Prepared by
The Boston Private Industry Council
and Abt Associates
for Success Boston

Reaching for the Cap and Gown

Progress Toward Success Boston's College Completion Goals for Graduates of the Boston Public Schools













About Success Boston

Success Boston is Boston's citywide college completion initiative. Together, the Boston Foundation, the Boston Public Schools (BPS), the City of Boston, 37 area institutions of higher education, led by UMass Boston, and local nonprofit partners are working to double the college completion rate for students from the BPS. Success Boston was launched in 2008 in response to a longitudinal study by Northeastern University's Center for Labor Market Studies, which showed that only 35% of those BPS graduates who had enrolled in college ever completed a postsecondary certificate, Associate's or Bachelor's degree within seven years of graduation from high school. Together, the partner organizations implemented a three part strategy: getting ready, getting in, and getting through—to ensure Boston's young people are prepared to meet the challenges of higher education and achieve a degree that will allow them to thrive in the workplace. Recently, Success Boston has expanded its mission to include "getting connected" to the labor market upon graduation from college. In 2014, the Boston Foundation received a grant from the Corporation for National and Community Service to expand this effort. This \$6M Social Innovation Fund award gives the Foundation the resources necessary to expand Success Boston's transition coaching model from serving 300 to 1,000 students annually from the Boston Public Schools classes of 2015, 2016 and 2017.

About the Private Industry Council

The Boston Private Industry Council (PIC) is the city's Workforce Development Board and its school-to-career intermediary. The PIC's mission is to strengthen Boston's communities and its workforce by connecting youth and adults with education and employment opportunities that align with the needs of area employers. In pursuit of its mission, the PIC connects youth and adults with work and learning opportunities, convenes industry groups to explore the alignment between education and hiring needs and to increase pathways into those industries for residents, measures quality and outcomes of its initiatives, conducts and analyzes labor market research, and recommends policy changes based on the results of its activities. For over 35 years, the PIC has collaborated with the Boston Public Schools, higher education, government, labor, and community organizations to develop and implement strategic priorities for increasing education, training, and employment options for Boston residents.

About Abt Associates

Founded in Cambridge, Massachusetts in 1965, Abt provides applied research and consulting services to government agencies, nonprofit, and commercial organizations around the world. Abt's mission is to improve the quality of life and economic well-being of people worldwide. It applies its exceptional subject matter expertise, outstanding technical capabilities in applied research, and strategic planning to help local, national and international clients make better decisions and deliver better services.

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A Joint Report of the Boston Private Industry Council

and

Abt Associates

for

Success Boston

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Foreword

Well beyond being prepared academically, getting to college requires students to understand and successfully navigate a long series of incremental steps. Taking the SATs, selecting and applying to schools that are a good fit, applying for financial aid and sometimes navigating additional procedures like FAFSA income verification, getting to campus in the fall, the list goes on. Many students—and particularly those who would be first in their family to attend college—face a variety of potential pitfalls throughout the process of college exploration, application and transition. Educational research and policy communities have developed a deep understanding of the barriers that students face in getting to college as well as the programmatic and policy solutions to support students in overcoming these barriers. Despite substantial investment in these solutions, there is certainly more work to be done. For the U.S. high school class of 2004, Kena and colleagues (2015) estimate that 96 percent of students from the highest-income families accessed some form of postsecondary education within eight years of high school completion, compared to 72 percent of their counterparts from the lowest-income households.²

And of course, getting students through the door of a postsecondary institution is only the first step. Once in college, students must engage in higher-level academics, manage their own time in the context of a far less rigid schedule, navigate the complex bureaucracy of their postsecondary institution, and acclimate to a new social environment, often while also working daily to overcome a nagging suspicion that they were the admissions mistake, that college was the wrong choice, that they don't belong. First Lady Michelle Obama now famously recounts feeling totally overwhelmed, unprepared as a first-generation college student starting out at Princeton—her worries about fitting in made literal by the wrong-sized bed sheets that she brought with her to school.3 While she, of course, succeeded at Princeton and well beyond, the same is not true for too many students who begin postsecondary education.

Instead, over the past several decades, gaps in degree completion by socioeconomic status have widened.⁴ Among members of the high school class of 2004 who began college, three-quarters of students from the highest income families, compared to nearly half of those from the lowest income families, earn some kind of postsecondary credential. The gaps between these groups in earning a four-year bachelor's degree are even larger.5

These trends and statistics serve as a backdrop for growing public policy attention on college access and especially college success. While many efforts, like the Pell Grant program at the federal level and placebased "promise" scholarships in locations such as: Kalamazoo, Michigan; Pittsburgh, Pennsylvania; and El Dorado, Arkansas, have a first-order focus on financial barriers to college success, other efforts focus on providing supports and counseling to students to navigate the complicated academic, bureaucratic and social terrain of college.

The Success Boston Initiative, begun in 2008 under the direction of then Mayor Thomas Menino and expanded since, is an example of one such effort. Success Boston today organizes its work under four major headings—getting ready, getting in, getting through and getting connected—that correspond to steps in students' pathway from high school preparation, transitioning to and completing college, and successfully connecting with the workforce. The work is to be applauded, particularly as it has engendered sustained commitment of and collaboration among many Boston-area stakeholders, including the public school system, higher education institutions, local nonprofit and philanthropic entities, and local employers. This orchestrated effort across secondary and higher education together with the local labor force is an important counter example to the more typically siloed structure with which these sectors operate.⁶

Such a locally concentrated, cross-sector effort is well-justified. Despite the disproportionate focus in the media on brand-name national colleges and universities, these institutions serve only a small fraction of all college-goers. Instead, across the U.S., higher education is a surprisingly local phenomenon. For example, among first-time, traditionally-aged college students, over half attend college within 20 miles of their home. This rate is even higher (63 percent) among students from low-income households. Further, it would be reasonable to expect a higher than average rate among Boston Public Schools graduates, given the unusually high number and range of postsecondary institutions within and just beyond Boston's city limits.

In the two chapters being shared here about college-going outcomes for Boston Public Schools (BPS) graduates overall and according to participation in Success Boston Coaching (SBC), there is much to celebrate. Chief among them are findings that show progress toward the goal set by Mayor Menino in 2008 that 52 percent of the class of 2009 would obtain a college credential. The Boston Private Industry Council's analysis carefully shows that successive cohorts of Boston students are indeed gaining access to postsecondary education at higher rates, with approximately three-quarters of graduates enrolling in college within 16 months of high school graduation (Chart 1.1) and with rates of college access that are even higher when examined over a longer time horizon (Chart 1.2). Also encouraging is that it is not only access but also rates of degree attainment that have improved over time. Among first-time college enrollers from the BPS class of 2000, 40.6 percent completed a degree within six years. This rate was nearly 10 percentage points higher for the class of 2009 (Chart 1.5). Taken together, increases in both college access and degree attainment, conditional on enrollment, over time translate to a greater share of each BPS graduating cohort going on to earn a postsecondary credential. Finally, Chapter One also illustrates that improvements are being realized by nearly all subgroups defined by gender, by race/ethnicity, and by the cross-referencing of the two.

Nevertheless, Chapter One also illustrates that many unfortunately familiar and persistent gaps still remain even within a community like Boston which is making great strides overall. For students from the class of 2009, as with earlier cohorts, White students and Asian students are more likely than their Black and Hispanic peers to access college and earn a college credential; students completing their high school education within a Boston exam school realize better college outcomes than other Boston Public Schools

graduates. Indeed, these persistent inequalities, mirroring the growing income inequality in the United States, serve as a call to action for the focus of Success Boston on providing supports to and through college for students from low-income backgrounds and students who would be first in their family to attend college.

Recognizing this, educators, policymakers, philanthropists, and researchers alike should be on the edge of our collective seat wanting to know if the Success Boston Coaching (SBC) and other related efforts are yielding the desired effect. With such anticipation, we may be tempted to look for answers within the chapter that reports on descriptive differences between class of 2009 students who did and did not participate in SBC. In Chapter Two of this report, Abt Associates rightly points out that we as readers should not derive causal attributions based on the comparisons that they report, but allow me to underscore that point here. Those students receiving supports through the SBC effort are less likely to be White or Asian and less likely to have graduated from a Boston exam school. These are the same students who, historically, have lower rates of both college access and degree attainment. Therefore, these same differences in background are still present in the comparisons reported between SBC students and their non-SBC peers. To be sure, this first report on Success Boston Coaching reveals a set of encouraging results—80 percent of SBC students enroll in college immediately after high school and this rate climbs to nearly 90 percent within 16 months (Table 2.2). Further, of those SBC students who enroll immediately, over half earn a degree within six years, and the completion rate is nearly as high for those who delay but enroll within 16 months. Still, to know the true effect of the program, we must ask what would have happened for these same students if not for the SBC supports. The answer is not to be found in looking to all non-SBC students! As Abt Associates notes, a more robust analysis allowing for causal attribution will be coming. The SBC results presented here are both important and tantalizing. Let them whet our collective appetite for the impact report to come in early 2017!

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Introduction and Report Highlights

There are few cities in the United States, even the world, that offer as much opportunity to college graduates as Boston. The city's leading industries, including high technology, financial services, health care, and higher education, employ large numbers of college educated workers in high paying career fields. The benefits of completing a college education in Massachusetts are widely known. Those adults who obtain a degree have higher employment rates, earn more each year, and have a greater lifetime earnings capacity than those who lack a two-year or four-year degree.1

In Boston, the median annual earnings of adults 25 years of age and older with a Bachelor's degree are \$54,768, nearly 1.9 times that of a high school graduate (\$29,315).2 Nationally, the gap in annual earnings between high school graduates and those with a college degree has widened considerably over the past three decades.³ And the benefits of a college degree are not only economic. Research has also shown that adults with a college degree are healthier, live longer, and are more civically engaged than their less educated peers.4

For years, Boston was extremely proud of its college enrollment rate, which was very high for an urban district. But, until the last decade, there were limited data revealing how high school graduates from local school districts, such as the Boston Public Schools, fared in the world of postsecondary education. The lack of information limited the ability of local education, public policy, and business leaders to assess the scale and scope of the college completion challenge.

A study conducted eight years ago by the Center for Labor Market Studies (CLMS) at Northeastern University for the Boston Private Industry Council (PIC), with support from the Boston Foundation, changed all of that. The study found that once BPS students got to college, a low percentage actually completed a degree. Titled Getting to the Finish Line: College Enrollment and Graduation, A Seven-year Postsecondary Longitudinal Study of the Boston Public Schools Class of 2000 Graduates, the report found that while 64% of the nearly 3,000 graduates of the Boston Public Schools (BPS) Class of 2000 had enrolled in a postsecondary institution at some point within the first seven years after graduation from high school, only 35.5% of college enrollees had earned a certificate, a two-year degree, or a four-year degree. That figure was later revised to 39%.

This college completion rate finding for the BPS Class of 2000 inspired Boston Mayor Thomas M. Menino to call on the Boston Public Schools, the Boston Foundation, the Boston Private Industry Council, the higher education community, led by UMass Boston and Bunker Hill Community College to dramatically increase college completion among BPS graduates. In response, Success Boston, a citywide cross-sector college completion initiative, was launched in November of 2008. The initiative called for the college graduation rate for the Class of 2009 to increase by 50% above that of the Class of 2000—and to double for the Class of 2011. This translated into a 52% college completion rate for the BPS Class of 2009 and a 70% college completion rate for the BPS Class of 2011.

Success Boston's partners, today under the leadership of Mayor Marty Walsh, are dedicated to ensuring that the vast majority of BPS students are "Getting Ready, Getting In, and Getting Through" college. One signature intervention of the initiative is an intensive "transition coaching" approach—Success Boston Coaching—to working with students, beginning in high school and following students through the first two years of college. Coaches help students navigate multiple aspects of college life, such as deciding what area of study to pursue, what courses would be transferable to other colleges, and how to access financial aid. Perhaps most important, coaches help students juggle personal challenges related to family, work, transportation, and finances while keeping their eye on the prize of achieving a college degree. Success Boston's higher education institution partners have increased on-campus support, including coaching and advisory services, learning communities, degree plans and systems for identifying and tracking at risk students, for incoming BPS graduates to improve their retention and college completion rates. Recently, Success Boston has expanded its mission to include "Getting Connected" to careers upon graduation from college.

In 2013, the primary author of the 2008 Center for Labor Market Studies study, Andrew Sum, published a follow-up study on the Class of 2000 with detailed college completion analyses on the Classes of 2003 and 2005. Titled Getting Closer to the Finish Line: The College Enrollment and Completion Experiences of Graduates of the Boston Public Schools, the report, which was published by the Boston Foundation, provided a comprehensive analysis of the college completion experiences of the Classes of 2000, 2003, and 2005 through the early spring of 2012. It also examined the annual college persistence rates of the Classes of 2007, 2008, and 2009 and described the impact of Success Boston's college transition coaching program on the one-year and two-year college persistence rates for the Class of 2009.

Getting Closer (2013) provided evidence that both the college enrollment and the college completion rates of BPS graduates were on the rise, and found that BPS graduates from the Class of 2009 who had been working with a Success Boston college coach were 16 percentage points more likely to persist over the first two years of college than their Class of 2009 peers without a coach. The college completion measure that Getting Closer (2013) used to track progress toward the 52% (Class of 2009) and 70% (Class of 2011) college completion goals was the six-year completion rate for BPS graduates who enrolled in college within one year of high school graduation. The Class of 2005's first-year enrollees achieved a six-year college completion rate of 47.4%, seven percentage points above the revised and updated six-year completion rate of 40.6% for the first-year enrollees from the Class of 2000.⁷

This report sheds more light on the subject by tracking college completion among later graduate cohorts specifically, the BPS Class of 2009. The Class of 2009 is significant to Success Boston because it was the first graduating class exposed to the early activities of the initiative both during their last year of high school and while in college. Chapter One tracks the college enrollment and completion experiences of the entire BPS Class of 2009 through its first six years after high school. Chapter Two focuses on those students who received Success Boston Coaching services.

Report Highlights

The first chapter of this report begins with the college enrollment rates of the BPS Classes of 2007 through 2011, focusing on the first 16 months after high school graduation, the enrollment measure currently used by school districts throughout Massachusetts. It finds that the college enrollment rate of BPS Class of 2009 graduates was 71.2%. Over time, the 16-month college enrollment rate increased by 7.6 percentage points, from 66.4% for the Class of 2007 to 74% for the Class of 2011.

The report tracks the six-year completion rates of BPS graduates enrolling during the first year after high school, both fall and spring semesters. It finds that the six-year college completion rate of first-year college enrollees from the BPS Class of 2009 is 51.3%, within one percentage point of the 52% completion rate goal set back in 2008. It also shows that the rate is even higher, at 54.7%, for those BPS graduates who enrolled in the fall semester immediately after graduating from high school in 2009.

In order to assess the combined effect of increasing college enrollment and completion rates, the report also looks at the share of the entire graduating class completing college within six years. Of the 3,597 graduates from the BPS Class of 2009, 36.5% completed within six years—a college completion rate over 11 percentage points higher than that for the BPS Class of 2000. The number of students completing college within six years grew from 735 for the Class of 2000 to 1,314 for the Class of 2009, a 79% increase. This represents an additional 579 BPS graduates entering the labor market with a postsecondary credential.

There were substantial differences in college completion rates across gender and race/ethnicity. Female BPS Class of 2009 graduates who enrolled in college in the first year after high school had a 58.0% graduation rate, exceeding that of male first year enrollees by 15.6 percentage points (58.0% vs. 42.4%). In absolute terms, there were 354 more female college graduates than male college graduates.

For the four major race/ethnic groups, six-year college completion rates of first-year enrollees from the BPS Class of 2009 ranged from 42.1% to 75.3%. The college completion rate for Asian students was 75.3%, the highest among the four major race/ethnic groups, followed by Whites at 64%, Hispanics at 45%, and Blacks at 42.1%. Compared to the BPS Class of 2005, gains in college completion made by Black and Hispanic students, particularly females, have resulted in a slight narrowing of the White/Black and White/Hispanic gaps.

The report also disaggregates six-year college completion rates by the type of college first attended—twoyear public, four-year public, and four-year private institutions. Comparing the BPS classes of 2005 and 2009, completion rates rose within each category. The gains are largest for students initially entering a two-year public college (+10.2 percentage points) and for those first attending a four-year public institution (+9.2 percentage points).

Many college enrollees from the BPS Class of 2009 are still working toward a degree. The report found that 503 BPS graduates from the Class of 2009 who have yet to earn a college credential were still enrolled in 2015, representing 17.5% of all college enrollees from the BPS Class of 2009. The college completion rate for the entire class will rise if these students obtain a postsecondary credential or degree.

The second chapter of this report looks at enrollment and college completion for participants in the Success Boston Coaching (SBC) initiative for the BPS Class of 2009, comparing them with non-participating students. It finds that students receiving coaching through Success Boston enroll in college at a higher rate than non-Success Boston students: 88.6% vs. 65.5%, and more Success Boston students enroll in college immediately following high school graduation. A total of 91.7% of Success Boston students enrolled in college cumulatively (up until the fall of 2015), as compared to 79% of non-coached BPS graduates.

Coached and non-coached students who initially enrolled in four-year colleges generally complete college at similar rates of about 60%, which is also similar to the national six-year completion rate of 62% for the 2009 cohort. However, Success Boston coached students have an edge when they attend two-year colleges: 35% of Success Boston students and 23.8% of non-participating students completed within six years.

The overall completion rates for Black and Hispanic Success Boston students—who represent the clear majority (82.6%) of Success Boston coached students—were higher than the completion rates of students who did not participate in Success Boston—over one-half vs. one-third.

