

Getting to the Finish Line

College Enrollment and Graduation

A Seven Year Longitudinal Study of the Boston Public Schools Class of 2000



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and
Boston Public Schools

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Introduction and Acknowledgements

This report provides a detailed outline of the story of the Boston Public Schools (BPS) Class of 2000 as seen through the lens of college enrollment, graduation and continuing enrollment. This is a study of student experiences and tells us how many students from the BPS Class of 2000 enrolled in two and four year colleges over the seven years following high school graduation. It tells us the number of students who obtained postsecondary degrees from the schools in which they enrolled initially, as of the summer of 2007, and the number who received degrees from some other institution. This provides us with the percentage of BPS graduates entering college who have received formal degrees, as well as the number of those who were still enrolled without a degree in the spring of 2007. We sort this data by gender, race-ethnicity, type of college initially attended, and type of high school from which these students graduated.

As a study of college graduation seven years after high school graduation, regardless of when students initially enrolled, this report does not compare directly with the findings of the Integrated Postsecondary Educational Data Systems (IPEDS) report, a federal report on three and six year graduation rates for two and four year colleges, respectively. We are able to generate six year graduation rates for subsets of students within the Class of 2000, but this is not the primary purpose of this study. We have detailed reports on the experiences of BPS graduates at specific colleges and universities, as well as reports sorted by the high schools from which they graduated, and we will share this data with these schools and colleges for their own analysis and benchmarking.

Boston has made significant progress on its postsecondary enrollment rate over the past 15 years, with an increase of over 10 percentage points in the share of new graduates attending college in the first year following high school graduation. Enrollment rates in two and four year colleges for the BPS Class of 2006 are almost three percentage points higher than the national average, suburbs included. However, with the majority of new jobs in the Boston metropolitan economy now requiring a college degree, it makes sense to ask the next question. “How many of those who enroll in college succeed in obtaining a degree?”

We have set up a reporting system that identifies how many BPS high school graduates achieve a college degree within seven years. This unique reporting system allows us to establish a baseline against which we can measure future performance. We would like to gather this data every year for this purpose. In addition, we have data for more recent BPS classes, and we will be able to generate reports on retention as well as graduation rates, allowing us to identify trends over several graduating classes.

It is important to consider Boston's numbers in the context of the nation as a whole. Not much public attention is given to the fact that fewer than half of those who enroll full-time in college in this country obtain a degree within six years. According to the longitudinal study most comparable to our report, the national six year graduation rate for first-time college students is 43.6%. The rates for types of colleges vary substantially. The six year graduation rate for two year public colleges is 26%, as compared to 57.4% for four year public and 69.6% for four year private institutions.

The Boston Private Industry Council, the Boston Higher Education Partnership and the Boston Public Schools initiated this project in the context of the Boston Compact, the city's historic education and workforce development agreement. After a few years of trying to obtain data from local institutions, the Center for Labor Market Studies and the Boston PIC identified the National Student Clearinghouse as the source of data that could tell us what we wanted to know about college enrollment, graduation and continuing enrollment for the vast majority of BPS graduates. In May of 2006, the Boston School Committee authorized the use of date of birth for student identification. This allowed us to link BPS data with the Clearinghouse database, as well as with the CLMS data that has been developed through the PIC's annual "year after" study of BPS graduates.

This project has a long history, and we would like to thank our supporters for their patience. The Boston Plan for Excellence in the Public Schools supported the work over several years, as the lead partner for the Schools for a New Society initiative of the Carnegie Corporation of New York. More recently, The Boston Foundation stepped forward with the funding necessary to finish this phase of the project. We also want to thank Bunker Hill Community College, Northeastern University, Benjamin Franklin Institute of Technology and Mount Ida College for allowing us to retrieve data on the college enrollment and college graduation experiences of BPS graduates directly from their records. These institutions had not participated in the Clearinghouse for the years covered by our study, yet together they represented almost one-fifth of the college enrollees. Their inclusion allows us to account for over 97% of the Class of 2000.

Finally, we would like to thank Mayor Thomas M. Menino, the Boston School Committee, chaired by Elizabeth Reilinger, and BPS Superintendents Thomas Payzant, Michael Contompasis and Carol Johnson. Boston persists as one of the best urban school districts in America because its leaders consistently are willing to set new goals, to measure progress, and to collaborate creatively with business, higher education and community partners.

Andrew Sum

Neil Sullivan

Background and Methodology

Over the past few decades in Massachusetts and the U.S., the labor market and income success of adults as well as a growing number of their civic, fiscal, health, and social behaviors and experiences have become more strongly linked with their educational attainment.¹ On average, adults with postsecondary degrees obtain considerably higher annual earnings than their peers with only a high school diploma, and those young adults lacking high school degrees fare far worse than those graduating from high school, especially among males. Lifetime employment and earnings differences between adults with regular high school diplomas and those who failed to graduate from high school have widened considerably since the late 1970s, especially among men.² Encouraging young adults to remain in high school and complete at least some years of postsecondary schooling is more important in today's labor markets than in previous decades.

Since the late 1980s, the Boston Private Industry Council has conducted an annual follow-up survey of the experiences of each new class of graduates from the Boston public high schools in transitioning from high school to the labor market and the postsecondary educational world upon graduation.³ Primarily telephone follow-up interviews are used to identify the college enrollment and employment status of graduates in the late winter and spring of the calendar year following their graduation from high school. For those youth who were enrolled in college at the time of the follow-up interview, information is collected on the name of the college attended, the full-time/part-time status of their enrollment, and their financial aid status. This information has been used to generate estimates each year and over time of the college enrollment rates of BPS graduates, both overall and in an array of demographic and

¹ For studies on the economic, social, and fiscal impacts of graduating from high school and obtaining postsecondary degrees,

See: (i) Andrew Sum, Ishwar Khatiwada, and Joseph McLaughlin et. al., An Assessment of the Labor Market, Income, Social, Health, Civic, Incarceration, and Fiscal Consequences of Dropping Out of High School: Findings for Michigan Adults in the 21st Century, Center for Labor Market Studies, Northeastern University, Prepared for the C.S. Mott Foundation, January 2008; (ii) Andrew Sum, Ishwar Khatiwada, Joseph McLaughlin, Paulo Tobar et. al., An Assessment of the Labor Market, Income, Health, Social, Civic, and Fiscal Consequences of Dropping Out of High School: Findings for Massachusetts Adults in the 21st Century, Center for Labor Market Studies, Northeastern University, Prepared for the Boston Youth Transition Funders Group, January 2007.

² The lifetime earnings of male high school graduates with no completed years of postsecondary in Massachusetts exceed those of male dropouts by more than \$600,000, and male bachelor degree holders will earn \$1.3 million more than high school graduates over their working life.

³ Ishwar Khatiwada and Andrew Sum, The College Enrollment Behavior of Class of 2005 Boston Public High School Graduates Including A Multivariate Statistical Analysis of Findings of the Winter/ Spring 2006 Followup Survey, Center for Labor Market Studies, Northeastern University, Prepared for the Boston Private Industry Council, Research Paper #4, September 2007.

socioeconomic high school groups. Their enrollment rates in two year and four year colleges and universities are estimated. Over the years, college enrollment rates of new graduating classes have typically improved. Postsecondary enrollment rates, including training programs, rose by 10 percentage points over the thirteen years, from 62 percent for the Class of 1993 to 73 percent for the Class of 2006 (Chart 1). Two-thirds of the contacted graduates from the Class of 2006 were attending a two or four year college at the time of the spring 2007 follow-up survey, and another five to six percent were enrolled in some type of postsecondary training program. In recent years, the two and four year college enrollment rate for BPS graduates has exceeded the national average, suburbs included, by as many as five percentage points. (Chart 2).

Chart 1:
Trends in the Postsecondary Enrollment Rates of Boston Public High School Graduates,
1985-2006 (Selected Years, in %)

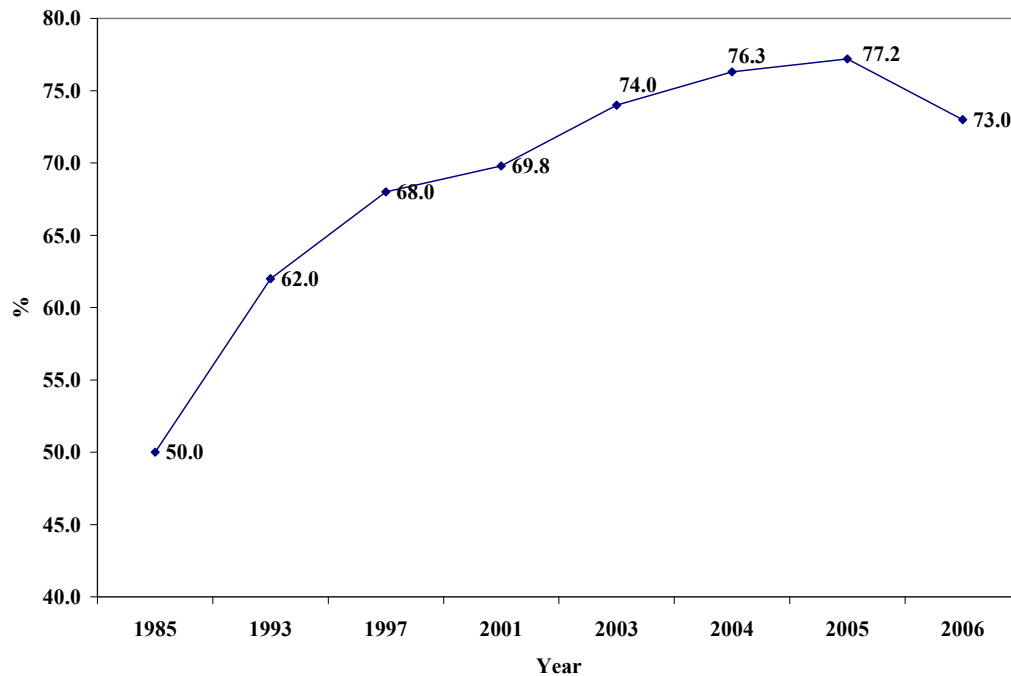
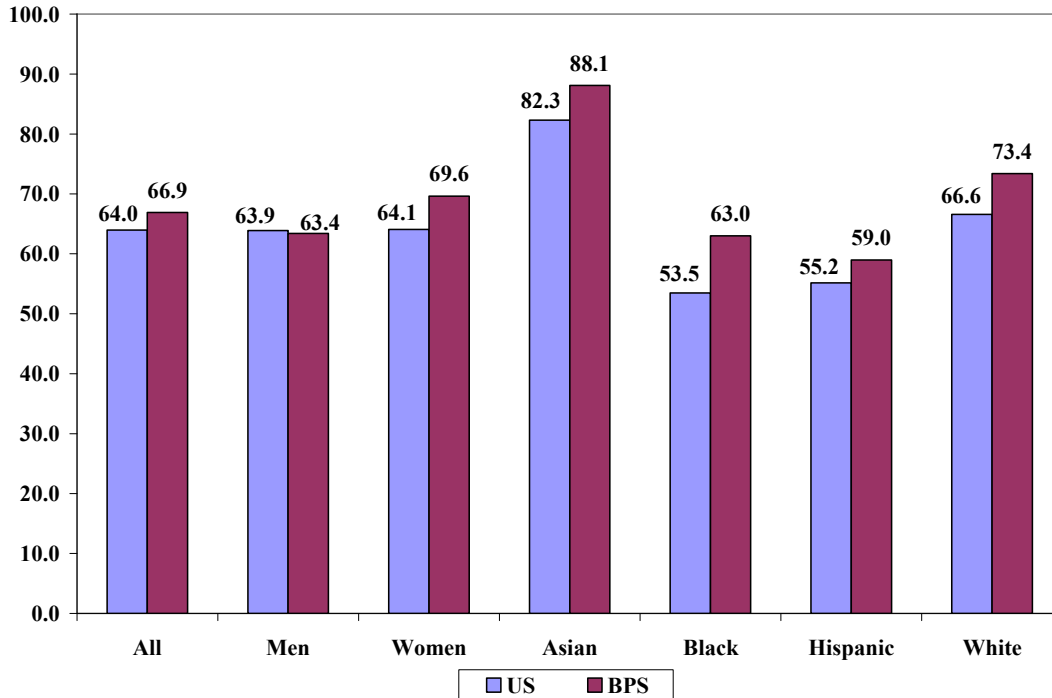


Chart 2:
Comparisons of the College Attendance Rates of Class of 2006 Boston Public School Graduates
with National Rates, Total and by Gender and Race (2 and 4-Year Colleges Only)



While higher fractions of Boston Public School graduates have been enrolling in college in recent years,⁴ the key question is whether they have been able to persist in college through graduation, earning either an associate’s or bachelor’s degree. For the past several years, the Center for Labor Market Studies has been working together with the Boston Private Industry Council, the Boston Public Schools, and a number of local universities and colleges to obtain data on the college persistence and graduation experiences of Boston public school graduates from the classes of 2000 through 2006. In May of 2006, the Boston School Committee authorized this study, approving the use of “date of birth” to match local data with information held by the National Student Clearinghouse, a central repository of information regarding college enrollment and the granting of diplomas, degrees and certificates, established by the higher education community. Data from the Boston Public Schools, the Boston PIC annual follow-up surveys, annual exit surveys of new high school graduates, the National Student Clearinghouse, and from four private and public colleges in Massachusetts have been combined to produce for

⁴ For the Classes of 2003 to 2006, just under 70 percent of the graduates were attending a two or four year college at the time of the spring follow-up in the calendar year following their graduation from high school.

the first time a comprehensive portrait of the longer term college enrollment, persistence, and graduation experiences of recent BPS graduates. This report focuses on the college enrollment and graduation experiences of BPS graduates from the Class of 2000. Data from the summer of 2000 through the winter/spring semester of 2007 are used in conducting this analysis. Findings are presented for all graduates combined, for gender, race-ethnic, and combined gender/race-ethnic subgroups of graduates, and for selected groups of high schools attended by those graduates.

Our study will begin with an overview of the data sources on the college enrollment/graduation experiences of BPS graduates including the National Student Clearinghouse data and the additional information supplied to the Center for Labor Market Studies by the Ben Franklin Institute, Bunker Hill Community College, Mount Ida College, and Northeastern University.⁵ This review of data sources will be followed by a discussion of the various college enrollment, retention, and graduation measures used in this study and the data sources used to calculate their values.

