gifted/talented and advanced placement opportunities, and 5) post-secondary attainment opportunities" (Schott Foundation, 2012, p. 39). Black males are classified as needing special education services at higher rates than any other group, and are placed in more substantially separate settings at higher rates than other groups (Losen \& Orfield, 2002). Compared to their White and Asian peers, Black and Latino students have less access to rigorous math and science courses. A quarter of high schools with the highest percentage of Black and Latino students do not offer Algebra II, and one-third of these high schools do not offer chemistry (U.S. Department of Education Office for Civil Rights, 2014). Furthermore, Latino students enroll in Advanced Placement (AP) classes in proportion to their representation in U.S. public schools, Black students are
underrepresented in AP courses, are more likely than any other group to attend schools that provide fewer AP course options (Handwerk, Tognatta, Coley, \& Gitomer, 2008), and participate in AP classes at lower rates than their peers. Eighty percent of Black students and $70 \%$ of Latino students whose academic background indicated they were prepared for a specific AP class either were excluded from the class or attended a school that did not offer AP courses (Lee \& Ransom, 2011).

## Structural racism and educational attainment

Another body of research examines the ways in which race and racism impact both the structural aspects of how schools make resources available to students and the subtle interactions among schools, students, families, and communities. Drawing on critical race theory, scholars argue that public schools operate implicitly according to White middle-class norms, traditions, and history (Bell \& Bansal, 1987; Ladson-Billings, 1998; Ladson-Billings \& Tate, 1995; Yosso, Villalpando, Delgado Bernal, \& Solórzano, 2001). In so doing, schools devalue the intelligence, cultural and social capital, and educational investment of students of other races/ethnicities and their families (Carillo, 2013; Brayboy, Castagno, \& Maughan, 2007; Delpit, 1995; Lareau \& Horvat, 1999; O’Connor, Lewis, \& Mueller, 2007; Reynolds, 2010; Yosso, 2005). To further compound the marginalization of Black and Latino males, race and gender intersect to create perceptions of Black and Latino males as deviant, dangerous, and unambitious (Howard, 2008; Lewis, 2003; Oyserman, Kemmelmeier, Fryberg, Brosh, \& Hart-Johnson, 2003; Noguera, Hurtado, \& Fergus, 2012; Reynolds, 2010).

## The Boston Context

## History of school desegregation in Boston

In 1965, eleven years after the U.S. Supreme Court's call for public school desegregation in Brown v. Board of Education, Massachusetts passed the Racial Imbalance Act (Weinbaum, 2004), allowing the state to withhold funding from any district that did not move to remedy racially imbalanced schools (defined as schools having more than $50 \%$ non-White students). In practice, at the time, the law affected only Boston and Springfield in Massachusetts.

The all-White Boston School Committee resisted implementing any remedies for nearly ten years. In a lawsuit filed by civil rights leaders, a federal judge found that the Boston School Committee had deliberately maintained segregated and unequal schools. In 1971, the state Board of Education asked Charles Glenn, director of urban education and equity efforts for the Massachusetts Department of Education, to devise an integration plan for Boston. The judge adopted Glenn's plan as the first phase of mandated desegregation (Weinbaum, 2004), ordering that busing begin with the opening of schools in September 1974. The decision was met with large protests and threats of violence, particularly in South Boston, the center of White resistance to school integration.

Prior to the busing crisis, Boston was predominantly White, with Irish-American, Italian, and also sizable Polish and Lithuanian communities. The busing crisis accelerated the White flight that had occurred in cities across the country during the 1960s and 1970s, and sparked an exodus to parochial and suburban schools. In the first two years of busing, the White student population shrank by nearly $20 \%$ (Weinbaum, 2004). In the meantime, a growing Latino population was also reshaping Boston's demographics. By 2013,

Boston Public School students (excluding public charter school enrollment) were $40 \%$ Hispanic/Latino, 36\% Black, 13\% White, 9\% Asian, and 2\% other races (Boston Public Schools, 2013a). Boston's schools mirror national disparities in outcomes: though gaps are narrowing, Black and Latino students have significantly lower passing rates than do their White and Asian counterparts at all grade levels on the Massachusetts Comprehensive Assessment System (MCAS) exams (Karp, 2012). Among students passing the MCAS exams, much larger proportions of Black and Latino students pass with ratings of "needs improvement" than do White or Asian students (Karp, 2012).

## Educational and socioeconomic disparities in Boston

Boston is similar to other U.S. urban centers, both in demographics and in the educational attainment and lifelong prospects of Black and Latino males. Based on 2010 census data sources, in Boston, $61 \%$ of all males 19 years and under were Black and Latino. The vast majority (85.3\%) of all young people in Boston who were 17 years and under and living in poverty were Blacks and Latinos. According to American Community Survey (ACS) averages for 2007-2011, 27.6\% of Latino children and $22.7 \%$ of Black children between the ages of 6 and 17 were poor, compared to $10.6 \%$ of Asian youth and only $3.7 \%$ of White children in the same age group (Jennings, 2014). Similar to national trends, Black and Latino males in Boston also have lower educational attainment than do their White counterparts. In 2012, 36.1\% of White males (U.S. Census Bureau, 2012a) in Boston held a bachelor's degree, compared to only $10.0 \%$ of Black males (U.S. Census Bureau, 2012b) and 9.0\% of Latino males (U.S. Census Bureau, 2012c).

Boston stands out as having one of the most competitive job markets in the nation. As dire as the employment prospects are for Black and Latino males nationally, they are
even more so in Boston due to higher skill-set demands in the local job market (Modestino, 2013). While the average unemployment rate for White males aged 16 to 64 was $6.1 \%$ in 2007-2011 according to the ACS, it was $13.7 \%$ for Latino males and $21.5 \%$ for Black males in the same age range (Jennings, 2014).

## Racial/Geographical Diversity among Black and Latino Students: Inadequacy of Currently Used Racial Categories

While all students classified as Black are grouped together, and all students classified as Latino are grouped together for BPS reporting purposes and in most educational research, Black and Latino students are heterogeneous along several dimensions, ranging from cultural and linguistic differences to race. As such, current racial and ethnic classifications used to group Black and Latino students are inadequate in that they do not capture the diversity prevalent within racial and ethnic groups.

Currently, "Black/African American," "Hispanic/Latino," "Asian/Pacific Islander," "White," "Other," and sometimes "American Indian" are the main classifications used not only in education research, but also in much social science and economic research. In 2001, the reauthorization of the Elementary and Secondary Education Act required the disaggregation of K-12 student data into "major racial and ethnic groups," as well as according to socioeconomic status, English proficiency, and special education status. While this disaggregation was a major advance in understanding patterns of inequity and focusing attention on achievement gaps, it reinforced this particular categorization of race/ethnicity as the standard for education research.

In recent years, scholars have argued that these categories obscure heterogeneity and are insufficient for describing the identity and experiences of students of color in American schools (Agyemang, Bhopal, \& Bruijnzeels, 2005; Fergus, 2009; O'Connor et
al., 2007; Warikoo \& Carter, 2009). Within the groups of students who are labeled "Black" or "Latino" exists a range of cultures and experiences that spans communities and borders within and beyond the United States. For people of African and Latino descent, the terms currently in use are unable to distinguish cultural and ethnic groups within the categories. The term "Black" does not take into account ethnicity, while the terms "Latino" or "Hispanic" do not account for race. Neither classification captures country of origin or first language spoken, variables that distinguish cultural groups within racial and ethnic categories and influence students' educational trajectories.

## Diversity among Black and Latino Groups in Boston

Prior to 1965, "Black" in the United States referred primarily to native African Americans who had lived for many generations in the United States as descendants of the slaves forcibly brought over from Africa. In 1965, U.S. immigration policy changed, resulting in increased immigration from Africa and the Caribbean (Logan, 2007; Medeiros, 2007) broadening the term Black to include immigrants as well.

The terms "Latino" and "Hispanic" are constructs of U.S. policy rather than categories of self-identification. The groups encompassed by "Latino" or "Hispanic" include those whose ancestors have been in America longer than any other ethnic groups except for Native Americans, those who immigrated several generations ago, and recently arrived newcomers (Rumbaut, 2006). While Mexicans, Puerto Ricans, and Cubans constituted almost all Latinos in the United States just thirty years ago, Latinos of other origins-Dominicans, Central Americans, and South Americans-have immigrated to the United States and now constitute $35 \%$ of the Latino population (Lopez, GonzalezBarrera, \& Cuddington, 2013).

Census estimates put the population of Boston residents identifying as "Black alone or African American alone" in 2012 at approximately 166,000, or just over 26\%, (U.S. Census, 2012d); 30\% of them were born outside the United States (U.S. Census Bureau, 2012e). Though census data does not report detailed information on place of birth by race, it does show that as of 2012 nearly 17,000 Boston residents were born in Africa, with Cape Verdeans representing the largest portion of these (approximately $6,600)$ (U.S. Census Bureau, 2012f). Almost 35,000 residents were born in non-Spanishspeaking Caribbean countries, including approximately 21,500 Haitians (U.S. Census Bureau, 2012f). Boston's Black population also includes descendants of African and Caribbean immigrants, though the limitations of the census bureau's reporting system make it difficult to estimate their numbers.

Among nearly 119,000 Latino Bostonians, about 40.2\% identify as White alone, about $14.9 \%$ as Black alone, about $27.9 \%$ as "some other race" alone, about $15.4 \%$ as two or more races, $1.2 \%$ as American Indian or Native Alaskan, and $0.4 \%$ as Asian alone (U.S. Census Bureau, 2012g). The majority of Latino Bostonians give their origin as Dominican (21.3\%) or Puerto Rican (32.0\%) (U.S. Census, 2012h. About 21.8\% are of Central American origin, with El Salvador being the single largest country of origin, and about $9.8 \%$ are of South American background, mainly from Colombia (U.S. Census Bureau, 2012h).

## Immigration contributes to diversity

Boston's Black and Latino populations are likely to vary substantially in socioeconomic status, social capital, employment, immigrant status, and residential settlement patterns. Approximately 80\% of Africans and two-thirds of Afro-Caribbeans
in the United States are foreign-born (Logan, 2007), reflecting the nature of recent changes in U.S. immigration policy. African immigrants tend to have much higher background levels of education and higher earnings than African Americans and AfroCaribbeans. Afro-Caribbeans have similar educational attainment as African Americans but have higher average incomes and lower unemployment rates. Both African immigrants and Afro-Caribbeans tend to live in census tracts with higher median incomes than do African Americans (Logan, 2007).

In addition to cultural differences among groups from different countries of origin, Latino national groups vary greatly in their age structure and extent of regional dispersion (Durand, Telles, \& Flashman, 2006). Nationally, among the largest fourteen Hispanicorigin groups, Puerto Ricans have the highest rate of adults with only a high school diploma (29\%); South American Latinos hold bachelor's degrees at much higher rates than do Central American and Caribbean Latinos. While the median income for all Latinos is $\$ 39,000$, Dominicans and Puerto Ricans have median household incomes of $\$ 32,300$ and $\$ 36,000$, respectively (Lopez et al., 2013). Little data is available on the socioeconomic status of Latinos of various races, but Fergus (2009) notes that Black Latinos have lower household income, higher poverty rates, and higher unemployment rates than other Latinos.

## Use of racial/geographical descriptors

Current racial/ethnic classifications do not capture adequately the diversity within racial and ethnic groups on which the state reports. In order to examine fully and to adequately portray the educational experiences of Black and Latino males within Boston

Public Schools (BPS), it is important to classify students in a manner that better captures the diversity within Black and Latino groups.

The Massachusetts Department of Elementary and Secondary Education (MA DESE) uses seven ethnic/racial categories to report enrollment data: African American, Asian, Hispanic, Native American, White, Native Hawaiian/Pacific Islander, and Multi-Race/Non-Hispanic. Collection and reporting of data by ethnic and racial groups reflects the changed requirements detailed in the 2007 Federal Register. Under these requirements, families are first asked if the student is ethnically Hispanic or Latino, and they then indicate which racial categories apply. Because families can identify by any number of racial categories, the system produces sixty-two possible combinations of ethnicity and race. However, most BPS students fall into a small number of these categories. Moreover, these categories are limited to race, ethnicity, and various combinations of race and ethnicity; they do not include geographical origin, which implicitly relates to other cultural factors such as shared language, history of slavery, colonization, and oppression.

The racial/ethnic categories used by the state and federal government help to monitor achievement gaps and evaluate efforts to close them; however, they do not provide for an understanding of the diversity of cultural capital or potential needs among students within these broad categories. One of the goals of the current study is to examine the data on Black and Latino male students in a way that better captures the cultural diversity within these broad categories. Therefore, the racial/ethnic categories used by BPS were inadequate, in that they do not capture the cultural diversity of BPS students.

The MA DESE category of African American, used for reporting of Black students, identifies these students as part of a sociocultural group of Black students whose
families have lived in the United States for multiple generations, and many of whose ancestors were forcibly brought to the United States through the slave trade. This group is distinct in cultural heritage from more recent African and Caribbean Black immigrants. The MA DESE category of Hispanic, while acknowledging the diversity of race within the ethnic group, fails to reflect the cultural diversity of Latinos, whose families originate from over twenty different countries in addition to the United States and U.S. territories.

The way that data on race and ethnicity is collected and managed limits our understanding of the cultural diversity of these students in several ways. We attempt to address these issues by delving deeper into available data. First, BPS' Student Information Management System (SIMS) includes data indicating each student's country of origin, which informs us as to the student's status as an immigrant to the United States, but after three years in the academic system, a student's status is changed to "Not an immigrant student," stripping away the student's actual status as an immigrant and his or her country of origin. In order to recapture as many of these students as possible as immigrants, and also their places of origin, we used data on their city of birth to identify student country of origin (Massachusetts Department of Elementary and Secondary Education, 2014). ${ }^{1}$ Second, we used an additional variable, "first language," to reclassify students who were immigrants but whom the system classified as American because they had been in the system for three or more years. Students whose first language was not English and who were distinctively associated with a particular country of origin were reclassified to capture their country and geographical region of origin. For example, students classified as from the United States but whose first language was Cape Verdean Creole or Haitian Creole were reclassified as Black African and Black Caribbean, respectively.

Another complicating factor in identifying and understanding Latino students’ backgrounds is tied to the significant Puerto Rican community in Boston. While many Latino students are born within this U.S. territory, their specific cities of birth represent importantly unique heritages that are often overlooked when using the broad Hispanic classification. Therefore, for this study, we used student city of birth to identify students born in Puerto Rico as Latino Caribbean.

Additionally, Latinos identify themselves as belonging to several racial groups, beyond their ethnic backgrounds. Therefore, we tried to capture the diversity within the Latino ethnicity by considering race and geographical origin.

The resulting data on country or territory of origin was used to break the broad categories of Black and Latino down by the student's geographical region of origin. We use these categories, shown in Table 1, in our reporting of Black and Latino male enrollment and outcomes.

Table 1: CCE and AISR's Racial/Ethnic/Geographic Origin Framework

| Black by Geography | Latino by Geography |
| :--- | ---: |
| - Black North American | $\bullet \quad$ Latino North American |
| - Black Caribbean | $\bullet \quad$ Latino Caribbean |
| - Black African | $\bullet \quad$ Latino Central American |
| - Black Central American | - Latino South American |
| - Black South American |  |


| Latino by Race | Latino by Race and Geography |
| :---: | :---: |
| - Latino-White | - Latino-White North American |
| - Latino-Black | - Latino-Black North American |
| - Latino-Other | - Latino-Other North American |
|  | - Latino-White Caribbean |
|  | - Latino-Black Caribbean |
|  | - Latino-Other Caribbean |
|  | - Latino-White Central American |

- Latino-Black Central American
- Latino-Other Central American
- Latino-White South American
- Latino-Black South American
- Latino-Other South American

We acknowledge that this framework is far from perfect. It is limited both by the nature of the original data collection (the management system used by the state) and by the evolving and often contested understanding of race and ethnicity in our society. We also acknowledge that other terms are used to describe some of the racial/ethnic groups in our framework: for example, the terms Afro-Caribbean and Afro-Latino. We opted not to use those terms in order to have a consistent "naming" taxonomy across all racial/ethnic groups. However, ours is the first racial framework used in Boston to go beyond the parameters of race alone and to consider other sociocultural aspects of race that have thus far not been considered in educational research.

## Overview of the Study

In assessing access, opportunity, educational outcomes, and educational attainment among males of different racial/ethnic backgrounds in the BPS-and given Boston's history of tension with racial desegregation-it is important to examine whether disparities in access and attainment prevail among males of different races. To this end, we designed this study to provide an in-depth analysis of the gaps in engagement and performance of Black and Latino male students. The quantitative research study we present here corresponds to Phase I of a larger study, which will ultimately include qualitative case studies of high-performing schools for Black and Latino males in BPS (Phase II) to identify promising practices associated with increased engagement and improved outcomes for Black and Latino males. The key objective of Phase I was to analyze enrollment, engagement, and performance of Black and Latino male students relative to female students and male students of other races using a framework that more accurately reflects the diversity within these groups. The key objective of Phase II is to conduct in-depth case studies of schools in which Black and Latino male students have exemplary outcomes compared to schools with similar demographics. The research questions guiding Phase I include:

1. What is the diversity within the male Black and Latino communities in BPS?
2. How do Black and Latino male students perform in BPS relative to female students and male students of other races?

We used student-level data for the entire Boston Public Schools' population across four school years: SY2009, SY2010, SY2011, and SY2012 (see Appendix A for full StudentLevel Data Dictionary). We created a master student-level database using the following
databases: Student Information Management System (SIMS); Massachusetts
Comprehensive Assessment System (MCAS), and School Safety and Discipline Reports (SSDR).

## Significance of the Study

In this study, we aim to provide BPS with important information about enrollment and outcomes by disaggregating "Black" and "Latino" males into subcategories that capture the diversity of Black and Latino populations better than other studies have to date. Our construction of the racial/ethnic categories, which captures some racial and ethnic diversity as well as geographical diversity within racial and ethnic groups, provides a framework other educational researchers may use to portray the educational experiences of students of color more accurately by including factors beyond race. This two-phase study builds on past research investigating schools that work for Black and Latino male students by identifying Boston schools in which Black and Latino male students are performing well (Ascher \& Maguire, 2007; Buttram, 2007). This study is also modeled after our own work studying exemplary and improving schools for English language learners (Tung et al., 2011; Uriarte et al., 2011). We aim to enhance the evidence regarding what works for Black and Latino males, and ultimately to contribute to closing persistent opportunity and achievement gaps. We anticipate evidence collected through this work will lead district administrators to implement administrative, structural, and instructional changes to improve the educational outcomes of Black and Latino males.

We present our findings from the first phase of the study in three sections: (1) enrollment diversity, (2) access to educational opportunity, and (3) educational attainment.

## Enrollment Diversity

In this section we describe enrollment trends for SY2009 to SY2012. We describe the demographic characteristics of Boston students at the elementary, middle, and high school grade levels in terms of gender, racial/ethnic, geographic, and socioeconomic composition, as well English language learner and special education status.

Although we conducted all the analyses for this report with and without exam school students, for comparisons of gender and major racial/ethnic groups, we present findings with exam school students because reporting results without exam school students would mask existing racial disparities. Graphs for racial/ethnic group disaggregations without exam school students are presented in Appendix B. Conversely, because small proportions of Black and Latino males are enrolled in exam schools and large proportions of White and Asian males are enrolled in exam schools, we present findings for Black and Latino groups disaggregated by geography and race without exam school students. Finally, our racial categories for major racial/ethnic groups include an "Other" category. However, we do not present their data, as their $n$ 's are small; percentages in graphs do not always add up to $100 \%$ as a result.

## Overall Enrollment

In SY2012, the Boston Public Schools enrolled 55,817 students. Of this number, 50,508 students were enrolled in non-exam Boston Public Schools. Enrollment trends over the four-year period indicate that the number of students in the overall group decreased slightly, by $1.9 \%$, from 56,913 students in SY2009 to 55,817 students in SY2012. In the sections that follow, we present enrollment trends by gender and
race/ethnicity, and enrollment data disaggregated by geographical group and/or race for Black and Latino male groups.

## Enrollment by gender

In SY2012, the population of students in Boston public schools at each grade level span consisted of equal proportions of males and females. Close to half of all BPS students were elementary grade level students, one-fifth were middle grade level students, and the remaining one-third were high school grade level students. Of all the females in BPS, $46.0 \%$ were in the elementary grades, compared to $46.3 \%$ of males; $20.8 \%$ of females were in the middle grades, compared to $21.0 \%$ of males; and $33.3 \%$ of females were in the high school grades, compared to $32.7 \%$ of males. These proportions remained fairly consistent over time from SY2009 to SY2012.

## Enrollment of males by racial/ethnic group

Next, we present SY2012 enrollment data for males by racial/ethnic group for each of the three grade levels.

Figure 1: Male Enrollment by Racial/Ethnic Group


In the elementary grades during SY2012, Latino males represented the largest proportion of all male students in BPS at $44.1 \%$, followed by Black males at $35.1 \%$, White males at $12.6 \%$, and Asian males at $7.4 \%$. From SY2009 to SY2012, proportions remained similar (with changes of less than one percentage point) for White and Asian male groups, with a 3.0 percentage-point decrease in Black males, and a 3.9 percentagepoint increase in Latino males.

In the middle grades in SY2012, Black and Latino males made up the largest proportions of all male students at $38.7 \%$ and $37.6 \%$, respectively, followed by White males at $14.2 \%$, and Asian males at $8.6 \%$. From SY2009 to SY2012, Black males experienced a 2.8 percentage-point decrease, and Latino males experienced a 2.3 percentage-point increase in enrollment rate. At the high school grade level in SY2012, Black males represented the largest proportion of male students at $41.9 \%$, followed by Latino males at $34.7 \%$, White males at $12.6 \%$, and Asian males at $9.7 \%$. These proportions remained steady over time from SY2009 to SY2012, with percentage-point increases or decreases of 1.0 or less.

Overall, comparing SY2009 with SY2012, the proportions of Black males at the elementary and middle grade levels decreased slightly, while proportions of Latino males at both grade levels increased slightly, and the proportions of White and Asian racial/ethnic groups remained steady. At the high school grade level, enrollment proportions by racial/ethnic group remained stable for all groups. There were more Latino males than Black males at the elementary grade level, while at the middle grade level, there were approximately equal proportions of both groups of males, and there were more Black males than Latino males at the high school grade level, suggesting an
overall trend of a growing Latino male population and a gradually declining Black male population.

## Enrollment of Black males by geographical group

Our racial/ethnic framework categorizes Black males into five geographical groups: (1) Black African, (2) Black Caribbean, (3) Black North American, (4) Black South American, and (5) Black Central American. Black North Americans make up the largest geographical group among Black males overall, followed by much smaller proportions of Black Caribbeans and Black Africans. Enrollment figures for SY2012 for Black males by geographical group are presented in Figure 2.

Figure 2: Overall Black Male Enrollment by Geographical Group


Note: We also have Black Central and South American male students. However, to protect student anonymity, we do not discuss them in the text as their $n$ 's were too small.

We present the breakdown of Black males in SY2012 by geographical group for each grade level.

Table 2: Black Male Enrollment Rates as a Percentage of Total Enrollment by Geographical Group and Grade Level

|  | EG | MG | HSG |
| :--- | :---: | :---: | :---: |
| Black African | $447(3.4 \%)$ | $251(4.7 \%)$ | $507(6.5 \%)$ |
| Black Caribbean | $551(4.1 \%)$ | $299(5.6 \%)$ | $571(7.3 \%)$ |
| Black North American | $3,660(27.5 \%)$ | $1,642(31.0 \%)$ | $2,492(31.8 \%)$ |
| Black South American | NA | NA | NA |
| Black Central American | - | NA | NA |

Notes: We report enrollment as a percentage of total male enrollment at each grade level. In tables, we use "NA" to identify groups with 50 students or fewer and "-" to identify groups with no students. We do not report on or graph populations of 50 students or less. We report on student populations numbering 51-99 with caution, indicated by dashed lines in a graph or by blue font in a table.

At the elementary grade level in SY2012, Black North American males constituted the largest Black geographical group at $27.5 \%$ of male enrollment; they also represented the largest Black male geographical group as a proportion of overall Black male enrollment at the elementary grade level at $78.2 \%$. At the elementary grade level, Black Caribbean males made up $4.1 \%$ of male enrollment, and Black African males represented $3.4 \%$ of male enrollment.

The proportions of Black African and Black Caribbean males as a percentage of total male enrollment in the elementary grades remained steady over time, while the proportion of Black North Americans decreased by 3.6 percentage points from SY2009 to SY2012. As a proportion of all Black males at the elementary grade level, Black Caribbeans increased by 2.0 percentage points, and Black North Americans decreased by 3.2 percentage points; the proportion of Black Africans rose 1.2 percentage points.

At the middle grade level in SY2012, Black North American males represented the largest Black geographical group as a proportion of total male enrollment at $31.0 \%$; they also represented the largest geographical group as a proportion of overall Black male enrollment at $74.3 \%$. Black Caribbean males made up $5.6 \%$ of total male enrollment, and

Black African males were $4.7 \%$ of total male enrollment. The proportions of Black African and Black Caribbean males as a percentage of total male enrollment in the middle grades remained stable over time, while the proportion of Black North Americans decreased by 3.9 percentage points from SY2009 to SY2012.

At the high school grade level in SY2012, Black North American males were the largest Black geographical group as a proportion of total male student enrollment at $31.8 \%$; they also represented the largest Black male geographical group as a proportion of overall Black male enrollment at $69.3 \%$. Black Caribbean males constituted $7.3 \%$ of total male enrollment, and Black African males made up $6.5 \%$ of total male enrollment. The proportions of Black African and Black Caribbean males as a percentage of total male enrollment in high school grades remained stable over time, while the proportion of Black North Americans decreased slightly by 2.7 percentage points from SY2009 to SY2012.

## Enrollment of Latino males by race

We examined Latino male enrollment patterns by race-that is, Latino-White, Latino-Black, and Latino-Other. Latino-White males formed the largest racial group among Latino males overall, followed by a smaller proportion of Latino-Black males, and a much smaller proportion of Latino-Other males. Enrollment rates in SY2012 for Latino males by race are presented in Figure 3.

Figure 3: Overall Latino Male Enrollment by Race


In Table 3 we present enrollment numbers for Latino males by race, along with their corresponding proportions of total male BPS enrollment at the elementary, middle, and high school grade levels for SY2012.

Table 3: Latino Male Enrollment by Race and Grade Level

|  | EG | MG | HSG |
| :--- | :---: | :---: | :---: |
| Latino-White | $3,702(27.8 \%)$ | $1,509(28.5 \%)$ | $1,995(25.5 \%)$ |
| Latino-Black | $1,867(14.0 \%)$ | $550(10.4 \%)$ | $877(11.2 \%)$ |
| Latino-Other | $302(2.3 \%)$ | $97(1.8 \%)$ | $134(1.7 \%)$ |

Note: Data for groups with 51-99 students are blue in tables.
At the elementary grade level in SY2012, Latino-White males represented the largest Latino racial group as a proportion of total male student enrollment at 27.8\%; Latino-Black males represented $14.0 \%$ of total male enrollment, and Latino-Other males made up $2.3 \%$ of total male enrollment. The proportions of Latino-White and LatinoOther males as a percentage of total male enrollments in the elementary grades remained steady over time, while the proportion of Latino-Black males increased by 3.5 percentage points from SY2009 to SY2012. Latino-White males made up the largest proportion of
all Latino males in the elementary grades at $63.1 \%$, followed by Latino-Black males at $31.8 \%$.

In the middle grades in SY2012, Latino-White males made up the largest Latino racial group as a proportion of total male student enrollment at 28.5\%. Latino-Black males represented $10.4 \%$ of total male enrollment, and Latino-Other males made up 1.8\% of total male enrollment. The proportions of Latino-White and Latino-Other males as a percentage of total male enrollments in the middle grades remained steady over time, while the proportion of Latino-Black males increased by 2.0 percentage points from SY2009 to SY2012. Latino-White males made up the largest proportion of all Latino males in the middle grades at $70.0 \%$, followed by Latino-Black males at $25.5 \%$.

At the high school grade level in SY2012, Latino-White males made up the largest Latino racial group as a proportion of total male student enrollment at $25.5 \%$. Latino-Black males represented $11.2 \%$ of total male high school grade level enrollment, and Latino-Other males represented $1.7 \%$ of total male enrollment. Latino-White males represented the largest proportion of all Latino males at $66.4 \%$, followed by Latino-Black males at $29.2 \%$. The proportions of Latino-White, Latino-Black, and Latino-Other males as a percentage of total male enrollment in the high school grades remained steady from SY2009 to 2012. However, as a percentage of total Latino male enrollment, Latino-Black enrollment increased 5.5 percentage points, while Latino-White enrollment decreased 5.9 percentage points in the high school grades from SY2009 to SY2012.

## Enrollment of Latino males by geographical group

Within the Latino ethnic group, we also examined enrollment patterns by four geographical groups: (1) Latino Caribbean, (2) Latino North American, (3) Latino South

American, and (4) Latino Central American. Latino North Americans formed the largest geographical group overall, followed, in order, by much smaller proportions of Latino Caribbean, Latino Central American, and Latino South American males. The graph below presents enrollment figures for SY2012 for Latino males by geographical group.

Figure 4: Overall Enrollment of Latino Males by Geographical Group


Next, we present enrollment numbers for Latino males by geographical group at the elementary, middle, and high school grade levels for SY2012, as well as their corresponding proportions of total male enrollment.

Table 4: Latino Male Enrollment by Geographical Group and Grade Level

|  | EG | MG | HSG |
| :--- | :---: | :---: | :---: |
| Latino Caribbean | $557(4.2 \%)$ | $349(6.6 \%)$ | $642(8.2 \%)$ |
| Latino North American | $5,112(38.4 \%)$ | $1,641(31.0 \%)$ | $1,981(25.3 \%)$ |
| Latino South American | $52(0.4 \%)$ | $63(1.2 \%)$ | $100(1.3 \%)$ |
| Latino Central American | $131(1.0 \%)$ | $99(1.9 \%)$ | $267(3.4 \%)$ |

Note: Data for groups with 51-99 students are blue in tables.

At the elementary grade level in SY2012, Latino North American males represented the largest Latino ethnic group as a proportion of total male student
enrollment at $38.4 \%$; Latino Caribbean males encompassed $4.2 \%$ of total male enrollment; Latino Central American males represented 1.0\% of total male enrollment; and Latino South American males constituted $0.4 \%$ of total male enrollment. The proportions of Latino Caribbeans, Latino South Americans, and Latino Central Americans as a percentage of total male enrollment in elementary grades remained steady from SY2009, while the proportion of Latino North American males increased by 3.6 percentage points from SY2009 to SY2012.

At the middle grade level in SY2012, Latino North American males were the largest Latino ethnic group as a proportion of total male student enrollment at $31.0 \%$. Latino Caribbean males made up $6.6 \%$ of total male enrollment; Latino Central American males represented $1.9 \%$ of total male enrollment; and Latino South American males constituted $1.2 \%$ of total male enrollment. The proportions of Latino Caribbeans, Latino South Americans, and Latino Central Americans as a percentage of total male enrollment in the middle grades remained steady over time, while the proportion of Latino North American males increased by 2.8 percentage points from SY2009 to SY2012.

At the high school grade level in SY2012, Latino North American males represented the largest Latino ethnic group as a proportion of total male student enrollment at $25.3 \%$. Latino Caribbean males represented $8.2 \%$ of total male enrollment; Latino Central American males made up $3.4 \%$ of total male enrollment; and Latino South American males constituted $1.3 \%$ of total male enrollment. The proportions of Latino Caribbeans, Latino North Americans, Latino South Americans, and Latino Central Americans as a percentage of total male enrollment in the high school grades remained steady from SY2009 to SY2012.

Enrollment of Latino males by geographical group and race
Within each Latino male geographical group discussed above, we further divided students by race. With this further disaggregation, many of the geographical groups are too small to be included in subsequent discussion and analyses. The complete enrollment breakdown for SY2012 provides a full picture and illustrates some of the very low sample sizes.