Coached students from all but one of the racial/ethnic subgroups also have higher completion rates at the top seven colleges that serve Success Boston students than non-coached students. Black students, especially young males, who participate in coaching at these colleges, complete at much higher rates than the non-coached Black students, at 53.5% versus 30.4% overall, and 53.8% versus 24% for Black males specifically. Impressive gains also have been made in completion rates for Black and Hispanic Success Boston students in general: more than one-half of Black male coached students, compared with one-third of Black male non-coached students, from the Class of 2009 had completed college within six years.

These findings are encouraging and suggest that Success Boston Coaching is working, and that many coached students have higher completion rates than their peers. Those students who are most at risk of not completing college, Black and Hispanic students, are showing real gains in enrollment and college completion. Ultimately, this report not only reflects the power of a city willing to come together—it shows that, given the necessary supports offered through coaching, the potential for the vast majority of Boston students to succeed in college and go on to contribute to our region's economy is within our reach.

CHAPTER ONE The Six-Year College Enrollment and Completion Experiences of the **Boston Public Schools Class of 2009**

his chapter was researched and written by the Boston Private Industry Council (PIC) for the Success Boston College Completion Initiative. The PIC is one of the founding partners of Success Boston when it was launched by Mayor Thomas M. Menino in 2008 in response to a report focused on college completion, which jolted city leaders concerned about education to pay attention not only to college enrollment figures—but also to college completion rates for graduates of the Boston Public Schools.

It provides an analysis of the six-year college enrollment behavior and completion status of the entire Boston Public Schools (BPS) Class of 2009 with comparisons to earlier high school class years. It begins with a description of data sources and key measures. Next, it describes the trends in college enrollment for recent BPS graduating classes, and analyzes enrollment for the Class of 2009 by demographic characteristics, type of high school attended, and type of college attended. Following the college enrollment discussion, the college completion section compares the six-year college completion status of the BPS Class of 2009 to those of earlier years. College degree completion rates are disaggregated for the same groups covered in the enrollment section.

After a detailed analysis of college completion rates, this chapter examines the characteristics of Class of 2009 graduates who were still enrolled in college during calendar year 2015 but had not yet earned a degree. The chapter concludes with a summary of the key findings and their implications for the Success Boston initiative.

Data Sources and Measures

The National Student Clearinghouse (NSC) is the primary data source on the college enrollment and graduation outcomes of BPS graduating classes presented in this study. NSC was formed in 1993 to gather college enrollment and student degree, diploma, and credential attainment information from participating schools to provide independent degree and enrollment verification for employers, background search firms, health insurers, students, and others. These enrollment and degree data became accessible to the academic and professional research communities in the early to mid-2000s to track college enrollment, persistence, and completion rates. The PIC and CLMS' Getting to the Finish Line (2008) study on the Class of 2000 was one of the first studies on college completion rates of a U.S. school district based on the NSC's database.2

College enrollment and completion data for this report are drawn from the NSC's StudentTracker service through which high schools and school districts contract with the NSC to receive student-level postsecondary enrollment and degree records and aggregate reports. The StudentTracker service captures enrollment in colleges and universities throughout the U.S. In 2009, at the time when most of the Class of 2009 first enrolled in college, the NSC database covered 97.4% of Massachusetts four-year institutions and 97.2% of Massachusetts two-year institutions.3 Currently, nationwide NSC data include 98% of all public and private colleges and universities, over 3,600 institutions, and 96% of U.S. college student enrollments. There are instances where institutions that belong to the NSC will not share specific students' enrollment data with the NSC. Appendix A provides more detail on student record blocks at colleges in Massachusetts.⁴

The StudentTracker file provides semester-by-semester enrollment information for students identified in its database, including dates of enrollment, name of the college or university, location of the college (state), level of the institution (less than two-year, two-year, four-year), and if the college is public, private (not for profit), or private (for profit). The classifications of colleges and universities in the NSC database mirror the classifications in the U.S. Department of Education's federal classification system. StudentTracker also identifies students reported by colleges and universities as graduates, and provides information on the date of graduation, type of certificate or degree earned, and field of study if this detail is provided by the college and university to the NSC. College students are identified as graduates if they earn a certificate, Associate's, Bachelor's, or higher degree.

To conduct this longitudinal study, the PIC received a list of all BPS graduates from the classes of 2007-2014. The BPS Class of 2009, the focus of this report, includes all graduates from the 2008-2009 academic year, regardless of when they started their education at a BPS high school. This list of graduates from each academic year includes data on the gender, race/ethnicity, and graduating high school for each of the members of the graduating class. The PIC matches these background characteristics from the student's high school record with the NSC files provided to the PIC by BPS to create a longitudinal file containing demographics, high school attended, and postsecondary enrollment and completion records.

The NSC data will be used to track the progress of the BPS Class of 2009, and earlier and more recent BPS graduating classes on a set of college enrollment and college graduation measures. The measures below were selected with input from Success Boston partners. Multiple measures of enrollment and completion are used to align with past research on BPS graduating classes, and to provide comparisons of the college experiences of BPS graduating classes to findings from local, state, and national studies on college enrollment and completion.

College enrollment will be tracked for the first 16 months after high school graduation to conform with the standard 16-month enrollment reports provided by the NSC to state education departments and local school districts. In addition, we track cumulative college enrollments that occur during the first six to seven years following high school graduation. The formulas for these college enrollment measures are the following:

Enrollment within 16 months

Numerator: High school graduates from each class who enrolled in college within the first 16 months after high school graduation (by October of the year following graduation).

Denominator: All high school graduates from each class.

Cumulative enrollment

Numerator: High school graduates from each class who enrolled in college at any time through the first six or seven years after high school graduation.

Denominator: All high school graduates from each class.

There are multiple formulas that can be used in calculating college graduation rates. The college completion section of this report relies on a few college graduation measures. In Table 1.1, these measures are broken into first-year college enrollee cohorts and full class cohorts and their formulas are defined. The top of Table 1.1 shows the two first-year college enrollee cohort measures. The six year college completion rate of first-year enrollees will be used to determine if the Class of 2009 attained the goal established in 2008. This is also the primary measure used for disaggregating college completion outcomes for student subgroups. We also will present the college completion rate of fall enrollees (1a in Table 1.1), a slightly smaller subset of the first-year enrollee cohort, for the purposes of comparing BPS completion rates to national averages. In the bottom half of Table 1.1, the full class cohort measures are described. These measures of completion are included to compare Class of 2009 results to earlier high school classes. Each measure is discussed in more detail in the college completion section of this report.

TABLE 1.1 **College Completion Measures Used in this Report**

| First-Year College Enrollee Cohort Measures | | | |
|---|--|--|--|
| Graduation Cohort | Graduation Rate Formula | | |
| 1. First-year college enrollees | <i>Numerator:</i> The number of college graduates from the Class of 2009, who enrolled in college by the fall 2009 or spring 2010 semesters, completing a certificate or degree by the summer of 2015. | | |
| | <i>Denominator:</i> The number of college enrollees from the Class of 2009 who enrolled in college by the fall 2009 or spring 2010 semesters. | | |
| 1a. Fall enrollees | <i>Numerator:</i> The number of college graduates from the BPS Class of 2009 who enrolled in college by fall 2009 and earned a certificate or degree by the summer of 2015. | | |
| | Denominator: The number of fall 2009 college enrollees from the Class of 2009. | | |
| Full Cla | ss of 2009 Cohort Measures | | |
| Graduation Cohort | Graduation Rate Formula | | |
| 1. All high school graduates | <i>Numerator:</i> The number of college graduates from the Class of 2009 who earned a degree by the summer of 2015. | | |
| | Denominator: The number of high school graduates in the Class of 2009. | | |
| | <i>Numerator:</i> The number of college graduates from the Class of 2009 who earned a degree by the summer of 2015. | | |
| 2. All enrollees through 2015 | Denominator: The number of college enrollees through 2015 less those still enrolled in any college or university during calendar year 2015 who have not yet earned a degree. | | |

Overview of the BPS Class of 2009

The Class of 2009 was one of the largest BPS classes of the 2000-2009 decade. There were 3,597 graduates in the class, up slightly from the Class of 2008 (3,534) and 300 more than the Class of 2007 (3,282). The Class of 2009 was large because the entering 9th grade class four years earlier was greater than earlier years, and four-year and five-year high school graduation rates began an upward trend with the 2008 graduation cohort.

Similar to previous years, females outnumbered males in the graduating class. Of the 3,597 graduates from the BPS Class of 2009, 1,942, or 54%, are female. The largest race/ethnic group in the Class of 2009 is Black, representing 42.4% of the class. Hispanic graduates represented 30% of the Class of 2009, followed by White (15.9%) and Asian (10.6%) graduates. More than 70 out of every 100 graduates from the BPS Class of 2009 were Black or Hispanic. Table 1.2 provides a gender and race/ethnic breakdown of the Class of 2009.

The BPS Class of 2009 graduated from 36 schools and small learning communities. This includes three selective high schools that base admissions on students' grades in fifth and sixth grades, as well as test scores from the Independent Schools Entrance Exam.⁵ These three selective high schools will be referred to as the "exam" high schools throughout the report, and they are Boston Latin Academy, Boston Latin School, and the John D. O'Bryant School of Mathematics and Science. Of the nearly 3,600 graduates in the Class of 2009, 860, or 23.9%, graduated from one of the three exam high schools. The remaining 76.1% graduated from non-exam high school schools, which include schools designated by BPS as traditional, pilot, in-district charter, special, and innovation high school types. The following sections in this chapter will disaggregate college enrollment and graduation outcomes by exam and non-exam high schools to provide alignment with the previous college completion analyses examining the Classes of 2000, 2003, and 2005.

TABLE 1.2 Key Student Characteristics and High School Type, BPS Class of 2009

| Group | Number of High School Graduates | % of Total Graduates |
|-----------------|---------------------------------|----------------------|
| Female | 1,942 | 54.0% |
| Male | 1,655 | 46.0% |
| Asian | 383 | 10.6% |
| Black | 1,525 | 42.4% |
| Hispanic | 1,081 | 30.1% |
| Mixed / Other | 20 | 0.6% |
| Native American | 17 | 0.5% |
| White | 571 | 15.9% |
| Exam | 860 | 23.9% |
| Non-exam | 2,737 | 76.1% |
| Total Students | 3,597 | 100.0% |

Source: Boston Public Schools

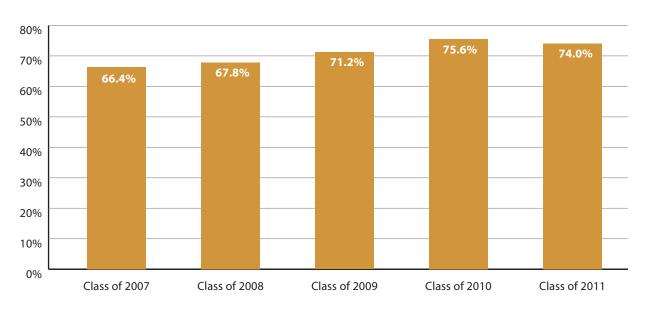
Trends in College Enrollment Rates of BPS Classes, 2000-2011

Success Boston partners have been working together to ensure BPS high school students are ready for college and enrolling in college upon high school graduation.⁶ College enrollment rates are one of the measures that can be used to assess progress on these fronts. Among the key findings in Getting Closer (2013) was that the college enrollment rate of BPS graduates rose steadily over the 2000-2010 decade. Getting Closer (2013) found that cumulative college enrollment rates over the first seven years after high school were on the rise between 2000 and 2005 for all graduates and every major demographic group. The fall and first-year enrollment rates of BPS graduates also were found to be increasing since 2005, as more high school graduates from BPS enrolled in college in the immediate fall or spring semesters following graduation.

This report extends the analysis in Getting Closer (2013) by examining 16-month enrollment rates for the Classes of 2007-2011 and six-year cumulative college enrollment rates for the Classes of 2007-2009. Based on the NSC data, the college enrollment rates of BPS graduates enrolling in college within 16 months of graduating high school increased from 66.4% for the Class of 2007 to 71.2% for the Class of 2009 (Chart 1.1). The 16-month college enrollment continued to climb to 75.6% for the Class of 2010, before declining to 74.0% for the Class of 2011. From 2007 to 2011, the 16-month college enrollment rate increased by 7.6 percentage points, reaching the mid-70s.7

One of the key advantages of the NSC data set is that it allows researchers to track college enrollments for a cohort of students over time. Past postsecondary research on the BPS graduates from the Classes of 2000, 2003, and 2005 tracked them through at least seven years after high school. To provide a comparative perspective, the cumulative college enrollment rate of the Class of 2009 through the first six years after high school was added to the existing trend analysis.

CHART 1.1 16-Month College Enrollment Rates of BPS Graduates, Classes of 2007-20118



Source: PIC analysis of NSC data

Cumulative college enrollment rates increased by over 10 percentage points from the Class of 2000 to the Class of 2009. The cumulative enrollment rates of BPS graduates at seven years following high school graduation increased from 67.2% for the Class of 2000, to 73.8% for the Class of 2003, to 77.0% for the Class of 2005.9 The six and one-half year college enrollment rate for the Class of 2009 is 79.9%, 10 nearly three percentage points higher than the Class of 2005 (Chart 1.2). The cumulative college enrollment rates of the BPS Classes of 2010 and 2011 have continued this upward trend with cumulative enrollment rates exceeding 80% for the Class of 2010 within four years of high school graduation (analysis not shown here).

CHART 1.2 Seven-Year Enrollment Rates of BPS Graduating Classes of 2000, 2003, 2005, 2007 and 2009*



Sources: (i) Getting Closer (2013); (ii) PIC analysis of NSC data

Note: (*) Class of 2009 shows the cumulative enrollment rate through September 2015, a 6.5 year enrollment measure.

Class of 2009 College Enrollment Disaggregated by Race/ Ethnic Group, Gender, and Type of High School Attended

The earlier longitudinal studies on the Classes of 2000-2009 revealed large differences in college enrollment rates across gender, race/ethnicity, and high school type. For the Class of 2009, we examined college enrollment rates for these groups of graduates through the first 16 months after high school. Of the 3,597 BPS Class of 2009 graduates, 2,561, or 71.2%, enrolled in college within 16 months of graduating from high school. The college enrollment rate for female graduates was eight percentage points higher than that of male graduates, with 74.9% of female graduates and 66.9% of male graduates enrolling within 16 months (Table 1.3). Among the four major race/ethnic groups from the BPS Class of 2009, college enrollment rates ranged from 63.6% for Hispanic graduates and 69.2% for Black graduates, to 80.2% for White graduates and to a high 86.7% for Asian graduates (Table 1. 3). The 16-month enrollment rate gap between Hispanic and Asian BPS Class of 2009 graduates on this enrollment measure was 23 percentage points.

TABLE 1.3 College Enrollment Within 16 Months of Graduating High School, **BPS Class of 2009**

| Group | High School Graduates | College Enrollees within 16 Months | College Enrollment Rate (%) |
|----------|-----------------------|---------------------------------------|--------------------------------|
| Total | 3,597 | 2,561 | 71.2% |
| Female | 1,942 | 1,454 | 74.9% |
| Male | 1,655 | 1,107 | 66.9% |
| Asian | 383 | 332 | 86.7% |
| Black | 1,525 | 1,055 | 69.2% |
| Hispanic | 1,081 | 687 | 63.6% |
| White | 571 | 458 | 80.2% |
| Other | 37 | 29 | 78.4% |

Source: PIC analysis of NSC data

Note: "Other" includes "Mixed/Other" and "Native American"

The gender gap in 16-month college enrollment rates prevailed within each race/ethnic group, but to varying degrees. Among the eight gender/race/ethnic groups, Asian females had the highest 16-month college enrollment rate at 87.8% (Table 1.4). Asian males had the second highest rate, trailing Asian females by 2.4 percentage points. The gender gap in college enrollment was larger among the other race/ ethnic groups, ranging from six to over 12 percentage points. The largest gender gap was 12.5 percentage points for Hispanic graduates, with 69.1% of female students and 56.6% of male students enrolling within 16-months of high school graduation. The gender gap in college enrollment was nearly 10 percentage points for White BPS graduates and six percentage points for Black graduates. Hispanic and Black males had the lowest 16-month college enrollment rates among the eight gender/race/ethnic subgroups. The college completion findings later in this report will show that the lower college enrollment rates of males contribute in part to the substantial differences in the number of female college graduates compared to male college graduates from the Class of 2009.

TABLE 1.4 16-Month College Enrollment Rates by Gender and Race/Ethnic Subgroup, **BPS Class of 2009**

| Group | Females | Males | Females - Males |
|----------|---------|-------|-----------------|
| Asian | 87.8% | 85.4% | 2.4 |
| Black | 72.0% | 65.9% | 6.1 |
| Hispanic | 69.1% | 56.6% | 12.5 |
| White | 84.9% | 75.3% | 9.6 |

Source: PIC analysis of NSC data

College enrollment rates vary considerably across BPS high schools. 11 This report disaggregates college enrollment outcomes for exam and non-exam high schools. BPS Class of 2009 students who graduated from exam schools had a higher rate of enrolling in college within 16 months of graduating (91.6%), compared to non-exam schools where 64.8% of graduates enrolled within 16 months (Table 1.5). This difference in 16-month college enrollment rates between these two school types does narrow slightly over time as more non-exam students enroll in college after the first 16 months following graduation, as discussed in the next section.

