

College Enrollment and Labor Market Outcomes For Class of
2005 Boston Public High School Graduates: Key Findings of the
Winter/Spring 2006 Follow-up Surveys of the Class of 2005

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Introduction

Over the past two decades, varieties of programs have been implemented to improve the transition of high school students to college and the labor market after graduation. Any effort to evaluate the success of high school programs in facilitating the transition of high school graduates to college and the world of work is dependent upon knowledge of the actual, post-high school college and labor market experiences of recent graduates. The ability to track the post-high school college and labor market experiences of recent high school graduates is dependent upon the existence of a comprehensive and statistically representative set of follow-up data on these graduates. Since the mid-1980s, professional staff of the Boston Private Industry Council (PIC) have conducted an annual follow-up survey of each year's graduating class from Boston public high schools.

Boston is one of the few cities in the entire country to conduct such annual follow-up surveys of its public school graduates. The absence of accountability for the outcomes of recent high school graduates by most public school districts across the nation is rather astounding.¹ The primary objective of the PIC follow-up surveys is to obtain comprehensive information on Boston public high school graduates' early transitions from high school to college and the labor market during a nine to ten month period following graduation. The telephone survey captures information on the college and post-secondary training enrollment status of graduates at the time of the interview, the types of colleges and post-secondary training programs attended, their college majors, their financial aid status, their employment status, key characteristics of their jobs, such as hours of work, hourly wages, their occupations, and the industries of their employers, their senior year and summer job experiences during the high school years, and their job-related training activities. The information also can be used to identify those students who were disconnected from both college and labor market, neither enrolled in college nor working.

During the late winter and early spring of 2006, Boston PIC staff made an effort to interview each of the 3,130 graduates of Boston public high schools from the Class of 2005. This research report presents and assesses key findings of the winter/spring 2006 follow-up survey.

¹ Many public schools conduct exit surveys of the college and work plans of their graduates prior to graduation but do not validate these plans with independent follow-up surveys. The Massachusetts Department of Education compiles findings of college enrollment and employment plans of graduates across public school districts and issues an annual statewide report on the findings of these exit surveys. A recent report has been issued on the plans for graduates from the Class of 2004.

Among the topics covered are the demographic characteristics of Class of 2005 graduates, their college and work activities at the time of the follow-up survey, types of schools attended, their college majors, their employment status, their hours of work, hourly and weekly wages, the industries of their employers, their occupations, their training activities, and their participation in school-to-career programs during high school. A comprehensive graphics package providing detailed findings from the follow-up surveys also has been prepared as a supplement to this study. A series of research papers on key topics presented in this report also are being prepared by CLMS staff.

The Number and Demographic Characteristics of Boston Public School Graduates from the Class of 2005

The total number of Class of 2005 graduates from Boston public high schools was 3,130. (Table 1). Males accounted for 1,443, or 46 percent, of the members of the graduating class while women accounted for 1,687, or 54 percent of the graduates from the Class of 2005.² The number of female graduates from Boston public high schools has been considerably higher than the number of male graduates for the last nine graduating classes, i.e., those for 1997 to 2005. Combined with data on the gender characteristics of high school freshmen three years earlier, these results indicate that men are considerably more prone than women to drop out of high school before graduation since the freshman class has typically contained more men. The ratio of female to male graduates for the Class of 2005 was 1.17, lower than the ratio for the previous two years' graduate. (Table 2). In each race-ethnic group, the number of female graduates exceeded the number of male graduates, with the largest relative differences prevailing among Hispanic graduates (124 women for every 100 men) and Black graduates (119 women for every 100 men). Among White graduates there were 113 women for every 100 men while the ratio of women to men among Asian graduates was only 103 to 1000.

² These data are based on the student records provided to the Boston Private Industry Council by the Boston Public School Department.

Table 1: The Distribution of Class of 2005 Graduates by Gender, Race/Ethnic Group, and Type of High School Attended

Group	Number	Percent of Graduates
All	3,130	100.0
<u>Gender</u>		
# Men	1,443	45.0
# Women	1,687	54.0
<u>Race/Ethnic Group</u>		
# Asian	391	12.5
# Black	1,489	47.6
# Hispanic	720	23.0
# White	530	16.9
<u>Type of School</u>		
# Exam School	803	26.0
# District, Magnet, Alternative School	2,327	74.0

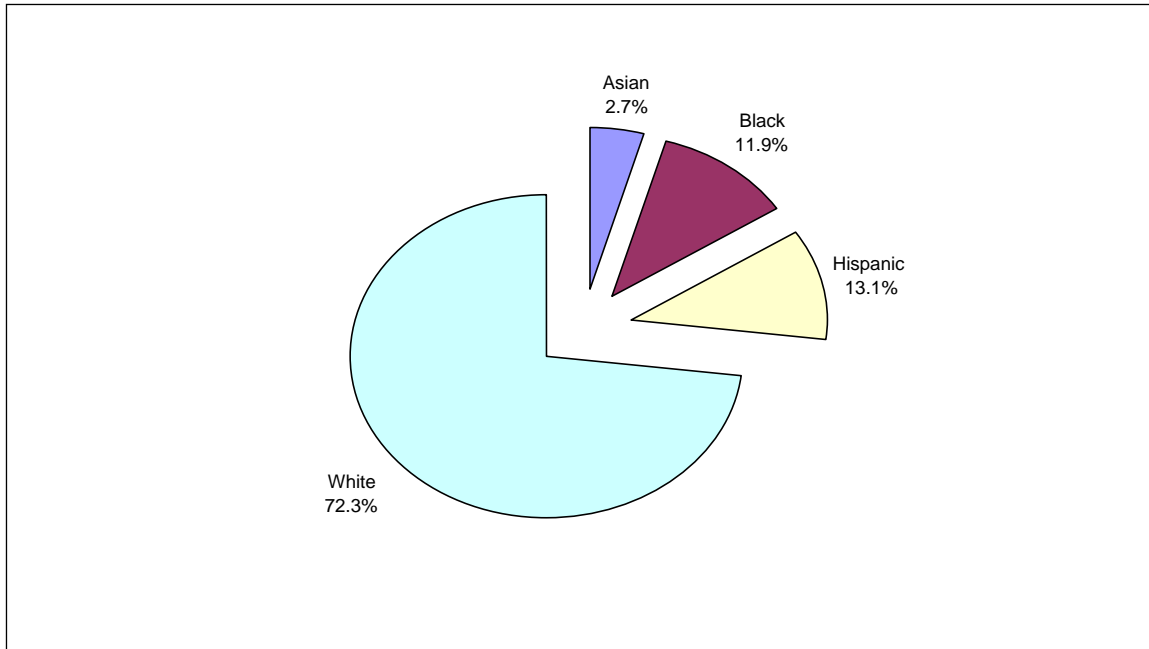
Table 2: Number of Male and Female Graduates from Boston Public High Schools, Classes of 1997 to 2005

Graduating Class	Female	Male	Females per 100 males
1997	1,453	1,217	119
1998	1,685	1,390	121
1999	1,670	1,321	126
2000	1,591	1,340	119
2001	1,708	1,513	113
2002	1,916	1,600	120
2003	1,656	1,282	129
2004	1,696	1,334	127
2005	1,687	1,443	117

A breakout of the Class of 2005 Boston public school graduates by their race-ethnic backgrounds reveals that Black students accounted for nearly one half of the total number of graduates (47.6%) followed by Hispanics (23.0%), Whites (16.9%), and Asians (12.5%). The racial/ethnic mix of Boston public school graduates differs markedly from that of the nation as a whole. U.S. statistics on high school graduates from the Class of 2005 reveal that only one-

quarter of all high school graduates were Black or Hispanic. (Chart 1). However, in Boston, 70 percent of the Class of 2005 high school graduates were Black or Hispanic and an additional 12 percent were Asian.³ (Table 1).

Chart 1: Percentage Distribution of Class of 2005 U.S. Graduates by Race-Ethnic Group



The graduates from the Class of 2005 attended 29 different high schools, including a number of small alternative schools. There were a total of 803 graduates from the city’s three exam schools (Boston Latin, Latin Academy, and the O’Bryant Technical High School), accounting for 26 percent of the graduating class. The remaining 2,327 graduates (or 74% of the total) attended district, magnet, and small alternative high schools.

³ Findings on the estimated numbers and demographic characteristics of Class of 2005 high school graduates throughout the U.S. are based on the following research report: U.S. Department of Labor, Bureau of Labor Statistics, “College Enrollment and Work Activity of 2005 High School Graduates”, Washington, D.C., March 2006.

Follow-up Interview Completion Rates for Class of 2005 Boston Public School Graduates

Follow-up interviews were completed for nearly 71 percent of the graduates from the Class of 2005.⁴ This interview completion rate unfortunately was the lowest in the past eight years. It was 10 percentage points lower than that for the Class of 2003 and 11 percentage points lower than that for the Class of 2001, which had the highest interview completion rate achieved over the past ten years. (Chart 2). The follow-up interview completion rate for women was two percentage points higher than that for men (72% vs. 70%). (Chart 3). There were modest variations in interview completion rates among graduates in the four major race-ethnic groups. Interview completion rates were highest for Asian graduates (79%) followed by White graduates (73%), Black graduates (70%), and Hispanic graduates (67%). Follow-up interview completion rates were 75 percent or higher in 14 schools, and only three schools had interview completion rates below 50%. Follow-up interview completion rates by high school ranged from a low of 40 percent for Fenway Park High School to a high of 98 percent for graduates from the Health Careers Academy. (See Appendix A for a listing of follow-up interview completion rates by high school). The five Boston public high schools with the highest interview completion rates were the Health Career Academy (98%), Another Course to College (92%), Monument High School (90%), Academy of Public Service (89%), and Excel High School (86%). In contrast, the five schools with the lowest interview completion rates were Fenway Park High School (40%), West Roxbury High School (43%), Boston Community Leadership Academy (48%), Madison Park High School and Eagleston High School (61%).

⁴This completion rate is based on 25 schools. We have excluded 4 small schools- Boston Adult Academy, McKinley Tech, Community Academy, and Boston Evening- where PIC staff could not track down any graduates for the follow-up interview.

Chart 2: Follow-Up Interview Completion Rates for Graduates from Boston Public High Schools, Classes of 1997 to 2005

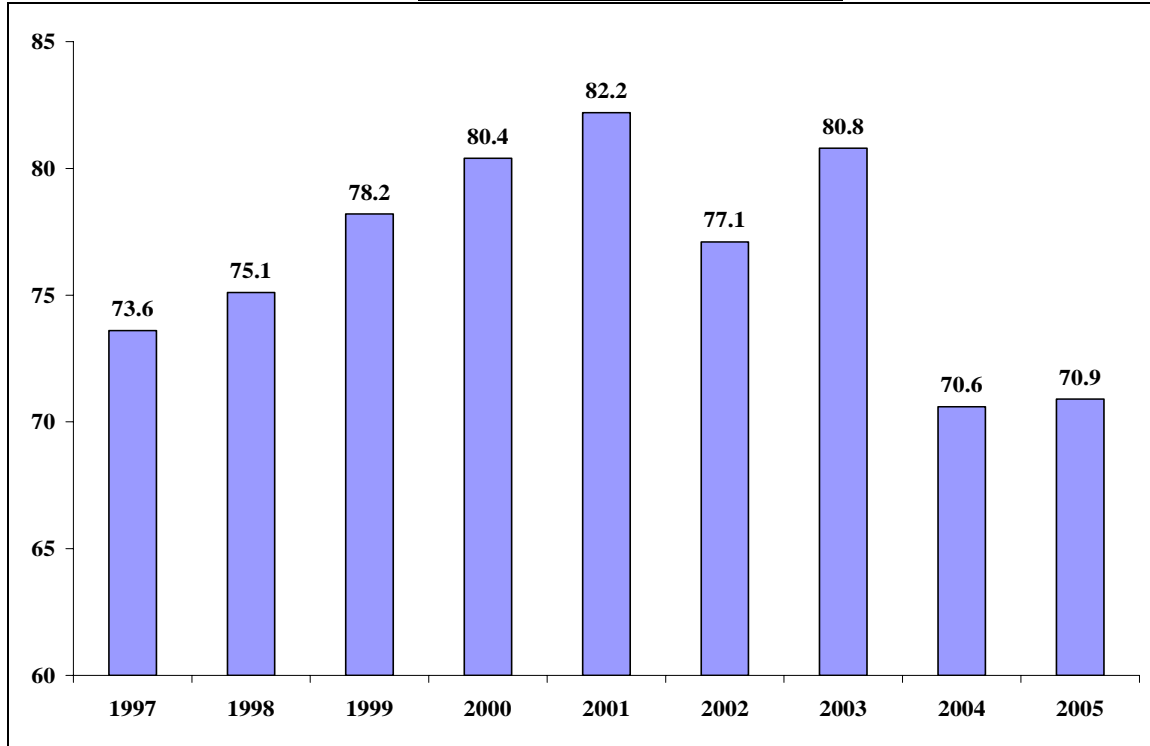
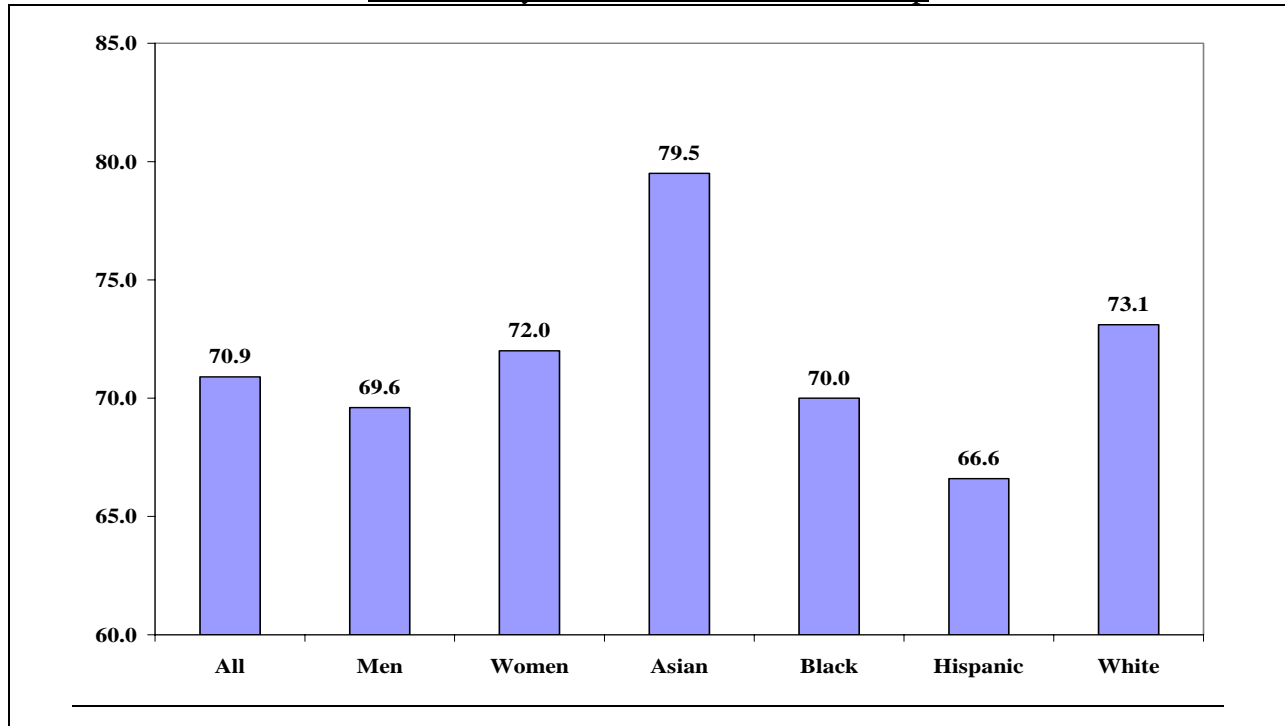