Table 5: Latino Male Enrollment by Geographical Group and Race, SY2012

| Geographical Group/Race | Grade Level |  |  |
| :---: | :---: | :---: | :---: |
|  | EG | MG | HSG |
| Latino Caribbean |  |  |  |
| Latino-White Caribbean | $\begin{gathered} 314 \\ (56.4 \%) \end{gathered}$ | $\begin{gathered} 201 \\ (57.6 \%) \end{gathered}$ | $\begin{gathered} 376 \\ (58.6 \%) \end{gathered}$ |
| Latino-Black Caribbean | $\begin{gathered} 218 \\ (39.1 \%) \end{gathered}$ | $\begin{gathered} \hline 130 \\ (37.2 \%) \end{gathered}$ | $\begin{gathered} 243 \\ (37.9 \%) \end{gathered}$ |
| Latino-Other Caribbean | NA | NA | NA |
| Latino North American |  |  |  |
| Latino-White North American | $\begin{gathered} 3,234 \\ (63.3 \%) \end{gathered}$ | $\begin{gathered} 1,161 \\ (70.7 \%) \end{gathered}$ | $\begin{gathered} 1,321 \\ (66.7 \%) \end{gathered}$ |
| Latino-Black North American | $\begin{gathered} 1,620 \\ (31.7 \%) \end{gathered}$ | $\begin{gathered} 404 \\ (24.6 \%) \end{gathered}$ | $\begin{gathered} 572 \\ (28.9 \%) \end{gathered}$ |
| Latino-Other North American | $\begin{gathered} 258 \\ (5.0 \%) \end{gathered}$ | $\begin{gathered} 76 \\ (4.6 \%) \end{gathered}$ | $\begin{gathered} 88 \\ (4.4 \%) \end{gathered}$ |
| Latino South American |  |  |  |
| Latino-White South American | NA | $\begin{gathered} 57 \\ (90.5 \%) \end{gathered}$ | $\begin{gathered} 88 \\ (88.0 \%) \end{gathered}$ |
| Latino-Black South American | NA | NA | NA |
| Latino-Other South American | NA | - | NA |
| Latino Central American |  |  |  |
| Latino-White Central American | $\begin{gathered} 105 \\ (80.2 \%) \end{gathered}$ | $\begin{gathered} \hline 87 \\ (87.9 \%) \end{gathered}$ | $\begin{gathered} 208 \\ (77.9 \%) \end{gathered}$ |
| Latino-Black Central American | NA | NA | NA |


| Latino-Other Central American | NA | NA | NA |
| :--- | :--- | :--- | :--- |

Note: We report enrollment by geographical region and race as a percentage of each Latino geographical group. We do not report on trends or graph populations composed of 50 or fewer students-we present them in this table as "NA." For groups with $n$ 's between 51 and 99 , we interpret them with caution and present them here in blue font.

Among the twelve Latino geographical race groups, only seven groups had sufficient students to report on: (1) Latino-White Caribbeans, (2) Latino-Black Caribbeans, (3) Latino-White North Americans, (4) Latino-Black North Americans, (5) Latino-Other North Americans, (6) Latino-White South Americans (previous to SY2012, their sample size was greater than 50), and (7) Latino-White Central Americans.

At all three grade levels, Latino-White groups composed the largest proportion of each Latino geographical group. Of Latino Caribbean males at the elementary grade level in SY2012, $56.4 \%$ were Latino-White Caribbean and $39.1 \%$ were Latino-Black Caribbean. Among Latino North American males, $63.3 \%$ were Latino-White North Americans, $31.7 \%$ were Latino-Black North Americans, and $5.0 \%$ were Latino-Other North Americans. Among Latino South American males, $86.5 \%$ were Latino-White South Americans, and among Latino Central American males, $80.2 \%$ were Latino-White Central Americans.

Apart from Latino-Black North American males, whose enrollment increased slightly by 2.9 percentage points, the proportions of all Latino geographical race groups as percentages of total male enrollment at the elementary grade level remained steady from SY2009 to SY2012. Changes over time were larger for several Latino geographical race groups' proportions of their corresponding overall Latino geographical group. As a proportion of Latino Caribbeans, Latino-White Caribbeans decreased 8.5 percentage points from SY2009 to SY2012, while Latino-Black Caribbeans increased 7.9 percentage
points. As a proportion of Latino North Americans, Latino-White North Americans decreased 5.3 percentage points, and Latino-Black North Americans increased 5.1 percentage points.

At the middle grade level in SY2012, the Latino-White race groups accounted for the largest proportion of each of the Latino geographical groups. Of the Latino Caribbean male group, $57.6 \%$ were Latino-White Caribbean and $37.2 \%$ were Latino-Black Caribbean. Among Latino North American males, 70.7\% were Latino-White North Americans, $24.6 \%$ were Latino-Black North Americans, and $4.6 \%$ were Latino-Other North Americans. Among Latino South American males, $90.5 \%$ were Latino-White South Americans, and among Latino Central American males, $87.9 \%$ were Latino-White Central Americans.

The proportions of all Latino geographical race groups as a percentage of total male enrollment at the middle grade level remained steady from SY2009 to SY2012. We saw larger changes over time in the proportions of Latino geographical race groups as a percentage of their corresponding overall Latino geographical group. As a proportion of Latino Caribbeans, Latino-White Caribbeans had a 12.9 percentage-point decrease in enrollment from SY2009 to SY2012, while Latino-Black Caribbeans' enrollment increased 10.8 percentage points. As a proportion of Latino North Americans, LatinoBlack North Americans increased slightly, by 2.3 percentage points. As a proportion of Latino South Americans, Latino-White South Americans increased by 10.8 percentage points. As a proportion of Latino Central Americans, Latino-White Central Americans increased by 4.9 percentage points.

At the high school grade level in SY2012, as with the elementary and middle grade levels, the Latino-White race groups made up the largest proportion of each of the

Latino geographical groups. Of Latino Caribbean males, $58.6 \%$ were Latino-White Caribbean and $37.9 \%$ were Latino-Black Caribbean. Among Latino North American males, $66.7 \%$ were Latino-White North Americans, $28.9 \%$ were Latino-Black North Americans, and 4.4\% were Latino-Other North Americans. Among Latino South American males, $88.0 \%$ were Latino-White South Americans, and among Latino Central American males, $77.9 \%$ were Latino-White Central Americans.

The proportions of all Latino geographical race groups as a percentage of total male enrollments at the high school grade level remained steady from SY2009 to SY2012. However, there were larger changes over time in the proportions of two Latino geographic/racial groups as percentages of their corresponding overall Latino geographical group. As a proportion of Latino Caribbeans, Latino-White Caribbeans decreased 6.7 percentage points from SY2009 to SY2012, while Latino-Black Caribbeans increased 5.2 percentage points. The proportions of other geographic/racial groups as a percentage of their overall geographical group remained steady over time.

Latino-White race groups composed the largest proportion of each of the Latino geographical groups at all three levels of schooling. At all three school levels, LatinoWhite North Americans formed the largest Latino geographical race group as a proportion of total male enrollment, and the largest group within the overall Latino North American geographical category. Latino-Black North Americans formed the next largest overall Latino geographical race group as a proportion of total males, and the next largest group among Latino North Americans.

## Summary of overall enrollment

In summary, enrollment rates have remained relatively stable over time, with equal proportions of males and females at each school level, with almost half of all students in elementary grades. At the elementary grade level, there are more Latino males than Black males; at the middle grade level, there are roughly equal proportions of both groups of males; and at the high school grade level, there are more Black males than Latino males. Overall, comparing SY2009 with SY2012, the proportions of Black males at the elementary and middle grade levels decreased slightly, while proportions of Latino males at both grade levels increased slightly. At the high school grade level, proportions remained steady.

The largest Black male geographical group was Black North American males, followed by Black Caribbean and Black African males at the elementary, middle, and high school grade levels. The percentage of Black North American males is decreasing, while the percentages of Black Caribbeans and Black Africans are increasing slightly. The largest Latino male racial group was Latino-White, followed by Latino-Black, and Latino-Other. The largest Latino male geographical group was Latino North American, followed by Latino Caribbean, Latino Central American, and Latino South American. With respect to the enrollment of Latino males by geographical region and race, LatinoWhite race groups made up the largest proportion of each of the Latino geographical groups at all three levels of schooling. At all three levels of schooling, Latino-White North Americans formed the largest Latino geographical race group overall, with LatinoBlack North Americans forming the next largest overall Latino group. Percentage-point increases and decreases from SY2009 to SY2012 across groups were small.

## Eligibility for Free and Reduced-Price Lunch

Eligibility for free and reduced-price lunch (FRL) serves as a proxy for classifying a student's socioeconomic status and is federally defined using guidelines about household income levels (U.S. Department of Education, 2012). In the absence of more precise indicators of a student's family income level, such as head of household's salary or home ownership or parent education level, researchers and educators use FRL as a crude measure of whether or not schools serve high proportions of students with limited financial resources (Harwell \& LeBeau, 2010). Socioeconomic status, which affects other aspects of a child's development, including housing and health, is a strong predictor of achievement (Braun, Jenkins, \& Grigg, 2006; Hao \& Bonstead-Bruns, 1998; Lee \& Smith, 1999; Werblow \& Duesbery, 2009). We present FRL findings by gender, by racial/ethnic group, by geographical group, and by geographical group and race.

## FRL eligibility by gender

The differences in eligibility for free and reduced-price lunch were negligible by gender in elementary, middle, and high school grades. In SY2012, the elementary grades FRL rates were $75.2 \%$ for females and $74.6 \%$ for males; in middle grades, the rates were $73.0 \%$ for females and $72.7 \%$ for males; and in high school grades, the rates were $73.0 \%$ for females and $71.1 \%$ for males. In the elementary and middle grades from SY2009 to SY2012, the overall proportion of females who were eligible for free and reduced-price lunch fell 5.7 and 4.0 percentage points, respectively, and for males, rates fell 6.1 and 4.5 percentage points, respectively. On the other hand, in the high school grades, eligibility increased by 5.2 percentage points for females and 5.8 percentage points for males over the same period.

## FRL eligibility for males by racial/ethnic group

In the section that follows, we present results for male students by racial/ethnic group within each of the three grade levels in SY2012.

Figure 5: FRL Eligibility Rates for Males by Racial/Ethnic Group


In the elementary grades, rates of FRL eligibility varied by racial/ethnic group. The eligibility rate was highest for Black and Latino males, at approximately $80 \%$ each year, and lowest for White males, at around $40 \%$. The relative FRL eligibility ranking of each racial/ethnic group remained constant except in SY2012, when Latino eligibility rates dropped from highest to second highest at $79.5 \%$, below the Black rate of $82.4 \%$.

In the middle grades, the relative ranking of FRL rates was the same as in the elementary grades by race, with Black and Latino males having the highest rates and White males having the lowest rates. The eligibility rates decreased for all groups over the study period, such that White males had an FRL rate of $39.1 \%$ and Latino males had an FRL rate of $78.9 \%$ in SY2012. Black males had stable FRL eligibility rates of around $80 \%$ over the four years. The White-Black gap in FRL eligibility rates increased during
the study period by 8.6 percentage points, and the White-Latino gap increased by 2.0 percentage points.

In the high school grades, unlike in the elementary grades and middle grades, the racial/ethnic group with the highest eligibility for free and reduced-price lunch was Asian males, followed closely by Black and Latino males. In SY2012, White males had an FRL rate of $40.9 \%$, slightly more than half the rates of other racial/ethnic groups. At the high school grade level, FRL eligibility rates increased for all racial/ethnic groups during the study period. The gap in FRL eligibility rates between White and Black males increased 5.3 percentage points, while the gap between White and Latino males increased 0.6 percentage points during the study period.

## FRL eligibility for Black males by geographical group

In this section, we present results for free and reduced-price lunch eligibility for Black males by geographical group in SY2012.

Figure 6: FRL Eligibility Rates for Black Males by Geographical Group


At the elementary grade level, Black Caribbean males had slightly higher FRL rates than Black North American or Black African males. Eligibility rates for FRL decreased over time from SY2009 to SY2012 for all three groups of Black males. However, Black African elementary grade level males started the study period in SY2009 with the highest FRL rates, at $90.5 \%$, and dropped to the lowest of the three groups, at $80.1 \%$, in SY2012. Black North American and Black Caribbean males' FRL rates were about the same over time, at $82.6 \%$ and $83.3 \%$, respectively, in SY2012.

In the middle grades, Black African males' FRL rates were also the highest in SY2009, at $89.2 \%$, but dropped to the lowest rate, at $75.3 \%$, in SY2012. In SY2012 Black Caribbean males' FRL rates were the highest, at $87.6 \%$, and Black North American males' FRL rates were $80.0 \%$. The 12.3 percentage-point difference in FRL eligibility rates at the middle grade level between Black African males and Black Caribbean males was the largest gap for FRL eligibility between Black groups in any of the grade-level spans.

At the high school grade level, FRL rates among Black male students overall increased steadily over the study period, from $69.2 \%$ to $76.5 \%$. Black Caribbean males experienced the largest increase at 9.3 percentage points, compared to 7.1 and 6.9 percentage-point increases for Black North American and Black African males, respectively. Black African male high school grade level students had higher rates of FRL eligibility than the other two Black groups each year. The gap between Black Caribbean and Black North American males in eligibility for free and reduced-price lunch was less than one percentage point.

In SY2012, the highest FRL rates were among Black Caribbean males in the elementary and middle grades, and Black African males in the high school grades. These
two groups represent immigrants or recent immigrants, which could explain their relatively higher poverty rates.

## FRL eligibility for Latino males by race

Within the Latino ethnic group, we examined the eligibility for free and reducedprice lunch by race: Latino-White, Latino-Black, and Latino-Other. Below, we present FRL eligibility rates for Latino males by race in SY2012.

Figure 7: FRL Eligibility Rates for Latino Males by Race


Among Latino males overall, we found that FRL rates over the study period decreased in the elementary grades from $88.3 \%$ to $79.5 \%$, and in the middle grades from $87.1 \%$ to $79.2 \%$-changes of 8.8 and 7.9 percentage points, respectively. Latino-White males accounted for most of the decline in FRL eligibility over time. At the elementary and middle grade levels, while Latino-White males had the highest FRL eligibility rates in SY2009, they had the lowest FRL eligibility rates in SY2012.

In the high school grades, the FRL eligibility rates increased 2.7 percentage points overall for Latino males over the study period, from $72.8 \%$ to $75.5 \%$, with Latino-Black males accounting for most of this increase. Thus, while high school grade level FRL rates were lower than the rates for the elementary and middle grades, the gaps by grade level
were closing for Latino male students. Of the three Latino racial groups, high school grade level Latino-Black male students had the lowest FRL rates in SY2009 at 65.2\%, and the highest FRL rates in SY2012 at 76.3\%.

## FRL eligibility for Latino males by geographical group

In our racial/ethnic framework we divided the Latino ethnic group into four geographical groups: Latino Caribbean, Latino North American, Latino South American, and Latino Central American. We next present eligibility for FRL for Latino males by geographical group in SY2012.

Figure 8: FRL Eligibility Rates for Latino Males by Geographical Group


Note: There were between 51 and 99 Latino South American males at the elementary and middle grade levels, and between 51 and 99 Latino Central American male students at the middle grade grade level; results must be interpreted with caution.

At all three grade levels, the rates of eligibility for free and reduced-price lunch changed between SY2009 and SY2012, but the rates for the geographical groups remained fairly stable across the grade levels, with the exception of FRL rates for Latino South American and Central American males, which dropped significantly between SY2009 and SY2012. By SY2012, the gaps in FRL rates between Latino Caribbean and Latino North American males, and Latino South American and Latino Central American
males were roughly between 30 and 40 percentage points in the elementary and middle grades, and roughly between 25 and 40 percentage points in the high school grades.

Latino Caribbean and Latino North American male geographical groups had relatively stable rates of FRL eligibility.

## FRL eligibility for Latino males by geographical group and race

Within each Latino male geographical group, we also examined the FRL rates in SY2012 by race, as illustrated in Figures 9 and 10.

Figure 9: FRL Eligibility Rates for Latino Caribbean Males by Race


Note: Latino-Other Caribbeans numbered less than 50 and therefore are not graphed.
Figure 10: FRL Eligibility Rates for Latino North American Males by Race


Note: Latino-Other North Americans numbered between 51 and 99 in the middle and high school grades; therefore their results should be interpreted with caution.

In the elementary grades, the North American groups showed some volatility, with Latino-White North American and Latino-Other North American males showing large decreases in FRL rates from SY2009 to SY2012 (11.1 and 7.8 percentage points, respectively); Latino-Black North American males showed a smaller decrease (3.4 percentage points) in FRL rates over the study period. As a result, in SY2012, LatinoBlack North American male students showed FRL rates of 83.3\%, while Latino-White North American and Latino-Other North American male students had lower FRL rates of $77.9 \%$ and $75.6 \%$, respectively.

In the middle grades in SY2012, a slightly higher proportion of Latino-White Caribbeans than Latino-Black Caribbeans were eligible for the FRL program, 88.1\% compared to $86.2 \%$, respectively. Latino-White North American and Latino-Black North American male students showed gaps in FRL rates, but they switched places during the study period. In SY2009, the gap was 6.9 percentage points, with Latino-White North American males having higher FRL rates; in SY2012, the gap was 6.3 percentage points, with Latino-Black North American males having higher FRL rates.

In the high school grades, Latino Caribbean male students showed increases from SY2009 to SY2012 in FRL eligibility. Latino-White Caribbean FRL rates were higher than Latino-Black Caribbean FRL rates in three of the four years, ending at $85.6 \%$ and $83.1 \%$, respectively, in SY2012. Finally, there was a consistent gap in FRL rates between Latino-White North American and Latino-Other North American males over time of roughly 2 to 5 percentage points. However, Latino-Black North American male high school grade level students showed a steady increase of 10.5 percentage points in FRL rates, from 63.3\% in SY2009 to 73.8\% in SY2012.

## Summary of FRL eligibility

Overall, differences in FRL rates for males and females were negligible at all three grade level spans, and while there were decreases in eligibility for FRL for both males and females in elementary and middle school grades, there were increases in eligibility in the high school grades over time from SY2009 to SY2012.

FRL rates decreased for all racial/ethnic groups over the four years in the elementary and middle grades, and increased for all racial/ethnic groups over the four years in the high school grades. Black and Latino FRL rates were the highest of all racial/ethnic groups at the elementary and middle grades levels, and Asian FRL rates were the highest at the high school grade level. White FRL rates were the lowest of all rates at all three grade levels. The White-Black and White-Latino gaps in FRL eligibility were highest in the elementary grades and lowest in the high school grades; however, in the high school grades, they were still over 34 percentage points. The large difference in FRL eligibility rates in the middle grades and the high school grades highlights the disproportionate numbers of White and Asian students who are not eligible for free and reduced-price lunch in the exam schools. More socioeconomically advantaged students tend to populate the exam schools, which select students based on test scores and grades.

Disaggregation of FRL data for Black male groups revealed that Black Caribbean males had the highest FRL rates of all Black geographical groups in the elementary and middle grades, and Black African males had the highest FRL rates of all Black geographical groups in the high school grades.

The FRL data disaggregated by race and geography for Latino groups show that Latino-Black males had the highest FRL rates of the Latino racial groups at all three grade levels. Latino Caribbean and Latino North American males had the highest FRL
rates of all Latino geographical groups. The gaps between them and Latino Central American and Latino South American males were quite large and consistent across grade levels.

Further disaggregating data for Latino males by geographical origin and race, we found higher FRL rates among Latino-White Caribbeans compared to Latino-Black Caribbeans across all three grade levels. Latino-Black North Americans had higher FRL rates than Latino-White North Americans at the elementary and middle grade levels, with the opposite being true in the high school grades. The high FRL rates for Black and Latino male students reinforce the notion that we need to pay extra attention to their access to and opportunities for quality educational settings.

## English Language Learners

Students who are English language learners (ELLs) receive the designation of Limited English Proficient (LEP) by the Massachusetts Department of Elementary and Secondary Education. Students designated as LEP are native speakers of a language other than English and are "unable to perform ordinary classwork in English." While students who are ELLs span a wide range of English proficiency, they are designated as LEP until they transition fully to regular education classrooms with no need for English as a second language (ESL) support. In the section that follows, we describe the LEP student population in Boston Public Schools, first by gender and then by racial/ethnic and geographical groups.

## Limited English proficiency rates by gender

At all three grade levels in SY2012, male and female students were identified as LEP at roughly equal rates, with males having slightly higher LEP rates than females. Of
the males identified as LEP, $36 \%$ were in the elementary grades, $24.5 \%$ were in the middle grades males, and $20.9 \%$ were in the high school grades. Limited English proficiency identification rates increased during the study period (SY2009-SY2012) at all three grade levels for both males and females, with the highest increases in the elementary grades. We hypothesize that these increases in LEP identification rates stem not from new immigration to Boston and enrollment in its public schools, but rather from improved identification policies and practices due to a settlement agreement with the U.S. Department of Justice (Uriarte et al., 2011). In the elementary grades, LEP rates for males and females increased 11.5 and 10.1 percentage points, respectively, during the study period. In the middle grades, LEP rates increased 6.4 and 6.9 percentage points for males and females, respectively. In the high school grades, LEP rates increased 5.1 and 3.7 percentage points for males and females, respectively. LEP rates for males and females were highest in the elementary grades and lowest in the high school grades.

## Limited English proficiency rates for males by racial/ethnic group

Limited English proficiency identification rates for male students by racial/ethnic group in SY2012 are presented below.

Figure 11: Limited English Proficiency Rates for Males by Racial/Ethnic Group


LEP rates varied by race, which is not surprising, because some racial/ethnic groups are more likely to include immigrants whose native language is not English than are other groups. At all three grade levels in SY2012, Asian and Latino males had the highest rates of LEP identification, and those rates had increased over the study's period. For these two racial/ethnic groups, LEP rates were higher than $50 \%$ in the elementary grades ( $62.2 \%$ for Asian males and $53.2 \%$ for Latino males), and in the middle grades, they were $23.9 \%$ for Asian males and $40.6 \%$ for Latino males. In the high school grades, the LEP rate for Asian males was $27.2 \%$; the Latino rate was $31.9 \%$. Across grade levels, LEP rates for Black males were below $20 \%$, while for White males they were below $12 \%$.

Across time, LEP identification rates increased at all grade levels for Black and Latino males, with the highest increases in LEP rates being observed for Latino males. From SY2009 to SY2012, LEP rates for Latino males increased by 15.3, 9.4, and 8.9 percentage points in the elementary, middle, and high school grades, respectively. During the same period, rates for Black males increased by $8.3,6.6$, and 3.6 percentage points in the elementary, middle, and high school grades, respectively.

## Limited English proficiency rates for Black males by geographical group

We disaggregated data for racial/ethnic groups further into geographical groups to determine which geographical groups within racial/ethnic categories had the highest concentrations of LEP students. In the graph below, we present LEP identification rates in SY2012 for Black males by geographical group.

Figure 12: Limited English Proficiency Rates for Black Males by Geographical Group


Our analysis showed that the overall Black male rate of LEP identification, at $16.7 \%$ to $18.4 \%$ across the three grade levels, is misleading. When the data for Black males were disaggregated by geographical region, clear differences in LEP identification emerged. Black North American males were rarely identified as LEP, while Black African and Black Caribbean male students were more likely than not to be LEP, particularly at the lower grade levels. Black African male students had the highest LEP rates in each grade level, from $77.2 \%$ in the elementary grades to $64.1 \%$ in the middle grades to $60.6 \%$ in the high school grades in SY2012. Black Caribbean males had slightly lower rates of LEP identification than Black African male students at each grade level, but they were still far higher than for Black North American male students, who make up the vast majority of Black students (as described in the overall enrollment section of this report). Additionally, Black African and Black Caribbean male LEP rates increased
during the study's period at each grade level, with the greatest increases observed in the elementary grades.

## Limited English proficiency rates for Latino males by race

We also disaggregated LEP identification rates for Latino males by race, and share them below for SY2012.

Figure 13: Limited English Proficiency Rates for Latino Males by Race


Note: There were between 51 and 99 Latino-Other males in the middle grades; results must be interpreted with caution.

Among Latino males in the elementary grades, LEP rates were highest for LatinoWhite males, increasing from $43.3 \%$ in SY2009 to $60.6 \%$ in SY2012. Other groups also experienced growth in LEP identification, but at lower rates than Latino-White males. Similar to the findings in the elementary grades, Latino-Black males had the lowest LEP identification rates of the three Latino racial groups in the middle and high school grades. All three Latino groups experienced increases in LEP identification rates, with LatinoOther surpassing Latino-White male LEP rates in SY2011 and SY2012 in the middle and
high school grades. In the high school grades, LEP rates for Latino-Black and LatinoWhite males increased at about the same pace. However, high school grade level LatinoOther males (as well as middle grade level Latino-Other males) were identified as LEP at greatly increasing rates during the four years, so that they had the highest LEP rates of the three Latino racial groups in SY2012.

## Limited English proficiency rates for Latino males by geographical group

To determine if differences existed among Latino males by region, we examined LEP rates for Latino males in SY2012 by geographical group, shown below.

Figure 14: Limited English Proficiency Rates for Latino Males by Geographical Group


Note: There were between 51 and 99 Latino South American male students in the elementary and middle grades, and between 51 and 99 Latino Central American male students in the middle grades; results for these groups must be interpreted with caution.

Disaggregation of data for Latino males by geographical region revealed similar differences in LEP patterns by geographical group as those found for Black males. At all three grade levels for all four years, Latino Caribbean, Latino Central American, and Latino South American male students were identified as LEP at far higher rates than were

Latino North American male students. In comparison to Black geographical groups, however, LEP rates were higher for each Latino geographical group, including the North American group. In the elementary grades, the LEP rates for the three Latino geographical groups with the highest rates ranged from $82.7 \%$ to $91.6 \%$, while Latino North American males had an LEP rate of $48.2 \%$ in SY2012. In the middle grades, a similarly wide gap existed, although LEP rates for all Latino geographical groups were lower in the middle grades than in the elementary grades. And in the high school grades, the $72.9 \%$ LEP rate for Latino Caribbean males surpassed the rates of the other three Latino geographical groups.

## Limited English proficiency rates for Latino males by geographical

 group and raceWe further disaggregated data for Latino male geographical groups by race, as illustrated below, starting with Latino Caribbean males.

Figure 15: Limited English Proficiency Rates for Latino Caribbean Males by Race


Note: Latino-Other Caribbean males numbered less than 50 and therefore are not graphed.
In the elementary grades, the difference in LEP identification rates between
Latino-White Caribbean males and Latino-Black Caribbean males was negligible over
time, with SY2012 rates of $87.6 \%$ and $86.7 \%$, respectively. The LEP identification rate gap between Latino-White Caribbean and Latino-Black Caribbean males increased in the middle grades, to 7.7 percentage points in SY2012, with LEP rates of $73.1 \%$ and $80.8 \%$, respectively. In the high school grades, the LEP identification rate gap between Latino-White Caribbean males and Latino-Black Caribbean males was 11.4 percentage points in SY2012, with LEP rates of $67.6 \%$ and $79.0 \%$, respectively.

We also disaggregated the in SY2012 LEP identification rates for Latino North American males, as illustrated below.

Figure 16: Limited English Proficiency Rates for Latino North American Males by Race


Note: Latino-Other North American males numbered between 51 and 99 at the middle and high school grade levels; therefore their results should be interpreted with caution.

Among Latino North American males, the gaps were large among Latino-White, Latino-Black, and Latino-Other groups at all three grade levels. In the elementary and high school grades, Latino-White North American males had the highest rates of LEP
identification, and in all three grade levels, Latino-Black North American males had the lowest rates of LEP identification.

## Summary of English language learner status

In summary, LEP identification rates have increased over time and were slightly higher for males than for females. All groups followed the pattern of decreasing LEP identification rates as students moved up in grade level (i.e., from the elementary grades to the high school grades) as students gained English proficiency and transitioned out of LEP status. Asian and Latino male LEP rates were the highest, but when Black male LEP rates were disaggregated by geographical region, high LEP rates for Black African and Black Caribbean males were uncovered. Similarly, Latino Caribbean, Latino Central American, and Latino South American male geographical groups had higher LEP rates than the Latino North American male group, although the latter, too, had significant rates of LEP identification. Both the Black and the Latino groups are diverse by immigration status and native language, with some geographical groups posting high LEP rates, qualifying these students for ELL schools, programs, and services.

Over time, LEP identification rates increased at all grade levels for Black and Latino males, with the highest increases in LEP rates being observed for Latino males.

## Identification of Students with Disabilities

The current federal law defining the rights of individuals with disabilities to a free and appropriate public education is the Individuals with Disabilities Education Improvement Act of 2004 (commonly referred to as "IDEA"), which reauthorized and amended the Individuals with Disabilities Education Act of 1990. The law requires that all children with disabilities have access to specialized services to meet their unique
needs and prepare them for further education and adult life (Individuals with Disabilities Education Improvement Act [IDEA], 2004). Under IDEA, a child with a disability is defined as
...child with a disability means a child evaluated in accordance with Sec. Sec. 300.304 through 300.311 as having mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance (referred to in this part as "emotional disturbance"), an orthopedic impairment, autism, traumatic brain injury, another health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related services (IDEA, 2004, pt 300).

Section 504 of the Rehabilitation Act of 1973 also protects children who qualify for special education (Rehabilitation Act, 1973). Students who have been identified with a disability may qualify for a range of services, from individualized support services within general education classrooms to education in separate settings with substantial modifications to meet a student's individual needs. If a team of educators determines that the student is eligible for special education services, the team develops an Individualized Education Plan (IEP) and determines what services the student needs and the type of placements that best meet the needs of the student (Massachusetts Department of Education, 2001).

Investigating special education placement by racial/ethnic group is of particular importance in the context of this study because prior research shows that Black males are placed in special education at higher rates than are their female peers or peers of other races (Losen \& Orfield, 2002).

## Special education identification rates by gender

In this section we present special education enrollment trends by gender, and for males by racial/ethnic group and by geographical group. We first present special
education identification rates by gender in SY2012. At each grade level, the rates of special education identification were relatively stable over time for both males and females, with males having higher rates than females at all three grade levels. In addition, the gender gap in special education identification was also stable over time and at all three grade levels. In SY2012, the gap between males and females was 11.9 percentage points in the elementary grades, 11.6 percentage points in the middle grades, and 10.6 percentage points in the high school grades. Special education identification rates were slightly higher in the middle grades than in the elementary and high school grades, with the highest special education rate at $28.0 \%$ for males in the middle grades.

## Special education identification rates for males by racial/ethnic group

Next we turned to special education (SPED) identification for males by racial/ethnic group to investigate if differences existed among the various groups; findings are presented in Figure 17.

Figure 17: Special Education Identification Rates for Males by Racial/Ethnic Group


The average rate of special education identification for all males in SY2012 was $25.2 \%$. In the elementary grades, the Asian male special education identification rate was $14.3 \%$, while Black, White, and Latino male special education identification rates
averaged $25.5 \%$, with Black males having the highest identification rate at $27.4 \%$. In the middle grades, the male racial/ethnic group with the highest special education identification rate in SY2012 was Black males at 31.6. \%, followed by Latino males at $29.3 \%$, and White males at $25.6 \%$. In the high school grades in SY2012, Asian males had the lowest identification rate at $8.3 \%$, compared to $28.8 \%$ for Black males, $22.3 \%$ for Latino males, and $22.2 \%$ for White males.

From SY2009 to SY2012 in the elementary grades, special education identification rates for males decreased for all racial/ethnic groups, with the highest drop experienced by White males ( 4.0 percentage points), and the lowest drop occurring for Latino males ( 0.6 percentage point). Decreases in identification rates were also noted in the middle grades, with the greatest decrease occurring for Black males (4.5 percentage points) and the smallest decrease occurring for White males ( 0.4 percentage point). While identification rates increased over time in the high school grades for White, Asian, and Latino males (ranging from a low 0.9 percentage-point increase for White males and a high of 1.5 percentage points for Latino males), identification rates dropped by 2.4 percentage points for Black males.

Special education identification rates for Black males by geographical group

Special education identification rates for Black male geographical groups in SY2012 are presented below.

Figure 18: Special Education Identification Rates for Black Males by Geographical Group


Gaps in special education identification rates were evident among Black geographical groups, with Black North American male students posting much higher SPED identification rates than the other two Black male groups at all three grade levels and across time. The aggregate rates for Black males mask the fact that Black North American males have the highest SPED rates of any racial subgroup at each grade level.

In the elementary grades in SY2012, the SPED identification rate for Black males overall was $27.4 \%$; for Black North American males, it was $30.4 \%$, while it was only $19.1 \%$ for Black Caribbean males and $13.4 \%$ for Black African males. In the elementary grades, identification rates were stable for all three Black geographical groups over time.

From SY2009 to SY2012 in the middle grades, SPED identification rates for Black males decreased by 4.6 percentage points on average, with the largest drop occurring for Black Caribbean males (a 9.8 percentage-point drop). In the middle grades, the identification-rate gaps between Black North American males and the other two Black geographical groups were even larger than in the elementary grades. In SY2012, $39.1 \%$ of Black North American males were identified as having special needs, while

Black African males had a $17.5 \%$ SPED identification rate, and Black Caribbean males had a $15.7 \%$ SPED identification rate.

In the high school grades, SPED identification rates for Black males were stable over the four years, and the gaps between Black North American rates and the rates of the two other Black geographical groups were even wider than at the middle grade level, averaging 26.0 percentage points. From SY2009 to SY2012, Black North American males' special education identification rate was more than triple that of Black African males, and more than double that of Black Caribbean males. Special education identification rates did not change much over time for the Black geographical subgroups.