TABLE 1.5 College Enrollment within 16 Months of Graduating High School for BPS Class of 2009, By Type of High School Attended

| Type of High School | High School Graduates | Enrolled Within 16 Months | 16-Month Enrollment Rate |
|---------------------|-----------------------|------------------------------|-----------------------------|
| Exam | 860 | 788 | 91.6% |
| Non-Exam | 2,737 | 1,773 | 64.8% |
| Total | 3,597 | 2,561 | 71.2% |

Source: PIC analysis of NSC data

College Enrollment Comparison between Class of 2005 and Class of 2009

The college enrollment rates of the Class of 2009 graduates can be compared to earlier years to determine which groups are enrolling at higher rates. We used the cumulative college enrollment measure to compare enrollment rates of graduates from the Classes of 2005 and 2009 across demographic group. A comparison of the seven-year college enrollment rate of the Class of 2005 to six year enrollment for the Class of 2009 reveals that all major groups from the Class of 2009 enrolled at higher rates. The college enrollment rates of females rose by 3.3 percentage points while males climbed by 2.6 percentage points. Black and White students increased enrollment by 2.8 and 1.8 percentage points, respectively, and Hispanic students increased their enrollment by 7.0 points.

This comparison reveals that the difference in college enrollment rates narrowed between the groups with the lowest enrollment rate and the highest for the Class of 2009 when compared with earlier cohorts. The Class of 2005 had an 18.3 percentage point difference between the highest enrollment rate of 86.6% for Asian students and the lowest enrollment rate of 68.3% for Hispanic students (Table 1.5). The Class of 2009 had a 15 percentage point difference between the 90.3% enrollment rate for Asian students and the 75.3% enrollment rate for Hispanic students. Table 1.6 also shows that the gains in college enrollment between the Class of 2005 and Class of 2009 were higher for graduates from non-exam high schools, as their enrollment rose by 4.5 percentage points. The difference in the six-year cumulative college enrollment rates of exam and non-exam school graduates is smaller than the 16-month enrollment comparison shown above in Table 1.5.

TABLE 1.6 Seven-Year College Enrollment Rates of the BPS Classes of 2005 and 2009, by Gender, Race/Ethnic Group and Type of High School Attended

| Characteristics | Class of 2005 | Class of 2009 | Class of 2009 – Class of 2005 |
|-----------------------|---------------|---------------|----------------------------------|
| All | 77.0% | 79.9% | +2.9 |
| Females | 80.9% | 84.2% | +3.3 |
| Males | 72.3% | 74.9% | +2.6 |
| Asian | 86.6% | 90.3% | +3.7 |
| Black | 76.0% | 78.8% | +2.8 |
| Hispanic | 68.3% | 75.3% | +7.0 |
| White | 82.6% | 84.4% | +1.8 |
| Exam High Schools | 93.9% | 94.1% | +0.2 |
| Non-Exam High Schools | 71.0% | 75.5% | +4.5 |

Source: PIC analysis of NSC data

Note: Enrollment for the Class of 2009 was tracked through September 2015

BPS Class of 2009 College Enrollees By Type of College and University

The above sections examined college enrollment rates in any type of college or university. The NSC's StudentTracker file provides semester by semester enrollment information that includes the name of the college or university attended, its level (two-year, four-year, or less than two year) and private or public statuses for each semester. This information was used to determine the enrollment shares of Class of 2009 graduates who enrolled in less than two-year, two-year, and four-year institutions. The analysis below is based on the first type of postsecondary institution attended by BPS Class of 2009 high school graduates for the purposes of understanding where they began their postsecondary education.

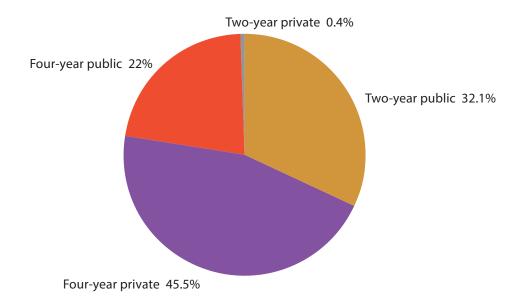
Chart 1.3 displays the enrollment shares across institution type for college enrollees from the Class of 2009 who enrolled within 16 months of high school. Nearly 46% of BPS Class of 2009 graduates enrolling within 16-months first attended a four-year private college or university. Another 22% attended a four-year public college or university. Thus, more than two out of every three of Class of 2009 college enrollees attended a four-year public or private college or university within 16 months of high school. The rest of the 16-month college enrollees attended two-year colleges with 32% enrolled in a two-year public institution and under 1% enrolled at a two-year private college (Chart 1.3).

Over time, the share of BPS Class of 2009 first time enrollees attending a two-year public college increased as later enrollees were more likely to start in the two-year public system. Table 1.7 displays the distribution of BPS Class of 2009 graduates across institution type by timing of their enrollment. Of the 1,048 enrollees from the BPS Class of 2009 who first enrolled at a two-year college, 79.3% did so within 16 months of high school. One-fifth of all first-time college enrollees at two-year public colleges began their postsecondary education after being out of high school for at least 16 months. In contrast, 96.4% of first-time, four-year college students enrolled within the first 16 months after high school (Table 1. 7).

There were gender and race/ethnic differences in the distribution of 16-month college enrollees from the BPS Class of 2009 across levels of institution. Female Class of 2009 enrollees were more likely than males

CHART 1.3

Percentage Distribution of 16-Month College Enrollees by Type of Postsecondary Institution First Attended, BPS Class of 2009 (N=2,561)



Source: PIC analysis of NSC data

TABLE 1.7 College Enrollment By Type of College First Attended and **Timing of Enrollment, BPS Class of 2009**

| Type of College | Enrolled within 16 months | Enrolled after 16 months | Total Enrolled Any Time* | % of Enrolled That Began College within 16 Months |
|--------------------|------------------------------|-----------------------------|-----------------------------|---|
| Two-year | 831 | 217 | 1,048 | 79.3% |
| Private | 9 | 12 | 21 | 42.9% |
| Public | 822 | 205 | 1,027 | 80.0% |
| Four-year | 1,730 | 65 | 1,795 | 96.4% |
| Private | 1,166 | 53 | 1,219 | 95.7% |
| Public | 564 | 12 | 576 | 97.9% |
| Less Than Two-year | | 15 | 15 | 0.0% |
| Private | | 15 | 15 | 0.0% |
| Total | 2,561 | 297 | 2,858 | 89.6% |

Source: PIC analysis of NSC data

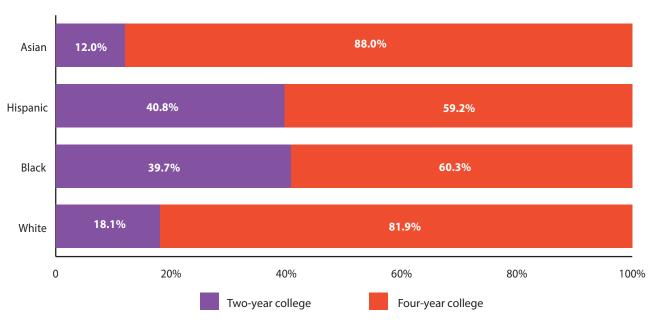
Note: * Students for whom initial enrollment data are missing are excluded from Table 1.7.

to first attend a four-year college or university. The share of female enrollees attending a four-year college was 70.8% compared to 63.3% of all male enrollees. The differences in four-year college enrollment shares were larger across race/ethnic group. Four-year college enrollment shares ranged from 59.2% and 60.3% of Black students to 81.9% and 88% of White and Asian BPS graduates enrolling within 16 months of high school (Chart 1.4).

College enrollment patterns of exam and non-exam BPS Class of 2009 graduates also differed across institution type. Table 1.8 shows the enrollment distribution of Class of 2009 graduates who enrolled in college within 16 months of high school by high school type and type of postsecondary institution first attended. Nearly 93% of exam school students who enrolled in college within 16 months began their college education at a four-year institution. Among 16-month college enrollees from non-exam schools, the distribution was more balanced between two-year and four-year colleges with 43.5% first attending two-year colleges and 56.5% in four-year colleges (Table 1.8).

Exam school graduates were more likely to attend 4-year private institutions. Approximately 61% of BPS Class of 2009 college enrollees from exam high schools first attend a four-year private college or university compared to 39% of enrollees from non-exam high schools. Given that four-year public and private college graduation rates are higher than two-year public colleges, both in Massachusetts and nationally, this enrollment distribution pattern contributes in part to the differences in college completion rates across race-ethnic groups and high school type.

CHART 1.4 Percentage Shares of 16-Month College Enrollees By Level of Institution and Race/Ethnic Group, BPS Class of 2009



Source: PIC analysis of NSC data

TABLE 1.8 Percentage Distribution of 16-Month College Enrollees By Type of First College Attended and High School Type, BPS Class of 2009

| Type of College | Exam | Non-Exam | Total |
|-----------------|-------|----------|-------|
| Two-year | 7.5% | 43.5% | 32.4% |
| Private | 0.0% | 0.5% | 0.4% |
| Public | 7.5% | 43.0% | 32.1% |
| Four-year | 92.5% | 56.5% | 67.6% |
| Private | 60.7% | 38.8% | 45.5% |
| Public | 31.9% | 17.7% | 22.0% |

Source: PIC analysis of NSC data

College Completion Experiences of BPS Class of 2009 Graduates

In Getting Closer (2013), the trend in the six-year college completion rate of first-year enrollees from the BPS Classes of 2000, 2003, 2005, and 2006 was tracked to assess progress toward Success Boston's college completion rate goals of 52% for the Class of 2009 and 70% for the Class of 2011. First-year enrollees were chosen as the cohort because they would have had six years from the time that they initially enrolled in college to complete a degree.

With college enrollment and completion data through the summer of 2015 available from NSC, we can determine if first-year enrollees from the BPS Class of 2009 met the 52% college completion goal. Of the 3,597 graduates from the Class of 2009, 2,430 (67.6%) enrolled in college during the first year after high school, the largest number since data collection began (Table 1.9).12 The first year enrollee cohorts increased by 570 students from the Class of 2005 to the Class of 2009. The first-year enrollee cohort for the Class of 2009 is very similar in size to the 16-month enrollee cohort described in detail in the earlier section (2,430 vs. 2,562).

TABLE 1.9 Trends in the Number of First-Year Enrollees and First-Year Enrollment Rate, BPS Classes 2005 and 2007-2009

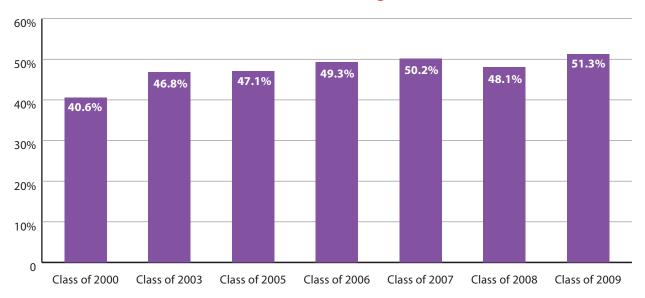
| BPS Graduating Class | Number of First-Year Enrollees | Number of High School Graduates | First-Year Enrollment Rate |
|----------------------|-----------------------------------|------------------------------------|----------------------------|
| Class of 2005 | 1,860 | 3,045 | 61.1% |
| Class of 2007 | 2,064 | 3,282 | 62.9% |
| Class of 2008 | 2,249 | 3,534 | 63.6% |
| Class of 2009 | 2,430 | 3,597 | 67.6% |
| Increase, 2005-2009 | 570 | 552 | 6.5 |

Source: PIC analysis of NSC data

The BPS Class of 2000 was the first high school class tracked in the NSC database and serves as the baseline for Success Boston's college completion goals. As reported in Getting Closer (2013), the six-year completion rate of first-year college enrollees from the BPS Class of 2000 was 40.6%.¹³ For the BPS Class of 2003, the completion rate increased six percentage points to 46.8%. (The Class of 2003 was the first class that had to meet the MCAS graduation requirement.) The BPS Class of 2005 had a six-year graduation rate of 47%. The college completion rate increased further to a range of 48-50% for the BPS Classes of 2006-2008. With the exception of a dip in 2008, college completion rates for each class have trended upward since 2003.

The college completion rate of the Class of 2009's first-year college enrollees reached 51.3% by the summer of 2015, within 1 percentage point of the 52% college completion goal set in 2009 (Chart 1.5). The 51.3% six-year college completion rate is the highest rate on record since the BPS postsecondary tracking series began with the Class of 2000. It is 10.7 percentage points above that of the Class of 2000's, a relative increase of 26%. The ultimate college completion rate of this first-year enrollee cohort will likely increase as more students from this cohort who are still enrolled in college complete a degree. A following section will describe the size and characteristics of Class of 2009 college enrollees who were still enrolled in college, but had not yet earned a postsecondary credential.

CHART 1.5 Trends in the Six-Year College Completion Rate of First-Year Enrollees, **Selected BPS Graduating Classes**



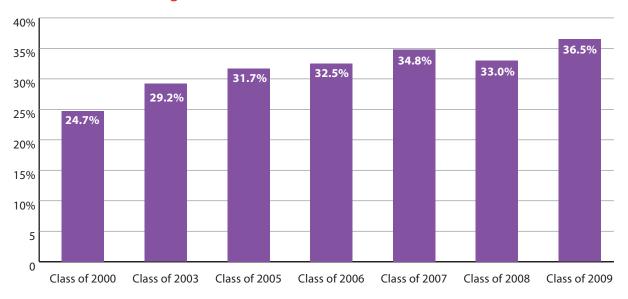
Sources:(i) Getting Closer (2013). (ii) PIC analysis of NSC data for the classes of 2007, 2008, and 2009.

Trends in College Completion Outcomes for the Entire BPS Graduating Class

Another way to track college completion is to calculate the number and share of a high school class that has graduated from college at specific points in time. Previous postsecondary tracking studies of BPS graduates established trends for the percent of each high school class graduating from college within six years of high school graduation. This is one of the full graduation cohort measures described in the data and measures section of this report. It is also arguably the most important and straightforward measure from a city's workforce development perspective. What percentage of graduating high school classes will be prepared to enter the college labor market within six years of high school?

CHART 1.6

Trends in the Percent of BPS Graduates Earning a Postsecondary Credential within 6 Years of High School Graduation, Selected Classes, 2000-2009



Sources: (i) Getting Closer (2013) (ii) PIC analysis of NSC data for classes of 2007-2009

The college completion rate for the entire BPS Class of 2009 through the first six years after high school graduation was 36.5%, a new high. Chart 1.6 shows the trend in the six-year college completion rates of recent BPS classes. For the BPS Class of 2000, the baseline year, one in every four high school graduates were found to have graduated from a college or university within six years of high school.¹⁴ The percent of high school graduates completing college increased to 29.2% for the BPS Class of 2003, and continued to rise through the BPS Class of 2007, reaching 34.8%. The share graduating dipped slightly for the Class of 2008, but remained above the shares reached by the classes prior to 2007. The 36.5% share of the BPS Class of 2009 completing college represents a 12 percentage point improvement over the Class of 2000, or in relative terms, a 50% increase.

The rising college completion rates of BPS graduating classes have contributed to a sharp increase in the number of high school graduates obtaining a postsecondary credential. Chart 1.7 presents trends in the absolute number of college graduates through six years from each BPS graduating class tracked since 2000. Within six years of graduation from high school, there were 735 college graduates from the BPS Class of 2000 (Chart 1.7). The number of graduates increased to 883 for the BPS Class of 2003 and 966 for the BPS Class of 2005. The BPS Class of 2006 was the first year to have over 1,000 graduates, with 1,045 college graduates from that class earning a postsecondary credential within six years. The number of college graduates continued to rise for the BPS Classes of 2007 and 2008, even though there was a dip in the completion rate for the BPS Class of 2008. For the BPS Class of 2009, there were 1,314 college graduates by summer 2015, surpassing earlier classes. The number of college graduates from the BPS Class of 2009 through six years exceeded that of the BPS Class of 2000 by 579 graduates, or 79%.

Of course, the larger class size of the BPS Class of 2009 accounts for a share of the gains in the number of college graduates. However, the gains in college completion rates accounted for the majority of the increase. For example, if there was no increase in the college completion rate between the BPS Class of 2000

CHART 1.7

Trends in the Number of BPS Graduates Earning a Postsecondary Credential Within Six Years of High School Graduation, Selected Classes, 2000-2009



Sources: (i) Getting Closer (2013) (ii) PIC analysis of NSC data for classes of 2007-2009

and 2009, then only 24.7% of the BPS Class of 2009 would have completed college, resulting in 888 college graduates. Under this hypothetical scenario, the increase in the number of college graduates compared to the BPS Class of 2000 would have only been 153 college graduates. Instead, 426 more than that actually graduated from college for a total of 1,314 college graduates from the BPS Class of 2009.

College Completion Rates of BPS Class of 2009 **Enrollees by Gender and Race/Ethnicity**

This section begins with an analysis of the six-year college completion rate for first-year enrollees disaggregated by gender and race/ethnicity. Both Getting to the Finish Line (2008) and Getting Closer (2013) found large gender and race/ethnic gaps in college completion rates. This new analysis for the Class of 2009 will show which groups are above and which are below the college completion goal of 52%, and the differences between student groups.

As was the case for previous BPS classes, six-year college completion rates for first-year enrollees from the BPS Class of 2009 varied substantially across gender and race/ethnic subgroups. Females had a six-year college completion rate of nearly 58.0%, exceeding the rate for males (42.4%) by close to 16 percentage points. In absolute terms, there were 354 more female college graduates than male graduates. The college completion rates of both males and females increased, but the gains were much larger for females.