Chart 3: Follow-up Interview Completion Rates for Class of 2005 Boston Public High School Graduates by Gender & Race-Ethnic Group



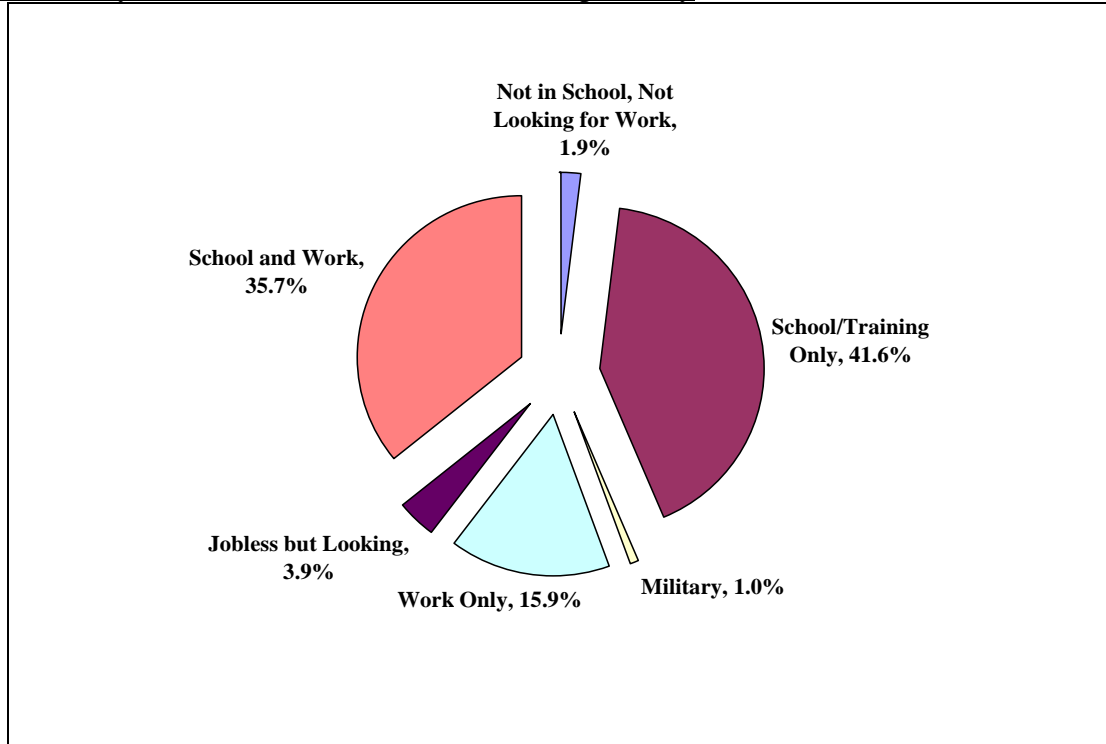
Employment and Schooling Activities of Class of 2005 Graduates of Boston Public High Schools at the Time of the Followup Interviews

The follow-up questionnaire for the Class of 2005 was designed to identify all of the college, post-secondary training, employment and job-seeking activities of each high school graduate at the time of the Winter/Spring 2006 survey. The interviews took place between February and May, anywhere from 9 to 11 months following graduation from high school. Among all graduates from the Class of 2005, seventy-seven percent were estimated to be attending a post-secondary educational institution or a technical/vocational training program at the time of the winter/spring 2006 follow-up survey.⁵ (Chart 4). The post-secondary college/training program enrollment rate for the Class of 2005 was the highest enrollment rate recorded in the 20 years of PIC follow-up surveys. The post-secondary college/training enrollment rate for the Class of 2005 was one percentage point higher than that for the Class of 2004.

Nearly half of those youth attending college or a post-secondary training program also were working at the time of the follow-up survey. Another 17 percent of the graduates were employed in a civilian job or serving in a branch of the nation's armed forces, but were not attending college or a training program. The remaining 6 percent of the graduates were neither working nor enrolled in a post-secondary school or training program. Of this last group of "at-risk" or "disconnected" graduates, two of every three reported that they were looking for a job at the time of the interview. The remaining 2 percent of the graduates from the Class of 2005 were not working, not enrolled in a school or training program, and not looking for a job at the time of the follow-up interview.

⁵ All of these estimates are based on weighted sample results not on the completed interviews only. These weights are based on follow-up response rates by high school and race-ethnic group within each high school. The weights are constructed to generate the population of high school graduates by high school and race-ethnic group within each high school.

Chart 4: Percentage Distribution of Class of 2005 Boston Public High School Graduates by Their Activity Status at the Time of the Follow-up Survey



The combined college enrollment and employment outcomes for Boston public school graduates has been improving fairly steadily since 2002. As noted above, the college/training school attendance rate of 77 percent for Class of 2005 graduates was eight percentage points higher than that for the Class of 2002 graduates and was the highest for the past 20 years. (Table 3).

Part of the improvement in the college attendance rate since 2002 is believed to be due to the “MCAS” effect. The number of high school graduates declined after 2002 due to the inability of a number of seniors to pass the state mandated MCAS exam. A below average fraction of those unable to pass the MCAS would have attended college in the year following graduation. The fraction of graduates reporting “working only” declined to only 16% for the Class of 2005. Graduates in recent years have found it more difficult to obtain employment. The fraction of graduates who were neither enrolled in school nor working had been characterized by a steadily decreasing trend since the recessionary and jobless recovery years of 2001-2002. The disconnected rates declined from 11 percent from the Class of 2002 to under 6 percent for the

Class of 2005. The “disconnection rate” rate increases during economic recessions and jobless recoveries during more favorable labor market.⁶

Table 3: Percentage Distribution of Boston Public High School Graduates by Their Activity Status at the Time of the Follow-up Survey, Classes of 1998 to 2005
(Numbers in Percent)

Activity	1998	1999	2000	2001	2002	2003	2004	2005
School/Training	65.0	67.4	69.0	69.8	68.3	74.4	76.3	77.3
•School/Training Only	32.0	30.1	31.6	35.9	37.1	38.8	39.9	41.6
•School and Work	33.0	34.5	37.4	33.9	31.2	35.5	36.4	35.7
Work Only	24.5	23.8	21.7	19.2	19.3	15.0	14.5	15.9
Military	1.8	2.3	1.6	1.8	1.6	1.3	1.2	1.0
“At-Risk”	7.7	9.3	7.6	9.2	10.9	9.3	8.1	5.8
•Jobless, but Looking for Work	5.7	6.0	4.2	5.8	8.3	6.3	5.1	3.9
•Not Looking for Work	3.0	3.3	3.4	3.4	2.6	3.0	3.0	1.9

The distribution of Class of 2005 graduates by activity status varied by gender and race-ethnic group. As has been the case over the past seven years, female graduates from the Class of 2005 were more likely than male graduates to be attending a post-secondary educational or training program (81% vs. 72%). (Table 4). Male graduates were more likely than their female counterparts to be only employed or serving in the military (21% versus 13%). The share of male graduates who were not engaged in any positive work or school activity was nearly 2 percentage points higher than that of their female counterparts (6.8% versus 5.1%). A high fraction (20%) of male high school graduates not attending college were experiencing problems in finding employment. Their unemployment rate was close to 20 percent.

College/training enrollment rates for Class of 2005 graduates varied across the four major race-ethnic groups, ranging from a high of nearly 92% for Asian graduates to 79% for White graduates, 75% for Black graduates, and to a low of 72% for Hispanic graduates. (Chart 5). Hispanic graduates were the most likely to go directly to work in the civilian sector after graduation. The share of Boston public high schools graduates who reported that they were working or serving in the military but not attending college at the time of the follow-up survey ranged from a high of nearly 20% for Hispanic graduates to a low of 4% for Asian graduates.

⁶ See: Andrew Sum and Nathan Pond, The Deteriorating Labor Market for the Nation’s Youth, Center for Labor Market Studies, Northeastern University, Prepared for the National League of Cities, Washington D.C., June, 2003.

The percent of Class of 2005 graduates who were classified as “at risk” varied from a low of 3 percent for White graduates to highs of 6 to 7 percent for Black and Hispanic graduates.

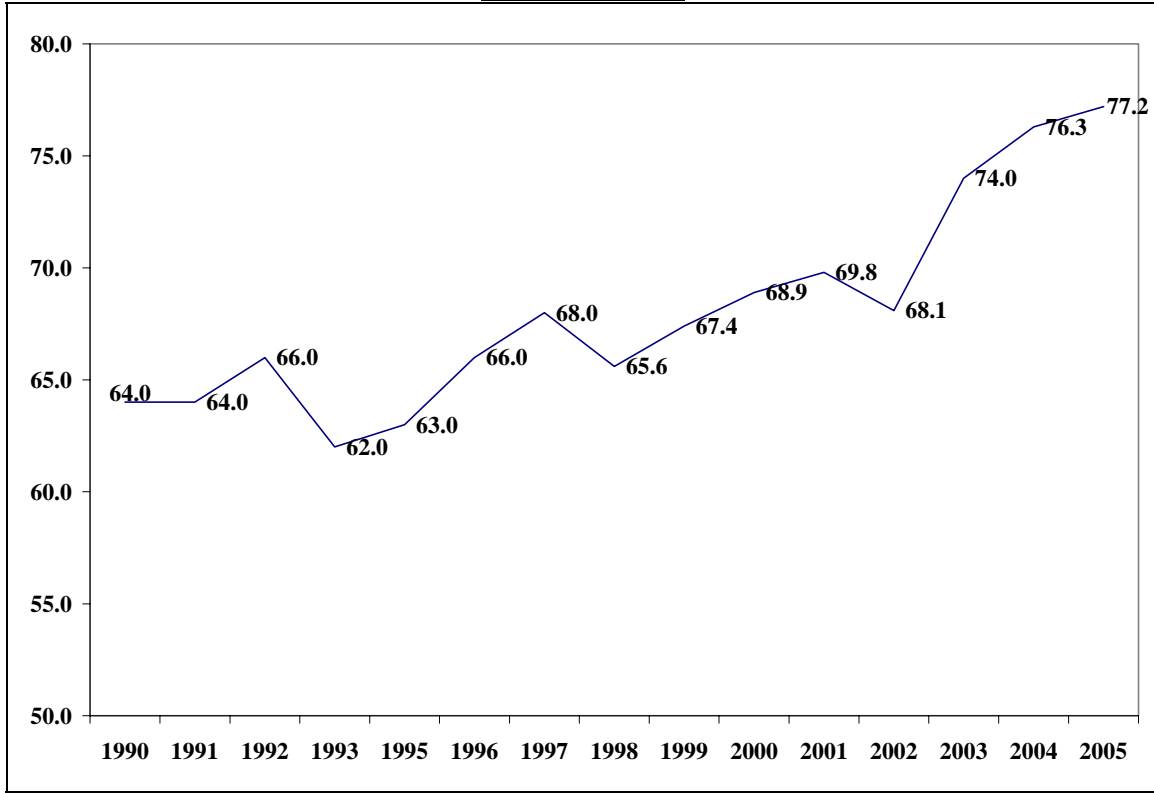
Table 4: Major Activities of Class of 2005 Boston Public High School Graduates by Gender and Race/Ethnic Origin (Numbers in Percent)

Activity	All	Female	Male	Black	White	Asian	Hispanic
School/Training	77.3	81.4	72.3	75.1	79.3	92.1	72.0
School and Work	35.7	38.1	32.8	35.0	31.9	36.0	39.4
School/Training Only	41.6	43.3	39.5	40.1	47.5	56.1	32.6
Work Only	15.9	13.1	19.2	17.2	16.9	4.0	18.8
Military	1.0	0.4	1.7	0.4	1.0	0.0	2.8
"At-Risk"	5.8	5.1	6.8	7.3	2.6	4.0	6.5
Not Employed, But Looking	3.9	3.1	4.9	5.1	1.5	2.4	4.2
None of the Above	1.9	2.0	1.9	2.2	1.1	1.6	2.3

College and Training Program Enrollment Rates for Class of 2005 Graduates

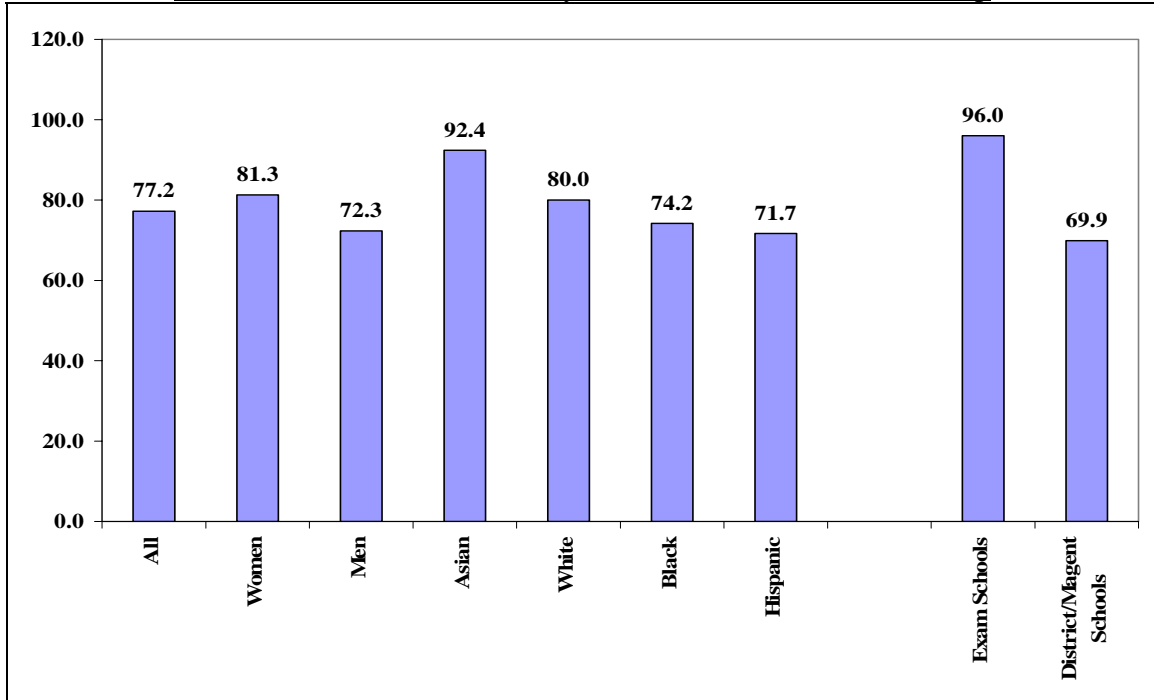
One of the major objectives of the Boston Public schools and the school-to-career programs is to achieve a high rate of transition of graduates into post-secondary educational and training institutions. As noted above, the overall college and post-secondary training program enrollment rate for Class of 2005 Boston public high school graduates stood at 77.2 percent in the Spring of 2005, the highest college enrollment rate achieved over the past 20 years for which follow-up data are available. (Chart 5). The college/ training program enrollment rate for the city’s public school graduates was only 50 percent in 1986, but had increased to just under 70 percent for the Classes of 2000 and 2001 and reached 77 for the Class of 2005. The size of this increase in the college enrollment rate between 1986 and 2005 should be considered a very substantial accomplishment, substantially exceeding that for the nation and for their central cities as a whole over the same period. Keeping these college attendees in school through graduation in the major challenge. Further research on college retention of BPS graduates is critically needed.

