

Prepared by
The Boston Private Industry Council
for Success Boston

Staying the Course

Six-Year College Enrollment and Completion
Experiences of BPS Class of 2011 Graduates



About Success Boston

Success Boston is a college completion initiative dedicated to increasing the number of Boston Public Schools graduates who earn post-secondary credentials. The partners include the Boston Foundation, the City of Boston, the Boston Public Schools (BPS), the Boston Private Industry Council (PIC), 37 higher education institutions—led by UMass Boston and Bunker Hill Community College—and local nonprofit organizations. Success Boston is focused on low-income, first-generation students of color. The initiative was launched in 2008 in response to a study released by the Center for Labor Market Studies at Northeastern University and the PIC, which showed that only 35% of BPS graduates who had enrolled in college completed an Associate’s or Bachelor’s degree by the time they turned 25. Success Boston’s theory of change is that cross-sector partnerships, guided by data and mutual accountability, will significantly change the post-secondary trajectory for BPS graduates. Success Boston’s strategic framework focuses on helping Boston’s high school students “Get Ready, Get In and Get Through” college, then “Get Connected” to jobs. One of Success Boston’s intervention efforts is a coaching model. Other key activities within this framework include improving academic preparation and offering as-needed supports through higher education institutions until students successfully attain a degree prepared to enter the workforce.

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.

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A Report of

The Boston Private Industry Council

for

Success Boston

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Foreword

It is hard to exaggerate the growing importance of obtaining a college degree to success in work and in life in the United States. Americans with no more than a high school degree have fallen so far behind college graduates that the lifetime earnings gap has reached its widest point on record. The typical Bachelor's degree holder earns on average nearly twice what the typical high school graduate earns—and those without college degrees face severely dwindling opportunities for jobs that pay well and offer family-sustaining benefits.

College graduates are also far more likely to participate in our country's civic life. In the most recent presidential election, there was a 22-point turnout gap between those with a Bachelor's degree and those with only a high school diploma. There is even a gap in life expectancy between highly educated people and everyone else.

Ten years ago, in 2008, an unprecedented partnership was formed and an experiment took shape. The Center for Labor Market Studies at Northeastern University and the Boston Private Industry Council (PIC) released a landmark study showing that only 35 percent of the Boston Public Schools (BPS) Class of 2000 graduates who enrolled in college earned a degree within seven years.

In response, the Boston Foundation, the City of Boston, the BPS, the PIC and 37 area institutions of higher education—led by UMass Boston and Bunker Hill Community College—joined forces with nonprofits across the city. We named our partnership Success Boston and we developed a coaching model to help Boston's high school students “get ready, get in and get through” college—later expanding our strategy to help students “get connected” to jobs.

Our ambitious goal was to double the college completion rate in just 10 years—and in the interim increase it by 50 percent. In 2016, we released a report which found that we had met our interim goal. However, it also made it clear that we were not on track to double the rate for the Class of 2011, which would have placed us far above the national average.

Previous reports and this one, however, contain a great deal of promising news. Today, Boston's high school graduates are enrolling in and completing college at record rates. The BPS Class of 2011 sent 2,739 students on to college—80.5 percent of that year's graduates. Students are also completing college at record-high rates: 52 percent of BPS Class of 2011 graduates who enrolled in college the first year after high school completed a degree within six years.

Because of growing enrollment and completion, Boston has also made great strides in increasing the number of college graduates from each high school class: A total of 1,304 BPS graduates from the Class

of 2011 earned a college degree, up 77 percent from the 735 graduates of the Class of 2000. Overall, as a result of these positive trends, the percentage of each high school class obtaining a postsecondary credential in six years—regardless of when they enrolled in college—rose from 25 percent for the Class of 2000 to 38 percent for the Class of 2011, amounting to an increase in excess of 50 percent.

In this report, Boston is also compared to the nation. The six-year college completion rate for first-time fall 2011 enrollees at the nation's two and four-year colleges and universities was 61.7 percent, compared to 55.2 percent for BPS Class of 2011 graduates who enrolled in the fall after high school. This is significant, since more than 80 percent of Boston's high school students are low income and many are the first in their families to go to college, whereas national rates include not only urban schools with similar students, but suburban schools serving more middle-class and affluent populations.

Students going to two-year public colleges, who typically have more barriers to enrolling in and staying in school, are also faring better than 10 years ago. Almost 37 percent of students from the BPS Class of 2011 who enrolled in a two-year college are either still enrolled or have completed a two-year or four-year college.

Success Boston activities addressing academic, logistical and financial barriers to college underlie this progress. Today, more than 1,000 graduates from each BPS class, up from 313 for the Class of 2011, work with a transition coach who helps them navigate any and all challenges in college during their first two years. A recent report from the formal evaluation of Success Boston's transition coaching found that it has large, positive and statistically significant impacts on students' persistence and academic achievement.

In conjunction, community colleges have worked diligently to move students out of developmental coursework and into credit-bearing classes as soon as possible. These efforts include summer boot camps, exploring new ways to assign students to credit-bearing coursework and piloting methods of delivering developmental and credit-bearing courses simultaneously. Boston and the Commonwealth have also launched college affordability programs to help students tackle financial barriers to college.

This report contains a number of findings that will inform Success Boston strategies going forward. Class of 2011 graduates who delayed enrolling in college, even by one semester, were less likely to complete. Students who began in two-year colleges and enrolled continuously for the first four semesters had substantially higher completion rates than those students who took off at least one semester. And, while more Black and Hispanic/Latino graduates are earning degrees than ever before, they still lag behind their White and Asian peers.

We must—and will—continue to seek ways to address these challenges and disparities for future graduating classes. For example, in 2017, Success Boston was awarded a Talent Hub grant from the Lumina Foundation, which will support the creation of clear, structured pathways for many of these students, with Bunker Hill Community College and UMass Boston piloting the program. More broadly, we will continue to foster curriculum alignment and rigor—between K-12 and higher education—that will further ensure that our students graduate high school ready for postsecondary studies and complete college prepared for successful careers in the Greater Boston economy, particularly in high-growth industries.

When we began this work, it was unusual for a major city to take responsibility for the success of its students beyond high school. Today we reaffirm our commitment to moving beyond a K-12 approach by continuing our collective efforts to build pathways that connect Pre-K through high school graduation to postsecondary success.

We want to thank all of our institutional and academic partners, our generous funders, our inspiring coaches—and especially the students who put their faith in us and teach us so much every year. Clearly, they trust that, more than anything, we want them to succeed. One of our coaches, Danielle Galloway, puts it this way: “Success Boston says to students, ‘Your city believes in you. Boston has your back.’”

Paul S. Grogan, *President and CEO*, The Boston Foundation

Tommy Chang, *Superintendent*, Boston Public Schools

Pam Eddinger, *President*, Bunker Hill Community College

Barry Mills, *Interim Chancellor*, University of Massachusetts Boston

Kenneth C. Montgomery, *Chair*, Boston Private Industry Council

Introduction and Report Highlights

Success Boston is Boston's citywide college completion initiative. Together, the Boston Foundation, the Boston Public Schools (BPS), the City of Boston, the Boston Private Industry Council (PIC), and 37 area institutions of higher education, led by University of Massachusetts Boston and Bunker Hill Community College, 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 and the PIC, which showed that only 35% (later revised to 39%) of those Class of 2000 BPS graduates who had enrolled in college had completed a postsecondary certificate, Associate degree, or Bachelor's degree within seven years of graduation from high school.¹ Together, the partner organizations implemented a three-phase 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.² Recently, in recognition that a college degree alone is not enough, Success Boston expanded its mission to include a fourth strategy, "Getting Connected," to connect students with the labor market while they are in school and upon completion of a postsecondary credential. The partners also committed to tracking and publicly reporting the data on the longitudinal outcomes as part of shared accountability for dramatically improving the postsecondary outcomes of BPS students.

Since the initiative launched in 2008, Success Boston partners have been working to increase academic rigor and enhance college awareness among students and families in order to increase the number of college and career-ready high school graduates. This includes efforts to boost FAFSA completion rates, and provide resources to students and families to help them understand college costs and financial aid packages and make informed choices about the college they choose to attend.³ The City of Boston, the BPS, and Boston After School and Beyond have coordinated after-school and summer programming to integrate academic and non-academic skill development in out-of-school settings. The initiative's signature intervention, college transition coaching, provides one-on-one coaching support to students through the first two years of college.⁴ Success Boston's higher education partners have developed campus-based interventions to help students get in and persist toward a college degree.⁵

The Success Boston initiative began with a goal of increasing the college completion rate of the BPS Class of 2009 to 52% (which was 50% above that of the originally reported rate of 35% for the Class of 2000), and then doubling the completion rate to 70% for the BPS Class of 2011 and subsequent classes. The initiative measures progress toward this goal by tracking the six-year college completion rate of "first-year enrollees"—BPS graduates who enroll in college during the immediate fall semester or the following spring semester after high school graduation. In June 2016, the PIC and Abt Associates prepared a report for the Success Boston initiative titled, *Reaching for the Cap and Gown: Progress Toward Success Boston's College Completion Goals for Graduates of the Boston Public Schools*. The report found that the six-year college completion rate for first-year college enrollees from the BPS Class of 2009 was 51.3%, within one percentage

point of the 52% completion rate.⁶ However, the report made clear that the trend in six-year college completion rates would not put Boston on track to be near the 70% goal for the BPS Class of 2011. With six years of postsecondary data now available, this new report analyzes college enrollment and completion outcomes for the BPS Class of 2011.

About the Report

The purpose of this report is to provide comprehensive longitudinal outcome data, disaggregated for student and school subgroups, on the six-year college enrollment and completion experiences of the BPS Class of 2011. As high school and college students, the BPS Class of 2011 experienced the Getting Ready, Getting In, and Getting Through strategies and activities launched and coordinated under the Success Boston initiative, including the 313 Class of 2011 graduates that received transition support and coaching as part of the Success Boston postsecondary coaching program. However, this report is not designed to assess the effectiveness of these strategies or any particular intervention. The findings in this report are descriptive.

The report begins with a description of the data sources and definitions used and the size and characteristics of the BPS Class of 2011. The trends in college enrollment and completion rates for the BPS Classes of 2000 to 2011 will be described. The college enrollment and completion findings for the Class of 2011 are disaggregated by student subgroups, including by demographic groups, and by type of high school and college attended. The enrollment patterns and full-time/part-time statuses of students are analyzed to understand how completion rates differ by enrollment behavior. This report also examines the types of degrees and fields of study of college graduates from the BPS Class of 2011. The measurement of these key outcomes, including trends analysis, is designed to inform current strategies and programs as well as new strategies to boost college completion.

Report Highlights

This report tracks the postsecondary enrollment and completion experiences of the BPS Class of 2011 for six years after high school. The key findings on college enrollment and completion experiences are the following.

COLLEGE ENROLLMENT IS RISING, BUT GENDER AND RACE-ETHNIC GAPS REMAIN

- The Success Boston initiative measures progress toward its college completion goals for the Classes of 2009 and 2011 by tracking the six-year college completion rate of “first-year enrollees.” Of the 3,401 BPS Class of 2011 graduates, 2,397, or 70.5%, enrolled in college during the first year after graduating. Since the Class of 2005, the first-year enrollment rate has increased by 9 percentage points.
- This report also tracks college enrollment rates through the six years after high school. Nearly 81% of BPS Class of 2011 enrollees attended a postsecondary institution during the six years after high school, up 14 percentage points from 67% for the BPS Class of 2000, the first class tracked for six years after high school.

- Gender and race-ethnic gaps in the first-year enrollment rates of BPS Class of 2011 graduates persist. The first-year college enrollment rate of female graduates was 10.9 points higher than that of male graduates, with 75.6% of female graduates enrolling the first year after graduating and 64.7% of male graduates enrolling the first year after graduating. Among the four major race-ethnic groups from the BPS Class of 2011, first-year college enrollment rates were 64.8% for Hispanic/Latino graduates, 68.1% for Black students, 78.3% for White graduates, and 84% for Asian graduates.
- The majority of BPS Class of 2011 graduates (61%) first attended a four-year public or private institution. The balance first attended two-year public institutions (37%) and a small share first attended two-year private institutions (2%).

COLLEGE COMPLETION EDGES HIGHER

- Through six years, the college completion rate for the BPS Class of 2011 first-year enrollees is 52%. While this college completion rate is lower than the very ambitious target of 70% set back in 2008 at the launch of Success Boston, it is the highest recorded to date for BPS graduates. It is also clear that since the first longitudinal tracking results on the BPS Class of 2000 were released in 2008, college completion rates have increased sharply.
- This report also tracks college completion as a percentage of the high school graduating class. The percentage share of the high school class obtaining a postsecondary credential in six years has increased from 24.7% for the Class of 2000 to 38.3% for the Class of 2011, a 14 percentage point gain. Of the 3,401 graduates from the Class of 2011, a total of 1,304 have earned a college degree, up 77% from the 735 college graduates from the Class of 2000.

GENDER AND RACE-ETHNIC GAPS IN COLLEGE COMPLETION PERSIST

- Despite the upward trends in completion rates, the Class of 2011 results reveal that gender and race-ethnic gaps in college completion remain wide. The college completion rate of the female Class of 2011 first-year enrollees exceeded that of males by 13 percentage points (57.1% to 44.3%). When examining gender and race-ethnic subgroups, college completion rates of first-year enrollees ranged from lows of 33.6% and 36.1% for Hispanic/Latino and Black males to highs of 71% and 80% for White and Asian females, respectively. While more Black and Hispanic/Latino graduates are earning degrees than before due to higher rates of college enrollment and improving college completion rates, their college completion rates still substantially lag behind those of their White and Asian peers.

COLLEGE COMPLETION RATES OF BPS CLASS OF 2011 ENROLLEES VARY BY TYPE OF HIGH SCHOOL AND COLLEGE ATTENDED

- This report disaggregates college completion findings of BPS Class of 2011 graduates by high school and type of college attended to provide more detail on the sources of aggregate college completion rate performance. However, the findings should be interpreted cautiously and are not intended to be measures of comparative effectiveness of high schools or colleges. The academic backgrounds, demographic characteristics, and family income backgrounds of students differ substantially across schools and independently influence college completion outcomes.⁷

- On the high school side, nearly 77% of the city's exam school graduates enrolling in college earned a degree within six years. For BPS Class of 2011 graduates from other school types, the six-year college completion rate is less than 50%. The college completion rate of the district's pilot schools is 47%; for traditional schools, it is 38%.
- At the postsecondary level, BPS Class of 2011 graduates that enrolled in four-year public and private institutions had substantially higher completion rates than those that enrolled in two-year institutions. Six-year college completion rates of BPS Class of 2011 first-year enrollees ranged from 24.0% at two-year public institutions to 63.8% at four-year public and 67.3% at four-year private institutions.

NATIONAL COMPARISONS OF COMPLETION RATES

- The college completion rates of BPS Class of 2011 graduates are compared to U.S. averages for the fall 2011 cohort of first-time, under 21 years of age enrollees. In the U.S., six-year college completion rate of fall enrollees was 61.7% compared to 55.2% for BPS Class of 2011 immediate fall enrollees, a difference of 6.5 percentage points.
- The six-year college completion rates of BPS Class of 2011 fall enrollees at two-year public institutions were 15 percentage points below that of their peers at two-year institutions across the country. At four-year institutions, BPS graduates trailed the national averages by 3.5 percentage points at four-year public institutions and 10 percentage points at four-year private institutions.

ENROLLMENT PATTERNS OF BPS CLASS OF 2011 ENROLLEES

- BPS Class of 2011 enrollees that delayed the start of college, even by one semester, were substantially less likely to complete college than those that enroll immediately. Among two-year public institutions, BPS Class of 2011 college completion rates ranged from 26.3% for those starting in the immediate fall semester to 16.5% and 11.0% for those that began one semester later in the spring or in the following year. Though most four-year institution enrollees begin in the immediate fall semester, a similar pattern prevailed. The college completion rate of immediate fall enrollees at four-year institutions was 67.1%, and declined by half to 34.5% for spring 2012 enrollees, and 28.2% for later enrollees.
- This report describes the enrollment patterns of Class of 2011 enrollees through the first four semesters of their college experience. Of the 618 Class of 2011 graduates who started in the immediate fall semester at two-year institutions, over half (53.6%) took at least one semester off during their first two academic years, another 30.6% were continuously enrolled but mixed full-time and part-time statuses, and 6.8% continuously enrolled but at part-time status throughout the four semesters. Only 9.1% enrolled continuously through the four semesters and maintained a full-time course load.
- The six-year college completion rate was highest for two-year college enrollees that enrolled full-time for all four semesters with nearly 70% completing a credential. Among the other two groups that enrolled continuously, college completion rates were substantially higher for enrollees who alternated between full-time and part-time status, with 39.4% completing compared to 19.0% for those that enrolled at part-time levels. The final group, those that took off at least one semester during the first two academic years, had a six-year college completion rate of 8.2%.

DEGREES EARNED AND FIELDS OF STUDY

- This report presents information on the types of degrees and fields of study of college completers from the BPS Class of 2011 and provides comparisons to all degrees earned at Massachusetts and Greater Boston area colleges and universities in 2016. Over 80% of the first postsecondary credentials earned were Bachelor's degrees, followed by nearly 15% at the Associate degree level and 5% being postsecondary certificates.
- The most common fields of study for Bachelor's degree earners were social and behavioral sciences, arts, humanities and English, and business. Of Bachelor's degree completers, a greater share of BPS Class of 2011 graduates completed degrees in liberal arts and sciences, general studies and humanities, and psychology, compared to the shares of degrees awarded at Massachusetts and Greater Boston area colleges and universities in 2016. STEM areas of study account for 20% of the Bachelor's degrees earned by BPS Class of 2011 graduates.
- Among two-year degree completers, the most common fields of study were liberal arts and sciences, general studies and humanities, and business. Associate degree earners from the BPS Class of 2011 have a higher share of liberal arts and sciences, general studies, and humanities degrees and a lower share of health professions degrees compared to all Associate degree earners at Massachusetts and Greater Boston area colleges in 2016.