Six-year college completion rates for the four major race/ethnic groups represented in the BPS Class of 2009 ranged from a low of 42.1% to a high of 75.3%, a 33 percentage point range. The college completion rate for Asian students was 75%, the highest among the four major race/ethnic groups. Whites followed with a 64% completion rate. Nearly two out of every three White graduates that enrolled in college completed within six years. College completion rates were lower for Black (42.1%) and Hispanic (45.0%) first-year enrollees from the Class of 2009 (**Table 1.10**).

TABLE 1.10 Six-Year College Graduation Status of First-Year Enrollees

from the BPS Class of 2009

| Group | College Graduates | First-Year Enrollees | College Graduates as a Percent of First-Year Enrollees |
|----------|-------------------|----------------------|--|
| Total | 1,246 | 2,430 | 51.3% |
| Female | 800 | 1,379 | 58.0% |
| Male | 446 | 1,051 | 42.4% |
| Asian | 241 | 320 | 75.3% |
| Black | 416 | 988 | 42.1% |
| Hispanic | 291 | 647 | 45.0% |
| White | 287 | 448 | 64.1% |
| Other | 11 | 27 | 40.7% |

Source: PIC analysis of NSC data

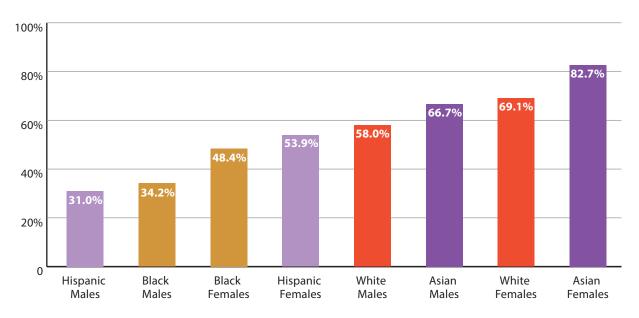
The college completion rates for both gender and race/ethnicity combined are described below and presented in Chart 1.8. Five of the eight gender/ race-ethnicity subgroups had six-year college completion rates above the 52% goal for the Class, and they were Hispanic females (53.9%), White males (58.0%), Asian males (66.7%), White females (69.1%) and Asian females (82.7%). The three groups below the 52% goal were Hispanic males (31.0%), Black males (34.2%), and Black females (48.4%). Among the eight gender/ race-ethnic subgroups, there was a 52 percentage point range between the lowest and highest college completion rates (31.0% to 82.7%).

Chart 1.8 also reveals that the gender gap in six-year college completion rates of first-year enrollees prevails across race-ethnicity. Within each race/ethnic group, there were double-digit disparities in the sixyear college completion rates of male and female first-year enrollees. The largest gender gap was among Hispanic first-year enrollees, with females graduating at a rate that was 23 percentage points above that of males. The gender gap in six-year college completion rates was 16 percentage points for Asian first-year enrollees, followed by 14 percentage points for Black first-year enrollees, and 11 percentage points for White first-year enrollees.

How have the college completion rates for gender and race-ethnic subgroups of BPS graduating classes changed in recent years? To answer this question, we relied on one of the full cohort measures of college completion—the percent of the graduating class with a college degree. The earlier postsecondary studies of BPS graduates did not provide disaggregation of the first-year enrollee college completion rates, so this full cohort measure is used here to provide a historical comparison. Specifically, the six-year college completion rates of the entire BPS Class of 2009 are compared to those of the BPS Class of 2005, as published in Getting Closer to the Finish Line (2013). Before we compare the findings for the two BPS graduating classes, we present the completion rates for the major demographic groups from the Class of 2009 using this second measure.

CHART 1.8

Six-Year College Completion Rates of First-Year Enrollees from the Class of 2009 by Gender and Race/Ethnic Subgroup



Source: PIC analysis of NSC data

As noted earlier, 36.5% of the Class of 2009 graduated by summer 2015. The college degree attainment rate of all females from the Class of 2009 was 43.4% (Table 1.11), 15 percentage points higher than that of males (28.5%). Females accounted for 64.1% of the 1,314 college graduates from the Class of 2009. As was the case for first-year college enrollees, large gaps prevailed across race/ethnic groups. College degree attainment rates ranged from 28.9% and 29.7% among Black and Latino high school graduates to 51.1% and 64.5% for White and Asian graduates. The college degree attainment rate of Asian graduates more than doubled that of their Black and Hispanic peers.

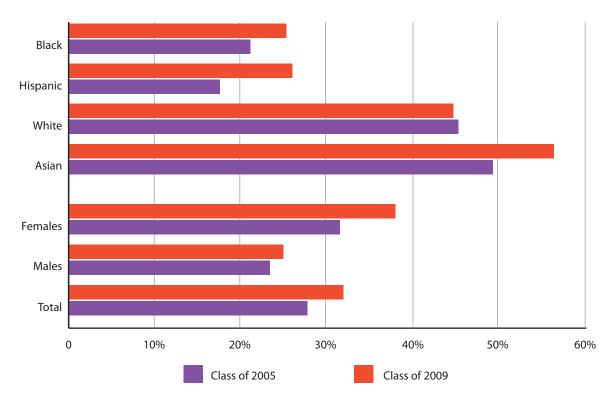
Chart 1.9 compares the BPS Class of 2009 findings to those of the BPS Class of 2005. Overall, the BPS Class of 2009's college graduation rate (36.5%) exceeded the Class of 2005's by 4.8 percentage points. Females from the BPS Class of 2009 increased their college graduation rate by more than seven percentage points above the BPS Class of 2005. Males experienced a 1.8 percentage point gain. Three of the four race-ethnic groups experienced gains, with the one exception being White graduates. The six-year college completion rate for White high school graduates declined slightly by 0.7 percentage points. The largest increase across race-ethnic group was among Hispanic graduates. Hispanic BPS Class of 2009 graduates raised their college completion rate by 10 percentage points compared to the BPS Class of 2005, from 20% to 29.7%. Asian students had the second highest gain, with an eight percentage point increase. The six-year college completion rate of Black BPS graduates climbed from 24.1% to 28.9%, a five percentage point or 21% relative percent gain.

TABLE 1.11 Six-Year College Graduation Status of the BPS Class of 2009, All and by Gender and Race/Ethnicity

| Group | College Graduates (Through 6 Years) | High School Graduates | College Graduates as a Percent of High School Graduates |
|----------|--|-----------------------|---|
| Total | 1,314 | 3,597 | 36.5% |
| Female | 842 | 1,942 | 43.4% |
| Male | 472 | 1,655 | 28.5% |
| Asian | 247 | 383 | 64.5% |
| Black | 441 | 1,525 | 28.9% |
| Hispanic | 321 | 1,081 | 29.7% |
| White | 292 | 571 | 51.1% |
| Other | 13 | 37 | 35.1% |

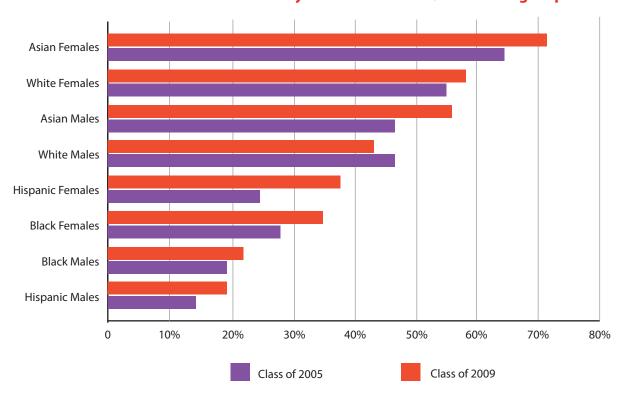
Source: PIC analysis of NSC data

CHART 1.9 **Comparisons of the Percent of College Graduates** From the BPS Classes of 2005 and 2009 (All and by Gender, Race/Ethnicity)



Sources: (i) Getting Closer (2013) (ii) PIC analysis of NSC data

CHART 1.10 Comparisons of the Percent of College Graduates from the BPS Classes of 2005 and 2009 by Gender and Race/Ethnic Subgroup



Sources: (i) Getting Closer (2013) (ii) PIC analysis of NSC data

Chart 1.10 displays the differences in six-year college completion rates by gender/ race-ethnic subgroup for the entire BPS Classes of 2005 and 2009. Among the eight gender-race/ethnic subgroups, seven experienced growth in the share graduating from college within six years. White males were the only subgroup to decline, falling from 47.1% to 43.4%. The most improvement in percentage point terms occurred for Hispanic females. Their college completion rate increased from just under 24.5% of the BPS Class of 2005 to 38% of the BPS Class of 2009. Asian males had the second largest increase in absolute percentage point terms, going from 47.1% to nearly 56.7%, a 10 percentage point change. Black females gained just under seven percentage points, rising to 34.7%. The percent of Black males completing college increased by 3.1 percentage points for the Class of 2009 when compared to the Class of 2005 and the increase for Hispanic males was 4.8 percentage points.

Six-Year College Completion Rates of BPS Class of 2009 First-Year Enrollees By Type of High School

Getting Closer (2013) highlighted the large differences in postsecondary outcomes of students from exam and non-exam high schools. This study finds similar differences in outcomes between exam and nonexam school graduates when examining the six-year college completion rates of first-year enrollees. The six-year college completion rates of exam school graduates from the Class of 2009 who enrolled in college within one year of high school was 77%. Female first-year enrollees from the exam schools had a six-year college completion rate of 82.3%, compared to 68.6% for males (Table 1.12).

TABLE 1.12 Six-Year College Completion Rates of Class of 2009 First-Year Enrollees by Type of High School Attended

| | EXAM HIGH SCHOOLS | | | NON-EXAM HIGH SCHOOLS | | |
|--------|----------------------|-------------------------|-------------------------------|-----------------------|-------------------------|-------------------------------|
| | College Graduates | First-Year Enrollees | College Completion Rate | College Graduates | First-Year Enrollees | College Completion Rate |
| All | 594 | 774 | 76.7% | 652 | 1,656 | 39.4% |
| Female | 380 | 462 | 82.3% | 420 | 917 | 45.8% |
| Male | 214 | 312 | 68.6% | 232 | 739 | 31.4% |

Source: PIC analysis of NSC data

Among non-exam high school graduates from the Class of 2009, six-year college completion rates of firstyear enrollees were lower. Just under 40% of non-exam graduates who enrolled in college during the first year after high school completed a college credential. The six-year college completion rate of females from non-exam high schools was nearly 46%, compared to 31% among males.

The race/ethnic gaps in college completion were narrower within the exam and non-exam high school groups (Table 1.13). Among exam school students, the six-year college completion rate of Asian first-year enrollees was 82.3%. White students followed with a 77.8% six-year completion rate. The college completion rates of Black and Hispanic first-year enrollees were 71.2% and 69.2%, respectively. The six-year college completion rate of each major race/ethnic group attending exam high schools was well above the 52% college graduation goal for the entire class. From top to bottom, the difference in college completion rates across race/ethnic groups in exam high schools was 15 percentage points, less than one-half of the 33 percentage point district-wide gap shown above (Table 1.10).

In non-exam high schools, Asian first-year enrollees again had the highest six-year completion rate at 60.3%, 18 percentage points above the next group, which was Whites at 42.2%. The six-year college completion rates of Black and Hispanic non-exam school graduates who enrolled in college during their first year out were 35.4% and 40.3%. The college completion rate gaps between White and Black and Hispanic graduates from non-exam high schools ranged from two to seven percentage points.

TABLE 1.13 Six-Year College Completion Rates of BPS Class of 2009

First-Year Enrollees by High School Type and Race/Ethnicity

| | College Graduates | First-Year Enrollees | College Completion Rate | | | | |
|----------|-------------------|----------------------|-------------------------|--|--|--|--|
| Exam | | | | | | | |
| Asian | 171 | 204 | 83.8% | | | | |
| Black | 131 | 184 | 71.2% | | | | |
| Hispanic | 72 | 104 | 69.2% | | | | |
| White | 214 | 275 | 77.8% | | | | |
| Non-Exam | | | | | | | |
| Asian | 70 | 116 | 60.3% | | | | |
| Black | 285 | 804 | 35.4% | | | | |
| Hispanic | 219 | 543 | 40.3% | | | | |
| White | 73 | 173 | 42.2% | | | | |

Source: PIC analysis of NSC data

College Completion Rates of BPS Class of 2009 Enrollees by Type of College Attended

Nationally and in Massachusetts, college completion rates vary considerably by level of postsecondary institution. Two-year public colleges, which often have open admissions policies, have lower college completion rates, on average, than four-year public and private institutions. College completion rates for four-year colleges and universities tend to rise with admissions selectivity. This section analyzes how college completion rates of BPS Class of 2009 graduates varied across types of postsecondary institutions based on the NSC's classifications of institutions.¹⁵

The findings in this section need to be interpreted with caution. This analysis is not intended to be a comparative analysis of two-year and four-year colleges. The demographic characteristics, academic backgrounds, and motivations of BPS graduates will differ across two-year colleges, four-year public colleges, and four-year private colleges. These background characteristics independently influence the graduation rates for students who enroll in these different types of schools. However, understanding the differences in college completion rates of BPS graduates by type of college is important for unpacking the aggregate results, and for assessing progress toward Success Boston's college completion goals.

The college completion rate analysis in Table 1.14 is based on the type of institution that a BPS Class of 2009 graduate first attended. For example, if a BPS graduate started at a two-year community college but transferred before earning a degree at the two-year institution to a four-year institution, and later graduated from a four-year institution within six years, then he or she would count as a graduate in the two-year public category below.¹⁷ Thus, a completion is "awarded" to the first institution type attended by a student. The NSC uses a similar approach when disaggregating college completion rates by level of institution. The intent of this is to acknowledge the roles played by the first institution, often a two-year college, in preparing students to transfer and complete degrees at another institution.

TABLE 1.14

Six-Year College Completion Rates of First-Year Enrollees from the BPS Class of 2009 by Type of College First Attended

| Type of College | Total First Year Enrollees | Graduated From Any College | Completion Rate |
|-------------------|----------------------------|-------------------------------|-----------------|
| Two-year public | 738 | 187 | 25.3% |
| Four-year public | 546 | 341 | 62.5% |
| Four-year private | 1,130 | 707 | 62.6% |

Source: PIC analysis of NSC data

Note: The completion status of enrollees at less than two-year institutions and two-year private colleges are not reported because there were 10 or fewer first-year enrollees at each of these two institution types.

Table 1.14 displays graduation outcomes by type of college. Of the 738 BPS Class of 2009 graduates that attended a two-year public college during the first year after high school, 192, or 25.7%, graduated from any postsecondary institution within six years. This 25.7% completion rate for first-year enrollees from the Class of 2009 is higher than previous years as will be shown in a later section.

College completion rates were higher at the four-year institution level. Of the 546 Class of 2009 high school graduates who first attended a four-year institution within one year of high school, 62.5% completed a college credential within six years. The majority of four-year college attendees started at private institutions (68.7%). The six-year college completion of BPS Class of 2009 first year enrollees attending a four-year private college or university was 62.6%, the same rate for those at four-year public colleges and universities. The college completion rates of BPS Class of 2009 graduates attending both types of four-year institutions were 37 percentage points higher than those starting at two-year institutions.

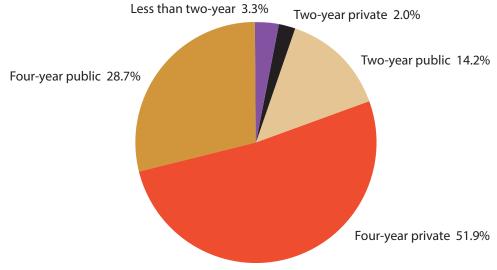
Percentage Distribution of College Graduates by Type of College and Type of Degree Earned

The above analysis tracked college graduates back to their first institution attended. To understand more about the types of institutions awarding degrees, we also examined the distribution of all BPS college completers across type of institution awarding the degree. Since some BPS Class of 2009 college graduates have earned multiple degrees from more than one institution over this time period, this analysis is based on the first institution where they graduated from. Due to the greater share of BPS graduates attending four-year institutions and the higher completion rates for BPS college enrollees at these four-year schools, the majority of college degrees earned were from four-year colleges and universities (Chart 1.11). Nearly 81% of all of the college completers from the Class of 2009 first graduated from a four-year college or university.¹⁸ Four-year private colleges accounted for 52% of the college graduates while four-year public colleges accounted for 29%. Two-year colleges accounted for 16% of graduates. Less than two-year colleges, which are institutions that award certificates, but not two-year degrees, accounted for 3% of college graduates.¹⁹ The 81% share of degrees at four-year colleges and universities is down from the over 90% share for the Classes of 2005 and 2000 as a result of an increased number of graduates from the two-year system.²⁰

The NSC also asks colleges and universities to report types of degrees obtained when submitting graduate records. Colleges have the option of submitting this information to the NSC and more have done so in recent years. For the Class of 2009, degree type information for 85% of the reported college graduates is available through the NSC files. Chart 1.12 provides the distribution of degree awards. Since there were

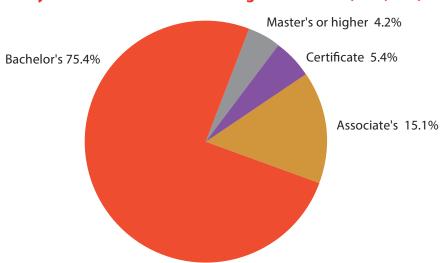
graduates who earned two or more credentials over this time period, this analysis presents the highest level degree earned. Just over 5% of the college graduates earned only a postsecondary certificate. Another 15.1% earned an Associate's degree, but no higher degree. The vast majority of graduates earned a Bachelor's degree (75.4%). Approximately 4% of the college graduates had earned a Master's or higher degree within six years.

