

Young High School Dropouts in Boston:  
A Profile of Their Demographic and  
Socioeconomic Characteristics and Their  
Labor Market Experiences and Problems

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## Introduction

The Youth Transition Funders Group, a coalition of local, regional, and national philanthropic organizations, has provided funding to five cities, including Boston, to undertake research and planning efforts to analyze high school dropout problems and develop strategies for reducing future dropout rates and attracting former dropouts back into the educational system.<sup>1</sup> To assist the Boston Youth Transition Task Force in its efforts to estimate and analyze the magnitude, nature, and consequences of high school dropout problems in the city, the Center for Labor Market Studies has been engaged in an array of research activities over the past six months. In late August, CLMS staff completed a research report that addressed a number of the key methodological issues that affect the measurement of high school graduation and dropout problems at the local level.<sup>2</sup> The paper utilized four different methodologies developed by national, state, and local research organizations to provide a range of estimates of high school graduation and dropout rates for Boston public high schools over the past decade. CLMS staff relied on a combination of actual enrollment data provided by the Boston Public School System, annual counts of high school graduates from the Boston Public Schools, and dropout numbers and rates calculated by the Boston Public Schools and the Massachusetts Department of Education to generate the set of estimates discussed in the paper. This second paper prepared for the Boston Youth Transitions Task Force uses data from a variety of sources, primarily the 2000 Census of Population and Housing, to estimate the number of high school dropouts in the young adult population of Boston at the time of the 2000 Census, their demographic and socioeconomic characteristics, their labor market behaviors and problems, and their annual earnings and family income status, and their institutionalization status.

This paper begins with a discussion of the types of data available from the 2000 Census, the uses that we have made of this data set, and the drawbacks of using the 2000 Census data on dropouts. Next, we provide estimates of the number of high school dropouts among the young adult population in the city of Boston in 2000 and their gender

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<sup>1</sup> The other cities involved in the planning stage of the demonstration are New York City, Philadelphia, Portland (Oregon), and San Jose.

<sup>2</sup> Andrew Sum, Joseph McLaughlin, Ishwar Khatiwada, Jacqui Motroni, et. al., *Measuring High School Graduation and Dropout Rates in the Boston Public Schools: The Findings of Alternative Estimating Methodologies*, Center for Labor Market Studies, Northeastern University, August 2005.

and race-ethnic characteristics. We also provide estimates of the size of the teen high school dropout population by neighborhood in Boston. Following sections of the paper identify a set of key labor market outcomes for high school dropouts in Boston, including their employment rates, unemployment rates, and their mean annual earnings.

Employment to population ratios for 16-19 year olds in Boston by educational attainment and school enrollment status are compared with their counterparts in the other 50 largest cities in the U.S. These labor market outcomes are presented for all dropouts, for both men and women separately, and for race-ethnic groups. Findings are also presented for 16-24 year olds by educational attainment level. The next section of this paper examines the socioeconomic status of Boston's young high school dropouts. Findings on the poverty rates and family income levels of high school dropouts are presented for all dropouts, for men and women separately, and for each race-ethnic group. The poor, poor/near poor, and low income status of Boston's young high school dropouts are compared with those of their counterparts in the biggest 13 cities in the U.S.

## **Data Sources**

The empirical findings presented in this research paper on the number of young high school dropouts, their demographic and socioeconomic characteristics, their labor market experiences, and their income and poverty status are based on the following data sources:

- (a) The Public Use Micro Sample (PUMS) data from the 2000 Census of Population and Housing, The PUMS data for Boston and 12 other cities are examined in this paper.
- (b) Published data on teen employment rates from the 2000 Census for 50 cities from the U.S. Census Bureau's website.
- (c) The 2004 American Community Surveys (ACS) of the U.S. Census Bureau. The ACS surveys involve the collection of data from households quite similar to that from the long form questionnaire in the 2000 Census.