## Special education identification rates for Latino males by race

In this section we focus on Latino male special education identification by race. Within the group of Latino males, we analyzed special education data for Latino-White, Latino-Black, and Latino-Other male students in SY2012 below.

Figure 19: Special Education Identification Rates for Latino Males by Race


Note: There were between 51 and 99 Latino-Other male students in the middle grades; results must be interpreted with caution.

In the elementary grades, SPED identification rates for Latino-White and LatinoBlack male groups were relatively stable, with a $25.5 \%$ average identification rate across time. However, the Latino-Other group declined from a high of a 31.3\% SPED identification rate in SY2010 to the lowest rate in SY2012, 23.2\% (an 8.1 percentagepoint drop).

In the middle grades, Latino male SPED identification rates were higher than in the elementary and high school grades, as described previously, averaging $30.8 \%$ and decreasing by 1.8 percentage points over the study period. Identification rates decreased for Latino-White males by 3.2 percentage points, but increased for Latino-Black males and Latino-Other males (1.4 and 3.2 percentage points, respectively). Latino-Black males had the highest SPED identification rate of Latino male racial groups in the middle grades.

In the high school grades, SPED identification rates for Latino males were 20.2\% on average, and increased by 1.9 percentage points on average over time, with the largest increase occurring for Latino-Black males (4.5 percentage points). Latino-White males had the highest SPED identification rates of the three Latino racial groups across all four years; the gap between them and the Latino-Black and Latino-Other males averaged around 5.8 percentage points across time. Overall, SPED identification rates for Latino racial groups were lowest in the high school grades compared to other grade levels, where they ranged from $19.4 \%$ for Latino-Other males to $25.4 \%$ for Latino-White males in SY2012.

Special education identification rates for Latino males by geographical group

Next we present SY2012 SPED identification rates for Latino males by four geographical groups-Latino Caribbean, Latino North American, Latino South American, and Latino Central American-in the figure below.

Figure 20: Special Education Identification Rates for Latino Males by Geographical Group


Note: There were between 51 and 99 Latino South American males at the elementary and middle grade levels, and between 51 and 99 Latino Central American male students at the middle school grade level; results must be interpreted with caution.

Special education identification rates varied significantly for SY2009 to SY2012 among Latino male geographical groups. Latino South American and Latino Central American males had lower SPED identification rates than did Latino North American and Latino Caribbean males at all grade levels. At all three grade levels, the highest rates of SPED identification were among Latino North American males, followed by Latino Caribbean males. The Latino North American male SPED identification rates were higher than the overall rate for Latino males, while the Latino Caribbean male SPED identification rates were lower than the overall rate for Latino males.

Special education identification rates for Latino males by geographical group and race

We disaggregated data for Latino male geographical groups by race in SY2012 and over time. The graph below shows results for Latino Caribbean males by race in SY2012.

Figure 21: Special Education Identification Rates for Latino Caribbean Males by Race


In the elementary grades, Latino-White Caribbean males had higher SPED identification rates than did Latino-Black Caribbean males. Over time, SPED identification rates for Latino-White Caribbean males dropped by 6.6 percentage points, while they remained virtually unchanged for Latino-Black Caribbean males. From SY2009 to SY2012, the identification-rate gap between the two groups decreased by almost half: from 14.1 percentage points in SY2009 to 7.4 percentage points in SY2012.

In the middle grades, Latino-Black Caribbean males had a slightly higher SPED identification rate in SY2009 than did Latino-White Caribbean males, but identification rates for the former decreased by 6.2 percentage points over time, while identification rates for Latino-White Caribbean males decreased by only 1.3 percentage points. The
gap between the two Latino Caribbean groups increased by 4.9 percentage points over time, with Latino-White Caribbean males having the higher identification rate in SY2012.

Latino-White Caribbean males had consistently higher SPED identification rates than did Latino-Black Caribbean males in the high school grades. The identification-rate gap decreased slightly over time, from 10.9 percentage points in SY2009 to 9.4 percentage points in SY2012. In SY2012, the SPED identification rate for Latino-White Caribbean males was almost twice that for Latino-Black Caribbean males.

Figure 22: Special Education Identification Rates for Latino North American Males by Race


Note: There were between 51 and 100 Latino-Other North American males in the middle and high school grades; results must be interpreted with caution.

Of the Latino North American groups, Latino-Other North American males had the highest SPED identification rates in the elementary grades in SY2009, SY2010, and SY2011, but their rate decreased to $24.0 \%$ in SY2012. The rates for Latino-White North American and Latino-Black North American males fluctuated little across time and were identical for the two groups in SY2012.

In the middle grades, Latino-Other North American males had a lower SPED identification rate in SY2009 (29.2\%) than did Latino-White North American males
(38.0\%) or Latino-Black North American males (33.6\%). However, rates for LatinoOther North American males increased between SY2009 and SY2011 by 10.2 percentage points; in SY2011, they had the highest rate of identification at $39.4 \%$. In the middle grades in SY2012, rates were highest for Latino-Black North American males (36.4\%) and lowest for Latino-White North American males (33.0\%).

In the high school grades, Latino-White North American males consistently had the highest SPED identification rates. Over time their rate increased by 2.5 percentage points, while the rate for Latino-Black North American males increased by 7.5 percentage points, and the rate for Latino-Other North American males increased by 1.7 percentage points. In the high school grades in SY2012, rates were highest for LatinoWhite North American males (31.1\%) and lowest for Latino-Other North American males ( $22.7 \%$ ).

## Summary of identification of students with disabilities

At each grade level span, males had higher rates of special education identification than did females. In SY2012, across all three grade level spans, Black males had the highest special education identification rates of all the major racial/ethnic groups, followed by Latino males. The highest identification rates for Black, Latino, and White males occurred in the middle school grades.

Disaggregation of data for Black geographical groups showed large disparities between the SPED identification rates for Black North American male students-at around $30 \%$ in the elementary grades and $40 \%$ in the middle grades and high school grades-and the rates for the Black African and Black Caribbean groups, which averaged around $16.3 \%$ in the elementary grades, $16.6 \%$ in the middle grades, and $14.3 \%$ in the
high school grades. These disparities reveal that Black North American males had more than double the rate of SPED identification than the other groups at each grade level; and in the high school grades in SY2012, they had triple the rate of identification compared to Black African males, and more than double the rate of Black Caribbean males. Special education identification rates did not change dramatically over time for Black geographical groups.

Similarly, Latino North American males had higher SPED identification rates over time ( $26.0 \%$ to $39.0 \%$ ) than did Latino Caribbean and Latino Central American males. At the elementary grade level, Latino-White male students had the highest SPED identification rate of the three Latino racial groups, albeit only 0.6 percentage points higher than the Latino-Black rate. Latino-Black males had the highest identification rate in the middle grades, but Latino-White males had the highest rate in the high school grades.

Latino-White Caribbean males had higher rates of SPED identification than Latino-Black Caribbean males across all three grade levels in SY2012. In the elementary grades, the SPED identification rates for Latino-White males dropped over time, but they remained unchanged for Latino-Black males; the identification-rate gap between the two groups decreased by almost half.

In the middle grades, rates were highest for Latino-Black North American males and lowest for Latino-White North American males, but in the high school grades, Latino-White North American males had the highest identification rate.

## Access to Educational Opportunity

In this section we present findings pertaining to access to educational opportunity. We investigated the placement of special education students in educational settings; the completion of college preparation curricula at the high school level; and student placement in rigorous academic programs: enrollment in Advanced Work Classes (AWC) and in exam schools.

## Educational Settings for Students with Disabilities

Students attending a regular Boston Public School, identified as having special needs (special education), are placed in one of three types of classrooms. According to MassLegal Services (n.d.), these classrooms are designated as full inclusion, partial inclusion, or substantially separate. As the names imply, students with disabilities in fullinclusion placement spend their full day in classes with general education students. Students with disabilities in substantially separate placement spend at least $80 \%$ of their day in classes or schools with other students with disabilities (BPS, 2013b). Students with disabilities in partial-inclusion placement receive some of their services in a general education classroom and some of their services in a special education classroom. Some BPS schools are designated as inclusive schools. Inclusive schools are part of the BPS Inclusive Schools Network, which provides resources, training, and support to schools in the district that wish to expand inclusion practices for students with disabilities (BPS, 2012). There are twelve elementary, nine middle, and five high schools in the network. Three of the elementary schools and one of the high schools just joined the network in SY2012.

The Individuals with Disabilities Education Improvement Act (IDEA, 2004) requires that students with disabilities be placed in the "least restrictive setting" possible. Research supports a least restrictive setting as the most effective educational placement for students with special needs. Students with disabilities have the greatest opportunity to learn when they are in settings with typically developing students (Audette \& Algozzine, 1997; Buckley \& Bird, 2000; National Center for Education Restructuring and Inclusion [NCERI], 1996; York, Giangreco, Vandercook, \& Macdonald, 1992). With that perspective in mind, we examined placement in special education by gender, by racial/ethnic group, by geographical group, and by geographical group by race to determine whether differential placement existed among the various groups of students.

## Special education placement rates by gender

In this section we present placement rates in special education by gender across the three grade levels in SY2012. As noted previously, males had higher rates of special identification than did females. Over time across all grade levels, males were also consistently placed in the most restrictive setting at higher rates than females. On average across grade levels, almost $40 \%$ of males in special education were placed in substantially separate settings, while, on average across grade levels, $30.9 \%$ of girls were placed in substantially separate settings. The gender gap was largest in the middle grades and narrowest in the high school grades. In SY2012, the gender gap in substantially separate placement was 5.8 percentage points in the elementary grades, 10.0 percentage points in the middle grades, and 5.3 percentage points in the high school grades.

In the elementary grades in SY2012, 32.7 \% of all males with disabilities were placed in substantially separate settings, with this figure rising to $39.5 \%$ in the high
school grades, and $41.7 \%$ in the middle grades. Conversely, females were more likely to be placed in partially and fully inclusive settings than males at all grade levels and through all four years of the study, except for full-inclusion settings at the elementary grade level.

## Special education placement rates for males by racial/ethnic group

Next we present special education placement rates for males by racial/ethnic group in the elementary grades in SY2012. ${ }^{2}$

Figure 23: Elementary Grade Level Special Education Placement Rates for Males with Disabilities by Racial/Ethnic Group


In SY2012 in the elementary grades, higher proportions of Black and Latino males were in substantially separate followed by and partial-inclusion placements compared to White and Asian males. Fewer Black and Latino males were in fullinclusion placements compared to White and Asian males. Higher proportions of White and Asian males were in full-inclusion settings than were in substantially separate
settings, while the opposite was true for Black and Latino males. Black males were placed in substantially separate classrooms at almost twice the rate of White males, and Latino males were placed in substantially separate settings at 1.6 times the rate of White males.

Figure 24: Middle Grade Level Special Education Placement Rates for Males with Disabilities by Racial/Ethnic Group


Note: There were between 51 and 99 Asian male students with special needs; results must be interpreted with caution.

Figure 25: High School Grade Level Special Education Placement Rates for Males with Disabilities by Racial/Ethnic Group


Note: There were between 51and 99 Asian male students with special needs; results must be interpreted with caution.

Similarly to the elementary grades, across the middle and high school grades, higher proportions of Black and Latino males were in substantially separate placements and partial-inclusion placements, while fewer were in full-inclusion placements compared to White males. In the middle grades, Black and Latino males had rates of placement in substantially separate settings that were 1.3 and 1.4 times higher than the placement rate for White males. In the high school grades, while placement rates in substantially separate classrooms were lower for Black and Latino males in comparison to rates in the middle grades, they were still 1.2 times higher than the placement rates for White males in the high school grades.

Overall, in the elementary grades, rates of male students with disabilities in substantially separate settings decreased for all racial/ethnic groups over time, but decreased more markedly for White males (a 6.9 percentage-point drop) compared to other groups, whose rates dropped between 1.6 percentage points (Asian males) and 3.1 percentage points (Latino males). Placement in partial-inclusion settings increased for all groups, but more noticeably for Latino males, whose rate increased by 8.7 percentage points, followed by Black males ( 6.6 percentage points), and White and Asian males (4.8 and 4.6 percentage points, respectively).

At the same time, rates of placement in full-inclusion settings dropped for all grade levels and all racial/ethnic groups. However, across time and at all grade levels, White males were more likely to be placed in fully inclusive settings than were Black and Latino males. Over time, Black and Latino males were more likely to be placed in substantially separate settings in the high school grades than White males. Conversely, White male students were less likely to be placed in substantially separate settings and partially inclusive settings at all grade levels compared to Black and Latino males, and

White males in the elementary grades were placed in inclusive settings at a rate that was $75 \%$ greater than that for Black male students, and $50 \%$ greater than that for Latino male students.

## Special education placement rates for Black males by geographical

 groupNext we turned our attention to special education placement rates for Black male students by geographical group. We present our findings across all three grade levels in the figures that follow.

Figure 26: Elementary Grade Level Special Education Placement Rates for Black Males with Disabilities by Geographical Group


Note: There were between 51 and 99 Black African male students with special needs; results must be interpreted with caution.

Figure 27: Middle Grade Level Special Education Placement Rates for Black North American Males with Disabilities


Note: There were fewer than 50 Black African and Black Caribbean male students with disabilities; therefore their results are not graphed.

Figure 28: High School Grade Level Special Education Placement Rates for Black Males with Disabilities by Geographical Group


Note: There were between 51 and 99 Black African and Black Caribbean male students with special needs; results must be interpreted with caution.

Although Black Caribbean males had a higher rate of placement in substantially separate classrooms in the elementary grades in SY2009 than did Black North American males ( $49.0 \%$ compared to $41.8 \%$ ), the rate for Black Caribbeans decreased by 7.1
percentage points over time, and in SY2012 their rate of placement in substantially separate classrooms was only slightly higher than that of Black North American males. Over time in the elementary and high school grades, Black Caribbean males had higher rates of placement in substantially separate classrooms than did Black North American males. Focusing on SY2012 and acknowledging small group sizes for some of the groups, we observed that Black North American and Black Caribbean male students with disabilities had the highest rates of placement in substantially separate settings in the elementary grades, at $40.0 \%$ and $41.9 \%$, respectively. In the middle grades, Black North American male students were placed in substantially separate settings at twice their rate of placement in inclusive settings ( $42.2 \%$ compared to $20.4 \%$ respectively). In the high school grades, more than half of Black Caribbean male students with disabilities (53.3\%) were placed in substantially separate settings, and their rate was higher than the placement rate for Black males overall in the high school grades.

## Special education placement rates for Latino males by race

We turned our focus next to the placement of Latino male students in special education by race, with SY2012 trends graphed below.

Figure 29: Elementary Grade Level Special Education Placement Rates for Latino Males with Disabilities by Race


Note: In the elementary grades, there were between 51 and 100 Latino-Other male students with disabilities; results must be interpreted with caution.

Figure 30: Middle Grade Level Special Education Placement Rates for Latino Males with Disabilities by Race


Note: In the middle grades, there were fewer than 51 Latino-Other male students in special education; therefore their results are not graphed.

Figure 31: High School Grade Level Special Education Placement Rates for Latino Males with Disabilities by Race


Note: In the high school grades, there were fewer than 51 Latino-Other male students with disabilities; therefore their results are not graphed.

In the elementary grades in SY2012, the proportions of Latino male students overall placed in substantially separate and full-inclusion classrooms were identical, but disaggregating Latino males overall revealed that smaller proportions of Latino-White and Latino-Black male students were placed in partial-inclusion settings than in the other two settings. In the middle grades, a much larger proportion of Latino male students of both races were placed in substantially separate settings than in full- or partial-inclusion settings. Over 40\% of Latino-White and Latino-Black males were placed in substantially separate classrooms in the middle grades, whereas less than $18 \%$ of Latino males of both races were placed in full-inclusion settings. In the high school grades in SY2012, a larger proportion of Latino males of both races were placed in substantially separate classrooms, but the disproportionality in placement rates was greater for Latino-White males than for Latino-Black males. Of the Latino-White males in special education in the high school grades, $42.6 \%$ were in substantially separate settings, and $26.6 \%$ were in partial-inclusion
settings. In contrast, of the Latino-Black males in special education, $37.0 \%$ were in substantially separate settings, and $33.7 \%$ were in partial-inclusion settings.

## Special education placement rates for Latino males by geographical group

Next we looked at special education placement rates by geographical group.
Special education placement rates in SY2012 for Latino males by geographical group are presented below.

Figure 32: Elementary Grade Level Special Education Placement Rates for Latino Males with Disabilities by Geographical Group


Note: There were fewer than 51 Latino South American and Latino Central American male students with disabilities in the elementary grades; therefore data for those groups are not graphed.

Figure 33: Middle Grade Level Special Education Placement Rates for Latino Males with Disabilities by Geographical Group


Notes: There were between 51 and 99 Latino Caribbean male students with disabilities; results must be interpreted with caution. There were fewer than 51 Latino South American and Latino Central American male students with disabilities in the middle grades; therefore data for those groups are not graphed.

Figure 34: High School Grade Level Special Education Placement Rates for Latino Males with Disabilities by Geographical Group


Note: There were fewer than 51 Latino South American and Latino Central American male students with disabilities in the high school grades; therefore data for those groups are not graphed.

In examining the rates of placement in substantially separate settings for Latino
Caribbean and Latino North American males, we found that the SY2012 rates were
highest in the middle grades ( $49.4 \%$ and $46.1 \%$, respectively), followed by the high school grades ( $34.6 \%$ and $42.7 \%$, respectively), and were lowest in the elementary grades ( $28.1 \%$ and $31.7 \%$, respectively). Rates for Latino Caribbean males in partial-inclusion settings in SY2012 were higher than for Latino North American males at all grade levels. The rates of placement in partial-inclusion settings for Latino Caribbean males increased over the study period at all grade levels. Rates for Latino North American males in fullinclusion settings in SY2012 were higher than rates for Latino Caribbean males at all grade levels, and the rates for both groups decreased over time at all grade levels.

In the middle and high school grades, both Latino Caribbean and Latino North American males were more likely to be in substantially separate and partially inclusive settings than in fully inclusive settings. Latino Caribbean males had higher placement rates in substantially separate classrooms in the middle grades than Latino males overall ( $49.4 \%$ compared to $46.2 \%$ ) in non-exam schools. At the elementary and high school grade levels in non-exam schools, Latino North American males had higher placement rates in substantially separate classrooms than did Latino males overall: $31.7 \%$ compared to $31.0 \%$ in the elementary grades; and $42.7 \%$ compared to $41.3 \%$ in the high school grades.

## Special education placement rates for Latino North American males by race

We also disaggregated special education placement data for Latino North American males by race. Placement rates for SY2012 for each grade level are presented below.

Figure 35: Elementary Grade Level Special Education Placement Rates for Latino North American Males with Disabilities by Race


Note: There were fewer than 50 Latino-Other North American male students with disabilities in the elementary grades; therefore data for that group are not graphed.

Figure 36: Middle Grade Level Special Education Placement Rates for Latino North American Males with Disabilities by Race


Note: There were fewer than 50 Latino-Other North American male students with disabilities in the middle grades; therefore data for that group are not graphed.

Figure 37: High School Grade Level Special Education Placement Rates for Latino North American Males with Disabilities by Race


Note: There were fewer than 50 Latino-Other North American male students with disabilities in the high school grades; therefore data for that group are not graphed.

In the elementary grades, Latino-White North American and Latino-Black North American males had the same rates of placement in substantially separate classrooms (31.5\%), while Latino-White North American males had a slightly higher rate of placement in full-inclusion classrooms, and Latino-Black North American males had a higher rate of placement in partial-inclusion classrooms. In the middle and high school grades, Latino-White North American males had higher rates of placement in substantially separate classrooms, while Latino-Black North American males had higher rates of placement in partial-inclusion classrooms.

In the elementary grades over time, rates of placement in substantially separate classrooms did not change much, but rates of placement in partial-inclusion settings increased for Latino-White and Latino-Black North American males (averaging 8.6 percentage points), and rates of placement in full-inclusion settings decreased for both groups (averaging 10.8 percentage points).

In the middle school grades over time, placement rates did not change much for Latino-White and Latino-Black North American males in substantially separate settings, but they increased moderately for partial-inclusion settings (approximately six percentage points) and decreased moderately for full-inclusion settings (approximately five percentage points).

In the high school grades over time, placement rates increased for Latino-White and Latino-Black North American males in partial-inclusion settings (averaging 8.5 percentage points), but increases were greater for Latino-Black North American males (11.6 percentage points) than for Latino-White North American males (5.4 percentage points). Rates for placement in full-inclusion settings decreased on average by approximately eight percentage points for both groups of Latino males.

Across grade levels and time, placement rates remained relatively stable for substantially separate settings, increased for partial-inclusion settings, and dropped for full-inclusion settings.

In SY2012, proportional placements of Latino-White and Latino-Black North American males in in full-inclusion and substantially separate settings were similar, with slightly lower placement rates in partial-inclusion settings than in the other two settings. In the middle grades, both racial groups had higher placement rates in substantially separate classrooms than in the other two settings, and had the lowest rate of placement in full inclusion. Latino-White North American males had a higher placement rate in substantially separate classrooms than did Latino-Black North American males. In the high school grades, Latino-White North American males also had a higher rate of placement in substantially separate classrooms than in the other two settings, but Latino-

Black North American males had identical rates of placement in substantially separate classrooms and partial-inclusion settings.

## Summary of special education placement

To summarize, the best practice-and the law-for providing education services for students with disabilities is to provide these services in the least restrictive setting possible. However, over time across all grade levels, males were consistently placed in the most restrictive setting at higher rates than females. The gap in placement rates between males and females in substantially separate settings was as high as 10.0 percentage points in the middle grades (SY2012). In SY2012, a larger proportion of students with disabilities of both genders was placed in substantially separate classrooms than in partial- and full-inclusion settings.

Our data also show that Black North American males, who make up the greatest percentage of Boston Public School students identified as having special needs, together with Latino males identified for special education placement, were placed in the most restrictive, substantially separate settings at greater rates than were White male students; and that White male students were placed in inclusive settings at far greater rates than were Black and Latino males.

Overall, enrollment rates of male students with disabilities in substantially separate settings decreased for all racial/ethnic groups in the elementary grades over time, but decreased more markedly for White male students. Rates of enrollment in fullinclusion settings dropped in all grade levels for all racial/ethnic groups.

White male students were more likely than were Black and Latino males to be placed in fully inclusive settings at all grade levels across all time points. Conversely,

Black and Latino males with disabilities were more likely to be placed in substantially separate settings at all grades levels across all time points than were White males. White male students were the least likely to be placed in substantially separate settings and partially inclusive settings at all grade levels compared to Latino and Black males.

Of the geographical groups, Black North American males and Latino North American males had higher rates of special education identification than did other groups. Black and Latino male students with disabilities had higher rates of placement in substantially separate settings than in inclusive settings, while White and Asian male students had higher rates of placement in fully inclusive settings than in restrictive settings. Black African, Black Caribbean, Black North American, Latino Caribbean, and Latino North American male students with disabilities were all placed in substantially separate settings at rates greater than $30 \%$. In the middle grades, Black North American male students were placed in substantially separate settings at twice their rate of placement in inclusive settings. In the high school grades, more than half of Black Caribbean male students with disabilities were in substantially separate settings.

In all three grade levels in SY2012, Latino North American male students with disabilities were placed in fully inclusive settings at higher rates than were Latino Caribbean male students with disabilities; however, the rates of placement in fullinclusion settings for both groups had decreased over time at all grade levels. For Latino Caribbean males, the rates of placement in partial-inclusion settings increased over the study period at all grade levels. In the middle grades and high school grades, both Latino Caribbean and Latino North American males with disabilities were more likely to be placed in substantially separate and partially inclusive settings than in fully inclusive settings.

In the elementary and middle grades, placement rates for Latino-White North American and Latino-Black North American males with disabilities in partial-inclusion settings increased, but placement rates for full-inclusion settings decreased. In the middle grades, both groups had higher placement rates in substantially separate classrooms than in the other two settings. In the middle grades, Latino Caribbean and Latino North American males had higher placement rates in substantially separate classrooms than did Latino males overall, and in the high school grades, Latino North American males also had higher placement rates than did Latino males overall.

## Enrollment in Advanced Work Classes

Next, we analyzed enrollment trends in Advanced Work Classes (AWC) and exam schools. Black and Latino males tend to be under enrolled in gifted and talented programs, Advanced Placement and honors courses, and international baccalaureate programs (Noguera, 2008). In racially integrated schools, Black and Latino male students are often tracked into less-rigorous course sequences (Oakes, 1999). Thus, it is important to analyze enrollment trends in rigorous coursework programs to determine if Black and Latino males have educational access to programs that will prepare them well academically.

Advanced Work Class (AWC) is a full-time program in some Boston Public Schools that offers an accelerated academic curriculum for students in grades 4 through 6 . Students in the AWC program complete higher volumes of schoolwork and homework. Admission into AWC is based on a third-grade Terra Nova cut score; students above the cut score are invited to enroll during school registration period. The AWC program is an
educational track leading to enrollment in one of Boston's three exam schools (grades 712 magnet schools with entrance determined by grades and test scores).

## Enrollment rates in Advanced Work Classes

We began by looking at the overall numbers of grade 4 to grade 6 students enrolled in AWC for SY2009-SY2012. In SY2012, there were 1,085 students enrolled in Advanced Work Classes, representing 9.3\% of all Boston Public School students enrolled in grades 4 through 6; the equivalent rate in 2009 was slightly lower at $8.6 \%$. In terms of percentage change over time, the total number of students enrolled in the AWC program increased by $8.0 \%$, from 1,005 students in SY2009 to 1,085 students in SY2012.

## Enrollment rates in Advanced Work Classes by gender

We examined AWC enrollment rates (as a proportion of students enrolled in grades 4-6) by gender. In SY2012, slightly more females than males were enrolled in AWC: $9.6 \%$ compared to $9.0 \% .^{3}$ Rates remained relatively stable over time, from SY2009 to SY2012, increasing 0.5 percentage points for females, and 0.9 percentage points for males.

Enrollment rates in Advanced Work Classes for males by racial/ethnic group

We turned our focus next to AWC enrollment rates for males by racial/ethnic group in SY2012.

Figure 38: Enrollment Rates in Advanced Work Classes for Males by Racial/Ethnic Group


Note: The differences between White and Black males and between White and Latino males were statistically significant. ${ }^{4}$

In SY2012, Asian males in grades 4 through 6 had the highest rate of AWC enrollment at $25.8 \%$, followed closely by White males at $20.0 \%$, followed by much smaller proportions of Black males at $5.9 \%$, and Latino males at $5.3 \%$. White males had a rate of AWC enrollment 3.4 and 3.8 times higher than the rates of Black and Latino males respectively. Asian males were enrolled in AWC at a rate that was 4.4 and 4.9 times higher than the rates of Black and Latino males respectively.

Rates remained relatively stable over time for Asian, Black, and Latino males; however, AWC enrollment rates for White males increased by 3.4 percentage points from SY2009 to SY2012. White-Black and White-Latino AWC enrollment gaps were large and increased over time. Asian-Black and Asian-Latino AWC enrollment gaps were even larger and decreased slightly over time.

An examination of the racial/ethnic makeup of non-AWC schools versus AWC schools in SY2012 (as illustrated below) shows the stark differences in enrollment composition and more advanced academic opportunities for Black and Latino males.

Figure 39: Enrollment and Non-Enrollment Rates in Advanced Work Classes for Males by Racial/Ethnic Group


Note: Total Gr. 4-6 enrollment for Other males numbered less than 50 , therefore they are not graphed. While Black and Latino males made up $82.2 \%$ of overall male enrollment in non-AWC classrooms, White males accounted for only $10.7 \%$ and Asian males only $6.5 \%$. As a proportion of overall male enrollment in AWC classrooms, each racial/ethnic group made up about a quarter of male students, despite the fact that there were many more Black $(2,239)$ and Latino $(2,529)$ males compared to White $(731)$ and Asian $(477)$ males enrolled in grades 4 through 6. Below, we examine disproportionalities in AWC enrollment by race.

Figure 40: Disproportionalities in AWC Enrollment Rates for Males by Racial/Ethnic Group


Indeed, it is important to emphasize the disproportionate nature of AWC enrollment by race. While White and Asian males combined made up only $20.0 \%$ of total male enrollment in grades 4-6 in SY2012, they accounted for $49.8 \%$ of total male enrollment in AWC. On the other hand, while Black males made up 37.2\% and Latino males made up $42.0 \%$ of total male enrollment, they each accounted for less than a quarter of all males enrolled in AWC.

## Enrollment rates in Advanced Work Classes for Black males by

 geographical groupWe also examined enrollment trends in AWC for Black males by geographical group; results for SY2012 are presented below.

Figure 41: Enrollment Rates in Advanced Work Classes for Black Males by Geographical Group


In SY2012, Black North American males had the highest rates of enrollment in AWC at $6.2 \%$, compared to $5.6 \%$ for Black Africans, and $3.9 \%$ for Black Caribbeans. Enrollment rates for Black Caribbean males decreased by 3.5 percentage points from SY2009 to SY2012; they had the highest AWC enrollment rate in SY2009, and the lowest AWC enrollment rate in SY2012. Black African males and Black North American males both saw increases in AWC enrollment over the study period: 2.3 and 2.0 percentage points, respectively.

We also considered AWC rates for these groups as a proportion of all Black males. While the previous bar graph looked at the percentage of each group in AWC, the next table displays the proportions of each group enrolled in AWC in SY2012 as a percentage of all Black males in grades 4 through 6 .

Table 6: Enrollment Rates in Advanced Work Classes as a Proportion of All Black Males by Geographical Group

| Black males enrolled in AWC |  |  |  |
| :--- | :--- | :---: | :---: |
| Black North American | 4.7 |  |  |
| Black African | 0.6 |  |  |
| Black Caribbean | 0.5 |  |  |
| Black males not enrolled in AWC |  |  | 94.2 |

As a percentage of all Black males in grades 4 through 6, Black North American males had the highest rates of enrollment in AWC (4.7\%). When we compared AWC enrollment rates by Black geographical groups, Black African males had the secondhighest AWC enrollment rate and Black Caribbeans had the lowest; however, when we considered rates as a proportion of all Black males, Black Caribbean and Black African males had equivalent low rates. $94.2 \%$ of all Black males were not enrolled in AWC.

## Enrollment rates in Advanced Work Classes for Latino males by race

We also considered AWC enrollment patterns for Latino males by race; results for SY2012 are presented below.

Figure 42: Enrollment Rates in Advanced Work Classes for Latino Males by Race


At 11.7\%, Latino-Other males had the highest rates of enrollment in AWC in SY2012, compared to $5.4 \%$ for Latino-White males and 3.8\% for Latino-Black males.

Rates of enrollment in AWC increased slightly from SY2009 to SY2012 for LatinoWhite and Latino-Black males (increases of 0.6 and 1.5 percentage points, respectively), but more notably, by 5.2 percentage points, for Latino-Other males.

We examined AWC rates for Latino males by race as a proportion of all Latino males in grades 4 through 6 in SY2012.

Table 7: Enrollment Rates in Advanced Work Classes as a Proportion of All Latino Males by Race

| Latino males enrolled in AWC |  |
| :--- | :--- |
| Latino-White | 3.6 |
| Latino-Black | 1.1 |
| Latino-Other | 0.6 |
| Latino males not enrolled in AWC |  |

Compared to AWC enrollment rates for each Latino group by race, we see different trends when we consider AWC enrollment rates for Latino racial groups as a proportion of all Latino males enrolled in grades 4 through 6. As a percentage of Latino males overall, Latino-Whites have the highest rate of AWC enrollment at $3.6 \%$, followed by $1.1 \%$ for Latino-Black males and $0.6 \%$ for Latino-Other males (who now have the lowest, rather than the highest, proportion). $94.7 \%$ of all Latino males were not enrolled in AWC.

## Enrollment rates in Advanced Work Classes for Latino males by geographical group

In this section we present AWC enrollment trends for Latino males by geographical groups. Results for SY2012 are presented in the graph that follows.

Figure 43: Enrollment Rates in Advanced Work Classes for Latino Males by Geographical Group


Note: There were between 51 and 99 Latino Central American male students enrolled in grades 4-6; results must be interpreted with caution. Latino South American males are not shown in the graph because 50 or fewer were enrolled in grades 4-6.

Latino North American males had the highest rates of AWC enrollment at 5.7\%, followed by Latino Central Americans at 4.4\%, and Latino Caribbeans at 2.4\%. Over the study period, enrollment rates in AWC increased by 1.4 and 1.3 percentage points for Latino North American males and Latino Caribbean males, respectively, and decreased by 2.0 percentage points for Latino Central American males.

Enrollment rates in AWC for Latino geographical groups as a proportion of all Latino males enrolled in grades 4 through 6 in SY2012 are presented below.