LOOKING AHEAD: ONE AND TWO-YEAR PERSISTENCE RATES FOR BPS CLASSES OF 2009-2015

- The final section of this report examines one-year and two-year persistence rates for the Classes of 2009 to 2015. The purpose of this analysis is to detect trends in college persistence behavior for more recent classes. One-year persistence rates for all immediate fall enrollees from the Classes of 2009 to 2015 have hovered around 80% with the exception of 2010 and 2013 when they bumped up slightly to 83% and 82%.
- The one-year persistence rates of fall enrollees at two-year colleges—generally in the 60% to 67% range—were lowest for the Classes of 2014 and 2015, a finding that should be monitored closely to determine if it is part of a trend.
- Two-year persistence rates were steady through the Classes of 2009 to 2013, ranging between 73% and 75%, but dipped to 70.5% for the Class of 2014, the most recent class with two years of persistence data.

BPS Class of 2011 College Enrollment and Completion Experiences

Data Sources and Key Definitions

This study is based on two primary data sources: Boston Public Schools (BPS) student records and the National Student Clearinghouse (NSC). To conduct this longitudinal study, the PIC received a list of all BPS graduates from the Classes of 2009 to 2016. The BPS Class of 2011, the focus of this report, includes all graduates from the 2010-11 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 member of the graduating class. The PIC matches these background characteristics from the student's high school record with the NSC's *StudentTracker* file provided to the PIC by the BPS to create a longitudinal file containing demographics, high school attended, and postsecondary enrollment and completion records.

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), if the college is public, private (not for profit), or private (for profit), and students' full-time/ part-time status. 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 or university to the NSC. NSC covers 98% of postsecondary institutions and 96% of U.S. college student enrollments.

To track college completion outcomes for the BPS Class of 2011 and compare them to previous analysis of BPS classes and make comparisons to national studies, this report uses multiple measures of enrollment and completion. For enrollment, the report groups students into the following cohorts based on their first semester in college:

- **FIRST-YEAR COLLEGE ENROLLEES:** BPS graduates who first enroll in college in the first academic year after high school. For some analyses, this group is further divided into:
 - **IMMEDIATE FALL ENROLLEES:** BPS graduates who first enroll in college during the immediate fall semester following high school graduation.
 - **SPRING ENROLLEES:** BPS graduates who first enroll in college in the spring semester after high school graduation.
- **LATER ENROLLEES:** BPS graduates who enroll in college following the first academic year after high school graduation.

College completion rates are measured for each of the aforementioned college enrollment cohorts, for various demographic/high school/college sub-populations, and for the entire high school graduating class. College completion is defined as the attainment of any type of postsecondary credential, including postsecondary certificates, Associate degrees, or Bachelor’s degrees within six years. For most, this report tracks six-year college completion rates of first-year enrollees. This report captures college completions of BPS Class of 2011 enrollees through August 31, 2017.

BPS Class of 2011 Overview

During the 2010-2011 academic year, 3,401 BPS students graduated from high school. They are referred to as the “Class of 2011” throughout this report. Similar to previous classes, there were more female students than male students in the graduating class. Of the 3,401 students, 1,808 (53%) were female, compared to 1,593 (47%) males. The Class of 2011 was comprised of 1,337 (39%) Black students, 1,079 (32%) Hispanic/Latino students, 544 (16%) White students, and 400 (12%) Asian students. Another 41 students (1%) were Native American or identified as Mixed/Other. Nearly 11% of the Class of 2011 had an Individualized Education Plan (IEP) at the time of graduation. Based on Massachusetts Department of Elementary and Secondary Education (DESE) data, 81.8% of the Class of 2011 resided in low-income households.

TABLE 1

Student Demographic Characteristics, BPS Class of 2011

	Female	Male	Total	% of Total Class of 2011
Asian	215	185	400	12%
Black	718	619	1,337	39%
Hispanic / Latino	569	510	1,079	32%
Other	23	18	41	1%
White	283	261	544	16%
TOTAL	1,808	1,593	3,401	100%
% of TOTAL	53%	47%		
Students with special needs (IEP)	141	228	369	10.8%
% of students with special needs	38%	62%		

Source: PIC analysis of BPS data

Note: “Other” includes “Mixed/Other” and “Native American”

The BPS Class of 2011 graduated from 35 schools and small learning communities. In this report, college completion outcomes are reported by type of high school. The 35 high schools have been grouped into five categories based on the school district’s categorizations⁸, and they are:

ALTERNATIVE: Schools and programs that serve students who are over-age or off-track, who need to go to school at night, have disabilities, and/or have disciplinary issues.

EXAM: The city’s three exam schools are Boston Latin School, Boston Latin Academy, and the John D. O’Bryant School of Mathematics and Science. These high schools grant admissions based on students’ grades in fifth and sixth grades, as well as test scores from the Independent Schools Entrance Exam (ISEE).

TABLE 2
High School Type, BPS Class of 2011

Type of High School	# of High School Graduates	% of Total
Alternative	175	5.1%
Exam	861	25.3%
Pilot	495	14.6%
Special Populations	63	1.9%
Traditional	1,807	53.1%
TOTAL	3,401	100%

Source: PIC analysis of BPS data

PILOT: Pilot schools are part of the school district but have autonomy over their budget, staffing, governance, curriculum/assessment, and the school calendar to provide increased flexibility to organize schools and staffing to meet the needs of students and families. Many also have separate admissions processes for enrolling in these schools. In this report, the pilot category includes pilot schools and two Horace Mann charter schools, Edward M. Kennedy Academy for Health Careers and Boston Green Academy.

SPECIAL POPULATIONS: Schools targeted to serve specific populations of students, such as those with substantially separate special needs.

TRADITIONAL: This includes BPS district high schools and other small schools that are not pilot schools or serving special populations.

The listing of high schools in each category is available in the appendix of this report.

College Enrollment Overview

Earlier postsecondary research on BPS graduating classes has found that the college enrollment rates of BPS graduates increased sharply through the 2000-2010 decade.⁹ This section examines the college enrollment behavior of BPS Class of 2011 graduates. This report tracks college enrollment in the first year after high school and for up to six years after high school and describes the findings for student subgroups.

The first-year enrollee measure was first tracked with the BPS Class of 2005. The first-year enrollee cohort is the group of students tracked for Success Boston’s six-year college completion goals. They have six years from high school and their initial start of college to complete a postsecondary credential. Of the 3,401 BPS

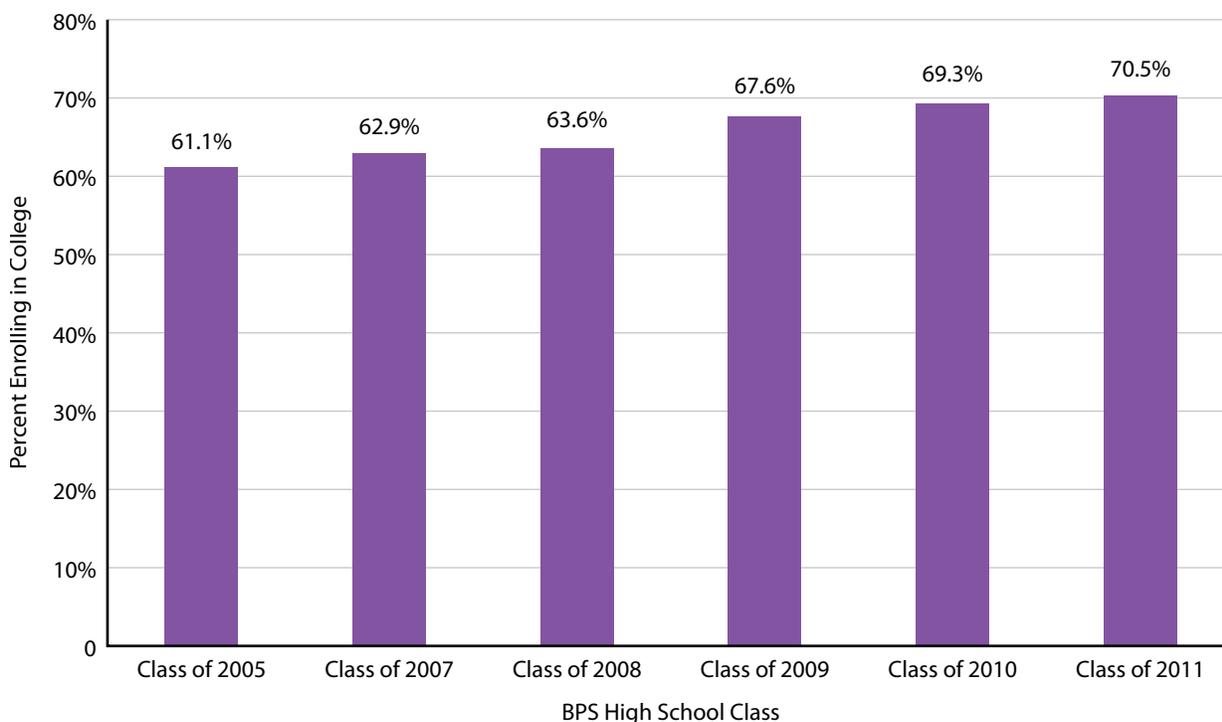
Class of 2011 graduates, 2,397, or 70.5%, enrolled in college during the first year after graduating (**Chart 1**). Since the Class of 2005, the first-year enrollment rate has increased by 9 percentage points.

One of the advantages of the NSC data set is that enrollment patterns can be tracked over several years and not limited to a specific point in time, as is the case with most survey data. **Table 3** displays college enrollment patterns for all Class of 2011 graduates and by gender. While 2,397 BPS Class of 2011 graduates enrolled in the first year, an additional 342 enrolled at some point over the next five years, for a cumulative college enrollment rate of nearly 81% (Table 3). The first-year college enrollment rate of female graduates was 10.9 points higher than that of male graduates, with 75.6% of female graduates enrolling the first year after graduating and 64.7% of male graduates enrolling the first year after graduating. An additional 10% of female and male Class of 2011 graduates enrolled at any point after the first year, with 85.7% of female graduates ever enrolling and 74.6% of male graduates ever enrolling (Table 3).

Among the four major race-ethnic groups from the BPS Class of 2011, first-year college enrollment rates were 64.8% for Hispanic/Latino graduates, 68.1% for Black students, 78.3% for White graduates, and 84% for Asian graduates (**Table 4**). The first-year enrollment rate gap between Hispanic/Latino graduates and Asian graduates is 19.2 percentage points. The percent of graduates enrolling later (after the first year) ranges from a low of 6% of Asian graduates to highs of 10.5% of Black and 11.9% of Hispanic/Latino

CHART 1

First-year college enrollment rate for BPS classes, selected years, 2005-2011



Source: PIC analysis of NSC data

graduates. As a result, race-ethnic gaps in college enrollment narrow over time as Black and Hispanic/Latino students are more likely to enroll in college in the years after high school graduation. However, a following section in this report will show that later enrollees have much lower college completion rates when compared to first-year enrollees.

TABLE 3

College enrollment by gender and time of enrollment

		Did not enroll	First-year enrollee	Later enrollee	Cumulative enrollment	TOTAL
Female	Graduates	258	1,367	183	1,550	1,808
	% within Gender	14.3%	75.6%	10.1%	85.7%	100%
Male	Graduates	404	1,030	159	1,189	1,593
	% within Gender	25.4%	64.7%	10.0%	74.6%	100%
TOTAL	Graduates	662	2,397	342	2,739	3,401
	%	19.5%	70.5%	10.1%	80.5%	100%

Source: PIC analysis of NSC data

TABLE 4

College enrollment by race-ethnicity and time of enrollment

		Did not enroll	First-year enrollee	Later enrollee	Cumulative enrollment	TOTAL
Asian	# Enrolled	40	336	24	360	400
	% within race-ethnicity	10.0%	84.0%	6.0%	90.0%	100%
Black	# Enrolled	287	910	140	1,050	1,337
	% within race-ethnicity	21.5%	68.1%	10.5%	78.5%	100%
Hispanic / Latino	# Enrolled	252	699	128	827	1,079
	% within race-ethnicity	23.4%	64.8%	11.9%	76.6%	100%
Other	# Enrolled	8	26	7	33	41
	% within race-ethnicity	19.5%	63.4%	17.1%	80.5%	100%
White	# Enrolled	75	426	43	469	544
	% within race-ethnicity	13.8%	78.3%	7.9%	86.2%	100%
TOTAL	# Enrolled	662	2,397	342	2,739	3,401
	%	19.5%	70.5%	10.1%	80.5%	100%

Source: PIC analysis of NSC data

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

The college enrollment behavior of BPS Class of 2011 graduates also was tracked by special education status. BPS Class of 2011 graduates with an Individualized Education Program (IEP) at the time of high school graduation were compared to their peers who graduated without an IEP. For graduates with an IEP, 36.9% did not enroll in college at any time over the six-year period, 51.5% enrolled in the first year after high school, and 11.7% enrolled later, for a cumulative enrollment rate of 63.2%. Of the 3,032 BPS graduates without an IEP, 17.3% did not enroll in college, 72.8% enrolled within the first-year, and 9.9% enrolled later, for a combined enrollment rate of 82.7% (Table 5). The difference in cumulative enrollment rates between Class of 2011 graduates with and without an IEP was nearly 20 percentage points. This college enrollment rate disparity is very similar to statewide trends.¹⁰

TABLE 5

College enrollment by special education status

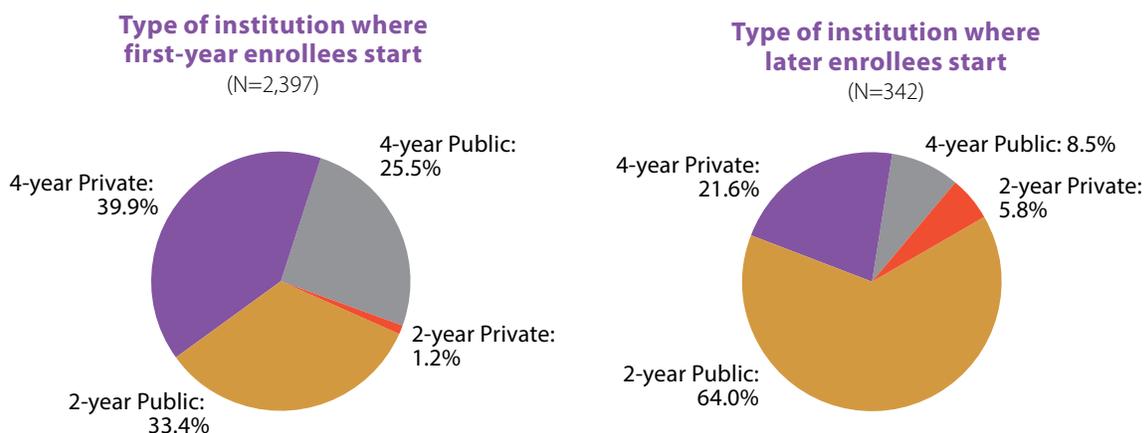
	Did not enroll		First-year Enrollee		Later Enrollee		Total
With an IEP	136	36.9%	190	51.5%	43	11.7%	369
No IEP	526	17.3%	2,207	72.8%	299	9.9%	3,032

Source: PIC analysis of NSC data

The college attended by BPS Class of 2011 graduates is displayed in Chart 2 by their enrollment start. Of the 2,397 first-year enrollees, 39.9% first attended a four-year private institution, 25.5% attended a four-year public institution, for a combined four-year enrollment rate of 64.4%. One in three first-year enrollees (33.4%) enrolled in a two-year public college and only 1.2% first enrolled in a two-year private institution.

CHART 2

Type of postsecondary institution where students first enroll



Source: PIC analysis of NSC data

Note: 25 enrollees started at a two-year private institution and 25 started at a less than two-year private institution. These two groups are combined into the two-year private category for this chart.

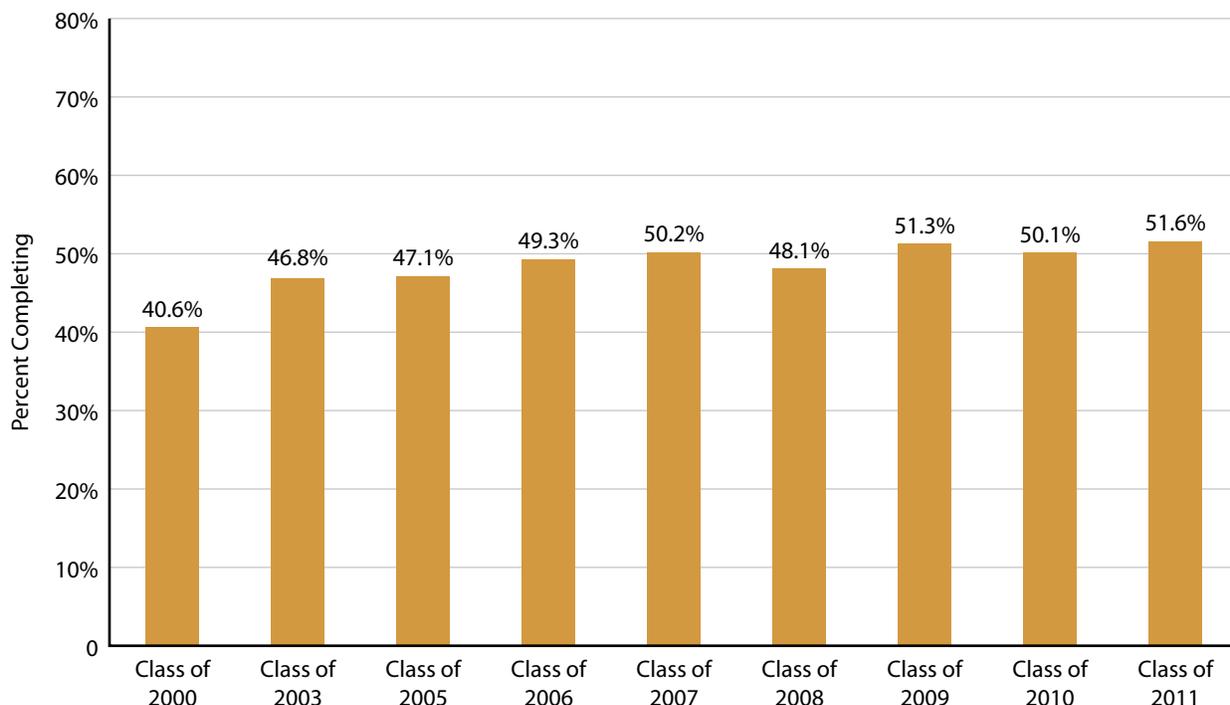
The first institutions attended by later enrollees differed substantially. Of the 342 later enrollees, 64.0% first attended a two-year public institution, another 5.8% first attended a two-year private institution, for a combined two-year enrollment rate of nearly 70%. The shares of later enrollees from the Class of 2011 attending four-year private and four-year public institutions were 21.6% and 8.5%, respectively.