Chart 5: Trends in College Enrollment Rates for Boston Public High School Graduates, Classes of 1990 to 2005



Despite improvements over the years in the overall college enrollment rate, there are some disturbing gender gaps in college enrollment rates for Boston public high school graduates, particularly given the higher dropout rates among males in the Boston public schools. The four year on time graduation rate for Black and Hispanic males from the Class of 2006 was only in the 50 to 55 percent range. Similar findings apply to most other central cities in Massachusetts and large central cities across the country. Considerably more women than men are graduating from high school, and, when they graduate, women are more likely to attend college, especially four year colleges and universities. Eighty-one percent of female Boston public high school graduates from the Class of 2005 were enrolled in college or a post secondary training institution at the time of the follow-up survey versus a college/training school enrollment rate of only 72 percent for males. The college/training enrollment rates also varied across race-ethnic groups, ranging from lows of 72-74% among Black and Hispanics to 80% among Whites and a high of 92% among Asian. (Chart 6).

Chart 6: College/Training Program Enrollment Rates of Class of 2005 Boston Public High School Graduates, Total and by Gender and Race-Ethnic Group



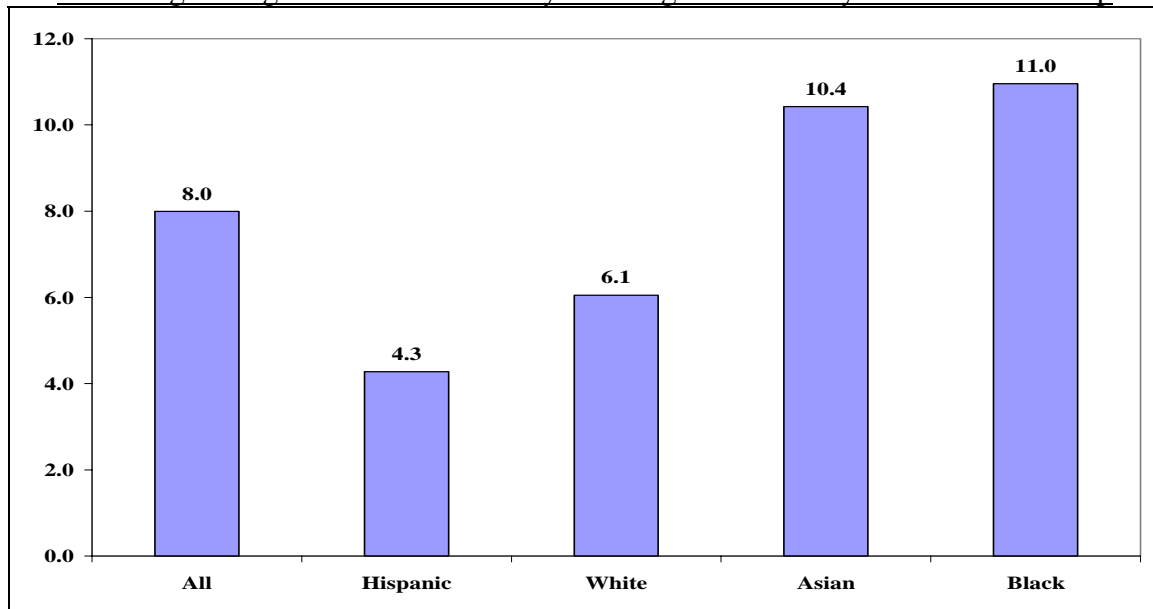
The college/training enrollment rates of female Class of 2005 graduates in each race-ethnic group were higher than those of men. (Table 5). The size of the gender gap in the college/training program enrollment rate for all Boston public high school graduates was nearly 9 percentage points. There was a much smaller gender gap of 0.5 percentage points in college enrollment rates among graduates from the city’s exam schools (96.3% for women versus 95.8% for men), but the gender gap in college enrollment rates was much higher for graduates from the district/magnet/alternative schools (75% female versus 64% male). The gender gaps in college attendance rates were largest for Black graduates (11.4 percentage points) followed by Hispanics (9 percentage points).

Table 5: Gender Gaps in College/Post-Secondary Training Enrollment Rates of Boston Public High School Graduates by Race/Ethnic Group and Type of School, Class of 2005 (Numbers in Percent)

Group	Women	Men	Percentage Point Gap (Men-Women)
All	81.3	72.3	-9.0
Asian	94.8	89.9	-4.9
White	83.6	75.6	-8.0
Hispanic	76.0	66.5	-9.4
Black	79.2	67.8	-11.4
Exam School	96.3	95.8	-0.5
District/Magnet School	75.1	63.8	-11.4

Among those enrolled in a college or post-secondary training program at the time of the follow-up survey, women were more likely than men to be attending a four-year college or university (69% vs. 61%). Differences in four-year college attendance rates were observed for men and women in each of the four race-ethnic groups. The absolute sizes of the differences between the percentage shares of women and men attending 4-year colleges were 4 percentage points for Hispanic graduates, 6 percentage points for White graduates, 10 percentage points for Asian graduates, and 11 percentage points for Black graduates. Male Hispanic graduates have narrowed the gender gap this year. In earlier years, Hispanic and Black graduates were characterized by the largest gender gaps in 4-year college enrollment shares whereas Asian graduates typically had the lowest gender gap on this measure. (Chart 7).

Chart 7: Gender Gaps in Four-Year College Enrollment Rates Among Class of 2005 Graduates Attending College or a Post-Secondary Training Institution by Race-Ethnic Group



Similar to findings for the Class of 2004 and those of earlier years, the college attendance rates of Class of 2005 BPS graduates also varied widely by the type of high school that they attended. (Table 6). Not surprisingly, given substantial differences in students' academic backgrounds and achievements, large gaps existed between the college/training enrollment rates of graduates of the city's exam and district/alternative high schools. The absolute percentage point difference between the college/training enrollment rates of graduates from the exam schools and the district/magnet schools was 26 percentage points (96% vs. 70%). The college/training program enrollment rates ranged across individual high schools from highs of 98 percent for Boston Latin High School, 96 percent for Boston Latin Academy, and 93 percent for O'Bryant High School to lows of 56 percent for Excel High School and 54 percent for Hyde Park High School.

Table 6: Percent of Class of 2005 Graduates of Boston Public High Schools Who were Enrolled in College or a Post-Secondary Training Program at the Time of the Follow-up Survey, by High School

<u>School</u>	<u>Enrollment Rate (In %)</u>
Boston Latin High School (1010)	97.9
Boston Latin Academy (1020)	95.8
O'Bryant High School (1030)	93.1
New Mission (1285)	89.5
Fenway Park High School (1265)	87.7
Boston Arts Academy (1420)	81.6
West Roxbury High School (1250)	77.9
Health Career Academy (1440)	77.6
Academy of Public Service (1062)	77.0
Snowden International High School (1200)	77.0
English High School (1080)	76.1
Charlestown High School (1050)	76.1
Another Course to College (1230)	75.8
Brighton High School (1040)	74.2
Monument High School (1161)	73.2
Odyssey High School (1163)	68.2
Boston Community Leadership Academy (1195)	65.7
East Boston High School (1070)	65.2
Madison Park High School (1210)	63.9
Burke High School (1120)	61.3
Greater Eagleston (1430)	60.8
Economics and Business Academy (1061)	56.4
Excel High School (1162)	55.6
McKinley Voc. (1293)	54.5
Hyde Park High School (1100)	54.0
Exam Schools	96.1
All Non-Exam/District Schools	70.1
All Schools	77.2

The overwhelming majority of college students (93 percent) reported that they were attending their post-secondary schools on a full-time basis. Nearly 91 percent of those attending a college or post-secondary training program were enrolled in a post-secondary educational institution, primarily four-year colleges and universities and community colleges.

The ten educational institutions accounting for the largest number of college enrollees from the Class of 2005 are displayed in Table 7. These ten colleges and universities accounted for nearly 45 percent of the total number of enrolled graduates from the Class of 2005. Each of

these ten colleges and universities was located in Massachusetts, and all but the University of Massachusetts at Amherst were located in the Boston metropolitan area.

The top ten enrolling colleges and universities for the Class of 2005 were characterized by a substantial degree of overlap with the ten largest enrolling institutions for graduates from the Class of 2004. Nine of the top ten enrolling institutions for the Classes of 2004 and 2005 were the same although several of their rankings were changed. Boston College replaced Franklin Institute of Technology in the top 10 for the Class of 2005. The number of Class of 2005 graduates attending the top ten colleges varied only modestly from the Class of 2004.

Table 7: The Ten Colleges and Universities Attended by the Largest Number of Boston Public High School Graduates, Classes of 2004 and 2005

Class of 2004	Number of Students	Class of 2005	Number of Students
Bunker Hill Comm. College	161	Bunker Hill Comm. College	186
UMass-Amherst	118	U.Mass.-Amherst	126
UMass-Boston	105	U.Mass.-Boston	110
Boston University	60	Boston University	59
Northeastern University	56	Northeastern University	57
Mass Bay Community College	54	Salem State College	55
Salem State College	52	Mass Bay Community College	51
Roxbury Community College	46	Roxbury Community College	47
Franklin Inst. of Technology	34	Boston College	31
Suffolk University	32	Suffolk University	31

College Majors of Class of 2005 Boston Public High School Graduates

Beginning with the Class of 2001, the PIC follow-up questionnaire has included an open-ended question asking graduates enrolled in college to identify their college majors. An analysis of the findings for the Class of 2005 revealed that 20 percent of all graduates enrolled in college had not yet declared a major. Both male and female graduates were equally likely to have not declared a college major at the time of the Winter/Spring 2006 follow-up survey. (Table 8). The most frequently cited major for the combined pool of graduates from the Class of 2005 was business management (14%). Twenty percent of male graduates reported a business major as did 10 percent of the women. The second most frequently chosen college major for Class of 2005

Boston public high school graduates was nursing (6%); however, there was a large gender difference in the selection of nursing majors. Only 1 percent of the men identified nursing as their college major versus 10 percent of women. Large gender differences in college majors were present in other fields. Slightly more than 8 percent of male graduates opted for computer science or computer technology as their college major while only 1 percent of the women did so. Overall, male graduates were much more likely than women to choose engineering and computer science as their college majors while female graduates were more likely to choose nursing, medical assisting, psychology, communications, and liberal arts as their college majors. Very few college students selected teaching as their major field of study. Only 5% of the graduates did so.

Table 8: Top 10 College Majors of Enrolled Class of 2005 Boston Public High School Graduates, Total and by Gender

College Major	All	College Major	Men	College Major	Women
Undecided	20.3	Undecided	20.7	Undecided	20.0
Business Management	14.4	Business Management	20.1	Business Management	10.2
Nursing	6.2	Criminal Justice	4.9	Nursing	10.0
Criminal Justice	4.2	Computer Sciences	2.9	Biology	4.8
Biology	3.6	Automotive Technician	2.9	Psychology	4.1
Psychology	3.0	Computers - General	2.3	Medical Assistant	3.8
Medical Assistant	2.4	Biology	1.9	Criminal Justice	3.7
Communications	2.2	Computer System		Communications	2.8
Computer Sciences	1.9	Engineering	1.9	Cosmetology	1.8
Accounting	1.6	Mechanical Engineering	1.9	Early Child	
Computers - General	1.5	Accounting	1.7	Education	1.6
		Engineering	1.7	Accounting	1.5

Financial Aid Status of College Enrolled Members of the Class of 2005

A substantial majority of the college enrolled graduates from the Class of 2005 reported in the follow-up survey that they received some type of financial assistance to attend college or university (84%), and most graduates reported that they received several types of financial assistance. (Table 9). Of those graduates who received some type of financial assistance, 53 percent received loans, another 53 percent received grants, including Pell Grants, 48 percent received academic or sports scholarships, and 12 percent were work-study students

Table 9: Percent of Enrolled Class of 2005 Boston Public High School Graduates Who Received Various Types of Financial Aid to Attend College (Weighted Cases)

Type of Financial Aid	Percent Receiving Financial Aid
Any Type of Assistance	84.0
Grants	53.0
Loans	52.6
Scholarships	48.1
Work-Study	11.7

Comparisons of the College Enrollment Rates of Class of 2005 Boston Public School Graduates with Those of Their U.S. Central City Counterparts

To place the findings on the college enrollment rates in perspective, we have compared them to the college enrollment rates of all of the nation's high school graduates from the Class of 2005 and those residing in the nation's central cities. The October 2005 CPS survey, which contains a supplement on the college enrollment and employment status of high school graduates from the Class of 2005 is the source of data on the college enrollment status of U.S. high school graduates.⁷ Table 10 displays college enrollment rates of Boston public high school graduates and compares them to those for the entire nation's Class of 2005 graduates and all central city graduates across the nation. Boston public high school graduates were modestly more likely to enroll in college than their U.S. peers. Slightly more than 70 percent of Class of 2005 BPS

⁷ The national sample of high school graduates includes youth who graduated from both public and private high school across the country. Only those graduates who were members of the civilian, non-institutionalized population in October 2005 were in the scope of the survey.

graduates were enrolled in two-year or four-year colleges and universities compared to nearly 67 percent of all high school graduates across the country. Male graduates from the Class of 2005 in both Boston and the U.S. were about equally likely to enroll in college; however, female high school graduates from Boston public schools were nearly 4 percentage points more likely to enroll in college than their peers nationwide. In each of the four major race-ethnic groups, college enrollment rates of Boston public high school graduates exceeded those of their U.S. counterparts by from 2 to 12 percentage points.