Table 8: Enrollment Rates in Advanced Work Classes as a Proportion of All Latino Males by Geographical Group

| Latino males enrolled in AWC |  |
| :--- | :--- |
|  | 4.6 |
| Latino North American | 0.3 |
| Latino Caribbean | 0.2 |
| Latino Central American |  |
|  | 94.7 |

Note: Rates do not sum to $100 \%$ due to the fact that the rates for Latino South American males were not reported due to grade 4-6 enrollment rates of 50 or less.

Latino North American males continued to have the highest AWC enrollment rate at 4.6\%. Latino Caribbean and Latino Central American males had similar AWC enrollment rates, at just $0.3 \%$ and $0.2 \%$, respectively.

## Summary of Advanced Work Class enrollment

In summary, a slightly higher proportion of females (9.6\%) than males (9.0\%) in grades 4 through 6 were enrolled in AWC. Asian males had the highest rate of AWC enrollment at $25.8 \%$, followed closely by White males at $20.0 \%$, followed by much smaller proportions of Black males at $5.9 \%$, and Latino males at $5.3 \%$. Enrollment rates in AWC classes remained relatively stable over time for Asian, Black, and Latino males; however, AWC enrollment rates for White males increased from SY2009 to SY2012. White-Black and White-Latino AWC enrollment gaps were large and increased over time. Black North American males had the highest rates of enrollment in AWC in comparison to Black Africans and Black Caribbeans. As a percentage of Latino males overall, LatinoWhite males had the highest rates of AWC enrollment. With respect to Latino geographical groups, Latino North American males had the highest AWC enrollment rate.

Clearly, the AWC enrollment-rate gaps between White males and Black and Latino males suggest an opportunity gap, because AWC is the de facto gateway to the district's exam schools. Essentially, we found that the rate of AWC enrollment for White males was three to four times higher than the rates for Black and Latino males, and the rate of enrollment for Asian males was between four and five times higher than the rates for Black and Latino males.

## Enrollment in Exam Schools

Often touted as model schools, Boston's exam schools attract the top tier of Boston students, who compete to get access to an elite education. The Boston Public School district has three exam schools, consisting of students in grades 7 through 12: (1) Boston Latin Academy, (2) Boston Latin School, and (3) the John D. O'Bryant School of Mathematics and Science. Admission is based entirely on the student's grades and test scores from the Independent Schools Entrance Exam (ISEE). Although highly competitive and routinely praised, these exam schools' success derives in large part from their exclusive nature, in that acceptance is gained through judicious screening (Abdulkadiroğlu, Angrist, \& Pathak, 2011). Boston's highest-performing middle grade level students leave non-exam schools after sixth grade to attend exam schools. This exodus leaves non-exam schools bereft of high-achieving students, whose presence in a non-exam school would enhance their own educational experiences as well as those of their peers. Research shows that a balanced school population has a positive impact on all students (Boaler, William, \& Brown, 2000; Cooper, 1996; Hubbard \& Mehan, 1999; Klingner, Vaughn, \& Schumm, 1998; Mehan, Hubbard, \& Villanueva, 1994; Rothenberg, McDermott, \& Martin, 1998, as cited in Rubin, 2006, p.7). As we will show, students
who attend Boston exam schools are predominantly Asian and White, resulting in segregated secondary schools, whereby mostly Black and Latino students attend nonexam secondary schools.

As noted in the previous section, the primary path to exam schools in BPS in AWC, as the majority of sixth-grade males overall enrolled in AWC continue on to exam schools in seventh grade. Of the sixth grade males in SY2011, $69.8 \%$ of AWC males went on to exam schools in seventh grade in SY2012, compared to only $7.6 \%$ of nonAWC males. However, much higher proportions of Asian and White males in AWC in sixth grade move onto exam schools compared to Black and Latino males. Of the sixthgrade Asian and White males in AWC in SY2011, $90.2 \%$ and $83.7 \%$, respectively, went on to exam schools in seventh grade in SY2012, compared to $61.2 \%$ of Latino males and only $39.0 \%$ of Black males.

In this section, we focus on enrollment disparities between exam and non-exam schools. In SY2012, there were just over 5,300 students enrolled in exam schools, representing 20.1\% of all BPS students enrolled in grades 7 through 12; the corresponding rate in SY2009 was $19.2 \%$. In terms of change over time, the total number of students decreased slightly, by $1.5 \%$, from 5,389 students in SY2009 to 5,309 students in SY2012.

## Enrollment rates in exam schools by gender

In SY2012, more females than males were enrolled in exam schools: $23.2 \%$ versus $17.1 \%$. The differences between females and males were statistically significant. ${ }^{5}$ Females were enrolled in exam schools at 1.4 times the rate of males. The female-male enrollment gap in exam schools remained static over time at 6.1 percentage points.

Enrollment rates in exam schools for males by racial/ethnic g roup
Below, we focus on male enrollment in exam schools by racial/ethnic group in SY2012.

Figure 44: Enrollment Rates in Exam Schools for Males by RacialEthnic Group


Note: The differences between White and Black males and between White and Latino males were statistically significant. ${ }^{6}$

In SY2012, Asian males in grades 7 through 12 had the highest rate of exam school enrollment at $47.8 \%$, followed closely by White males at 45.0\%. In SY2012, very small proportions of Black and Latino males were enrolled in exam schools-only 8.6\% of Black males and $8.0 \%$ of Latino males. White males had an exam school enrollment rate that was 5.2 times higher than that of Black males, and 5.6 times higher than that of Latino males. Rates remained stable over time for White and Black males, with exam school enrollment rates for Asian and Latino males increasing by about 2.0 percentage points each from SY2009 to SY2012. ${ }^{7}$ White-Black and White-Latino exam school
enrollment gaps were large: 36.4 and 37.0 percentage points, respectively. Moreover, this gap barely moved from SY2009, decreasing only 0.9 percentage point for White versus Black males, and 2.4 percentage points for White versus Latino males.

An examination of the racial/ethnic makeup of non-exam schools and exam schools in SY2012 (as illustrated below) shows (as with AWC enrollment rates) the stark differences in enrollment composition and more advanced academic opportunities for Black and Latino males.

Figure 45: Enrollment and Non-Enrollment Rates in Exam Schools for Males by Racial/Ethnic Group


While Black and Latino males made up $84.2 \%$ of overall male enrollment in non-exam schools, White males made up only $8.9 \%$, and Asian males made up only $6.0 \%$. As a proportion of overall male enrollment in exam schools, White males made up 35.3\%, followed by Asian males at $26.5 \%$, Black males at $20.6 \%$, and Latino males at $16.4 \%$ despite the fact that there were many more Black $(5,565)$ and Latino $(4,784)$ males
compared to White $(1,823)$ and Asian $(1,291)$ males enrolled in grades 7 through 12. The graph below depicts disproportionalities in exam school enrollment by race/ethnicity.

Figure 46: Disproportionalities in Exam School Enrollment Rates for Males by Racial/Ethnic Group


Indeed, as expected-and similar to our findings on AWC enrollment disproportionalities by race/ethnicity, and based on AWC being the gateway into exam schools-we also found disproportionalities in exam school enrollment by race/ethnicity. In SY2012, while White and Asian males made up only $22.9 \%$ of the grade $7-12$ total male student population, they accounted for $61.8 \%$ of the exam school population; and while Black and Latino males made up $76.1 \%$ of the grade $7-12$ male student population, they accounted for only $37.0 \%$ of the exam school population.

## Enrollment rates in exam schools for Black males by geographical group

Within the overall Black racial group, we examined enrollment trends in exam schools by geography; rates for SY2012 are presented in the figure below.

Figure 47: Enrollment Rates in Exam Schools for Black Males by Geographical Group


In SY2012, Black North American males had higher rates of exam school enrollment (9.5\%) than Black Caribbean (7.5\%) and Black African (5.3\%) males, and the rates for Black Caribbean and Black African males were lower than the rate for Black males as a whole (8.6\%). Enrollment rates remained steady over time from SY2009 to SY2012.

The table that follows shows Black males' enrollment rates in exam schools in SY2012 as a proportion of total Black male enrollment in grades 7 through 12.

Table 9: Enrollment Rates in Exam Schools as a Proportion of All Black Males by Geographical Group

| Black males enrolled in exam schools |  |  |  |
| :--- | :--- | :---: | :---: |
| Black North American | 6.8 |  |  |
| Black Caribbean | 1.1 |  |  |
| Black African | 0.7 |  |  |
| Black males not enrolled in exam schools |  |  | 91.4 |

Only $8.6 \%$ of Black males attended exam schools in SY2012, with the vast majority of Black males (91.4\%) not gaining access to elite exam schools.

Enrollment rates in exam schools for Latino males by race

Next we examined Latino male enrollment in exam schools by race in SY2012.
Figure 48: Enrollment Rates in Exam Schools for Latino Males by Race


Latino-Other males had the highest rate of enrollment in exam schools at $11.4 \%$, compared to $9.0 \%$ of Latino-White males and $4.8 \%$ of Latino-Black males. Rates of enrollment in exam schools remained steady from SY2009 to SY2012 for Latino-Black males, and increased by 2.6 percentage points for Latino-Other males and 2.0 percentage points for Latino-White males. Latino-Black males (4.8\%) had a lower exam school enrollment rate than Latino males overall (8.0\%).

Enrollment rates in exam schools for Latino males by race as a proportion of all Latino males in grades 7 through 12 are shown below.

Table 10: Enrollment Rates in Exam Schools as a Proportion of All Latino Males by Race

| Latino males enrolled in exam schools |  |  |  |
| :--- | :--- | :---: | :---: |
| Latino-White | 6.2 |  |  |
| Latino-Black | 1.3 |  |  |
| Latino-Other | 0.5 |  |  |
| Latino males not enrolled in exam |  |  | 92.0 |

As a percentage of all Latino males in grades 7 through 12, the rate of exam school enrollment of Latino-Whites was the highest at $6.2 \%$, followed by $1.3 \%$ for Latino-Black males, and $0.5 \%$ for Latino-Other males, with the vast majority of Latino males (92.0\%) not enrolled in exam schools.

Enrollment rates in exam schools for Latino males by geographical group

Exam school enrollment patterns for Latino males by geographical group in SY2012 are shown below.

Figure 49: Enrollment Rates in Exam Schools for Latino Males by Geographical Group


In SY2012 Latino South American males had the highest rates of exam school enrollment at $12.5 \%$, followed by Latino North Americans at $9.6 \%$, Latino Central Americans at $4.3 \%$, and Latino Caribbeans at $2.7 \%$. Enrollment rates remained steady between SY2009 and SY2012 for Latino Caribbeans, and increased 2.6 percentage points for Latino South Americans, 2.2 percentage points for Latino North Americans, and 2.0 percentage points for Latino Central Americans.

Exam school enrollment rates for Latino males by geographical group as a proportion of all Latino males in grades 7 through 12 are shown below.

Table 11: Enrollment Rates in Exam Schools as a Proportion of All Latino Males by Geographical Group

| Latino males enrolled in exam schools |  |  |  |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| Latino North American | 6.7 |  |  |
| Latino Caribbean | 0.5 |  |  |
| Latino South American | 0.5 |  |  |
| Latino Central American | 0.3 |  |  |
| Latino males not enrolled in exam schools |  |  | 92.0 |

As a percentage of all Latino males in grades 7 through 12, we found that Latino North American males had the highest rate of exam school enrollment at $6.7 \%$, followed by much smaller rates for other geographical groups of Latino males.

## Summary of exam school enrollment

In summary, overall enrollment in exam schools among students in grades 7 through 12 remained steady over time, with more females than males enrolled in these schools. As with AWC enrollment findings, when we examined exam school enrollment
trends we saw stark differences in enrollment composition and more advanced academic opportunities for Black and Latino males, with major enrollment disproportionalities by race, and lower rates of Black and Latino males being enrolled in exam schools compared to White males. Asian males had the highest rate of exam school enrollment, followed closely by White males. Very small proportions of Black and Latino males were enrolled in exam schools. White males had an exam school enrollment rate that was 5.2 times higher than that of Black males, and 5.6 times higher than that of Latino males. Percentage-point gaps in exam school enrollment rates between White males and Black and Latino males were large and barely budged over time.

Similar to enrollment trends revealed in AWC analyses, findings reported here indicate disparate rates of enrollment in exam schools among racial/ethnic groups. While White males accounted for $13.4 \%$ of total male enrollment in grades 7 through 12, and Asian males represented $9.5 \%$ of total enrollment, these two groups accounted for $35.3 \%$ and $26.5 \%$, respectively, of total male enrollment in exam schools. In contrast, Black and Latino males represented $40.9 \%$ and $35.2 \%$, respectively, of total grade $7-12$ enrollment, but only $20.6 \%$ and $16.4 \%$, respectively, of exam school enrollment. In essence, White and Asian males, who together made up only $22.9 \%$ of BPS' grade $7-12$ male population, accounted for $61.8 \%$ of exam school enrollment. Black and Latino males accounted for $76.1 \%$ of BPS' male enrollment in grades $7-12$, but only made up $37.0 \%$ of exam school enrollment.

Looking at exam school enrollment rates for Black males by geographical region, Black North American males had the highest rates of enrollment in exam schools, compared to lower proportions of Black Caribbeans and Black Africans.

As a proportion of all Latino males, Latino-White males had the highest exam school enrollment rate; Latino-Black males had much lower rates than did Latino-White males. Exam school enrollment trends among Latino geographical groups as a proportion of all Latino males showed Latino North Americans had the highest rates of enrollment. Massachusetts Core Curriculum Completion

The Massachusetts High School Program of Studies, more commonly known as the Massachusetts Core (MassCore), was developed with the goal of preparing high school graduates for college and/or the workplace and reducing the number of students needing to take remedial courses in college (Massachusetts Department of Education [DOE], 2013). MassCore is intended to be a rigorous set of courses in English, mathematics, social studies/history, and science and to also include courses such as health, arts, world languages, business education, and technology. Successful completion of rigorous academic programs such as MassCore signifies that students who graduate high school are college and career ready at a level that is globally competitive (Massachusetts DOE, 2013). In this section we present MassCore completion rates over time for all students, and offer comparisons by gender, race/ethnicity, geographical group, and geographical group by race. ${ }^{8}$

## MassCore completion rates for graduates by gender

We examined MassCore completion rates as a proportion of total graduates (i.e., including both MassCore graduates and non-MassCore graduates) by gender across the SY2010-SY2012 time period. ${ }^{9}$

Males had lower completion rates than did females across time. The completion rate for females in SY2010 was $35.5 \%$, while it was $29.8 \%$ for males. In SY2012, the rate
for females was $32.2 \%$ and the rate for males was $25.6 \%$. Females had a MassCore completion rate that was 1.3 times higher than that of males in SY2012. The differences in completion rates between females and males were statistically significant. ${ }^{10}$ Completion rates for both males and females decreased from SY2010 to SY2012: the decrease for females was 3.3 percentage points; the decrease for males was 4.2 percentage points.

## MassCore completion rates for male graduates by racial/ethnic group

Next we considered MassCore completion rates for male graduates by race/ethnicity in SY2012.

Figure 50: MassCore Completion Rates for Male Graduates by Racial/Ethnic Group


Note: The differences between White and Black males and between White and Latino males were statistically significant. ${ }^{11}$

There were striking differences in MassCore completion rates for Black and
Latino males compared to White and Asian males. Asian males had the highest
completion rate, at $45.5 \%$, followed closely by White males at $41.9 \%$, and then by Black and Latino males, whose rates-at $19.8 \%$ and $16.2 \%$, respectively-were less than half those of White and Asian males. The White-Black completion-rate gap was 22.1 percentage points, and the White-Latino gap was 25.7 percentage points. The AsianBlack completion-rate gap was 25.7 percentage points, and the Asian-Latino gap was 29.3 percentage points.

The MassCore completion rate for White males was 2.1 times higher than the rate for Black males, and 2.6 times higher than the rate for Latino males. Similarly, the MassCore completion rate for Asian males was 2.3 and 2.8 times higher than the rates for Black and Latino males, respectively.

Looking at completion-rate changes from SY2010 to SY2012, all racial/ethnic groups experienced completion-rate decreases with the exception of Asian males, whose rate increased by 5.0 percentage points. The completion rate for Black males decreased the most, by 6.8 percentage points, followed by Latino males by 6.0 percentage points, and White males, who had a much lower completion-rate drop of 1.3 percentage points.

MassCore completion rates for Black male graduates by geographical group

Next we examined MassCore completion rates for Black male graduates by geographical group in SY2012.

Figure 51: MassCore Completion Rates for Black Male Graduates by Geographical Group


Note: There were between 51 and 99 Black African and Black Caribbean male graduates in SY2012; results must be interpreted with caution.

In examining MassCore completion rates for Black male graduates by geographical group in SY2012, we found that Black North American males had the highest completion rate at $19.9 \%$, compared to much lower proportions of Black Caribbean and Black African males. Black Caribbean and Black African males had lower completion rates ( $10.5 \%$ and $7.9 \%$, respectively) than Black males overall ( $16.3 \%$ ).

All three groups experienced decreases over time, with Black African males experiencing the largest decrease ( 8.5 percentage points), followed by Black North American males (6.1 percentage points) and Black Caribbean males (4.7 percentage points).

MassCore completion rates for Latino male graduates by race
MassCore completion rates in SY2012 for Latino male graduates by race are presented next.

Figure 52: MassCore Completion Rates for Latino Male Graduates by Race


Note: Latino-Other males are not shown in the graph because 50 or fewer graduated in SY2012.
Earlier on we noted that Latino males overall had the lowest MassCore completion rates of all major racial/ethnic groups over time. When we disaggregated data for Latino male graduates by race, we found that Latino-Black males had a lower MassCore completion rate than did Latino males overall in SY2012. We also found that Latino-Black males had higher completion rates in SY2010 and SY2011 than LatinoWhite males, but the reverse was true by SY2012. In SY2012, 13.8\% of Latino-White male graduates completed MassCore, compared to $12.2 \%$ of Latino-Black males. Both Latino-White and Latino-Black males reached their highest completion rates in SY2011. Latino-White and Latino-Black male completion rates decreased across time.

Over time, the MassCore completion rates for Latino-Black graduates decreased by 9.9 percentage points, and only fifteen Latino-Black males graduated having completed MassCore in SY2012. From SY2010 to SY2012, the proportion of LatinoWhite males who completed MassCore decreased by 4.5 percentage points, with only thirty-four Latino-White males graduating having completed MassCore in SY2012.

MassCore completion rates for Latino male graduates by geographical group

In the figure that follows, we present MassCore completion rates for Latino male graduates by geographical group in SY2012.

Figure 53: MassCore Completion Rates for Latino Male Graduates by Geographical Group


Notes: Latino South American and Latino Central American males are not shown in the graph because 50 or fewer graduated in SY2012. There were between 51 and 99 Latino Caribbean males who graduated in SY2012; results must be interpreted with caution.

In SY2010, ten Latino Caribbean and sixty Latino North American males graduated having completed MassCore; by SY2012, those figures dropped to seven Latino Caribbean and thirty-eight Latino North American males. Rates were highest in SY2011 for both groups of males and lowest in SY2012. In SY2012, Latino North American males had a higher MassCore completion rate than Latino Caribbean males:
$14.1 \%$ versus $10.3 \%$.
Despite having experienced increases between SY2010 and SY2011, Latino
Caribbean males and Latino North American males experienced substantial decreases in

MassCore completion rates from SY2011 to SY2012: a 14.7 percentage-point decrease for Latino Caribbean males and an 8.3 percentage-point decrease for Latino North American males. Both groups had net drops in completion rates between SY2010 and SY2012, but those drops were more moderate (5.1 percentage points for Latino Caribbean males and 5.2 percentage points for Latino North American males).

Below, we present disaggregated data on MassCore completion rates for Latino North American males by race for SY2012.

Figure 54: MassCore Completion Rates for Latino North American Male Graduates by Race


Note: There were between 51 and 99 Latino-Black North American male graduates in SY2012; results must be interpreted with caution.

In SY2012, the MassCore completion rate for Latino-Black North American males was even lower than the overall rate for Latino North American males (12.9\% versus $14.1 \%$, respectively). Latino-White North American males had a slightly higher completion rate (15.0\%) than Latino-Black North American males in SY2012.

The completion rates for both groups dropped considerably between SY2011 and SY2012: the rate for Latino-Black North American males dropped by 11.6 percentage
points, and the rate for Latino-White North American males dropped by 6.7 percentage points. The rate for Latino-Black North American males decreased more between SY2010 and SY2012 than did the rate for Latino North American males overall.

## Summary of Massachusetts core curriculum completion

In summary, our analyses show that males had lower completion rates than did females across time. The completion rate for females in SY2010 was $35.5 \%$ while it was $29.8 \%$ for males. In SY2012, the rate for females was $32.2 \%$ and the rate for males was $25.6 \%$. Completion rates for both males and females decreased from SY2010 to SY2012.

These analyses disclosed concerning disproportionalities in completion rates between racial/ethnic groups. In SY2012, MassCore completion rates for White and Asian males were above $40 \%$ ( $41.9 \%$ and $45.5 \%$, respectively), while the completion rates for Black and Latino males were below $20 \%$ ( $19.8 \%$ and $16.2 \%$, respectively). Completion-rate gaps between White and Black and between White and Latino males were staggering at 22.1 and 25.7 percentage points, respectively. The MassCore completion rate for White males was 2.1 times higher than the rate for Black males, and 2.6 times higher than the rate for Latino males. While completion rates increased by 5.0 percentage points for Asian males from SY2010 to SY2012, they decreased by 1.3 percentage points for White males, and decreased by 6.8 and 6.0 percentage points for Black and Latino males, respectively.

Disaggregation of MassCore completion rates for Black and Latino males by geographical origin and race also revealed some concerning trends. For example, disaggregating MassCore completion rates for Black male graduates by geographical group, we found that, in SY2010 and SY2012, Black North American males had higher completion rates than Black African and Black Caribbean males. Black Caribbean and

Black African males had considerably lower rates of MassCore completion that did Black males overall in SY2012. All three Black groups experienced decreases over time, with Black African males experiencing the largest decrease.

Differences were also observed among Latino male groups. Analysis of MassCore completion rates for Latino male graduates by race showed that Latino-Black males had higher completion rates in SY2010 and SY2011 than Latino-White males (the reverse was true by SY2012), and that, similar to trends observed for the overall Latino group, their completion rates decreased over time. When we further examined completion-rate data for Latino males by geographical group, we found that MassCore completion rates for Latino Caribbean and Latino North American males also decreased over time.

Looking at data for the Latino North American group by race, we noted that, in SY2012, the completion rate for Latino-Black North American males was even lower than the overall rate for Latino North American males (12.9\% versus 14.1\%, respectively). Moreover, the completion rates for both Latino North American race groups also dropped considerably between SY2011 and SY2012.

## Educational Attainment

To put the academic performance of BPS' Black and Latino males during the SY2009-SY2012 period into context, in the sections that follow we present outcomes that are typically used as measures of academic success. To that end, we discuss the following: (1) attendance rates; (2) suspension rates; (3) MCAS proficiency rates; (4) annual dropout rates; and (5) four-year cohort dropout and graduation rates. Similarly to the enrollment analyses, we present results for each of the outcomes by grade level, gender, racial/ethnic group, and geographical group.

## Attendance

Empirical evidence links low attendance rates to higher dropout rates (Allensworth \& Easton, 2007; Chang \& Romero, 2008; Neild \& Balfanz, 2006). Research also suggests that higher attendance rates may be linked to academic success with several positive educational outcomes, including increased likelihood of high school completion, lower rates of suspension, and increased academic performance (Allensworth \& Easton, 2007; Gottfried, 2010; Lamdin, 1996; Roby, 2004). Most of the discussion and data that follow focus on the last year of available data (SY2012); we discuss longitudinal trends when relevant and when change over time is evident.

## Attendance rates by grade level

Attendance rates were stable over the SY2009-SY2012 time period. Rates were slightly higher in the elementary grades than in the middle grades. Attendance rates were markedly lower in the high school grades, where average attendance rates ranged from $86.1 \%$ (SY2009) to $86.7 \%$ (SY2012). Thus, in SY2012, high school grade level students
missed approximately five weeks of school, a significant loss of learning time contributing to lowered high school student achievement and graduation rates.

## Attendance rates by gender

We examined elementary, middle, and high school grade level attendance rates by gender in SY2012. Attendance rates for males mirrored those of the general BPS population during the study's time period. Attendance rates were generally stable over time and were higher in the elementary grades, slightly lower in the middle grades, and considerably lower in the high school grades. In SY2012 in the elementary grades, attendance rates were almost identical for females and males: 94.6\% and 94.3\%, respectively. In the middle grades and high school grades, mean attendance rates were slightly higher for females than for males: $94.0 \%$ compared to $93.3 \%$ in the middle grades, and $87.4 \%$ compared to $85.9 \%$ in the high school grades in SY2012. Attendance rate differences between females and males were statistically significant. ${ }^{12}$

## Attendance rates for males by racial/ethnic group

Attendance rates for males by racial/ethnic group in SY2012 are presented in the figure below.

Figure 55: Attendance Rates for Males by Racial/Ethnic Group


Note: The differences between White and Black males and between White and Latino males were statistically significant at the elementary and high school grade levels; at the middle grade level the difference between White and Latino males was statistically significant. ${ }^{13}$

At all three grades levels, Asian and White males had the highest attendance rates respectively, followed by lower rates for Black and Latino males respectively. In the elementary grades in SY2012, Asian males had the highest attendance rate (97.1\%), followed by White males (95.2\%), Black males (94.1\%), and Latino males (93.8\%).

The middle grade level data show that Asian males had the highest attendance rate ( $97.4 \%$ ), followed by White males ( $93.5 \%$ ), Black males ( $93.4 \%$ ), and Latino males (92.1\%), who had the lowest attendance rate.

The high school grade level data indicate that Asian males had a higher attendance rate (93.1\%), compared to White males (88.3\%), Black males (85.7\%), and Latino males (83.3\%). The attendance-rate gaps between Asian males and Black and Latino males were highest at the high school grade level, and the gaps remained steady from SY2009 to SY2012.

## Attendance rates for Black males by geographical group

To examine whether attendance rates for different groups of Black males differed, we disaggregated attendance data for Black males by geographical group. The figure below presents those rates for SY2012.

Figure 56: Attendance Rates for Black Males by Geographical Group


Further examination of attendance rates for Black males by geographical group indicated that Black African and Black Caribbean males had higher attendance rates than did Black North American males. In the elementary and middle grades, the average attendance rates for Black African and Black Caribbean males were 3 to 4 percentage points higher than the rate for Black North American males. Attendance rates for all three geographical groups of Black males were lower in the high school grades. However, the high school grade level attendance rates for Black African and Black Caribbean males were over 5 percentage points higher than the rate for Black North American males. Black North American males had lower attendance rates at all three grade levels than did Black males overall.

## Attendance rates for Latino males by race

We also analyzed attendance rates for Latino males disaggregated by race; rates for SY2012 are illustrated in the following figure.

Figure 57: Attendance Rates for Latino Males by Race


Note: There were between 51 and 99 Latino-Other male students in the middle grades; results must be interpreted with caution.

Among Latino males in SY2012, Latino-White males had the highest attendance rate in the elementary grades, Latino-Other males had the highest rate in the middle grades, and Latino-Black males had the highest rate in the high school grades. Yet, while Latino-White males had the highest attendance rates in the elementary grades, they had the lowest attendance rates in the high school grades; and Latino-Black males, who had the lowest attendance rates in the middle grades had the highest attendance rates in the high school grades. However, attendance rates among all three racial Latino male groups varied very little at all three grade levels. Latino-Black males had lower attendance rates at the elementary and middle grade levels than did Latino males overall.

## Attendance rates for Latino males by geographical group

We further disaggregated attendance rate data for Latino males by geographical group; the figure below presents attendance rates for SY2012.

Figure 58: Attendance Rates for Latino Males by Geographical Group


Note: There were between 51 and 99 Latino South American males in the elementary and middle grades, and there were between 51 and 99 Latino Central American males in the middle grades; results must be interpreted with caution.

In the elementary grades, Latino Central American and Latino South American males had the highest attendance rates. Attendance rates for all four Latino geographical groups were higher in the elementary grades than in the middle grades. In the middle grades, Latino Central American males continued to have the highest attendance rates of all four groups, followed closely by Latino Caribbean males. Attendance rates for all groups were lower in the high school grades than in the middle grades. Latino South American males had the highest attendance rate of all four groups in the high school grades; their attendance rate was 1.8 to 3.1 percentage points higher than the rates of the other three Latino geographical groups. Latino Central American males had lower attendance rates at the high school school grade level than did Latino males overall.

Attendance rates for Latino males by geographical group and race

Figure 59: Attendance Rates for Latino Caribbean Males by Race


Latino-Black Caribbean males had better attendance rates across all three grade levels than did Latino-White Caribbean males. Attendance rates across both groups were highest in the elementary grades and lowest at the high school grades. The gap between both groups was smallest in the middle grades and largest in the high school grades.

Figure 60: Attendance Rates for Latino North American Males by Race


Note: There were between 51 and 99 Latino-Other North American male students in the middle and high school grades; results must be interpreted with caution.

Attendance rates for Latino North American males by race were more or less identical for all groups across grade levels. Latino-White North American males had the highest attendance rates of the Latino North American groups at the elementary and middle grade levels, and they had the second-highest rate at the high school grade level. Latino-Black North American males had the highest attendance rates in the high school grades.

## Summary of attendance rates

During the SY2009-SY2012 period, attendance rates were stable for all students in BPS, and rates were higher in the elementary and middle grades than in the high school grades. The low attendance rates in the high school grades are noteworthy. The academic year has 180 days; the average attendance rate of $86.7 \%$ for BPS high schools
during SY2012 means that students were absent, on average, 24 days, or approximately five weeks, during the school calendar year.

Attendance trends for male students paralleled those of the general population during the study's timeperiod. Attendance rates for females were slightly higher than rates for males across grade levels, with the gap slightly greater in the high school grades than in the middle and elementary grades. Asian males had the highest attendance rates across all grade levels, and Latino males had the lowest rates. White males had the second-highest attendance rates at all three grade levels, followed by Black males. Attendance-rate gaps between Asian males and Black and Latino males were highest at the high school grade level, and these gaps remained steady over time.

Across grade levels, Black African and Black Caribbean male students had higher attendance rates than their Black North American peers. Black Caribbean males had higher attendance rates in the elementary and middle grades than did Black African males, but Black African males had a slightly higher attendance rate in the high school grades than did Black Caribbean males.

Attendance rates among all three Latino male racial groups varied very little at all three grade levels. Latino-Black males had lower attendance rates at the elementary and middle school grade levels than did Latino males overall. Attendance rates for all four Latino geographical groups were higher in the elementary grades than in the middle grades. Latino South American males had the highest attendance rates of all four Latino geographical groups in the high school grades; Latino Central American males had the lowest.

## Suspensions

School suspensions, particularly out-of-school suspensions, are the most general type of disciplinary action used by schools across the country to address perceived problematic student behavior (Arcia, 2006; Christle, Nelson, \& Jolivette, 2004). According to the U.S. Department of Education, on average in SY2009, 30\% of Black and $16 \%$ of Latino male high school grade level students were suspended at least once (Losen \& Martinez, 2013). Although they are widely used under the premise that punitive disciplinary actions prevent future negative behavior, research suggests that suspensions are ineffective and may have a negative impact on suspended students, who are disproportionately Black, Latino, and Native American males (American Psychological Association [APA], 2006; Atkins et al., 2002; Raffaele-Mendez, Knoff, \& Ferron, 2002; Skiba \& Noam, 2001; Tobin, Sugai, \& Colvin, 1996). Not only are punitive disciplinary actions associated with increased student dropout rates, but they also may be related to negative life outcomes such as increased rates of incarceration for Latino and Black males (Balfanz, Byrnes, \& Fox, 2013; Losen \& Martinez, 2013; Noguera, 2012; Schott Foundation, 2012).

In this section, we present suspension rates for groups of students over the SY2009-SY2012 study period. Suspension rates are calculated based on the percentage of all students in a particular group that were suspended at some point during the school year.

## Suspension rates by gender

Suspension rates were higher for males than females at all three grade levels across time. In SY2012, suspension rates for females were $0.5 \%, 3.1 \%$, and $2.4 \%$ at the
elementary, middle and high school grades levels, respectively; suspension rates for males were $1.8 \%, 6.9 \%$, and $4.4 \%$, respectively, at each of the grade level spans. In SY2012, in the middle grades, where suspension rates were highest, males had more than twice the risk of being suspended than did females. Differences in suspension rates between males and females were statistically significant. ${ }^{14}$ Suspension rates dropped for both males and females from SY2009 to SY2012, but the suspension rate decreases were more notable for males than females, with the greatest drop occurring in the middle grades, where the decrease for males was 5.1 percentage points and the decrease for females was 3.4 percentage points.