The findings for the BPS graduating class of 2000 will begin with an overview of the college enrollment experiences of graduates from the Class of 2000 over the first seven years following their graduation from high school in the spring of 2000. The discussions will review data on the number and percent of graduates who attended college at some time in this seven year period and provide breakouts for gender, race-ethnic, combined gender/race-ethnic groups, and types of high schools attended by graduates. The distribution of college enrollees by type of postsecondary educational institution attended (two year community college, four year public college, etc.) also will be presented.

The college enrollment experiences of graduates will be followed by a thorough review and analysis of their college graduation rates through the winter/spring semester of 2007. College graduation rates also will be presented for gender, race-ethnic, and combined gender/race-ethnic groups as well as for types of high schools attended by the graduates. College graduation rates also will be displayed by types of postsecondary institution attended, and these graduation rates by type of institution attended will be presented for an array of gender and race-ethnic groups.

⁵ These four colleges and universities were not members of the National Student Clearinghouse for the years covered by the analyses in this research report.

The findings on college graduation rates will be followed by a review of the college enrollment experiences of BPS graduates during the winter/spring semester of 2007. We will identify the number and percent of BPS graduates who were still enrolled in college at the end of our seven year follow-up period. These current college enrollments will be identified for all BPS graduates, by gender and race-ethnic groups, by college degree status, and by type of high school attended. The types of postsecondary educational institutions attended by these college students also will be examined and analyzed. Graduation data and current enrollment data will be combined to produce estimates of the share of BPS graduates from the Class of 2000 who were either college graduates or still enrolled in college during the winter/spring period of 2007.

Estimates of the college degree attainment rates of Class of 2000 BPS graduates both overall and by selected types of postsecondary educational institutions will be compared to national estimates from a national longitudinal survey conducted by the National Center for Education Statistics for first-time postsecondary students from the incoming class of 1995-96.⁶ Comparisons of college graduation rates for the national sample of first time college students and BPS graduates from the Class of 2000 will be provided for gender and most race-ethnic groups for each of three types of postsecondary educational institutions (public two year colleges, public four year colleges, and private four year colleges and universities).

The formal report will be supplemented by a series of statistical appendices that cover an array of topics, including a single page summary of findings for the BPS Class of 2000, a list of the two and four year colleges and universities accounting for the largest number of BPS college enrollees from the Class of 2000, the names of the postsecondary educational institutions attended by Boston public school graduates from the Class of 2000 and the numbers initially enrolling in each, a list of those institutions not covered by the Clearinghouse or this report, and the types of degrees/certificates earned by BPS graduates during the first seven years following graduation from high school.

⁶ L Horn and R. Berger, College Persistence on the Rise? Changes in 5-Year Degree Completion and Postsecondary Persistence Rates Between 1994 and 2000 (NCES 2005-156), U.S. Department of Education, National Center for Education Statistics, Washington D.C: U.S. Government Printing Office, 2004.

The National Student Clearinghouse Data Set

As previously noted, the Boston Private Industry Council's annual follow-up survey of each year's Boston public high school graduates have allowed estimates to be made of their college enrollment experiences in the first year following graduation. Findings of the data have revealed that the college enrollment rate of these graduates has consistently been higher than the rate of college enrollment among high school graduates from the nation's central cities. Two-thirds of Boston public school graduates from the Class of 2006 were enrolled in college during the spring following their graduation from high school. However, little is known about what happens to these students after their initial enrollment in these colleges. Some work is currently being done to track the early academic experiences of enrollees in public two and four year colleges in Massachusetts, but long-term tracking of the fate of individual college students across all postsecondary institutions has not been attempted for local school districts in the state. Do they persist in college and graduate or do they drop out of college? Which institutions yield better persistence and graduation outcomes for BPS graduates who enroll in college? What are the rates of college graduation success across gender and race-ethnicity subgroups of BPS graduates and across types of high schools?

Conducting personal annual follow-up surveys to gauge the college success of BPS graduates would be very expensive. Moreover, the contact rates might decline sharply over time as the young graduates move out of their residences while in high school to either reside near their college campuses or near their place of employment. These potential drawbacks of a household survey based assessment of the college success of BPS graduates led us to find alternative methods to gauge the college enrollment behavior and graduation rates of BPS graduates. One method that we pursued for a period of time was to request college enrollment and graduation data from a list of postsecondary institutions that were the top destinations of BPS graduates. We quickly encountered problems with this method as many postsecondary educational institutions began to restrict access to or deny us the data that we sought because they believed it violated their compliance with the Family Educational Rights and Privacy Act (FERPA), which is a federal law that protects the privacy of student education records. As a result, we discontinued this effort and pursued obtaining access to this information from the National Student Clearinghouse.

The National Student Clearinghouse was established by the higher education community in 1993 to serve as a central repository of information regarding college enrollment and the granting of college degrees, diplomas, and certificates by participating schools. Since its inception, the Clearinghouse has served as an important source for postsecondary and secondary student degree, diploma and enrollment verification for colleges, universities, high schools, lending institutions, employers, and other organizations. Today, the Clearinghouse provides a variety of services free of charge to the participating institutions including student loan enrollment verifications, electronic transcript exchange among participating institutions, enrollment verifications for student-based service providers such as health insurers, credit issuers, travel, etc., degree and certificate verifications for participating schools to employers, background search firms and recruiters, and student self-service whereby students can print enrollment certificates and view their enrollment histories and verifications for no charge to the student or the institution.

In addition to providing all these services, the Clearinghouse also serves the educational research community. One of the services of the Clearinghouse is called the StudentTracker for high schools. It is designed to provide high school districts with access to the Clearinghouse's database, which contains records from more than 3,200 colleges and universities that enroll 14.5 million students, representing 91 percent of total enrollment in higher education institutions across the nation. These institutions have granted the Clearinghouse authority to share this information with high schools and high school districts in order to help them improve their educational programs.

After a StudentTracker agreement was signed between the Boston Public Schools and the National Student Clearinghouse, the CLMS obtained from the Boston Public Schools a listing of all BPS high school graduates from the classes of 1998 through 2006 that had graduated from public high schools with all of the data elements required to match the list with the Clearinghouse database. In addition to the data elements required by the Clearinghouse, we also requested the gender and race-ethnicity characteristics of these graduates to analyze college enrollment behaviors and degree receipt by gender and race-ethnic subgroups of BPS high school graduates. The data were submitted to the Clearinghouse for a match that was performed in the summer of 2007.

Although the Clearinghouse membership covers 91 percent of total higher education enrollments across the nation, there were four institutions in the top postsecondary destinations for BPS graduates that either did not participate in the Clearinghouse or had joined the Clearinghouse relatively recently and, therefore, would not have submitted data to the Clearinghouse for BPS graduates who had enrolled in earlier years. The four institutions were Bunker Hill Community College, Northeastern University, Benjamin Franklin Institute, and Mount Ida College⁷. We started discussions with these institutions to obtain all of the Clearinghouse data elements from them for BPS graduates from the classes of 1998 through 2006 who had enrolled in these colleges and universities.

Requesting data on individual students from colleges takes a certain amount of time and effort on the part of the college since they have to be sure they can share the data without violating the confidentiality protections that are guaranteed to their students. Even with the Center for Labor Market Studies' long history of working with confidential and restricted data from an array of governmental and private organizations, and impeccable record of protecting the confidentiality of these data, it took sustained efforts to get the colleges to release student data for research purposes. Additional barriers to our access to the data were imposed by rapidly changing technology and MIS platforms. These colleges had to work very hard to access data from earlier years that were often processed and stored on a different MIS platform. In several instances, CLMS and PIC staff manually coded records from these institutions. We deeply appreciate the work and effort of staff at these colleges to prepare the longitudinal data for our research.

The data from each of these four institutions were reviewed by CLMS staff and manually merged into the matched data file that we obtained from the Clearinghouse. After merging these data with the Clearinghouse data, we estimate that approximately one-fifth of college-enrolled BPS high school graduates from the Class of 2000 and almost 22 percent from the Class of 2001 were enrolled at one of these four institutions. Therefore, obtaining data from these four institutions and adding it to our database substantially increased the number of college-bound BPS graduates that were included in the research and analysis presented in this paper. We

⁷ We had requested data from Mount Ida College before we found that they were already participating in the Clearinghouse. We used the data that we received from the College to supplement the data that were already in the Clearinghouse.

estimate that 96% to 97% of college enrollees from recent BPS graduating classes were captured by the supplemental National Student Clearinghouse data set.

We also have made estimates of the number of college-bound BPS students that were still missing from the analysis even after including data from these four colleges and universities. These estimates were made by producing a list of all postsecondary educational institutions attended by BPS graduates from the year-after follow-up surveys and finding identifying institutions that were not members of the Clearinghouse and were not among the four schools for which special data requests were made. These BPS graduates represent the number of students who were most likely missing from the analysis in this paper since they were enrolled in colleges that were not participating in the Clearinghouse and were not among the four colleges that provided us with special request data. These numbers were very small. We estimate that at a maximum of only two to three percent of all college-bound BPS graduates from the Class of 2000 and under four percent from the Class of 2001 were missing from our analysis. Furthermore, some of those institutions that are missing from our analysis are certificate-granting institutions and not degree-granting institutions. As a result, we estimate that our database includes findings on the college enrollment, persistence, and graduation status of between 96 and 97 percent of all college-bound BPS high school graduates from the classes of 2000 and 2001.

The data available from the National Student Clearinghouse and supplemented by four local universities and colleges can be used to track a wide array of college enrollment activities and graduation outcomes for Boston public school graduates in recent years.⁸ This report is primarily focused on BPS graduates from the Class of 2000 since seven years of post-high school data are available for this group. Most national studies of college graduation rates cover only four to six years of college experience. Following research papers will examine the college enrollment and graduation experiences of the Class of 2001 and the college enrollment behavior of more recent graduating classes (those from the Class of 2005 and 2006).

⁸ As noted in a preceding section, findings on college enrollments and degrees granted were provided in a separate series of data runs to the Center for Labor Market Studies by Bunker Hill Community College, the Franklin Institute, Mount Ida College, and Northeastern University.

Table 1:
Postsecondary Educational Activities and Outcomes of Class of 2000 Boston Public School Graduates that Can Be Tracked with the Longitudinal Data Base

- I. Enrollments in Postsecondary Educational Institutions
 - Any enrollment activity over the first seven years following graduation from high school
 - Type of postsecondary educational institution in which enrolled (public two year, private two year, public four year, private four year)
- II. Graduations from Postsecondary Educational Institutions
 - Any postsecondary degree over the first seven years following graduation from high school
 - Type of postsecondary educational institution from which the degree was obtained
 - Type of degree received* (Only partial reporting of this variable by Clearinghouse members)
- III. Recent College Enrollment Activity
 - Any enrollment activity over the January-June period of 2007
 - Type of postsecondary institution in which enrolled
 - Graduation status of recently enrolled college students

In Table 1, we present the types of college enrollment behaviors and graduation outcomes that will be examined in this report. Our first set of measures identifies the college enrollment experiences of Class of 2000 graduates over the seven year period (June 2000 to June 2007). All graduates who attended a two year or four year college at any time over this seven year period will be identified.⁹ College enrollment rates will be identified for all BPS graduates from the Class of 2000 as well as for those in gender, race-ethnic, and combinations of gender/race-ethnic groups and separately for graduates from the exam schools and all other high schools in the city (alternative, district, pilot) (Table 2).¹⁰ The types of postsecondary educational institutions in which graduates were initially enrolled also will be identified. We have assigned each educational institution into one of the following four categories:

- Private two year
- Public two year, e.g., community colleges
- Private four year colleges and universities
- Public four year colleges and universities

⁹ In a supplementary table provided in a future appendix, we will adjust the estimated college enrollment rates from the National Clearinghouse data set to account for college enrollments in institutions not covered by the data.

¹⁰ Due to small numbers of observations for “other” and “mixed” races, we do not present results for these race-ethnic groups separately.

Table 2:
Demographic/High School Subgroups of Class of 2000 Boston Public School
Graduates that Can be Tracked with the Longitudinal Data Base

| | |
|---|---|
| Gender Groups | Men, Women |
| Race-Ethnic Groups: | Asians, Blacks, Hispanics, White, non-Hispanics |
| Gender/Race-Ethnic Groups: | Asian men Asian women Black men Black women Hispanic men Hispanic women White men White women |
| Type of High School Attended: | Exam high school (Boston Latin High School, Latin Academy, O’Bryant Technical High School) All other high schools (District, pilot, alternative) |
| Type of Postsecondary Educational Institution Attended | Two year private Two year public Four year private Four year public |

The National Student Clearinghouse data set as supplemented by CLMS/PIC staff also contains information on the graduation status of individuals from each postsecondary educational institution. Persons receiving any degree from the institution between June 2000 and June 2007 can be identified. Not all institutions, however, reported the specific type of degree obtained by the graduate, e.g., associate’s degree, bachelor’s degree, or Master’s degree. In some cases, the individual may have only received a certificate rather than a degree. Our estimates of degree attainment are, thus, likely to be somewhat optimistic. In identifying the type of degree received when specific information was not provided by the institution to the National Student Clearinghouse, we adopted the following simple rule of thumb: if the graduate was granted a degree from a two year private or public institution, the degree was classified as an associate degree.¹¹ If the graduate received a degree from a four year public or private university and information on type of degree was missing, the degree was assumed to be a bachelor’s degree.

¹¹ A small number (10) of degrees obtained by 2 year college graduates were bachelor’s degrees.