Most of the findings on the demographic, socioeconomic, and labor market characteristics of young high school dropouts in the city of Boston presented in this paper are based on the 2000 Census PUMS public use files. These data files contain

comprehensive information on a representative sample of 1-20 households in Massachusetts and the city of Boston at the time of the 2000 Census. Similar data files for other large cities were used to provide comparisons with the findings for the city of Boston. The long-form questionnaire data contained in these PUMS files provide information on a wide array of demographic and socioeconomic characteristics of respondents including their educational attainment, school enrollment status, and their labor force status, recent employment experiences, annual earnings, incomes, and poverty status.

### **High School Dropout Concepts and Measures from the 2000 Census**

As noted above, the 2000 Census of Population and Housing included a long form questionnaire that captured detailed information on the demographic and socioeconomic characteristics of sample respondents, including their age, gender, race-ethnic origin, nativity status, educational attainment, and school enrollment status.<sup>3</sup> The long form questionnaire was completed by a representative sample of approximately 1-6 households in the city of Boston, and the U.S. Census Bureau has prepared a set of public use files containing the data on the long form questionnaires for a representative sample of 1-20 households in the city of Boston, individual counties across the state, and the state as a whole. These public use files are known as the Public Use Microdata Samples but are frequently referred to by their acronym (PUMS).

While the PUMS data have a number of important advantages in analyzing the educational attainment and school enrollment behavior of the local population, they do have a number of limitations in identifying and measuring the size of the school dropout population. The number of youth who left the local school system without obtaining a regular high school diploma will be underestimated with the PUMS data for a variety of reasons. First, the long-form questionnaire of the U.S. Census Bureau does not distinguish students who graduated from high school with a regular diploma from those who obtained a GED certificate or other alternative diploma. High school graduates with

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<sup>3</sup> For a review of the elements and layout of the Census long-form questionnaire, see: U.S. Census Bureau, *Uses for Questions on the Census 2000 Forms*, [www.Census.gov/dmd/www/content.htm](http://www.Census.gov/dmd/www/content.htm).

a regular diploma are lumped together with those obtaining a GED.<sup>4</sup> For those adults who completed 1 or more years of post-secondary schooling, no information is obtained on their high school graduation status; i.e., whether a regular diploma or a GED. Second, high school dropouts, especially males, are incarcerated in jails and prisons at an above average rate; however, many prison inmates from Boston were housed in correctional institutions outside of the city of Boston at the time of the 2000 Census. Thus, they would not be classified as city of Boston residents. Third, a disproportionate share of most large cities' homeless populations are high school dropouts; however, the long form questionnaire was not used with the homeless population. Fourth, there is a tendency for some respondents to exaggerate their educational attainment in the Census. Some dropouts will be misclassified as high school graduates on the PUMS files. Finally, there is under-reporting of some population groups in the Census. While the size of the undercount in the 2000 Census for Massachusetts was estimated to be small, the undercount will contain an above average share of high school dropouts.

Offsetting part of the above undercounts of the resident dropout population is the arrival of young foreign immigrants with no high school education into the city. Many of these poorly educated immigrants will not have attended high school in Boston; thus, they will show up in the Census count as a high school dropout even though they did not drop out of the Boston public school system or any other high school in Massachusetts. We will make an effort to identify the size of this young immigrant dropout population in Boston at the time of the 2000 Census. They present a unique set of challenges for the city and state's workforce development and adult basic education systems.

### **Estimates of the Number of Young High School Dropouts Residing in Boston at the Time of the 2000 Census**

To identify the size of the young adult high school dropout population living in the city of Boston in 2000, we analyzed the PUMS data from the 2000 Census. The 2000 Census PUMS data can be used to produce estimates of the number of people living in the city of Boston who were not enrolled in school and had not obtained a high school

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<sup>4</sup> The monthly CPS labor force questionnaire does ask high school graduates to identify whether they have a regular diploma or a GED. In 2003-2004, we estimated that 6.5% of 16-24 year old Massachusetts high school graduates reported having a GED. There was a large number of teens (more than 3,000) receiving a GED in 2003 alone according to data provided by the Massachusetts Department of Education.

diploma or G.E.D. In this section, we will estimate the number of high school dropouts among Boston’s 16-24 year old population in the aggregate and by race-ethnicity and gender. We also will estimate the number of high school dropouts among the 18-22 year old population that had lived in Boston at least 5 years and identify the size of the teenaged dropout population by Boston neighborhood at the time of the 2000 Census.