CHART 1.11 Percentage Distribution of the BPS Class of 2009 College Completers by Type of College Awarding the Certificate or Degree (N=1,314)



Source: PIC analysis of NSC data

CHART 1.12 **Percentage Distribution of Degrees Earned** by All BPS Class of 2009 College Graduates (N=1,120)

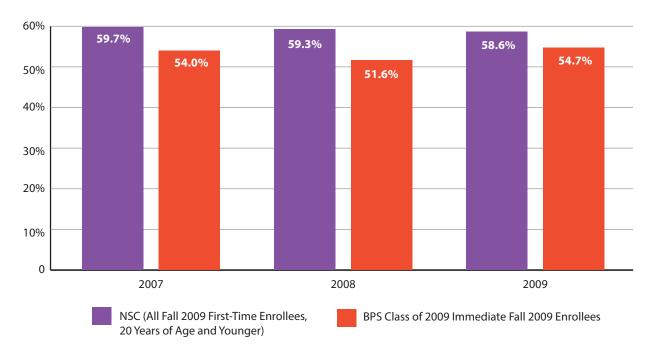


Source: PIC analysis of NSC data

Comparisons of Six-Year College Completion Rates of BPS Graduating **Classes to National Cohorts of Fall Enrollees**

The above findings focused on the trends in college enrollment and completion outcomes of BPS graduating classes from recent years. The NSC database allows researchers to compare findings for individual school districts with national averages. To make this comparison, we relied on one of the first-year graduation cohort measures described in Table 1.1. This section tracks the initial fall 2009 college enrollee cohort from the BPS Class of 2009 for six years. The NSC's research center publishes college completion rate trends for fall semester cohorts of college enrollees in the U.S. The NSC's cohorts are different from the BPS graduating class cohorts tracked in this study because NSC tracks the completion rates of college students who start college for the first time in the fall semester. The NSC's fall semester cohort can include high school graduates from the previous school-year or from earlier classes, including older adults who are attempting college for the first time. However, the NSC provides age breakouts and separately reports findings for those first time, fall enrollees who are 20 years of age and younger, to shed light on how recent high school graduates are faring in college. The findings for the nation's 20 years of age and younger fall semester cohorts were used for the comparison below.

CHART 1.13 Comparison of Six-Year College Completion Rates of BPS First-Time, Fall College Enrollees to the National Cohort of First-Time, Fall Enrollees, Fall 2007-2009 Semesters



Source: (i) Completing College: A National View of Student Attainment Rates - Fall 2009 Cohort, November 2015 (ii) PIC analysis of NSC data

Overall, BPS graduates who enroll in college in the immediate fall semester graduate at rates below national averages. The BPS fall enrollees from the Class of 2007 had a six-year college completion rate of 54.0%, 5.7 percentage points below that of the nation's first-time, fall enrollees (20 years of age and younger) in 2009. The fall 2008 enrollees from the BPS Class of 2008 had a six-year college completion rate of 51.6%, trailing the national average of 59.0%. The BPS Class of 2009 fared better on this national comparison. Among the fall enrollees from the BPS Class of 2009, 54.7% completed by the summer of 2015, compared to 58.6% nationally, a difference of 3.9 percentage points.²¹ Nationally, the college completion rates of these fall cohorts was highest for fall 2007 enrollees and fell for the 2008 and 2009 fall enrollee cohorts. For the three BPS graduating classes, the college completion rate of immediate fall semester enrollees was highest for the Class of 2009.

Table 1.15 shows the national comparison for the three types of institutions where the vast majority of BPS graduates attend college.²² BPS Class of 2009 graduates attending four-year public colleges had a slightly lower six-year graduation rate than their national peers (63.0 vs. 65.0%). At four-year private institutions, the BPS Class of 2009 completion rate trailed the national average for first time, 20 years of age or younger enrollees by a wider margin (64.8% vs. 76.0%). Among two-year public college enrollees, the college completion rate of BPS graduates also was lower than the national average. Nationally, 40.7% of first-time college two-year public college attendees graduated within six years from some type of college compared to 27.7% of the BPS Class of 2009, a difference of 13 percentage points. The higher share of BPS enrollees in four-year colleges relative to national averages explains in part why the district's overall completion rate is near the national average (in Chart 1.13).

TABLE 1.15 Six-Year College Completion Rates of Class of 2009 BPS Graduates Who Enrolled in the Fall of 2009, as Compared to U.S. Averages for First Time, Fall 2009 Enrollees 20 Years of Age or Younger

| Type of Institution | BPS College Graduates | BPS Immediate Fall Enrollees | BPS College Completion Rates | U.S. Average Completion Rates | BPS – U.S. |
|---------------------|--------------------------|---------------------------------|------------------------------------|-------------------------------------|------------|
| Two-year public | 157 | 566 | 27.7% | 40.7% | -13.0 |
| Four-year private | 689 | 1,064 | 64.8% | 76.0% | -11.2 |
| Four-year public | 335 | 532 | 63.0% | 65.0% | -2.0 |

Source: (i) Shapiro, Completing College: A National View of Student Attainment Rates - Fall 2009 Cohort, November 2015. (ii) PIC analysis of NSC data

Comparisons of Six-Year College Completion Rates of the BPS Class of 2009 to the BPS Class of 2005

Similar to the comparison shown earlier on college graduation rates for demographic groups, we can compare the college completion experiences of BPS Class of 2009 gradates by type of college to those of the BPS Class of 2005. This comparison will show where college completion rates have changed over time. To make this comparison, we need to apply the same graduation methodology employed in Getting Closer (2013) for reporting college completion by institution type. This earlier study tracked cumulative enrollments from the BPS Class of 2005 through the fall of 2011/early spring of 2012 and calculated college graduation rates for "inactive" college enrollees by the first institution attended.²³ Inactive enrollees were those students who graduated within six years or were not actively enrolled at the end of the reporting

period for this earlier study, which was the fall 2011 and early spring 2012 semesters. Thus, "active" students were those who had not graduated and were enrolled at the end of the reporting period. Active students were subtracted from all college enrollees in the college graduation rate formula to reflect that they are still in active pursuit of a postsecondary credential (see Table 1.1 for the formula).

This earlier analysis was replicated for the BPS Class of 2009 college enrollees who first attended one of three types of postsecondary institutions: 1) two-year public colleges, 2) four-year public colleges and universities, and iii) four-year private colleges and universities. In Table 1.16, the total number of college enrollees and graduates are displayed in columns A and B. The active college enrollees without a college degree appear in column C of the table below. For the Class of 2009, 497 students were enrolled at some point during 2015 but had not yet earned a degree, comparable to the 425 active enrollees from the Class of 2005.²⁴ The college graduation rate in column D represents the percent of inactive college enrollees who received a certificate or degree within six years of high school graduation by type of first institution attended.

College graduation rates were higher for BPS Class of 2009 enrollees in all three institution types compared to BPS Class of 2005 enrollees. The results for the BPS Class of 2009 are through six years,

TABLE 1.16 Comparison of the Six-Year College Graduation Rates of BPS Class of 2009 and BPS Class of 2005 Inactive Enrollees by Type of First Institution Attended

| Type of College | (A) Cumulative, First-Time College Enrollees from BPS Classes | (B) College Graduates From Any Institution | (C) Still Enrolled without a degree | (D) College Graduation Rate B/(A-C) | | |
|-----------------|---|---|---|---|--|--|
| | | Class of 2005 | | | | |
| Two-year | | | | | | |
| Public | 737 | 86 | 194 | 15.8% | | |
| Four-year | | | | | | |
| Private | 1,003 | 573 | 119 | 64.8% | | |
| Public | 568 | 294 | 112 | 64.5% | | |
| | Class of 2009 | | | | | |
| Two-year | Two-year | | | | | |
| Public | 1,031 | 203 | 250 | 26.0% | | |
| Four-year | | | | | | |
| Private | 1,224 | 733 | 146 | 68.0% | | |
| Public | 576 | 350 | 101 | 73.7% | | |

Source: PIC analysis of NSC data

Notes: i) Less than two-year and two-year private institutions are excluded because of the small cohort at these schools.

ii) The graduation rate for the BPS Class of 2005 is based on six and one-half years of reporting.

whereas those for the BPS Class of 2005 captured graduations through six and one-half years. The six and one-half year college completion rate for inactive enrollees from the BPS Class of 2005 who first attended a two-year public college was 15.8%. The six- and one-half year college graduation rates for BPS Class of 2005 inactive enrollees who first attended a four-year private college or four-year public college were nearly the same, at 65%. At the bottom of the table, the BPS Class of 2009 results are displayed. The six-year college graduation rate of BPS Class of 2009 college enrollees who first attended a two-year public college was 26.0%, ten percentage points above that of the BPS Class of 2005 two-year college students (or 1.6 times that of the Class of 2005). The four-year private college graduation rate of BPS Class of 2009 inactive enrollees through six years was three percentage points higher than that of the BPS Class of 2005. The college graduation rate of four-year public college enrollees from the BPS Class of 2009 increased to 74% under this methodology, a nine-percentage point improvement over the Class of 2005. Clearly, the improvement in college graduation rates at two-year public and four-year public schools contributed to the overall completion gains made by the Class of 2009.

Characteristics of the BPS Class of 2009 Graduates **Enrolled in College During 2015 Who Have Not Earned a Postsecondary Credential Yet**

While this study focuses on college completion through six years, there are a number of students who are still pursuing a credential but have not completed yet. This section describes the characteristics of "active" enrollees from the BPS Class of 2009, defined as those college enrollees who were enrolled at some point during calendar year 2015, but have not earned a college credential by the summer of 2015. Of the 2,875 college enrollees from the BPS Class of 2009, 503 who have not earned a college credential yet were enrolled in 2015, representing 17.5% of all college enrollees (Table 1.17). Of these 503 enrollees, 370 or 74% of them enrolled in college during the first year after high school (analysis not shown here).

TABLE 1.17 Number and Percent of BPS Class of 2009 College Enrollees Still Enrolled in 2015 Who Have Not Yet Earned a Postsecondary Credential by Gender and Race/Ethnic Group

| Group | Enrolled in 2015 Who Have Not Earned a Postsecondary Credential | Cumulative Enrollees From BPS Class of 2009 | Enrolled in 2015 Without a Degree as a Percent of All Enrollees from the BPS Class of 2009 |
|----------|---|--|---|
| Total | 503 | 2,875 | 17.5% |
| Female | 298 | 1,636 | 18.2% |
| Male | 205 | 1,239 | 16.5% |
| Asian | 38 | 346 | 11.0% |
| Black | 242 | 1,202 | 20.1% |
| Hispanic | 160 | 814 | 19.7% |
| White | 56 | 482 | 11.6% |

Source: PIC analysis of NSC data

There were 298 females enrolled in 2015 who have not earned a postsecondary credential, representing 18.2% of all female enrollees from the BPS Class of 2009. The share of all male enrollees from the BPS Class of 2009 who were still enrolled in 2015 in pursuit of a first credential was slightly less at 16.5%. The college completion rates of both groups stand to rise if these students can cross the finish line to a credential. Black and Hispanic college enrollees from the BPS Class of 2009 were much more likely to be enrolled in 2015 and still pursuing a postsecondary credential. Each group had 20% of all college enrollees still active in 2015 and attempting to earn a degree compared to 11-12% of Asian and White enrollees.

We examined the first college attended by those still enrolled in 2015 in pursuit of a postsecondary degree. Approximately one-half began at a two-year public college, a higher share than the overall enrollment distribution. One in every four students that started at a two-year college, but have not earned a degree yet, were still enrolled at a college or university in 2015 (Table 1.18). The share of four-year public college enrollees who have not earned a degree but enrolled in 2015 was 17.5%, followed by 12% of four-year private college enrollees. The percentage share of college enrollees from the BPS Class of 2009 still pursuing a degree in 2015 points to the need for continued tracking of their postsecondary experiences to have a complete picture of the college completion rates of high school classes.

Number and Percent of BPS Class of 2009 College Enrollees Still Enrolled in 2015 Who Have Not Yet Earned a Postsecondary Credential By Type of First College Attended

TABLE 1.18

| Type of Institution First Attended | Enrolled in 2015 Who Have Not Earned a Postsecondary Credential | Cumulative Enrollees From BPS Class of 2009 | Enrolled in 2015 Without a Degree as a Percent of All Enrollees from the BPS Class of 2009 |
|---------------------------------------|---|--|---|
| Two-Year Public | 250 | 1,031 | 24.2% |
| Four-Year Private | 146 | 1,224 | 11.9% |
| Four-Year Public | 101 | 576 | 17.5% |

Note: Six students who initially attended a two-year private institution or less than two year school are omitted. Source: PIC analysis of NSC data

Chapter One Discussion of Findings

Success Boston embarked on an ambitious college completion agenda for the city's public school graduates back in 2009, setting college completion goals of 52% for the Class of 2009 and 70% for the Class of 2011. This study tracks the six-year college completion outcomes for the BPS Class of 2009, the first class with a college completion goal under the initiative, and it finds that the six-year college completion rate of first-year enrollees from the Class of 2009 was 51.3%, within one percentage point of the 52% complete rate goal set in 2008. The ultimate college completion rate of this first-year enrollee cohort will be higher as more members of this cohort who are still actively enrolled in college make it across the finish line. The college completion rate for college enrollees who enrolled in the immediate fall semester is already higher at 54.7%.

College completion rates also were calculated for the entire high school class. Of the 3,597 graduates from the Class of 2009, 36.5% attained a certificate or degree within six years, over 11 percentage points above the 24.7% for the Class of 2000. The compounding effects of rising high school graduation, college enrollment, and completion rates have led to increases in the absolute number of college graduates. Through six years, the BPS Class of 2009 had 1,314 college graduates, an 79% increase above the number of college graduates from the Class of 2000, the first class tracked in this data series.

College completion rates have risen for both males and females and for each race/ethnic group since the initial report on the BPS Class of 2000. This current study compared college enrollment and completion outcomes from the BPS Class of 2009 to the BPS Class of 2005 (as reported in Getting Closer (2013)). Gains made by Black and Hispanic students over this time period, particularly females, have resulted in a slight narrowing of the White/Black and White/Hispanic gaps in college completion, although the gender gap in both college enrollment and college completion rates increased for the Class of 2009 in comparison to the Class of 2005.

Compared to the Class of 2005, college completion rates for BPS graduates increased at two-year public, four-year public, and four-year private institutions. The gains were largest for students entering two-year public institutions (+10.2 percentage points) and four-year public colleges (+9.2 percentage points) on one measure of college graduation. College completion rates at local public colleges have improved since the launch of Success Boston.

Despite the progress overall in raising the college completion rate of first-year enrollees to close to 52%, there are important challenges for the Success Boston initiative and its partners to address. The Class of 2009 results reveal that more effort is needed to close the persistent gender and race/ethnic gaps in college enrollment and college completion. When examining gender and race/ethnic subgroups, college completion rates ranged from a low of 31% for Hispanic males to a high of 83% for Asian females, a range of 52 percentage points. While more Black and Hispanic graduates are earning degrees than before due to higher rates of college enrollment and college completion, their college completion rates still significantly lag those of their White and Asian peers. These disparities in college completion rates of BPS graduates mirror national gender and race-ethnic gaps. Substantial improvements in the college completion rates of Black and Hispanic students, particularly males, two-year college attendees, and students from non-exam high schools, are needed to reach Success Boston's 70% college completion goal.

CHAPTER TWO A Look at the Success Boston Coaching Class of 2009 Six Years Later

his chapter, which was prepared by Abt Associates for Success Boston, examines the college enrollment and completion experiences of students from the Boston Public Schools class of 2009, focusing specifically on those students who participated in the Success Boston Coaching initiative. The Success Boston initiative represents a major citywide partnership among the Boston Foundation, City of Boston, Boston Public Schools (BPS), the University of Massachusetts-Boston, Bunker Hill Community College, other colleges and universities, and local nonprofit organizations. It targets low-income, firstgeneration students of color by reducing barriers to college success for BPS graduates through program, policy and practice-based activities.

Success Boston strategies include: academic programming and college advising activities at the high

school level; transition coaching support for students enrolling in their first two years of college; and close collaboration with local higher educational institutions to provide just in time, as-needed campus based supports, and to track BPS graduates to degree completion and successful entry into the workforce.

Prior research suggests that transition coaching has demonstrable potential for improving college persistence rates.1 For example,

Success Boston

- Citywide, collaborative initiative launched in 2008
- Employs a multifaceted strategy to increase rate of college credential completion for BPS graduates
- Core component of initiative is transition coaching
- Class of 2009 was the first cohort of high school graduates to receive coaching
- Five local nonprofit organizations (American Student Assistance, Boston Private Industry Council, Bottom Line, Freedom House, and Hyde Square Task Force) provided transition coaching support to 264 BPS graduates from the class of 2009.

in the Getting Closer to the Finish Line (2013) report, researchers from the Center for Labor Market Studies found that a higher proportion of BPS students who received transition coaching support persisted into the second and third year of college than did BPS students who did not receive such support.²

Success Boston Coaching (abbreviated to SBC for this chapter) represents an important central component of the overall initiative; it focuses purposefully on easing the transition from high school to college, increasing persistence and, ultimately, increasing college completion. Success Boston operates across a network of Boston-based nonprofit organizations in partnership with local colleges and universities.³ Funding provided by the Boston Foundation supports⁴ the nonprofit partners' efforts to provide an integrated set of transition services, including summer college preparation, ongoing financial aid advising, help with course selection, time management skills, career guidance and personal and emotional support to college students. The coaching focuses on those students historically found most likely to leave college

before completion: coaching organizations work to recruit students from disadvantaged backgrounds (including low-income, students of color and first generation college-goers), who enroll in Boston-area colleges, especially students who enroll in community colleges.