Some four year colleges and universities do award associate degrees and certificates. Our measure of bachelor's degree awards is likely to be modestly biased upward.¹²

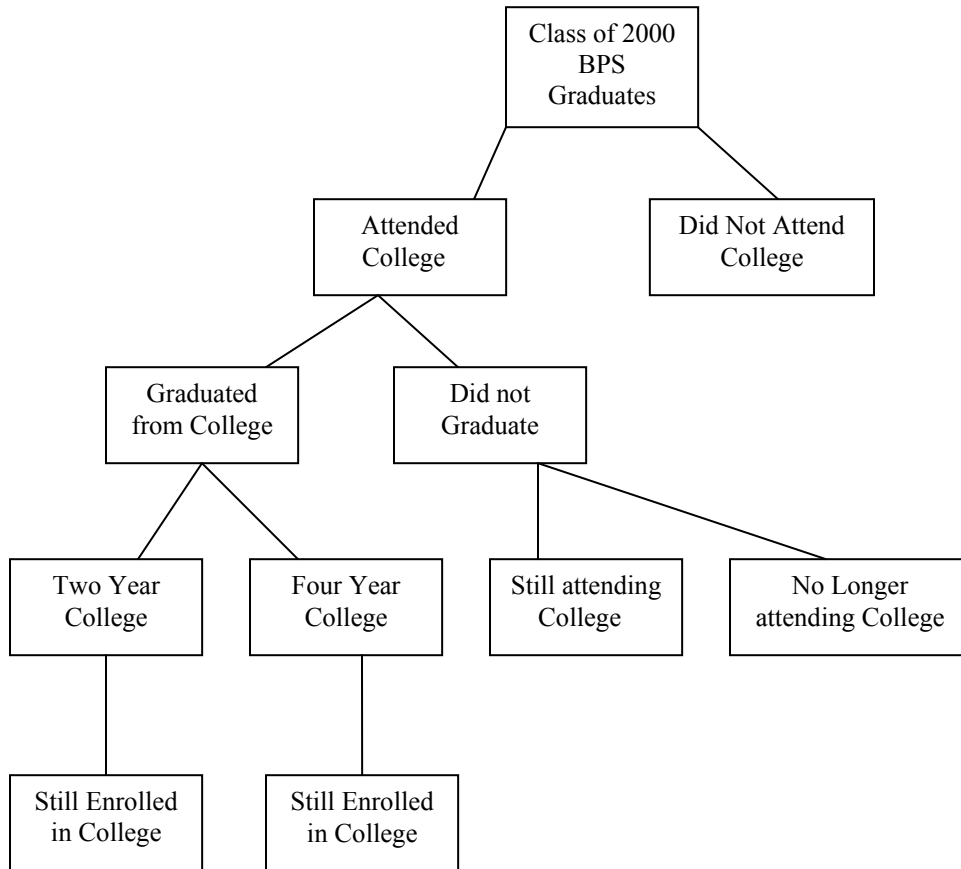
College graduation rates will be presented for all BPS high school graduates who attended college at some point following graduation from high school. The college graduation rate is measured as a percent of those who were enrolled in college at any time over this seven year period. These college graduation rates are calculated for all BPS graduates, for gender, race-ethnic, and gender/race-ethnic subgroups, and by type of high school attended (exam schools versus all others). We also present graduation rates by type of postsecondary educational institution attended for all college enrollees and for gender and race-ethnic subgroups. These college graduation rates will be found to vary considerably across type of educational institution, gender and race-ethnic groups, and by type of high school attended. Women, Asians and Whites, and exam school graduates were more successful than each of their respective peers in obtaining college degrees.

Not all college students failing to receive a college degree by June 2007 have withdrawn from active enrollment in college. The college enrollment status of each college student between January-June 2007 can be identified with the available information. Current college enrollment levels and rates can be calculated for each demographic subgroup, and the college graduation status of these students can be identified. Some of these enrollees have an associate's degree but are working toward a bachelor's degree, while others have a bachelor's degree but are attending graduate school. We will estimate current college enrollment rates for those BPS graduates who did not hold any type of college degree as of June 2007. The types of colleges currently attended by these postsecondary students also will be identified. The future success rates of these college students in securing formal degrees could have an appreciable impact on their ultimate college graduation rates.¹³ Longer follow-up tracking will be needed to identify their long-term college graduation status.

¹² Based on an analysis of the types of degrees granted by those colleges reporting the degree information, we estimate that the net impact of the underlying methodology is to increase BA degrees by about 9 percent.

¹³ Nearly 9 percent of the entire cohort of BPS graduates from the Class of 2000 were still enrolled in college in 2007 without having yet received a degree.

Chart 3:
Tracking the College Graduation Outcomes of Class of 2000
BPS Graduates through the First Seven Years Following High School Graduation



COLLEGE ENROLLMENT

College Enrollment Behaviors of Class of 2000 BPS Graduates, All and by Gender and Race-Ethnic Group

There were 2,964 graduates from Boston public high schools for the Class of 2000. An analysis of the data from the supplemented National Student Clearinghouse data set reveals that 1,904 or 64% of these graduates attended a two or four year college at some time between June 2000 and June 2007 (Table 3).¹⁴ The college enrollment rates of the BPS graduates from the Class of 2000 varied across both gender and race-ethnic groups (Table 3 and Chart 4). Women were more likely to attend college than male graduates (68% vs. 60%) and, as noted below, they were more likely than males to attend four year colleges and universities and to persist in college through graduation.

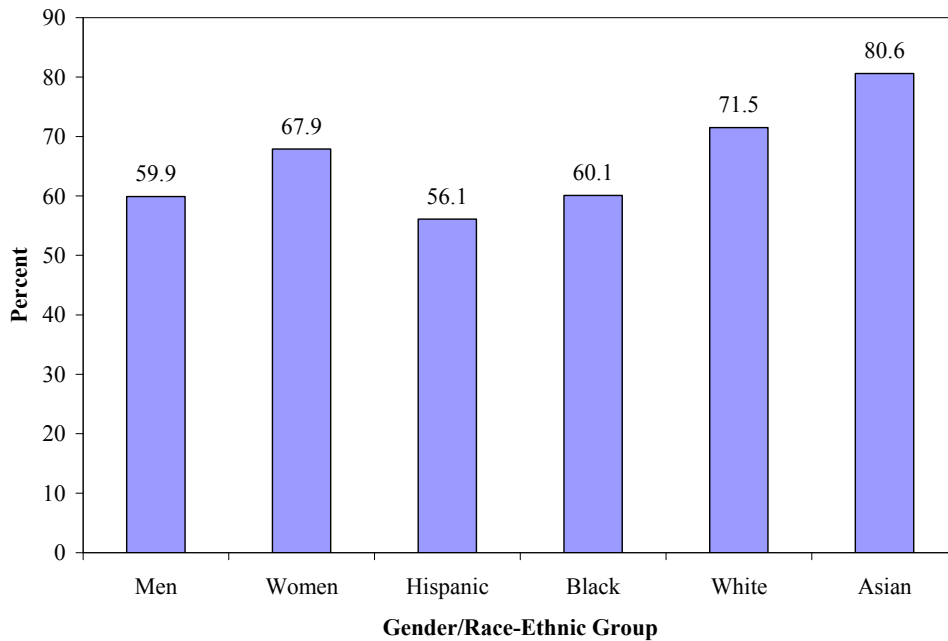
Table 3:
College Enrollment Levels and College Enrollment Rates of Class of 2000
Boston Public School Graduates Through the Spring of 2007,
All and by Gender and Race-Ethnic Group

| | (A) | (B) | (C) |
|----------|-----------------------|---------------------|--------------------------------|
| Group | High School Graduates | College Enrollments | College Enrollment Rate (in %) |
| All | 2,964 | 1,904 | 64.2 |
| Men | 1,357 | 813 | 59.9 |
| Women | 1,607 | 1,091 | 67.9 |
| Asian | 341 | 275 | 80.6 |
| Black | 1,472 | 884 | 60.1 |
| Hispanic | 581 | 326 | 56.1 |
| White | 512 | 366 | 71.5 |

Source: National Student Clearinghouse data as supplemented by local colleges/universities, tabulations by authors.

¹⁴ Adjustments for the exclusion of college/universities attended by BPS graduates not covered by our data base could raise the enrollment rate to 66.6%. The assumptions underlying this estimate will be explained in an appendix to this report.

Chart 4:
College Enrollment Rates of Class of 2000 BPS Graduates
Through the Spring of 2007 by Gender and Major Race-Ethnic Group (in %)



The college enrollment rates of Class of 2000 BPS graduates varied even more widely across the four major race-ethnic groups. Only 56 of every 100 Hispanic BPS graduates attended a two or four year college or university in the first seven years following graduation from high school versus 60% of Black graduates, 72% of White, non-Hispanic graduates and nearly 81% of Asian graduates. Hispanic high school students, especially males, also were the least likely to graduate from high school, substantially depressing the percent of Hispanic ninth graders from the 1996-97 school year who would ever attend college.

The college enrollment levels and rates of Class of 2000 BPS graduates in eight race-ethnic/gender groups are displayed in Table 4 and Chart 5. In each race-ethnic group, except Asians, college enrollment rates for women were above those of men, with particularly large gaps prevailing between Black women and men (14 percentage points). Both Black and Hispanic women also were much more likely to graduate from high school than each of their respective male counterparts, more likely to attend four year colleges and universities, and more likely to persist in college through graduation. As a consequence of the cumulative gender differences in each of these schooling behaviors in favor of women, we will find very large Black and Hispanic gender differences in four year degree attainment rates for the Class of 2000. Even larger gender

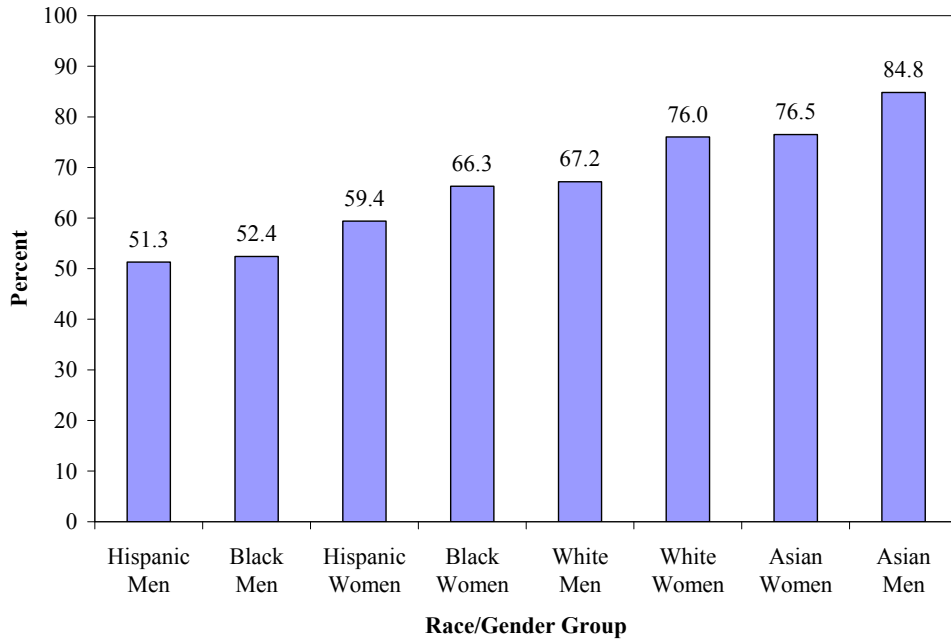
differences in four year degree attainment rates prevailed for potential graduates from the Class of 2000.

Table 4:
College Enrollment Levels and Rates of Class of 2000 Boston Public School Graduates
Through the Spring of 2007 by Gender/Race-Ethnic Group

| | (A) | (B) | (C) |
|--------------------------|-----------------------|---------------------|--------------------------------|
| Gender/Race-Ethnic Group | High School Graduates | College Enrollments | College Enrollment Rate (in %) |
| Asian men | 171 | 145 | 84.8 |
| Asian women | 170 | 130 | 76.5 |
| Black men | 662 | 347 | 52.4 |
| Black women | 810 | 537 | 66.3 |
| Hispanic men | 236 | 121 | 51.3 |
| Hispanic women | 345 | 205 | 59.4 |
| White men | 262 | 176 | 67.2 |
| White women | 250 | 190 | 76.0 |

The college enrollment rates for these eight race-ethnic/gender groups from the Class of 2000 varied quite widely. At the bottom of the distribution were Hispanic and Black men with college enrollment rates in the low 50s. At the top of the distribution were Asian and White women and Asian men. Asian males were characterized by the highest college enrollment rate at 85%. The gap between the college enrollment rates of Asian and Hispanic males was nearly 31 percentage points and the gap between Asian and Black males was 32 percentage points.

Chart 5:
College Enrollment Rates of Class of 2000 BPS Graduates by Gender/Race-Ethnic Group
 (in %)



Graduates from BPS high schools in 2000 also were categorized by the type of high school from which they graduated. Each high school was assigned to one of two categories: exam high schools and all other high schools. The latter group of high schools includes alternative, district, and pilot high schools. Due to the small numbers of graduates from alternative and pilot schools from the Class of 2000, we do not provide separate breakouts of their college enrollment experiences. More disaggregated analyses of high school graduates’ college experiences will be available for more recent graduating classes.

Due largely to their more proficient reading and math skills and their more demanding high school curriculum, graduates from the city’s three exam high schools were considerably more likely than their counterparts from the other high schools to enroll in college in the first seven years after graduation.¹⁵ Over 84% of the exam school graduates attended a two or four year college versus only 57% of the graduates from the non-exam high schools). As will be

¹⁵ National research evidence on the recent college going behavior of high school graduates reveals that family income, family structure, and family wealth also play significant roles in influencing the college enrollment behavior of graduates. Youth from more affluent and wealthier families and those living with both parents were more likely to attend college after controlling for other demographic characteristics and basic academic proficiencies. See: Phillippe Belle and Kevin M. Murphy, “The Changing Role of Family Income and Ability in Determining Educational Achievement, *Journal of Human Capital*, Volume 1, Number 1, Winter 2008, pp. 37-90.

revealed below, the exam school graduates from the Class of 2000 also were much more likely than their non-exam school counterparts to attend a four year college or university and persist in college through graduation.

Distribution of College Attendees by Type of Postsecondary Educational Institution Attended

The National Student Clearinghouse database as supplemented by the local set of two and four year colleges also can be used to identify the types of two and four year colleges and universities initially attended by BPS graduates from the Class of 2000.¹⁶ Each college or university attended by a BPS graduate was assigned to one of the following four types of postsecondary educational institutions: two year private, two year public, four year private, and four year public. The distributions of college enrolled BPS graduates by the type of educational institution attended are presented in Tables 5 and 6. Results are displayed for all college enrolled BPS graduates and for gender, race-ethnic, and type of high school attended subgroups of graduates.

The highest share (65%) of the 1,904 college attendees were enrolled in four year colleges and universities, while the remaining 35% were enrolled in two year colleges and universities. For those attending four year colleges, the largest number (763) were enrolled in a private college or university versus only 467 in public four year institutions. In substantial contrast, the vast majority (over 97%) of those attending two year colleges and universities were enrolled in two year public colleges, primarily community colleges. Retention and graduation rates in these public two year community colleges were, however, markedly lower than those of the four year institutions.

¹⁶ For those college attendees who graduated from a college different from the one they initially attended, we can identify the type of educational institution from which they graduated.