Trends in College Completion Rates of BPS Graduates

Success Boston has been measuring the college completion rates of BPS graduates for over a decade. Following the release of the initial report, *Getting to the Finish Line* (2008), Success Boston research has tracked graduating cohorts for six years to align with national postsecondary completion research studies. **Chart 3** shows the trends in six-year college completion rates for first-year enrollees from BPS graduating classes. 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. The six-year completion rate of first-year college enrollees from the BPS Class of 2000 was 40.6%.¹¹ The college completion rates of first-year enrollees increased six percentage points to 46.8% for the Class of 2003 and continued to rise to a range of 48-50% for the BPS Classes of 2006-2008. The BPS Class of 2009, the class with the 52% completion rate goal, reached a 51.3% completion rate (Chart 3). Through six years, the college completion rate of the BPS Class of 2011 is 51.6%, a new record high but just slightly above the previous high reached by the Class of 2009.

CHART 3

Trends in the six-year college completion rate of first-year enrollees, selected class years, 2000-2011



Sources: (i) "Getting Closer to the Finish Line (2013)" (ii) PIC analysis of NSC data for the Classes of 2007-2011

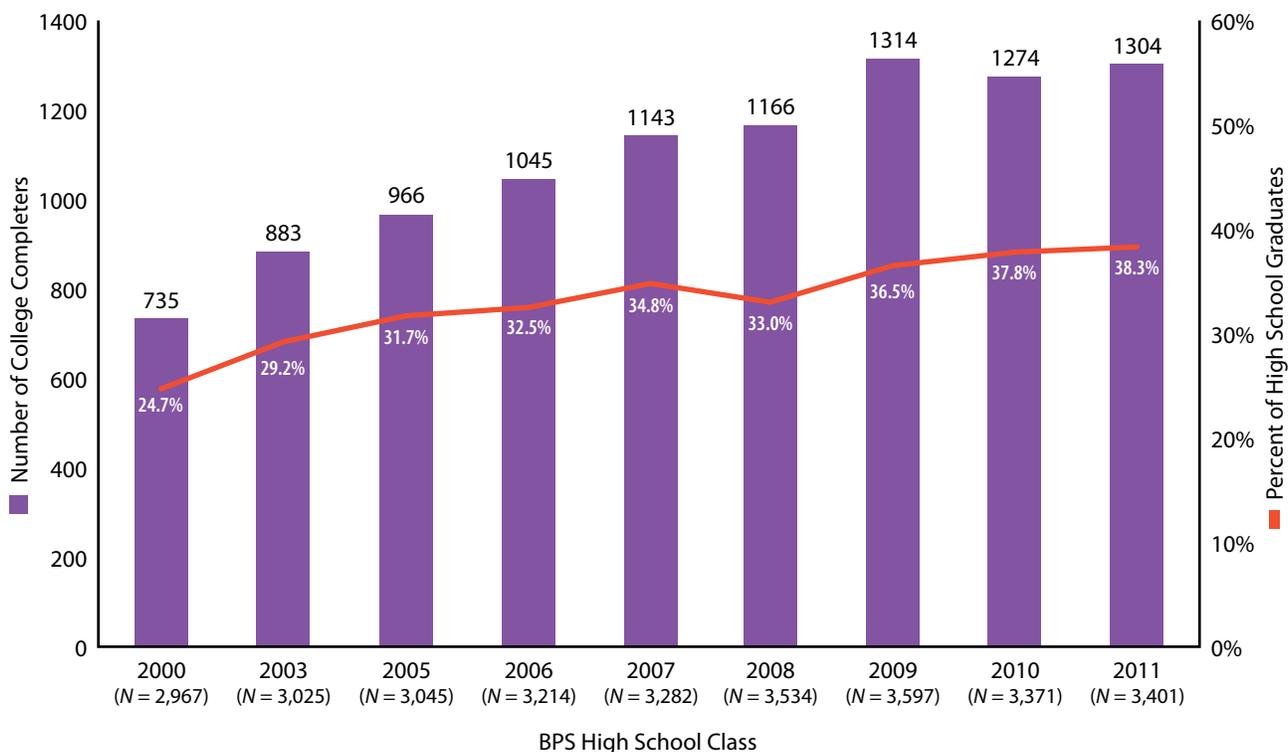
In addition to tracking the college experiences of first-year enrollees, the Success Boston initiative also tracks the number and percent of graduates from each high school class that complete a college credential within six years. These measures on the entire class answer this key workforce development question: How many BPS high school graduates will be prepared to enter college labor market occupations within six years of high school?¹²

The rising college enrollment and college completion rates of BPS graduating classes have contributed to a sharp increase in the number of high school graduates obtaining postsecondary credentials. **Chart 4** presents trends in the absolute number of college graduates through six years from each BPS graduating class tracked since 2000. The line on the graph represents college completers as a percentage of all high school graduates. Within six years of graduation from high school, there were 735 college graduates from the BPS Class of 2000, representing 24.7% of the class (Chart 4). For the most part, the number and percent of college graduates from each class increased steadily over the decade. The number of college graduates climbed to 1,314 for the Class of 2009 and 1,274 for the Class of 2010.

The Class of 2011 has the highest share of college graduates as a percent of high school graduates, with 38.3% obtaining a postsecondary credential. A total of 1,304 BPS Class of 2011 graduates have earned a postsecondary credential. The share completing a college degree has risen by nearly 14 percentage

CHART 4

Trends in the number and percent of college completers within six years of high school graduation, selected class years, 2000-2011



Sources: (i) "Getting Closer to the Finish Line (2013)" (ii) PIC analysis of NSC data for the Classes of 2007-2011

points since the BPS Class of 2000, a relative increase of 55 percent. The number of college completers has increased from 735 with the Class of 2000 to 1,304 with the Class of 2011, a relative gain of 77%.

College Completion Rates by Gender and Race-ethnicity, and Special Education Status

Understanding the college completion experiences of subpopulations of the Class of 2011 is important for future policy and program design. This section begins with an analysis of the six-year college completion rate for first-year enrollees disaggregated by gender, race-ethnicity, and special education status in high school. As was the case for previous BPS classes, six-year college completion rates for first-year enrollees from the BPS Class of 2011 vary substantially across gender and race-ethnic subgroups.¹³

The six-year college completion rate for female first-year enrollees is 57.1%, exceeding the rate for males (44.3%) by 12.8 percentage points (Table 6). There are 324 more female college completers than males from the Class of 2011 first-year enrollee cohort. The gender gaps in high school graduation, college enrollment, and college completion rates contribute to this differential in the number of college completers six years after high school.

Six-year college completion rates for the four major race-ethnic groups represented in the BPS Class of 2011 range from a low of 42.7% to a high of 74.4%, a 32 percentage point range. The college completion rate for Asian students is 74.4%, the highest among the four major race-ethnic groups. White enrollees follow with a 66.2% completion rate. College completion rates are lower for Hispanic/ Latino (43.6%) and Black (42.7%) first-year enrollees (Table 6).

Table 6 also displays college completion rates of first-year enrollees by their special education status at the time of graduation from high school. There are 190 first-year enrollees from the Class of 2011 who had an IEP in high school. Of them, 25.3% completed a postsecondary credential within six years.

TABLE 6

Six-year college completion outcomes of first-year enrollees by student subgroups

Group	First-year Enrollees	College Completers	College Completion Rate
Female	1,367	780	57.1%
Male	1,030	456	44.3%
Asian	336	250	74.4%
Black	910	389	42.7%
Hispanic/Latino	699	305	43.6%
Other	26	10	38.5%
White	426	282	66.2%
Non- IEP	2,207	1,188	53.8%
IEP	190	48	25.3%

Source: PIC analysis of NSC data

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

The gender gap in college completion prevails within each of the four major race-ethnic groups (Table 7). Within each race-ethnic group, there are double-digit gender disparities in six-year college completion rates. The largest gender gap is among Hispanic/Latino first-year enrollees, with females graduating at a rate that is 18 percentage points above that of males. The gender gap in six-year college completion rates is 13 percentage points for Asian first-year enrollees, followed by 11 percentage points for Black first-year enrollees, and 10 percentage points for White first-year enrollees. Among the eight gender/race-ethnic subgroups, there is a 47 percentage point range between the lowest and highest college completion rates (33.6% to 80.1%).

TABLE 7

Gender gaps in six-year college completion rates of first-year enrollees by race-ethnicity

Race-Ethnic Group	Females	Males	Gender Gap (Females – Males)
Asian	80.1%	66.9%	13.2
Black	47.5%	36.1%	11.4
Hispanic/Latino	51.5%	33.6%	18.0
White	70.6%	60.7%	9.9

Source: PIC analysis of NSC data

College Completion Rates by Type of High School

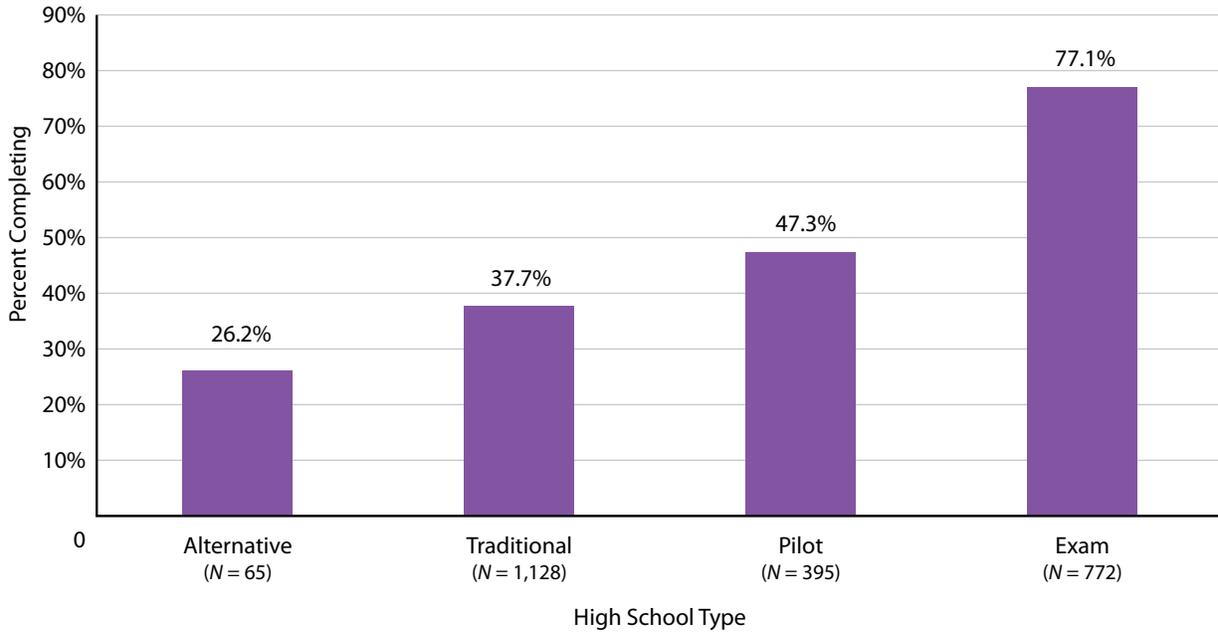
Previous research studies on the college completion outcomes of BPS graduates have disaggregated the findings for high schools into two categories: exam and non-exam high schools.¹⁴ These studies have found large differences in the college enrollment and completion experiences of exam school graduates and their peers from non-exam high schools. Given that the exam schools have selective academic admission requirements, it is expected that students from these high schools would enroll in and graduate from college at higher rates, on average, than their peers from other high schools. The findings in this section are descriptive and are not intended for evaluating the comparative effectiveness of high schools. Such a study would need to rely on rigorous statistical controls to isolate the impact of the high school experience.¹⁵

This report classifies BPS high schools into five categories: exam, pilot, traditional, alternative, and special population schools.¹⁶ For the Class of 2011, the college completion rates of first-year enrollees for four of these high school types are displayed in Chart 5. The results for special population schools are not displayed because they had fewer than 40 first-year enrollees from the Class of 2011.

The six-year college completion rate of exam school students for the Class of 2011 is 77.1%, substantially higher than the completion rates of students from the other high school types. For the eight schools that are pilot or in-district charter schools, the college completion rate is 47.3%. First-year enrollees from traditional high schools have a 37.7% completion rate. The college completion rate for the three alternative high schools included in the study is 26.2%.¹⁷

CHART 5

Six-year college completion rates of first-year enrollees by high school type



Source: PIC analysis of NSC data

TABLE 8

Six-year college completion rates by high school type and race-ethnicity

Group	Exam	Pilot	Traditional
Female	81.7%	53.9%	43.4%
Male	70.8%	38.2%	30.4%
Asian	85.1%	76.5%	55.8%
Black	70.9%	39.2%	34.5%
Hispanic/Latino	67.6%	51.7%	37.1%
White	79.3%	51.2%	35.9%
Non- IEP	77.5%	49.7%	39.6%
IEP	53.3%	25.6%	22.5%

Source: PIC analysis of NSC data

Note: Alternative schools are not displayed because most of the student groups are too small to disaggregate by completion rate.

The gender gap in college completion rates also prevails across each high school type. The gap is largest in first-year enrollees from pilot schools at nearly 16 percentage points (53.9% to 38.2%). It is 11 and 13 percentage points among first-year enrollees from exam and traditional schools (Table 8).

The district-wide race-ethnic gaps in college completion narrow when comparing within type of high school attended (Table 8). Among exam school students, the six-year college completion rate of Asian

first-year enrollees is 85.1%. White students follow with a 79.3% six-year completion rate. The college completion rates of Black and Hispanic/Latino first-year enrollees are 70.9% and 67.6%, respectively. The college completion rate of each major race-ethnic group attending exam high schools is above or, in the case of Hispanic/Latino students, very close to the original 70% college completion goal for the Class of 2011. From top to bottom, the difference in college completion rates across race-ethnic groups in exam high schools is 17 percentage points, half of the 33-percentage point district-wide gap shown in Table 6.

In pilot schools, college completion rates range from a high of 76.5% for Asian first-year enrollees to a low of 39.2% for Black first-year enrollees. College completion rates for White and Hispanic/Latino students from pilot schools are nearly identical at 51.2% and 51.7%, respectively. The rates for each group are higher in pilot schools than their race-ethnic counterparts from traditional schools, but are far lower than the completion rates of exam school graduates.

In traditional schools, Asian first-year enrollees again have the highest six-year completion rate at 55.8%, 19 percentage points above the next group, which is Hispanic/Latino first-year enrollees at 37.1%. The six-year college completion rates of White and Black enrollees are 35.9% and 34.5%. Hispanic/Latino, Black, and White college enrollees from traditional high schools had very similar six-year college completion rates.

College Completion Rates by Type of College Attended

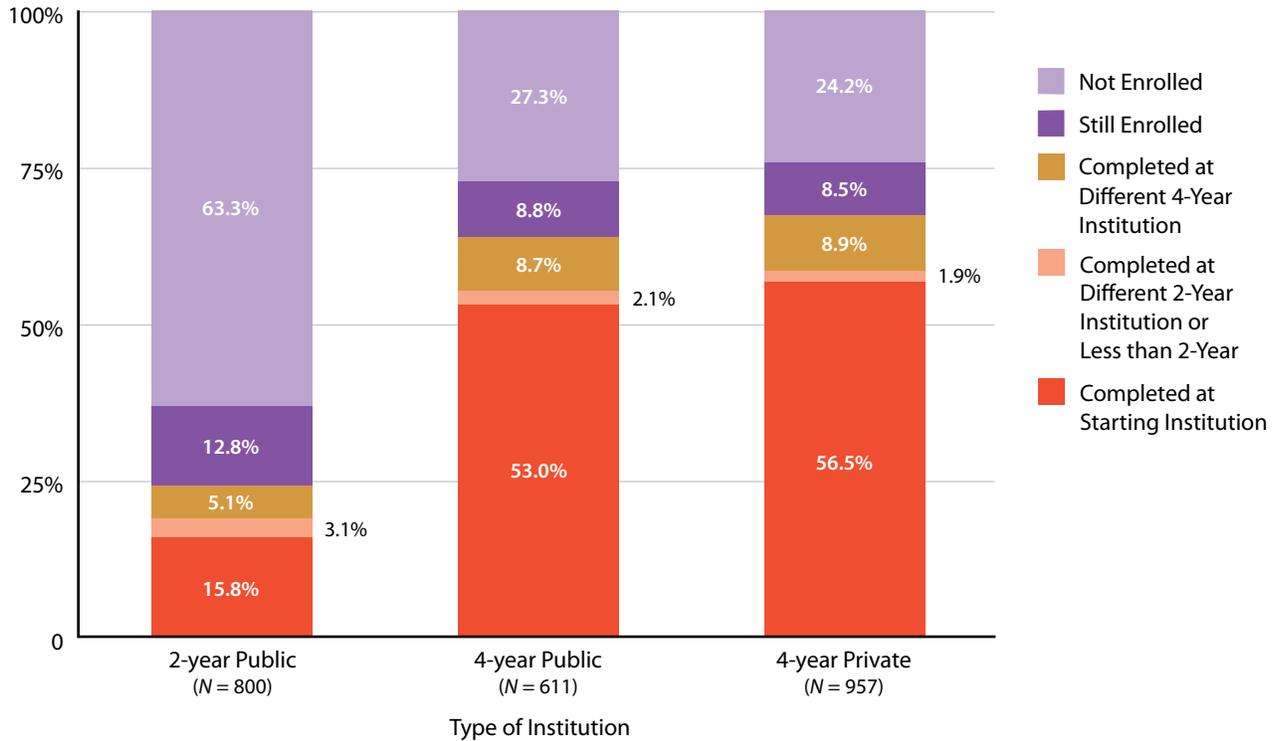
Nationally, and in Massachusetts, college completion rates vary considerably by level of postsecondary institution. Two-year public colleges, which have open admissions policies, have lower college completion rates than four-year public and private institutions. College completion rates tend to be quite high for four-year colleges with very selective admissions. This section analyzes how BPS Class of 2011 college enrollees fare at different types of institutions. As stated earlier in the analysis of high school types, this analysis is not intended to be a comparative analysis of two-year and four-year colleges or any individual 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 of these types of schools.¹⁸ However, understanding the differences in college completion rates of BPS graduates by type of college is critical for unpacking the aggregate results and for assessing progress toward Success Boston's college completion goals.