## Suspension rates for males by racial/ethnic group

Suspension rates by racial/ethnic group in SY2012 are presented below.
Figure 61: Suspension Rates for Males by Racial/Ethnic Group


Note: Differences between White and Black males and between White and Latino males were statistically significant at the middle and high school grade levels; at the elementary grade level the difference between White and Black males was statistically significant. ${ }^{15}$

At all three grade levels in SY2012, suspension rates for Black males were higher than the rates of the other male groups. In the elementary grades, Black males had a 2.9\% suspension rate, followed by Latino males (1.5\%), White males ( $0.9 \%$ ), and Asian males
$(0.1 \%)$. In the elementary grades, Black males had a 3.2 times higher risk of being suspended than did White males. Latino males had a 1.7 times higher risk of being suspended in the elementary grades than did White males.

Looking at suspension rates at the middle grade level in SY2012, Black males had the highest suspension rate (9.4\%), followed by Latino males (7.0\%), Asian males (2.7\%), and White males ( $2.4 \%$ ). Suspension rates for Black males were approximately seven percentage points higher than the rates for White and Asian males. Suspension rates for Latino males were 4.6 and 4.3 percentage points higher than the rates for White and Asian males, respectively. Black males in the middle grades had a 3.9 times higher risk of being suspended than did White males, and Latino males had a 2.9 times higher risk of being suspended than did White males.

At the high school grade level in SY2012, suspension rates for Black males continued to be higher than for any of the other racial/ethnic groups, at $6.3 \%$, followed by Latino males at $4.1 \%$, White males at $2.0 \%$, and Asian males at $0.7 \%$. In the high school grades, Black males had a 3.2 times higher risk of being suspended than did White males, and Latino males had a 2.1 times higher risk of being suspended than did White males.

Over the study period, suspension rates decreased for all racial/ethnic groups at all three grade levels, with the largest declines occurring at the middle grade level, where declines were 5.8 percentage points for Latino males, 5.1 percentage points for White males, and 5.2 percentage points for Black males; Asian males saw a very small decline of 0.6 percentage points.

## Suspension rates for Black males by geographical group

To examine differences in suspension rates among different groups of Black males, we disaggregated data for Black males by geographical group. Suspension rates for SY2012 are presented in the figure below.

Figure 62: Suspension Rates for Black Males by Geographical Group


Suspension rates for Black African and Black North American males were highest in the middle grades, whereas the highest rate for Black Caribbean males was in the high school grades. At the elementary grade levels in SY2012, suspension rates for Black North American males (3.3\%) were higher than for Black Caribbean (1.8\%) and Black African males ( $0.9 \%$ ). At the middle grade level, suspension rates were higher for Black African males (11.6\%) than for Black North American (10.4\%) and Black Caribbean males (5.7\%). At the high school grade level, as at the elementary grade level, Black North American males had the highest suspension rate (7.5\%), followed by Black Caribbean males (6.0\%) and Black African males (4.7\%).

Compared to the suspension rates for Black males overall, Black North American males had higher suspension rates across all three grade spans, while Black African males had a higher suspension rate than Black males overall in the middle grades. In SY2012,
the suspension rate in the elementary grade levels for Black males as a whole was $2.9 \%$, compared to $3.3 \%$ for Black North American males. In the middle grades, the suspension rate for Black males overall was $10.0 \%$, compared to $10.4 \%$ for Black North American males and $11.6 \%$ for Black African males. And in the high school grades, the suspension rate for Black males overall was $6.8 \%$, compared to $7.5 \%$ for Black North American males. Suspension rates for Black North American and Black African males were even more troubling than those for Black males overall. Compared to White males in the middle grades, Black African and Black North American males had about a three times higher risk of being suspended. In the high school grades, Black North American males had a 2.4 times higher risk of being suspended than did White males.

Over the study period, suspension rates declined for all three Black male geographical groups at the elementary and middle grade levels, with the largest declines occurring in the middle grades. The biggest suspension rate decline in the middle grades occurred for Black North American males (5.8 percentage points). While Black North American males also saw declines in suspension rates in the high school grades, Black African and Black Caribbean males saw increases in suspension rates in the high school grades.

## Suspension rates for Latino males by race

Suspension rates for Latino males in SY2012, disaggregated by race, are presented below.

Figure 63: Suspension Rates for Latino Males by Race


Note: There were between 51 and 99 Latino-Other students in the middle grades; results should be interpreted with caution.

When we disaggregated data for Latino males by race, we found that the suspension rates for Latino-Black males were higher than the rates for Latino-White males over the study period at all three grade levels. Suspension rates for all three groups were largest at the middle grade level, where they were $11.5 \%$ for Latino-Black males, 6.2\% for Latino-Other males, and 5.9\% for Latino-White males in SY2012. Latino-Black males had higher suspension rates across all grade level spans in SY2012 compared to Latino males as a whole. The suspension rates for Latino males as a whole (in non-exam schools) were $1.5 \%, 7.3 \%$, and $4.4 \%$ at the elementary, middle, and high school grade levels, respectively, while the rates for Latino-Black males were 2.2\%, $11.5 \%$, and $6.6 \%$ at each of the grade level spans, respectively. While the risk of being suspended in the middle grades (where suspension rates were highest) for Latino males in non-exam schools was twice the risk for White males, for Latino-Black males, the risk of being suspended was 3.2 times higher than that for White males.

Over the study period, suspension rates for both Latino-White and Latino-Black males decreased at all three grade levels, with the largest decrease occurring at the middle grade level, where suspension rates decreased by 5.6 percentage points for Latino-White males and 7.3 percentage points for Latino-Black males.

## Suspension rates for Latino males by geographical group

Next we disaggregated suspension rates for Latino males by geographical group and examined them by grade level in SY2012.

Figure 64: Suspension Rates for Latino Males by Geographical Group


Note: There between 51 and 99 Latino South American and Latino Central American males in the middle grades; results must be interpreted with caution.

In SY2012, Latino Caribbean males had the highest suspension rates at the elementary and high school grade levels, while Latino North Americans had the highest suspension rate at the middle school grade level. The suspension rate for Latino North American males was highest at the middle grade level (8.3\%), while the suspension rate for Latino Caribbean males was highest at the high school grade level (6.4\%). Latino North American males in the middle grades had a suspension rate that was higher than than for Latino males overall, and their rate was 2.3 times higher compared to White males in the middle grades.

From SY2009 to SY2012, suspension rates remained relatively stable for Latino Caribbean males at the elementary and high school grade levels. For all other Latino geographical groups, suspension rates declined at each grade level over the study period. The largest declines occurred at the middle grade level, where rates for Latino South American males decreased by 10.0 percentage points; rates for Latino Caribbean males decreased by 8.8 percentage points; and rates for Latino North American males decreased by 5.6 percentage points.

## Suspension rates for Latino males by geographical group and race

To further analyze suspension rates for Latino males, we compared Latino geographical groups by race in SY2012.

Figure 65: Suspension Rates for Latino Caribbean Males by Race


Note: Latino-Other Caribbean males, and Latino South American and Central American males by race numbered 50 or fewer; therefore they are not graphed.

In SY2012, suspension rates were higher for Latino-Black Caribbean males than for Latino-White Caribbean males at all three grade levels. The largest gap between the two groups occurred at the middle grade level, where the rate for Latino-Black

Caribbeans was $6.9 \%$, and the rate for Latino-White Caribbeans was $4.0 \%$. Between SY2009 and SY2012, suspension rates for Latino-White Caribbean males increased by 0.9 percentage points in the elementary grades, decreased by 7.8 percentage points in the middle grades, and increased by 0.8 percentage points in the high school grades. Over the study period, suspension rates for Latino-Black Caribbeans remained the same in the elementary grades, decreased by 11.1 percentage points in the middle grades, and decreased by 1.5 percentage points in the high school grades.

In comparison with suspension rates for Latino males overall in SY2012, LatinoBlack Caribbean males had higher suspension rates in the elementary and high school grades. While the suspension rate in the elementary grades for Latino males overall (in non-exam schools) was $1.5 \%$, it was $2.8 \%$ for Latino-Black Caribbean males. In the high school grades, while the suspension rate for Latino males was $4.4 \%$, it was $6.6 \%$ for Latino-Black Caribbean males. In the elementary grades, the risk of a Latino male being suspended was 1.7 times higher than the risk of a White male; for Latino-Black Caribbean males, that risk was about 3.1 times higher. In the high school grades, the risk of a Latino male being suspended was 1.4 times higher than the risk of a White male; for Latino-Black Caribbean males, the risk was 2.1 times higher than the risk for White males.

Below we present suspension rates for Latino North American males by race in SY2012.

Figure 66: Suspension Rates for Latino North American Males by Race


Note: There were between 51 and 99 Latino-Other North American males in the middle and high school grades; results must be interpreted with caution.

Among Latino North American males, suspension rates were highest for LatinoBlack North Americans at all three grade levels. Suspension rates for all racial groups were highest at the middle grade level. The suspension-rate gap between Latino-White North American males and Latino-Black North American males was highest at the middle grade level at 6.5 percentage points, where Latino-Black North Americans had a $13.1 \%$ suspension rate, compared to a rate of $6.6 \%$ for Latino-White North Americans. Over time, suspension rates declined for all Latino North American male racial groups. For Latino-White and Latino-Black North American males, suspension rates declined the most at the middle grade level from SY2009 to SY2012. The suspension rate decrease in the middle grades for Latino-Black North Americans and Latino-White North Americans averaged around 5.7 percentage points.

In SY2012, Latino-Black North American males had higher suspension rates than did Latino males overall at all three grade levels. While the suspension rate in the elementary grades for all Latino males was $1.5 \%$, it was $2.2 \%$ for Latino-Black North

American males. Suspension rates for Latino males were $7.3 \%$ and $4.4 \%$ in the middle and high school grades, respectively; for Latino-Black North American males, they were $13.1 \%$ and $7.3 \%$. In elementary, middle and high school non-exam school grades, the risks of a Latino male being suspended were 1.7, 2.0, and 1.4 times higher, respectively, than the risks for a White male; for Latino-Black North American males, those risks were higher at $2.4,3.6$, and 2.4 times higher, respectively, than the risks for a White male.

## Summary of suspension rates

In summary, suspension rates were higher for males than for females over the study period; the highest rates of suspension occurred at the middle grade level, where $6.9 \%$ of males and $3.1 \%$ of females were suspended in SY2012. Both male and female suspension rates declined at all three grade levels over time, with the largest declines occurring in the middle grades. This trend held true for most of the racial/ethnic and geographical groups over the study period. Suspension rates for all major racial/ethnic groups and most geographical groups were highest at the middle grade level. Male suspension rates were highest for Black males and lowest for Asian males at the elementary and high school grade levels. At the middle grade level, rates were again highest for Black males, but lowest for White rather than Asian males. Latino males had the second-highest suspension rates at all three grade levels.

At the elementary grade level, Black males had a risk of being suspended that was 3.2 times higher than the risk for White males. The risk of being suspended was 1.7 times higher for Latino males than for White males. In the middle grades, suspension rates for Black males were approximately seven percentage points higher than the rates for White and Asian males. At the middle grade level, the risk of being suspended was 3.9 times
higher for Black males than for White males, and the risk of being suspended for Latino males was 2.9 times higher than the risk for White males. In the high school grades, the risk of being suspended was 3.2 times higher for Black males than for White males, and 2.1 times higher for Latino males than for White males.

At the elementary and high school grade levels, Black North American males had the highest suspension rates, whereas in the middle grades, Black African males had the highest suspension rate. Compared to Black males overall, Black North American males had higher suspension rates across all three grade levels, and Black African males had a higher suspension rate at the middle grade level compared to Black males overall.

Disaggregation of suspension rates for Latino males by race showed that rates were higher for Latino-Black males than for Latino-White males at all three grade levels. Compared to Latino males overall, Latino-Black males had higher suspension rates across all three grade levels. Latino North American males had the highest suspension rate in the middle grades, but Latino Caribbean males had the highest rates at the elementary and high school grade levels. Suspension rates were higher for Latino-Black Caribbean males than for Latino-White Caribbean males at all three grade levels. Compared to Latino males overall, Latino-Black Caribbean males had higher suspension rates at the elementary and high school grade levels. Among Latino North American males, suspension rates were highest for Latino-Black North American males compared to Latino-White North American males at all three grade levels, and Latino-Black North American males had higher suspension rates across all grade levels than did Latino males overall.

## MCAS Performance in English Language Arts and Mathematics

The Massachusetts Comprehensive Assessment System (MCAS) is the
Commonwealth of Massachusetts' assessment program that tests students in mathematics and English language arts (ELA) in grades 3 through 8 and in grade 10. In grades 3 through 8, the Massachusetts Department of Education (Mass. DOE) reports MCAS results by four performance levels: (1) Advanced, (2) Proficient, (3) Needs Improvement, and (4) Warning. In the tenth grade, the DOE reports similar achievement levels, except that the level "Warning" is replaced with the level "Failing." The next section examines overall proficiency rates as defined by the percentage of students scoring Proficient or Advanced on the MCAS English language arts (ELA) and math exams.

## MCAS ELA proficiency rates by gender

Females had higher MCAS ELA proficiency rates than did males at all three grade levels from SY2009 to SY2012. Differences in ELA proficiency rates between males and females were statistically significant. ${ }^{16}$ In SY2012, MCAS ELA proficiency rates were highest in the high school grades and lowest in the elementary grades for both genders. The proficiency rates for females and males in the elementary grades were $38.7 \%$ and $29.9 \%$, respectively, while proficiency rates were $58.2 \%$ and $44.4 \%$ for females and males, respectively, in the middle grades. In the high school grades, 77.8\% of females and $68.6 \%$ of males were proficient in ELA. Female ELA proficiency rates were 1.3 times higher in the elementary and middle grades, and 1.1 times higher in the high school grades than the rates for males.

The gap between female and male proficiency rates remained relatively stable over time across all three grade levels. The male-female gap was widest in middle grades
(13.8 percentage points) and narrowest in elementary grades ( 8.8 percentage points), with a 9.2 percentage point gap in the high school grades. during the study period. In the middle grades, both male and female proficiency rates remained stable from SY2009SY2012; small increases were seen in the elementary grades over this time period for both males and females; and larger increases were seen in the high school grades for males and females.

## MCAS ELA proficiency rates for males by racial/ethnic group

In the graph below, we show MCAS ELA proficiency rates in SY2012 for males by racial/ethnic group for the three grade levels.

Figure 67: MCAS ELA Proficiency Rates for Males by Racial/Ethnic Group


Note: The differences between White and Black males and between White and Latino males were statistically significant. ${ }^{17}$

Black and Latino males had lower proficiency rates in the MCAS ELA than did White and Asian males at all three grade levels. At the elementary grade level in SY2012, White males had the highest ELA proficiency rate (56.9\%), followed by Asian males
(48.5\%), and by much lower proficiency rates for Latino males (24.9\%), and Black males $(22.1 \%)$. Proficiency rates for White males were 8.4 percentage points higher than the rates for Asian males, and 32.0 and 34.8 percentage points higher than the proficiency rates for Latino and Black males, respectively. In other words, White males in the elementary grades had an ELA proficiency rate that was 2.3 times higher than a Latino male, and 2.6 times higher than a Black male.

In the middle grades in SY2012, the MCAS ELA proficiency rate for Asian males was $69.3 \%$, while the proficiency rate for White males was $66.7 \%$, followed by much lower proficiency rates for Latino males at $38.3 \%$ and Black males at $35.9 \%$. In the middle grades, White males had an ELA proficiency rate that was 1.7 and 1.9 times higher than the rates for a Latino male and a Black male, respectively. These proficiency rates in SY2012 translate into gaps between White and Black males of 30.7 percentage points, and between White and Latino males of 28.4 percentage points, both of which are slightly larger gaps than existed in SY2009.

In the high school grades in SY2012, Asian males had the highest proficiency rate (85.0\%), followed by White males (83.4\%), Black males (63.8\%), and Latino males (63.4\%). In the high school grades, White males had an ELA proficiency rate that was 1.3 times higher than the rates for Black and Latino males. The male White-Black gap in proficiency rates was 19.6 percentage points, and the male White-Latino gap in proficiency rates was 20.0 percentage points in SY2012. These gaps were smaller than the middle grade level gaps, and were smaller than the high school gaps present in SY2009.

Further examining MCAS ELA proficiency trends, we compared proficiency rates for males in exam schools and males not in exam schools by race/ethnicity.

Figure 68: MCAS ELA Proficiency Rates for Males in Exam and Non-Exam Schools by Racial/Ethnic Group


While exam school students, regardless of race/ethnicity, had MCAS ELA proficiency rates ranging from $94.6 \%$ to $96.6 \%$, non-exam school students posted rates that were 40.4 to 53.6 percentage points lower than those of exam school students, with Black and Latino non-exam school males having the lowest rates. Exam school Black and Latino male students posted MCAS ELA proficiency rates that were more than twice those of their non-exam school counterparts. Additionally, there is a proficiency rate gap seen in non-exam schools between White and Asian males, on the one hand, and Black and Latino males, on the other hand, that is not present when only considering students in exam schools.

From SY2009 to SY2012, male proficiency rates at the elementary grade level increased 11.5 percentage points for White males, 3.0 percentage points for Asian males, 1.8 percentage points for Latino males, and only 0.2 percentage point for Black males.

High school grade level proficiency rates increased for all racial/ethnic groups, with the greatest increases observed for Black males (17.0 percentage points), compared to increases of 10.7, 8.8, and 3.1 percentage points for Latino, Asian, and White males, respectively.

## MCAS ELA proficiency rates for Black males by geographical group

We also examined MCAS ELA proficiency rates for Black males by geographical group. Rates for SY2012 are presented below.

Figure 69: MCAS ELA Proficiency Rates for Black Males by Geographical Group


Note: There were between 51 and 99 Black African males and Black Caribbean males tested in the high school grades; results must be interpreted with caution.

In SY2012 at the elementary grade level, Black North American males had the highest MCAS ELA proficiency rate at $22.9 \%$, compared to $20.7 \%$ for Black Caribbean males and $18.6 \%$ for Black African males. Similar trends (from highest to lowest performing groups) were seen at the middle grade level, with $33.2 \%$ of Black North American males, 30.5\% of Black Caribbean males, and $28.0 \%$ of Black African males scoring proficient on MCAS ELA. At the high school grade level, Black Caribbean males had the highest ELA proficiency rate at $62.7 \%$, followed by Black North American males
at $60.4 \%$ and Black African males at $55.1 \%$. Looking across grade levels, proficiency rates were higher for all Black geographical groups as the grade levels increased (i.e., rates were lowest in the elementary grades and highest in the high school grades).

Compared to Black males overall, Black African males had lower MCAS ELA proficiency rates across all grades levels in SY2012, while Black Caribbean males had lower rates at the elementary and middle grade levels compared to Black males overall. Specifically, while MCAS ELA proficiency rates for Black males overall (in non-exam schools) across elementary, middle, and high school grades were $22.1 \%, 32.2 \%$, and $59.7 \%$ respectively; rates for Black African males were $18.6 \%, 28.0 \%$, and $55.1 \%$ at each of the grade levels, respectively; and rates for Black Caribbean males were $20.7 \%$ and $30.5 \%$ at the elementary and middle grade levels respectively.

At the elementary and middle grade levels, MCAS ELA proficiency rates declined over time for Black African and Black Caribbean males, but increased slightly for Black North American males. In the high school grades, proficiency rates increased between 17.8 and 27.5 percentage points for all three groups from SY2009 to SY2012.

MCAS ELA proficiency rates for Latino males by race
Next we consider MCAS ELA proficiency trends for Latino males by race in SY2012.

Figure 70: MCAS ELA Proficiency Rates for Latino Males by Race


Notes: In the high school grades, the number of male students tested in the Latino-Other category was 50 or fewer; therefore they are not graphed. There were between 51 and 99 Latino-Other males tested in the middle grades; results must be interpreted with caution.

MCAS ELA proficiency rates for Latino-White males were higher than for Latino-Black males at all three grade levels. In SY2012, the high school grade level ELA proficiency rate for Latino-White males was 9.6 percentage points higher than the proficiency rate for Latino-Black males (the largest gap across all grade levels).

Compared to Latino males overall, Latino-Black males had lower proficiency rates across all three grade levels in SY2012. The rates for Latino males overall (in non-exam schools) were $24.9 \%, 35.0 \%$, and $58.4 \%$ at each of the grade levels, respectively, while they were $21.7 \%, 30.1 \%$, and $52.1 \%$ for Latino-Black males at each of the grade levels, respectively. From SY2009 to SY2012, proficiency rates for Latino racial groups increased in the elementary and high school grades, with the highest increase occurring for Latino-Other males in the elementary grades (10.7 percentage points) and for LatinoWhite males in the high school grades (11.5 percentage points). In the middle grades, over the study period, proficiency rates decreased markedly for Latino-Other males (11.9
percentage points), decreased slightly for Latino-Black males (1.4 percentage points), but increased 3.6 percentage points for Latino-White males.

## MCAS ELA proficiency rates for Latino males by geographical group

In the next figure, we present MCAS ELA proficiency rates for Latino males by geographical group in SY2012.

Figure 71: MCAS ELA Proficiency Rates for Latino Males by Geographical Group


Notes: The number of Latino South American males tested at the elementary and high school grade levels was fewer than 50, and the number of Latino Central American males tested in the high school grades was fewer than 50; results for these groups are not graphed. There were between 51 and 99 Latino Central American males tested in the elementary and middle grades, and between 51 and 99 Latino South American males tested in the middle grades; results must be interpreted with caution.

In SY2012, MCAS ELA proficiency rates were higher for Latino North American males than for Latino Caribbean males across all three grade levels, with the biggest proficiency gap between the two groups seen at the high school grade level. Differences in proficiency rates between Latino North American males and Latino Caribbean males ranged from 9.9 percentage points in the elementary grades to 11.6 percentage points in the middle grades to 25.7 percentage points in the high school grades. Latino Central

American males had the highest proficiency rate at the elementary grade level, and Latino South American males had the highest proficiency rate in the middle grades.

Looking at trends from SY2009 to SY2012, MCAS ELA proficiency rates were higher for Latino North American males than for Latino Caribbean males in all four school years at all three grade levels. Latino North American males also experienced higher percentage-point increases in MCAS ELA proficiency over time at the elementary and high school levels than did Latino Caribbean males ( 1.8 versus 0.5 percentage points and 12.4 versus 7.5 percentage points, respectively). At the middle level, Latino Caribbean males experienced a larger ELA proficiency rate increase than Latino North American males ( 8.4 percentage points versus 0.8 percentage point, respectively). Compared to Latino males overall, Latino Caribbean males had lower MCAS ELA proficiency rates across all three grade levels. The rates for Latino males overall (in nonexam schools) were $24.9 \%, 35.0 \%$, and $58.4 \%$, while they were $15.8 \%, 25.2 \%$, and $40.2 \%$ for Latino Caribbean males at each grade level, respectively.

MCAS ELA proficiency rates for Latino males by geographical group and race

We also disaggregated MCAS ELA proficiency rates for Latino North American males by race in SY2012, as illustrated in the following graph.

Figure 72: MCAS ELA Proficiency Rates for Latino North American Males by Race


Notes: The number of Latino-Other North American male students tested was fewer than 50 across all grade levels; therefore this group is not graphed. There were between 51 and 99 Latino-Black North American males tested in the high school grades; results must be interpreted with caution.

MCAS ELA proficiency rates were higher for Latino-White North Americans than for Latino-Black North Americans at all three grade levels. From SY2009 to SY2012, Latino-White North American males experienced the largest increase in proficiency rates at the high school grade level (14.2 percentage points), compared to a 3.0 percentage-point increase in the middle grades and a 2.1 percentage-point increase in the elementary grades. Over the study period, proficiency rates for Latino-Black North American males remained the same in the elementary grades, decreased by 2.1 percentage points in the middle grades, and increased by 10.5 percentage points in the high school grades. Across all four years, increases in proficiency rates were higher for Latino-White North Americans than for Latino-Black North Americans. Compared to Latino males overall, Latino-Black North American males had lower MCAS ELA proficiency rates in the elementary and middle grades. The rates for Latino males were $24.9 \%$ and $35.0 \%$ in the elementary and middle grades, respectively, while for Latino-

Black North American males they were $23.1 \%$ and $32.9 \%$ at these two grade levels, respectively.

We also disaggregated MCAS ELA proficiency rates for Latino Caribbean males by race, as illustrated in the following graph for SY2012.

Figure 73: MCAS ELA Proficiency Rates for Latino Caribbean Males by Race


Notes: The number of Latino-Black Caribbean males tested in the high school grades was fewer than 50 and therefore is not graphed. There were between 51 and 99 Latino-Black Caribbean males tested in the elementary grades, and between 51 and 99 Latino-White Caribbean males tested in the high school grades; results must be interpreted with caution.

In SY2012 Latino-White Caribbean males had higher proficiency rates at the elementary and middle grade levels than Latino-Black Caribbean males: $16.7 \%$ compared to $14.1 \%$ in the elementary grades, and $27.1 \%$ compared to $19.3 \%$ in the middle grades; this trend held up over time (SY2009 to SY2012). Over the study period, proficiency rates for Latino-White Caribbean males decreased by 1.3 percentage points in the elementary grades, and increased by 9.0 percentage points in the middle grades, and 6.2 percentage points in the high school grades. Proficiency rates for Latino-Black Caribbean males increased by 5.7 percentage points in the elementary grades and by 6.0 percentage points in the middle grades.

## Summary of MCAS ELA performance

Females had higher MCAS ELA proficiency rates than did males at all three grade levels from SY2009 to SY2012. In SY2012, MCAS ELA proficiency rates were highest in the high school grades and lowest in the elementary grades for both genders. The gap between female and male proficiency rates remained relatively stable over time across all three grade levels. The male-female gap was widest in the middle grades (13.8 percentage points) and narrowest in the elementary grades ( 8.8 percentage points) during the study period.

We also identified performance gaps in MCAS ELA performance between racial/ethnic groups. Black and Latino males had lower proficiency rates in the MCAS ELA than did White and Asian males at all three grade levels. The MCAS ELA proficiency-rate gap between Black and Latino males and White males was widest at the elementary grade level and narrowest at the high school grade level. In the elementary grades, White males had an ELA proficiency rate that was 2.3 times higher than a Latino male, and 2.6 times higher than a Black male. In the middle grades, White males had an ELA proficiency rate that was 1.7 times higher than a Latino male, and 1.9 times higher than a Black male.

Comparing ELA proficiency rates for males in exam schools and males not in exam schools by race/ethnicity revealed some interesting trends. While exam school students, regardless of race/ethnicity, had MCAS ELA proficiency rates ranging from $94.6 \%$ to $96.6 \%$, non-exam school students posted rates that were 40.4 to 53.6 percentage points lower than those of exam school students, with Black and Latino nonexam school males having the lowest rates at $43.0 \%$ and $43.8 \%$ respectively.

Among the Black geographical groups, Black African males had the lowest proficiency rates at all three grade levels. Black North American males had the highest proficiency rates at the elementary and middle grade levels, but Black Caribbean males had the highest rate at the high school level. Compared to Black males overall, Black African males had lower MCAS ELA proficiency rates across all grades levels in SY2012, while Black Caribbean males had lower rates at the elementary and middle grade levels.

Among the Latino racial groups, Latino-White males had higher proficiency rates at all grade levels than did Latino-Black males. Compared to Latino males overall, Latino-Black males had lower proficiency rates across all three grade levels in SY2012. Latino North American males had higher proficiency rates at all three grade levels than did Latino Caribbean males. Compared to Latino males overall, Latino Caribbean males had lower MCAS ELA proficiency rates across all three grade levels. Latino-White North American males had higher proficiency rates at all grade levels than Latino-Black North American males. Compared to Latino males overall, Latino-Black North American males had lower MCAS ELA proficiency rates in the elementary and middle grades. Latino-White Caribbean males also outperformed Latino-Black Caribbean males at the elementary and middle grade levels, with Latino-Black Caribbean males having lower ELA proficiency rates than Latino males overall in the elementary and middle grades.

## MCAS math proficiency rates by gender

Females had higher MCAS math proficiency rates than did males at all three grade levels over the study period. Differences in math proficiency rates between males and females were statistically significant. ${ }^{18}$ In SY2012, for both males and females, math
proficiency rates were highest in the high school grades and lowest in the elementary grades. The proficiency rates for females and males in the elementary grades were 36.8\% and $34.9 \%$, respectively. Proficiency rates were $38.8 \%$ and $35.7 \%$ for females and males, respectively, in the middle grades. In the high school grades, $68.7 \%$ of females and $62.1 \%$ of males were proficient in math, with the female proficiency rate 1.1 times higher than the rate for males.

During the study period, proficiency rates increased for both males and females at all three grade levels, with females posting higher percentage-point increases over time in the elementary and high school grades, and males posting a higher increase in the middle grades. For males and females, proficiency rates increased by 7.0 and 7.4 percentage points, respectively, in the elementary grades; by 8.5 and 7.4 percentage points, respectively, in the middle grades; and by 4.3 and 6.0 percentage points, respectively, in the high school grades. The male-female proficiency-rate gaps remained relatively stable from SY2009 to SY2012 at each grade level.

## MCAS math proficiency rates for males by racial/ethnic group

The figure that follows presents MCAS math proficiency rates for males by racial/ethnic group in SY2012.

Figure 74: MCAS Math Proficiency Rates for Males by Racial/Ethnic Group


Note: The differences between White and Black males and between White and Latino males were statistically significant. ${ }^{19}$

Black and Latino males had lower proficiency rates in the MCAS math than did White and Asian males at all three grade levels. In the elementary grades in SY2012, Asian males had the highest MCAS math proficiency rate (72.3\%), followed by White males (58.9\%), Latino males (31.1\%), and Black males (22.6\%). White males in the elementary grades had a math proficiency rate that was 1.9 and 2.6 times higher than the rates for Latino and Black males respectively.

In the middle grades, Asian males continued to have the highest proficiency rate in math at $74.4 \%$, followed by White males at $58.4 \%$, and then by Latino and Black males, with much lower proficiency rates of $30.0 \%$ and $24.0 \%$, respectively. The proficiency-rate gap in math between White males and Black males in the middle grades in SY2012 was 34.4 percentage points, while the gap between White males and Latino males was 28.4 percentage points. White males had a math proficiency rate that was 2.0
times higher than the rate for Latino males, and 2.4 times higher than the rate for Black males.

MCAS math proficiency rates were higher in the high school grades than in the middle grades for males of all racial/ethnic groups; Asian males continued to have the highest proficiency rate at $91.4 \%$, followed by White males at $72.6 \%$, and then by Latino and Black males, with considerably lower proficiency rates of $57.9 \%$ and $53.9 \%$, respectively. The White-Black and White-Latino proficiency-rate gaps were not as pronounced in the high school grades as they were in the middle grades. The high school grade level White-Black proficiency-rate gap was 18.7 percentage points, while the White-Latino proficiency-rate gap was 14.7 percentage points. White males had a math proficiency rate that was 1.3 times higher than the rate for Latino males, and 1.4 times higher than the rate for Black males.

Further examining MCAS math proficiency trends, we compared proficiency rates for males enrolled in exam schools and males not enrolled in exam schools by race/ethnicity.

Figure 75: MCAS Math Proficiency Rates for Males in Non-Exam Schools and Exam Schools by Racial/Ethnic Group


While exam school students, regardless of race/ethnicity, had MCAS math proficiency rates ranging from $86.2 \%$ to $98.0 \%$, non-exam school students posted rates that were 41.0 to 61.7 percentage points lower than those of exam school students, with Black and Latino non-exam school males having the lowest rates. Black males in exam schools had math proficiency rates that were more than three times those of their nonexam school counterparts. Latino males in exam schools had math proficiency rates that were more than two and a half times those of their non-exam school counterparts. Additionally, there is a proficiency rate gap seen in non-exam schools between White and Asian males, on the one hand, and Black and Latino males, on the other hand, that is not present when only considering students in exam schools.

Over the study period, elementary and middle grade level math proficiency rates increased for all groups. At the elementary grade level, proficiency rates increased the
most for Asian males, by 15.1 percentage points, followed by White males, with a 13.2 percentage-point increase. Rates also increased to a much smaller degree for Latino males, by 7.5 percentage points, and for Black males, by 2.7 percentage points. In the middle grades, White males experienced the greatest increase in math proficiency rates (10.4 percentage points), followed by Latino males ( 9.4 percentage points), Black males (7.6 percentage points), and Asian males (5.0 percentage points). High school grade level math proficiency rates increased the most for Black males ( 7.2 percentage points) and also increased for Latino males ( 3.9 percentage points), but decreased for Asian males ( 0.2 percentage points) and for White males ( 5.2 percentage points).

## MCAS math proficiency rates for Black males by geographical group

In the figure that follows, we present MCAS math proficiency rates for Black males by geographical group in SY2012.

Figure 76: MCAS Math Proficiency Rates for Black Males by Geographical Group


Note: There were between 51 and 99 Black African males and Black Caribbean males tested in the high school grades; results must be interpreted with caution.