In table 1, the estimated number of 16 to 24 year olds living in the city of Boston in 2000 and the number of high school dropouts are displayed. At the time of the 2000 Census, there were more than 105,000 16-24 year olds living in the city of whom 7,933 were high school dropouts. Thus, young high school dropouts accounted for approximately 8.0% of the entire 16-24 year old population in Boston, a relatively small share due to the large influx of young adults in the city to attend college. In addition, a number of the 16-19 year olds still enrolled in high school at the time of the 2000 Census will drop out before obtaining a regular high school diploma.

Table 1:  
The Number of 16-24 Year Old High School Dropouts and Their Share of the 16-24 Year Old Resident Population in Boston, 2000

	(A)	(B)	(C)
Gender/ Race- Ethnic Group	16-24 Year Old High School Dropouts	All 16-24 Year Olds	Percentage of 16-24 Year Olds Without a H.S. Degree or Its Equivalent
Male	4,607	51,336	9.1%
Female	3,326	53,670	6.2%
White	1,478	55,070	2.7%
Black	1,977	18,919	10.4%
Asian	401	9,505	4.2%
Hispanic	3,575	15,772	22.7%
Mixed	284	3,822	7.4%
Other	218	1,918	11.4%
Total	7,33	105,006	7.6%

### **Who Were These Young High School Dropouts?**

Of the 7,933 young adult high school dropouts living in Boston in 2000, 4,607 or 58% were young men. There were 3,326 female high school dropouts. The number of male dropouts exceeded the number of women by a ratio of 139 per 100. The true number of male dropouts is even greater than this. Young male high school dropouts accounted for 9% of the young adult male population residing in Boston in 2000. Young female high school dropouts represented about 6% of the young adult female population of Boston during the same time period.

The percent of young adults who were high school dropouts in Boston at the time of the 2000 Census varied quite considerably across race-ethnic groups. Among Hispanic young adults between the ages of 16-24, nearly one in four (22.7%) was a high school dropout in 2000. There were a total of 3,575 high school dropouts of Hispanic ethnicity, and they accounted for approximately 45% of all of the high school dropouts living in Boston at that time. A fairly high fraction of these Hispanic high school dropouts were immigrants, including recent immigrants who never attended school in Boston. There were 1,977 Black high school dropouts in 2000. One in every four high school dropouts in Boston in 2000 was Black. Black and Hispanic young adult high school dropouts accounted for 70% of all of the high school dropouts between the ages of 16-24 years. Slightly under 1,500 high school dropouts were White, not Hispanic (1,478). White high school dropouts represented relatively a small share of the White young adult population in Boston (under 3%), but they accounted for 19% of the high school dropout population. This low share of dropouts among the young adult White population is also substantially influenced by the huge influx of White college students into the city.

The majority (67 percent) of the 16-24 year old high school dropouts were 20 years of age and older (Table 2). This result is due in part to the fact that the 16-19 year olds include those still enrolled in high school at the time of the 2000 Census. A number of these 16-19 year olds will eventually leave high school without a diploma. Young male dropouts between the ages of 20-24 substantially outnumbered their female counterparts. There were three male high school dropouts (20-24) for every two female high school dropouts (20-24). The Census only provides a snapshot of dropouts at a

point in time. Some of the teenage dropouts may return to high school and eventually earn a high school diploma or a G.E.D. certificate. The same is true for those high school dropouts between the ages of 20-24 although national evidence suggests that it is far less likely that they will earn a regular high school diploma.