The college completion rate analysis below is based on the type of institution that a BPS Class of 2011 graduate first attended. For example, if a BPS graduate started at a two-year community college but transferred to a four-year institution before earning a degree at the two-year institution, and later graduated from a four-year institution within six years, then the student would count as a graduate in the two-year public category in **Chart 6** within the region of "completed at a different four-year institution".¹⁹ Thus, a completion is awarded to the first institution attended by a student. The NSC also uses this approach when disaggregating 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.

Chart 6 displays six-year outcomes of first-year enrollees by type of college. Of the 800 BPS Class of 2011 graduates that enrolled in a two-year public college during the first year after high school, 15.8%

CHART 6

Six-year college completion and enrollment status of first-year enrollees by first institution attended as of spring/summer 2017



Source: PIC analysis of NSC data

completed at their starting two-year institution, 3.1% completed at a different two-year or less than two-year institution, and 5.1% completed a credential at a four-year institution. The combined, six-year completion rate of first-year enrollees at two-year colleges is 24.0%. Of the 800 first-year enrollees, 12.8% were still enrolled as of spring or summer 2017 and have not yet earned a degree. The balance (63.3%) did not graduate and were not enrolled during the spring or summer of 2017. Within the six-year timeframe of this study, 62 (7.8%) of the 800 first-year enrollees obtained a Bachelor’s degree as either a first degree (after transferring to a four-year institution) or as a second degree after completing an Associate degree.

At four-year public institutions, 53% of the 611 first-year enrollees completed at their starting institution, 2.1% graduated from a two-year institution, and another 8.7% graduated from a different four-year institution, for a combined six-year college completion rate of 63.8%. Nearly nine percent of first year enrollees at four-year public colleges were still enrolled in spring/summer 2017 and working toward a first credential. Just over 27% of this cohort was no longer enrolled as of spring/summer 2017.

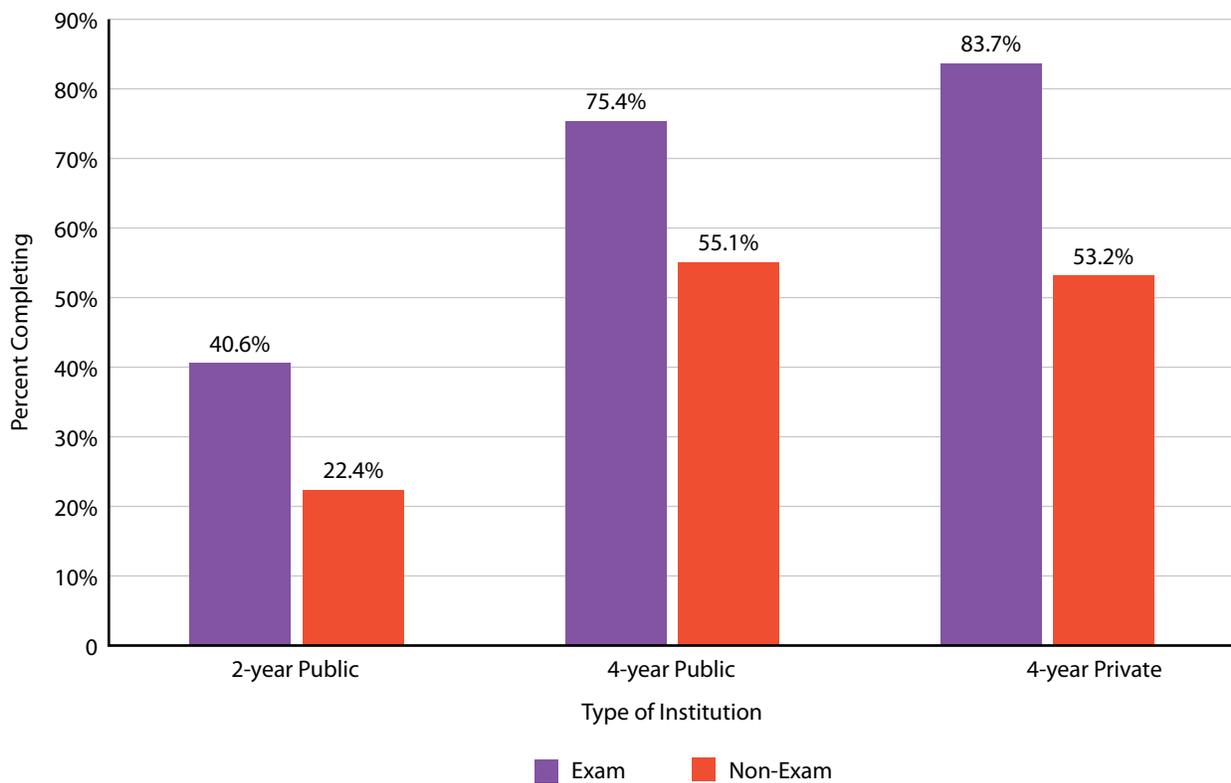
Of the 957 graduates who first attended a four-year private institution within one year of high school, 56.5% completed a credential at their starting institution, another 8.9% completed at a different four-year institution, and 1.9% completed at a two-year institution. The combined six-year college completion rate is 67.3%, the highest of the three institution types. Of the 957 first-year enrollees, 8.5% are still enrolled and working toward a first degree and 24.2%, or one in four, are no longer enrolled.

The six-year college completion rates by type of first college attended can be further disaggregated to see how students from different high schools fared at each type of college. For this analysis, first-year college enrollees are split into two high school groups: exam and non-exam.

Exam school graduates had higher college completion rates across the three postsecondary school types. Exam school graduates attending two-year public colleges had a 40.6% completion rate (Chart 7). College completion rates were much higher for those exam school first-year enrollees attending four-year private (83.7%) and four-year public colleges (75.4%). A similar pattern across institution type was found for non-exam graduates. College completion rates ranged from 22.4% for those first enrolling at a two-year public college to 53% and 55% of those first enrolling at four-year private and four-year public colleges and universities respectively.

CHART 7

Six-year college completion rates for first-year enrollees from exam and non-exam high schools by type of first college attended



Source: PIC analysis of NSC data

College Completion Outcomes by First Semester Enrolled and Full-Time/Part-Time Status

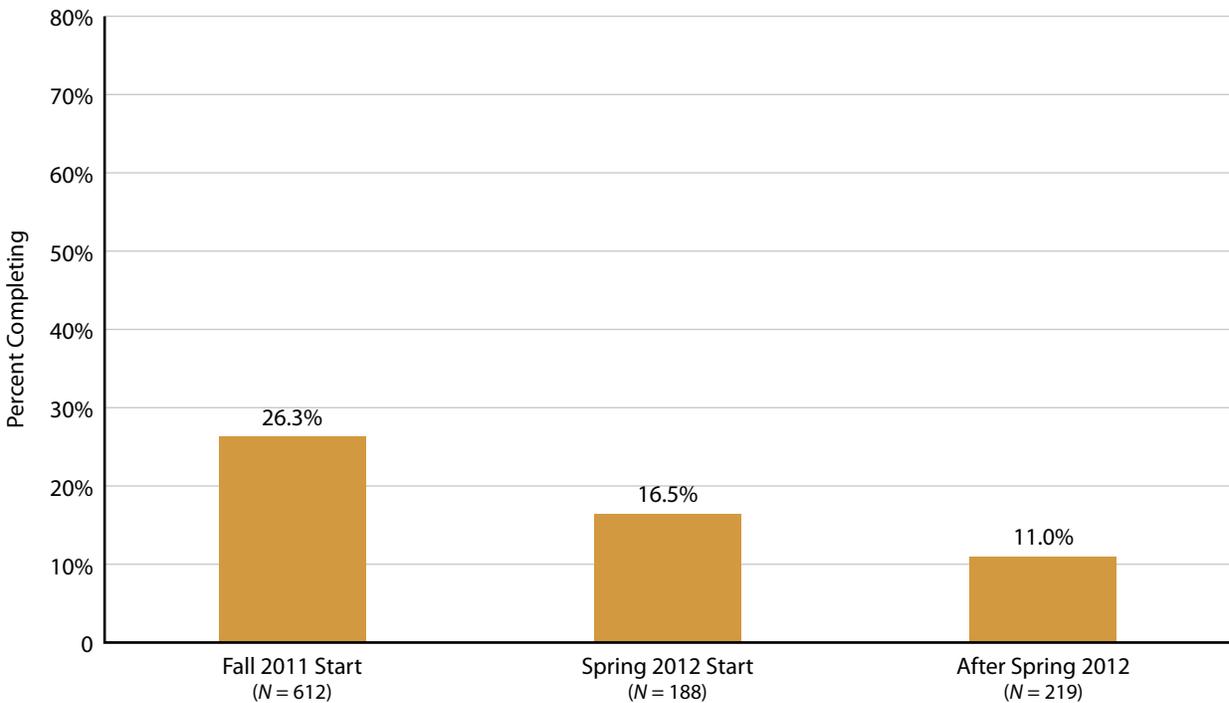
Recent research has shown that when students start college, their full-time or part-time status throughout enrollment, and the credits that they complete during their first year of college are important factors that influence college completion rates.²⁰ While most BPS Class of 2011 college enrollees starting at four-year colleges began as full-time students in the fall semester, the enrollment paths of students at two-year public colleges were quite varied. This section analyzes the first semester of enrollment and full-time/part-time status for BPS Class of 2011 enrollees. To conduct this analysis, enrollees are divided into three groups:

- Immediate fall enrollees: enrolled in college in the fall 2011
- Spring 2012 enrollees: enrolled in college for the first time in spring 2012
- Later enrollees: these students started college one academic year or more after high school

For the Class of 2011, there were 1,019 college enrollees who first enrolled at a two-year public institution. Of them, 612 enrolled in the immediate fall, 188 began in spring 2012, and 219 were later enrollees, essentially taking a full year or longer off from schooling after high school. Thus, four out of every ten college enrollees that started at two-year public colleges did not enroll immediately following high school.

CHART 8

Six-year college completion rates of two-year public institution enrollees by first semester enrolled



Source: PIC analysis of NSC data

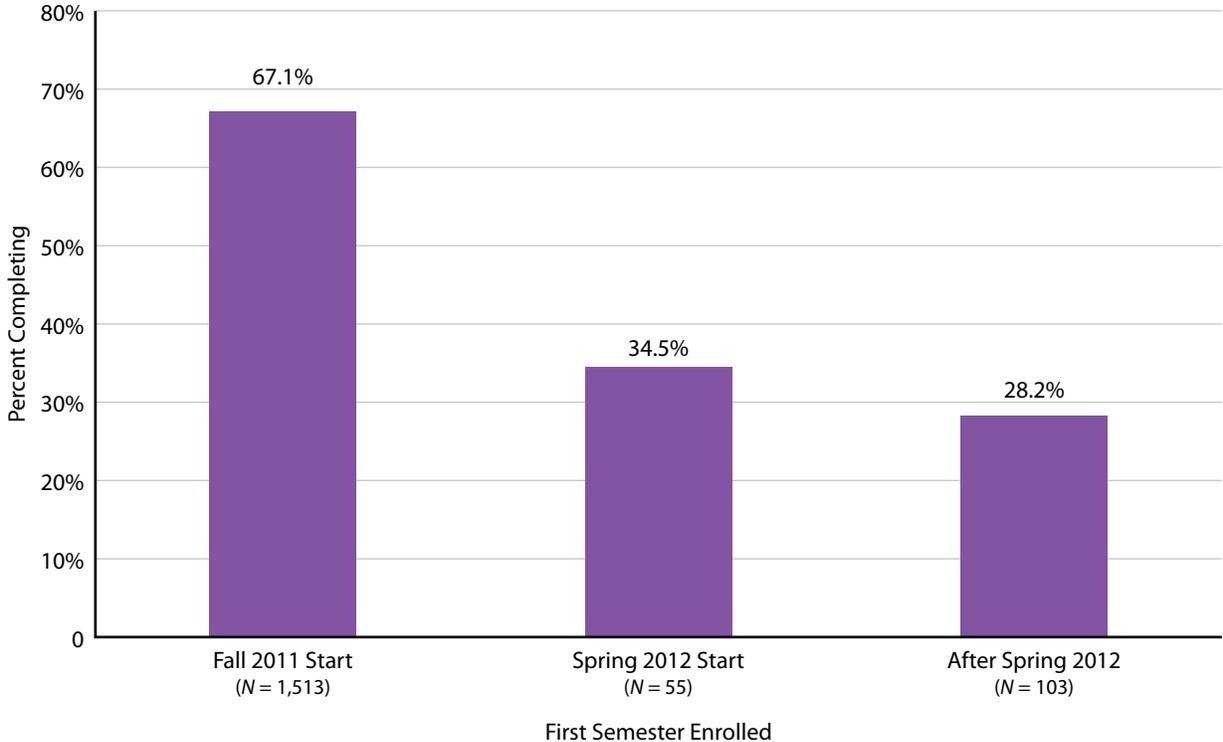
For those students that first enrolled in a two-year college, immediate fall 2011 enrollees had a college completion rate of 26.3% versus 16.5% for spring 2012 enrollees and 11.0% for later enrollees (Chart 8). For the BPS Class of 2011, immediate fall enrollees were 1.6 times more likely to complete, as compared to the spring 2012 semester enrollees, and more than twice as likely to complete a degree by summer 2017 than later enrollees (26.3% vs. 11.0%).

The completion rate pattern is similar for Class of 2011 enrollees that began at a four-year public or private college, however, most students that first attended four-year colleges began immediately in the fall semester. Over 90% of Class of 2011 four-year enrollees began in the immediate fall semester. The college completion rate was substantially higher for those that started at four-year colleges in the immediate fall: 67.1% compared to 34.5% for spring 2012 enrollees, and 28.2% for later enrollees or those enrollees that take a year or more off (Chart 9).

The full-time/part-time enrollment status of students in their first semester also is a factor that influences college completion rates. The first semester enrollment statuses of BPS Class of 2011 first-year enrollees at two-public colleges were quite varied. Of students who started at two-year public institutions, 54% of the first year enrollees enrolled full-time, 37% enrolled half-time, and 5% enrolled less than half-time, with the remainder withdrawn or not indicated. Fewer of the later enrollees who started after spring 2012 enrolled

CHART 9

Six-year college completion rates four-year institution enrollees by first semester enrolled (public and private institutions combined)



Source: PIC analysis of NSC data

full-time, with 37% enrolling full-time, and 51% enrolling half-time or less than half-time (Table 9).

Six-year college completion rates of BPS Class of 2011 two-year college enrollees vary considerably by enrollment status. First-year enrollees who started full-time at two-year institutions graduated at higher rates than those that did not. The six-year college completion rate of first-year enrollees who started on a full-time basis is 31%, compared to 17% for those starting

half-time and 13% for those that started taking a course load that was less than half-time (Chart 10).

None of the students who withdrew during their first semester have completed college at any institution in the six years after high school. An upcoming section of this study analyzes the semester-by-semester enrollment patterns of two-year college enrollees through the first two years of enrollment and describes the differences in completion rates based on varying enrollment intensity.