This chapter describes the college enrollment and completion rates for the first cohort of Success Boston students, the graduating class of 2009; it compares them to students who did not receive SBC support. The chapter addresses the following research questions:

- What are the college enrollment and completion rates of BPS graduates from the class of 2009 who participated in Success Boston coaching?
 - How do these rates compare to those of BPS graduates who did not participate in the coaching?
 - How do these rates differ by key student and institutional characteristics (e.g. race, gender, school type, type of college/university)?

Methodology

This section provides information about the data sources, sample, analytic methods, and limitations of these descriptive analyses of SBC student participants' college experiences.

Data

The analyses described below rely upon two sources: BPS administrative records and the SBC Salesforce database.

- The BPS administrative records include information on gender, race/ethnicity, graduating high school, and college entry and outcomes for each student in the graduating class of 2009. The Boston Private Industry Council (Boston PIC) linked the student demographics and high school information to the college entry and outcomes data file, which originally came from the National Student Clearinghouse (see Chapter One for more information about linking of data files).
- The SBC Salesforce database, a cloud-based database used to track SBC participant-level data, was used to identify the SBC students during the 2009-10 academic year. Students' first and last names, date of birth, and, when available, BPS ID were used to identify SBC participants in the BPS records.

Sample

The students included in this chapter include all 2009 graduates from BPS. Of the 3,597 BPS graduates, 264 (or seven percent) participated in transition coaching through Success Boston in the 2009-2010 academic year.5

Table 2.1 presents key demographic characteristics and graduating high school type by SBC participation for the BPS class of 2009. SBC served a greater percentage of non-white students, particularly Hispanic students, than BPS non-SBC participants and the entire BPS graduating class of 2009 (see Table 1.2 in Chapter One). SBC also served a slightly higher percentage of female students (59.8% versus 53.5% for non-SBC participants). Additionally, a higher proportion of SBC students graduated from traditional high schools than non-SBC participants (64.4% and 55.4%, respectively), and a lower proportion graduated from competitive exam schools (14.8% and 24.6%, respectively).

TABLE 2.1 Key Student Demographics and High School Type, by SBC Participation

| | (A) BPS STUDENTS PARTICIPATING IN SUCCESS BOSTON COACHING | | (B) BPS STUDENTS NOT PARTICIPATING IN SUCCESS BOSTON COACHING | |
|------------------|---|-------|--|-------|
| Race/Ethnicity | N | % | N | % |
| Black | 94 | 35.6% | 1431 | 42.9% |
| Hispanic | 124 | 47.0% | 957 | 28.7% |
| Asian | 22 | 8.3% | 361 | 10.8% |
| White | 24 | 9.1% | 547 | 16.4% |
| Gender | | | | |
| Male | 106 | 40.2% | 1549 | 46.5% |
| Female | 158 | 59.8% | 1784 | 53.5% |
| High School Type | | | | |
| Exam | 39 | 14.8% | 821 | 24.6% |
| Pilot | 55 | 20.8% | 665 | 20.0% |
| Traditional | 170 | 64.4% | 1847 | 55.4% |

Source: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data

Note: Percentages may not total 100 due to rounding.

Analytic Methods

To understand SBC participants' college experiences in context, this chapter examines their college enrollment and completion rates relative to other BPS high school graduates who did not participate in coaching. The two outcomes of interest, enrollment and completion, are defined below in several ways; where appropriate, rates are disaggregated by key subgroups.

Enrollment is defined in four ways:

- 1. Immediate enrollment: the percentage of high school graduates who enrolled in college the first fall after high school graduation, as of November 1, 2009;
- 2. First year enrollment: the percentage of high school graduates who enrolled at any time during the 2009-2010 academic year, whether in the 2009 fall semester or the 2010 spring semester;
- 3. 16-month enrollment: the percentage of high school graduates who enrolled in college within the first 16 months of high school graduation, or any time between August 1, 2009 and November 1, 2010; and
- 4. Cumulative enrollment: the percentage of high school graduates who enrolled in college at any time after high school graduation, through October 26, 2015.

Completion rates are based on a six-year time frame for the class of 2009, that is, completion of a postsecondary credential as of October 1, 2015. College completion is defined in the following four ways:

- 1. Completion of immediate enrollees: the percentage of students who enrolled in college during the first fall after high graduation (i.e., November 1, 2009), and earned a certificate, associate's degree or bachelor's degree within six years;
- 2. Completion of first year enrollees: the percentage of students who enrolled in college at any point during the first year after high school graduation (i.e. the 2009-2010 academic year), and earned a certificate, associate's degree or bachelor's degree within six years;
- 3. Completion of enrollees within 16 months: the percentage of students who enrolled in college within the first 16 months after high school graduation (i.e., any time before November 1, 2010), and earned a certificate, associate's degree or bachelor's degree within six years; and
- 4. Completion of all high school graduates: the percentage of high school graduates who earned a certificate, associate's degree or bachelor's degree within six years.

Results are reported in the aggregate, as well as by gender and race/ethnicity, high school type, and college type.

Limitations

The purpose of this chapter is to provide a descriptive examination of the college enrollment and completion rates of students who participated in transition coaching through the Success Boston initiative. Rates of students who did not participate in transition coaching are included for comparison purposes only, and cannot be assumed to represent statistically significant differences that have been caused by participation in Success Boston coaching. Differences between the two sets of students may or may not reflect the actual impact of Success Boston Coaching due to systematic differences between the two student groups. Differences on observable characteristics between SBC participants and non-participants also exist: the proportions of students who graduated from different types of high schools (e.g., pilot, traditional, and exam schools) differed, for example. College enrollment and completion are complex undertakings, and understanding why students do or do not graduate requires a more rigorous investigation than a descriptive study such as this one can provide.

Abt Associates is conducting a more comprehensive and rigorous impact evaluation of Success Boston Coaching that uses a quasi-experimental design and propensity score matching to identify a group of non-SBC participants comparable to SBC participants. The combination of a quasi-experimental design and sensitive matching techniques will allow the evaluation to account for observable differences between students, and estimate the impact of transition coaching on key college outcomes, including annual persistence, academic achievement, Free Application for Federal Student Aid (FAFSA) completion, credit accumulation and completion. The first SBC impact report, which will examine coaching's effect on college persistence for the BPS graduating classes of 2013 and 2014, will be available in early 2017.

The College Enrollment Experiences of Success Boston Students

This section presents data on college enrollment rates for SBC students from the BPS graduating class of 2009. While overall enrollment rates are presented for all four definitions of enrollment (immediate enrollment, within one year, within 16 months and cumulative), the section focuses primarily on enrollment data for students enrolled within 16 months after high school graduation.

As shown in Table 2.2, 80.3% of SBC students enrolled in college immediately following high school graduation and another nine percent enrolled within 16 months. These rates are higher than those of non-SBC coached students; 58.6% of BPS graduates enrolled in college immediately and 69.8 % had enrolled within 16 months. When looking broadly at college enrollment—from end of high school to the most current semester for which data are available, fall 2015—cumulatively, 91.7% of SBC students have enrolled in college, compared to 79% of BPS non-coached graduates.

Regardless of when students initially enrolled (e.g., immediately versus within 16 months), BPS graduates participating in Success Boston transition coaching consistently enroll in college at a proportionally greater rate than their non-coached peers. However, the higher rate of college enrollment among SBC students may reflect the program's specific focus on helping students with college-going intentions to enroll.

TABLE 2.2 Key Student Demographics and High School Type, by SBC Participation

| 2009 BPS Graduates | (A) BPS STUDENTS PARTICIPATING IN SUCCESS BOSTON COACHING | (B) BPS STUDENTS NOT PARTICIPATING IN SUCCESS BOSTON COACHING |
|-----------------------|---|---|
| Immediate enrollment | 80.3% | 58.6% |
| Within 1 year | 88.6% | 65.5% |
| Within 16 months | 89.4% | 69.8% |
| Cumulative Enrollment | 91.7% | 79.0% |

Source: National Student Clearinghouse (NSC) data

Notes: The number of students in each category is in parentheses. Immediate enrollment is defined as having enrolled in college by November 1, 2009. Enrollment within 1 year is by July 1, 2010. Enrollment within 16 months is based on enrollment by November 1, 2010. Cumulative enrollment is based on the latest available data, which is from fall of 2015.

Disaggregating the overall enrollment rates by student demographics, specifically gender and race/ ethnicity, shows more sizable differences in rates between black and Hispanic SBC males (88.2% and 85.7%, respectively) and non-SBC black and Hispanic males (64.8% and 53.3%), as well as among Hispanic females (94.7% SBC versus 65.5% non-SBC) (see Table 2.3). The demographic group with the lowest enrollment rate among those who have been coached is Black females, while Hispanic males comprise the group with the lowest enrollment rate among those who did not participate in coaching. The groups with the highest enrollment rates also differ between coached and non-coached students; White females have the highest enrollment rate (100%) among coached students, whereas Asian females' college enrollment rate (87.6%) was highest among non-coached students.

Another factor that may play a role in college-going patterns is the type of high school (e.g., pilot, traditional and exam schools) from which students graduate. Differences between coached and

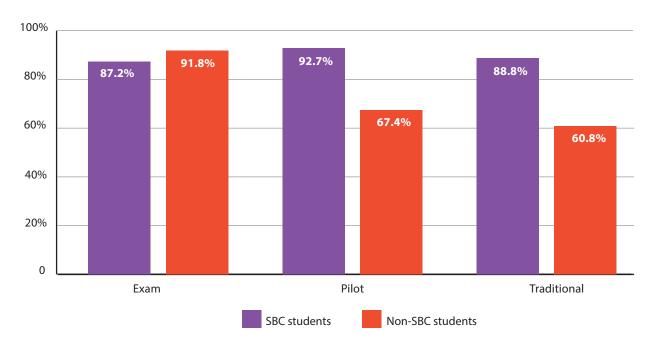
TABLE 2.3 16-Month College Enrollment by Gender and Race/Ethnicity

| | (A) BPS STUDENTS PARTICIPATING IN SUCCESS BOSTON COACHING | (B) BPS STUDENTS NOT PARTICIPATING IN SUCCESS BOSTON COACHING | | | | |
|-------------------------|---|--|--|--|--|--|
| Within 16 Months | | | | | | |
| Race/Ethnicity | | | | | | |
| Black | 85.1% | 68.1% | | | | |
| Hispanic | 91.1% | 60.0% | | | | |
| Asian | 90.9% | 86.4% | | | | |
| White | 95.8% | 79.5% | | | | |
| Gender | | | | | | |
| Male | 87.7% | 65.5% | | | | |
| Female | 90.5% | 73.5% | | | | |
| Race/Ethnicity * Gender | | | | | | |
| Black / Male | 88.2% | 64.8% | | | | |
| Hispanic / Male | 85.7% | 53.3% | | | | |
| Asian / Male | 90.9% | 85.0% | | | | |
| White / Male | 91.7% | 74.5% | | | | |
| Black / Female | 83.3% | 71.1% | | | | |
| Hispanic / Female | 94.7% | 65.5% | | | | |
| Asian / Female | 90.9% | 87.6% | | | | |
| White / Female | 100.0% | 84.3% | | | | |

Source: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data Note: Enrollment includes all students who enrolled within 16 months of high school graduation.

non-coached students are most pronounced for those who attended traditional and pilot high schools, the schools from which the majority of Success Boston students graduated (85.2%, see Chart 2.1). Almost 89% of SBC coached students who graduated from traditional high schools enrolled in college within 16 months of graduation while just over 60% of non-coached students had done so. The college enrollment pattern is similar for graduates of pilot high schools; 92.7% and 67.4% of coached and non-coached students, respectively, had enrolled within 16 months of high school graduation. The trend is reversed for exam high school graduates, although the difference is substantially smaller; 91.8% of non-coached and 87.2% of coached students from exam high schools enrolled in college.

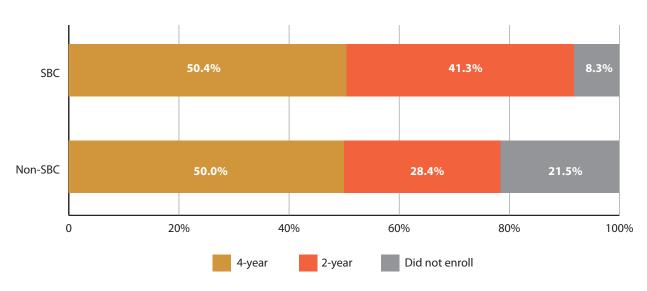
CHART 2.1 16-Month College Enrollment, by High School Type



Source: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data

Notes: Enrollment includes all students who enrolled within 16 months of high school graduation. Pilot includes in-district charters. Exam schools graduated 39 SBC students and 821 non-SBC students, pilot schools graduated 55 SBC students and 665 non-SBC students, and traditional schools graduated 170 SBC students and 1,847 non-SBC students.

CHART 2.2 College Enrollment Status by First College Type, All Students



Sources: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data

Notes: Enrollment is cumulative enrollment (i.e., ever enrolled). First college type refers to the college type in which student initially enrolled after high school.

Coached and non-coached students also differed somewhat in the types of colleges in which they chose to enroll. More SBC-coached students first enrolled in a two-year college (41.3%) than did non-coached students (28.4%), although the proportion of students who first enrolled in a four-year college is the same for both groups. A substantially smaller proportion of SBC than non-SBC students had not enrolled in college (8.3% and 21.5%, respectively).

Looking at the results by sector, Table 2.4 shows that public two-year colleges enrolled the largest share of SBC coached students (45%), and private four-year colleges enrolled the largest share of BPS graduates who did not participate in SBC coaching (43.5%).

TABLE 2.4 First College Type and Sector of College Enrollees

| | (A) BPS STUDENTS PARTICIPATING IN SUCCESS BOSTON COACHING | (B) BPS STUDENTS NOT PARTICIPATING IN SUCCESS BOSTON COACHING |
|-------------------|---|---|
| Ever Enrolled | | |
| Two-Year College | | |
| Public | 45.0% | 35.0% |
| Private | 0.0% | 0.9% |
| Four-Year College | | |
| Public | 23.6% | 19.7% |
| Private | 31.4% | 43.5% |

Sources: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data

Notes: Enrollment is cumulative enrollment (i.e., ever enrolled). First college type refers to the college in which students initially enrolled after high school. Column B does not sum to 100 percent because college type and sector were missing for 21 BPS students not participating in coaching.

Whether students enroll full-time or part-time differs for students who attend two-year or four-year colleges within one year of high school graduation. Chart 2.3 shows that both coached and non-coached students enrolled at two-year colleges more often enroll part-time (53.3% and 47% respectively) than their peers at four-year colleges. Over time, the percent of two-year college students enrolled part-time declines, to a low of about 30% in the sixth year after high school graduation (i.e., by 2014-2015). As part-time status declines for two-year college enrollees, it grows for four-year college enrollees; about one-quarter of these students were enrolled part-time by the sixth year after high school graduation.

CHART 2.3

Percent of First-Year College Students by Part-time Enrollment Status and Year



Source: : Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data Note: First year enrollment is by July 1, 2010.

The College Completion Experiences of the Success Boston Class of 2009

Once enrolled in college, students have varied experiences, pursue different pathways through college and complete at different rates. This section presents data on college completion rates, focusing on students who entered college in the academic year following high school graduation (2009-2010).

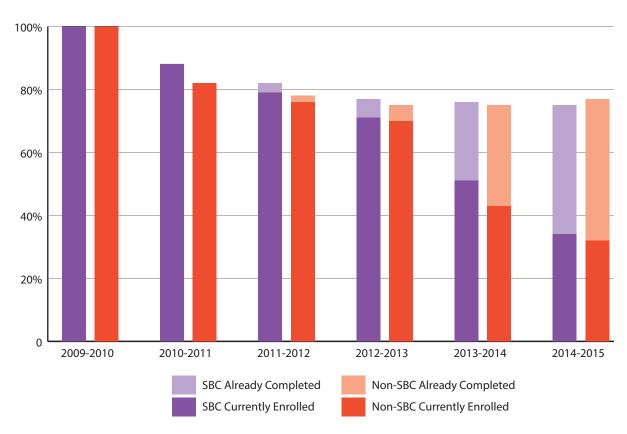
Just over 44% of high school graduates who participated in SBC completed college within six years of high school, compared to slightly more than one-third (35.9%) of the full cohort of 2009 BPS high school graduates who did not participate in coaching (see Table 2.5).