Table 5:
Distribution of Class of 2000 BPS Graduates Attending College at Some Time in the First Seven
Years Following Graduation by Type of Institution Attended, All and by Gender
 (% in Parentheses)

| | (A) | (B) | (C) | (D) | (E) |
|--------------------|---------------------|--------------------|----------------------|---------------------|-------|
| Group of Graduates | Two Year Private | Two Year Public | Four Year Private | Four Year Public | Total |
| All | 18 (.9%) | 656 (34.5%) | 763 (40.1%) | 467 (24.5) | 1,904 |
| Men | 10 (1.2%) | 283 (34.8%) | 329 (40.5%) | 191 (23.5%) | 813 |
| Women | 8 (.7%) | 373 (34.2%) | 434 (39.8%) | 276 (25.3%) | 1,091 |
| Women per 100 men | 80 | 132 | 132 | 145 | 134 |

While a greater number of female graduates attended college than men (134 women per 100 men), their percentage distributions across the four types of postsecondary educational institutions were nearly identical. Women substantially outnumbered men in each type of institution except private two year schools where there were two more men than women enrolled. Only 18 BPS graduates attended a two year, private school.

There were more substantial differences in the distributions of college enrollments across the four race-ethnic groups (Table 6). Both White, non-Hispanic graduates (82%) and Asian graduates (78%) were more likely to attend four year colleges and universities than their Black (59%) and Hispanic peers (57%). Gender differences in enrollment levels within four year colleges and universities were quite substantial across most race-ethnic groups. Overall, there were 137 women enrolled in four year colleges and universities per 100 men. The gender gaps across race-ethnic groups, however, varied from a low of 94 per 100 among Asians to highs of 161 for Black graduates and 185 for Hispanics (Table 7).¹⁷ Findings for the BPS class of 2001

¹⁷ For earlier findings on rising gender gaps in college attendance among BPS graduates, See: Andrew Sum, Neil Sullivan, et al., Gender Gaps in High School Dropout Rates and College Attendance Rates in Massachusetts and Its Large Cities: The Growing Educational Deficits of Boys and Their Future Economic and Social Consequences, Boston Private Industry Council and Center for Labor Market Studies, Northeastern University, Boston, April 2002.

also reveal very large gender differences in college attendance and degree attainment among both Blacks and Hispanics, especially in four year colleges and universities.

Table 6:
Percentage Distribution of Class of 2000 BPS Graduates Attending College at
Some Time in the First Seven Years Following Graduation by Type of Institution
Attended by Race-Ethnic Group and Type of High School Attended

| | (A) | (B) | (C) | (D) | (E) |
|------------------------|---------------------|--------------------|----------------------|---------------------|------------------|
| Race/Ethnic Group | Two Year Private | Two Year Public | Four Year Private | Four Year Public | Four Year All |
| Asian | 1.1 | 20.7 | 49.1 | 29.1 | 78.2 |
| Black | 1.2 | 39.8 | 36.7 | 22.3 | 58.9 |
| Hispanic | .3 | 42.9 | 33.7 | 23.0 | 56.7 |
| White | .8 | 16.7 | 51.4 | 31.1 | 82.5 |
| Exam School | .0 | 11.2 | 59.9 | 29.0 | 88.8 |
| All other High Schools | 1.4 | 45.6 | 30.6 | 22.4 | 53.0 |

Table 7:
Number of Women Per 100 Men Attending A Two or Four Year College or
University at Some Time in the First Seven Years Following Graduation by Race-Ethnic Group

| Race/Ethnic Group | Number of Women Per 100 Men (All Colleges) | Number of Women Per 100 Men (4 Year Colleges) |
|---------------------|---|--|
| Hispanic | 169 | 185 |
| Black, not Hispanic | 155 | 161 |
| White, not Hispanic | 108 | 116 |
| Asian | 90 | 94 |
| All | 134 | 137 |

Exam school graduates were both more likely to attend college and considerably more likely to enroll in four year colleges and universities than their counterparts from the other public high schools in the city. Among class of 2000 BPS graduates attending college, nearly 89% of those from the three exam high schools were enrolled in a four year college or university versus 53% of those college students from the city's other high schools (Table 6). The gaps in college enrollment in four year private colleges and universities were quite substantial between these two groups. Nearly 60 percent of the college enrollees from the city's exam schools were attending a

four year private college or university versus only 30 percent of the graduates from the other high schools, a relative difference of two to one. Findings in the following section on the graduation rates of BPS college students will reveal that the private four year colleges also were characterized by the highest overall graduation rates within seven years of high school graduation, with exam school graduates faring the best.

COLLEGE GRADUATION

College Graduation Rates of BPS Graduates Who Enrolled in a Two or Four Year College over the Seven Year Follow-up Period

The National Student Clearinghouse database also provides information on whether college enrollees had graduated from their institution as of June 2007.¹⁸ Of the 1,904 BPS graduates from the Class of 2000 who had enrolled in a two or four year college, 675 or 35.5% had graduated from a two or four year college by June 2007 (Table 8). As will be noted below, another 267 enrollees who had not received a degree by June 2007 were still enrolled in college in the winter/spring of 2007. Graduation rates for women were several percentage points higher than those of men (37% vs. 34%). The graduation rates of college enrollees varied more substantially across the four major race-ethnic groups, ranging from lows of 24% and 28% among Hispanics and Blacks to highs of nearly 52% among Asians and 53% among Whites. The college graduation rate for White students was nearly twice as high as that for Black students and 2.2 times as high as that for Hispanic graduates.

Table 8:
Number and Percent of College Enrollees from the Boston Public School
Graduating Class of 2000 Who Obtained a College Degree Seven Years After Graduation,
All and by Gender, Race-Ethnic Group and Type of High School Attended

| Group | (A) College Attendees | (B) Graduates | (C) Graduates as % Of Attendees |
|------------------|--------------------------|------------------|---------------------------------------|
| All | 1,904 | 675 | 35.5 |
| Men | 813 | 276 | 33.9 |
| Women | 1,091 | 399 | 36.6 |
| Asian | 275 | 143 | 52.0 |
| Black | 884 | 249 | 28.2 |
| Hispanic | 326 | 78 | 23.9 |
| White | 366 | 195 | 53.3 |
| Exam School | 618 | 366 | 59.2 |
| All Other School | 1,286 | 309 | 24.0 |

¹⁸ The graduation status is identified by responses to a check box on graduation. For slightly over half of the graduates, information was also provided on the type of degree/certificate received.

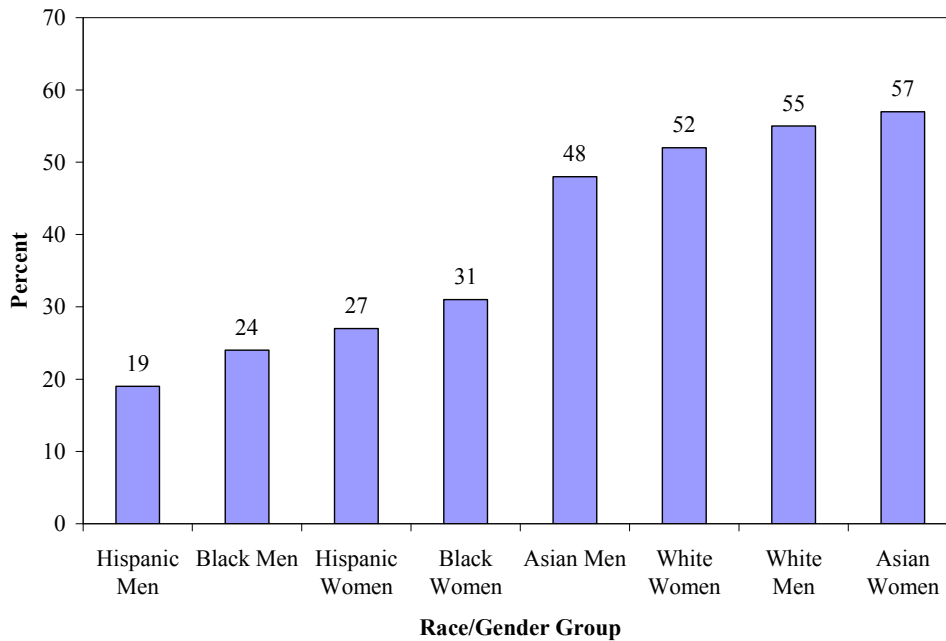
The graduation experiences of college students from the three exam schools were markedly different than those of their counterparts in the city's other high schools. Slightly over 59 of every 100 college students from the city's exam schools had obtained some type of college degree by June 2007 versus fewer than 24 percent of the college students from all of the other public high schools, a relative difference of nearly 2.5 times (Table 8). The exam school graduates were considerably more likely to enroll in college after high school graduation and to obtain a college degree within the first seven years.

In three of the four race-ethnic groups, female college enrollees were more likely to graduate than their male peers (Table 9 and Chart 6). The only race-ethnic group for whom males were more likely to graduate from college than women was White, non-Hispanics. Nearly 55% of White male, college students had received a degree by June 2007 versus 52% of White women. The gender gaps in college graduation rates for the other three race-ethnic groups ranged from seven to eight percentage points for Blacks and Hispanics to nine percentage points for Asians. The variations in college graduation rates across these eight gender/race-ethnic groups were quite substantial. Asian women (57%) and White males (55%) were three times as likely to graduate from college as Hispanic males (19%), and Black males (24%). These large gender-race gaps in college graduation rates only exacerbated the previous large differences in college enrollment rates (Chart 6).

Table 9:
Number and Percent of College Enrollees from the Class of 2000 Who Obtained a College Degree Seven Years After Graduation by Gender/Race-Ethnic Group

| Race/Ethnic-Gender Group | (A) College Attendees | (B) Graduates | (C) Graduates as % Of Attendees |
|--------------------------|--------------------------|------------------|---------------------------------------|
| Asian men | 145 | 69 | 47.6 |
| Asian women | 130 | 74 | 56.9 |
| Black men | 347 | 82 | 23.6 |
| Black women | 537 | 167 | 31.1 |
| Hispanic men | 121 | 23 | 19.0 |
| Hispanic women | 205 | 55 | 26.8 |
| White men | 176 | 97 | 55.1 |
| White women | 190 | 98 | 51.6 |

Chart 6:
Percent of Class of 2000 BPS College Enrollees Who Obtained A College Degree Within Seven Years Following Graduation by Race-Ethnic/Gender Group



Overall gender differences among Class of 2000 BPS graduates in the number of college degrees and four year degrees received were quite substantial, but they also varied quite considerably by race-ethnic group. Women overall obtained 145 college degrees for every 100 obtained by men, and the gap was even modestly larger for four year degrees where women obtained 146 four year degrees for every 100 obtained by men. Gender differences in the number of four year degrees received varied across race-ethnic groups from lows of 103 among Whites and 107 among Asians to highs of 214 among Hispanics and 220 among Blacks.

Table 10:
Comparisons of the Number of Boston Public School Women Per 100 Men Obtaining A College Degree and a Four Year College Degree, All and by Race/Ethnic Group, Class of 2000

| Race/Ethnic Group | (A) | (B) |
|-------------------|------------|------------------|
| | Any Degree | Four Year Degree |
| All | 145 | 146 |
| Hispanic | 239 | 214 |
| Black | 204 | 220 |
| Asian | 107 | 107 |
| White | 101 | 103 |

The far lower college degree attainment rates among Black and Hispanic males substantially lowers these young males' future earnings and their marriage prospects with adverse consequences for the economic and social well being of children in the city and the state.

The college graduation experiences of BPS graduates from the Class of 2000 also can be calculated by type of educational institution attended. There are several methods that can be adopted for use in calculating graduation rates by type of institution. In Table 11, we calculate the graduation rate for each type of educational institution as follows: we estimate the number of initial college students in each type of institution who had graduated from either the first institution they attended or a transfer institution by the spring of 2007. The college graduation rates for the initial college attendees varied widely across the four types of educational institutions, ranging from a low of 12.5% among two year public colleges to 35% among four year public colleges to a high of 56% among four year private colleges and universities. A second methodology for calculating college graduation rates that replaces initial college attendees who graduated elsewhere with graduates who transferred into the institution yields nearly identical results.

Table 11:
Number and Percent of Class of 2000 BPS College Enrollees Who Obtained a College Degree
Within Seven Years by Type of Educational Institution First Attended

| | (A) | (B) | (C) |
|-------------------|-----------------------------------|--|--|
| Type of College | Number of Initial Attendees | Number of Graduates (From School Initially Attended + Graduated Elsewhere) | Graduation Rate (Column B / Column A) |
| Two Year Private | 18 | 3 (3 + 0) | 16.7 |
| Two Year Public | 656 | 82 (64 + 18) | 12.5 |
| Four Year Private | 763 | 428 (387 + 41) | 56.1 |
| Four Year Public | 467 | 162 (132 + 30) | 34.7 |

CONTINUING ENROLLMENT

College Enrollment Status of BPS Class of 2000 Graduates in the Spring of 2007

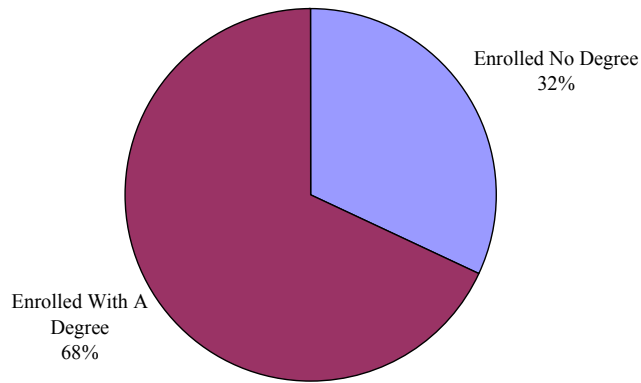
In addition to tracking the college degree attainment rates of high school graduates through the spring of 2007, the National Student Clearinghouse data set, as supplemented by four local colleges and universities, also can be used to identify those graduates who were still enrolled in college some time between January-June of 2007.¹⁹ Of the 2,964 graduates from the Class of 2000, 391 or slightly more than 13% were attending college in the spring of 2007 (Table 12). Of these 391 college students, 124 or approximately 32% held some type of college degree while the remaining 267 college students had not yet obtained any type of degree or certificate (Chart 7). These 267 college students without degrees were equivalent to 9% of all high school graduates from the Class of 2000. If one-half of these college students were successful in receiving some type of college degree in the near future, this would increase the share of BPS Class of 2000 graduates with a college degree or certificate to close to 30%.