TABLE 9

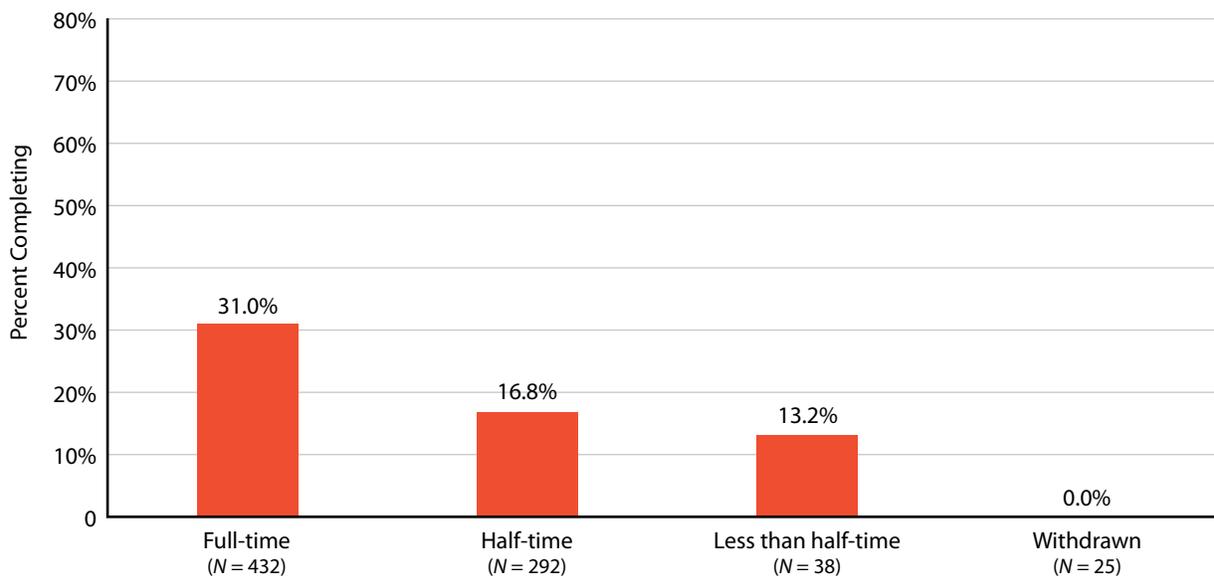
First semester enrollment status of Class of 2011 enrollees who start at a two-year public institution

Enrollment status / First semester	First-year enrollees	Later enrollees
Full-time	54%	37%
Three quarter-time	0%	4%
Half-time	37%	40%
Less than half-time	5%	11%
Withdrawn	3%	5%
Not indicated	2%	2%

Source: PIC analysis of NSC data

CHART 10

Six-year college completion rates of first-year enrollees starting at a two-year institution, by enrollment status of first semester (n=787)



Source: PIC analysis of NSC data

Note: 13 first-year enrollees who started at a two-year institution did not have their enrollment status indicated and are not included in this chart.

Comparisons Between BPS Completion Rates and U.S. Completion Rates

The aforementioned findings focus on college completion outcomes of BPS Class of 2011 graduates and previous classes. The NSC database allows researchers to compare findings for individual school districts with those of other U.S. college students. In its *Signature Reports on Completing College*, the NSC's research center publishes college completion rate trends for national fall semester cohorts of college enrollees, and disaggregates the findings by type of college.²¹ Recently, the NSC has added data on outcomes for students by race-ethnicity.

The NSC's cohorts in its *Completing College* reports are slightly different from the BPS cohorts tracked in this study because the NSC tracks the completion rates of college students that start college for the first time in the fall semester. This 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. Fortunately, the NSC provides age breakouts and separately reports findings for those first-time, fall enrollees that are under 21 years old, to shed light on how recent high school graduates are faring in college. Most of these fall enrollees under the age of 21 are entering college in the immediate fall following graduation from high school.

The six-year completion rates of first-time, fall enrollees from the BPS Classes of 2007-2011 are compared to these national cohorts of under 21 years old first time, fall enrollees. Of course, this comparison is intended only for the purposes of benchmarking. It is important to note that BPS, like other central city school districts, has a higher share of low-income students and first generation college students than the full national cohort of college enrollees.

BPS graduates that enroll in college in the immediate fall have lower six-year completion rates than their national peers, though the differences are not that large. The six-year college completion rate of immediate fall enrollees from the BPS Class of 2011 is 55.2%, the highest in the data series going back five years for this measure. The national cohort of fall 2011 enrollees under 21 years old has a 61.7% completion rate, 6.5 percentage points above that of BPS. The national average has exceeded BPS completion rates by a range of 3.9 to 7.7 percentage points over the past five years (**Chart 11**).

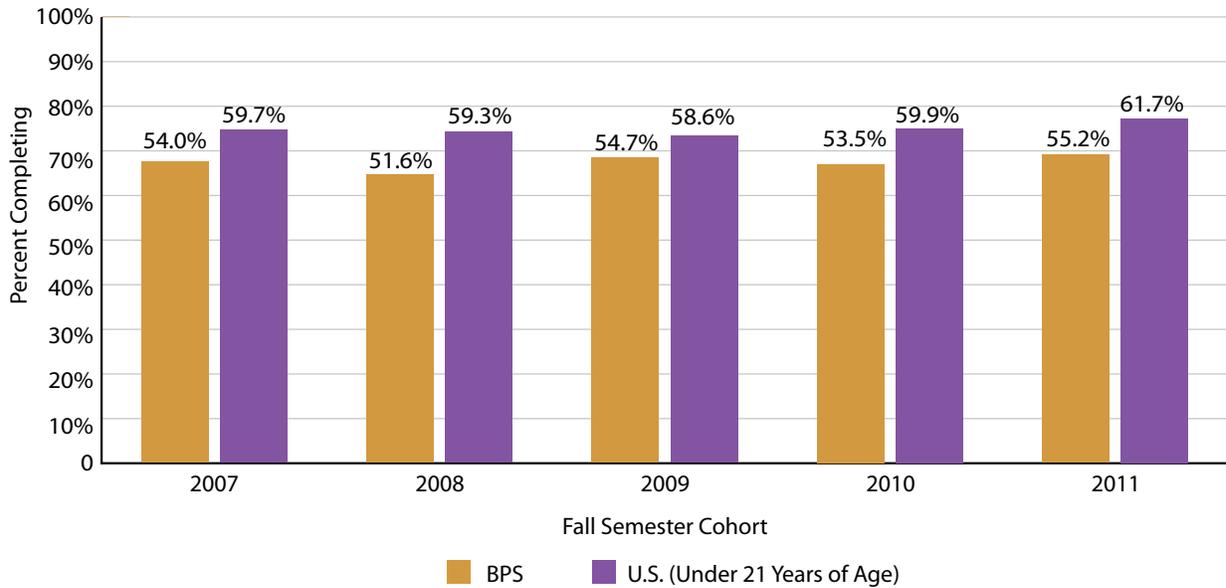
Chart 12 shows the national comparison for the three types of institutions that the vast majority of BPS graduates attend. Among two-year public college enrollees, the college completion rate of BPS graduates is lower than the national average. Nationally, 41.0% of first-time two-year public college enrollees graduated from some type of college versus 26.3% of fall enrollees from the BPS Class of 2011, a difference of nearly 15 percentage points. BPS Class of 2011 graduates attending four-year public colleges trailed their national peers by 3.5 percentage points in college completion (64.1% vs. 67.6%). Although college completion rates for BPS college enrollees are highest at four-year private institutions, they fell below the national average by 10 percentage points (69.0% vs. 78.7%) for first-time, 20 years of age or younger enrollees.²²

Beginning with the nation's fall 2010 cohort, the NSC has published six-year college completion rates by race-ethnicity.²³ The college completion rates for the nation's fall 2011 cohort by race-ethnicity are displayed in **Chart 13** alongside the completion rates for BPS fall enrollees. The six-year completion rates of BPS fall enrollees are quite similar to the national findings by race-ethnicity, with two groups above

CHART 11

Comparison of six-year college completion rates of BPS to U.S.

BPS first-time, fall enrollees compared to the national cohort of first-time, fall enrollees under 21 years of age, 2007-2011 fall semesters

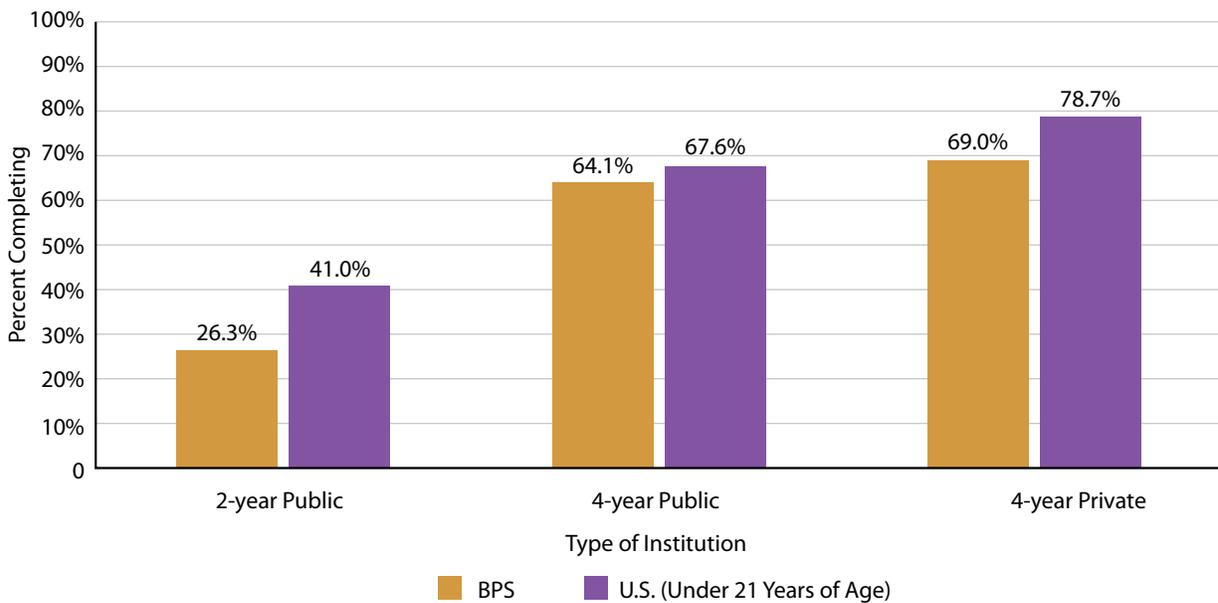


Source: (i) NSC Fall 2011 Completing College Report; (ii) PIC analysis of NSC data

CHART 12

Comparison of college completion rates of BPS to U.S., by type of college

BPS Class of 2011 first-time, fall enrollees compared to the national cohort of first-time, fall enrollees under 21 years of age, fall 2011

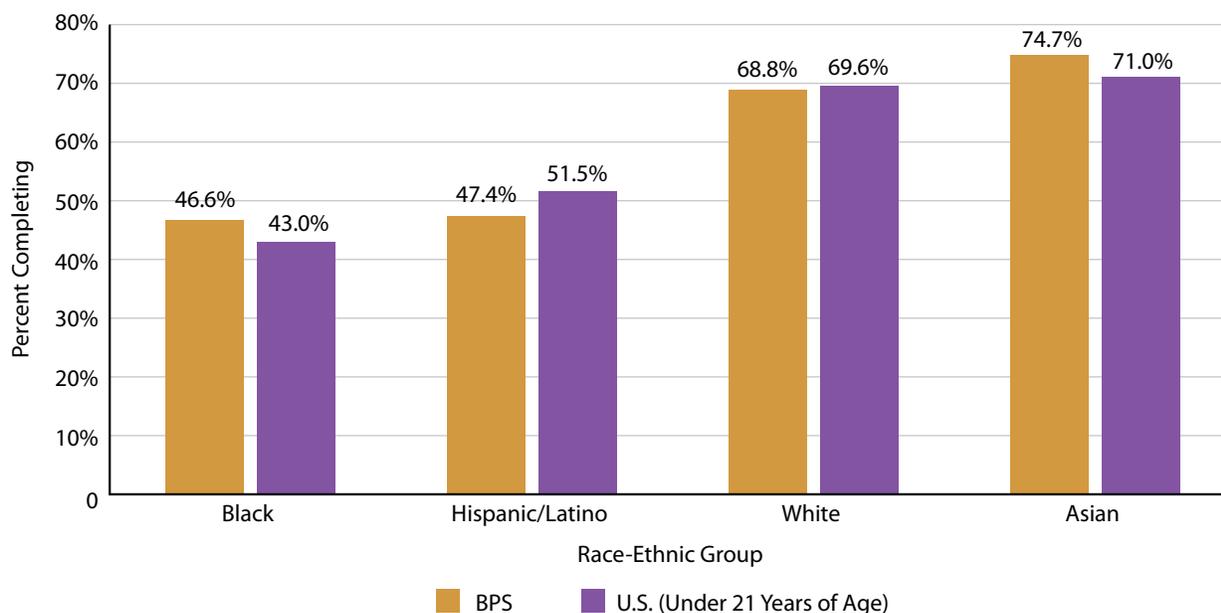


Source: (i) NSC Fall 2011 Completing College Report; (ii) PIC analysis of NSC data

CHART 13

Comparison of college completion rates of BPS to U.S., by race-ethnic group

BPS Class of 2011 first-time, fall enrollees compared to the national cohort of first-time, fall enrollees under 21 years of age, fall 2011



Source: (i) NSC Fall 2011 Completing College Report; (ii) PIC analysis of NSC data

the national average and two falling below. The college completion rate of Black enrollees from BPS exceeded the national average by 3.6 percentage points. The completion rate for Hispanic/Latino students is about 4 percentage points below the national average. White BPS students nearly matched the national average, and Asian BPS students are 3.7 percentage points above their national peers.

Enrollment Patterns of BPS Class of 2011 Two-Year College Enrollees

An earlier section of this report examined college completion rates of BPS Class of 2011 graduates by their first semester enrolled and full-time/part-time status during that first semester of college. However, students attending two-year colleges often do not consistently attend each semester and will often vary their full-time/part-time status throughout their college enrollment.²⁴ **Table 10** illustrates how students who started full-time, half-time, or less than half-time, or who withdrew their first semester or did not have their enrollment status indicated during their first semester persisted at varying intensity levels over the next two years, specifically, fall 2011, spring 2012, fall 2012, and spring 2013. Of the 350 students who started full-time at a two-year institution in the immediate fall after high school graduation, only 16% of them continued full-time for a full two years. The other 84% did one of the following: i) mixed full-time and part-time statuses, but enrolled continuously for four semesters (37.4%), or ii) spent at least one semester unenrolled in the first two years (46.6%). Of the 221 Class of 2011 enrollees who started half-time in the fall, 58.4% were unenrolled for at least one semester over the first two years of their college experience. A smaller number of students (25) began on a less than half-time basis and 80% of them were unenrolled at least one semester in the first two years.

TABLE 10

Enrollment patterns of immediate fall enrollees starting at two-year institutions

By first semester enrollment status (n=618)

First fall semester enrollment status	Enrollment pattern for first two years			
	Full-time, continuous	Mixed full-time and part-time statuses, continuous	Part-time, continuous	At least one semester unenrolled
Full-time (N=350)	16.0%	37.4%	NA	46.6%
Half-time (N=221)	NA	24.4%	17.2%	58.4%
Less than half-time (N=25)	NA	4.0%	16.0%	80.0%
Withdrew during first semester (N=15)	NA	6.7%	NA	93.3%
Enrollment status not indicated (N=7)	NA	28.6%	NA	71.4%

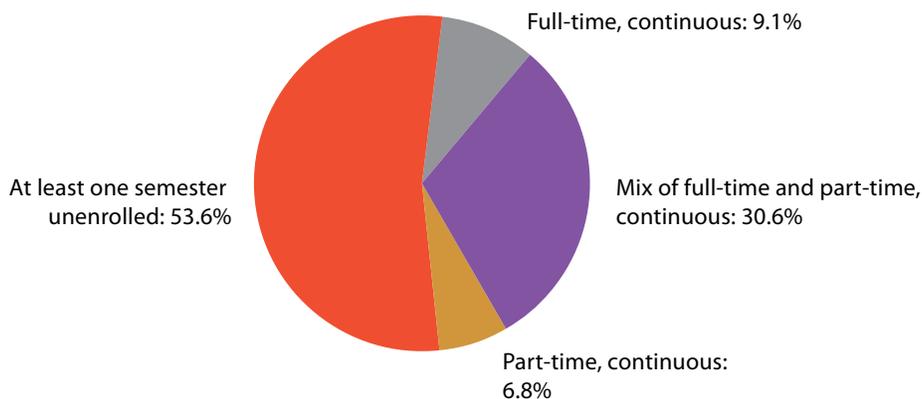
Source: PIC analysis of NSC data

As **Chart 14** displays, in total, of the 618 students who started in the fall at a two-year institution, 53.6% of them took at least one semester off between fall 2011 and spring 2013. 46.4% of the students were continuously enrolled for the first four semesters after graduating high school, consisting of 30.6% who were continuously enrolled and moving between full-time and part-time enrollment, 6.8% who continuously enrolled part-time, and 9.1% who continuously enrolled full-time. Very few students enrolled less than half-time, and are included with part-time enrolled students to make up ‘part-time enrollment.’

CHART 14

Enrollment patterns of students starting at two-year institutions

Enrollment patterns for the first four semesters of immediate fall enrollees (n=618)



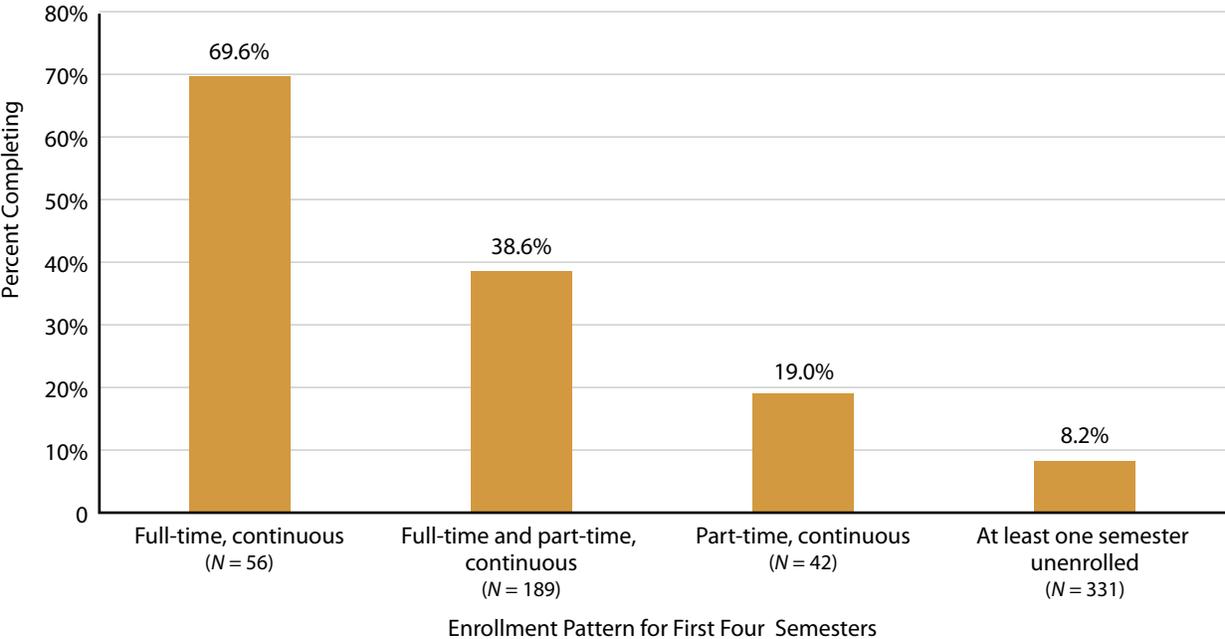
Source: PIC analysis of NSC data

Note: student enrollment status for fall 2011, spring 2012, fall 2012, and spring 2013; summer and winter term enrollments are not included.