TABLE 2.5 Six-Year College Completion Rates for All BPS High School Graduates

| | (A) BPS STUDENTS PARTICIPATING IN SUCCESS BOSTON COACHING | (B) BPS STUDENTS NOT PARTICIPATING IN SUCCESS BOSTON COACHING |
|---------------------------|---|--|
| BPS high school graduates | 44.3% | 35.9% |

Source: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data Notes: Completion rates are calculated based on a six-year completion rate, 2009-2010 through 2014-2015. Chart 2.4 presents annual college enrollment and completion rates for BPS high school graduates who enrolled in college within the first year after graduation. The solid portions of the bars represent the proportion of first-year enrollees who enroll during each of the subsequent years, and the dotted portions represent the proportion of first-year enrollees who had already completed a degree in any of the previous years. Note that the bars are predominately solid for the first two years post-high school graduation, as very few students had already completed any degrees or certificates. The proportion of the bars representing completions increases each subsequent year: by 2014-2015, for example, the sixth year after high school graduation, 34.2% of first-year college enrollees who participated in SBC coaching were enrolled (represented by the solid portion of the bar), and 41% had already completed at least one credential (represented by the tinted portion of the bar). Starting in the third year after high school and continuing through the sixth year, the percent of SBC coached students who were enrolled in college or had previously completed

CHART 2.4 Annual College Enrollment and Completion Rates of First Year Enrollees, by Year



Source: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data

Chart Reads: As of the 2013-2014 academic year, 25.2% of the SBC first year enrollees had already completed at least one credential (as represented by the tinted portion of the bar) and another 51.3% were currently enrolled in college(represented by the solid por-

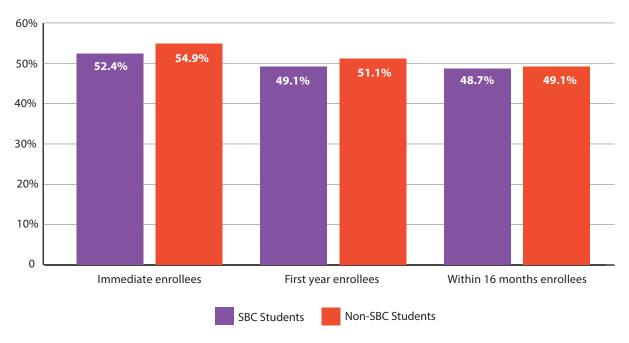
Notes: In the first year after high school graduation (2009-2010), 234 SBC students enrolled and 2,184 non-SBC students enrolled in college. Students may be counted multiple times if they completed a credential and re-enrolled afterwards (n = 412; 38 SBC and 374 non-SBC students). Students completing multiple credentials (n = 49; 4 SBC students and 45 non-SBC students) are counted once, in the year of their first credential completion.

a degree or certificate remains fairly consistent, at about 80% of first-year enrollees. Approximately 20% of first-year enrollees who participated in SBC coaching were neither enrolled nor had completed a credential between 2011-2012 and 2014-2015; these students were not continuing to pursue college education during this time period.

Each year, the SBC coached students are enrolled at a slightly higher rate than the non-SBC coached students. SBC coached students also completed at slightly higher rates after two and three years (e.g., 6.4% of SBC coached students had completed a credential by the beginning of the fourth year after high school (2012-2013), whereas 5.1% of non-SBC coached had done so). By the beginning of fifth and sixth years, however, the patterns reverse, and first-year non-SBC enrollees complete at moderately higher rates; by the sixth year after high school (2014-2015), 44.9% and 41%, respectively, of non-SBC and SBC coached students had completed a degree or certificate.

Chart 2.5 extends the completion rates through the sixth year. Overall, about one-half of the students who enrolled in college and participated in SBC had completed a certificate or degree within six years, or by the end of the 2014-2015 academic year. Completion rates for coached students are relatively similar whether students enrolled in college immediately after high school, within the first academic year, or within 16 months of high school graduation. Students who did not participate in SBC coaching have similar completion rates to the coached students; about one-half completed college, regardless of timing of college enrollment. It is also important to note that, while completion rates between the two groups are fairly

CHART 2.5 Six-Year College Completion Rates by Timing of Enrollment



Source: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data

Notes: Completion rates are calculated based on a six-year completion rate, 2009-2010 through 2014-2015. Immediate enrollment defined as enrolled in college by November 1, 2009. First year enrollment is enrollment by July 1, 2010. Enrollment within 16 months is based on enrollment by November 1, 2010.

similar, a higher proportion of non-SBC students enrolled in four-year colleges—which typically have higher completion rates than two-year colleges—than SBC students (see Chart 2.5).7

Some other students remain enrolled, and have not yet completed a degree or credential within six years of high school graduation. About 18% of the SBC coached students and 14.3% of non-SBC students were in this category.

Further examination of completion rates for subgroups of students, however, highlights important differences between first-year college enrollees who did and did not participate in SBC, particularly when examining students by gender and race/ethnicity. As shown in Table 2.6 below, the overall completion rates for Black and Hispanic SBC students—who represent the clear majority (82.6%) of coached students—were higher than or similar to completion rates of students who did not participate in SBC. In particular, over onehalf (51.7%) of Black male coached students and one-third of non-coached Black males had completed college.

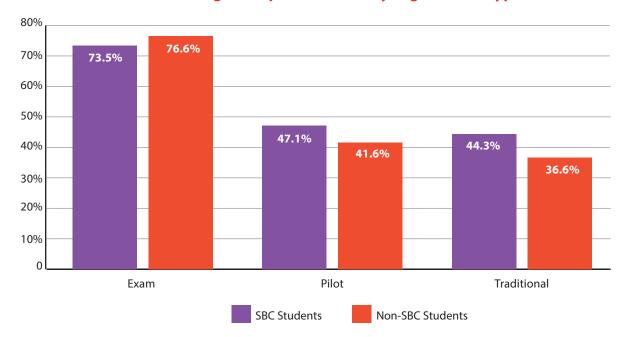
Similar to the results presented in the preceding chapter, Chart 2.6 shows that both coached and noncoached students who graduated from exam high schools have substantially higher completion rates than do students from pilot and traditional high schools.

TABLE 2.6 Six-Year College Completion Rates by Gender and Race/Ethnicity

| | (A) BPS STUDENTS PARTICIPATING IN SUCCESS BOSTON COACHING | (B) BPS STUDENTS NOT PARTICIPATING IN SUCCESS BOSTON COACHING |
|-------------------------|---|--|
| First year enrollees | | |
| Gender | | |
| Male | 35.2% | 42.9% |
| Female | 58.0% | 57.5% |
| Race/Ethnicity | | |
| Black / Total | 53.2% | 40.6% |
| Hispanic / Total | 45.1% | 44.4% |
| Asian / Total | 65.0% | 75.6% |
| White / Total | 40.9% | 65.0% |
| Race/Ethnicity * Gender | | |
| Black / Male | 51.7% | 32.8% |
| Hispanic / Male | 26.2% | 31.3% |
| Asian / Male | 50.0% | 67.9% |
| White / Male | 10.0% | 60.3% |
| Black / Female | 54.0% | 47.2% |
| Hispanic / Female | 56.3% | 53.0% |
| Asian / Female | 80.0% | 82.1% |
| White / Female | 66.7% | 69.0% |

Source: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data Note: First-year enrollees entered college by July 1, 2010.

CHART 2.6 Six-Year College Completion Rates by High School Type



Source: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data Notes: Pilot schools include in-district charter schools. Students enrolled in the first year or by July 1, 2010 are included. Exam schools graduated 39 SBC students and 821 non-SBC students, pilot schools graduated 55 SBC students and 665 non-SBC students, and traditional schools graduated 170 SBC students and 1,847 non-SBC students.

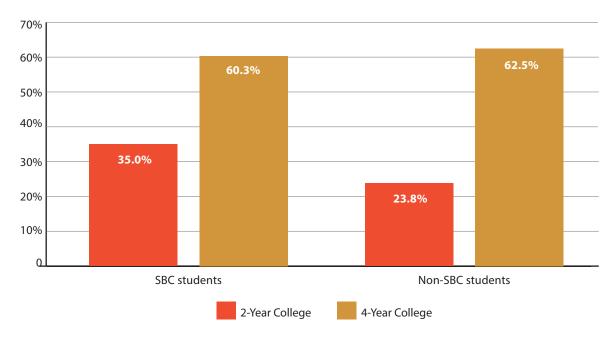
Not only are there differences by the type of schools from which students graduated, but there are differences in the college types (two- or four-year) they initially choose. Chart 2.7 compares completion rates by initial college type. For both SBC and non-SBC students, rates of completion are substantially higher for students first enrolled in four-year than two-year colleges.

Coached and non-coached students who initially enrolled in four-year colleges generally complete college at similar rates, about 60%, which is similar to the national six-year completion rate of 62% for the 2009 cohort. However, more SBC students who initially enrolled in two-year colleges completed a credential than their non-coached counterparts: 35% of SBC students and 23.8% of non-coached students completed within six years. While SBC students outperformed their peers, both groups fall short of the national completion rate of 41% for students initially enrolling in two-year colleges.

Some students do transfer between college types, most commonly transferring from two-year to four-year colleges (32% of SBC coached students made such a transfer and 25% of non-SBC coached students did so). On the whole, college completers typically complete at the same type of college at which they initially enrolled.

Further examination of completion shows that SBC students have higher completion rates at those colleges where they are most likely to enroll. Chart 2.8 shows the completion rates for students enrolled at the seven colleges that serve that majority of SBC students. The top seven colleges include two two-year colleges and five four-year colleges. 10 Together, these seven colleges served 83.7% of SBC coached students and 41.1% of non-coached students from the class of 2009. Students who participated in coaching at these seven colleges had a six-year completion rate of 49.3%, over 10 percentage points higher than the completion rate for students enrolled at these same colleges who did not participate in coaching.¹¹

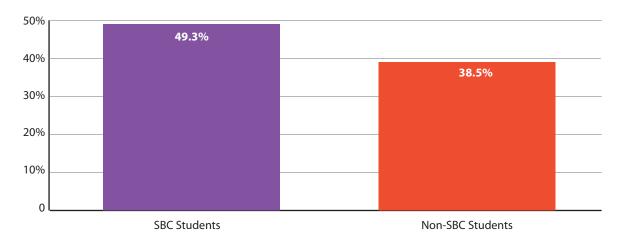
CHART 2.7 Six-Year College Completion Rates by First College Type



SOURCE: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data

Notes: First college type refers to the college type in which students initially enrolled. Students enrolled in the first year or by July 1, 2010 are included.

CHART 2.8 College Completion Rates for Students Enrolled at the Top 7 SBC- Serving Colleges



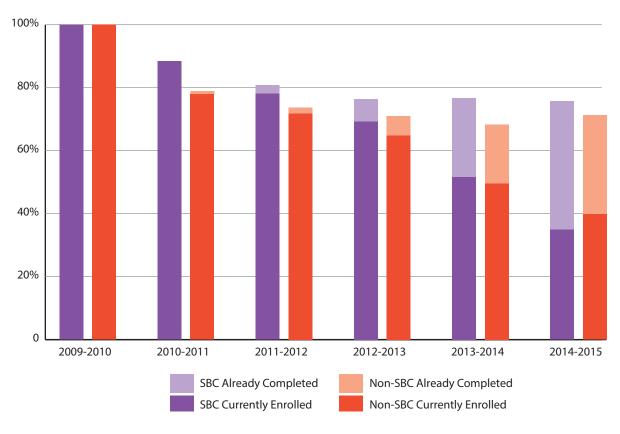
SOURCE: National Student Clearinghouse (NSC) data

Note: Table includes only students enrolled in the first year or by July 1, 2010 at the top seven SBC-receiving colleges. Top 7 Enrolling Colleges are defined as institutions serving the greatest number of SBC students from the 2009 cohort, including: Benjamin Franklin Institute of Technology, Bridgewater State University, Bunker Hill Community College, Northeastern University, Roxbury Community College, Suffolk University, and University of Massachusetts Boston.

Further, more than half (58.9%) of non-coached BPS graduates initially enrolled in other colleges than the top seven SBC-serving colleges; their completion rate at those colleges is substantially higher (64.1%) than the non-coached BPS graduates who enrolled in the top seven SBC-serving colleges (38.5%). The higher completion rate for students initially attending different colleges than those in which SBC students primarily enroll contributes to an overall greater completion rate for non-coached BPS students.

Chart 2.9 presents annual enrollment and completion rates for the students who enrolled at the top seven SBC-receiving colleges within the first year of high school graduation. Consistent with the six-year completion rates shown in Chart 2.8, SBC-coached students complete college at higher rates than non-SBC students in the first few years post-high school. By 2012-2013, two full academic years after high school graduation, the dotted portions of the bars show that 7% of the SBC coached and 6.2% of the non-SBC coached students had already completed a credential.

CHART 2.9 Annual College Enrollment and Completion Rates of First-Year Enrollees at the Top 7 SBC-Serving Colleges, by Year



Source: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data

Chart Reads: As of the 2013-2014 academic year, 25.2% of the SBC first year enrollees had already completed at least one credential (as represented by the tinted portion of the bar) and another 51.3% were currently enrolled in college (represented by the solid portion of the bar).

Notes: Table includes only students enrolled in the first year or by July 1, 2010 at the top seven SBC-receiving colleges (SBC = 215 enrollees and non-SBC = 1,113 enrollees). Top 7 Enrolling Colleges are defined as institutions serving the greatest number of SBC students from the 2009 cohort, including: Benjamin Franklin Institute of Technology, Bridgewater State University, Bunker Hill Community College, Northeastern University, Roxbury Community College, Suffolk University, and University of Massachusetts Boston. Students may be counted multiple times if they completed a credential and re-enrolled afterwards (n = 224; 36 SBC and 188 non-SBC students). Students completing multiple credentials (n = 29; 4 SBC students and 25 non-SBC students) are counted once, in the year of their first credential completion.

By the start of year six (2014-2015), the difference in completion rates between students who had and had not participated in SBC coaching had grown to over nine percentage points; 40.9% of SBC coached students had completed by the start of the 2014-2015 academic year whereas only 31.5% of the non-SBC coached students had done so. This completion advantage for SBC coached students continues to the six year completion rates shown in Table 2.7, where SBC coached students starting at these seven colleges complete at a rate that is over ten percentage points higher than the non-SBC coached students. In addition, 34.9% of SBC coached students and 39.8% of non-coached students were still enrolled in college in the beginning of the sixth year. Overall, this means that, by year six, over 70% of coached and non-coached students alike had either already completed college or were still persisting.

TABLE 2.7 Six-Year College Completion Rates by Gender and Race/Ethnicity for Students Enrolled at the Top 7 SBC-Serving Colleges

| | (A) BPS STUDENTS PARTICIPATING IN SUCCESS BOSTON COACHING | (B) BPS STUDENTS NOT PARTICIPATING IN SUCCESS BOSTON COACHING | (C) BPS STUDENTS NOT PARTICIPATING IN SBC COACHING AND NOT ENROLLED AT A TOP 7 COLLEGE | | |
|-------------------------|---|---|--|--|--|
| First year enrollees | | | | | |
| Gender | | | | | |
| Male | 35.8% | 28.5% | 58.2% | | |
| Female | 57.5% | 46.5% | 68.6% | | |
| Race/Ethnicity | | | | | |
| Black / Total | 53.5% | 30.4% | 52.9% | | |
| Hispanic / Total | 44.9% | 37.5% | 53.5% | | |
| Asian / Total | 70.6% | 60.3% | 88.3% | | |
| White / Total | 40.0% | 47.2% | 76.0% | | |
| Race/Ethnicity * Gender | | | | | |
| Black / Male | 53.8% | 24.0% | 44.4% | | |
| Hispanic / Male | 25.6% | 21.9% | 42.6% | | |
| Asian / Male | 57.1% | 42.9% | 89.2% | | |
| White / Male | 11.1% | 41.8% | 73.0% | | |
| Black / Female | 53.3% | 36.2% | 59.5% | | |
| Hispanic / Female | 55.9% | 47.1% | 61.2% | | |
| Asian / Female | 80.0% | 75.3% | 87.6% | | |
| White / Female | 63.6% | 52.4% | 78.4% | | |

Source: Boston Public Schools (BPS) student data; National Student Clearinghouse (NSC) data

Notes: Table includes only students enrolled in the first year or by July 1, 2010 at the top seven SBC-receiving colleges. Top 7 Enrolling Colleges are defined as institutions serving the greatest number of SBC students from the 2009 cohort, including: Benjamin Franklin Institute of Technology, Bridgewater State University, Bunker Hill Community College, Northeastern University, Roxbury Community College, Suffolk University, and University of Massachusetts Boston. Forty-four percent of all college enrollees from the BPS class of 2009 enrolled in one of these seven colleges.

Coached students from all but one racial/ethnic subgroups have higher completion rates at the top seven SBC serving colleges than non-coached students. Black students, especially young males who participate in coaching at these colleges, complete at much higher rates than the non-coached Black students (53.5% versus 30.4% overall, and 53.8% versus 24% for Black males specifically). There is one exception: White male SBC participants, who represent the smallest proportion of coached students (see Table 2.7).¹²

Chapter Two Discussion of Findings

Almost all SBC coached students enroll in college. The overwhelming majority of SBC students who enroll in college do so within 16 months of graduating from high school graduation. Across all gender and racial/ethnic subgroups, enrollment rates for coached students are higher than those for non-coached students. Differences in enrollment rates are most pronounced among Hispanic students, young men in particular: 85.7% of coached and 53.3% of non-coached Hispanic males enrolled in college within 16 months of graduation. Further, coached students who graduated from traditional and pilot high schools enrolled at higher rates than did non-coached students from these types of high schools. For example, 88.8% of SBC coached students who graduated from traditional high schools enrolled in college within 16 months of graduation, while 60.8% of non-coached students had done so.

Overall, about half of both groups of first-year enrollees, coached and non-coached, from the BPS graduating class of 2009 completed college within six years (49.1% and 51.1%, respectively). Differences in completion rates emerge, however, when focusing on twosubsets of students: one, those who enrolled in two-year colleges, and two those at local colleges and universities at which most SBC coached students enroll. Over one-third (35%) of SBC coached students initially starting at two-year colleges completed within six years, while just under one-quarter (23.8%) of non-coached students who initially enrolled in two-year college completed in the same timeframe. At the subset of local colleges enrolling the majority (84%) of SBC coached students and about half of all BPS 2009 graduates, 49% of the SBC coached students had completed a degree or certificate within six years while 39% of their non-coached peers had similarly completed. For comparison, as reported in "Getting to the Finish Line (2008)," 35% (later revised to 39%) of Class of 2000 college enrollees had earned a certificate, two-year degree, or four-year degree within the first seven years after high school.¹³

In addition to the 2009-2010 enrollees who completed a degree or certificate by the sixth year after high school graduation, some students were still enrolled in the sixth year but had not yet completed. About 18% of SBC coached students (42 students) who were still enrolled in 2014-2015 had not completed a degree or credential by the fall of 2015, as was the case for 14.3% non-SBC coached students (345 students). Continuing to follow the college experiences of the BPS class of 2009 is likely to yield a higher completion rate in future years.