Table 12:
Number of Class of 2000 BPS High School Graduates Who Were
Still Enrolled in College Between January-June of 2007, All by Their
College Graduation Status and as Percent of High School Graduates

| Group | (A) Still Enrolled In College | (B) Enrolled But Has Some Degree | (C) Enrolled With No Degree | (D) Enrolled With No Degree as % Of High School Graduates |
|-------------------|--|---|--------------------------------------|---|
| All | 391 | 124 (31.6%) | 267 (68.3%) | 9.0% |
| Men | 133 | 40 | 93 | 6.7% |
| Women | 258 | 84 | 174 | 10.8% |
| Asian | 32 | 14 | 18 | 5.3% |
| Black | 208 | 58 | 150 | 10.2% |
| Hispanic | 63 | 14 | 49 | 8.4% |
| White | 65 | 38 | 47 | 9.2% |
| Exam Schools | 137 | 68 (49.6%) | 69 (50.4%) | 9.6% |
| All Other Schools | 254 | 56 (22.0%) | 198 (78.5%) | 8.8% |

¹⁹ These are college enrolled students who did not obtain a degree during the spring of that year.

Chart 7:
Percent Distribution of Current College Enrolled High School Graduates
from the Class of 2000 by Degree Status in the Spring of 2007

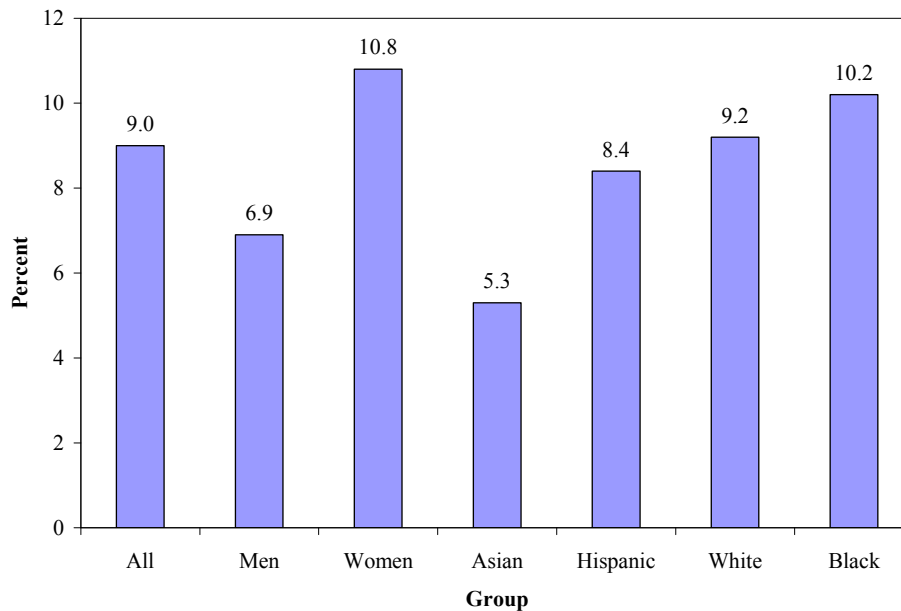


There were nearly twice as many women enrolled in college as men (258 versus 133). Thus, similar rates of success of these men and women in obtaining college degrees would further widen the gender gap in college degree attainment. Further research on the degree attainment experiences of these college students would be very helpful in identifying the ultimate college graduation rates of BPS graduates.

The college enrollment rates of these high school graduates with no formal degree also varied widely by race-ethnic group, ranging from a low of 5% among Asians to highs of close to 9 to 10 percent among Whites and Blacks (Chart 8). The successful completion of college by the remaining Black and Hispanic college students would help reduce the large race-ethnic disparities in degree attainment that prevailed across race-ethnic groups at the end of the spring of 2007. A further breakout of the current college enrollment data for Black men and women revealed that the fraction of Black female graduates still enrolled in college was more than twice as high as that of men (19% vs. 9%); thus, the large gender differences among Black BPS graduates in college degree attainment through the spring of 2007 could actually be increased further through the successful graduation rates of remaining Black college students. Fairly large

gender gaps in favor of women in college enrollment rates also prevailed among Hispanics in the spring of 2007.

Chart 8:
Percent of Class of 2000 Graduates With No College Degree Who Were Still
Enrolled in College in the Spring of 2007, All and by Gender and Race-Ethnic Group



Not only were exam school graduates much more likely than their peers from the city's other high schools to have obtained some type of college degree by the spring of 2007, but they also were more likely to be enrolled in college during that time period (Table 12). Approximately 15 percent of the exam school graduates, including those with some college degree, were enrolled in college versus 11 percent of the graduates from the city's other high schools. A sharply higher fraction of exam school graduates who were enrolled in college already possessed a college degree (50% vs. 22%), with many of them attending graduate schools. Excluding all college students with some type of degree, approximately 10% of exam school graduates and 9% of those from the alternative/district/pilot schools were still attending college in the spring of 2007. If one-half of these current college attendees without degrees succeeded in graduating from college, then the exam school college graduation rate would rise to 63% while that for all other high school graduates would reach close to 32%.

The distribution of the 391 active college enrollees by type of educational institution attended is displayed in Table 13. Close to two-thirds of the college students were attending four year colleges and universities, including graduate schools, with the majority of them attending

private colleges and universities rather than public colleges (152 versus 98). Of the 141 students attending two year colleges, the vast majority (96%) were enrolled in public community colleges.

Of those enrolled students holding some type of degree or certificate, the bulk of them (85%) were attending four year colleges and universities, including those in Master’s, Ph.D., and professional school programs (medicine, law) (Table 13). Those college students with no degree were about evenly divided between those attending four year colleges and universities (53%) and those enrolled in two year colleges (46%). Graduates from the city’s three exam schools were much more likely than their counterparts from the other high schools to be enrolled in four year colleges and universities in the spring of 2007 (82% vs. 56%). Further tracking of all of these college students with the National Student Clearinghouse data would be helpful in identifying the longer run success of Class of 2000 BPS graduates in obtaining college degrees.

Table 13:
Distribution of Class of 2000 BPS Graduates Still Enrolled in College Between
January-June 2007 by Type of Educational Institution Attended and College Degree Status
(Percents in Parentheses)

| | (A) | (B) | (C) | (D) | (E) |
|---------------------------|-------------------|------------------|-------------------|------------------|-----------------|
| College Graduation Status | Private 2 Year | Public 2 Year | Private 4 Year | Public 4 Year | All Colleges |
| All | 5 (1%) | 136 (35%) | 152 (39%) | 98 (25%) | 391 |
| Has some college degree | 0 (0%) | 18 (15%) | 78 (61%) | 30 (24%) | 124 |
| Has no college degree | 5 (2%) | 118 (44%) | 76 (28%) | 68 (25%) | 267 |
| Exam school graduates | 0 (0%) | 25 (18%) | 72 (53%) | 40 (28%) | 137 |
| Other High Schools | 5 (2%) | 111 (44%) | 80 (31%) | 58 (23%) | 254 |

NATIONAL COMPARISON

Comparison of the College Degree Attainment Rates of Class of 2000 BPS High School Graduates with a National Longitudinal Sample of First Time College Students in the 1995-96 School Year

Currently, there is no comprehensive, state longitudinal database on the college experiences of recent individual high school graduates across the Commonwealth.²⁰ To place the findings on the college graduation experiences of college enrolled BPS graduates from the Class of 2000 in comparative perspective, we have compared them to a statistically representative, national sample of first-time college students in the U.S. during the 1995-96 school year.²¹ During the fall of 1995, the U.S. Department of Education initiated a new national sample of the longitudinal experiences of first-time college students. An original sample of approximately 12,000 first-time college students in one, two, and four year postsecondary educational institutions in all 50 states, the District of Columbia, and Puerto Rico was selected to participate in the 1995-96 Beginning Postsecondary Student Longitudinal Survey. The college persistence and graduation experiences of this sample of first-time college students were tracked over a six year period with the use of two follow-up surveys conducted two years and six years after the initial interview.

Estimates of the college degree attainment rates of first-time college students by type of educational institution first attended are displayed in Table 14.²² The college degree attainment rates are measured approximately six years after their initial year of enrollment in college. Overall, slightly over 43% of these first-time college students had obtained either a two year or four year degree within six years of their initial enrollment in college. The success of these college students in obtaining degrees varied quite widely across educational institutions. Only 26

²⁰ The Integrated Postsecondary Educational Data System (IPEDS) allows us to track aggregate college enrollments and graduations in individual colleges across the state, but we cannot use these data to track individuals into and out of these institutions nor their entry into colleges in other states across the nation.

²¹ For a detailed review of the design features of the 1995-96 Beginning Postsecondary Students Longitudinal Study and key findings from the 2001 follow-up survey of that group,

See: Laura Horn, Rachel Berger, C. Dennis Carroll, College Persistence on the Rise? Changes in the Five Year Degree Completion and Postsecondary Persistence Rates Between 1994 and 2000, U.S. Department of Education, National Center for Education Statistics, Washington, D.C., November 2004.

²² For the national longitudinal sample, the total excludes those students who attended one year postsecondary institutions and 2-year-for-profit institutions. The findings for BPS graduates exclude all those attending one year institutions and include only a small handful of students in 2-year-for-profit colleges.

percent of those students beginning their college education at a public two year college obtained either an associate's or bachelor's degree within six years versus 57% of those attending four year public colleges and nearly 70 percent of those enrolled in private four year colleges and universities.²³

Table 14:
Comparisons of College Degree Attainment Rates Among First Time
Postsecondary Students in the U.S. (1995-96 Entering Class) and Graduates from City of Boston
Public Schools (Class of 2000) by Type of Institution First Attended

| | (A) | (B) | (C) | (D) |
|---------------------------------------|-------------------|----------------|---------------|---------------------|
| Postsecondary Educational Institution | U.S. ¹ | City of Boston | Boston – U.S. | Boston – U.S./ U.S. |
| All | 43.6 ² | 35.5 | -8.1 | -19.0% |
| Public 2 Year | 26.0 | 12.2 | -13.8 | -53.0% |
| Public 4 Year | 57.4 | 35.1 | -22.3 | -39.0% |
| Private 4 Year | 69.6 | 55.8 | -13.8 | -20.0% |

Note: (1) Only those U.S. college graduates obtaining an associate's or bachelor's degree within six years of first enrolling in the institution are included.

(2) Total excludes for profit two year and less than two year enrollments.

Sources: (i) U.S. Department of Education, National Center for Education Statistics, College Persistence on the Rise?

(ii) National Student Clearinghouse data as supplemented by Boston PIC/CLMS.

Our estimates of college degree attainment rates for the Class of 2000 BPS graduates who enrolled in college at some time over the first seven years following graduation are displayed in Column B of Table 14. Overall, the college degree attainment rate of BPS graduates who enrolled in two or four year colleges was only 35.5%, which was eight percentage points or 19 percent below the college degree attainment rate of the national sample of first-time postsecondary students. In each major set of postsecondary educational institutions, graduation rates of BPS graduates fell below those of their national counterparts, but the relative size of the gaps in degree attainment rates were much higher for two year and four year public colleges than they were for four year private colleges and universities. Class of 2000 BPS graduates attending two year public colleges obtained college degrees at a rate only half as high as their national peers (12% vs. 26%). While those BPS graduates attending four year public colleges were nearly three times as likely to obtain a degree as their community college counterparts (35% versus

²³ Another 9 percent of those attending two year public colleges received a certificate within this time period. Less than 1 percent of those enrolling in four year public or private colleges reported receiving a certificate.

12%), they did not fare nearly as well as their national counterparts who first enrolled in such institutions in the fall of 1995-96. Their graduation rate was 22 percentage points or 39% below that of their national peers.²⁴ Those BPS graduates attending four year private colleges fared the best in obtaining college degrees relative to both their local and national peers. Nearly 56 percent of BPS graduates first attending a four year private college had obtained some type of degree within seven years of high school graduation. Their graduation rate was 14 percentage points or only 20% below that of their national peers who had a race/ethnic and income composition in their favor.²⁵

The data on degree completion rates for members of the 1995-96 Beginning Postsecondary Student Longitudinal study also can be disaggregated by gender and race-ethnic group for each major type of postsecondary educational institution. Findings also can be compared to those for BPS graduates from the Class of 2000. For two year public institutions, the college degree attainment rates of the national sample of men and women were both in the 22 to 23 percent range, nearly twice as high as those for BPS graduates who first enrolled in a two year community college (Table 15). Gaps between the degree attainment rates of the national sample of two year public college attendees and their BPS counterparts varied widely across the four race-ethnic groups. Black BPS graduates attending two year public colleges were somewhat more likely to graduate with a degree than their national counterparts (10 percent versus nine percent). In two of the other three race-ethnic groups, BPS graduates fared less well than their national counterparts in securing some type of degree. The gap was extremely large among Hispanic youth. Only eight percent of Hispanic BPS graduates who enrolled in a two year public college had obtained a degree versus 21 percent of their national counterparts. This represented a gap of nearly 13 percentage points between these two groups, the largest by far of the four race-ethnic groups examined.

²⁴ Those students who did not enroll in a four year college until the fall of 2002 or later would have had fewer than five years to obtain a degree.

²⁵ Bachelor degree attainment rates for national college students attending four year private colleges were considerably higher (54% higher) for those from high income families than from low income families (77% vs. 50%).

Table 15:
Comparisons of College Degree Attainment Rates Among First-time Postsecondary Students in
the U.S. (1995-96 Entering Class) and Graduates from City of Boston Public Schools (Class of
2000) by Selected Type of Institution First Attended and by Gender and Race-Ethnic Group

| | (A) | (B) | (C) |
|---|-------------------|--------------------------------|---------------|
| Type of Institution/ Gender or Race-Ethnic Group | U.S. ¹ | City of Boston ² | Boston – U.S. |
| Two Year Public Colleges | | | |
| • Men | 23.3 | 12.0 | -11.3 |
| • Women | 22.4 | 12.3 | -10.1 |
| • Asian | 27.4 | 28.1 | 0.7 |
| • Black | 8.9 | 10.2 | +1.3 |
| • Hispanic | 21.1 | 8.6 | -12.5 |
| • White | 24.6 | 13.1 | -11.5 |
| Four Year Public Colleges | | | |
| • Men | 46.6 | 34.0 | -12.6 |
| • Women | 54.2 | 35.9 | -18.3 |
| • Asian | 61.6 | 41.3 | -20.4 |
| • Black | 35.9 | 28.4 | -7.5 |
| • Hispanic | 37.7 | 29.3 | -8.4 |
| • White | 54.1 | 45.6 | -8.5 |
| Four Year Private Colleges | | | |
| • Men | 64.4 | 53.2 | -11.2 |
| • Women | 71.1 | 57.8 | -13.3 |
| • Asian | 74.9 | 68.9 | -6.0 |
| • Black | 48.3 | 47.8 | -0.5 |
| • Hispanic | 56.9 | 40.0 | -16.9 |
| • White | 72.0 | 70.7 | -1.3 |

Note: (1) Findings for U.S. college students pertain to degree attainment within five years of first time enrollment in a postsecondary educational institution in the 1995-96 school year.