College going rates of Boston public high school graduates also exceeded those of their central city counterparts across the nation. Boston public high school graduates from the Class of 2005 were 5.5 percentage points more likely to enroll in college than their central city counterparts across the nation. Male and female graduates in Boston were 3 and 7 percentage points, respectively, more likely to enroll in college than their central city counterparts. Enrollment rate advantages of Boston public high school graduate over their central city counterparts ranged from 4 to 12 percentage points among Black, Hispanics, and Whites. Despite their high enrollment rate, Asian youth were somewhat less likely to be enrolled in college than their central city counterparts.

Table 10: Comparisons of College Enrollment Rates⁸ of Class of 2005 Boston Public School Graduates with Those of Their U.S. and U.S. Central City Counterparts from the Class of 2005

Group	Boston Public School	All U.S. High Schools	U.S. Central City High Schools	BPS - All U.S.	BPS- U.S. Central City
All	70.5	68.6	65.0	1.9	5.5
Men	65.9	66.5	62.6	-0.6	3.3
Women	74.2	70.4	67.4	3.8	6.8
Asian	89.4	87.5	93.4	1.9	-4.0
Black	69.1	56.8	65.3	12.3	3.8
Hispanic	58.6	54.1	52.0	4.5	6.6
White	80.7	69.4	68.6	11.3	12.1

⁸ College enrollments include graduates enrolled in 2-year and 4-year colleges. The numerator is graduates enrolled in 2-year and 4-year colleges and the denominator is all high school graduates from the Class of 2005.

The Labor Force Participation Behavior of Class of 2005 Boston Public School Graduates

As noted earlier, the follow-up survey also collected information on the labor force activities of each graduate at the time of the survey. With this information, each graduate was assigned to one of the following three mutually exclusive labor force categories: employed, unemployed, or out of the labor force. Those graduates who were working (including military service) or actively seeking and available for work at the time of the survey (unemployed) are categorized as members of the labor force. The labor force participation rate for Class of 2005 Boston public school graduates was 68.2 percent, implying that 68 of every 100 graduates were either working or actively looking for work. (Table 11). The labor force participation rate of graduates from the non-exam schools was 21 percentage points higher than that of graduates from the three exam schools (74% vs. 53%), reflecting the weaker labor force attachment of college students. Males were modestly more likely to be actively participating in the labor force than women (70% versus 67%). But the gender differences varied by type of school. Among graduates of the exam schools, women were more likely to be active in the labor force than men (55% versus 49%). However, in the district, magnet, and alternative schools, there was a six-percentage point difference between the labor force participation rates of men and women in favor of men.

There were more substantial differences in labor force participation rates among members of the four race-ethnic groups. These labor force participation rates ranged from a high of 77 percent for Hispanic graduates to a low of 52 percent for Asian graduates. The sharply lower participation rate of Asian graduates largely but not completely reflects their higher college enrollment rate. There were relatively small differences in the labor force participation rates of men and women within each of the four race-ethnic groups. Black and Hispanic male graduates were more likely to participate in the labor force than each of their female counterparts while White female graduates were equally as likely as their male counterparts to be participating in the labor force.

Table 11: Labor Force Participation Rates (Military Included as Employed) of Class of 2005 Boston Public High School Graduates, Total and by Gender, Race-Ethnic Group, and Type of High School Attended (Weighted Cases)

Group	All	Male	Female
All	68.2	70.0	66.7
Black	70.6	74.0	68.0
White	61.1	60.8	61.3
Asian	51.8	50.6	53.1
Hispanic	77.4	80.1	75.1
Enrolled	62.3	62.0	62.6
Not Enrolled	88.0	90.8	84.5
Exam Schools	52.6	48.8	55.3
Non-Exam Schools	73.8	77.1	71.1

Employment Rates of Class of 2005 Boston Public High School Graduates

At the time of the follow-up interviews, slightly more than 51 percent of the graduates from the Class of 2005 were employed, excluding those serving in a branch of the nation’s armed forces. (Table 12). The employment rates of Boston public high school graduates from the Class of 2005 in all demographic groups were slightly higher than those for graduates from the Class of 2004; however, they continued to remain well below those of graduates from the Classes of 2000 and 2001. The employment rate for all Class of 2005 graduates was nearly 8 percentage points lower than that for the Class of 2001. The deteriorating labor market for youth in general in both the state of Massachusetts and the city of Boston in recent years is the major factor underlying the lower employment rate for recent graduates. Payroll employment levels in the city of Boston remain well below their peaks in the first quarter of 2001. The 51 percent employment rate for graduates from the Class of 2005, however, represents a substantial improvement over the employment rates of Boston graduates during the early years of the 1990s when the local and state economy were recovering from severe recession. For example, the employment rate for Class of 1991 graduates, who entered the labor market at a time when the state economy was close to its cyclical trough, was only 39 percent. As will be indicated below, however, unemployment rates among subgroups of graduates from the Class of 2005 were quite high at the time of the 2006 follow-up survey.

Table 12: Employment Rates of Class of 2005 Boston Public High School Graduates at the Time of the Follow-up Survey, Total and by College Enrollment Status (Military Excluded as Employed)

Group	Employment Rates for All Graduates	Enrolled in College	Not Enrolled in College
All	51.4	46.2	68.6
Men	51.8	45.3	68.7
Women	51.0	46.9	68.5
Asian	39.9	39.1	49.3
Black	52.0	46.8	67.5
Hispanic	57.9	54.8	65.9
White	48.9	40.3	82.6
Exam Schools	40.9	36.2	67.5
District/Magnet/Alternative Schools	55.1	57.0	60.7

Male and female graduates were nearly equally likely to be working at the time of the follow-up survey (52 percent versus 51 percent). Among both college students and those not enrolled, women were equally likely to be employed as men. Those high school graduates not enrolled in college at the time of the spring 2006 follow-up survey were considerably more likely to be employed than their peers who were attending college (69% versus 46%).

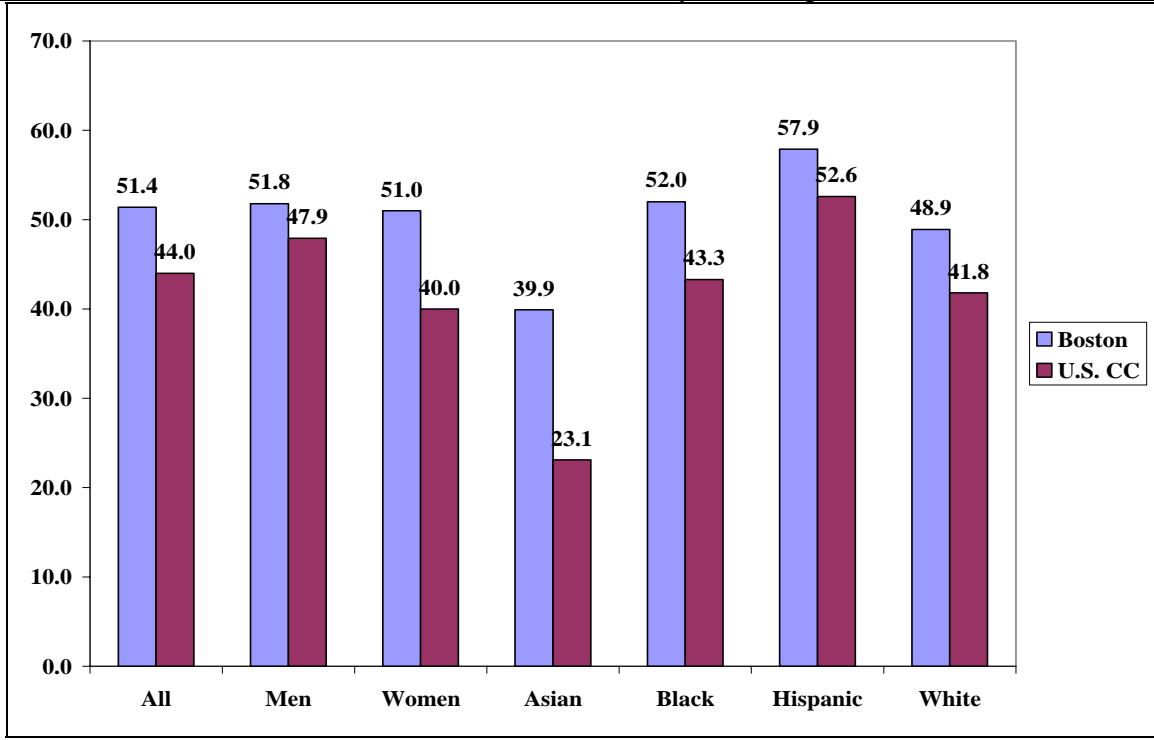
Employment rates of Class of 2005 graduates varied more widely by race-ethnic group. Hispanic graduates had the highest employment rate (58%) followed by Black (52%), White (49%), and Asian graduates (40%). The lower overall employment rate of Asian graduates is only partly attributable to their higher rate of college attendance. Even among college students, Asians were less likely to work than Blacks or Hispanics. In each race-ethnic group, the employment rates of non-enrolled graduates were considerably higher than those of their enrolled peers, with the size of these differences ranging from 10 to 42 percentage points.

Comparisons of the Employment Rates of Class of 2005 Boston Public School Graduates with Those of Their U.S. Central City Counterparts

The employment rate for Boston public high school graduates from the Class of 2005 at the time of the winter/spring 2006 follow-up survey was identical with that for the preceding year's graduating class (51%). To place the findings for Boston public schools graduates into perspective, we have compared the employed rates of Boston public high school graduates with their U.S. central city counterparts from the Class of 2005.⁹ (Chart 8). The employment rate for Class of 2005 Boston public high school graduates was 7 percentage points higher than that of all U.S. central city graduates from the Class of 2005 (51.4% vs. 44.0%). Both male and female graduates from the Boston public schools had higher employment rates than their peers central city peers across the country, with 4 to 11-percentage point employment rate advantage over their national central city peers. Boston public high school graduates in each race-ethnic groups were more likely to be employed than their national central city counterparts. The sizes of the employment rate advantages for Boston graduates ranged from 5 percentage points for Hispanics, 7 percentage points for White graduates, 9 percentage points for Black graduates, and 11 percentage points for Asian high school graduates.

⁹ Findings for U.S. central city graduates from the Class of 2005 are based on the findings of the October 2005 CPS survey, which contains a special supplement that identifies new high school graduates across the country.

Chart 8: Comparisons of the Civilian Employment Rates of All Class of 2005 Boston Public School Graduates with Those of Their U.S. Central City Counterparts from the Class of 2005¹⁰



The Employment Status of College Enrolled High School Graduates

Many of the high school graduates attending college and post-secondary training institutions also were employed in civilian jobs, the vast majority of which were part-time. Nearly 48 percent of the Class of 2005 graduates from Boston public schools who were attending colleges, universities, or post-secondary training programs at the time of the follow-up interview were simultaneously employed. The employment rate of college enrolled Boston public high school graduates was 6 percentage points higher than that of all college enrolled high school graduates from the Class of 2005 living in U.S. central cities. (Table 13). In each gender and race-ethnic group, Boston’s college enrolled graduates were more likely to be working than their national counterparts. The size of these employment rate advantages varied by gender and race-ethnic group but were quite substantial for Black males, and Hispanics. Enrolled male graduates

¹⁰ Military service personnel are excluded from the count of the employed in both the city of Boston and U.S central cities. The October CPS surveys are limited to the civilian, non-institutional population of the U.S.

from Boston public high schools were 6.5 percentage points more likely to be employed than their college enrolled national counterparts (52% versus 45%) while Boston females graduates enjoyed a 4 percentage point employment advantage over their national peers. Employment rates of BPS college students by race-ethnic group were in the range of 40 to 54 percent. Fifty-seven percent of Hispanic graduates and 52 percent of Black college students were employed versus only 39 percent of Asian and 49 percent of White students. Graduates from the city’s three exam schools (Boston Latin Academy, Boston Latin, and O’Bryant Technical) were less likely to be working than their enrolled counterparts from the alternative, district, and magnet schools. In addition, those attending community colleges and post-secondary training programs were more likely to be working than those attending four-year colleges and universities.

Table 13: Comparisons of the Employment Rates¹¹ of Class of 2005 Boston Public School Graduates Enrolled in College with Those of Their Counterparts in U.S. Central Cities

Group	Boston (A)	U.S. Central Cities (B)	Boston-U.S. (A-B)
All	51.4	45.3	+6.1
Men	51.8	45.3	+6.5
Women	51.0	46.9	+4.1
Asian	39.9	39.1	+0.8
Black	52.0	46.8	+5.2
Hispanic	57.9	54.8	+3.1
White	48.9	40.3	+8.6

¹¹ Military service personnel are excluded from the count of the employed in both the city of Boston and the U.S. The October CPS surveys are limited to Class of 2005 graduates in the civilian non-institutional population of the U.S.

The Employment Status of Non-College Enrolled High School Graduates From the Class of 2005, Comparisons of Findings for Boston and U.S. Central Cities

Employment rates for those Class of 2005 graduates not attending colleges or post-secondary training programs at the time of the follow-up interviews were estimated for graduates from Boston public high schools and all U.S. central city high schools. (Table 14). The results indicate that 69 percent of non-enrolled, Boston public school graduates were employed at the time of the follow-up survey, an employment rate that was between 11 and 12 percentage points higher than that of all high school graduates in central cities across the U.S. (57%). The employment rate of non-enrolled male, Boston public school graduates from the Class of 2005 was slightly more than 5 percentage points above that of their male counterparts across central cities of the U.S. A considerably higher advantage existed for women. The central city employment rate of female BPS graduates was 19 percentage points above that female graduates of central city. Both Black and White Boston public school graduates not attending college were found to enjoy substantial employment advantages over their respective national counterparts. The size of the employment rate advantage for White graduates was 28 percentage points and nearly 18 percentage point for Blacks in Boston.¹² Hispanic BPS graduates enjoyed a smaller employment advantage (3.6 percentage points) over their counterparts.