College completion rates differed substantially by the Class of 2011 semester-by-semester enrollment paths and full-time/part-time statuses. Of the 56 students who attended full-time for four continuous semesters after enrolling in fall 2011, 69.6% have completed a degree. Students who enrolled continuously for the first four semesters, but moved between full-time/part-time statuses had a college completion rate of 38.6%. The lowest college completion rates were for the students who took off one semester during their first four semesters, with 27 (8.2%) out of 331 completing a degree within six years (Chart 15).

CHART 15

Six-year completion rates by enrollment patterns of first two years
 Immediate fall enrollees starting in 2-year institutions (n=618)



Source: PIC analysis of NSC data

Last Semester Attended by BPS Class of 2011 College Enrollees Who Did Not Complete College

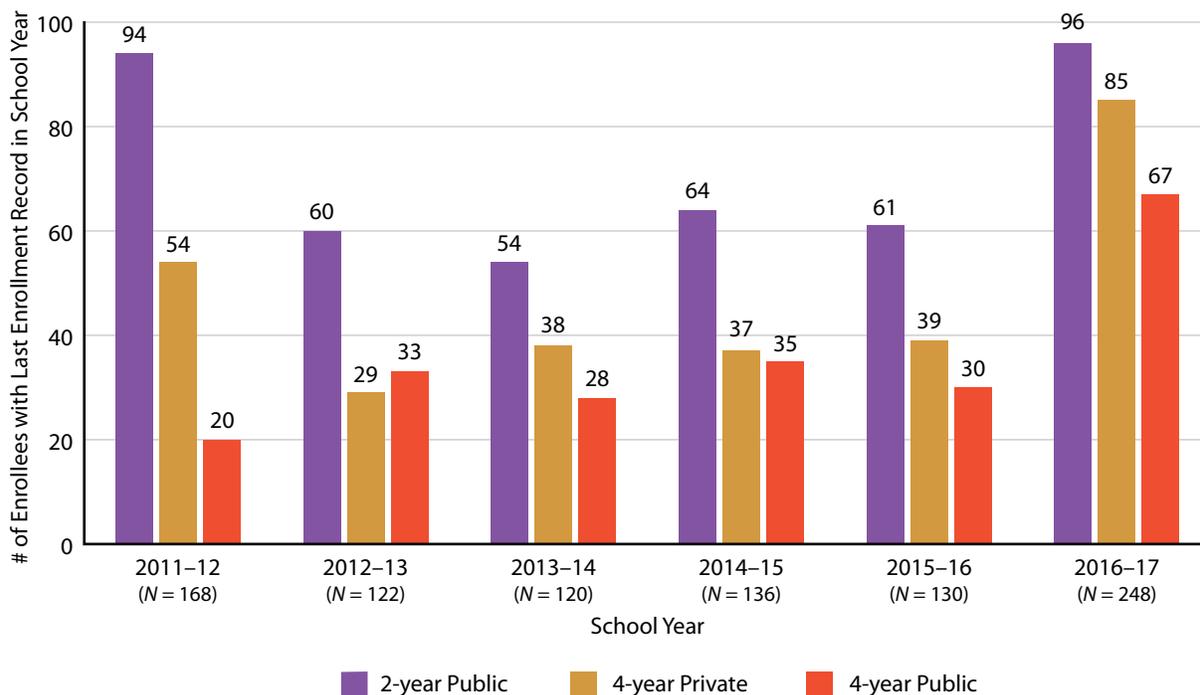
Secondary and postsecondary educators and policymakers have paid more attention to high school students’ transition to college. However, there are a substantial number of college students that persist beyond the first year of college, but drop out before obtaining a credential. This section examines the last semester enrolled for the 924 BPS Class of 2011 fall college enrollees that have not earned a postsecondary credential as of spring/summer 2017.

Chart 16 shows the last semester enrolled for non-college graduates from the BPS Class of 2011 by the type of college in which they first enrolled. There is a steeper drop-off in the first year for students who start in a two-year public or four-year private institution with 168 last enrolling during 2011-12. However, after the

CHART 16

School year of last enrollment for immediate fall enrollees

By type of college where first enrolled (N=924)



Source: PIC analysis of NSC data; Immediate fall enrollees who did not graduate; last school year with an enrollment record.

Note: Students with an enrollment record during 2016-17 may be still enrolled during school year 2017-18. Available NSC data goes through summer 2017, so the enrollment status of students during 2017-18 is not known.

first year there is a consistent number of students no longer attending during each of the next four years (through 2015-2016), with 122 in 2012-13, 120 in 2013-14, 136 in 2014-15, and 130 in 2015-16. The 2016-2017 year appears to show a spike in the number of students no longer attending, but that is partly due to it being the last school-year analyzed in this data set. At the time of publication, the available NSC data end in summer 2017. Many of the students whose last enrollment was in year 6 are still enrolled toward a degree in fall 2017 or spring 2018. In summary, while a substantial number of students only attend college for one year after high school, most non-college graduates continue attending for 2 or more years after high school.

Degrees Earned by BPS Class of 2011 College Graduates

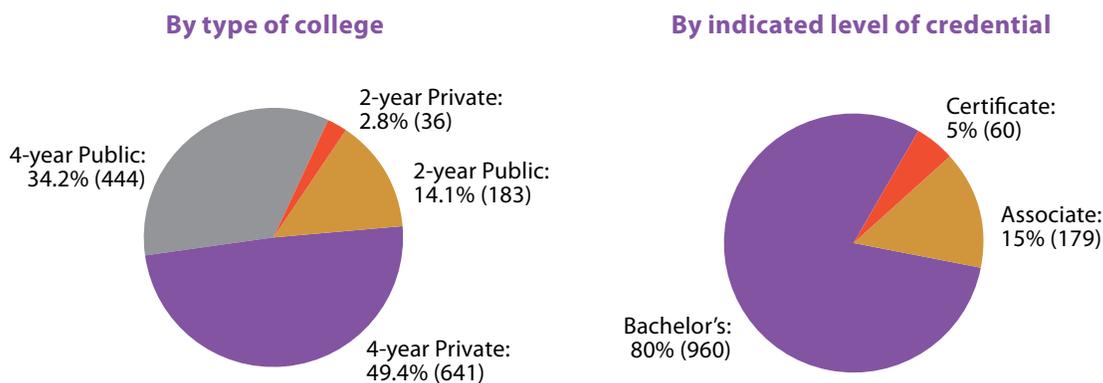
The economic returns to postsecondary education are largest for those who complete a postsecondary credential or degree. Past economic research has labeled this the “sheepskin effect” to distinguish between the labor market returns of college graduates from those who complete some postsecondary schooling, but do not obtain a credential.²⁵ Using data from the American Community Survey, researchers analyzing the labor market returns to Bachelor’s degrees by field of study have found that there is substantial variation in earnings by college major.²⁶ This section and the following one present information on BPS Class of

2011 college graduates' degrees earned and fields of study. Understanding students' types of degrees and the fields of study earned can inform strategies to improve the alignment between educational programs and workforce demand.

Of the BPS Class of 2011, 1,304 completed a postsecondary credential, and 91.9% (1,199) have their degree levels and fields of study indicated in the NSC records. Of the 1,304 college completers, 142 earned a second degree, and six earned a third degree in six years. The analysis in this section focuses on the first degrees earned by graduates. Of the first degrees earned by the Class of 2011, 49.4%, or 641, were earned at four-year private institutions; 34.2%, or 444, were from four-year public institutions; 14.1%, or 183, were from two-year public institutions; and 2.8%, or 36, were from two-year or less than two-year private institutions.²⁷ The share of degrees and certificates earned by Class of 2011 college graduates are also displayed in **Chart 17**. Of these, 960 students (80%) earned a Bachelor's degree as their first degree, 179 students (15%) earned an Associate's degree, and 60 (5%) earned a certificate. The high share of Bachelor's degrees earned is promising for the labor market prospects of graduates. In Boston and Massachusetts, Bachelor's degree holders have substantially higher full-time employment rates and median annual earnings than their peers with lower levels of educational attainment.

CHART 17

First credentials earned by the BPS Class of 2011



Source: PIC analysis of National Student Clearinghouse

Note: Less than two-year private institutions are included in two-year private institutions.

Fields of Study

This section summarizes the fields of study of BPS Class of 2011 graduates who earned a certificate, Associate, or Bachelor's degree by spring/summer 2017. The NSC tracks the field of study for the credential earned by college graduates. More institutions have reported this information on their graduates than in the early years of NSC reporting. The NCS has field of study and degree level detail on 91.9% of BPS Class of 2011 college completers.²⁸ The NSC provides a crosswalk between the fields of study, as they

are reported by postsecondary institutions, and the U.S. Department of Education’s Classification of Instructional Programs (CIP), which provides a taxonomic scheme for fields of study. There are 47 CIP categories. Detailed breakdowns of degrees by CIP category are in the appendix. The fields of study reported for BPS Class of 2011 college completers in the NSC database are grouped into twelve broad categories based on the Community College Research Center’s *How to Measure Community College Effectiveness in Serving Transfer Students*.²⁹

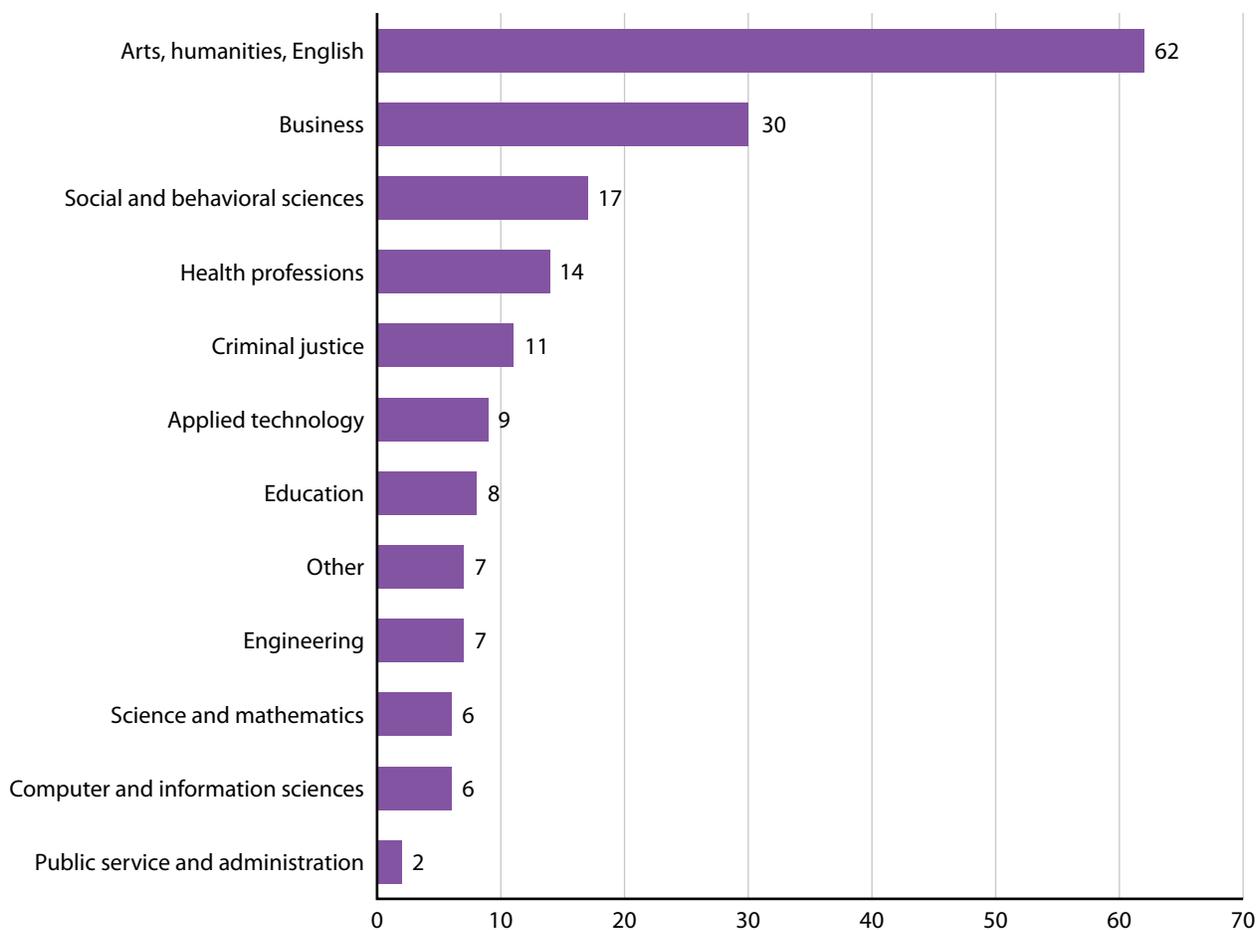
Associate Degree Earners’ Fields of Study

Arts, humanities, and English is the most common area of study among the 179 students who earned an Associate degree as their first degree and who have their field of study information reported to the NSC (Chart 18). The bulk of these are General Studies Associate degrees, with 30 graduates, and Liberal Arts and Sciences/Liberal Studies, with 20. Business majors make up the next broad field of study with 30

CHART 18

Fields of study of Associate degrees

BPS Class of 2011 graduates whose first degree was an Associate degree (n=179)



Source: PIC analysis of NSC data

students, followed by social and behavioral sciences with 17, and health professions with 14 students. Majors in STEM fields, defined as engineering, science and mathematics, and computer and information sciences, make up 11% of the Associate degrees obtained by BPS Class of 2011 graduates with 19.

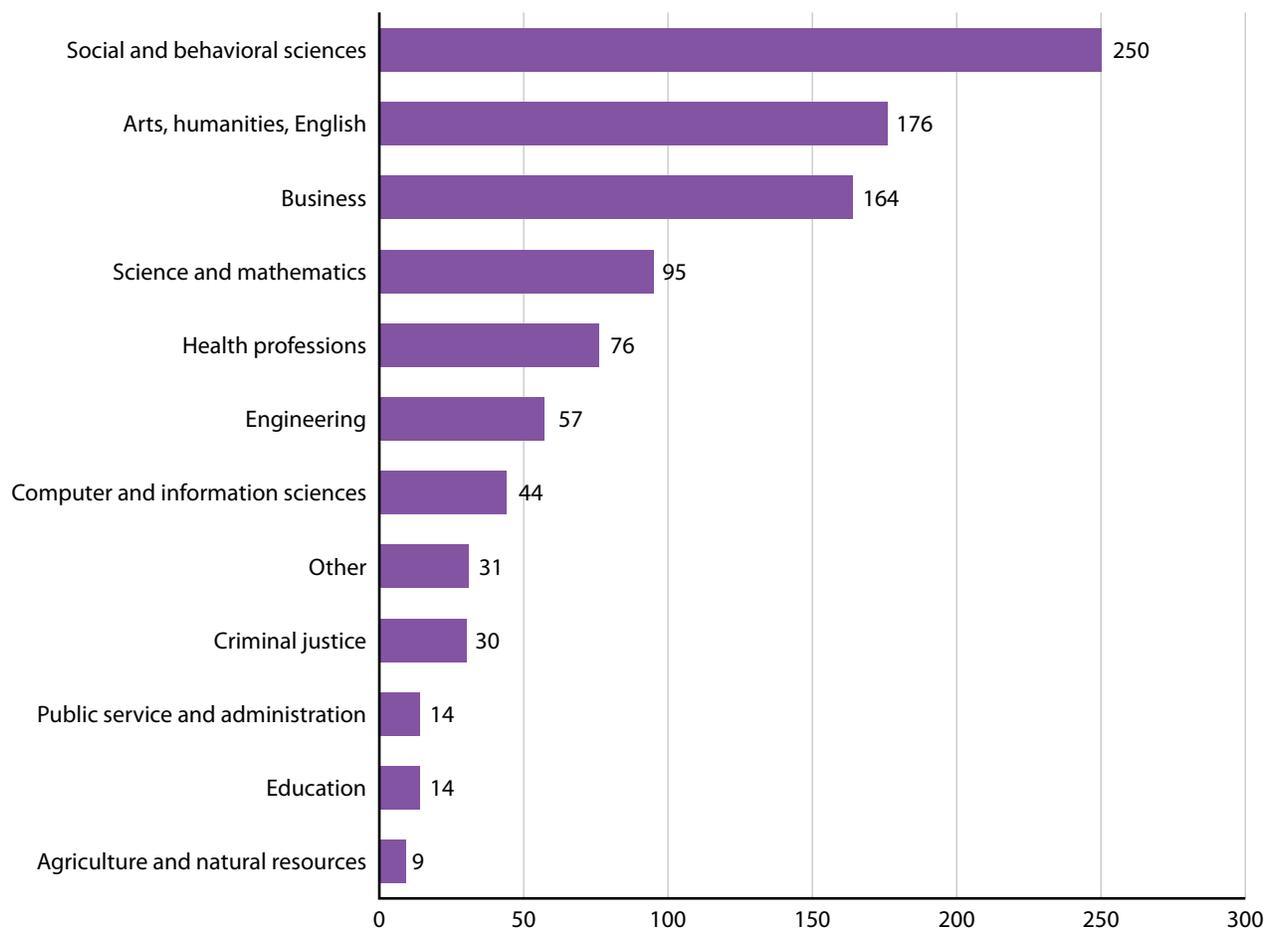
Bachelor's Degree Earners by Field of Study

A similar analysis of the fields of study of BPS Class of 2011 college completers appears below for Bachelor's degree earners (**Chart 19**). Social and behavioral sciences majors are the most common broad area of study among the 960 students who earned a Bachelor's degree as their first degree, with 250 degrees (26%). The next most common fields of study are arts, humanities, and English with 176 students (18%) and then business with 164 (17%). STEM areas of study, defined here as science and mathematics, computer and information sciences, and engineering, make up 20% of the Bachelor's degrees (196 students).