It is possible that transition coaching helps to explain the difference in completion rates for students at these colleges; it is also possible that the differential reflects individual student characteristics related both to receptivity to coaching and motivation to complete college. More sophisticated analyses that can control for such individual characteristics can help determine whether participation in coaching causes greater college completion rates, and it is precisely that type of analysis that Abt Associates will conduct to assess the causal impact Success Boston transition coaching on college outcomes. The first report on SBC impact will examine the effect of coaching on college persistence for the BPS graduating classes of 2013 and 2014, and it will be available in early 2017.

Conclusion

Success Boston embarked on a very ambitious college completion agenda for graduates of the Boston Public Schools (BPS) back in 2008, setting college completion goals of 52% for the Class of 2009 and 70% for the Class of 2011. This study tracks the six-year college completion outcomes for the entire BPS Class of 2009 and for that year's Success Boston Coaching cohort. The study finds that the six-year college completion rate of first-year college enrollees from the BPS Class of 2009 was 51.3%, within one percentage point of the 52% completion rate goal.

Despite overall progress in raising the college completion rate of first-year enrollees close to the goal of 52%, there are important challenges for the Success Boston initiative and its partners to address. The Class of 2009 results reveal that more effort is needed to close the persistent gender and race/ethnic gaps in college enrollment and college completion. For example, the college completion rates ranged from a low of 31% for Hispanic males to a high of 83% for Asian females, a range of 52 percentage points. While more Black and Hispanic graduates are earning degrees due to higher rates of college enrollment, their college completion rates still significantly lag those of their White and Asian peers. These disparities in the college completion rates of BPS graduates mirror national gender and race/ethnic gaps. Substantial improvements in the college completion rates of Black and Hispanic students, particularly males, many of whom attended non-exam high schools, are needed to reach Success Boston's 70% college completion rate goal for the Class of 2011.

Overall college completion rates for graduates of the Boston Public Schools have improved—and the trends are very positive. There is no doubt that challenges remain for Mayor Marty Walsh, the Boston Public Schools and the partners in the Success Boston College Completion Initiative, especially when it comes to closing the gender and race/ethnicity gaps in college completion.

However, there is tremendous potential for Success Boston not only to improve the chances of Boston Public Schools graduates to go on and obtain a college degree, thus equipping them to participate in our region's economy, but also to build a college success model for other metropolitan areas struggling with the very same issues and challenges.

Appendix to Chapter One

Massachusetts Colleges with FERPA Blocks

While the NSC covers 98 percent of all colleges and universities, there are instances where institutions will not share students' enrollment data with the NSC. The Family Educational Rights and Privacy Act (FERPA) allows colleges and universities to disclose their student records to the NSC and other allowed parties without the students' written consent. However, students may request that their college or university withhold their enrollment data from student-level data released by the NSC. In addition, institutions may block sharing with educational organization requestors or other institution requestors. Institutionlevel blocking may also occur if a college is unable to accurately report student-requested blocks.

The National Student Clearinghouse estimated the number of students who requested that their data not be shared by their college or university during three academic years: 2010-2011, 2012-2013, and 2014-2015. The NSC also identified instances where a college blocked all of its students' data from being shared. For the 2010-11, 2012-13, and 2014-15 academic years, which are included within the timeframe of this study, NSC found that the percentage of enrolled Massachusetts's students with blocked data ranged from 2.11% to 2.73%. Overall, block rates at Massachusetts colleges are lower than the national average. The NSC also publishes a list of colleges with block rates above 10%.

Appendix Table A.1 shows the block rates and student populations for the five Massachusetts colleges with over a 10% block rate and at least 1,000 students enrolled over the three-year period. The five colleges are: Babson College, Brockton Hospital School of Nursing, Pine Manor College, School of the Museum of Fine Arts, and Berklee College of Music. College enrollment and graduation data on BPS graduates attending these schools may not be captured in this study as a result of the high share of their student

TABLE A.1 Colleges in Massachusetts with Over a 10% Block Rate and at Least 1,000 Students **Enrolled During Academic Years, 2010-11, 2012-13, and 2014-15**

| Institution | Total Enrollments (all three years) | Student blocks (N) | Student Blocks (%) | School Blocks (%) | Overall Block Rate |
|--|---|-----------------------|-----------------------|----------------------|-----------------------|
| Babson College | 9,702 | 2,116 | 21.8 | 100 | 100 |
| Brockton Hospital School of Nursing | 1,052 | 1,035 | 98.4 | 0 | 98.4 |
| Pine Manor College | 1,135 | 1,007 | 88.7 | 0 | 88.7 |
| School of the Museum of Fine Arts | 1,588 | 1,293 | 81.4 | 0 | 81.4 |
| Berklee College of Music | 11,528 | 1,486 | 12.9 | 0 | 12.9 |

Source: National Student Clearinghouse Research Center. *Impact of Directory Information Blocks on StudentTracker Results*. National Student Clearinghouse. Herndon, Virginia. June 2015.

Endnotes

Foreword

- 1. For a recent review, see Page, L. C., & Scott-Clayton, J. (2015). Improving College Access in the United States: Barriers and Policy Responses (No. w21781). National Bureau of Economic Research.
- 2. Kena, G., Musu-Gillette, L., Robinson, J., Wang, X., Rathbun, A., Zhang, J., Wilkinson-Flicker, S., Barmer, A., and Dunlop Velez, E. (2015). The Condition of Education 2015 (NCES 2015-144). U.S. Department of Education, National Center for Education Statistics. Washington, DC. Retrieved August, 3, 2015 from http://nces.ed.gov/ pubsearch.
- 3. https://www.whitehouse.gov/the-press-office/2015/05/01/remarks-first-lady-college-signing-day-eventdetroit-mi
- 4. Bailey, M.J. & S.M. Dynarski. (2011). Gains and gaps: Changing inequality in U.S. college entry and completion. In G.J. Duncan and R.J. Murnane (eds.), Whither Opportunity? Rising Inequality, Schools, and Children's Life Chances. Russell Sage: New York, New York.
- 5. Kena, G., Musu-Gillette, L., Robinson, J., Wang, X., Rathbun, A., Zhang, J., Wilkinson-Flicker, S., Barmer, A., and Dunlop Velez, E. (2015). The Condition of Education 2015 (NCES 2015-144). U.S. Department of Education, National Center for Education Statistics. Washington, DC. Retrieved August, 3, 2015 from http://nces.ed.gov/ pubsearch.
- 6. Iriti, J., Page, L. C., & Bickel, W. (2016). Place-based scholarships: Catalysts for systems report to improve postsecondary attainment. University of Pittsburgh working paper.
- 7. Authors calculations using NCES QuickStats, BPS:2009 Beginning Postsecondary Students.

Introduction and Highlights

- 1. Sum, Andrew, Khatiwada, Ishwar, et. al., "An Assessment of the Labor Market, Income, Health, Social, Civic, and Fiscal Consequences of Dropping Out of High School: Findings for Massachusetts Adults in the 21st Century," Center for Labor Market Studies. Northeastern University. Prepared for the Boston Private Industry Council. January 2007.
- 2. U.S. Census Bureau, American Community Surveys, 2009-2014, 5-year file, in 2014 dollars.
- 3. Goldin, Claudia and Katz, Lawrence F., The Race Between Education and Technology, Harvard University Press, Cambridge, MA, 2008.
- 4. See: i) Mirowsky, John and Ross, Catherine E., "Education, cumulative advantage, and health." Ageing International. Winter 2005, ii) Cutler, David and Lleras-Muney, Adriana, "Education and Health: Evaluating Theories and Evidence", Working Paper 12352. National Bureau of Economic Research, June 2006, and iii) Haut, Michael, "Social and Economic Returns to College Education in the United States." The Annual Review of Sociology. 2012.
- 5. Sum, Andrew, Fogg, Neeta, Khatiwada, Ishwar, McLaughlin, Joseph, and Palma, Sheila, "Getting to the Finish Line: College Enrollment and Graduation" Prepared for the Boston Private Industry Council and the Boston Public Schools, Boston, 2008.
- 6. For a review of higher education's Success Boston strategy, see: Ann Coles and Joan Becker, "Getting Through: Higher Education's Plan to Increase the College Completion Rates of Boston Public Schools Graduates," Prepared for Success Boston, May 2011.

7. Sum, Andrew, Khatiwada, Ishwar, McHugh, Walter, Palma, Sheila, Getting Closer to the Finish Line: The College Enrollment and Completion Experiences of Graduates of the Boston Public Schools. Prepared for the Boston Private Industry Council and the Boston Foundation, Boston, 2013.

Chapter 1

- 1. Using NSC StudentTracker for High Schools Reports: Considerations for Measuring the College Enrollment Rates of High School Graduates, (December 2014) https://nscresearchcenter.org/wp-content/uploads/Considerationsin-Using-NSC-STHS-Reports.pdf
- 2. Sum, Andrew, et. al., Getting to the Finish Line. 2008.
- 3. Shapiro, D., Dundar, A., Wakhungu, P.K., Yuan, X., Nathan, A. & Hwang, Y. Completing College: A National View of Student Attainment Rates—Fall 2009 Cohort (Signature Report No. 10). Herndon, VA: National Student Clearinghouse Research Center. November 2015.
- 4. Appendix A describes the impact of Family Education Rights and Privacy Act (FERPA) blocks on the enrollment information in the NSC database.
- 5. The primary entrance point for the exam high schools is the 7th grade, though students also enter in the 9th grade as well.
- 6. For a review of the specific strategies for boosting college readiness and enrollment, see: http://www.tbf. org/tbf/55/success-boston/about.
- 7. Due to student FERPA blocks and the fact that some students attend colleges that do not submit enrollment records to the NSC, the actual college enrollment rate for BPS graduates may be slightly higher than the rates reported in Chart 1.1. The NSC estimates that only 2.2% to 2.7% of Massachusetts college students' records were blocked in recent years. Adjustments were not made to the college enrollment rate to reflect missing enrollments.
- The NSC data file used for this analysis did not include a couple of high schools for more recent years, so this trend ends at 2011. A future analysis will update the recent trends on enrollment through the Class of 2015.
- 9. Sum, Andrew, et. Al., Getting Closer to the Finish Line. (2013).
- 10. PIC analysis of National Student Clearinghouse data
- 11. For estimates of the college enrollment rates of individual high schools, see: Massachusetts Department of Elementary and Secondary Education (DESE). "Graduates Attending Higher Education," Classes of 2005-2014.
- 12. Nearly 85% of all college enrollees from the Class of 2009 enrolled in the first year.
- 13. Sum, Getting Closer to the Finish Line, (2013).
- 14. Sum, Getting Closer to the Finish Line, (2013).
- 15. For an earlier review on how Class of 2005 graduates fared in the first two years of college at varying types of postsecondary institutions, see: Stoutland, Sara E., and Ann S. Coles, "Who's Making It: The Academic Achievement of Recent Boston Public School Graduates in the Early College Years," Prepared for TERI and The Boston Foundation, April 2009.
- 16. Sum, Getting Closer to the Finish Line, (2013), p. 52.
- 17. The inverse of this is true as well. If BPS Class of 2009 graduate first enrolled at a four-year college, but later transferred to a two-year college and earned a degree from the two-year school, he/she would be reported as a graduate from where he or she first attended college, which would be a four-year college. There are only a few cases where students left a four-year school and eventually obtained a two-year degree.

- 18. In some cases, the actual credential earned from a four-year college or university may be a certificate or Associate's degree, but the vast majority of credentials earned were Bachelor's degrees.
- 19. Most of the graduates from less than two-year institutions completed a credential at Everest Institute. Everest Institute was a less than two-year institutions with multiple campuses in Massachusetts. Everest College is separate institution that awards two-year degrees and is classified as a two-year college in the NSC data.
- 20. Sum, Getting Closer to the Finish Line, (2013), p. 46.
- 21. Shapiro, Douglas, Completing College: A National View of Student Attainment Rates—Fall 2009 Cohort, November 2015.
- 22. These findings should be interpreted carefully. BPS graduates attend a different mix of schools than the national average. Specifically, more BPS graduates attend four-year private colleges than the national peers. This is due to the much higher concentration of private colleges and universities in Massachusetts and the New England region relative to other parts of the U.S.
- 23. The reporting period in Getting Closer for this analysis was six and one-half years, one semester longer than the reporting period for the BPS Class of 2009.
- 24. Sum, Getting Closer to the Finish Line, (2013), p. 39.

Chapter 2

- 1. See, for example, Bettinger, E. P. and Baker, R. B. 2014. The Effects of Student Coaching: An Evaluation of a Randomized Experiment in Student Advising. Educational Evaluation and Policy Analysis, 36(1): 3-19; Carrell, S. E. and and Sacerdote, B. 2013. Late Intervention Matter Too: The Case of College Coaching New Hampshire. National Bureau of Economic Research Working Paper 19031. Cambridge, MA: National Bureau of Economic Research; Castleman, B. L., Arnold, K. C., and Wartman, K. L. 2012. Stemming the tide of summer melt: An experimental study of the effects of post-high school summer intervention on low-income students' college enrollment. Journal of Research on Educational Effectiveness, 5: 1-18; Castleman, B. L., and Page, L. C., and Schooley, K. (2014). The Forgotten Summer: Does the Offer of College Counseling After High School Mitigate Summer Melt Among College-Intending, Low-Income High School Graduates? Journal of Policy Analysis and Management, 33(2): 320-344; Stephan, J. L. and Rosenbaum, J. E., 2013. Can High Schools Reduce College Enrollment Gaps with a New Counseling Model? Educational Evaluation and Policy Analysis, 35(2): 200-219; Sum, Andrew, Khatiwada, Ishwar, McHugh, Walter, Palma, Sheila, Getting Closer to the Finish Line: The College Enrollment and Completion Experiences of Graduates of the Boston Public Schools. Prepared for the Boston Private Industry Council and the Boston Foundation, Boston, 2013.
- 2. Sum, Andrew, Khatiwada, Ishwar, McHugh, Walter, Palma, Sheila, Getting Closer to the Finish Line: The College Enrollment and Completion Experiences of Graduates of the Boston Public Schools. Prepared for the Boston Private Industry Council and the Boston Foundation, Boston, 2013.
- 3. In 2009, the network included five Boston nonprofit organizations; since then, the network has expanded, and as of April 2016, includes nine non-profit organizations.
- 4. In 2015, the Boston Foundation received grant funding from the Corporation for National and Community Service's Social Innovation Fund (SIF); the SIF grant requires nonprofit partners to secure matching funds.
- 5. An additional 15 students who participated in coaching in the 2009-2010 academic year were not 2009 BPS graduates.

- 6. Bifulco, R. 2012. Can Nonexperimental Estimates Replicate Estimates Based on Random Assignment in Evaluations of School Choice? A Within-Study Comparison. Journal of Policy Analysis and Management, 31(3): 729-75; St.Clair T, Cook T.D., Hallberg, K. 2014. Examining the Internal Validity and Statistical Precision of the Comparative Interrupted Time Series Design by Comparison with a Randomized Experiment. American Journal of Evaluation, 35(3): 311-327; Steiner, P., T. D. Cook, W. Shadish. (2011). On the importance of reliable covariate measurement in selection bias adjustments using propensity scores. Journal of Educational and Behavioral Statistics, 36(2): 213–36.
- 7. National data show that 59% of first-year full-time students at four-year colleges graduate within 150% time (or six years), while only 29 percent of first-year full-time students at two-year colleges graduate within 150% time (or three years) (U.S. Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), Spring 2014).
- 8. Shapiro, D., Dundar, A., Wakhungu, P.K., Yuan, X., Nathan, A. & Hwang, Y., Completing College: A National View of Student Attainment Rates—Fall 2009 Cohort (Signature Report No. 10). Herndon, VA: National Student Clearinghouse Research Center, November 2015.
- 9. Shapiro, Dundar D., et al., 2015.
- 10. The seven institutions enrolling the greatest number of Success Boston students from the 2009 cohort include: Benjamin Franklin Institute of Technology, Bridgewater State University, Bunker Hill Community College, Northeastern University, Roxbury Community College, Suffolk University, and University of Massachusetts Boston.
- 11. Of note is the fact that the Integrated Postsecondary Education Data System (IPEDS) reports completion rates at these top seven Success Boston colleges that vary substantially, ranging from 11% to 83% of first-year fulltime students. These rates are not fully comparable to the completion rates presented in this report, as the IPEDS rates are for 150% of normal time based on the type of college, where 150% is three years at two-year colleges and six years at four-year colleges. For community colleges, this means that IPEDS reports threeyear completion rates, instead of the six-year rates reported here. Furthermore, IPEDS reports completion rates for first-year full-time students, whereas this report does so for all enrolled students, regardless of their enrollment status. (U.S. Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), 2013).
- 12. Note that there are very few White male SUCCESS BOSTON participants (12 in total).
- 13. Sum, Andrew, Fogg, Neeta, Khatiwada, Ishwar, McLaughlin, Joseph, and Palma, Sheila, Getting to the Finish Line: College Enrollment and Graduation, Prepared for the Boston Private Industry Council and the Boston Public Schools, Boston, 2008.

Appendix

1. National Student Clearinghouse Research Center. Impact of Directory Information Blocks on StudentTracker Results, 43.