Table 2:  
The Age Distribution of Young Adult High School Dropouts in the City of Boston by Gender and Age Group in 2000

	(A)	(B)	(C)
	Male	Female	Total
16-19 Years Old	1,373	1,225	2,598
20-24 Years Old	3,234	2,101	5,335
Total, 16-24 Years Old	4,607	3,326	7,933

At first glance, Boston appears to rank very favorably in comparison to other large cities in terms of the percentage of the 16-24 year old population that are high school dropouts. For example, when ranking the top 25 largest cities by the share of 16-24 year olds that are dropouts from highest to lowest, Boston ranked 24<sup>th</sup> in the share of dropouts among both the 18-24 year old population (13.5%) and the 16-19 year old population (6.8%). The only city that performed better on these two measures was Seattle with dropout shares of 11.7% and 5.6%, respectively. However, the percentage of 16-24 year olds in Boston without a high school diploma appears exceptionally small because the city experiences a huge inflow of high school graduates from other cities and towns in Massachusetts, from other states, and from other countries who attend the diverse array of colleges and universities located in the city. This sea of high school graduates that move into Boston to attend college drowns out the number of high school dropouts living in Boston. To reduce the impact of this huge population influx of college students, we have reduced the group under the consideration from all 16 to 24 year olds to include only those 18 to 22 year olds who have lived in the city of Boston for five or more years.

By restricting the age range and geographic mobility of the young adult population of Boston in 2000, we can gain a more accurate picture of how many high school dropouts living in the city of Boston were likely Boston natives (i.e., lived in the city for at least five years). Therefore, any college student between the ages of 18 and 22 that was living in the city of Boston at the time of the 2000 Census who had moved to Boston after 1995 would be excluded from our analysis because they would not meet our definition of a Boston native. This second cut at the data reveals a higher percentage share of high school dropouts among the Boston young adult population.

There were 4,857 high school dropouts between the ages of 18 and 22 years old living in the city of Boston at the time of the 2000 Census. Some of these high school dropouts (1,783) had moved into Boston after 1995, and, thus either spent limited time in high school or did not even attend high school in Boston. If we subtract out these 1,783 high school dropouts that recently moved to Boston, the remainder represents the number of high school dropouts who had lived in the city of Boston for at least five years prior to the 2000 Census. According to the 2000 Census, there were 3,074 high school dropouts who had lived in Boston for at least 5 years, or what we refer to as “high school dropouts that were Boston natives.” These 3,074 dropouts represented 12.3% of the native 18-22 year old population of the city of Boston at the time of the 2000 Census. Approximately, one in every eight young adults between the ages of 18 and 22 years, who had lived in Boston for at least 5 years prior to the 2000 Census, had not earned a high school diploma or its equivalent at the time of the Census (Table 3)

As mentioned above, almost 1,800 young high school dropouts (18-22 years of age) had moved into the city of Boston after 1995 and resided in the city at the time of the 2000 Census. Approximately, 538 or 30% of the high school dropouts that moved to Boston were foreign born. There were 1,048 high school dropouts (18-22 years of age) that moved from the city of Boston to other areas within Massachusetts and to other states over the 1995-2000 period of this in and out migration. Thus, the net effect was that the city gained 700 high school dropouts between the ages of 18 and 22 years old.

Table 3:  
The Presence of High School Dropouts in Boston Among Selected Subgroups of the 18-22 Year Old Population in 2000

	(A)	(B)	(C)
	Native Born	Foreign Born	Total
18-22 Year Old Population (A)	49,344	16,583	65,927
18-22 Year Old Population Who Moved into Boston Since 1995 (B)	30,760	10,211	40,971
18-22 Year Old High School Dropouts (C)	2,490	2,367	4,857
18-22 Year Old High School Dropouts Who Moved into Boston Area Since 1995 (D)	1,245	538	1,783
True Boston Population (A-B)	18,584	6,372	24,956
True Boston High School Dropouts, Ages 18-22, (C-D)	1,245	1,829	3,074
True Boston High School Dropouts as % of True Boston Population	6.7	28.7	12.3
High School Dropouts Who Moved to Other States from the city of Boston (E)	317	156	473
High School Dropouts Who Moved to Other Parts of MA from the city of Boston (F)	494	81	575
High School Dropouts Who Moved to Other Parts of MA and other states from the city of Boston (E+F)	811	237	1,048