(2) Findings for the city of Boston pertain to some degree attainment within the first seven years of graduation from high school in the Spring of 2000.

Sources: (i) U.S. Department of Education, National Center for Education Statistics, College Persistence on the Rise?

(ii) National Student Clearinghouse data as supplemented by Boston PIC/CLMS.

Among those students enrolling in four year, public colleges and universities, the national sample of first-time college enrollees were much more successful in obtaining a degree than their BPS counterparts in each gender and race-ethnic group. The degree attainment rates were 13 to 18 percentage points higher for the national sample of men and women, respectively (Table 15).

Among the four race-ethnic groups, degree attainment rates among the national sample exceeded those of BPS graduates by nearly eight percentage points among Blacks, Hispanics and Whites, and 20 percentage points among Asians. Slightly over 41 percent of Asian BPS graduates attending four year public colleges had obtained a degree within seven years of their high school graduation, but they lagged 20 percentage points behind the performance of their national counterparts who achieved a near 62% degree attainment rate within six years of their initial enrollment.

Both the national sample of college students and BPS graduates who attended four year private colleges and universities were the most likely to obtain degrees, and the relative sizes of the gaps in degree attainment rates between the national sample of private four year college students and BPS graduates were frequently the smallest for each gender and race-ethnic group. The absolute, percentage point gaps in degree attainment rates between BPS graduates and U.S. college students were very small for Blacks (.5 percentage points), Whites (1.3 percentage points), and Asians (6.0 percentage points). Only Hispanics lagged well behind the degree performance of their national counterparts who attended four year private colleges and universities. The degree gap between these two groups of Hispanic students was nearly 17 percentage points or 30 percent versus only 0 to 6 percentage point gaps for Asians, Blacks, and Whites.

The overall patterns of graduation rates for the national sample of college attendees and those of BPS graduates by type of institution and for most gender and race-ethnic groups were quite similar. For both groups of college students, private four year colleges were characterized by the highest degree attainment rates followed by four year public colleges and then two year public colleges with their graduation rates lagging far behind. The same institutional patterns of degree reciprocity rates prevailed across each gender and race-ethnic group, both among the national sample and the BPS graduates from the Class of 2000. The graduation rates were highest for those attending private four year colleges and lowest for those attending public two year colleges. Among BPS college students, the graduation rates from private four year colleges were typically four to five times higher than those attending public two year colleges. Nationally, the relative differences in degree attainment rates between these two sets of institutions were

typically in the three to one range.²⁶ Boston high school graduates from the Class of 2000 came closest to matching the graduation rates of their national counterparts from the incoming Class of 1995-96 when they attended four year private colleges and universities. Substantially improving the graduation performance of future students in two year community colleges should be a major priority for the Boston public school system.

²⁶ The one major exception to this general rule were national Black college students. Black students in four year private colleges were five times as likely to graduate as their peers in two year public institutions.

Appendix A: College Attendance, Graduation, and Continued Enrollment

Table A-1: BPS Class of 2000 by Gender, Race-Ethnicity, and Type of School

| Group | Total HS Grads | Number of Initial Attendees | College Graduates | Still Enrolled w/out Degree | % HS Graduates Enrolled | % of Attendees Graduated | % Still Enrolled w/out Degree | % Graduated or Still Enrolled |
|---------------|----------------|-----------------------------|-------------------|-----------------------------|-------------------------|--------------------------|-------------------------------|-------------------------------|
| All | 2,964 | 1,904 | 675 | 267 | 64.2% | 35.5% | 14.0% | 49.5% |
| Women | 1,607 | 1,091 | 399 | 174 | 67.9% | 36.6% | 15.9% | 52.5% |
| Men | 1,357 | 813 | 276 | 93 | 59.9% | 33.9% | 11.4% | 45.4% |
| Black | 1,472 | 884 | 249 | 150 | 60.1% | 28.2% | 17.0% | 45.1% |
| White | 512 | 366 | 195 | 47 | 71.5% | 53.3% | 12.8% | 66.1% |
| Asian | 341 | 275 | 143 | 18 | 80.6% | 52.0% | 6.5% | 58.5% |
| Hispanic | 581 | 326 | 78 | 49 | 56.1% | 23.9% | 15.0% | 39.0% |
| Exam Schools | 717 | 618 | 366 | 69 | 86.2% | 59.2% | 11.2% | 70.4% |
| Other Schools | 2,247 | 1,286 | 309 | 198 | 57.2% | 24.0% | 15.4% | 39.4% |

Table A-2: BPS Class of 2000 by Type of Postsecondary Institution

| Type of College | Number of Initial Attendees | Number of Graduates From First Attended Institution | Number of Initial Attendees That Graduated Elsewhere | Still Enrolled w/out Degree | % Graduated From First Institution or Elsewhere | % Still Enrolled w/out Degree | % Graduated or Still Enrolled |
|-------------------|-----------------------------|---|--|-----------------------------|---|-------------------------------|-------------------------------|
| Four Year Public | 467 | 132 | 30 | 68 | 34.7% | 14.6% | 49.3% |
| Four Year Private | 763 | 387 | 41 | 76 | 56.1% | 10.0% | 66.1% |
| Four Year Total | 1,230 | 519 | 71 | 144 | 48.0% | 11.7% | 59.7% |
| Two Year Public | 656 | 64 | 18 | 118 | 12.5% | 18.0% | 30.5% |
| Two Year Private | 18 | 3 | 0 | 5 | 16.7% | 27.8% | 44.5% |
| Two Year Total | 674 | 67 | 18 | 123 | 12.6% | 18.2% | 30.8% |
| Total | 1,904 | 586 | 89 | 267 | 35.5% | 14.0% | 49.5% |

Table A-3: BPS Class of 2000 by Type of High School

| Type of High School | Number of Initial Attendees | College Graduates | Still Enrolled w/out Degree | % of Attendees who Graduated | % Still Enrolled w/out Degree | % Graduated or Still Enrolled |
|----------------------|-----------------------------|-------------------|-----------------------------|------------------------------|-------------------------------|-------------------------------|
| <u>Exam Schools</u> | | | | | | |
| Four Year Colleges | 549 | 351 | 49 | 63.9% | 8.9% | 72.9% |
| Two Year Colleges | 69 | 15 | 20 | 21.7% | 29.0% | 50.7% |
| Total | 618 | 366 | 69 | 59.2% | 11.2% | 70.4% |
| <u>Other Schools</u> | | | | | | |
| Four Year Colleges | 681 | 239 | 95 | 35.1% | 14.0% | 49.0% |
| Two Year Colleges | 605 | 70 | 103 | 11.6% | 17.0% | 28.6% |
| Total | 1,286 | 309 | 198 | 24% | 15.4% | 39.4% |

**Appendix B: The Two Year and Four Year Colleges and Universities
Accounting for the Largest Number of College Enrollees from the
BPS Graduating Class of 2000**

The availability of the National Student Clearinghouse data as supplemented by Boston PIC/Center for Labor Market Studies researchers allows us to identify the names of the specific colleges and universities attended by Boston public school graduates and the number of graduates who were enrolled in such institutions during the first seven years following high school graduation. In Appendix Table B-1, we list the six two year colleges that accounted for the largest number of college enrollees from the Class of 2000 in such types of postsecondary institutions. The number of students enrolled in these six colleges ranged from a low of 22 in Massasoit Community College to a high of 232 in Bunker Hill Community College. A total of 622 students attended one of these six two year colleges, accounting for more than 92 percent of all BPS graduates attending a two year college.

Appendix Table B-1:
Listing of Two-Year Colleges In Which 20 or More Class of 2000
Boston Public High School Graduates Were Enrolled

| College Name | Initial Number of College Enrollees | % Distribution |
|--|--|-------------------|
| Bunker Hill Community College | 232 | 34.6 |
| Roxbury Community College | 149 | 22.2 |
| Massachusetts Bay Community College | 113 | 16.8 |
| Quincy College | 78 | 11.6 |
| North Shore Community College | 28 | 4.2 |
| Massasoit Community College | 22 | 3.3 |
| Number of Students in Above Institutions | 622 | 92.3 |
| Total 2-Year College Attendees | 674 | 100.0 |

The largest number of college enrolled BPS graduates attended four year colleges and universities, both private and public. Over the first seven years following graduation from high school, 1,230 BPS graduates initially enrolled in a four year college or university.²⁷ Twenty of these four year colleges and universities, thirteen of which were private, enrolled 15 or more

²⁷ It should be noted that a number of the graduates from these four year colleges and universities earned associate degrees rather than bachelor degrees.

BPS graduates from the Class of 2000 (See Appendix Table B-2). The number of enrollees in these 20 four year institutions ranged from lows of 15 at Framingham State College to highs of 80 at Northeastern University and 172 at the University of Massachusetts, Boston. A total of 835 BPS graduates attended one of these 20 institutions, accounting for just under 68 percent of the total number of BPS graduates who were enrolled in four year colleges and universities. The graduation experiences of the BPS students attending these six community colleges and 20 four year colleges and universities will dominate the college graduation results for the BPS Class of 2000.

Appendix B-2:
Listing of Four-Year Colleges In Which 15 or More Class of 2000
Boston Public High School Graduates Were Enrolled

| College Name | Initial Number of College Enrollees | % Distribution |
|--|--|-------------------|
| University Of Massachusetts Boston | 172 | 13.9 |
| Northeastern University | 80 | 6.5 |
| University Of Massachusetts At Amherst | 70 | 5.7 |
| Boston University | 58 | 4.7 |
| Wentworth Institute Of Technology | 47 | 3.8 |
| Boston College | 39 | 3.2 |
| Benjamin Franklin Institute | 37 | 3.0 |
| Johnson & Wales University | 34 | 2.8 |
| University Of Massachusetts-Dartmouth | 34 | 2.8 |
| Suffolk University | 32 | 2.6 |
| Fisher College-Traditional | 31 | 2.5 |
| Pine Manor College | 31 | 2.5 |
| Bentley College | 27 | 2.2 |
| Bay State College | 25 | 2.0 |
| Regis College | 25 | 2.0 |
| Bridgewater State College | 23 | 1.9 |
| Lasell College | 20 | 1.6 |
| Mount Ida College | 18 | 1.5 |
| Salem State College | 17 | 1.4 |
| Framingham State College | 15 | 1.2 |
| Number of Students in Above Institutions | 835 | 67.9 |
| Total 4-Year College Attendees | 1,230 | 100.0 |

Appendix C: Colleges and Universities Attended by Class of 2000 BPS High School Graduates and the Number of BPS Graduates Attending the Institution

| College Name | (A) College Type | (B) Private/ Public | (C) # of BPS Graduates Enrolled |
|------------------------------------|---------------------|---------------------------|--|
| Academy Of Art University | 4-Year | Private | 2 |
| American International College | 4-Year | Private | 7 |
| American University | 4-Year | Private | 1 |
| Arapahoe Community College | 2-Year | Public | 1 |
| Arizona State University | 4-Year | Public | 1 |
| Assumption College | 4-Year | Private | 2 |
| Barton College | 4-Year | Private | 1 |
| Bay State College | 4-Year | Private | 25 |
| Becker College | 4-Year | Private | 2 |
| Benjamin Franklin Institute | 4-Year | Public | 37 |
| Bentley College | 4-Year | Private | 27 |
| Boston College | 4-Year | Private | 39 |
| Boston University | 4-Year | Private | 58 |
| Bowdoin College | 4-Year | Private | 8 |
| Brandeis University | 4-Year | Private | 14 |
| Briarcliffe College- Bethpage | 4-Year | Private | 1 |
| Bridgewater State College | 4-Year | Public | 23 |
| Broward Community College | 2-Year | Public | 1 |
| Brown University | 4-Year | Private | 4 |
| Bryant University | 4-Year | Private | 1 |
| Bryn Mawr College | 4-Year | Private | 1 |
| Bunker Hill Community College | 2-Year | Public | 232 |
| Cambridge College | 4-Year | Private | 7 |
| Cape Cod Community College | 2-Year | Public | 1 |
| Caritas Laboure College | 2-Year | Private | 5 |
| Carnegie Mellon University | 4-Year | Private | 1 |
| Carroll College | 4-Year | Private | 1 |
| Central Texas College-Traditional | 2-Year | Public | 1 |
| Clark Atlanta University | 4-Year | Private | 6 |
| Clark University | 4-Year | Public | 4 |
| Coastal Carolina Community College | 2-Year | Public | 2 |
| Coastline Community College | 2-Year | Public | 1 |
| College Of New Rochelle-Undergrads | 4-Year | Private | 1 |
| College Of The Albemarle | 2-Year | Public | 1 |
| College Of The Holy Cross | 4-Year | Private | 2 |
| Columbia College Chicago | 4-Year | Private | 1 |
| Community College Of Rhode Island | 2-Year | Public | 1 |
| Connecticut College | 4-Year | Private | 2 |
| Cornell University | 4-Year | Private | 3 |
| Craven Community College | 2-Year | Public | 2 |