CHART 19

Fields of study of Bachelor's degrees

BPS Class of 2011 graduates whose first degree was a Bachelor's degree (n=960)



Source: PIC analysis of NSC data

TABLE 11

Most common fields of study for Bachelor's degree earners
 BPS Class of 2011 graduates whose first degree earned was a Bachelor's degree;
 fields of study (CIP Family group) with 15 or more degree earners (n=490)

Field of study	# of Bachelor's degree earners	% of total 960 Bachelor's degree earners
Business Administration and Management	92	9.6%
Psychology	83	8.6%
Biology/Biological Sciences	42	4.4%
Economics	39	4.1%
Sociology	35	3.6%
English Language and Literature	33	3.4%
Political Science and Government	30	3.1%
Speech Communication and Rhetoric	30	3.1%
Criminal Justice/Safety Studies	28	2.9%
Nursing/Registered Nurse	25	2.6%
Criminology	20	2.1%
Computer Science	18	1.9%
Accounting	15	1.6%
SUBTOTAL	490	51%

Source: PIC analysis of NSC data

The most common detailed fields of study for Bachelor's degree-earners appear in **Table 11**. This table shows the specific fields of study or college majors with 15 or more Bachelor's degree earners, representing 51% of the graduates whose first degree was a Bachelor's degree. The most popular majors among Bachelor's degree earners are Business Administration and Management with 92 graduates (9.6%), Psychology with 83 graduates (8.6%), Biology with 42 graduates (4.4%), and Economics with 39 graduates (4.1%).

Postsecondary Certificates by Field of Study

There were 60 BPS Class of 2011 college completers who earned a certificate as their first degree (**Table 12**). Of these, 35 (58%) earned a certificate in the health professions, which are mostly medical assistants (20), followed by patient care technicians (3), pharmacy technicians (3), and dental assistants (2). The applied technology certificate includes HVAC&R technology, which accounts for five of the six certificates in this area.

TABLE 12

Certificates by fields of study

BPS Class of 2011 graduates whose first degree earned was a certificate (n=60)

Field of study	# of Certificate graduates	% of Certificate graduates
Health professions	35	58%
Other	8	13%
Applied technology	6	10%
Business	3	5%
Computer and information sciences	3	5%
Criminal justice	3	5%
Education	2	3%
TOTAL	60	100%

Source: PIC analysis of NSC data

Comparisons of Credentials Earned by BPS Graduates to Those Awarded by Institutions in Greater Boston and Massachusetts

For context, the fields of study of BPS Class of 2011 graduates are compared to the fields of study of the degrees earned at all undergraduate higher education institutions in Massachusetts and in the Greater Boston area (defined by the Boston, Metro North, and Metro Southwest Workforce Development Areas; see appendix for complete list of cities included). The fields of study data for Massachusetts and Greater Boston are from the U.S. Department of Education IPEDS, and are the first majors of Bachelor's degrees and Associate degrees earned in 2016.³⁰ A full comparison by all the fields of study is in the appendix.

Table 13 shows the fields of study by percentage of BPS Class of 2011 graduates who earned Bachelor's degrees as their first degrees. This table represents fields of study with over 4% of BPS Class of 2011 first-degree Bachelor's earners. The shares of BPS degree earners by field of study are generally fairly consistent with Massachusetts and Greater Boston in 2016. However, BPS Class of 2011 graduates are overrepresented in social sciences and psychology, and underrepresented in health professions and clinical sciences and engineering relative to the state and Greater Boston.

Table 14 shows the comparison for Associate degree earners. The table shows fields of study with 2 or more BPS Class of 2011 first-degree Associate earners. There are only 179 BPS Class of 2011 Associate degree earners, compared to 4,505 Associate degrees earned in 2016 in Greater Boston and 13,777 earned throughout the state, so the comparison of percentages of field of study should be made with some caution. BPS Class of 2011 Associate degree earners have higher shares of liberal arts and sciences, general studies and humanities degrees, and a lower share of health professions and clinical sciences degrees compared to total Massachusetts and Greater Boston degree earners.

TABLE 13

Bachelor's degree fields of study

Comparison of Massachusetts, Greater Boston, and BPS Class of 2011 graduates share of degrees, ordered by share of BPS Class of 2011 per field of study, highest to lowest

Field of study	% of MA state total (n=61,082)	% of Greater Boston total (n=31,397)	% of BPS Class of 2011 total (n=960)	BPS share of degrees – MA state share of degrees (percentage point)	BPS share of degrees – Greater Boston share of degrees (percentage points)
Business, Management, Marketing, and Related Support	18.6%	21.0%	17.1%	-1.5	-3.9
Social Sciences	9.8%	11.1%	15.4%	5.6	4.3
Psychology	7.0%	5.9%	10.0%	3	4.1
Health Professions and Related Clinical Sciences	10.3%	10.6%	7.9%	-2.4	-2.7
Biological and Biomedical Sciences	6.9%	6.6%	7.3%	0.4	0.7
Communication, Journalism, and Related Programs	4.4%	5.4%	4.9%	0.5	-0.5
Engineering	6.6%	6.6%	4.6%	-2.1	-2
Computer and Information Sciences and Support Services	3.7%	4.2%	4.3%	0.6	0.1
Liberal Arts and Sciences, General Studies and Humanities	1.1%	0.7%	4.2%	3	3.5
Visual and Performing Arts	6.8%	9.0%	3.8%	-3.1	-5.3
English Language and Literature/Letters	2.8%	2.5%	3.8%	0.9	1.3
Other fields of study	21.8%	16.4%	16.9%		
TOTAL	100%	100%	100%		

Source: U.S. Department of Education IPEDS (first major, degrees earned by CIP code, Massachusetts, and Metro North, Metro Southwest, and Boston Workforce Development Areas); NSC

TABLE 14

Comparison of Associate degree fields of study

Comparison of Massachusetts, Greater Boston, and BPS Class of 2011 graduates share of degrees, ordered by share of BPS Class of 2011 per field of study, highest to lowest

Field of study	% of MA state total (n=13,777)	% of Greater Boston total (n=4,505)	% of BPS Class of 2011 total (n=179)	BPS share of degrees – MA state share of degrees (percentage point)	BPS share of degrees – Greater Boston share of degrees (percentage points)
Liberal Arts and Sciences, General Studies and Humanities	27.9%	23.2%	33.5%	5.6	10.3
Business, Management, Marketing, and Related Support	16.5%	19.2%	16.8%	0.2	-2.4
Health Professions and Related Clinical Sciences	21.4%	20.7%	7.8%	-13.6	-12.8
Psychology	0.9%	2.1%	6.1%	5.3	4.1
Education	3.9%	5.9%	4.5%	0.6	-1.5
Computer and Information Sciences and Support Services	3.5%	3.5%	3.4%	-0.1	-0.1
Visual and Performing Arts	1.9%	1.7%	3.4%	1.5	1.7
Personal and Culinary Services	1.6%	3.9%	3.4%	1.8	-0.5
Mechanic and Repair Technologies/Technicians	1.1%	2.2%	3.4%	2.3	1.1
Engineering Technologies/Technicians	2.2%	2.4%	2.8%	0.6	0.4
Social Sciences	0.4%	1.0%	2.8%	2.4	1.8
Multi/Interdisciplinary Studies	1.1%	0.0%	1.7%	0.6	1.7
Communication, Journalism, and Related Programs	0.6%	0.9%	1.7%	1.1	0.8
Construction Trades	0.1%	0.4%	1.7%	1.5	1.3
Public Administration and Social Service Professions	1.9%	0.6%	1.1%	-0.8	0.6
Biological and Biomedical Sciences	1.1%	1.7%	1.1%	0	-0.6
Engineering	1.1%	0.8%	1.1%	0	0.3
English Language and Literature/Letters	0.1%	0.3%	1.1%	1	0.8
Other	12.8%	9.7%	2.8%		
TOTAL	100%	100%	100%		

Source: U.S. Department of Education IPEDS (first major, degrees earned by CIP code, Massachusetts, and Metro North, Metro Southwest, and Boston Workforce Development Areas); NSC

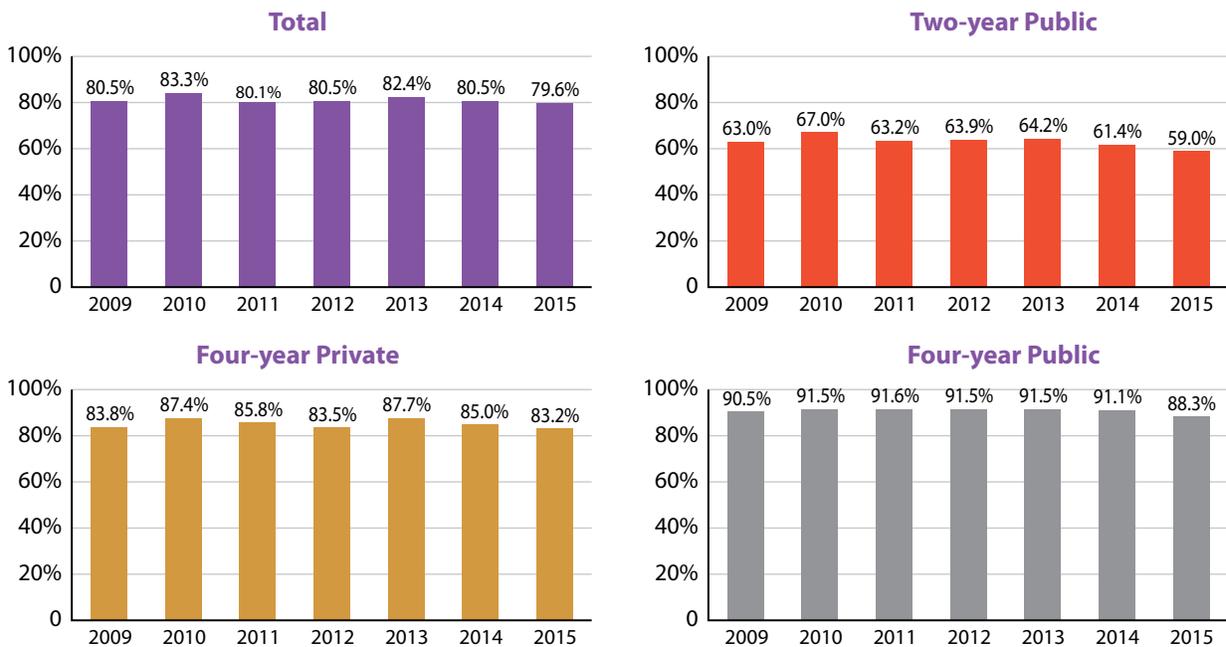
Looking Ahead: Persistence Rates for BPS Classes of 2009 to 2015

This report has focused on six-year outcomes for the Class of 2011 with comparisons to earlier high school classes. In this brief section, the one-year and two-year college persistence rates of the Class of 2011 are compared to earlier classes and more recent high school classes. The purpose of this analysis is to detect any trends in college persistence behavior of BPS Classes.

The one-year persistence rates for the Classes of 2009 through 2015 by type of institution first attended are displayed in **Chart 20**. The one-year persistence rates are the percentages of immediate fall enrollees who reenroll anywhere the following fall semester. Students are “persisters” if they reenroll in the institution where they started or another institution during the following fall semester or completed a credential. Persistence is tracked back to the institution type where students first enrolled.

CHART 20

Percentage of immediate fall enrollees who enroll the following fall BPS Classes of 2009 to 2015, by type of school where first enrolled



Source: PIC analysis of NSC data

Note: Some of the variation in persistence rates may be due to inconsistent reporting of student information to the NSC.

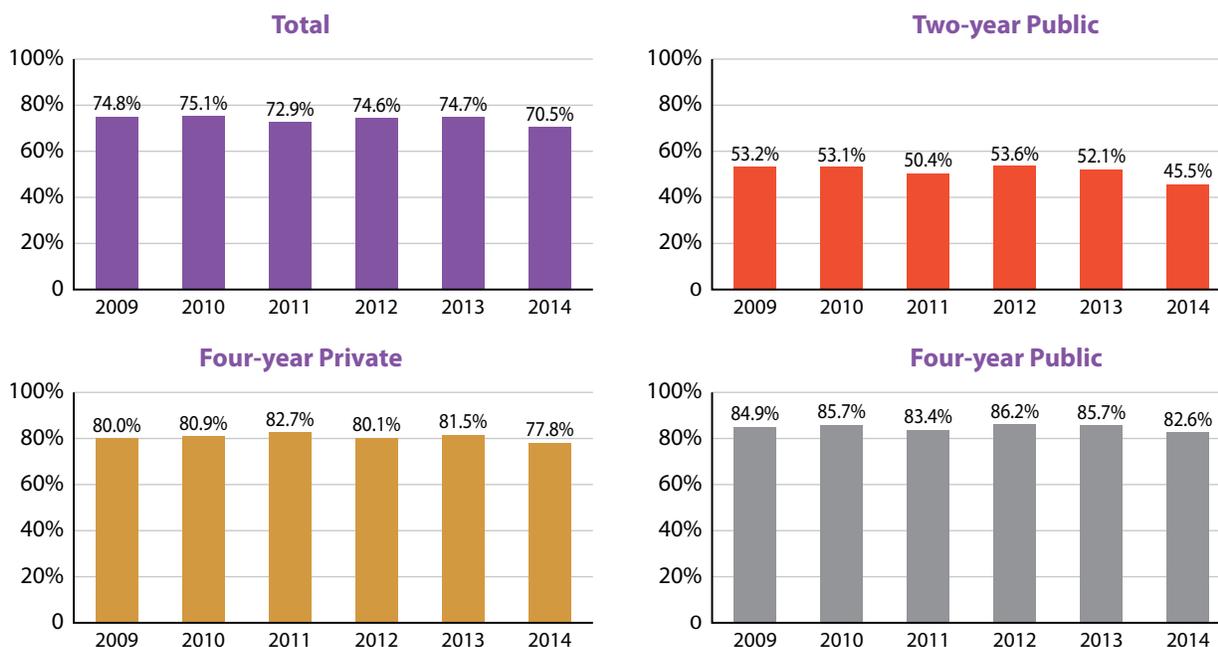
One-year persistence rates for all immediate fall enrollees from the Classes of 2009 through 2015 hovered in the 80% to 83% range. At two-year public colleges, the range was slightly wider, ranging from 59% to 67%. The one-year persistent rates of two-year public college enrollees in 2014 and 2015 are below those of earlier classes. At 4-year public colleges, one-year persistence rates were steady at 91% to 92% from the Classes of 2010 to 2014, and have dipped to 88% for the Class of 2015. The Class of 2015 who first attended four-year private colleges also appeared to have a lower one-year persistent rate than earlier classes. Overall, the one-year persistence rates trended downward for the Classes of 2014 and 2015.

The two-year persistence rates for the BPS Class of 2009 to 2014 fall enrollees are in **Chart 21**. The fall 2017 data are not available at this time to analyze two-year outcomes for the Class of 2015. Two-year persistence rates are the percentage of immediate fall enrollees who enrolled two years later in the fall semester at any institution. For example, Class of 2011 fall enrollees would be included if they enrolled in fall 2013.

The two-year college persistence rates for all fall enrollees from the Classes of 2009 to 2014 range from 70.5% to 75.1%, with the Class of 2014 having the lowest two-year persistence rate. BPS graduates who first enrolled at two-year public institutions had two-year persistence rates that ranged from 50.4% to 53.6% for the Classes of 2009 to 2013. The two-year persistence rate for the Class of 2014 declined to 45.5%. At four-year public and private institutions, two-year persistence rates were fairly steady and consistent from the Classes of 2009 to 2013, but also dipped lower for the Class of 2014. Similar to the analysis of one-year persistence rates, the two-year rates have not change substantially but have trended downward for the Class of 2014.

CHART 21

Percentage of immediate fall enrollees who enroll two years later
BPS Class of 2009 to 2014, by type of institution where they first enrolled



Source: PIC analysis of NSC data

Note: Some of the variation in persistence rates may be due to inconsistent reporting of student information to the NSC

Summary and Conclusion

To measure progress toward college completion rate goals for BPS graduating classes, Success Boston tracks the six-year college completion of BPS graduates who enroll in college during the first year after high school. Through six years, the college completion rate for the BPS Class of 2011 first-year enrollees is 52%. While this college completion rate is lower than the very ambitious target of 70% set back in 2008 at the launch of Success Boston, it is the highest recorded to date for BPS graduates. It is also clear that college completion rates have increased sharply since the Class of 2000.

This report also tracks college completion as a percentage of the high school graduating class. The cumulative college enrollment rate of BPS graduates has increased from 67% for the BPS Class of 2000 to nearly 81% for the Class of 2011. The percentage share of the high school class obtaining a postsecondary credential in six years has increased from 24.7% for the Class of 2000 to 38.3% for the Class of 2011, a 14 percentage point gain. More BPS high school graduates are completing degrees due to increases in the rates of college enrollment and completion. Of the 3,401 graduates from the Class of 2011, a total of 1,304 have earned a college degree, up 77% from the 735 college graduates from the Class of 2000.