Table 14: Comparisons of Employment Rates of Non-Enrolled Class of 2005 Boston Public School Graduates with Those of Their U.S. Central City Counterparts from the Class of 2005¹³

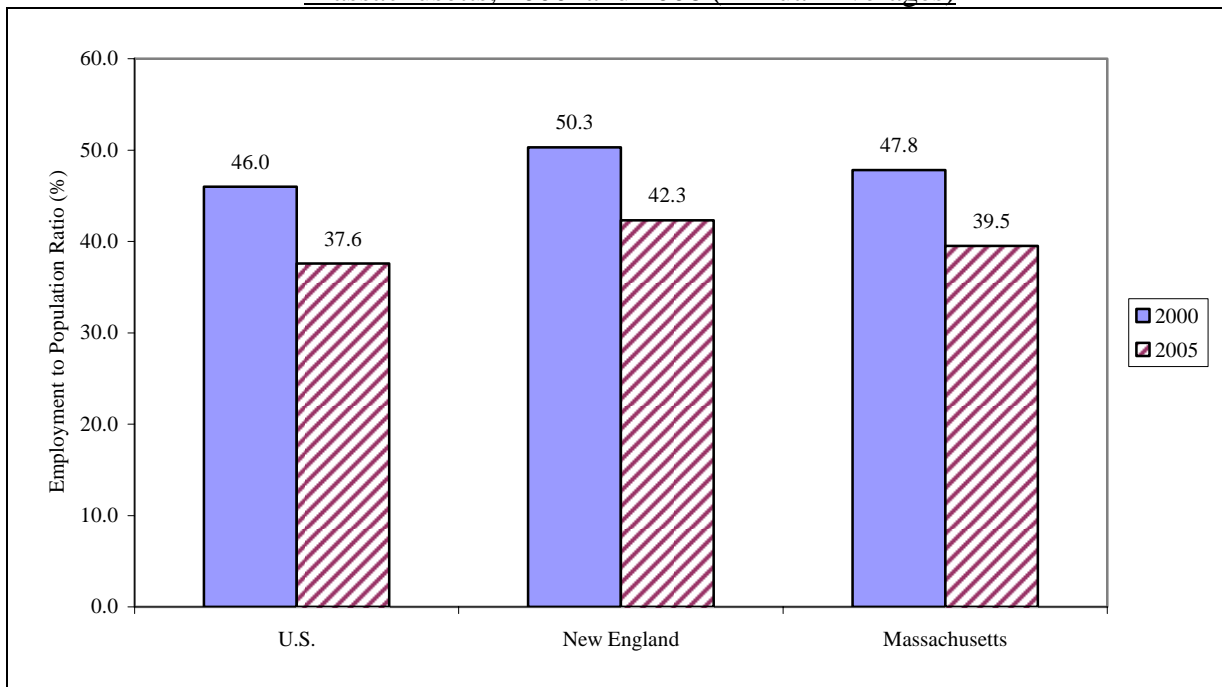
Group	Boston (A)	U.S. Central Cities (B)	Boston-U.S. (A-B)
All	68.6	56.9	+11.7
Men	68.7	63.6	+5.1
Women	68.5	49.3	+19.2
Asian	49.3	84.5	-35.2
Black	67.5	49.8	+17.7
Hispanic	65.9	62.3	+3.6
White	82.6	54.6	+28.0

¹² The U.S. Bureau of Labor Statistics did not provide separate estimates of employment rates for Asian graduates from the nation's public high schools due to the small sample size for non-enrolled Asian.

¹³ Military service personnel are excluded from the count of the employed in both the city of Boston and the U.S.

Recent high school graduates in Boston, especially those not going on to college, have found it increasingly more difficult to find employment in recent years. The problem of rising joblessness in recent years is not confined to youths in the city of Boston, but it is prevalent across Massachusetts, New England, and the nation as a whole. Teenaged youth in general were facing more severe difficulties in finding jobs due to more limited job growth since the recovery from the 2001 recession, the influx of new, younger immigrants competing for jobs at the entry level, and competition from older native born adults, including older workers 55 and older. At the peak of the economic boom in 2000, the employment to population ratio of 16-19 year old youth in the U.S. was 46.0 percent; however, it had declined to 37.6 percent by 2006, a substantial decline of 8.5 percentage points between 2000 and 2006. (Chart 9). The 37.6 percent E/P ratio for the nation's teens in 2006 was the lowest in the nation over the post-World War II era.¹⁴ The size of the decline in the employment to population ratio for 16-19 year old youth during the same time period was 8.2 percentage points in New England and just under 8 percentage points in Massachusetts.

Chart 9: Employment to Population Ratios of 16-19 Year Olds in the U.S., New England, and Massachusetts, 2000 and 2006 (Annual Averages)



Source: Monthly Current Population Survey (CPS), 2000 and 2006, U.S. Census Bureau, tabulations by authors.

¹⁴ The national CPS employment series for teens begins in 1948.

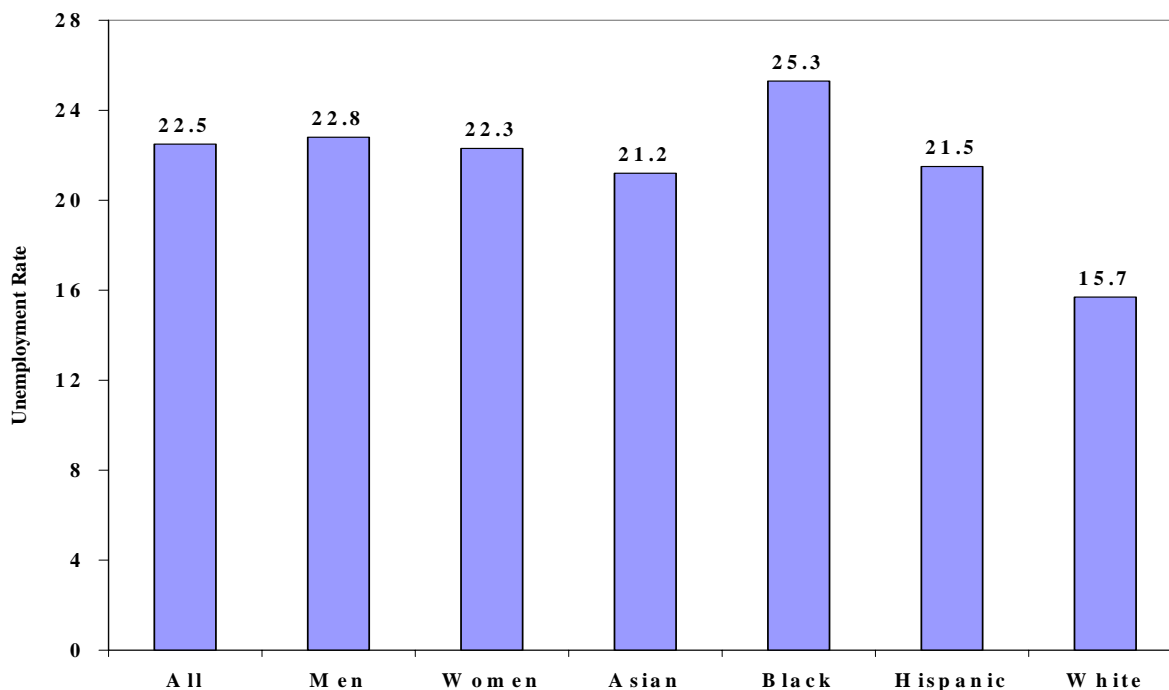
Unemployment Problems of Class of 2005 Graduates From Boston Public Schools and Comparisons With Those for Recent High School Graduates in U.S. Central Cities

All Boston public high school graduates from the Class of 2005 who reported that they were not working at the time of the follow-up survey were asked if they were actively looking for work and, if so, whether they were available to take a job “last week”. All jobless respondents who replied that they had actively sought work in the past four weeks and were available for work at the time of the follow-up survey were classified as unemployed.¹⁵ The unemployment rate for any sub-group of graduates represents the ratio of the number of unemployed to the civilian labor force (sum of the employed and unemployed). Unemployment rates were calculated for the entire graduating class and for each gender and race-ethnic group.

The estimated unemployment rate for the entire graduating Class of 2005 BPS graduates was a very high 22.5%, but this unemployment rate was actually 4 percentage points below the unemployment rate for the previous year’s graduates. (Charts 10). The unemployment rates of female and male graduates were nearly identical (22.3% versus 22.8%). The unemployment rates of race-ethnic groups ranged from a low of 16 percent among Whites to 21-22 percent for Asians and Hispanics to a high of nearly 25 percent for Black graduates.

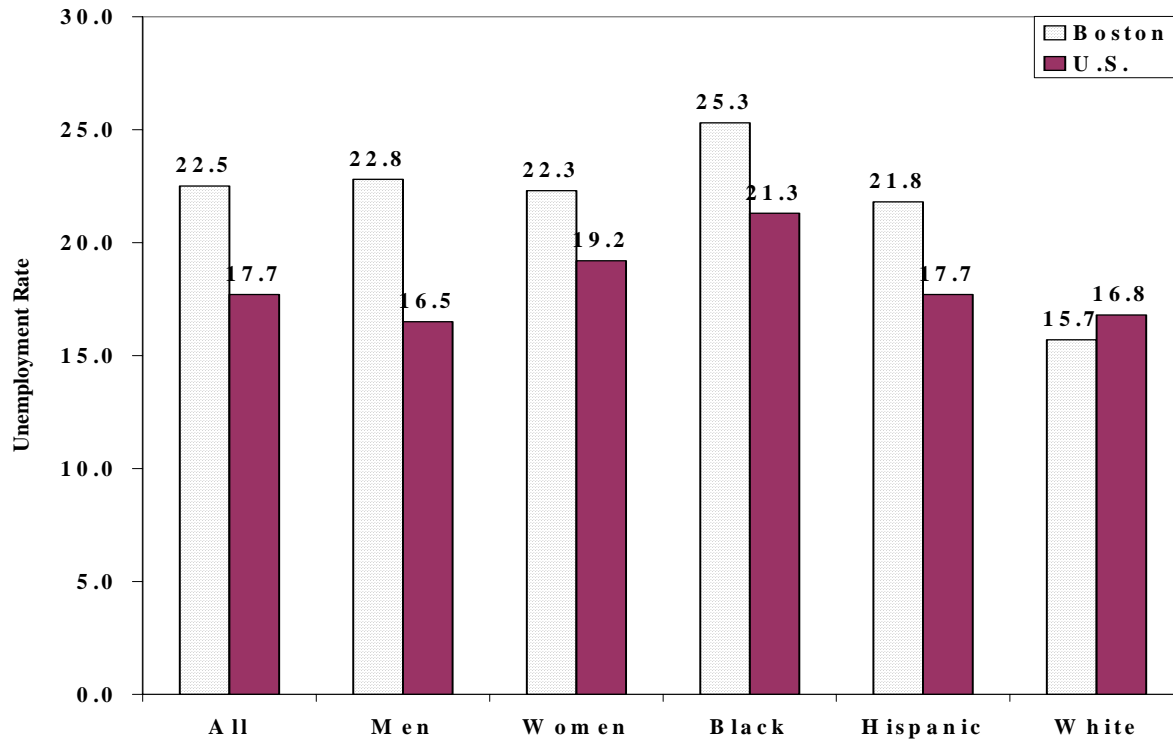
¹⁵ This definition of unemployment is in close accord with that of the U.S. Bureau of Labor Statistics in its analysis of the CPS labor force data. The PIC followup survey did not, however, ask jobless respondents to cite the specific types of jobseeking activities in which they were engaged. In the CPS survey, reliance on “passive” job search activities, such as reviewing newspaper want ads or surfing Internet job sites, does not count as being unemployed.

Chart 10: Unemployment Rates of Class of 2005 Boston Public High School Graduates, Total and by Gender and Race-Ethnic Group
(Military Service Personnel Excluded from the Estimates of the Labor Force)



Comparisons of the unemployment rates of the city of Boston's Class of 2005 high school graduates with those for a nationally representative sample of all high school graduates living in central cities of the U.S. in October 2005 are presented in Chart 11. The unemployment rate for Boston Class of 2005 graduates was higher than that of their central city counterparts in the U.S. (22.5% vs. 17.7%). For both male and female graduates and for three major race-ethnic groups, the unemployment rates of Boston city graduates unemployment rate were higher than those of their U.S. central city counterparts. The unemployment rates of male and female Boston high school graduates were 6 and 3 percentage points, respectively, higher than those of their U.S. central city counterparts. The comparative unemployment position of Boston graduates varied by race-ethnic group with White graduates faring slightly better than their U.S. peers while Black and Hispanic graduates faced higher unemployment rates than their U.S. peers.

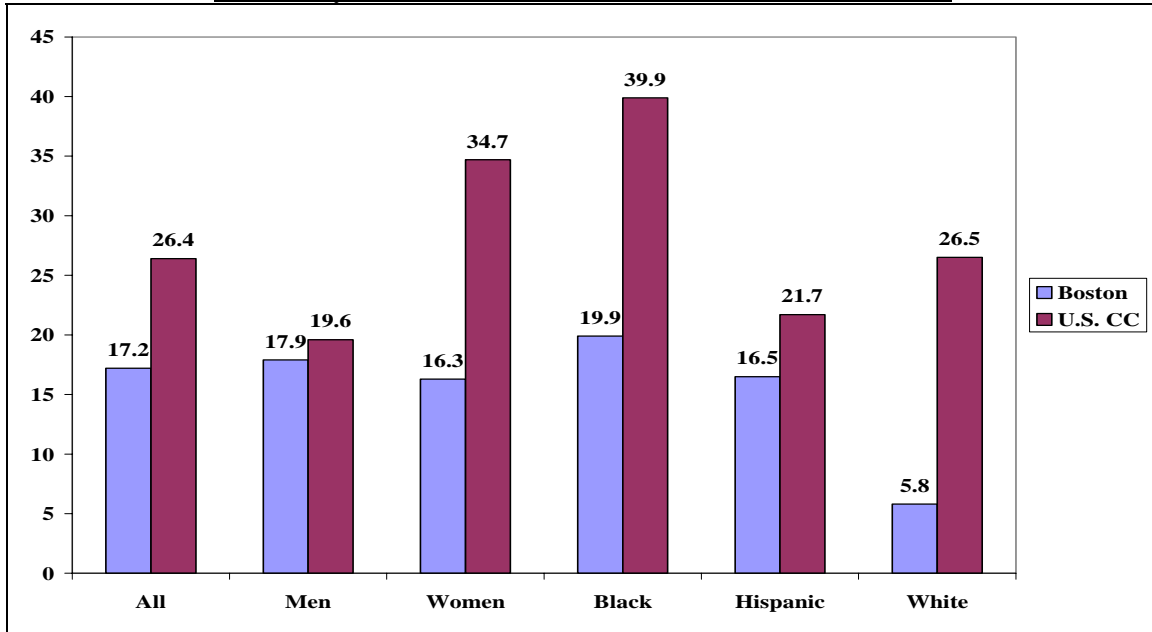
Chart 11: Unemployment Rates of All High School Graduates from the Class of 2005; City of Boston Versus All U.S. Central Cities (Military Excluded)



Unemployment rates also were estimated for those graduates who were not enrolled in college or post-secondary training institutions at the time of the follow-up interviews. For all non-enrolled Boston public school graduates from the Class of 2005, the unemployment rate at the time of the followup surveys was 17.2 percent. (Chart 12). Male graduates in Boston were slightly more likely to be unemployed than their female peers (17.9% versus 16.3%). Among the three major race-ethnic groups, unemployment rates of non-enrolled graduates in Boston ranged from a low of 6% among White graduates to a high of 20% among Black graduates. Comparisons of the unemployment rates of non-enrolled Boston public school graduates from the Class of 2005 with those of their U.S. central city counterparts are also displayed in Chart 13. For the entire group of non-enrolled graduates, the unemployment rate of Boston graduates was 9 percentage points lower than that of their U.S. central city counterparts (17% vs. 26%). The unemployment rate of non-enrolled, male high school graduates in Boston was less than 2 percentage points lower than that of their U.S. central city counterparts (18% vs. 20%) while the

unemployment rate for non-enrolled female graduates in Boston was only one-half as high as that of their U.S. central city peers (16% vs. 35%). In each race-ethnic group, the unemployment rate of Class of 2005 Boston city graduates was lower than that of their U.S. central city counterparts, with particularly large differences for Black and White graduates (Chart 13).