| | | | |
|--|--------|---------|----|
| CUNY Borough Of Manhattan | 2-Year | Public | 1 |
| Cuyamaca College | 2-Year | Public | 1 |
| Dean College | 4-Year | Private | 5 |
| Denison University | 4-Year | Private | 1 |
| Drew University | 4-Year | Private | 1 |
| Duke University | 4-Year | Private | 1 |
| Earlham College | 4-Year | Private | 1 |
| Eastern Nazarene College | 4-Year | Private | 3 |
| Ellis College- New York | 4-Year | Private | 1 |
| Embry-Riddle Aeronautical University | 4-Year | Private | 1 |
| Embry-Riddle Aeronautical University | 4-Year | Private | 2 |
| Emmanuel College | 4-Year | Private | 3 |
| Emory University | 4-Year | Private | 1 |
| Endicott College | 4-Year | Private | 1 |
| Fairfield University | 4-Year | Private | 5 |
| Fisher College-Continuing Studies | 4-Year | Private | 3 |
| Fisher College-Traditional | 4-Year | Private | 31 |
| Fitchburg State College | 4-Year | Public | 1 |
| Florida Southern College | 4-Year | Private | 1 |
| Fordham University | 4-Year | Private | 2 |
| Forsyth School For Dental Hygienists | 4-Year | Private | 2 |
| Framingham State College | 4-Year | Public | 15 |
| Franklin Pierce College | 4-Year | Private | 1 |
| George Washington University | 4-Year | Private | 5 |
| Georgetown University | 4-Year | Private | 3 |
| Gordon College | 4-Year | Private | 1 |
| Grambling State University | 4-Year | Public | 1 |
| Green Mountain College | 4-Year | Private | 1 |
| Grossmont College | 2-Year | Public | 1 |
| Guilford Technical Community | 2-Year | Public | 1 |
| Hampshire College | 4-Year | Private | 2 |
| Hampton University | 4-Year | Private | 6 |
| Harrisburg Area Community College | 2-Year | Public | 1 |
| Harvard - Kennedy School Of Government | 4-Year | Private | 12 |
| Harvard University - Continuing Ed | 4-Year | Private | 8 |
| Haverford College | 4-Year | Private | 1 |
| Heald College - Hayward | 2-Year | Private | 1 |
| Hesser College - Manchester School 30 | 4-Year | Private | 13 |
| Hofstra University | 4-Year | Private | 1 |
| Howard University | 4-Year | Private | 2 |
| Itt Technical Institute | 2-Year | Private | 8 |
| Jacksonville University | 4-Year | Private | 1 |
| Johnson & Wales University | 4-Year | Private | 34 |
| La Salle University | 4-Year | Private | 2 |
| Lake Forest College | 4-Year | Private | 1 |
| Lasell College | 4-Year | Private | 20 |
| Lehigh University | 4-Year | Private | 3 |
| Lesley University - Mini Terms | 4-Year | Private | 8 |
| Lincoln University | 4-Year | Public | 3 |
| Long Island University - Brooklyn | 4-Year | Private | 2 |

| | | | |
|--|--------|---------|-----|
| Long Island University | 4-Year | Private | 3 |
| Los Angeles Mission College | 2-Year | Public | 1 |
| Macalester College | 4-Year | Private | 1 |
| Manatee Community College | 2-Year | Public | 1 |
| Maryland Institute, College Of Art | 4-Year | Private | 1 |
| Massachusetts Bay Community College | 2-Year | Public | 113 |
| Massachusetts College Of Art | 4-Year | Public | 10 |
| Massachusetts College Of Liberal Arts | 4-Year | Public | 8 |
| Massachusetts Maritime Academy | 4-Year | Public | 4 |
| Massasoit Community College | 2-Year | Public | 22 |
| Mc Daniel College | 4-Year | Private | 1 |
| Mercer University Macon | 4-Year | Private | 1 |
| Merrimack College | 4-Year | Private | 2 |
| Miami Dade College | 4-Year | Public | 1 |
| Michigan State University | 4-Year | Public | 1 |
| Middlesex Community College | 2-Year | Public | 4 |
| Morehouse College | 4-Year | Private | 1 |
| Morris Brown College | 4-Year | Private | 3 |
| Mount Ida College | 4-Year | Private | 18 |
| Mount San Antonio College | 2-Year | Public | 1 |
| Mount Wachusett Community College | 2-Year | Public | 1 |
| New England Institute Of Technology | 4-Year | Private | 2 |
| New York Institute Of Technology- Old We | 4-Year | Private | 1 |
| New York University | 4-Year | Private | 5 |
| Nichols College | 4-Year | Private | 3 |
| Norfolk State University | 4-Year | Public | 7 |
| North Shore Community College | 2-Year | Public | 28 |
| Northeastern University | 4-Year | Private | 80 |
| Northern Essex Community College | 2-Year | Public | 1 |
| Northwestern University | 4-Year | Private | 1 |
| Norwich University-Traditional | 4-Year | Private | 2 |
| Oakwood College | 4-Year | Private | 1 |
| Oberlin College | 4-Year | Private | 1 |
| Park University | 4-Year | Private | 2 |
| Pennsylvania State University | 4-Year | Public | 4 |
| Philadelphia University | 4-Year | Private | 1 |
| Pine Manor College | 4-Year | Private | 31 |
| Plymouth State University | 4-Year | Public | 5 |
| Post University | 4-Year | Private | 1 |
| Princeton University | 4-Year | Private | 1 |
| Providence College | 4-Year | Private | 1 |
| Purdue University - West Lafayette | 4-Year | Public | 1 |
| Quincy College | 2-Year | Public | 78 |
| Quinnipiac University | 4-Year | Private | 4 |
| Radford University | 4-Year | Public | 2 |
| Reed College | 4-Year | Private | 1 |
| Regis College | 4-Year | Private | 25 |
| Rensselaer Polytechnic Institute | 4-Year | Private | 2 |
| Ripon College | 4-Year | Private | 1 |
| Rivier College | 4-Year | Private | 2 |

| | | | |
|---|--------|---------|-----|
| Rochester Institute Of Technology | 4-Year | Private | 1 |
| Rollins College | 4-Year | Private | 1 |
| Roxbury Community College | 2-Year | Public | 149 |
| Saint Anselm College | 4-Year | Private | 5 |
| Saint Michaels College | 4-Year | Private | 1 |
| Salem State College | 4-Year | Public | 17 |
| Salve Regina University | 4-Year | Private | 1 |
| Sarah Lawrence College | 4-Year | Private | 1 |
| Savannah College Of Art & Design | 4-Year | Private | 2 |
| School For International Training | 4-Year | Private | 1 |
| Simmons College | 4-Year | Private | 6 |
| Skidmore College | 4-Year | Private | 1 |
| Southern New England School Of Law | 4-Year | Private | 1 |
| Southern New Hampshire University | 4-Year | Private | 1 |
| Springfield College | 4-Year | Private | 4 |
| Springfield Technical Community College | 2-Year | Public | 1 |
| St Francis College | 4-Year | Private | 1 |
| St Joseph College | 4-Year | Private | 2 |
| Stonehill College | 4-Year | Private | 2 |
| Suffolk University | 4-Year | Private | 32 |
| Suny Fashion Institute Of Technology | 2-Year | Private | 1 |
| Suny Herkimer County Community College | 2-Year | Public | 1 |
| Suny Hudson Valley Community College | 2-Year | Public | 3 |
| Suny Jamestown Community College | 2-Year | Public | 1 |
| Syracuse University | 4-Year | Private | 5 |
| Temple University | 4-Year | Public | 5 |
| Texas A&M University | 4-Year | Public | 1 |
| The Catholic University Of America | 4-Year | Private | 2 |
| The New School | 4-Year | Private | 1 |
| Tidewater Community College | 2-Year | Public | 1 |
| Tufts University | 4-Year | Private | 5 |
| Tuskegee University | 4-Year | Private | 1 |
| Tyler Junior College | 2-Year | Public | 1 |
| University Of Central Florida | 4-Year | Public | 1 |
| University Of Connecticut | 4-Year | Public | 1 |
| University Of Hartford | 4-Year | Private | 2 |
| University Of Houston | 4-Year | Public | 1 |
| University Of Illinois At Chicago | 4-Year | Public | 1 |
| University Of Maine | 4-Year | Public | 2 |
| University Of Massachusetts At Amherst | 4-Year | Public | 70 |
| University Of Massachusetts At Lowell | 4-Year | Public | 12 |
| University Of Massachusetts Boston | 4-Year | Public | 172 |
| University Of Massachusetts-Dartmouth | 4-Year | Public | 34 |
| University Of Miami | 4-Year | Private | 1 |
| University Of Missouri-Kansas City | 4-Year | Public | 1 |
| University Of New Hampshire | 4-Year | Public | 5 |
| University Of New Haven-Semesters | 4-Year | Private | 8 |
| University Of New Orleans | 4-Year | Public | 1 |
| University Of Phoenix | 4-Year | Private | 5 |
| University Of Rhode Island | 4-Year | Public | 3 |

| | | | |
|---|--------|---------|-------|
| University Of Rochester | 4-Year | Private | 1 |
| University Of Tampa | 4-Year | Private | 2 |
| University Of Tennessee Chattanooga | 4-Year | Public | 1 |
| University Of Vermont & State Agriculture | 4-Year | Public | 3 |
| Utah Valley State College | 4-Year | Public | 1 |
| Valencia Community College | 2-Year | Public | 1 |
| Villanova University | 4-Year | Private | 1 |
| Virginia Polytech And State University | 4-Year | Public | 1 |
| Virginia State University | 4-Year | Public | 2 |
| Virginia Union University | 4-Year | Private | 1 |
| Wellesley College | 4-Year | Private | 1 |
| Wentworth Institute Of Technology | 4-Year | Private | 47 |
| Western Connecticut State University | 4-Year | Public | 1 |
| Westfield State College | 4-Year | Public | 2 |
| Wheaton College | 4-Year | Private | 4 |
| Wheelock College | 4-Year | Private | 7 |
| Worcester Polytechnic Institute | 4-Year | Private | 2 |
| Total | | | 1,904 |
| Four Year Private | | | 763 |
| Four Year Public | | | 467 |
| Total Four Year | | | 1,230 |
| Two Year Private | | | 18 |
| Two Year Public | | | 656 |
| Total Two Year | | | 674 |
| Number of Colleges | | | 207 |
| Number of Four Year Colleges | | | 170 |
| Number of Four Year Private Colleges | | | 129 |
| Number of Four Year Public Colleges | | | 41 |
| Number of Two Year Colleges | | | 37 |
| Number of Two Year Private Colleges | | | 4 |
| Number of Two Year Public Colleges | | | 33 |

Appendix D: Identifying Class of 2000 Graduates' College Enrollments in Two and Four Year Colleges Not Included in the National Student Clearinghouse Data Base

Not all colleges and universities in the U.S. participate in the National Student Clearinghouse, and some colleges and universities, such as Bunker Hill Community College and Northeastern University, have joined only in the past year or two. As noted earlier, Bunker Hill Community College and Northeastern University as well as the Franklin Institute and Mount Ida College provided us with the required data. To identify the degree to which BPS graduates from the Class of 2000 were attending colleges and universities that were not members of the National Clearinghouse database, we compared the names of all colleges and universities in which BPS graduates from the Class of 2000 were enrolled at the time of the spring 2001 follow-up survey and compared that list to the National Student Clearinghouse database and the four colleges and universities that supplied enrollment and graduation data directly to the Center. We then cross-checked the type of educational institution (one year college, two year, four year college) being attended by every graduate and removed all educational institutions that were neither two year or four year colleges and universities.

There were 25 two year or four year postsecondary educational institutions attended by BPS graduates in the spring after graduation that were neither members of the National Clearinghouse nor one of the four local colleges that provided us with data on the enrollment/graduation experiences of Class of 2000 graduates. With the exception of Newbury College, Bryman Institute and the Massachusetts College of Communications, relatively few (four or less) students from the Class of 2002 were enrolled in one of these institutions of higher learning. The names of these 25 educational institutions are displayed in Appendix Table D-1 together with information on the number of enrollees in each institution at the time of the spring 2001 follow-up survey. There were 85 Class of 2000 BPS graduates enrolled in these colleges at the time of the follow-up survey, which was equivalent to 4.2% of all college enrollments including all National Clearinghouse institutions and the four colleges and universities that provided data directly to the Center for Labor Market Studies. To take into consideration enrollments in these non-Clearinghouse institutions, a future research paper will include adjustments in college enrollment rates by a factor of 1.042. Similar adjustments were made for

our estimates of college graduates on the assumption that college graduation rates in the non-Clearinghouse institutions were identical to those in the Clearinghouse colleges.

Table D-1:
Two and Four Year Colleges Not Appearing on the
Supplemented National Clearinghouse List of Colleges

| Class of 2000 | Number of Enrollees from the Follow-Up Survey |
|---|--|
| Newbury College | 20 |
| Bryman Institute | 10 |
| Mass College of Communications | 9 |
| Berklee College of Music | 6 |
| Babson College | 4 |
| University of Pennsylvania | 4 |
| Bay State School of Technology | 3 |
| Holy Cross College | 3 |
| Hudson Valley Community College | 3 |
| Amherst College | 2 |
| Maven Institute | 2 |
| Morgan State University | 2 |
| New Hampshire Technical College | 2 |
| Notre Dame Academy | 2 |
| ABCD Urban College | 2 |
| Bronx College | 1 |
| Eugene Lang College (New York) | 1 |
| European Union Institute of Genetics | 1 |
| MIT | 1 |
| Notre Dame Academy (MA) | 1 |
| U.S. Air Force Academy | 1 |
| University of Puerto Rico | 1 |
| Vassar College | 1 |
| Western Maryland College | 1 |
| Daniel Webster (New Hampshire) | 1 |
| Sacred Heart University | 1 |
| Number of Institutions | 26 |
| Number of Enrolled Students | 85 |
| Total Enrollment Reported by National Clearinghouse | 1,904 |
| Total Enrollments, including non-Clearinghouse Institutions | 1,989 |
| Enrollments in Non-Clearing House Colleges as % of Total College Enrollments | 4.3% |

Appendix E: College Graduates as a Percent of BPS High School Graduates from the Class of 2000

In the main section of this research report, the college graduation rates of those Class of 2000 BPS graduates who had enrolled in college at some time during the first seven years following their high school graduation were examined.²⁸ In this appendix, we will examine and assess the number of college graduates through the spring of 2007 as a percent of the original number of BPS high school graduates from the Class of 2000. These “college graduation rates” are estimated for all 2,964 high school graduates and for those in gender, race-ethnic, and combinations of gender/race-ethnic groups as well as for graduates from the city’s three exam schools and all other high schools combined. The college graduation rate is equal to the product of the college enrollment rate and the graduation rate by the spring of 2007 for those who were enrolled in college.

The percentages that follow are lower than those in the main section because the denominator is larger, all BPS graduates (2,964) as compared to college enrollees (1,904). However, in a national comparison, the BPS Class of 2000 would fare better under this analysis than in the comparison in the main report, because the BPS college enrollment rate is higher than the national average.

Through the spring of 2007, 675 of the 2,964 graduates from the Class of 2000 had obtained a two or four year college degree or a certificate, representing a college graduation rate of just under 23 percent (Table E-1). Female high school graduates were more likely to obtain college degrees than their male counterparts (25% vs. 20%). College graduation rates of BPS Class of 2000 graduates varied more considerably across the four major race-ethnic groups, ranging from lows of 13.4% among Hispanics and 16.9% among blacks to a high of 42% among Asian graduates (Table E-1). The relative difference between the college graduation rates of Asian and Hispanic graduates was slightly more than three to one, reflecting large variations between these two groups in their college enrollment rates and their success rates in graduating from college once enrolled.