In SY2012 at the elementary grade level, $30.9 \%$ of Black African, $22.0 \%$ of Black North American, and $20.8 \%$ of Black Caribbean males were proficient in MCAS math.

Math proficiency rates in SY2012 for Black North American and Black Caribbean males were lower than the rate for Black males overall in non-exam schools (22.6\%).

At the middle grade level, $22.6 \%$ of Black Caribbean, $21.5 \%$ of Black African, and $19.9 \%$ of Black North American males scored proficient in math in SY2012. The rate for Black North American males was lower than the $20.3 \%$ proficiency rate for Black males overall.

At the high school grade level, $54.1 \%$ of Black African, $48.6 \%$ of Black North American, and $43.9 \%$ of Black Caribbean males were proficient in math. The math proficiency rates for Black Caribbean and Black North American males were lower than the rate for Black males overall (48.8\%) in SY2012.

Over the study period, MCAS math proficiency rates increased for all three Black geographical groups at the middle and high school grade levels, with the greatest increase in the middle grades occurring for Black African males ( 9.1 percentage points), and the greatest increase in the high school grades occurring for Black North American males (9.1 percentage points). At the elementary grade level, while Black African and Black North American males saw increases in proficiency rates ( 9.7 and 2.8 percentage points, respectively), Black Caribbean males experienced a 5.2 percentage-point drop.

## MCAS math proficiency rates for Latino males by race

Next we considered MCAS math proficiency rates for Latino males by race in SY2012.

Figure 77: MCAS Math Proficiency Rates for Latino Males by Race


Notes: In the high school grades, the number of males tested in the Latino-Other category was 50 or fewer; therefore they are not graphed. There were between 51 and 99 Latino-Other males tested in the middle grades; results must be interpreted with caution.

Math proficiency rates were higher for Latino-White males than for Latino-Black males across all grade levels. The gap between Latino-White males and Latino-Black males was narrowest in the middle grades ( 5.1 percentage points) and much wider in the high school grades (18.4 percentage points). The Latino-White/Latino-Black gap in the elementary grades stood at 8.5 percentage points. Latino-Black males had lower math proficiency rates than Latino males overall at all three grade levels.

From SY2009 to SY2012, math proficiency rates for all Latino racial groups increased at the elementary and middle grade levels. The greatest increase in the elementary grades occurred for Latino-Other males (13.1 percentage points); LatinoBlack males experienced the smallest increase ( 5.5 percentage points). In contrast, in the middle grades, Latino-Black males experienced the greatest increase in proficiency rate (10.5 percentage points), while Latino-Other males experienced the smallest increase ( 0.8 percentage points). In the high school grades, Latino-White males saw an increase of 3.5
percentage points, while the proficiency rate for Latino-Black males dropped by 1.9 percentage points.

## MCAS math proficiency rates for Latino males by geographical group

MCAS math proficiency rates for Latino males by geographical group in SY2012 are presented below.

Figure 78: MCAS Math Proficiency Rates for Latino Males by Geographical Group


Notes: Latino South American males tested in the elementary and high school grades numbered 50 or fewer; therefore they are not graphed. Latino Central American males tested in the high school grades numbered 50 or fewer and were not graphed. There were between 51 and 99 Latino Central American males tested in the elementary grades, and between 51 and 99 Latino South American and Latino Central American males tested in the middle grades; results must be interpreted with caution.

In SY2012 across all three grade levels, Latino North American males had higher proficiency rates than did Latino Caribbean males. The gap between Latino North American and Latino Caribbean males was largest in the high school grades (20.3 percentage points) and narrowest in the elementary grades (9.4 percentage points). Latino Caribbean males had lower math proficiency rates than Latino males overall at all three grade levels.

From SY2009 to SY2012, math proficiency rates increased for Latino Caribbeans, Latino North Americans, and Latino Central Americans in the elementary and middle grades. At the high school grade level, proficiency rates decreased by 7.3 percentage points for Latino Caribbeans, and increased by 5.9 percentage points for Latino North Americans.

## MCAS math proficiency rates for Latino males by geographical group and race

We also considered MCAS math proficiency rates for Latino North American males by race in SY2012.

Figure 79: MCAS Math Proficiency Rates for Latino North American Males by Race


Notes: Latino-Other North American males tested in all the grade levels numbered 50 or fewer; therefore they are not graphed. There were between 51 and 99 Latino-Black North American males tested in the high school grades; results must be interpreted with caution.

Latino-White North American males had higher proficiency rates in math than Latino-Black North American males at all three grade levels. The gap between the two groups was largest at the high school grade level (18.2 percentage points) and was narrowest at the middle grade level (6.8 percentage points). Latino-Black North

American males had lower math proficiency rates than Latino males overall at all three grade levels.

From SY2009 to SY2012, proficiency rates for Latino-White North Americans increased by 8.4 percentage points in the elementary grades, by 11.2 percentage points in the middle grades, and by 6.0 percentage points in the high school grades. The proficiency rates for Latino-Black North Americans increased by 5.0 percentage points in the elementary grades, by 9.8 percentage points in the middle grades, and by 1.0 percentage points in the high school grades.

We also examined MCAS math proficiency rates for Latino Caribbean males by race in SY2012.

Figure 80: MCAS Math Proficiency Rates for Latino Caribbean Males by Race


Notes: Latino-Other Caribbean males tested in all the grade levels was 50 or fewer; therefore they are not graphed. Latino-Black Caribbean males tested in the high school grades numbered 50 or fewer; therefore this group is not graphed. There were between 51 and 99 Latino-White Caribbean males in the high school grades; results must be interpreted with caution.

In SY2012, proficiency rates were higher for Latino-White Caribbean males than for Latino-Black Caribbeans in the elementary grades, but they were higher for Latino-

Black Caribbeans than for Latino-White Caribbeans in the middle grades. Both racial groups of Latino Caribbean males had lower math proficiency rates than Latino males overall at all three grade levels. From SY2009 to SY2012, proficiency rates for LatinoWhite Caribbeans increased by 6.7 percentage points in the elementary grades and by 3.6 percentage points in the middle grades, and decreased by 6.3 percentage points in the high school grades. Proficiency rates for Latino-Black Caribbeans increased by 8.5 percentage points in the elementary grades and by 13.3 percentage points in the middle grades, and decreased by 7.1 percentage points in the high school grades.

## Summary of MCAS math performance

Females had higher MCAS math proficiency rates than did males at all three grade levels over the study period. In SY2012, for both males and females, math proficiency rates were highest in the high school grades and lowest in the elementary grades. Proficiency rates increased for both males and females at all three grade levels, from SY2009 to SY2012, with females posting higher percentage-point increases over time in the elementary and high school grades, and males posting a higher increase in the middle grades.

Black and Latino males had lower proficiency rates in the MCAS math than did White and Asian males at all three grade levels. White males in the elementary grades had a math proficiency rate that was 1.9 and 2.6 times higher than the rates for Latino and Black males respectively. White males in the middles grades had a math proficiency rate that was 2.0 times higher than the rate for Latino males, and 2.4 times higher than the rate for Black males. In the high school grades, White males had a proficiency rate that was
1.3 times higher than the rate for Latino males, and 1.4 times higher than the rate for Black males.

Comparing math proficiency rates for males in exam schools and males not in exam schools by race/ethnicity revealed some interesting trends. While exam school students, regardless of race/ethnicity, had MCAS math proficiency rates ranging from $86.2 \%$ to $98.0 \%$, non-exam school students posted rates that were 41.0 to 61.7 percentage points lower than those of exam school students, with Black and Latino nonexam school males having the lowest rates at $25.4 \%$ and $29.0 \%$ respectively.

Looking at disaggregated MCAS math data for Black male geographical groups, we found that, in contrast to their performance on the MCAS ELA, Black African males performed better in math at the elementary and high school grade levels compared to other Black geographical groups of males. In SY2012, Black North American and Black Caribbean males had lower proficiency rates than did Black males overall in the elementary grades. Black North American males had a lower proficiency rate than did Black males overall in the middle grades; and Black Caribbean males and Black North American males had lower math proficiency rates in the high school grades than did Black males overall.

We also identified racial and geographical differences in math proficiency rates among Latino male groups. In SY2012, Latino-White males performed better on the MCAS math test than their Latino-Black peers across all three grade levels. Latino-Black males had lower math proficiency rates than Latino males overall at all three grade levels. In SY2012 across all three grade levels, Latino North American males had higher proficiency rates than did Latino Caribbean males. Latino Caribbean males had lower math proficiency rates than Latino males overall at all three grade levels. Latino-White

North American males had higher proficiency rates in math than Latino-Black North American males at all three grade levels. Latino-Black North American males had lower math proficiency rates than Latino males overall at all three grade levels. In SY2012, proficiency rates were higher for Latino-White Caribbean males than for Latino-Black Caribbeans in the elementary grades, but they were higher for Latino-Black Caribbeans than for Latino-White Caribbeans in the middle grades. Both racial groups of Latino Caribbean males had lower math proficiency rates than Latino males overall at all three grade levels.

## Annual Dropout Rates

Research shows that graduating from high school benefits not only one's individual economic possibilities, but also the global economy (Blom Ramsey, Rexhausen, Dubey, \& Yu, 2008). Dropout rates are used as one indicator of a school system's effectiveness.

## Annual dropout rates by gender

The aggregated (Gr. 9-12) dropout rate in SY2012 was higher for males (3.6\%) than for females ( $2.5 \%$ ). The difference between males and females was statistically significant. ${ }^{20}$ Data disaggregated by grade also showed that annual dropout rates for males were higher compared to females at each high school grade. The dropout rates for males in ninth, tenth, eleventh, and twelfth grades were $3.5 \%, 3.1 \%, 4.8 \%$, and $2.9 \%$, respectively, while the equivalent rates for females were $2.4 \%, 2.7 \%, 2.9 \%$, and $2.0 \%$, respectively. Both males and females experienced their highest dropout rates in the eleventh grade and their lowest dropout rates in the twelfth grade. In eleventh grade, the
dropout rate for males was 1.7 times higher than the rate for females. Dropout rates decreased for both genders from SY2009 to SY2012 across all high school grades, with the highest decrease for males occurring in the tenth grade ( 2.5 percentage points), and the highest decrease for females occurring in the eleventh grade ( 0.9 percentage points).

## Annual dropout rates for males by racial/ethnic group

Next, we consider aggregated annual dropout rates for males in grades 9-12, as well as rates disaggregated by high school grade, by racial/ethnic group for SY2012.

Figure 81: Aggregated Annual Dropout Rates for Males by Racial/Ethnic Group


Note: The odds ratios comparing Black and Latino male dropout rates in grades 9 through 12 to White male dropout rates were not statistically significant.

Figure 82: Annual Dropout Rates for Males by Racial/Ethnic Group and Grade


Note: The odds ratios comparing Black and Latino male dropout rates to White male dropout rates were not statistically significant at any of the high school grades.

Aggregated annual dropout rates for males in all BPS high schools show that Black males had the highest annual dropout rates at $4.1 \%$, followed by Latino males at $3.9 \%$, White males at $2.9 \%$, and Asian males at $1.0 \%$. The difference in annual dropout rates between White and Black males was 1.2 percentage points, and the difference between White and Latino males was 1.0 percentage point. The risk of dropping out in grades 9-12 was 1.4 times higher for Black males than for White males, and 1.3 times higher for Latino males than for White males.

Annual dropout data by high school grade show that Black and Latino males had higher dropout rates than White and Asian males. All four groups of males posted their highest dropout rates in eleventh grade. In ninth grade, Latino males had the highest dropout rate at $4.0 \%$, followed by Black males at $3.5 \%$, White males at $2.4 \%$, and Asian males at $2.1 \%$. In tenth grade, Black males had the highest dropout rate at $3.6 \%$, followed
by Latino males at $3.4 \%$, and White males at $3.1 \%$. The pattern was repeated in the eleventh and twelfth grades, where Black males continued to have the highest dropout rates (5.7\% and 3.5\%, respectively), followed by Latino males (4.9\% and 3.2\%, respectively), White males (3.8\% and 2.3\%, respectively), and Asian males (1.3\% and $0.4 \%$, respectively). When we computed risk ratios, we found that Black and Latino males had higher risks of dropping out than did White males. The risk of dropping out for Black males in the eleventh and twelfth grades was 1.5 higher than the risk for White males; the risks of dropping out for Latino males in the eleventh and twelfth grades were 1.3 and 1.4 times higher, respectively, than the risks for White males dropping out. From SY2009 to SY2012, annual dropout rates decreased for Asian, Black, and Latino males in all high school grades, with the exception of ninth grade, where the rate for Asian males increased by 1.3 percentage points.

## Annual dropout rates for Black males by geographical group

We examined whether aggregated dropout rates and disaggregated dropout rates by grade differed for Black males by geographical group; the figures below present rates for SY2012.

Figure 83: Aggregated Annual Dropout Rates for Black Males by Geographical Group


Figure 84: Annual Dropout Rates for Black Males by Geographical Group and Grade


Examining aggregated annual dropout rates for Black males revealed that Black North American males had the highest dropout rate in high school at 4.8\%, followed by Black African and Black Caribbean males at $3.4 \%$ and $3.3 \%$, respectively. The aggregated annual dropout rate for Black North American males was higher than the rate for Black males overall in non-exam schools (4.4\%).

When we further examined dropout rates for Black males by geographical group disaggregated by high school grade, we found that Black North American males had the highest dropout rates across all high school grades (7.2\% in eleventh grade, $4.1 \%$ in ninth and twelfth grades, and $3.8 \%$ in tenth grade). We also found that, similar to trends for males and females and for major racial/ethnic groups, dropout rates for Black North American and Black African males increased between tenth and eleventh grade and dropped in twelfth grade. Dropout rates for Black Caribbean males, which ranged from $2.8 \%$ in ninth grade to $3.8 \%$ in twelfth grade, were more consistent across grades than were rates for the other groups. Black African and Black North American males each had
their highest dropout rate in eleventh grade, while Black Caribbean males had their highest dropout rate in twelfth grade. In all high school grades, Black North American males had higher annual dropout rates than did Black males overall. Annual dropout rates for Black males in non-exam schools in SY2012 were 3.9\%, 3.7\%, 6.2\%, and 3.7\% in ninth through twelfth grade, respectively; the dropout rates for Black North American males were $4.1 \%, 3.8 \%, 7.2 \%$, and $4.1 \%$, respectively, in each of the high school grades. Considering percentage-point changes from SY2009 to SY2012, we found that annual dropout rates decreased for all Black males groups in eleventh grade, with the greatest drop occurring for Black Caribbean males (1.6 percentage points). In ninth grade, rates dropped for Black African and Black North American males, but increased for Black Caribbean males; while in tenth grade, rates increased for Black African and Black Caribbean males but decreased for Black North American males. In twelfth grade, dropout rates decreased substantially for Black African males (4.4 percentage points) and slightly for Black North American males, while they increased slightly for Black Caribbean males. Essentially, while Black African and Black North American males largely saw decreases in dropout rates, Black Caribbean males largely saw increases from SY2009 to SY2012.

## Annual dropout rates for Latino males by race

Below we present aggregated annual dropout rates, and disaggregated annual dropout rates by grade for Latino males by race in SY2012.

Figure 85: Aggregated Annual Dropout Rates for Latino Males by Race


Figure 86: Annual Dropout Rates for Latino Males by Race and Grade


Note: Latino-Other males are not graphed because there were 50 or fewer in each grade.
In terms of aggregated (grades 9 through 12) annual dropout rates for SY2012, Latino-Black males had a higher dropout rate (4.8\%) compared to Latino-White males (3.9\%). Latino-Black males also had a higher aggregated annual dropout rate than did Latino males overall (4.2\%) in non-exam schools. Looking at dropout rates disaggregated by grade in SY2012, Latino-Black males had higher annual dropout rates than LatinoWhite males in grades 9, 10, and 12. In ninth grade, Latino-Black males had a $6.3 \%$ dropout rate, compared to a $3.5 \%$ dropout rate for Latino-White males; in tenth grade the
rates were $3.8 \%$ and $3.4 \%$, respectively; and in twelfth grade, the rates were $4.5 \%$ and $3.0 \%$, respectively. Latino-White males had a higher dropout rate than Latino-Black males in eleventh grade ( $5.9 \%$ compared to $4.3 \%$ ). Latino-Black males had higher dropout rates than Latino males overall in the ninth ( $6.3 \%$ compared to $4.3 \%$ ), tenth ( $3.8 \%$ compared to $3.6 \%$ ), and twelfth grades ( $4.5 \%$ compared to $3.5 \%$ ).

Latino-Black males followed a slightly different pattern than those of most other groups we have examined so far. Whereas most other racial/ethnic groups posted their highest dropout rate in eleventh grade, Latino-Black males (along with Asian males) had their highest dropout rate in ninth grade (6.3\%) and their lowest dropout rate in tenth grade (3.8\%). The trend for Latino-White males followed that of most other racial/ethnic groups (apart from Asian males and Black Caribbean males), with their highest dropout rate in eleventh grade (5.9\%) and a decrease in rate in twelfth grade (to 3.0\%).

With respect to change over time from SY2009 to SY2012, both Latino-White and Latino-Black males experienced decreases in their annual dropout rates at all grades. Latino-White males saw a larger decrease in ninth grade compared to Latino-Black males (2.1 compared to 1.4 percentage points). In all other grades, Latino-Black males saw larger decreases in their dropout rates compared to Latino-White males.

## Annual dropout rates for Latino males by geographical group

Next, we examined aggregated annual dropout rates, and disaggregated annual dropout rates by grade for Latino males by geographical group in SY2012.

Figure 87: Aggregated Annual Dropout Rates for Latino Males by Geographical Group


Figure 88: Annual Dropout Rates for Latino Males by Geographical Group and Grade


Notes: There were 50 or fewer Latino South American males in each high school grade; therefore their results are not graphed. There were between 51 and 99 Latino Central American males in each grade; therefore their results should be interpreted with caution.

Aggregated annual dropout rates for Latino geographical groups in SY2012 show that Latino Caribbean males had the highest dropout rate at $5.1 \%$, followed by Latino

North American males at 4.0\%, Latino Central American males at 3.4\%, and Latino South American males at 3.0\%. At 5.1\%, Latino Caribbean males had a higher aggregated dropout rate than Latino males overall, whose aggregated dropout rate was 4.2\%. In data disaggregated by high school grade, Latino Caribbean males had the
highest dropout rates across in grades 9,11 and 12 , ranging from a high of $6.5 \%$ in eleventh grade to a low of $5.0 \%$ in twelfth grade. Latino Central American males had the highest dropout rate in tenth grade at $4.9 \%$. Latino North American males had dropout rates ranging from $5.6 \%$ in eleventh grade to $3.1 \%$ in twelfth grade. Latino Central American males had rates ranging from $4.9 \%$ in tenth grade to $1.8 \%$ in eleventh grade. Annual dropout rate trends for Latino Caribbean males and Latino North American males followed a pattern similar to trends for most other racial/ethnic groups, with their highest dropout rates occurring in eleventh grade. Latino Central American males, however, experienced their highest dropout rate in tenth grade. Compared to dropout rates disaggregated by grade for Latino males overall, whose rates were $4.3 \%, 3.6 \%, 5.2 \%$, and $3.5 \%$ from ninth to twelfth grade, respectively, Latino Caribbean males had higher dropout rates across all grade levels, Latino North American males had a higher dropout rate than Latino males overall in eleventh grade, and Latino Central American males had a higher dropout rate than Latino males overall in tenth grade.

In terms of change over time from SY2009 to SY2012, annual dropout rates decreased at all grades for Latino North American males. While Latino Caribbean males also saw decreases in dropouts in tenth and eleventh grades, their dropout rate remained unchanged in ninth grade, and they experienced a very small increase in twelfth grade.

## Annual dropout rates for Latino males by geographical group and race

Below, we present aggregated annual dropout rates, and disaggregated annual dropout rates by grade for Latino males by geographical group and race in SY2012.

Figure 89: Aggregated Annual Dropout Rates for Latino Caribbean Males by Race


Figure 90: Annual Dropout Rates for Latino Caribbean Males by Race and Grade


Notes: There were between 51 and 99 Latino-Black Caribbean males ( $9^{\text {th }}, 10^{\text {th }}$ and $11^{\text {th }}$ grades), and between 51 and 99 Latino-White Caribbean males ( $10^{\text {th }}, 11^{\text {th }}$, and $12^{\text {th }}$ grades); therefore their results should be interpreted with caution. There were 50 or fewer Latino-Black Caribbean males in twelfth grade; therefore their results are not graphed.

Aggregated annual dropout rates in SY2012 show Latino-White Caribbean males’ dropout rate as $6.1 \%$, and Latino-Black Caribbean males' dropout rate as 3.7\%.

Compared to the aggregated dropout rate for Latino males overall (4.2\%), Latino-White Caribbean males had a higher aggregated dropout rate. Looking at data disaggregated by grade, we found that Latino-White Caribbean males had higher annual dropout rates than did Latino-Black Caribbean males in ninth through eleventh grades (ranging from 4.2\%
in tenth grade to $8.2 \%$ in eleventh grade); Latino-Black Caribbean males had the highest dropout rate in tenth grade (3.2\%). Latino-White Caribbean males also had higher annual dropout rates across all high school grades than did Latino males overall. In ninth grade from SY2009 to SY2012, the annual dropout rate for Latino-White Caribbean males increased by 1.8 percentage points, while the rate for Latino-Black Caribbean males decreased by 1.9 percentage points.

We also examined aggregated annual dropout rates, and disaggregated annual dropout rates by grade for Latino North American males by race in SY2012.

Figure 91: Aggregated Annual Dropout Rates for Latino North American Males by Race


Note: There were between 51 and 99 Latino-Other North American males in the high school grades; results must be interpreted with caution.

Figure 92: Annual Dropout Rates for Latino North American Males by Race and Grade


Note: There were 50 or fewer Latino-Other North American males in each of the high school grades; therefore their results were not graphed.

Aggregated dropout data for Latino North American males in SY2012 revealed that Latino-Black North American males had higher dropout rates than Latino-White North American males (5.6\% compared to 3.5\% respectively). Considering dropout data disaggregated by grade, we found that Latino-Black North American males had higher rates than Latino-White North American males in grades 9, 10, and 12. Latino-Black North American males had their highest dropout rate in ninth grade at $7.9 \%$, and their lowest rate in twelfth grade at 4.3\%. Latino-White North American males had their highest dropout rate in eleventh grade at $6.3 \%$, and their lowest in ninth grade at $2.3 \%$. A much higher proportion of Latino-Black North American males than Latino-White North American males dropped out in ninth grade-a 5.6 percentage-point difference. LatinoBlack North American males had higher annual dropout rates at the ninth, tenth, and twelfth grades than did Latino males overall.

From SY2009 to SY2012, annual dropout rates decreased at all high school grade levels for Latino-Black North American males: decreases ranged from 3.5 percentage
points in the twelfth grade to 7.0 percentage points in the eleventh grade. Dropout rates also decreased for Latino-White North American males at all grade levels, but the decreases were much more moderate than those for their Latino-Black North American peers: decreases ranged from 0.7 percentage point in eleventh grade to 3.0 percentage points in ninth grade.

## Summary of annual dropout rates

The aggregated (Gr. 9-12) dropout rate in SY2012 was higher for males (3.6\%) than for females (2.5\%). Data disaggregated by grade also showed that annual dropout rates for males were higher compared to females at each high school grade. Both males and females experienced their highest dropout rates in the eleventh grade and their lowest dropout rates in the twelfth grade. Dropout rates decreased for both genders from SY2009 to SY2012 across all high school grades.

Comparing aggregated annual dropout rates by racial/ethnic group, we found that Black and Latino males had higher aggregated dropout rates than did White and Asian males, with Asian males having much lower dropout rates than males from other racial/ethnic groups. Black and Latino males had higher risks of dropping out than did White males. Examining dropout rates by grade revealed that at each high school grade, Black males had higher dropout rates than White males. The risk of dropping out for Black males in the eleventh and twelfth grades was 1.5 higher than the risk for White males; the risks of dropping out for Latino males in the eleventh and twelfth grades were 1.3 and 1.4 times higher, respectively, than the risks for White males dropping out. From SY2009 to SY2012, annual dropout rates decreased for Black, and Latino males in all high school grades.

Of the Black geographical groups, Black North American males had the highest aggregated annual dropout rates overall, and the highest rate in each high school grade. The aggregated dropout rate for Black North American males in SY2012 was 4.8\%, while the rates for Black African and Black Caribbean males were $3.4 \%$ and $3.3 \%$, respectively. Black African and Black North American males each had their highest dropout rate in eleventh grade, while Black Caribbean males had their highest dropout rate in twelfth grade. Black North American males had a higher aggregated annual dropout rate, and higher rates at each high school grade, than did Black males overall in SY2012.

Of the Latino racial groups, Latino-Black males had a higher aggregated dropout rate than Latino-White males, and that rate was higher than the rate for Latino males overall. Looking at dropout rates disaggregated by grade in SY2012, Latino-Black males had higher annual dropout rates than Latino-White males in grades 9, 10, and 12; as well as higher dropout rates than Latino males overall in these grades.

Of the Latino geographical groups, Latino Caribbeans had the highest aggregated dropout rate in SY2012; their dropout rate was also higher than the aggregated rate and disaggregated rates at each of the high school grades for Latino males overall. LatinoWhite Caribbean males had a higher aggregated annual dropout rate than did LatinoBlack Caribbean males and Latino males overall. Across all high school grades, the dropout rate for Latino-White Caribbeans was also higher than the Latino male overall rate. Latino-Black North American males had the highest aggregated dropout rate of the Latino North American groups; their rate was also higher than the aggregated overall dropout rate and the ninth, tenth, and twelfth grade dropout rates for Latino males overall.

## Four-Year Cohort Dropout Rates

Over the past two decades, a postsecondary education has become crucial to the ability to thrive in a highly skilled contemporary labor market. However, educational attainment data for Black and Latino males continue to indicate that the secondary and postsecondary educational achievement trends for Black and Latino males lag behind those of both their female counterparts and White and Asian males (Aud, Fox, \& KewalRamani, 2010; Lee \& Ransom, 2011).

To develop a more complete picture of Black and Latino males' educational outcomes in BPS, it is important to analyze cohort dropout (in addition to annual dropout) and cohort graduation trends-that is, the proportion of ninth graders who either dropped out during four years of high school or graduated after four years of high school. ${ }^{21}$ These rates are typically higher than annual dropout rates because they are cumulative over time, and annual dropout rates are cross-sections of single grades.

## Cohort dropout rates by gender

In this section we examine four-year cohort dropout rates by gender. For the purposes of this report, we define dropouts as students enrolled in the fall of SY2009 whose SIMS enrollment data indicate that they dropped out at any point during the SY2009-SY2012 school years.

Males had a higher cohort dropout rate than did females. Differences in cohort dropout rates between males and females were statistically significant. ${ }^{22}$ Over the study's four-year period, $18.5 \%$ of females, and $25.0 \%$ of males dropped out, a 6.5 percentagepoint difference. This four-year cohort dropout-rate gender gap mirrors the annual dropout-rate gender gap described earlier.

## Cohort dropout rates for males by racial/ethnic group

In the figure that follows, we analyzed SY2009-SY2012 cohort dropout rates for males by racial/ethnic group.

Figure 93: Cohort Dropout Rates for Males by Racial/Ethnic Group


Note: The differences between White and Black males and between White and Latino males were statistically significant. ${ }^{23}$

There were striking disparities in cohort dropout rates between White and Asian males and their Black and Latino male peers. Asian males had the lowest cohort dropout rate at $8.0 \%$, followed by White males at $14.7 \%$. On the other hand, Black males had a cohort dropout rate of $25.3 \%$, followed by Latino males at $26.7 \%$. The considerably higher dropout rates for Black and Latino males were 10.6 percentage points and 12.0 percentage points higher, respectively, than the dropout rate for White males. The risk of dropping out for cohort Black males was 1.7 times higher than the risk for White males in the cohort, while the risk of dropping out for cohort Latino males was 1.8 times higher than the risk for White males in the cohort.

## Cohort dropout rates for Black males by geographical group

Cohort dropout rates for Black males in SY2012 were disaggregated by geographical group and are presented below.

Figure 94: Cohort Dropout Rates for Black Males by Geographical Group


Of the three Black geographical groups, Black North American males had the highest cohort dropout rate (28.4\%), and Black African males had the second-highest rate (26.8\%). Black Caribbean males had the lowest cohort dropout rate at $21.8 \%$. The cohort dropout rate for Black North American males was higher than the cohort dropout rate for Black males overall (27.5\%) in non-exam schools.

## Cohort dropout rates for Latino males by race

We also disaggregated cohort dropout rates for Latino males in SY2012 by race; these rates are presented below.

Figure 95: Cohort Dropout Rates for Latino Males by Race


Note: The cohort number for Latino-Other males was 50 or fewer; therefore this group is not graphed.
Latino-Black males had higher cohort dropout rates than Latino-White males, $31.2 \%$ compared to $27.2 \%$. The cohort dropout rate for Latino-Black males was 3.2 percentage points higher than the cohort dropout rate for Latino males overall in nonexam schools (28.0\%).

## Cohort dropout rates for Latino males by geographical group

We also disaggregated data for Latino males in non-exam schools in SY2012 by geographical group, as seen in the figure below.

Figure 96: Cohort Dropout Rates for Latino Males by Geographical Group


Notes: Latino Central American males numbered between 51 and 100 students in the cohort; therefore their results should be interpreted with caution. Latino South American males had a cohort number of 50 or fewer males; therefore they are not graphed.

Among Latino geographical groups, Latino Caribbean males had the highest dropout rate (30.5\%), followed closely by Latino North American males at 29.7\%. Latino Central American males had the lowest cohort dropout rate at only $9.1 \%$. The cohort dropout rates for Latino Caribbean and Latino North American males were higher than the cohort dropout rate for Latino males overall.

## Cohort dropout rates for Latino North American males by race

As presented in the figure below, we further examined trends for Latino males by disaggregating their cohort dropout rates by both geographical origin and race.

Figure 97: Cohort Dropout Rates for Latino North American Males by Race


Note: Latino-Other North American males had a cohort number of 50 or fewer; therefore this group is not graphed.

Latino-Black North American males had a higher cohort dropout rate (31.6\%) compared to Latino-White North American males (29.5\%). Both groups had higher cohort dropout rates than Latino males overall. We also examined cohort dropout rates for other groups of Latino geographical groups by race. Latino-White Caribbean males
had a cohort dropout rate of $28.3 \%$. Latino-White Central American males had a very low cohort dropout rate of $9.1 \% .^{24}$

## Summary of cohort dropout rates

Cohort dropout rates were higher for males (25.0\%) than for females (18.5\%), with a 6.5 percentage-point gap. The dropout rate for Black males in the cohort (25.3\%) was 10.6 percentage points higher than the dropout rate for White males (14.7\%), and the dropout rate for Latino males (26.7\%) was 12.0 percentage points higher than the dropout rate for White males. The risks of dropping out for cohort Black and Latino males were 1.7 and 1.8 times higher, respectively, than the risk of White males dropping out.

When we disaggregated data for Black males by geographical group, we found that Black North American males had the highest cohort dropout rate (28.4\%), followed by Black Africans (26.8\%); Black Caribbean males had the lowest cohort dropout rate (21.8\%). Black North American males had a higher cohort dropout rate than did Black males overall.

Disaggregating cohort dropout rates for Latino males by race, we saw that LatinoBlack males had a higher cohort dropout rate (31.2\%) than did Latino-White males (27.2\%), and Latino-Black males had a cohort dropout rate that was higher than that of Latino males overall. When we examined cohort dropout rates for Latino males by geographical group, we found that Latino Caribbean males had the highest dropout rate (30.5\%), followed closely by Latino North American males (29.7\%), with Latino Central American males having a much lower cohort dropout rate (9.1\%). The cohort dropout rates for Latino Caribbean and Latino North American males were higher than the cohort dropout rate for Latino males overall. Analysis of dropout rates for Latino North

American males by race revealed that Latino-Black North American males had higher cohort dropout rates than did Latino-White North American males did, 31.6\% compared to $29.5 \%$ respectively; both groups had higher cohort dropout rates than Latino males overall.

## Four-Year Cohort Graduation Rates

Before we present our findings for four-year cohort graduation rates, it is important to note that the data available in SIMS does not specify whether a student has graduated. The MassCore completion variable indicates whether a student has graduated with MassCore completion, but it does not provide a clear indication of which students have actually graduated from high school. Therefore, we could only identify students who were likely to have graduated from high school. Operationally we defined "graduates" as students registered in the fall of SY2009 who were still enrolled in the fall of SY2011 and had not dropped out, transferred, or passed away, or who were not still enrolled in the spring of SY2012. ${ }^{25}$ Using these criteria, we created a cohort graduation variable to identify graduates. Our method is a modified version of the formula that DESE uses to compute cohort graduation rates. DESE computes four-year cohort graduation rates by adding students who transfer into the system after the fall term of the cohort's ninth grade into the cohort, and excluding students who transfer out or become deceased during the four years of high school. We used the same exclusions, but to get a better estimate of how many students who were enrolled in the fall of SY2009 actually graduated, we did not consider students who transferred into the system to be part of the SY2009-SY2012 cohort.