Chart 12: Unemployment Rates of Non-Enrolled High School Graduates From the Class of 2005, City of Boston and U.S Central Cities (in Per Cent)



Full-Time/Part-Time Employment Status, Hours of Work, Hourly Wages, and Weekly Wages of Employed Graduates From the Class of 2005

The PIC follow-up interviews also were used to collect information from employed respondents on the characteristics of their jobs, including data on their weekly hours of work and their hourly wages. The hourly wage data represent wages before taxes and any other payroll deductions. Based on the employed graduates' reported weekly hours of work, we have classified all workers into either a full-time or part-time status. We have adopted the standard definition of full-time employment of the U.S. Bureau of Labor Statistics. A full-time worker is one who was employed for 35 or more hours per week. Given the high share of employed graduates who were also simultaneously enrolled in college, a substantial majority of Boston public school graduates with jobs were working part-time at the time of the Winter/Spring 2006 follow-up survey. Slightly under one quarter of the employed graduates reported that they were

working full-time while 76 percent of the graduates reported that they were working part-time. As will be revealed below, the relatively low rate of full-time employment is due primarily to the high share of jobs held by graduates who were simultaneously enrolled in college. The share of graduates holding a full-time job at the time of the survey also varied between men and women. For example, 33 percent of the employed men held full-time jobs while only 17 percent of the employed women were working full-time. The higher share of employed women who were enrolled in college helps explain a large part, but not all of the gender difference in this employment outcome.

Mean weekly hours of work for all employed graduates were equal to 23.5 hours, nearly identical to the mean hours worked by employed members of the Class of 2004. (Table 15). Those employed graduates who were not enrolled in college worked on average for 33 hours per week while those mixing school and work were employed on average for only 20 hours per week. Keeping work hours of college students below 20 hours per week is desirable for improving college retention. While non-enrolled graduates worked more hours per week than their college enrolled peers, they were finding it somewhat more difficult to obtain full-time jobs. Only 57 percent of the employed, non-enrolled graduates from the Class of 2004 were working full-time, i.e., 35 or more hours per week versus 65 percent of the employed from the Class of 2000. Having the non-college enrolled workers obtain access to full time job is desirable for many reasons. Full-time workers not only earn higher current hourly and weekly wages than part-time workers, but they are also much more likely to receive certain types of training from their employers, especially formal and apprenticeship training, which should boost their future skills and wages as well.¹⁶

¹⁶ See: (i) Andrew Sum, Neeta Fogg, and Garth Mangum, *Confronting the Youth Demographic Challenge*, Sar Levitan Center for Social Policy Studies, Johns Hopkins University, Baltimore, 2000; (ii) Ishwar Khatiwada and Andrew Sum, *The Full-Time/Part-Time Job Status of Employed Class of 1999 Graduates*, Report prepared for the Boston Private Industry Council, Boston, 2001.

Table 15: Mean Weekly Hours of Work, Hourly Wages, and Weekly Wages for Employed Class of 2005 Boston Public High School Graduates, Total and by Gender, Race-Ethnic Group, and School Enrollment Status

Group	Mean Weekly Hours	Mean Hourly Wage	Mean Weekly Wage
All	23.5	\$9.12	\$220
Men	26.0	\$9.55	\$255
Women	21.4	\$8.77	\$190
Asian	16.4	\$9.06	\$151
Black	24.0	\$9.04	\$224
Hispanic	25.5	\$9.69	\$239
White	22.6	\$9.21	\$215
Enrolled	19.4	\$9.00	\$179
Not Enrolled	32.9	\$9.41	\$313

Among those who were employed at the time of the follow-up survey, men tended, on average, to work more hours per week than women (26 hours versus 21 hours). Mean hours of work were highest among Hispanic workers (25.5), followed by Black (24), and White graduates (23). (Table 15). Employed Asian graduates worked on average for only 16 hours per week. The sharply lower mean hours of work among employed Asians was primarily attributable to the higher frequency of part-time employment among Asian college students. Those Asian graduates who were not enrolled in college had higher mean weekly hours of work than their peers in the other race-ethnic groups. (Table 16).

The mean hourly wage of all employed graduates was \$9.12. Men earned \$.78 or 8 percent more per hour than their female counterparts (\$9.55 versus \$8.77), reflecting a combination of more full-time employment with a different industrial and occupational mix of jobs. The mean hourly wages of employed graduates varied only modestly across the four major race/ethnic groups, ranging from highs of \$9.24 among Hispanic graduates and \$9.21 among White graduates to lows of \$9.06 among Asian graduates and \$9.04 among Black graduates. Those graduates who were enrolled in college or post-secondary training programs earned \$.41 less per hour than their non-enrolled counterparts (\$9.00 versus \$9.41). Full-time workers fared better than their part-time counterparts. The mean hourly wage of full-time employed graduates was \$1.16 or slightly more than 13 percent higher than that of part-time workers (\$10.00 versus \$8.84).

The findings on the weekly hours of work of employed graduates were combined with those on hourly wages to estimate the weekly earnings of each respondent who was employed in a civilian job. The mean weekly earnings of all employed graduates were equal to \$220. (Table 15). Non-enrolled graduates tended to work more hours per week than enrolled graduates, and they earned more per hour when they did work; thus, their mean weekly earnings were \$134 or 80 percent higher than those of college enrolled workers (\$313 versus \$179). Employed male workers obtained mean weekly earnings that were \$65 higher than those of employed female graduates (\$255 vs. \$190), reflecting a combination of higher hourly earnings and more hours of work per week. Large differences also were observed among the mean weekly wages of employed graduates in the four major race-ethnic groups. Mean weekly wages ranged from a low of \$151 among Asians to a high of \$239 for Hispanic workers. Among those not enrolled in college, mean weekly wages ranged from a low of \$306 for Hispanic graduates to a high of \$334 for White graduates. (Table 17). Overall, non-enrolled graduates from the Class of 2005 typically earned mean weekly wages that were nearly twice as high as those of enrolled graduates in each of the four race-ethnic groups.

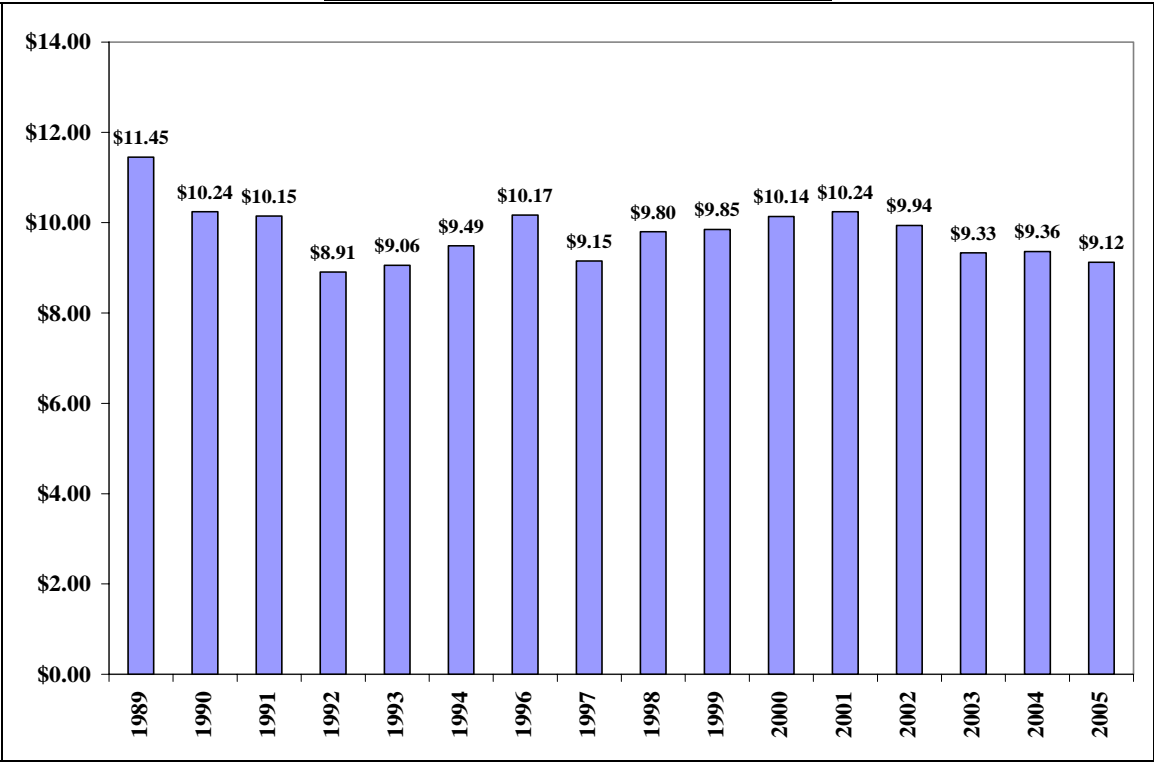
Table 16: Mean Weekly Hours of Work, Mean Hourly Wages and Mean Weekly Wages of Class of 2005 Boston Public High School Graduates Not Enrolled in College, Total and by Gender and Race-Ethnic Group

Group	Mean Weekly Hours	Mean Hourly Wage	Mean Weekly Wage
All	32.9	\$9.41	\$313
Men	34.6	\$9.97	\$341
Women	30.9	\$8.97	\$278
Asian	35.1	\$9.59	\$325
Black	32.9	\$9.25	\$308
Hispanic	32.6	\$9.31	\$306
White	33.2	\$9.95	\$334

Historical Trends in the Real Hourly Wages of Employed Boston Public High School Graduates, Classes of 1989 to 2005

The availability of annual follow-up data for Boston high school graduates since the late 1980's allows us to identify trends in the real (inflation adjusted) hourly wages of employed graduates. We have compared the mean hourly wages of employed persons in each year's graduating class back to the Class of 1989. The mean hourly wages of employed members of the Classes of 1989 through 2005 were adjusted for inflation using estimated changes in the Consumer Price Index for All Urban Consumers (CPI-U) for the Greater Boston area between 1989 and 2006. Our findings yielded an inflation-adjusted mean hourly wage of \$11.45 in 1989, \$8.91 in 1992, \$10.24 in 2001, and \$9.12 for graduates from the Class of 2005. (Chart 13). The historical high for real hourly wages was \$11.45, earned by BPS graduates from the Class of 1989 at the peak of the state labor market boom at the end of the 1980s. Following a steep deterioration in the mean hourly wages of employed graduates during the severe state and regional recession of the early 1990s, the mean real hourly wages of Boston public school graduates increased from \$8.91 in 1992 to a peak of \$10.24 in 2001, an increase of \$1.33 per hour or 15 percent. For the graduating class of 2005, mean hourly earnings declined slightly below those for the graduating Class of 2004. The mean real hourly wage of employed graduates of the Class of 2005 was only \$9.12 or 11 percent below that of the Class of 2001. The lower average wages for recent graduates appear to be primarily attributable to a combination of a reduction in full-time jobs that pay higher hourly wages and a reduction in jobs in several industrial sectors (finance, durable goods manufacturing, construction industries) paying above average wages. A larger fraction of employed graduates have depended on the lower paying retail trade sectors and leisure and hospitality industries for their jobs.

Chart 13: Mean Hourly Wages of Employed Boston Public School Graduates, Classes of 1989 to 2005 (In Constant March 2006 Dollars)



Industries and Occupations of the Jobs Held by Employed Class of 2005 Graduates

The follow-up survey questionnaire also was used to collect information from employed respondents on the names of the firms that employed them, the types of businesses operated by those firms, the geographic locations of these firms, and the major duties and occupational titles of their jobs. The above information was used by CLMS research staff to assign both an industry and occupational employment code to each of the jobs held by respondents at the time of the follow-up interviews. Class of 2005 graduates obtained jobs in every major industrial sector of the Boston metropolitan economy; however, nearly 46% of the employed graduates worked in a service-related industry (professional, business, or personal/entertainment services), and another 43 percent worked in retail trade industries, including eating and drinking establishments. (Table 17). The remaining graduates were employed by the financial services industry (4.7%) transportation/communication/utilities (2.3%), construction (1.3%), and agriculture, forestry, and fishing (1%). Only 1.5 percent of the graduates worked in public administration, manufacturing,

wholesale trade, and mining industries. Out of an estimated 1,514 employed graduates, only 28 or less than 2 percent were employed in manufacturing or construction industries, the source of many well-paying blue-collar jobs in previous years. The manufacturing sector in the U.S. and Massachusetts has been experiencing severe job losses since the late fall of 2000, reducing employment opportunities for older and younger adults.¹⁷ Teens in particular have found it very difficult to find any employment in this set of goods producing industries. Substantial downsizing in key segments of the city's financial services industries in recent years also have made it more difficult for new high school graduates to find work in this sector.

There were a number of substantive differences between the industrial distributions of the jobs held by employed female and male graduates from the Class of 2005. Nearly 38 percent of employed women were working in professional and related service industries (colleges, hospitals, other health services, consulting firms) while only 29 percent of the men held jobs in such industries. In contrast, men were more likely than women to obtain employment in business and repair services (11% vs. 3%), personal, entertainment, and recreation services (7% versus 3%), construction (2.5% versus 0.4%), and transportation, communications, and utilities (3.1% vs. 2%). These differences between the industrial distributions of employment of men and women are also closely related to differences in their occupational employment distributions, given large differences in the occupational staffing patterns of jobs in industries that employed men and women.

¹⁷ See: Timothy Appel, Less Sweat, More Tech: A New Blue Collar World, The Wall Street Journal, B1, July 2, 2002.

Table 17: Distribution of Employed Boston Public High School Graduates by Major Industrial Sector of Their Jobs, Class of 2005

Major Industry	Employed	Percent
Retail Trade	656	43.4
Professional & Related Services	518	34.2
Business & Repair Services	101	6.6
Personal, Entertainment, & Recreation Services	74	4.9
Finance	72	4.7
Transportation, Communication, and Utilities	35	2.3
Construction	19	1.3
Agriculture, Forestry, and Fishing	16	1.1
Public Administration	7	0.5
Durable Goods	5	0.4
Non-Durable Goods	4	0.3
Wholesale Trade	3	0.2
Mining	3	0.2
Total	1,514	100.0

Comparisons of the industrial distribution of all wage and salary jobs in the Boston metropolitan area with that of employed graduates from the Class of 2005 revealed that employed BPS graduates were substantially under-represented in construction, manufacturing, wholesale trade, and finance/insurance/real estate industries. Each of these industries tends to pay above average wages to their front line workers. To illustrate the variations in weekly earnings across industries, weekly wages were estimated for all employed graduates and for non-enrolled graduates in each major industrial group. Those graduates who were employed in the public administration and construction sectors earned an average mean weekly wage of \$426 and \$403, respectively. The high weekly wage advantages of construction sector workers were due to a combination of higher hourly wages and more hours of work per week. Those graduates employed in wholesale trade industries enjoyed the third highest weekly wage (\$348 per week) followed by those working in transportation, communications, and utilities (\$327), finance/insurance (\$295 per week), business and repair services (\$289), and durable goods manufacturing (\$270). In contrast, the mean weekly wages of workers in personal, entertainment, & recreation services, retail trade, agriculture/forestry/fishing, and professional and related service industries were only \$250, \$225, and \$190, respectively. The lowest weekly wage earners were employed by firms in professional and related services with mean wages of only \$166 per week, but many of the workers in this sector were employed on a part-time basis.