²⁸ The college graduate totals appearing in this paper include some individuals who only obtained a certificate rather than a two or four year degree. Under one percent of the graduates from four year colleges were reported to have only obtained a certificate.

Table E-1:
High School Graduates, College Graduates, and College Graduates as a Percent of
All Boston Public School Graduates Through the Spring of 2007, All and by Gender and
Race-Ethnic Group and Type of High School Attended, Class of 2000

| Group | (A) High School Graduates | (B) College Graduates | (C) College Graduates/ High School Graduates (in %) |
|-----------------------|---------------------------------|-----------------------------|--|
| All | 2,964 | 675 | 22.8 |
| Men | 1,357 | 276 | 20.3 |
| Women | 1,607 | 399 | 24.8 |
| Asian | 341 | 143 | 41.9 |
| Black | 1,472 | 249 | 16.9 |
| Hispanic | 581 | 74 | 13.4 |
| White | 512 | 195 | 38.1 |
| Exam school graduates | 717 | 366 | 51.0 |
| All other graduates | 2,247 | 309 | 13.8 |

Source: National Student Clearinghouse data as supplemented by local colleges/universities and adjusted for attendance in non-clearinghouse colleges, tabulations by authors.

Graduates from the city’s three exam schools were considerably more likely to have graduated from college than their counterparts from the city’s other high schools. By the end of the spring of 2007, 366 of the 717 graduates from the city’s three exam schools or 51 percent had earned a college degree versus only 14% of the 2,247 graduates from the other public high schools. The relative difference between the college graduation rates of these two groups of high school graduates was approximately 3.7 times, reflecting the sharply higher college enrollment rates and college persistence rates of the exam school graduates. Future research on the college graduation rate differences of these two groups of graduates should attempt to ascertain the importance of high school experiences (academic achievement, MCAS grades, type of high school curriculum, and grade point averages) in explaining variations in college enrollment and graduation behavior.²⁹

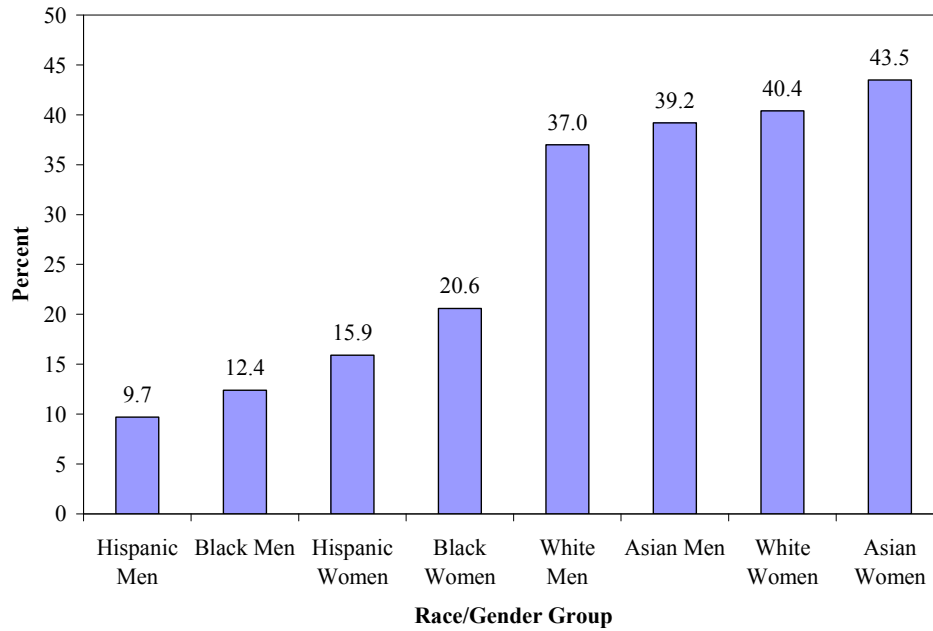
²⁹ The Boston public schools had provided CLMS research staff with selected transcript data for graduates from the Classes of 2000 to 2002 but not MCAS score data for individual students.

In Table E-2 and Chart E-1, estimates of college graduation rates are presented for members of eight gender/race-ethnic groups of high school graduates from the Class of 2000. The college graduation rates of these eight subgroups of graduates varied enormously. They ranged from lows of slightly under 1 in 10 among Hispanic males and only 12 in 100 Black males to highs of nearly 4 of 10 White females and 44 of every 100 Asian women. This last group of Asian women was 4.5 times as likely as Hispanic males to have graduated from college by the spring of 2007.

Table E-2:
High School Graduates, College Graduates, and College Graduates as a
Percent of All Boston Public School Graduates Through the Spring of 2007 by
Gender/Race/Ethnic Group, Class of 2000

| | (A) | (B) | (C) |
|--------------------------|--------------------------|----------------------|---|
| Gender/Race-Ethnic Group | High School Graduates | College Graduates | College Graduates/ High School Graduates (in %) |
| Asian men | 171 | 69 | 40.4 |
| Asian women | 170 | 74 | 43.5 |
| Black men | 662 | 82 | 12.4 |
| Black women | 810 | 167 | 20.6 |
| Hispanic men | 236 | 23 | 9.7 |
| Hispanic women | 345 | 55 | 15.9 |
| White men | 262 | 97 | 37.0 |
| White women | 250 | 98 | 39.2 |

Chart E-1:
College Graduates as a Percent of High School Graduates from
the BPS Class of 2006 by Gender/Race-Ethnic Group



In each race-ethnic group, female graduates from the Class of 2000 were more likely to graduate from college than their male counterparts. The relative size of these gaps in college graduation rates was lowest among White, non-Hispanics (1.09) and largest among Black (1.66) and Hispanic graduates (1.64). Among males, both Asians and White, non-Hispanics were three to four times as likely to graduate from college as their Black and Hispanic male peers (Chart 9). As will be revealed below, these limited college graduation rates of Black and Hispanic males are further exacerbated by their sharply below average graduation rates from high school.

The findings from the supplemented National Student Clearinghouse data base also can be used to identify the share of BPS high school graduates from the Class of 2000 who obtained a degree from a four year college or university by the spring of 2007.³⁰ Of the 2,964 graduates from the Class of 2000, 614 or close to 21 percent had succeeded in obtaining some type of degree from a four year college or university by the end of the spring of 2007 (Table 16). Again, female graduates were more likely than their male counterparts to have received a degree from a four year college (23% vs. 18%), a difference of approximately five percentage points. Gaps in

³⁰ A modest share (under 16 percent) of the graduates from four year colleges were reported to have received an associate's degree or a certificate rather than a bachelor's degree.

four year college graduation rates were considerably larger across the four major race-ethnic groups, ranging from lows of 12% among Hispanics and 15% among Blacks to highs of 38 percent among Asians and Whites (Table E-3).

Table E-3:
Four Year College Graduates* as A Percent of Boston Public High School Graduates, Class of 2000, All and by Gender, Race-Ethnic Group, and Type of High School from Which Graduated

| Group | (A) High School Graduates | (B) Four Year College Graduates | (C) Four Year Graduates as % of High School Graduates |
|------------------------|---------------------------------|--|--|
| All | 2,964 | 614 | 20.7 |
| Men | 1,357 | 250 | 18.4 |
| Women | 1,607 | 364 | 22.7 |
| Asian | 341 | 131 | 38.4 |
| Black | 1,472 | 219 | 14.9 |
| Hispanic | 581 | 69 | 11.8 |
| White, not Hispanic | 512 | 192 | 37.6 |
| Exam schools | 717 | 365 | 50.9 |
| All other high schools | 2,247 | 249 | 11.1 |

Note: * Four year college graduates from the supplemented National Student Clearinghouse data set were adjusted upward to account for graduates from institutions not members of the National Student Clearinghouse.

Graduates from the city’s three exam high schools were by far the most successful in obtaining a college degree from a four year college or university by the spring of 2007. Nearly 51 percent of the high school graduates from the three exam schools had earned a degree from a four year college or university versus only 11 percent of the graduates from all other city high schools. This represented a relative difference of nearly five times in favor of the exam school graduates. While the exam school graduates accounted for only a quarter of the city’s graduates from the Class of 2000, they accounted for nearly 60 percent of those receiving degrees from four year colleges and universities.

Female high school graduates in each race-ethnic group were more likely than each of their respective male counterparts to earn a degree from a four year college or university (Table E-4). The absolute and relative size of these gaps were greatest among Black graduates among whom women were nearly twice as likely as men to have obtained a college degree from a four

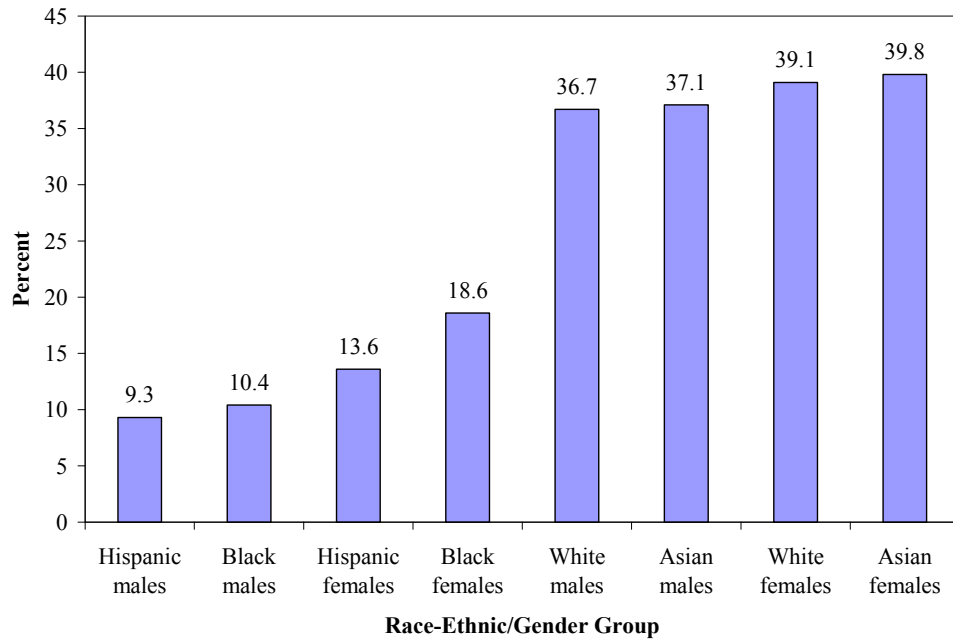
year college or university (19% vs. 10%). The gaps in degree receipt from four year colleges and universities were quite considerable across the eight race-ethnic/gender groups, ranging from lows of about 9-10 percent for Hispanic and Black males to highs of 39-40 percent among White and Asian females (Chart E-2). These Asian and White women were four times as likely as Black and Hispanic males to have earned a degree from a four year college or university.

Table E-4:
Four Year College Graduates as a Percent of Boston Public
High School Graduates, Class of 2000, by Race-Ethnic/Gender Groups

| | (A) | (B) | (C) |
|------------------|--------------------------|--|---|
| Group | High School Graduates | Four Year College Graduates [*] | Four Year Graduates as % of High School Graduates |
| Asian males | 171 | 63 | 37.1 |
| Asian females | 1701 | 68 | 39.8 |
| Black males | 662 | 69 | 10.4 |
| Black females | 810 | 151 | 18.6 |
| Hispanic males | 236 | 22 | 9.3 |
| Hispanic females | 345 | 47 | 13.6 |
| White males | 262 | 95 | 36.1 |
| White females | 250 | 98 | 35.1 |

Note *: Number of four year college graduates was adjusted upward to reflect the number of graduates who attended college not covered by the adjusted National Student Clearinghouse data base.

Chart E-2:
Four Year College Graduates as a Percent of Boston Public
High School Graduates by Race-Ethnic/Gender Group, Class of 2000
(in %)



Appendix F: Types of Certificates/College Degrees Received from Two and Four Year Colleges by BPS High School Graduates from the Class of 2000

The National Student Clearinghouse data system provides information on the graduation status of all students exiting from a college, but it provides information on the type of college degree/certificate received by college graduates for only a slight majority of these graduates. In the main text of our paper, we adopted a simple rule of thumb in deciding how to classify the type of college degree received by a graduate from a two or four year college or university when degree information was not provided by the responding institution. If the individual graduated from a two year private or public university, we assumed that he or she obtained an associate's degree. If the individual graduated from a four year private or public university, we assumed that he or she received a bachelor's degree. We argued that our estimating assumptions would likely yield moderately biased upwards estimates of degrees received by graduates. Some of the graduates from two year colleges may have only obtained certificates rather than associate's or higher degrees, and some of the graduates from four year colleges may have only received associate's degrees rather than bachelor's degrees.

To determine whether our underlying assumptions may have been upward biased in assigning degrees to all two and four year college graduates, we analyzed the available National Student Clearinghouse information on the actual degrees/certificates awarded to "college graduates." Key findings of our analysis are displayed in Table F-1. Information on the specific type of certificate/degree awarded to two and four year college graduates were available for only 51 graduates of two year colleges and 296 graduates of four year colleges. These two groups represented about one-half of all two and four year college graduates from the BPS Class of 2000. Among the graduates of two year colleges, an associate's or higher degree was awarded to slightly more than 80 percent of graduates; however, 19 percent of the "graduates" from community colleges only received a certificate rather than a two year or higher degree. Clearly, our rule of thumb assumptions for graduates from community colleges provided an optimistic estimate of the number of associate's degree recipients.

Table F-1:
Distribution of Graduates of Two and Four Year Colleges by Type of Degree/
Certificate Awarded, BPS Class of 2000 High School Graduates

| | (A) | (B) |
|-----------------------------|----------------------|-----------------------|
| Type of Degree/Certificate | Two Year Colleges | Four Year Colleges |
| Certificate only | 12 (23.5%) | 2 (0.7%) |
| Associate's degree | 39 (76.5%) | 46 (15.5%) |
| Bachelor's or Higher Degree | 0 (0%) | 248 (83.5%) |
| Total | 51 | 296 |

Of the 296 graduates from four year colleges and universities, 248 or nearly 84% received a bachelor's or higher degree. However, the remaining 48 of these graduates only obtained an associate's degree or a certificate. Only two of the 296 four-year college graduates reported receiving a certificate. Again, based on this sample of observations of four year graduates, our rule of thumb assumption provides a moderately upward biased estimate of the true number of graduates obtaining bachelor's degrees rather than associate's degrees.