## Cohort graduation rates by gender

Females had a higher cohort graduation rate than males. Of females enrolled in ninth grade in the fall of SY2009, 74.6\% graduated four years later. Of males enrolled in ninth grade in the fall of SY2009, 64.7\% graduated from high school four years later. Females had a cohort graduation rate that was 1.2 times higher than the rate for males. Differences in cohort graduation rates between males and females were statistically significant. ${ }^{26}$ Our graduation rates differ slightly from those reported for BPS by the DESE because our formula differs from the DESE formula (as noted above). ${ }^{27}$

## Cohort graduation rates for males by racial/ethnic group

We examined cohort graduation rates for males by racial/ethnic group, as illustrated in the graph below.

Figure 98: Cohort Graduation Rates for Males by Racial/Ethnic Group


Note: The differences between White and Black males and between White and Latino males were statistically significant. ${ }^{28}$

Among male students in the SY2009-SY2012 high school cohort, Asian males had the highest cohort graduation rate at $90.5 \%$, followed by White males at $81.5 \%$, Black males at $66.9 \%$, and Latino males at $60.4 \%$. The cohort graduation rate for Black males was 14.6 percentage points lower than the graduation rate for White males. The cohort graduation rate for Latino males was 21.1 percentage points lower than the graduation rate for White males. White males had a cohort graduation rate that was 1.2 and 1.4 times higher than the rates for Black and Latino males, respectively.

## Cohort graduation rates for Black males by geographical group

Cohort graduation rates for Black males disaggregated by geographical group are presented below.

Figure 99: Cohort Graduation Rates for Black Males by Geographical Group


Across Black geographical groups, Black Caribbean males had the highest cohort graduation rate (72.0\%), followed by Black African males (65.6\%). Black North American males had the lowest graduation rate at $62.1 \%$. Black Caribbean males' cohort graduation rate was 9.9 percentage points higher than the rate for Black North American
males and 6.4 percentage points higher than the rate for Black African males. The cohort graduation rate for Black North American males was lower than the cohort graduation rate for Black males overall (63.6\%) in non-exam schools.

## Cohort graduation rates for Latino males by race

We also examined cohort graduation rates for Latino males by race, as illustrated below.

Figure 100: Cohort Graduation Rates for Latino Males by Race


Note: The cohort number for Latino-Other males was 50 or fewer; therefore this group is not graphed.
Latino-White males had a higher cohort graduation rate than Latino-Black males:
$58.4 \%$ compared to $54.4 \%$. Latino-White males also performed better than Latino-Black males on other outcome measurements presented in this report. The cohort graduation rate for Latino-Black males was lower than the cohort graduation rate for Latino males overall (57.6\%) in non-exam schools.

## Cohort graduation rates for Latino males by geographical group

To examine further examine cohort graduation rates among Latino males; we disaggregated their graduation rates by geographical group.

Figure 101: Cohort Graduation Rates for Latino Males by Geographical Group


Notes: The number of Latino Central American males in the cohort numbered between 51 and 99; therefore their results should be interpreted with caution. Latino South American males are not graphed, as their cohort numbered 50 or fewer.

Latino Caribbean males had the lowest cohort graduation rate at $54.4 \%$. The cohort graduation rate for Latino North American males was a little higher at 58.0\%. Latino Central American males had the highest cohort graduation rate at $85.4 \%$. The graduation rate for Latino Caribbean males was 31.0 percentage points lower than the rate for Latino Central American males, and the graduation rate for Latino North American males was 27.4 percentage points lower than the rate for Latino Central American males. Latino Caribbean males had a lower cohort graduation rate then Latino males overall.

## Cohort graduation rates for Latino North American males by race

We also disaggregated cohort graduation rates for Latino males by geographical group and race.

Figure 102: Cohort Graduation Rates for Latino North American Males by Race


Note: Latino-Other North American males had a cohort number of 50 or fewer, and therefore are not graphed.

Latino-White North American males had a higher graduation rate (56.4\%) than Latino-Black North American males (54.3\%). We also disaggregated cohort graduation data by race for Latino Caribbean males, and found that Latino-White Caribbean males had a cohort graduation rate of $55.4 \%$. Disaggregating rates for Latino-Central American males revealed that Latino-White Central American males had a rate of $84.4 \%{ }^{29}$ LatinoWhite North American, Latino-Black North American, and Latino-White Caribbean males all had lower cohort graduation rates than Latino males.

## Summary of cohort graduation rates

Males had a lower cohort graduation rate than females ( $64.7 \%$ compared to $74.6 \%$ ). Females had a cohort graduation rate that was 1.2 times higher than the rate for males. Black and Latino males had much lower cohort graduation rates than did their White and Asian peers. Asian males had the highest cohort graduation rate at $90.5 \%$, followed by White males at $81.5 \%$, Black males at $66.9 \%$, and Latino males at $60.4 \%$.

The disparity in graduation rates between Latino and Black males and White and Asian males was staggering. The graduation rate for White males was 14.6 percentage points higher than the rate for Black males and 21.1 percentage points higher than the rate for Latino males. White males had a cohort graduation rate that was 1.2 and 1.4 times higher than the rates for Black and Latino males, respectively.

Disaggregating cohort graduation rates for Black males by geographical group, we found that Black Caribbean males had the highest cohort graduation rate (72.0\%), and Black North American males had the lowest rate (62.1\%). Black African males fell in between at $65.6 \%$. Black North American males had a lower graduation rate than Black males overall (63.6\%).

Disaggregating data for Latino males by race, we found that Latino-Black males had lower cohort graduation rates than Latino-White males (54.4\% compared to 58.4\%). The cohort graduation rate for Latino-Black males was lower than the cohort graduation rate for Latino males overall (57.6\%). Disaggregating data for Latino males by geographical group, we found that Latino Caribbean males had a lower cohort graduation rate than did Latino North American males (54.4\% compared to 58.0\%), and that Latino Central American males had a very high cohort graduation rate of $85.4 \%$. Latino Caribbean males had a lower cohort graduation rate than Latino males overall. Finally, disaggregating cohort graduation rates for Latino males by geographical group and race, we found that White-Black racial disparities were also evident within Latino North American racial groups. Latino-White North American males had a 56.4\% cohort graduation rate compared to the Latino-Black North American males' rate of 54.3\%; both groups had lower cohort graduation rates than Latino males overall.

# Summary of Findings by Gender and Racial/Ethnic Groupings 

The findings of our study presented thus far proceed by enrollment or outcome indicators rather than by group. In order to summarize these findings using a different lens, we analyzed enrollment diversity, educational opportunity, and engagement and performance by gender, racial/ethnic groups, Black geographical groups, Latino racial groups, and Latino geographical groups to highlight which groups require the most attention at the district and school levels. Black and Latino males suffer the worst outcomes of all groups, and Black North American, Latino Caribbean, and Latino-Black males are student groups for whom policy and practice must improve rapidly.

## Gender

## Enrollment diversity

Males and females enroll in BPS at the same rates, and they have similar rates of eligibility for free and reduced-price lunch. Males have slightly higher rates of limited English proficiency than do females.

## Access to educational opportunity

Males have higher rates of identification as having special needs than do females at all three grade levels. About one-quarter of males in BPS are identified as having special needs (SPED). Of those students who are SPED, a greater proportion of males than females are placed in substantially separate classrooms. Males enroll in AWC (not a statistically significant difference), exam schools, and MassCore curriculum at lower rates than females.

## Educational attainment

On all indicators of engagement and performance, at every grade level, BPS males post more troubling outcomes than females. These indicators include lower attendance rates, higher suspension rates, lower MCAS proficiency rates in ELA and math, higher annual and cohort dropout rates, and lower cohort graduation rates. The greatest gender differences are in suspension rates, MCAS ELA proficiency, and cohort dropout and graduation rates.

Male students in BPS suffer lower educational opportunity and more troubling outcomes than do females on every indicator studied. In some cases the gender gap is quite large, as in special education identification and placement rates, suspension rates, and cohort graduation rates.

## Racial/Ethnic Groups

## Enrollment diversity

Black and Latino males account for more than three-quarters of the BPS male student body. At the elementary and middle grade levels, Black males have the highest rates of eligibility for free and reduced-price lunch (FRL). At the high school grade level, Black and Latino males have the second-highest rates, after Asian males. Latino males have similarly high FRL rates as Black males. In terms of English language learner (ELL) status, in the elementary grades, Latino males have the second-highest rates after Asian males. In the middle and high school grades, Latino males have the highest limited English proficiency (LEP) rates of all racial/ethnic groups, followed by Asian males.

## Access to educational opportunity

Black male students have the highest rates of identification with special needs at all three grade levels. More than a quarter of Black males are identified as SPED students. Latino males have the second-highest rates of identification with special needs. Among all racial/ethnic groups, Latino males are the most likely to be placed in substantially separate classrooms in the middle grades, and in the high school grades they have the second-highest rate (after Asian males with a small group size) for such placement. In the elementary grades, almost $40 \%$ of Black male students with special needs are in substantially separate classrooms, followed by Latino males at $31 \%$. Latino male students have the lowest rates of enrollment in AWC, exam schools, and MassCore curriculum, although Black male students have the second lowest enrollment rates in AWC and exam schools, and their rates are similar to the Latino enrollment rates.

## Educational attainment

The students with the lowest attendance rates are Latino males at all three grade levels. The students with the highest suspension rates are Black males at all three grade levels, followed by Latino males. Black and Latino males have similarly low MCAS ELA outcomes. Black males in the elementary and middle grades, and Latino males in the high school grades, have the lowest MCAS ELA proficiency rates. Black males have the lowest MCAS math proficiency rates of all racial/ethnic groups at all three grade levels. Black and Latino males post the highest annual and cohort dropout rates, respectively. Latino males have the lowest cohort graduation rates of all racial/ethnic groups.

Black and Latino males make up three-quarters of the BPS male student population, yet they are dramatically underrepresented in schools and programs that provide the most educational opportunity. In addition, they are identified at high rates for special education and are disproportionately placed in substantially separate classrooms. Finally, Black male outcomes are the worst of all racial/ethnic groups in suspension rates, annual dropout rates, and MCAS math proficiency at the elementary and middle grade levels. Latino males have the most troubling outcomes of all racial/ethnic groups for middle and high school grade level attendance rates, MCAS ELA proficiency at the high school grade level, and cohort dropout and graduation rates.

## Black Geographical Groups

## Enrollment diversity

Black North American males account for three-quarters of all Black students. The Black males with the highest rates of eligibility for free and reduced-price lunch are the immigrant groups: Black Caribbean males in the elementary and middle grades, and Black African males in the high school grades. Black African males have the highest rates of English language learner status, followed by Black Caribbean males.

## Access to educational opportunity

At all three grade levels, Black North American males have by far the highest rates of identification as having special needs. Among Black males with special needs, Black Caribbean males, followed by Black North American males, have the highest rates of placement in substantially separate classrooms in the elementary and high school
grades (Black North American males with special needs are the only geographical group with sufficient numbers in the middle grades, so the groups are not rank ordered).

All Black males have low rates of enrollment in AWC, with Black Caribbean males having the lowest rates. The same is true of exam school enrollment rates, with Black African males having the lowest rates. Black African males also have the lowest rates of MassCore completion.

## Educational attainment

In terms of school engagement, Black North American males have the lowest attendance rates at all grade levels and the highest suspension rates in the elementary and high school grades. They have the second-highest suspension rates in the middle grades, just after Black African males. Black North American males also have the highest annual and cohort dropout rates of Black groups, followed by Black African males.

Black African males have the lowest proficiency rates on the MCAS ELA test at all three grade levels. On MCAS math, Black Caribbean males have the lowest proficiency rates at the elementary and high school grade levels, but Black North American males have the lowest MCAS math proficiency rates at the middle grade level. Black North American males also have the lowest cohort graduation rates, followed by Black African males.

Despite speaking English as a native language and having the second-lowest poverty rates of the Black geographical groups, Black North American males have the highest SPED rates in the elementary and middle grades, the most troubling attendance and suspension rates, the highest dropout rates, and the lowest cohort graduation rates. The immigrant Black male groups have the lowest rates of access to AWC, exam schools,
and MassCore curriculum, and some troubling proficiency rates on MCAS, which is not surprising, since many Black Caribbean and Black African males are English language learners.

## Latino Racial Groups

## Enrollment diversity

Latino-White males account for almost two-thirds of all BPS Latino male students. However, Latino-Black males have the highest rates of eligibility for free and reducedprice lunch at all three grade levels. Both Latino-White and Latino-Black males have high rates of identification as having special needs, although at the middle and high school grade levels, Latino-White males with special needs have higher rates of placement in substantially separate classrooms, with Latino-Black males having slightly higher such rates at the elementary grade level. Rates of limited English proficiency are highest among Latino-White and Latino-Other racial groups at all three grade levels.

## Access to educational opportunity

Latino-Black males have the lowest rates of enrollment in AWC, exam schools, and MassCore curriculum of the Latino racial groups.

## Educational attainment

Attendance rates at all three grade levels do not differ much among the Latino racial groups. However, in the middle and high school grades, Latino-Black male suspension rates are higher than for the other racial groups. Annual dropout rates and cohort dropout rates are highest for Latino-Black males. Latino-Black males have the
lowest MCAS proficiency rates of any group for both ELA and math at all three grade levels. They also have the lowest cohort graduation rates.

The situation for Latino-Black males is dire. Not only do they have the highest poverty rates and the highest rates of middle grade level SPED identification, they also have the lowest rates of AWC, exam school, and MassCore curriculum enrollment. Not surprisingly, given these opportunity gaps, their middle and high school grade level suspension rates, cohort and annual dropout rates, MCAS proficiency rates, and cohort graduation rates all suffer the worst outcomes of the three Latino racial groups.

## Latino Geographical Groups

## Enrollment diversity

Latino North American males account for four-fifths of all Latino males, with Latino Caribbean males accounting for another 14\%. Latino Caribbean males have the highest rates of eligibility for free and reduced-price lunch of all the Latino geographical groups at all three grade levels. Not only do Latino North American males have the highest rates of identification as having special needs at all three grade levels, they also have the highest rates of placement in substantially separate classrooms in the elementary and high school grades, and close to the highest in the middle grades. One-third to onehalf of all Latino North American males with special needs are in substantially separate classrooms. Most Latino male students from the Caribbean and from Central and South America are English language learners. The geographical groups with the highest LEP rates are Latino Central American males in the elementary grades and Latino Caribbean males in the middle and high school grades.

Access to educational opportunity
Enrollment in AWC, exam schools, and MassCore curriculum is low among Latino males overall; however, Latino Caribbean males have the lowest rates of enrollment in these opportunities among the Latino geographical groups.

## Educational attainment

The Latino male geographical groups with the lowest attendance rates are Caribbean males in the elementary grades, North American males in the middle grades, and Central American males in the high school grades. Suspension rates are highest for Latino Caribbean males in the elementary and high school grades, and Latino North American males in the middle grades. Latino North American males have the secondhighest suspension rates in the elementary and high school grades, and Latino Caribbean males have the second-highest suspension rates in the middle grades. Latino Caribbean males have the highest annual and cohort dropout rates, followed by Latino North American males.

In terms of MCAS proficiency rates, Latino Caribbean males have the lowest ELA and math proficiency rates at all three grade levels. They also have the lowest cohort graduation rates.

Clearly, Latino Caribbean males suffer the worst outcomes of all Latino geographical groups, with the highest poverty rates, high LEP rates, and the lowest rates of enrollment in advanced coursework, exam schools, and MassCore curriculum-the pathways to educational opportunity. They post high suspension rates and the highest dropout rates, and the lowest MCAS proficiency rates and graduation rates of all Latino geographical groups.

## Discussion of Key Findings

Forty years after school desegregation began in Boston, as described by scholars who have studied the "White Flight" (Weinbaum, 2004), the population of students in Boston Public Schools is predominantly Black and Latino, with small proportions of White and Asian students. The BPS student population is diverse, not only racially, but also ethnically, culturally, and linguistically. That diversity is increasingly found within the Black and Latino populations. With this picture in mind, we arrive at the following key findings related to enrollment, opportunity, and outcomes for Black and Latino males. These findings have direct implications for district policy and practice as well as community engagement; thus, recommendations for the district leaders and community are embedded in each section (in italics). The findings from this report also point to larger topics, such as the impact of intergenerational poverty and the changing economy on housing and healthcare, which are beyond the scope of our education-focused recommendations.

## Enrollment Diversity

No longer can we speak only about broad racial categories when discussing whom the Boston Public Schools serve. For the first time, this study portrays the district's student body as composed of multiple groups within the Black and Latino populations, which make up approximately $78 \%$ of total male enrollment. For example, within Black male geographical groups, Black North Americans are still the majority at three-quarters of all Black males; however, Black Caribbean and Black African males make up an increasingly larger percentage of this racial group. The percentage of Black North American males as a proportion of all Black males has decreased since SY2009, while
percentages of Black Caribbean and Black African males have increased. Similar shifts are seen within the Latino geographical groups, in which the percentage of Latino Caribbean males is increasing. We also document a shift in racial/ethnic groups whereby the Latino student population has increased while the Black student population has declined. In SY2009, while Latino males represented $37.2 \%$ of the total male enrollment, Black males made up $40.3 \%$ of the total male population; by SY2012, Latino males made up $39.7 \%$ and Black males constituted $38.1 \%$ of the total male population.

Given the increasing diversity within Black and Latino male student populations and shifting demographics, district leaders should:

- Reaffirm a vision that all students graduate from BPS college and career ready.
- Develop a vision and approach for educating Black and Latino male students that is asset based, building on the strengths and value they bring to our schools and communities.
- Study and predict the demographic shifts expected in the next five to ten years, especially as they pertain to Black and Latino students immigrating from the Caribbean and Africa.
- Develop and/or hire culturally responsive administrators and teachers, preferably those who are Black or Latino, bicultural and/or bilingual, and who have experienced immigration and language learning themselves.
- Ensure that the $K-12$ curriculum includes representation of diverse groups, including African and Caribbean males.

The presence of a significant proportion of English language learners also adds to the diversity of BPS' student population. Due in part to the agreement between BPS and the
U.S. Department of Justice, LEP identification in BPS increased from SY2009 to SY2012 (Uriarte et al., 2011). In SY2012, 36.0\% of males were identified as LEP in the elementary grades, $24.5 \%$ in the middle grades, and $20.9 \%$ in the high school grades. Much of that diversity derives from the Black and Latino groups in BPS. Even though Black males in the aggregate do not have high LEP rates, within the Black geographical groups, Black African and Black Caribbean males have LEP rates of greater than half. English language learners (ELL) are students who are highly motivated and engaged in their education, as shown by high attendance and low suspension rates, yet they suffer dire outcomes-including high dropout rates (Uriarte et al., 2011)—if they do not acquire academic English at an efficient pace. When ELLs do reach English fluency, they often outperform native English speakers. Thus, it behooves district leadership to develop pathways for English language acquisition for students from its many sending continents, countries, and territories, such as Africa, Central and South America, and the Caribbean.

To meet the needs of Black and Latino male newcomers and English language learners, district leaders should:

- Continue to disaggregate students for limited English proficiency status by geographical group, so that school leaders focus not only on race, but also on linguistic and cultural assets and needs.
- Revise the Home Language Survey, administered at school registration, to include important indicators including: generation number, refugee status, and the student's/family's self-identification of racelethnicity.
- Continue to ensure that all students are properly identified and offered quality ELL programs and schools within or near their home communities.
- Explore ELL programs and schools beyond Structured English Immersion, such as late-exit bilingual education and dual language schools.

Despite their diversity in cultural and linguistic backgrounds, BPS students are primarily from low-income households. While overall male free and reduced-price lunch (FRL) eligibility in BPS stood at $73.5 \%$ in SY2012, consistent with national trends (Aud et al., 2010), Black and Latino males across all three grade levels exceeded this average, with Black and Latino Caribbean males having the highest rates of eligibility. White males consistently had the lowest FRL eligibility rates across all grade levels. Strikingly, White and Asian males in exam schools are socioeconomically more advantaged than males in non-exam schools.

Because poverty affects all aspects of a child's well-being, including health, housing, and education, district leaders should build schools that acknowledge poverty's effects and address its ramifications, and that expand educational access.

To counteract the effects of poverty, which disproportionately affect Black and Latino students, the district leaders should:

- Continue to expand early childhood programs, including the numbers of classrooms for K0 and K1 (preschool).
- Prioritize enrollment in K0 and K1 classrooms for low-income students and Black and Latino students.
- Study the long-term outcomes of students who enroll in K0 and K1 compared to those who do not (using a wait-list control), including eventual enrollment in AWC and exam schools, engagement indicators (such as attendance and discipline), and performance indicators (such as grades and MCAS scores).
- Ensure that schools are staffed with persons able to identify needs related to health and nutrition in a preventative way, such that students and families are connected to community-based supports as needed.
- Identify students' social and emotional needs and address them with no-cost mentoring, counseling, and other interventions either at the school or in the community.
- Pay close attention to eliminating income-based access gaps for students and families, such as those arising from disparities in access to technology, out-ofschool enrichment, and other learning resources.


## Access to Educational Opportunity

Male students, regardless of race/ethnicity, are more likely to be identified as having special needs and are more likely to be placed in substantially separate settings than are female students. The average rate of special education identification for all males in SY2012 was considerably high at $25.2 \%$. The Black and Latino racial/ethnic labels sometimes mask inequities in special education identification rates. For example, while White male students have slightly higher rates of special education identification than do Black male students in the middle and high school grades, Black North American male students, who make up about $74.3 \%$ of all Black students, have a higher rate of special education identification than do White male students at all three grade spans.

Black and Latino male students are also disproportionately enrolled in substantially separate special education placements, despite the fact that all students with special needs have the right to be placed in the least-restrictive educational environments. Research indicates that students with disabilities who are instructed in general education
settings tend to have better performance in reading and math on standardized tests; better academic performance in terms of grades; better performance on measures of academic engagement; and ultimately, better opportunities in adult life (Wagner, Newman, Cameto, \& Levine, 2006; NCERI, 1996). Thus, placement in substantially separate special education classrooms limits the future prospects and academic outlook of students with disabilities. At the elementary grade level, Black male students are enrolled in substantially separate special education settings at almost twice the rate, and Latino male students at 1.6 times the rate, of White male students. Conversely, White male elementary grade level students with special needs are placed in inclusive settings at significantly higher rates than Black and Latino male students. Placement rates in substantially separate classrooms were even more worrisome for Latino Caribbean, Latino North American, and Black Caribbean males, which were higher in some grade spans than those of their racial/ethnic group overall.

Black and Latino male students are also disproportionately underenrolled in important educational opportunities compared to White male students, including in Advanced Work Classes (AWC), BPS' three examination schools, and the college preparatory MassCore curriculum.

White males were enrolled in AWC at a rate that was three to four times higher than the enrollment rates of Black and Latino males. Even though Black and Latino males make up three-quarters of the BPS male enrollment, they account for less than half of the AWC enrollment. Enrollment rates were even lower for some groups. Specifically, Black African, Black Caribbean, Latino-Black, and Latino-Black Caribbean males enrolled in AWC at lower rates than their respective racial/ethnic groups.

The primary path to exam schools in BPS is AWC, as the majority of sixth-grade males overall enrolled in AWC continue on to exam schools in seventh grade. Of the sixth-grade males in SY2011, 69.8\% of AWC males went on to exam schools in seventh grade in SY2012, compared to only $7.6 \%$ of non-AWC males. The opportunity gap expands, even for Black and Latino males who enrolled in AWC. Disproportionately more White and Asian males from AWC went on to exam schools than did their Black and Latino counterparts. Of the sixth-grade Asian and White males in AWC in SY2011, $90.2 \%$ and $83.7 \%$, respectively, went on to exam schools in seventh grade in SY2012, compared to $61.2 \%$ of Latino males and only $39.0 \%$ of Black males.

Since AWC enrollment is a primary gateway for BPS elementary students to the exam schools, the finding that White male students were disproportionately enrolled in exam schools is not surprising. White and Asian males made up less than $25 \%$ of the grade 7-12 male student population, but accounted for $61.8 \%$ of the exam school population; conversely, Black and Latino males made up $76.1 \%$ of the grade $7-12$ male student population, but they accounted for only $37 \%$ of the exam school population. White male students were enrolled in exam schools at a rate that was 5.2 times higher than that of Black males, and 5.6 times higher than that of Latino males. Even more striking, White male students were enrolled in exam schools at 9.4 times the rate of Latino-Black males, and 16.7 times the rate of Latino Caribbean males.

In SY2012, only $19.8 \%$ and $16.2 \%$ of graduating Black and Latino male seniors, respectively, had completed a MassCore curriculum, the standard course sequence required for entry into a Massachusetts state university, leaving the great majority graduating unprepared for the rigors of college or the workplace. Exam school White and Asian male students, on the other hand, completed the MassCore curriculum at triple to
quadruple those rates. The probability of White male students completing a MassCore curriculum was 2.1 times higher than the probability for Black males and 2.6 times higher than for Latino males. The White-Black completion-rate gap was 22.1 percentage points, and the White-Latino completion-rate gap was 25.7 percentage points. Completion rates from some geographical-racial groups were even more troubling. In non-exam schools, while the completion rate for Black males overall was only $16.3 \%$, the MassCore completion rates for Black African males and Black Caribbean males were still lower at $10.5 \%$ and $7.9 \%$, respectively. Similarly, while the MassCore completion rate for Latino males overall in non-exam schools was only $13.1 \%$, the rates for Latino-Black and Latino Caribbean males were even lower at $12.2 \%$ and $10.3 \%$, respectively.

These inequities in opportunities for enrollment in rigorous learning environments-including AWC, exam schools, and the MassCore curriculum for most Black and Latino male students, and for placement in the least-restrictive education environments for students with special needs-create a bifurcated system. The two tracks are ones in which programs with the greatest learning opportunities are substantially overenrolled by White and Asian students, and the rest of the system is disproportionately Black and Latino. Black and Latino male students do not have the same $\mathrm{K}-12$ opportunities as White and Asian students, a fact that results in lower outcomes in terms of college and career. The outcome disparities by race/ethnicity that are prevalent in Boston and beyond are a consequence of these inequities in opportunity.

## Special education

Given the legal and practical knowledge about what works best for students with special needs, the district should continue to increase the opportunities for Black and

Latino males to enroll in the least-restrictive, most educationally appropriate settings. Recommendations related to special education for Black and Latino males follow:

- Review special education identification and placement policies and procedures with an eye toward correcting gender and racial/ethnic biases, particularly for the Black and Latino North American groups.
- Ensure that policymakers, administrators, and teachers understand special education laws regarding least-restrictive environments and referral, assessment, and placement procedures.
- Evaluate the enrollment trends, practices, and outcomes of the Inclusive Schools over time to determine how students in those schools fare compared to their nonInclusive School counterparts.
- Ensure that enrollment in Inclusive Schools is accessible to Black and Latino males at rates proportional to White and Asian male students.
- Recruit, hire, or develop teachers who are dually certified in special education and a content area for staffing in both Inclusive and non-Inclusive Schools.


## Advanced Work Classes and exam schools

Given the implementation of Common Core State Standards across the country, whose adoption is meant to ensure that all students, regardless of race, income, and geographical location, are taught to the same content and skill standards, there is no justification for having a two-track system, especially one that begins in fourth grade. Therefore, we recommend that the district:

- Convert all grade 4-6 classrooms into AWC classrooms, with high expectations and rigorous coursework.
- Create multiple pathways to college and career to replace the sole current AWC/exam school pathway. For example, study and adapt successful high school career and theme models for BPS, including Linked Learning, Generation Schools, and High Schools That Work.
- Ensure that AWC and exam school enrollment mirrors the district's enrollment by race/ethnicity, FRL eligibility status, ELL status, and special education status. Strategies for creating equitable enrollment in exam schools include the following:
- Expand the eligibility requirement for exam schools, which is currently based on a test score and fifth- and sixth-grade report cards, to include teacher recommendation and a writing sample or portfolio of work.
- Continue to provide entrance exam preparation for BPS fifth and sixth graders based on race/ethnicity and eligibility for FRL.
- Restrict exam school enrollment to students who were enrolled in at least the fifth and sixth grades in BPS elementary schools.
- Ensure that exam schools enroll and provide adequate services for ELL students and students with disabilities.
- Study the enrollment of exam schools to better understand the demographic characteristics of who enrolls, who leaves before twelfth grade (attrition), and who succeeds (graduates from them).


## MassCore curriculum

Given the overall low rate of MassCore curriculum completion as well as the disproportionately lower completion rate for Black and Latino males, district leaders should:

- Develop and publicize guidelines for high schools on what is considered a MassCore course and course sequence as well as the difference between MassCore curriculum and BPS high school graduation course requirements.
- Review all BPS high schools for their course offerings to determine which schools offer the MassCore curriculum.
- Ensure that upon entrance into ninth grade, all students are placed in a MassCore curriculum sequence and schedule, and provide the necessary academic supports to those students who need it to maintain passing grades.
- For those schools that do not yet offer the complete MassCore curriculum, provide the necessary support and staffing to increase their curriculum offerings.
- Ensure that the MassCore curriculum is responsive to students of the diverse cultural, linguistic, and racial/ethnic backgrounds in BPS.
- Inform students, families, and school staff, including guidance counselors, about the value and necessity of college preparatory course sequences such as those offered by the MassCore curriculum.


## Educational Attainment

Overall, attendance rates for male students have slightly increased, and suspension and dropout rates have declined, from SY2009 to SY2012. However, despite these improvements for male students in Boston, the racial/ethnic groups that are most at
risk of low attendance, of being suspended, and of dropping out are Black and Latino males.

In SY2012, the overall high school attendance rate was $86.7 \%$, which means that in a 180 day school year, high school students missed 26 days, or five weeks of learning. At all three grade levels, Asian males had the highest attendance rates and Black and Latino males had the lowest attendance rates.

In SY2012, the risk of a Black male being suspended in all BPS schools was 3.2, 3.9, and 3.2 times the risk of a White male being suspended at the elementary, middle, and high school grade levels, respectively. Suspension rates for Black North American and Black African males were even more troubling than those for Black males overall. For Latino males in all BPS schools, the risk of being suspended was 1.7, 2.9, and 2.1 times the risk of a White male being suspended in the elementary, middle, and high school grades, respectively. Among Latino racial/geographic groups, Latino-Black males and Latino-Black Caribbean males are of particular concern, because their suspension rates were higher than that of the overall Latino group.

The risk of dropping out in grades 11 and 12 was 1.5 times higher for Black males than for White males, and it was 1.3 and 1.4 times higher for Latino males in grade 11 and grade 12, respectively, than for White males. The cohort dropout rates for Black and Latino males were 10.6 percentage points and 12.0 percentage points higher, respectively, than the dropout rate for White males. While cohort dropout rates were troublesome for Black and Latino males overall, they were even more dire for Black North American, Latino-Black, Latino Caribbean, and Latino North American males, whose rates in nonexam schools were higher than those of their respective racial/ethnic groups.

To increase the amount of time that Black and Latino males are in school through attendance improvement, suspension reduction, and dropout prevention, district leaders should:

- Under the weighted student funding formula, create an added weight for Black and Latino males to ensure that they receive increased academic services and resources.
- Identify the root causes of student disengagement, particularly Black and Latino male disengagement, and conduct district-level inquiry that leads to a plan of action.
- Encourage school staff to address student engagement in a comprehensive way by providing professional development and technical assistance to infuse curriculum and pedagogy with culturally responsive content and practices.
- Build a district culture of high expectations for Black and Latino males, celebrating their lived experiences and building upon them so that students are empowered to share, learn, and act.
- Develop early-warning indicators and systems for identifying students who are disengaged in the late elementary and early middle school grades, and provide these students with supports to reengage them, such as mediation, counseling, and involving family and community.
- Review suspension policies to ensure that they are positive, not solely punitive.
- Ensure that suspensions are not disproportionately given to Black and Latino male students.
- Eliminate zero tolerance discipline policies and suspensions for "acts of willful defiance."
- Develop or adopt, then implement and monitor evidence-based dropout prevention interventions.

Educational attainment gaps as measured by proficiency on the state standardized tests and in cohort graduation rates emphasize the grave consequences of reduced access to rigorous learning environments due to poverty and systemic racial/ethnic biases described above. MCAS ELA proficiency-rate gaps were large by race/ethnicity, such that the probability of a White male student being proficient compared to a Black male student was $2.6,1.9$, and 1.3 times higher at the elementary, middle, and high school grade levels, respectively. The probabilities of a White male student being proficient were 2.3, 1.7, and 1.3 times greater than for a Latino male at the elementary, middle, and high school grade levels, respectively. In non-exam schools, some Black and Latino geographic groups fared worse than Black and Latino males overall. Black African males had lower MCAS ELA proficiency rates at all three grade levels than did Black males overall; and Black Caribbean males had lower rates at the elementary and middle school levels than did Black males overall.