Since most employed college students tend to work in the retail trade and professional service industries on a part-time basis, their average weekly wages are held down by their fewer hours of work. To eliminate the effects of part-time work by college students on the estimated weekly earnings of employed graduates, we generated separate weekly earnings estimates for those graduates who were not enrolled in college. Findings in Table 18 reveal that the mean weekly earnings of non-enrolled graduates were nearly 80% higher than those of the enrolled. Non-enrolled graduates who were employed in the public administration industry obtained the highest mean weekly wages (\$478) followed by the construction sector (\$463), transportation, communication and public utilities (\$427), finance, insurance, and real estate (\$381), business and repair service (\$369), durable goods manufacturing (\$363), and professional and related services (\$307). Non-enrolled graduates employed in personal, entertainment, and recreation services industries (\$299) received the highest mean weekly wage followed by, retail trade (\$285), non-durable manufacturing industry (\$269), and agriculture, forestry, and fishing (\$212). (Table 18).

Table 18: Mean Weekly Wages for Employed Class of 2005 Boston Public High School Graduates by College Enrollment Status and by Major Industry

Industry	All	Enrolled	Not Enrolled
Public Administration	\$426	\$200	\$478
Construction	\$403	\$273	\$463
Wholesale Trade	\$348	\$348	--
Transportation, Communication, and Utilities	\$327	\$252	\$427
Finance	\$295	\$256	\$381
Business & Repair Services	\$289	\$230	\$369
Durable Goods	\$270	\$178	\$363
Non-Durable Goods	\$269	--	\$269
Personal, Entertainment, & Recreation Services	\$250	\$221	\$299
Retail Trade	\$225	\$194	\$285
Agriculture, Forestry, and Fishing	\$190	\$173	\$212
Professional & Related Services	\$166	\$136	\$307
Total	\$219	\$178	\$314

Employed graduates from the Class of 2005 worked for a substantial number of different employers. At the time of the follow-up survey, 528 different local, Massachusetts, and out-of-state firms, including work-study students in colleges and universities, had hired one or more graduates from the Class of 2005. Only 52 firms, including colleges and universities, employed

four or more graduates; however, these fifty-one firms employed 443 graduates or nearly 29 percent of all working graduates from the Class of 2005. Slightly more than 16 percent of the employed students, mostly occupying work-study positions, were working in colleges or universities at the time of the Winter/Spring 2006 follow up survey.

Employed graduates also were asked to describe the major duties that they performed at their jobs and to identify their job titles. Based on this information, the jobs held by all employed graduates at the time of the survey were classified by CLMS research staff into a detailed set of SOC-based occupations, which were then combined into eleven major occupational groups. A substantial majority of the jobs held by employed graduates were accounted for by the following three major occupational groups: entry-level sales workers such as cashiers and sales clerks (33%), office/ administrative support (23%), and service occupations (23%). (Table 19). Together, these three occupational groups accounted for 79 of every 100 employed graduates. Due to their limited post-secondary educational attainment, only 6 percent of the employed graduates held a professional, technical, or managerial-related position. Slightly over 12 percent of the graduates held blue-collar production and craft positions. Women were more likely than men to work in sales and administrative support positions (66% vs. 43%) while men were more likely to hold blue collar occupations and service related positions (17% vs. 13%)

Table 19: Distribution of Employed Boston Public High School Graduates by Major Occupational Area of Their Jobs, Class of 2005

Major Occupation	Employed	Percent
Low Level Sales	497	32.6
Administrative Support	354	23.2
Service	353	23.2
Machine Operators, Assemblers, and Inspectors	83	5.5
Professional Specialty	73	4.8
Handlers, Equipment Cleaners, Helpers, and Laborers	72	4.7
Precision Production, Craft, and Repair	36	2.4
High Level Sales	32	2.1
Executive, Administrative, and Managerial	14	0.9
Farming, Forestry, and Fishing	7	0.5
Technicians and Related Support	4	0.3
Total	1,524	100.0

The mean weekly wages of employed graduates varied quite widely across these major occupational groups, ranging from highs of \$367 for precision, production, craft and repair and \$314 for handlers, equipment cleaners, helpers, and laborers to lows of \$184 for professional specialty and \$129 for machine operators, assemblers, and inspectors. (Table 20).

Table 20: Mean Weekly Wages of Employed Class of 2005 Boston Public High School Graduates, Total and by Major Occupational Group

Occupation	All	Enrolled	Not Enrolled
Precision Production, Craft, and Repair	\$367	\$271	\$481
Handlers, Equipment Cleaners, Helpers, and Laborers	\$314	\$273	\$362
Farming, Forestry, and Fishing	\$310	\$338	\$304
High Level Sales	\$302	\$244	\$434
Executive, Administrative, and Managerial Service	\$298	\$244	\$354
Technicians and Related Support	\$237	\$198	\$319
Low Level Sales	\$214	\$214	--
Administrative Support	\$213	\$179	\$279
Professional Specialty	\$195	\$155	\$335
Machine Operators, Assemblers, and Inspectors	\$184	\$191	\$162
Total	\$129	\$107	\$375
	\$220	\$179	\$313

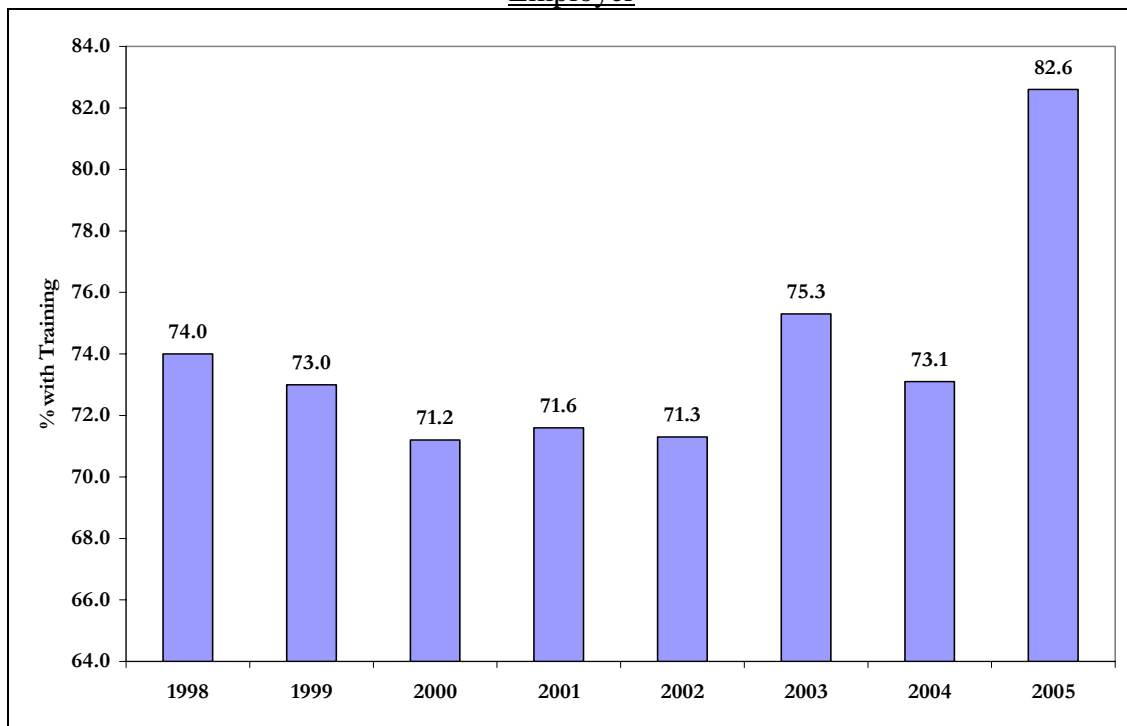
The Receipt of Training From Employers by Employed Graduates

One of the objectives of the Boston PIC-sponsored, school-to-career programs is to obtain employment for participants that will lead to further training by the employer. Each employed graduate from the Class of 2005 was asked whether he or she had received some type of training from their current employer. Nearly 83 percent of the employed graduates reported that they had received some type of training from their current employer. (Chart 14). The share of Class of 2005 employed graduates receiving some type of training was the highest in the last seven years.

Five categories of activities were used to identify the type of training received, and multiple responses were allowed to this question. These five categories of training were the following:

- Apprenticeship training involving a combination of on-the-job training under the supervision of others and training in a classroom setting to prepare for work in a specific occupation, such as auto mechanic, electrician, or plumber.
- Basic skills training, including reading, math, writing, and communication skills
- Computer training.
- Formal training involving a structured set of activities on and off the job.
- Informal on-the-job training from fellow workers or supervisors.

Chart 14: Percent of Employed Class of 1998, 1999, 2000, 2001, 2002, 2003, 2004, and 2005 Boston Public High School Graduates Who Received Some Type of Training from Their Current Employer



High fraction of both male and female graduates from the Class of 2005 received some training from their current employer (83% vs. 82%). Employed non-enrolled graduates were only modestly more likely to obtain training than those employed graduates who were enrolled in college (84% vs. 82%) but they were more likely to receive formal and apprenticeship training. (Table 21).

The percentage distribution of all employed youth who received some training by type of training obtained is displayed in Table 22. Respondents reported receiving on-the-job training

most frequently, with 87 percent of all employed youth citing this type of training. The second most frequently reported type of training was basic skills training (math, writing) with nearly 40 percent of graduates reporting to have obtained such training. Formal training was reported by 38 percent of the employed. National research has consistently revealed that this type of training and apprenticeship training have among the most favorable effects on the future hourly wages of the employed.¹⁸ Each year of completed apprenticeship training has nearly the same effect on hourly wages (8 to 10 percent) as a year of community college training. Fourteen percent of the employed reported some computer training and under 7 percent received apprenticeship training.

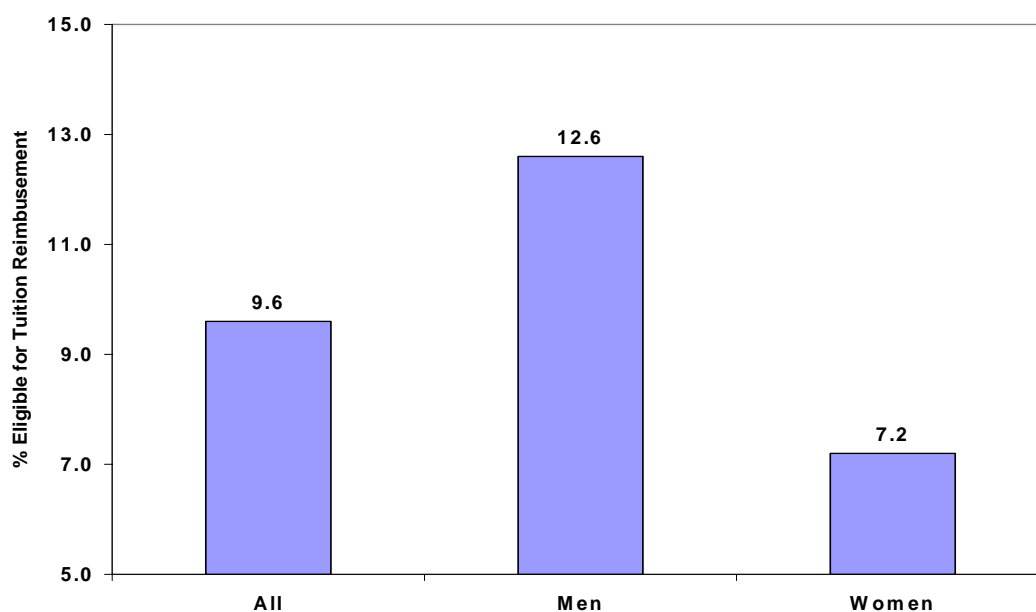
Table 21: Percent of Employed Class of 2005 Boston Public High School Graduates Receiving Some Type of Training by Type of Training Obtained from Their Employers at the Time of the Follow-up Survey (Multiple Responses Allowed)

Type of Training	Percent of Total
Informal On-the-Job Training	86.9
Basic Skills Training	39.6
Formal Training	38.3
Computer Training	14.0
Apprenticeship Training	6.9

A key employee benefit for young adults in today’s labor markets is tuition reimbursement from the employer for courses taken in post-secondary education and training institutions. Of all employed graduates, 9.6 percent reported that they would be eligible to receive some tuition reimbursement from their current employers. Employed male graduates were more likely than their female peers to be eligible for tuition reimbursement from their employers (12.6% versus 7.2%). (Chart 15).

¹⁸ See: Lisa Lynch, “The Economic Payoff From Alternative Training Strategies,” in Working Under Different Rules, (Editor: Richard B. Freeman), Russell Sage Foundation, New York, 1996.

Chart 15: Percent of Employed Class of 2005 Graduates Who Were Eligible for Tuition Reimbursement From Their Current Employer, Total and by Gender



Graduates Who were Neither Working Nor Enrolled in School or Training

One of the major objectives of Boston’s school-to-career and high school-to-college transition programs is to minimize the number of graduates who will end up being neither employed nor enrolled in an educational or job training program in the year following graduation. Such youth who lack ties to the post-secondary educational world and the labor market are often referred to as “at-risk” or “disconnected” youth in the youth development literature¹⁹. Such jobless youth with no post-secondary schooling attachment frequently find it difficult to succeed in the labor market in their later adult years and often end up being poor and economically dependent. Young disconnected males also often end up becoming involved with the criminal justice system, thereby placing themselves at further risk in the labor market as criminal convictions reduce future employability and earnings.

¹⁹ See: (i) Andrew M. Sum, Neal Fogg, and Neeta Fogg, Out-of-School, Out of Luck? The Labor Market Prospects of the Nation’s Out of School Youth, Sar Levitan Center for Social Policy Studies, Johns Hopkins University, Baltimore, 1997; (ii) Douglas J. Besharov (Editor), America’s Disconnected Youth: Towards a Preventive Strategy, American Enterprise Institute for Public Policy Research and CWAL Press, Washington D.C., 2000; (iii) Andrew Sum, Ishwar Khatiwada, Mykhaylo Trub’sky, and Neeta Fogg, Left Behind in the Labor Market: The Labor Market Problem of Out-of-School Youth, Report Prepared for the Chicago Alternative Schools Network, Boston, 2003.