Despite the upward trends in completion rates, the Class of 2011 results reveal that gender and race-ethnic gaps in college enrollment and college completion remain. While more Black and Hispanic/Latino graduates are earning degrees than before due to higher rates of college enrollment and improving college completion rates, their college completion rates still substantially lag behind those of their White and Asian peers.

The analysis of college completion rates by high school and postsecondary institution types shows where students are experiencing more success and where more needs to be done to improve BPS graduates' chances of attaining a postsecondary credential. On the high school side, 77% of the city's exam school graduates enrolling in college earned a degree within six years. The college completion rate in exam schools is nearly 70% or higher for the four major race-ethnic groups. For BPS Class of 2011 graduates from other school types, college completion rates are less than 50%. The six-year college completion rate of the district's pilot schools is 47%; it is 38% for traditional schools.

The college completion rates of BPS Class of 2011 graduates are compared to U.S. averages for the fall 2011 cohort of first-time college enrollees under the age of 21. In the U.S., the six-year college completion rate of immediate fall enrollees is 61.7% compared to 55.2% for BPS Class of 2011 immediate fall enrollees, a difference of 6.5 percentage points. The six-year college completion rates of BPS Class of 2011 fall enrollees at two-year public institutions are 15 percentage points below that of their peers at two-year institutions across the country. At four-year institutions, BPS graduates trailed the national

averages by 3.5 percentage points at four-year public institutions and 10 percentage points at four-year private institutions. Across race-ethnicity, the college completion rates of BPS Class of 2011 closely mirror national patterns.

An examination of the timing of first enrollment and full-time/part-time enrollment status shows the varied enrollment paths that students pursue, especially at the two-year college level, and how these enrollment decisions are related to completion outcomes. BPS Class of 2011 enrollees that delayed the start of college, even by one semester, were substantially less likely to complete college than those who enrolled immediately.

Class of 2011 enrollees who start at two-year public institutions have varied enrollment patterns through the first four semesters of their college experience. Very few students attended two-year institutions full-time continuously for the first four semesters, and their completion rate is the highest at almost 70%. Among the other groups that enrolled continuously, college completion rates were substantially better for enrollees who alternated between full-time and part-time status, compared to those that enrolled at part-time levels throughout the first four semesters. The final group, those that took off at least one semester during the first two academic years, had a six-year college completion rate of only 8.2%.

The degrees earned and fields of study of college graduates can inform discussions about the alignment of postsecondary education and workforce demand. Over 80% of enrollee's first postsecondary credentials earned were Bachelor's degrees, followed by nearly 15% at the Associate degree level and 5% being certificates. Of Bachelor's degree completers, a greater share of BPS Class of 2011 graduates completed their first degrees in liberal arts and sciences, general studies and humanities, and in psychology, compared to recent totals of Massachusetts and Greater Boston degrees awarded. The most common fields of study for Bachelor's degree earners were social and behavioral sciences, arts, humanities and English, and business. STEM areas of study account for 20% of the Bachelor's degrees earned by BPS Class of 2011 graduates.

Among Associate degree earners, the most common fields of study were liberal arts and sciences, general studies and humanities, and business. Associate degree earners from the BPS Class of 2011 have a higher share of liberal arts and sciences, general studies, and humanities degrees and a lower share of health professions degrees, compared to total Massachusetts and Greater Boston Associate degree earners.

Tracking year-to-year persistence rates allows a comparison of more recent BPS classes to earlier classes to assess if they are on track to have improved completion rates. One-year persistence rates for all immediate fall enrollees from the Classes of 2009 to 2015 have hovered around 80%, with the exception of 2010 and 2013 when they bumped up slightly to 83% and 82%. The one-year persistence rates of fall enrollees at two-year colleges—generally in the 60% to 67% range—were lowest for the more recent Classes of 2014 and 2015. Two-year persistence rates also were steady through the Classes of 2009 to 2013, ranging between 73% and 75%, but dipped for the Class of 2014, the most recent class with two years

of persistence data. The findings on one-year and two-year persistence rates for the most recent classes should continued to be monitored closely to determine if they are part of a larger trend.

This report highlights gains in college enrollment and completion in the aggregate and continuing challenges for those graduates of the Boston Public Schools who go on to college, but fall short in the pursuit toward a degree. In addition to tracking progress, it also provides Success Boston's leadership and coaches with valuable information going forward. There are clear indications that students who enroll in college immediately following graduation from high school are far more likely to complete a degree, which has implications for those working with students who are still in high school and just beginning to making decisions about when to start their postsecondary experience. In addition, there is no doubt that more work remains to address the barriers that Black and Hispanic/Latino graduates and male graduates face—to close the college completion gap between those students and their White and Asian—and female—counterparts.

From the beginning, Success Boston has been dedicated not only to helping Boston's graduates persist in and complete college, but also to tracking progress and making the results available to the public. This work has helped not only Boston, but also cities across the country struggling with the same challenges in an economy that increasingly relies on a workforce made up of college graduates.

Appendices

APPENDIX A

High School Categories for the Class of 2011

The listing below shows how each high school in the National Student Clearinghouse file was categorized by type in this report.

ALTERNATIVE EDUCATION

Boston Adult Technical Academy
Greater Egleston Community High School
Community Academy

EXAM

Boston Latin School
Boston Latin Academy
John D. O'Bryant School of Mathematics
and Science

TRADITIONAL

Brook Farm Business and Service Academy**
Dorchester Academy
Monument High School**
Odyssey High School**
Parkway Academy of Technology and Health**
Social Justice Academy**
The Engineering School**
Brighton High School
Charlestown High School
Community Academy of Science and Health
East Boston High School
English High School
Excel High School
Jeremiah E Burke High School
Madison Park Technical Vocational High School
Snowden International School
Urban Science Academy
West Roxbury Academy

PILOT SCHOOLS

Another Course to College
Boston Arts Academy
Boston Community Leadership Academy
Edward M. Kennedy Academy for Health Careers*
Fenway High School
Josiah Quincy Upper School
New Mission High School
TechBoston Academy

SPECIAL POPULATIONS

Boston International High School
Mckinley Elem and Tech High School
Mckinley Prep High School

*These schools are Horace Mann in-district charters. **These schools closed since the 2010-11 academic year.

APPENDIX B

Detail of BPS Completions by CIP code

These tables show the fields of study of the first degrees earned by Class of 2011 graduates, by the Classification of Instructional Programs (CIP) Family codes of 2010.

BACHELOR'S DEGREE FIELD OF STUDY: FIRST DEGREE EARNED (N=960)

Field of Study	Frequency	Percent
Business, Management, Marketing, and Related Support	164	17.1
Social Sciences	148	15.4
Psychology	96	10
Health Professions and Related Clinical Sciences	76	7.9
Biological and Biomedical Sciences	70	7.3
Communication, Journalism, and Related Programs	47	4.9
Engineering	44	4.6
Computer and Information Sciences and Support Services	41	4.3
Liberal Arts and Sciences, General Studies and Humanities	40	4.2
Visual and Performing Arts	36	3.8
English Language and Literature/Letters	36	3.8
Parks, Recreation, Leisure and Fitness Studies	19	2.0
Public Administration and Social Service Professions	14	1.5
Mathematics and Statistics	14	1.5
History	14	1.5
Education	14	1.5
Foreign Languages, Literatures, and Linguistics	13	1.4
Physical Sciences	11	1.1
Engineering Technologies/Technicians	10	1.0
Philosophy and Religious Studies	8	0.8
Area, Ethnic, Cultural, and Gender Studies	8	0.8
Natural Resources and Conservation	6	0.6
Multi/Interdisciplinary Studies	6	0.6
Legal Professions and Studies	6	0.6
Other	19	1.8
TOTAL	960	100

Note: fields of study with five or fewer graduates are in "Other"

ASSOCIATE DEGREE FIELD OF STUDY: FIRST DEGREE EARNED (N=179)

Field of Study	Frequency	Percent
Liberal Arts and Sciences, General Studies and Humanities	60	33.5
Business, Management, Marketing, and Related Support	30	16.8
Health Professions and Related Clinical Sciences	14	7.8
Psychology	11	6.1
Education	8	4.5
Computer and Information Sciences and Support Services	6	3.4
Mechanic and Repair Technologies/Technicians	6	3.4
Personal and Culinary Services	6	3.4
Visual and Performing Arts	6	3.4
Other	32	17.7
TOTAL	179	100

Note: fields of study with five or fewer graduates are in “Other”

CERTIFICATE FIELD OF STUDY : FIRST DEGREE EARNED (N=60)

Field of Study	Frequency	Percent
Health Professions and Related Clinical Sciences	35	58.3
Personal and Culinary Services	8	13.3
Mechanic and Repair Technologies/Technicians	6	10
Other	11	18.4
TOTAL	60	100

Note: fields of study with five or fewer graduates are in “Other”

APPENDIX C

Crosswalk of Broad Field of Study Category to CIP Family Group

These categories are based on the Community College Research Center’s *How to Measure Community College Effectiveness in Serving Transfer Students* categorization of fields of study, with some modifications.

Field of Study Broad Group	CIP Family Group
Agriculture and natural resources	Agriculture, Agriculture Operations, and Related Sciences Natural Resources and Conservation
Applied Technology	Construction trades Mechanic and Repair Technologies/Technicians Military Technologies Precision Production Transportation and Materials Moving
Arts, humanities, English	Area, Ethnic, Cultural, and Gender Studies Citizenship Activities Communication, Journalism, and Related Programs English Language and Literature/Letters Foreign Languages, Literatures, and Linguistics History Liberal Arts and Sciences, General Studies and Humanities Philosophy and Religious Studies Theology and Religious Vocations Visual and Performing Arts
Business	Business, Management, Marketing, and Related Support
Computer and information sciences	Communications Technologies/Technicians and Support Services Computer and Information Sciences and Support Services Library Science
Criminal justice	Security and Protective Services
Education	Education
Engineering	Architecture and Related Services Engineering Engineering Technologies/Technicians
Health professions	Health Professions and Related Clinical Sciences Health-Related Knowledge and Skills
Public service and administration	Public Administration and Social Service Professions
Other	Basic Skills Family and Consumer Sciences/Human Sciences High School/Secondary Diplomas Certificates Leisure and Recreational Activities Multi/Interdisciplinary Studies Parks, Recreation, Leisure and Fitness Studies Personal and Culinary Services Personal Awareness and Self-Improvement Reserve Officer Training Corps (JROTC, ROTC) Residency Programs
Social and behavioral sciences	Agriculture, Agriculture Operations, and Related Sciences Interpersonal and Social Skills Legal Professions and Studies Psychology Social Sciences
Science and mathematics	Biological and Biomedical Sciences Mathematics and Statistics Physical Sciences Science Technologies/Technicians

APPENDIX D

Cities included in Greater Boston for degree comparison

BOSTON WORKFORCE DEVELOPMENT AREA

Boston

METRO NORTH WORKFORCE DEVELOPMENT AREA

Arlington	Medford	Wakefield
Belmont	Melrose	Watertown
Burlington	N. Reading	Wilmington
Cambridge	Reading	Winchester
Chelsea	Revere	Winthrop
Everett	Somerville	Woburn
Malden	Stoneham	

METRO SOUTHWEST WORKFORCE DEVELOPMENT AREA

Acton	Hudson	Sherborn
Ashland	Lexington	Southborough
Bellingham	Lincoln	Stow
Bedford	Littleton	Sudbury
Boxborough	Marlborough	Walpole
Brookline	Maynard	Waltham
Canton	Medfield	Wayland
Carlisle	Medway	Wellesley
Concord	Millis	Weston
Dedham	Natick	Westwood
Dover	Needham	Wrentham
Foxborough	Newton	
Framingham	Norfolk	
Franklin	Norwood	
Holliston	Plainville	
Hopkinton	Sharon	

Endnotes

1. Sum, A., Fogg, N., Khatiwada, I., McLaughlin, J., and Palma, S., "Getting to the Finish Line: College Enrollment and Graduation" Prepared for the Boston Private Industry Council and the Boston Public Schools, Boston, 2008. The completion rate was revised upwards after collecting updated completion data reported by higher education institutions to the National Student Clearinghouse.
2. For more information on Success Boston, see: <http://www.successboston.org>.
3. For a review of the evidence on the impacts of various college counseling and coaching interventions, see: Avery, C., Howell, J., and Page, L., A review of the Role of College Counseling, Coaching, and Mentoring on Students' Postsecondary Outcomes, College Board Research, October 2014.
4. For a review and analysis of the implementation and impacts of Success Boston transition coaching, see: i) Abt Associates, "The Power of Coaching: Interim Report on the Impact of Success Boston's Transition Coaching on College Success", Prepared for The Boston Foundation, March 2017. ii) Abt Associates, "Success Boston Coaching for Completion: 2015-2016 Implementation Report", Prepared for The Boston Foundation, March 2017.
5. 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.
6. McLaughlin, J., Sullivan, N., and Van Eaton, A., "The Six Year College Enrollment and Completion Experiences of Boston Public Schools Class of 2009," Chapter 1, in *Reaching for the Cap and Gown*. Boston Private Industry Council and Abt Associates for Success Boston. The Boston Foundation. June 2016.
7. For a more detailed description of how these individual characteristics influence college completion outcomes, See: Sum, A., Khatiwada, I., McHugh, W., Palma, S., "Getting Closer to the Finish Line: The College Enrollment and Completion Experiences of Graduates from the Boston Public Schools," Center for Labor Market Studies, Prepared for The Boston Foundation, 2013.
8. See: Boston Public Schools, <https://www.bostonpublicschools.org/Page/941>.
9. McLaughlin, J., Sullivan, N., and Van Eaton, A., *Reaching for the Cap and Gown* (2016)
10. Massachusetts Department of Elementary and Secondary Education, Graduates Attending Higher Education. Available at: <http://profiles.doe.mass.edu/statereport/gradsattendingcollege.aspx>.
11. Sum, A., et.al. "Getting Closer to the Finish Line (2013)." This 40.6% rate is based on first-year enrollees. The first longitudinal study of the BPS Class of 2000 tracked completion rates for all enrollees regardless of when they started and found the completion rate to be 35.5% through seven years after high school, which was then updated to 39% when more data became available.
12. In this report, college labor market occupations refer to occupations with a minimum education requirement of an Associate or Bachelor's degree as determined by the U.S. Bureau of Labor Statistics.
13. See: i) Sum, A., et.al. "Getting Closer to the Finish Line (2013)." ii) McLaughlin, J., et.al. "The Six-Year College Enrollment and Completion Experiences of the Boston Public Schools Class of 2009," (2016).
14. McLaughlin, J., Sullivan, N., and Van Eaton, A., *Reaching for the Cap and Gown* (2016)

15. For a review of research on how student, family, and school level characteristics influence college completion, see: Balfanz, R., DePaoli, J., Ingram, E., Bridgeland, J, and Fox, J., Closing the College Gap: A Roadmap to Postsecondary Readiness and Attainment, Civic Enterprises and Everyone Graduates Center, December 2016.
16. The listing of schools in each category appears in the appendix.
17. The results for alternative high schools do not include Boston Day and Evening because postsecondary data were not available for them.
18. Sum, *Getting Closer to the Finish Line*, (2013), p. 52.
19. 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, they would be reported as a graduate where they first attended college, which would be a four-year college.
20. i) Crosta, Peter M. *Intensity and Attachment: How the Chaotic Enrollment Patterns of Community College Students Affect Educational Outcomes*. Community College Research Center; June 2013. ii) Belfield, Clive, Davis Jenkins, and Hana Lahr. *Momentum: the Academic and Economic Value of a 15-Credit First-Semester Course Load for College Students in Tennessee*. Community College Research Center; June 2016.
21. Shapiro, D., Dundar, A., Huie, F., Wakhungu, P.K., Yuan, X., Nathan, A. & Bhimdiwali, A., *Completing College: A National View of Student Completion Rates- Fall 2011 Cohort* (Signature Report No. 14), National Student Clearinghouse Research Center, 2017.
22. BPS college enrollees have a higher share of enrollment in 4-year private institutions compared to their national peers. The share of BPS Class of 2011 graduates attending a 4-year private institutions was 38% compared to 18% for the nation's fall 2011 cohort. This is largely due to the dense concentration of private institutions in the Greater Boston area and New England. While the college completion rates for BPS graduates at 4-year private institutions are high relative to other institutions, there is tremendous variation across individual college, especially when comparing very selective institutions to those that are less selective in the admissions process.
23. Shapiro, D., Dundar, A., Huie, F., Wakhungu, P., Yuan, X., Nathan, A & Hwang, Y., A. (2017, April). *Completing College: A National View of Student Attainment Rates by Race and Ethnicity – Fall 2010 Cohort* (Signature Report No. 12b). Herndon, VA: National Student Clearinghouse Research Center.
24. See: i) Crosta, P., "Intensity and Attachment," (2013). ii) 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.
25. Jaeger, D., & Page, M. Degrees Matter: New Evidence on Sheepskin Effects in the Returns to Education. *The Review of Economics and Statistics*, 78(4), 733-740. (1996).
26. Hersbein, B., and Kearney, M., "Major Decision: What Graduates Earn Over Their Lifetimes," The Hamilton Project, 2014.
27. Six students have their first credential level indicated as Master's Degree or Doctoral-Professional. We assume that these students earned lower level first degrees that have not been reported in the NSC data. They are included in the overall 1,304 first degrees earned but are not included in the type of degree disaggregation.
28. Only 5% of the semester enrollment records for BPS Class of 2011 included the enrollees' majors, so students' majors while they are enrolled cannot be analyzed at this time.
29. Jenkins, Davis and John Fink. *How to Measure Community College Effectiveness in Serving Transfer Students*. Community College Research Center. December 2017.
30. The comparison was made with the 2016 academic year because the majority of BPS Class of 2011 graduates obtained college degrees during the 2014-15 and 2015-16 academic years.