MCAS math proficiency rates among racial/ethnic groups varied even more than MCAS ELA proficiency rates, except at the high school grade level. The probability of a White male being proficient in math compared to that for a Black male was 2.6, 2.4, and 1.4 times higher at the elementary, middle, and high school grade levels, respectively. Among Black geographical groups, Black Caribbean males' MCAS math proficiency rates in the elementary and high school grades were lower than the overall Black male rates; and rates for Black North American males were lower than the overall Black male
rates at all three grade levels. The probability of a White male being proficient in math compared to that for a Latino male was $1.9,2.0$, and 1.3 times higher at the elementary, middle, and high school grade levels, respectively. Among Latino groups, Latino Caribbean, Latino-Black, Latino-Black North American, and Latino-Black Caribbean males fared worse across all grade levels compared to Latino males overall.

At $90.5 \%$, Asian males had the highest four-year cohort graduation rate, followed by White males at $81.5 \%$, Black males at $66.9 \%$, and Latino males at $60.4 \%$. Although cohort graduation rates were relatively low for Black and Latino males overall, they were even lower for some of the Black and Latino geographical groups. Black North American males had the lowest cohort graduation rates among the Black male groups at $62.1 \%$, compared to $66.9 \%$ for Black males overall. Compared to a $60.4 \%$ cohort graduation rate for Latino males overall, Latino-Black and Latino Caribbean males had the lowest cohort graduation rates among Latino racial and geographic groups at 54.4\%.

To counteract the effects of lower educational attainment resulting from disproportionalities in access to educational opportunities, district leaders should implement the preceding recommendations aimed at acknowledging enrollment diversity and increasing educational opportunity, as well as the following:

- Create a position, or assign an individual or department, to be responsible for action planning and implementation of district recommendations on Black and Latino male opportunity and outcomes.
- Hire Black and Latino male administrators, teachers, and staff who reflect similar racial/ethnic, geographical, cultural, and linguistic backgrounds as the students.
- Partner with Boston-area universities, hospitals, and businesses-including those in the high technology, biotechnology, pharmaceutical, financial, and other
industries-to create innovative, engaging internships, service learning opportunities, and mentor programs that highlight the connection between schooling and future employment.
- Partner with Boston community-based organizations to develop quality afterschool programs that complement the school curriculum in engaging ways and meet the academic and socio-emotional needs of students.


## Community Engagement

While much of the quantitative data analysis presented in this report has implications for district-level policy and practice, the Boston community (e.g., community organizations, business leaders, health care providers, and institutions of higher education) also has a responsibility for acting on the findings in this report.

We recommend that city leaders use this report as a call to action and:

- Create a task force or coalition that includes district and community groups representing Black and Latino male interests to be responsible for: disseminating and understanding the report's findings; coordinating the development of further recommendations and accompanying action plans (for non-district efforts); and monitoring district action plans based on this report's recommendations.
- Organize community-wide dialogues about the role of racism and discrimination in creating opportunity gaps, and the importance of closing those gaps for Black and Latino males.
- Share findings with Black and Latino male students in a way that allows them to engage with and react to the data in safe spaces, leading to action.

In summary, Boston's student enrollment is diverse and varied not only by race, but also by ethnicity, culture, country of origin, and language, particularly among Black and Latino racial/ethnic categories. In order to serve all students well, city and district administrators need to recognize and embrace the diversity of Black and Latino students and families, and acknowledge each group's unique strengths and needs.

The Boston Public Schools have made progress in educating their diverse student body. Attendance, MCAS proficiency, and graduation rates have increased, while dropout and suspension rates have declined—all signs of an improving system. At the same time, substantial disparities by race/ethnicity in both access and outcomes persist. Most troubling is the inequitable access that Black and Latino male students, who comprise $77.8 \%$ of the male district enrollment and $40.1 \%$ of the overall district enrollment, have to more rigorous programs and schools, which only serves to perpetuate the historical pattern of low achievement outcomes by race/ethnicity. In pursuit of an educational system that truly values its increasingly diverse student enrollment, we must provide each and every student-rather than merely some of our students, as is currently the case-with the access, opportunities, and supports necessary to ensure the experience of challenging coursework, academic success, and preparation for college and career.

# Appendix A: Data, Methods, and Limitations 

## Research Design

This descriptive, longitudinal, quantitative study was designed to investigate the diversity of educational experiences and backgrounds among Black and Latino male students in Boston Public Schools (BPS). We examined the enrollment and outcomes of Black and Latino males relative to female students and to their male peers from other racial groups. Our mode of inquiry goes beyond the standard categorizations of "Black" and "Latino," and is designed to provide a distinctive, more in-depth analysis of engagement and performance by disaggregating Black males by geography, and Latino males by race and geography, based on our unique racial/ethnic/geographic framework. We addressed the following research questions:
3. What is the diversity within the male Black and Latino communities in BPS?
4. How do Black and Latino male students perform in BPS relative to female students and male students of other races?

## Student-Level Data

## Database creation

The data used in this study consisted of student-level, unidentifiable data provided by BPS for the entire district's student population across four school years: SY2009, SY2010, SY2011, and SY2012; and two time points: fall and spring. BPS staff from the Office of Data and Accountability assigned each student case a random identification number to protect their anonymity; the identification number was consistent across academic years and student-level datasets. We converted all original BPS data files from

Excel format to SPSS format; then we used the random student identifiers to merge SPSS files across time to create longitudinal datasets for sets of variables from each of the following data sources: Student Information Management System (SIMS), Massachusetts Comprehensive Assessment System (MCAS), School Safety and Discipline Reports (SSDR), and Advanced Work Classes (AWC) data.

Each longitudinal SPSS dataset was then cleaned to eliminate cases where data was missing across all data and time points, where identification numbers could not be reconciled, and where a student's gender and/or race/ethnicity was inconsistent across multiple data and time points. We eliminated 40 cases from the SIMS longitudinal dataset and 162 cases from the MCAS dataset because of irreconcilable data. Once the data cleaning had been completed, we merged longitudinal datasets across all data sources to create one master longitudinal SPSS student-level database containing all student data spanning SY2009 to SY2012. Upon merging datasets into one longitudinal master file, as BPS had provided the data in long/stacked form (i.e., data for each student was presented in multiple rows), we restructured the database to a wide format (i.e., data for each student is presented in one row, with data for each year presented across multiple columns).

## Exclusions

The pooled longitudinal (SY2009-SY2012) BPS student database contained data for 96,696 students. We excluded 8,401 students ( $8.7 \%$ of cases) who were either pre-K students or special education students in post-twelfth-grade programs, leaving us with 88,295 students in our final pooled dataset.

When we ran analyses on our final pooled dataset we further excluded the following types of cases from our analyses:

- Students who had less than 3 days in attendance for each of the study's academic years. These students were excluded because either they did not report to their assigned school, or they dropped out, transferred to another BPS school, or left the system to attend another district.
- Students attending schools with atypical BPS school codes; that is, school codes with values of 1 or 2 , which are codes used for students who are home schooled and receive only special education services, or are in paid private early childhood programs, respectively.

Including these students would have skewed enrollment, demographic, and outcome trends.

With all exclusions run, the total number of students by grade level and year are presented below.

Table A.11: Number of Students by Grade Level across School Years

| Grade Levels | SY2009 (\%) | SY2010 (\%) | SY2011 (\%) | SY2012 (\%) |
| :--- | :--- | :--- | :--- | :--- |
| Elementary (K-5) | $25,251(44.4)$ | $25,227(44.5)$ | $25,616(45.1)$ | $25,748(46.1)$ |
| Middle (6-8) | $11,978(21.0)$ | $11,976(21.1)$ | $12,021(21.2)$ | $11,667(20.9)$ |
| High School (9-12) | $19,684(34.6)$ | $19,486(34.4)$ | $19,189(33.8)$ | $18,402(33.0)$ |
| Total | $\mathbf{5 6 , 9 1 3}$ | $\mathbf{5 6 , 6 8 9}$ | $\mathbf{5 6 , 8 2 6}$ | $\mathbf{5 5 , 8 1 7}$ |

## Database Variable Creation

Student enrollment variables originated from the BPS SIMS system and were composed of the following types: demographic (such as gender and race), eligibility for free or reduced-price lunch, attendance, special education identification and placement,
and LEP status, among others. We also used BPS School Safety and Discipline Reports containing variables such as disciplinary action taken, number of school days missed due to disciplinary action, type of offense, and alternative education information. We present
a list of study variables, along with definitions and sources in Table A.12.
Table A.12: Student-Level Variables, Definitions, and Data Sources

| Variables | Definitions |  |
| :--- | :--- | :--- |
| Student and School Identifiers |  |  |
| SIMS Student ID | Student random ID number created specifically for <br> this study for confidentiality purposes, allowing for <br> the linking of student data across multiple data <br> sources. | SIMS |
| School Code | A unique eight-digit code assigned by the <br> Massachusetts DOE. | SIMS |
| Student Enrollment Status and Grade Level |  |  |
| Enrollment Status | Enrollment status of students at the time of reporting <br> for any student enrolled in the district during the <br> academic year. | SIMS |
| Grade Level | Grades are divided into three levels: (1) elementary <br> grades: kindergarten through grade 5; (2) middle <br> grades: grades 6 through 8; and (3) high school <br> grades: grades 9 through 12. | CCE/AISR variable created <br> by the study team based on <br> the SIMS "Grade" variable. |
| Student Demographics |  |  |
| Gender | Gender of student. | SIMS |
| Country of Origin | Country of origin is the country from which <br> immigrant students have emigrated. | SIMS |
| First Language | Native language is the specific language or dialect <br> first learned by students or first used by the <br> parents/guardians of students. | SIMS |
| City of Birth | The name of the city where a student was born. | SIMS |
| Race/Ethnicity | Students were classified into one of five categories: <br> (1) White, (2) Asian, (3) Black, (4) Latino, and (5) | SIMS |
| Other. |  |  |


$\left.$|  | Latino by <br> Geographical <br> Group | Latino students were classified into one of four <br> geographical groups: (1) Latino Caribbean, (2) <br> Latino North American, (3) Latino South American, <br> and (4) Latino Central American. |
| :--- | :--- | :--- | | CCE/AISR variable created |
| :--- |
| by the study team based on |
| the SIMS "Race," "Country |
| of Origin," "First |
| Language," and "City of |
| Birth" variables. | \right\rvert\,


| In Special <br> Education <br> (SPED) <br> Placement | Students who are identified as having special needs, <br> attending a regular Boston public school, and placed <br> in one of three types of classrooms: (1) full <br> inclusion, (2) partial inclusion, and (3) substantially <br> separate. | SIMS |
| :--- | :--- | :--- |
| Student Outcomes |  |  |
| Days in <br> Membership | Cumulative number of days a student is enrolled in <br> the district from the first day of the academic year to <br> the reporting date. | SIMS |
| Days in <br> Attendance | Cumulative number of days a student is present in <br> the district from the first day of the academic year to <br> the reporting date. | SIMS |
| Attendance Rate | The percentage of school days in which students <br> were present at their schools. This rate is calculated <br> by dividing total days attended by total days in <br> membership. | CCE/AISR variable created <br> by the study team based on <br> the SIMS ""ays in <br> Attendance" and "Days in <br> Membership" variables. |
| MCAS ELA <br> Performance <br> Level | A student's performance level on the Massachusetts <br> Comprehensive Assessment System in English <br> language arts defined by the following levels: <br> Advanced, Proficient, Needs Improvement, and <br> Warning/Failing. | MCAS Database |

Four-Year Cohort Dropout Rate

The percentage of students enrolled in 9th grade in the fall of SY2009 who had dropped out during the SY2009-SY2012 time frame divided by the total number of $9^{\text {th }}$-grade students in the fall of SY2009.

CCE/AISR variable created by the study team based on the SIMS "Enrollment Status" variable.

Although BPS factors-in students who transferred into the system to compute cohort graduation rates, we opted to use the number of students in ninth grade in the fall of SY2009 minus exclusions (students transferred out and deceased) as the denominator because it provides a more accurate estimate of the percentage of students who started with the cohort and graduated four years later.

BPS' Cohort Graduation Rate $=$
$\frac{\text { Number of high school grade students who graduated in four years or less }}{\text { [Number of first-time entering ninth graders in fall SY2009] + transfers in-(exclusions) }}$
CCE/AISR Cohort Graduation Rate=
$\frac{\text { Number of students who graduated in four years or less }}{\text { [Number of first-time entering ninth graders in fall SY2009] -(exclusions) }}$
We used five overall race/ethnicity variables in the study, all of which were derived from the SIMS race/ethnicity variables: (1) White, (2) Asian, (3) Black, (4) Latino, and (5) Other. ${ }^{30}$ To better capture the geographic, linguistic, and cultural diversity within the Black and Latino populations, we constructed a racial/ethnic/geographic origin framework based on the following SIMS variables: Race/Ethnicity, Country of Origin, First Language, and City of Birth. Our framework is presented below in Table A.13.

## Table A.13: CCE/AISR Racial/Ethnic/Geographic Framework

| Black Males by Geography | Latino Males by Geography |
| :--- | :--- |
| •Black North American | •Latino North American |
| •Black Caribbean | •Latino Caribbean |
| •Black African | •Latino Central American |
| •Black Central American | •Latino South American |
| •Black South American |  |
| Latino Males by Race | Latino Males by Race and Geography |
| •Latino-White | •Latino-White North American |
| •Latino-Black | •Latino-Black North American |

-Latino-Other
-Latino-Other North American
-Latino-White Caribbean
-Latino-Black Caribbean
-Latino-Other Caribbean
-Latino-White Central American
-Latino-Black Central American
-Latino-Other Central American
-Latino-White South American
-Latino-Black South American
-Latino-Other South American

We also used program-level variables to identify students in special programs, classes, or schools: for example, exam schools, Advanced Work Classes, and special education placements. Variables were either dichotomous or categorical. The first two variables were dichotomous variables (i.e., coded 1 if yes, 0 if no) indicating whether a student was enrolled in an exam school or AWC. The latter (special education placements) was a categorical variable with seven categories indicating the type of special education program (full inclusion, partial inclusion, substantially separate classrooms, etc.) attended by a student in receipt of special education services.

Analyses presented in this report were, for the most part, conducted by grade level. CCE/AISR researchers created a grade level variable derived from the SIMS Grade Level variable. The grade level variable consisted of three levels: (1) elementary grades (EG): kindergarten through grade 5 ; (2) middle grades (MG): grades 6 through 8; and (3) high school grades (HSG): grades 9 through 12. The three grade level variables represent "grades offered" rather than "school type." For example, we classified students attending $\mathrm{K}-8$ schools as elementary grade level (EG) if they were in grades $\mathrm{K}-5$, middle grade level (MG) if they were in grades 6-8, and high school grade level (HSG) if they were in
grades 9-12. For schools with multiple grade levels, such as $\mathrm{K}-8$ schools, we categorized students by the grade levels in which they were enrolled.

## Data Analysis

We conducted analyses using SPSS and Excel. We used SPSS to run descriptives, frequencies, cross-tabulations, and significance testing. We exported SPSS output to Excel, where we created detailed table templates for each of the enrollment and outcome indicators by gender, race/ethnicity, and by our new race/ethnicity/geographic framework. The research team, along with data assistants (trained by the research team), filled in the Excel table templates based on SPSS output, conducted crosschecks, and created graphs.

We used two types of tests to test for statistical significance at an alpha level of 0.05. Because we based our analysis of attendance on average group rates, we used ANOVAs to test for the statistical significance between average group attendance rates. Since all other outcome variables were dichotomous or categorical variables, we used noninferential statistics to test for group differences. We opted to use the MantelHaenszel chi-square, because it provides odds as an estimate of relative differences between groups. Because odds ratios are difficult to interpret, we calculated probabilities to discuss relative differences among groups for positive outcomes, such as proficiency and graduation rates, and risk ratios to discuss relative differences among groups for negative outcomes, such as suspensions and dropout rates. We computed risk ratios for outcome variables as the probability of the comparison group (i.e., Black and Latino) divided by the probability of the reference group (i.e., White and Asian).

We conducted analyses with and without exam school students. However, we present all graphs and discuss findings for gender and major racial/ethnic categories with
exam school students, as most of the disparities unearthed in this study revolved around BPS' AWC and exam school tracks. Reporting results without exam school students would mask existing racial disparities. Conversely, because only small proportions of Black and Latino males are enrolled in exam schools, we present disaggregated data, graphs, and findings based on our geographic framework for Black and Latino males without exam school students, as the majority of Black and Latino males attend nonexam schools.

## Limitations of the Study

The racial/ethnic/geographic origin framework we developed for this study represents an improvement over the typical manner in which most researchers report findings by race/ethnicity. However, we were limited by the demographic information contained within the SIMS data, which does not capture racial/ethnic self-identification, country of origin after three years in BPS, number of generations living in the United States, and immigration status (refugee, voluntary, undocumented). Therefore, we were unable to fully capture the diversity of racial, ethnic, cultural, and linguistic backgrounds of students. For example, we could not accurately identify which students were of African American descent, whose history of slavery and oppression in this country is different from the history of African and Caribbean immigrants to this country. Our Black North American category includes African American students as well as secondgeneration (and earlier) students of African and Caribbean immigrant descent. Likewise, due to the limitations of the SIMS data, we were unable to capture the true extent of racial/geographic diversity among the Latino population with our framework. Based on available SIMS data, our framework was limited to categorizing Latinos into three major
racial categories: White, Black, and Other. However, we recognize that Latinos may identify their race differently and more accurately. For example, many Latinos identify themselves "Brown," and select the White category for lack of a more accurate category. As with Black North Americans, our framework does not fully capture the diversity within Latino North Americans. Latino North Americans are individuals of Latino descent who were born in the United States, U.S. Territories, Canada, or Mexico. Many Latino Bostonians are Puerto Rican, but they are not distinguishable as first generation or American-born Puerto Ricans, nor are they distinguishable from American-born Dominicans and other Latinos.

One of the major findings emerging from this study is that BPS has two pathways, one for those who are invited to AWC and exam schools and one for those who are not. The racial/ethnic/geographic disparities and disproportionalities we identified in access to educational opportunities and in educational attainment stem from this bifurcated educational system. Given the prominence of this finding, we could have presented all of our analyses in the report in comparisons of the two tracks (i.e., exam schools vs. nonexam schools in the middle and high school grades). However, because of the abundant amount of data this would have presented in the report, we opted to highlight the important findings from the study instead of concealing them in inordinate quantities of data. As most of the disparities unearthed among major racial/ethnic groups in the secondary grades ensued from the differences between exam school and non-exam school student populations, we present findings for data with exam school students for gender and major racial/ethnic group comparisons. On the other hand, because the proportions of Black and Latino males in exam schools are small, we have opted to
present findings for Black and Latino disaggregated racial/geographical groups only in non-exam schools.

Additionally, there were limiting factors regarding the quality of the data we received. For example, the immigration status variable for immigrant students reverts automatically to "U.S.-born" after students who have immigrated to the United States have been in BPS for over three years. We tried to recapture some of the immigration status information by recoding country of origin using the city of birth variable. Nonetheless, some immigrant students may have been incorrectly classified as Americanborn because of data limitations. Other data limitations may have resulted from the selfreporting nature of some variables.

Another data limitation stemmed from the fact that MassCore is a new program within BPS, and accurate data reporting may not be universal yet. According to BPS staff, since the district only implemented the program in SY2010, the SY2009-SY2012 data may still have inconsistencies due to underreporting.

Additionally, although we received student data for some of the charter schools in Boston, we did not receive outcome data for the Horace Mann charter schools with unique identification numbers, thereby inhibiting our ability to merge multiple datasets. Therefore, we decided not to include any charter schools in BPS in our analyses.

Given the depth and breadth of the student-level database, there were many other analyses we could have conducted to obtain a clearer perspective of Black and Latino male students' experiences in BPS, but that were beyond the scope of this report. Ultimately, having more years of data to analyze would have afforded us a more in-depth analysis of cohort trends among high school grade students. Moreover, our analysis of academic attainment was limited to MCAS proficiency. Optimally, we would have liked
to have included other measures of educational attainment, such as completion of AP courses and AP grades, as well as completion of algebra courses and algebra grades. Also, the links between grade retention and the likelihood of dropping out and between rates of suspension and educational attainment would have been interesting trends to examine. Additionally, given that the database provides early childhood data, the impact of early childhood education on outcome measures for children in BPS' early childhood programs would have made an interesting investigation. However, due to limited resources and time constraints, we were unable to address these other analyses within the scope of this project.

## Appendix B

Graphs for Data in Non-Exam Schools (SY2012)
Enrollment Diversity

Figure B.103: Male Enrollment by Racial/Ethnic Group


Figure B.104: FRL Eligibility Rates for Males by Racial/Ethnic Group


Figure B.105: Limited English Proficiency Rates for Males by Racial/Ethnic Group


Figure B.106: Special Education Identification Rates for Males by Racial/Ethnic Group


## Access to Educational Opportunity

Figure B.107: Middle Grade Level Special Education Placement Rates for Males with Disabilities by Racial/Ethnic Group


Note: There were between 51 and 99 Asian male students with special needs; results must be interpreted with caution.

Figure B.108: High School Grade Level Special Education Placement Rates for Males with Disabilities by Racial/Ethnic Group


Note: There were between 51and 99 Asian male students with special needs; results must be interpreted with caution.

Figure B.109: MassCore Completion Rates for Male Graduates by Racial/Ethnic Group


Notes: There were between 51 and 99 White male graduates; results must be interpreted with caution. Without exam school students: The odds of a White male completing MassCore were 1.9 times higher than the odds of a Black male completing MassCore ( $p<0.005$ ).

## Educational Attainment

Figure B.110: Attendance Rates for Males by Racial/Ethnic Group


Notes: Middle grades without exam school students: Mean differences in attendance rates were statistically significant, $F(4,5,296)=24.2, p<0.0005$. Post hoc analyses revealed significant differences between the following group means: White and Asian ( $p<0.0005$ ); Asian and Black ( $p<0.0005$ ); Asian and Latino ( $p<0.005$ ); Black and Latino ( $p<0.0005$ ). High school grades
without exam school students: Mean differences in attendance rates were statistically significant, $F(4,7,829)=18.9, p<0.0005$. Post hoc analyses revealed significant differences between the following group means: White and Asian ( $p<0.0005$ ); Asian and Black ( $p<0.0005$ ); Asian and Latino ( $p<0.0005$ ); Asian and "Other" ( $p<0.005$ ); Black and Latino ( $p<0.0005$ ).

Figure B.111: Suspension Rates for Males by Racial/Ethnic Group


Notes: Middle grades without exam school students: The odds of a Black male student being suspended were approximately three times the odds of a White male student being suspended ( $p<$ 0.005 ). The odds of a Latino male student being suspended were approximately two times the odds of a White male student being suspended ( $p<0.05$ ). The odds of a Black male student being suspended were 1.4 times the odds of a Latino male student being suspended ( $p<0.005$ ). High school grades without exam school students: The odds of a Black male student being suspended were approximately two times the odds of a White male student being suspended ( $p<0.005$ ). The odds of a Black male student being suspended were 1.6 times the odds of a Latino male student being suspended ( $p<0.0005$ ).

Figure B.112: MCAS ELA Proficiency Rates for Males by Racial/Ethnic Group


Notes: There were between 51and 99 Asian males tested in ELA at the high school level; results must be interpreted with caution.
Middle grades without exam school students: The odds of a White male being proficient were 2.3 times higher than the odds for a Black male ( $p<0.0005$ ). The odds of a White male being proficient were 2.0 times higher than the odds for a Latino male ( $p<0.0005$ ). High school grades without exam school students: The odds of a White male being proficient were 1.6 times higher than the odds for a Latino male ( $p<0.05$ ).

Figure B.113: MCAS Math Proficiency Rates for Males by Racial/Ethnic Group


Notes: There were between 51and 99 Asian males tested in math at the high school level; results must be interpreted with caution.
Middle grades: The odds of a White male being proficient were 3.0 times higher than the odds for a Black male ( $p<0.0005$ ). The odds of a White male being proficient were 2.0 times higher than the odds for a Latino male $(p<0.0005)$. The odds of a Latino male being proficient were 1.5
times higher than the odds for a Black male ( $p<0.0005$ ). High school grades: Odds comparisons between White, Black, and Latino groups were not statistically significant.

Figure B.114: Aggregated Annual Dropout Rates for Males by Racial/Ethnic Group


Figure B.115: Annual Dropout Rates for Males by Racial/Ethnic Group and Grade


Figure B.116: Cohort Dropout Rates for Males by Racial/Ethnic Group


Figure B.117: Cohort Graduation Rates for Males by Racial/Ethnic Group


## Notes

1. Our racial framework also included a final geographical group of males identified as from "Other Regions," for students who identify as one of our racial categories (e.g., Latino), but who are not captured in our geographical framework (e.g., Latino males from Europe). We do not present analysis on these groups, as they are too diverse and their sample sizes too small to analyze reliably.
2. Total SPED placements do not sum to $100 \%$ as we do not graph three other placements with small numbers of students: (1) Not current SPED but was during the current year, (2) Public separate day school, and (3) Private separate day school.
3. The odds ratio comparing male and female AWC enrollment was not statistically significant; we cannot conclude that either group is more likely to enroll in Advanced Work Classes.
4. The odds of a White male student enrolling in AWC were approximately 4.0 times higher than the odds for a Black male student ( $p<0.0005$ ). The odds of a White male student enrolling in AWC were 4.5 times higher than the odds for a Latino male student ( $p<0.0005$ ).
5. The odds ratio between females and males was 1.5 and was statistically significant ( $p<0.005$ ).
6. The odds ratio comparing White and Black males' enrollment in exam schools was 8.7 ( $p<0.0005$ ). The odds ratio comparing White and Latino males' enrollment in exam schools was 9.3 ( $p<0.0005$ ).
7. "Other" students did not have high enough numbers in 2009 to allow comment on longitudinal trends.
8. For most of the analyses we conducted, since the variables we were investigating were nominal, we had to use non-inferential statistics to test for group differences. Rather than using the Pearson chi-square, we opted to use the MantelHaenszel chi-square, because it provides an estimate of relative differences between groups. However, we only used odds ratios for significance testing.
9. Although results suggest that there are sizable differences between SY2009 and SY2010 MassCore completion rates, with SY2009 rates much higher than SY2010 rates, these differences are likely due to MassCore having been approved in November 2007, with students graduating in 2009 already having been seniors during its first full year. Therefore, we do not present data for SY2009, as it may skew results.
10. The odds of female graduates completing MassCore were 1.4 times greater than the odds for male graduates ( $p<0.0005$ ).
11. The odds of a White male completing MassCore were 2.3 times higher than the odds of a Black male completing MassCore ( $p<0.0005$ ). The odds of a White male completing MassCore were 2.8 times higher than the odds of a Latino male completing MassCore ( $p<0.0005$ ).
12. ANOVA results suggest that there were statistically significant differences between male and female group attendance rate means at the elementary grade level ( $F(1$, $25,746)=11.3, p=0.001)$, the middle grade level $(F(1,11,665)=26.2, p<0.0005)$, and the high school grade level $(F(1,18,400)=35.2, p<0.0005)$.
13. Elementary Grade Level: Mean differences in attendance rates were statistically significant, $F(4,13,314)=70.8, p<0.0005$ Post hoc analyses revealed
significant differences between White and Black ( $p<0.0005$ ); White and Latino ( $p<$ 0.0005 )

Middle School Grade Level: Mean differences in attendance rates were statistically significant, $F(4,6,052)=42.2, p<0.0005$. Post hoc analyses revealed significant differences between White and Latino ( $p<0.005$ ).

High School Grade Level: Mean differences in attendance rates were statistically significant, $F(4,9,399)=58.8, p<0.0005$. Post hoc analyses revealed significant differences between White and Black ( $p<0.0005$ ); White and Latino ( $p<0.0005$ ).
14. The odds of a male student being suspended in the elementary grades were 3.8 times the odds of a female student being suspended in the elementary grades ( $p<0.005$ ). The odds of a male student being suspended in the middle grades were 2.3 times the odds of a female being suspended in the middle grades $(p<0.005)$. The odds of a male student being suspended in the high school grades were 1.9 times the odds of a female being suspended in the high school grades ( $p<0.005$ ).
15. Elementary Grade Level: The odds of a Black male student being suspended were approximately three times the odds of a White male student being suspended ( $p<$ 0.005).

Middle Grade Level: The odds of a Black male student being suspended were 4.1 times the odds of a White male student being suspended ( $p<0.0005$ ). The odds of a Latino male student being suspended were 3.0 times the odds of a White male student being suspended ( $p<0.0005$ ).

High School Grade Level: The odds of a Black male student being suspended were 3.2 times the odds of a White male student being suspended ( $p<0.0005$ ). The odds of a Latino male student being suspended were 2.1 times the odds of a White male student being suspended ( $p<0.005$ ).
16. In the elementary grades, the odds of being proficient on the MCAS ELA were 1.5 times higher for females than for males $(p<0.0005)$. In the middle grades, the odds of being proficient on the MCAS ELA were 1.7 times higher for females than for males ( $p<0.0005$ ). In the high school grades, the odds of being proficient on the MCAS ELA were 1.6 times higher for females than for males ( $p<0.0005$ ).
17. Elementary Grades: The odds of a White male being proficient were 4.7 times higher than the odds for a Black male ( $p<0.0005$ ). The odds of a White male being proficient were 4.0 times higher than the odds for a Latino male ( $p<0.0005$ ).

Middle Grades: The odds of a White male being proficient were 3.6 times higher than the odds for a Black male ( $p<0.0005$ ). The odds of a White male being proficient were 3.2 times higher than the odds for a Latino male ( $p<0.0005$ ).

High School Grades: The odds of a White male being proficient were 2.9 times higher than the odds for a Black male ( $p<0.0005$ ). The odds of a White male being proficient were 2.9 times higher than the odds for a Latino male ( $p<0.0005$ ).
18. The odds of being proficient on the MCAS math test were 1.1 times higher for females than for males at the elementary $(p<0.05)$ and middle grade $(p<0.005)$ levels. At the high school grade level, the odds of being proficient on the MCAS math test were 1.3 times higher for females than for males ( $p<0.0005$ ).
19. Elementary grade level: The odds of a White male being proficient were 4.8 times higher than the odds for a Black male ( $p<0.0005$ ). The odds of a White male being proficient were 3.1 times higher than the odds for a Latino male ( $p<0.0005$ ).

Middle grade level: The odds of a White male being proficient were 4.5 times higher than the odds for a Black male ( $p<0.0005$ ). The odds of a White male being proficient were 3.2 times higher than the odds for a Latino male ( $p<0.0005$ ).

High school grade level: The odds of a White male being proficient were 2.2 times higher than the odds for a Black male ( $p<0.0005$ ). The odds of a White male being proficient were 2.0 times higher than the odds for a Latino male ( $p<0.0005$ ).
20. The odds of a male dropping out in grades $9-12$ were 1.4 times higher than the odds for a female ( $p<0.005$ ).
21. While many students take more than four years to graduate from high school, our SY2009-SY2012 dataset only enabled us to calculate four-year cohort dropout and graduation rates.
22. The odds of a male student dropping out were 1.5 times higher than the odds for a female student ( $p<0.0005$ ).
23.The odds of a Black male student dropping out were 2.0 times higher than the odds of a White male student dropping out ( $p<0.0005$ ). The odds of a Latino male student dropping out were 2.1 times higher than the odds of a White male student dropping out ( $p<0.0005$ ).
24. A graph is not presented as Latino-Black Caribbean males did not have enough males in the cohort to graph alongside Latino-White Caribbeans. Graphs are also not presented for Latino South American males by race and Latino Central Americans by race due to cohort sizes of 50 students or less.
25. Students still enrolled in the spring of SY2012 were held back.
26. The odds of a female student graduating were 1.2 times higher than the odds for a male student ( $p<0.0005$ ).
27. DESE's SY2012 cohort graduation rate for females is $72.5 \%$, while ours is $74.6 \%$; their reported graduation rate for males is $59.6 \%$, while ours is $64.7 \%$.
28. The odds of a White male graduating with the cohort were 1.7 times higher than the odds for a Black male ( $p<0.0005$ ). The odds of a White male graduating with the cohort were 2.6 times higher than the odds for a Latino male ( $p<0.0005$ ).
29. A corresponding graph is not presented as Latino-Black Caribbean males did not have enough males in the cohort to graph alongside Latino-White Caribbeans. Graphs are also not presented for Latino South American males by race and Latino Central Americans by race due to cohort sizes of 50 students or less.
30. Although we have an "Other" racial category, we do not show it in graphs or discuss findings for this category, as there were too few students in this category to report on reliably.

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