At the time of the Winter/Spring 2006 follow-up survey, only 5.9 percent of Boston public school graduates from the Class of 2005 were estimated to be “at-risk”; i.e., neither working nor enrolled in a post-secondary school or training program. (Table 22). This “at-risk” rate for Boston public high school graduates was 2.2 percentage points lower than that for the preceding year’s graduating class. Male graduates were slightly more likely than their female peers to be “at-risk” (7.0% versus 5.1%). There were even larger differences among race and ethnic groups in the proportion of graduates who were classified at risk. Slightly more than 7 percent of Black graduates and nearly 7 percent of Hispanic graduates were estimated to be at-risk versus only 4.0 percent of Asian graduates and 2.6 percent of White graduates. The fraction of graduates assigned to the “at-risk” category also varied considerably by type of high school attended. Among graduates from the three exam schools, only 0.6 percent were classified as “at-risk” versus 7.9 percent of non-exam school graduates. Among the non-exam schools, the incidence of “at-risk” problems was as high as 25 percent in Greater Eagleston, 23 percent in the Economics and Business Academy and 18 percent in Burke High School, respectively. There is a need for extending follow-up support and job placement assistance to these at-risk youth by Boston public high schools and the Private Industry Council’s career specialists.

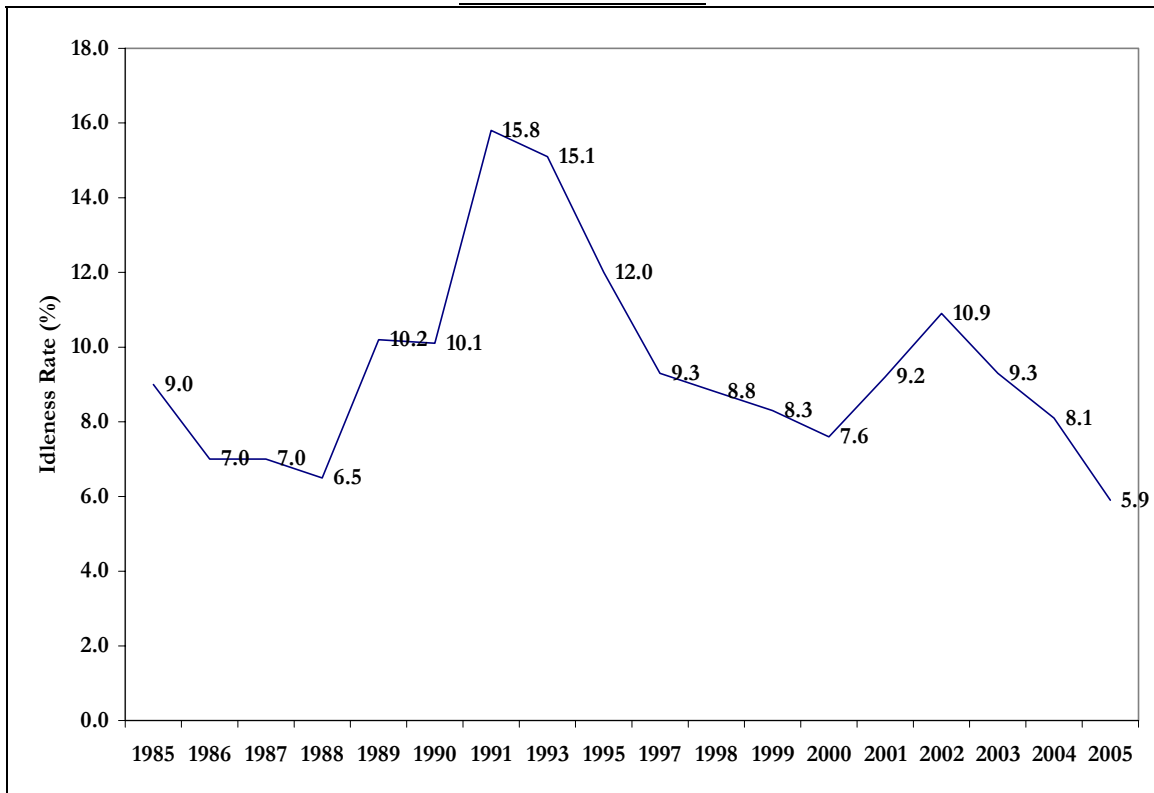
Table 22: Percent of Class of 2005 Boston Public High School Graduates Who Were Neither Working Nor Enrolled in a College or Post-Secondary Training Program at The Time of The Follow-up Survey

Demographic Group	Percent at Risk
All	5.9
Men	7.0
Women	5.1
Asian	4.0
Black	7.3
Hispanic	6.6
White	2.6
Exam School	0.6
Non-Exam School	7.9

Chart 16 displays time trends in the idleness rates of Boston public high school graduates for the Classes of 1985 to 2005. As noted above, the idleness rate was 5.9 percent for Class of

2005 graduates, 2.2 percentage points below the idleness rate of the preceding year’s graduating class. The 5.9% idleness rate for Class of 2005 graduates was the lowest in the past decade. During the severe recessionary years of the early 1990s, the idleness rate reached nearly 16% for the Class of 1991, the highest during the past 18 years. The strength of the city and state economies and expanded and enriched school-to-career programs in the 1990s had improved college enrollment rates and job prospects for those graduates not enrolled in college, thereby lowering the share of graduates occupying an “at-risk” status by more than 50 percent between 1991 and 2000. During 2001-2003, as a consequence of the economic deterioration in the state, especially the high rate of job loss in the city and the Boston metro area, idleness rate was higher, peaking at 11% for the graduates from the Class of 2002.

Chart 16: Trends in the Share of Boston Public High School Graduates Who Were Neither Working Nor Enrolled in College or a Post-Secondary Training Program, Graduating Classes From 1985 to 2005



Job Search Intentions Among Those Graduates Not in School, Not Working, and Not Seeking Work

Those graduates who were neither enrolled in school, nor employed, nor actively seeking employment at the time of the follow-up survey were asked why they were not actively seeking work and whether they intended to look for work in the next few months. Findings of their responses to these two questions are displayed in Table 23.

Slightly more than one half of these jobless, non-enrolled respondents indicated some intention to look for work over the next few months. Fifty two percent of the jobless respondents responded that they either “definitely would” or “might” seek a job over the next few months. Non-enrolled jobless male graduates were more likely to report some intention to seek employment than their female peers (62% versus 45%).

Table 23: Future Job Seeking Plans of Class of 2005 Graduates Who were Not Enrolled in College, Not Employed, and Not Actively Seeking Work, Total and by Gender
(Numbers in Percent)

Plans to Look for Work	All	Men	Women
Yes	40.3	41.4	39.5
Maybe	11.9	20.7	5.3
No	47.8	37.9	55.3

Participants in School-to-Career Programs; Their College Enrollment and Labor Market Status

The city of Boston’s School-to-Career programs are designed to enhance the immediate post-high school employability and post-secondary school attendance of youth attending the alternative, district and magnet schools by providing a combination of educational services, career guidance, college applications assistance, access to training, and in-school employment in fields such as finance, public administration, health, technical, and travel and tourism, and guidance in applying for admissions to post-secondary school. Of the 1,512 graduates who completed follow-up interviews from the city’s non-exam high schools offering school-to-career programs, 757 graduates reported that they had participated in a school-to-career program. Of those graduates who participated in such programs while in high school, 1.1 percent were

enrolled in Pro Tech, nearly 3 percent in the Academy of Travel and Tourism, nearly 4 percent in Tech Boston, 4.5 percent in the Academy of Finance, and 88 percent in other Career Pathways. (Table 24).²⁰

Table 24: Numbers of Class of 2005 Boston Public High School Graduates Who Reported that They Had Participated in Some Type of School to Career Program by Type of Program

Program	Number of Graduates	Percent of Graduates
Academy of Finance	34	4.5
Academy of Travel and Tourism	21	2.8
Pro Tech	8	1.1
Tech Boston	27	3.6
Other Career Pathway	667	88.1
Total	757	100.0

District/ alternative/magnet school graduates who reported during the interview that they had participated in a School-to-Career program during high school were typically characterized by somewhat more favorable college enrollment and earnings outcomes than their peers who did not participate in such programs. These differences reported in Table 26 by themselves do not represent independent program impacts since youth were not randomly assigned to these programs. A future paper will attempt to derive estimates of program impacts using a variety of multivariate statistical techniques.

The college/post-secondary training enrollment rate among school-to-career program participants was about 13 percentage points higher (70.8% as opposed to 57.4%) than that of their peers in the non-exam schools who did not participate in school-to-career programs. (Table 25). However, school to career program participants were less likely to be employed than their peers who did not participate in school-to-career programs (58% versus 69%). Among the non-enrolled, school-to-career participants also were less likely to be employed (73% versus 81%). Among the employed who were not enrolled in college or a post-secondary training program, mean weekly earnings of employed former school-to-career program participants were \$69 higher than those of their counterparts who did not participate in such programs. As mentioned above, these positive differences between the wage outcomes of school-to-career participants and

²⁰ These findings are based on the responses of graduates and their parents to the follow-up survey questions.

their comparison group counterparts cannot be automatically attributed to the effects of these programs since youth were not randomly assigned to these programs. A future set of research papers will attempt to estimate the independent effects of participation in school-to-career programs on a set of college and labor market outcomes using data on the demographic, socioeconomic, academic performance, and school behavior characteristics of the participants in these school-to-career programs and their comparison group counterparts.

Table 25: Selected College and Labor Market Outcomes for Class of 2005 Graduates from the District and Alternative High Schools by Their Participation in School-to-Career Programs²¹

Outcome	School-to-Career Participant	Non-Participant	Difference (A-B)
College or Training Program Enrollment Rate (in %)	70.8	57.4	+13.4
Employment Rate, All (in %)	58.0	69.1	-7.9
Employment Rate of Non-Enrolled (in %)	72.9	81.0	-11.9
Weekly Earnings of the Employed (Non-Enrolled)	\$375	\$306	+\$69

Table 26 displays the mean weekly wages of employed, non-enrolled Class of 2005 Boston public high school graduates who participated in various types of school-to-career programs. The mean weekly wages of non-enrolled, school-to-career program participants ranged from highs of \$587 for graduates who participated in the ProTech program and \$362 for those who were enrolled in a Academy of Travel and Tourism program to lows of \$313 for graduates who participated in TechBoston and \$301 in Other SLC/Career Pathways.

²¹ These estimates are based on self-reported school-to-career program activities from the PIC follow-up survey. We do not have information on the intensity of participation in these school-to-career programs since we are not using the data set provided by the school-to-career office from the Boston Public Schools.

Table 26: Mean Weekly Wages of Employed, Non-Enrolled Class of 2005 Boston Public High School Graduates in School to Career Programs by Type of Program

STC Program	Weekly Wage
Other SLC/Career Pathway	\$301
TechBoston	\$313
Academy of Finance	\$318
Academy of Travel and Tourism	\$362
Pro Tech	\$587
Non Participant	\$375

Summer Job and Senior Year Employment Experiences of Class of 2005 Boston Public High School Graduates

The follow-up survey questionnaire also collected information from graduates on whether they worked during the summers of their high school years and during the senior year of high school²². This information on in-school work experience also can be used to help predict the likelihood of post-high school employment and the future weekly earnings of employed graduates. Past local and national research has indicated that those graduates who worked more intensively in their senior year and the summers during their high school years had more favorable labor market outcomes in the first year upon graduation. National longitudinal research shows that the impacts of senior year work experience for the non-college bound can be quite long lasting.²³

²² The questionnaire also collected data on the number of summers during which they were employed and the number of weeks during the senior year that they worked. For findings on the summer and senior year employment experiences of Class of 2005 graduates, see: Ishwar Khatiwada and Andrew Sum, The Senior Year In-School and Summer Work Experiences of Class of 2005 Boston Public School Graduates, a report prepared for the Boston Private Industry Council, June 2007.

²³ See: Christopher J. Ruhm, “The Extent and Consequences of High School Employment”, Journal of Labor Research, Summer 1999, pp. 293-303.

Table 27: Senior Year and In-School Summer Job Experiences of Class of 2005 Boston Public High School Graduates, by Gender and Race/Ethnic Group

Group	Percent with Some Summer Job Experience	Percent with Senior Year Work Experience
All	82.3	59.0
Men	83.3	58.9
Women	81.0	59.1
Asian	76.7	40.1
Black	84.3	60.5
Hispanic	77.2	65.5
White	87.8	59.4

Nearly 82 percent of the graduates from the Class of 2005 reported that they had worked in one or more of the summers during their high school years. (Table 27). Male graduates were somewhat more likely than their female counterparts have worked in the summers (83% vs. 81%). Among graduates from the four major race-ethnic groups, a substantial majority of each group worked at least one summer with White graduates (88%) most likely to have worked in the summer followed by Black graduates (84%), Asian (77%), and Hispanic graduates (77%), respectively. Fifty-nine percent of the graduates also reported that they worked at some point during their senior year of high school, an employment rate well above that of all central city youth across the country. The findings for senior year job experience revealed that both men and women graduates were equally likely to have worked in the senior year (59%). Among the race-ethnic groups, 59 percent to 65 percent of White, Black, and Hispanic graduates reported that they worked at some point during the senior year as compared to only 40 percent of Asian graduates. A future research report by the authors will examine the nature and intensity of these summer and senior year work experiences and their impacts on a variety of post-high school labor market outcomes. Findings for the Class of 2003 revealed that graduates who worked three or more summers and were employed for 1 or more weeks in the senior year were significantly more likely to be employed at the time of the follow-up survey. The size of these effects were fairly large. Working for 13 or more weeks in the senior year, holding all other predictor constant, increased the probability of employment by 23 percentage points. The employment impacts of in-school work experience were quite favorable for both those graduates enrolled in college and the non-enrolled. The forthcoming research papers will examine links between high

school work experience and post-high school employment of Boston public high school graduates.

Appendix A: Followup Interview Completion Rates for Class of 2005 Boston Public High School Graduates by High School

School Name	Percent with Completed Interview	Number with Completed Interview	Total Graduates
Boston Latin High School (1010)	73.1%	285	390
Boston Latin Academy (1020)	74.9%	143	191
O'Bryant High School (1030)	80.2%	178	222
Brighton High School (1040)	74.2%	167	225
Charlestown High School (1050)	62.8%	118	188
Economics and Business Academy (1061)	81.3%	39	48
Academy of Public Service (1062)	89.2%	33	37
East Boston High School (1070)	79.2%	183	231
English High School (1080)	72.4%	139	192
Hyde Park High School (1100)	74.7%	127	170
Burke High School (1120)	75.6%	90	119
Monument High School (1161)	90.0%	36	40
Excel High School (1162)	86.4%	51	59
Odyssey High School (1163)	80.0%	24	30
Boston Comm Leadership Academy (1195)	47.7%	53	111
Snowden International High School (1200)	69.3%	52	75
Madison Park High School (1210)	61.5%	147	239
Another Course to College (1230)	92.5%	37	40
West Roxbury High School (1250)	43.3%	90	208
Fenway Park High School (1265)	39.7%	23	58
New Mission (1285)	85.3%	29	34
McKinley Voc. (1293)	72.7%	8	11
Boston Arts Academy (1420)	80.5%	62	77
Greater Eagleston (1430)	61.5%	8	13
Health Career Academy (1440)	97.6%	40	41
Total	70.9%	2,162	3,049