### **Teen High School Dropouts by Boston Neighborhood**

The U.S. Census Bureau also provides school enrollment, educational attainment, socioeconomic statistics for various age groups categorized by the neighborhood of residence. We were able to examine the school enrollment status of teens at the time of the 2000 Census and identify whether they had earned a high school diploma or its equivalent. The following table displays the number of 16 to 19 years olds who were not enrolled in school and lacked a high school diploma or GED at the time of the 2000

Census by neighborhood of the city (Table 4). The number of 16-19 year old high school dropouts varied by neighborhood, ranging from a high of 420 in Roxbury, 323 in South Dorchester, and 288 in East Boston to lows of 9 in Back Bay/Beacon Hill and 7 in the Fenway/Kenmore area. There were six neighborhoods with a high concentration of teens (240+) who were not enrolled in school and lacked a high school diploma. These six neighborhoods were Roxbury, South Dorchester, East Boston, Roslindale, Jamaica Plain, and Mattapan. An additional four neighborhoods had between 100 and 170 teen high school dropouts. They were North Dorchester (171), South Boston (113), Allston/Brighton (113), and Hyde Park (99).

Another measure of the intensity of teen high school dropout problems in a neighborhood captures the share of teens who were high school dropouts at the time of the 2000 Census. These ratios varied quite markedly, ranging from lows of 1% or less in the Fenway/Kenmore and Back Bay/ Beacon Hill neighborhoods to highs of 15 to 16 percent in Roslindale, East Boston, and Jamaica Plain.

Table 4:  
Number of 16-19 Year Olds Not Enrolled in School and Lacking a High School Diploma by Boston Neighborhood in Total and As a Percent of the 16-19 Year Old Population, 2000 (Ranked by Column C)

	(A)	(B)	(C)
Boston Neighborhood	16-19 Year Olds Not Enrolled, Not High School Graduates	All 16-19 Year Olds	Percent of High School Dropouts in the 16-19 Year Old Population
Jamaica Plain	245	1,487	16.5%
East Boston	288	1,925	15.0%
Roslindale	247	1,659	14.9%
Mattapan	241	2,052	11.7%
South Boston	113	1,004	11.3%
Charlestown	44	396	11.1%
Roxbury	420	4,086	10.3%
North Dorchester	171	1,660	10.3%
South Dorchester	323	3,664	8.8%
Central	81	1,156	7.0%
West Roxbury	48	877	5.5%
Hyde Park	99	1,840	5.4%

South End	24	694	3.5%
Allston/Brighton	113	3,830	3.0%
Back Bay/Beacon Hill	9	855	1.1%
Fenway/Kenmore	7	9,330	0.1%
Total	2,473	36,515	6.8%

### **The Employment Rates of Young High School Dropouts in Boston**

One of the core measures of the labor market success of high school dropouts is their employment rate. How successful have young high school dropouts been in obtaining jobs in recent years? In today's labor market, young high school dropouts have been finding it difficult to secure any type of employment. Many jobs these days require higher levels of formal education and occupational skills. Besides, low skilled, native-born workers are facing intense competition from both immigrant labor and outsourcing.<sup>5</sup> Thus, young high school dropouts are least likely to be employed in today's labor markets.

The E/P ratios (employment to population ratios) of dropout youth tend to be cyclically sensitive, falling at an above average rate during an economic recession and rising at above average rate during labor market booms. At the time of the 2000 Census, the Massachusetts labor market was at cyclical peak, with an annual average unemployment rate of only 2.6% during that year. The E/P ratio of 16-24 year old high school dropouts during 2000 was 52%. Following the onset of the state's recession in early 2001 and continued job losses throughout 2003, the labor market for youth across the state had become more depressed. At the time of the 2004 American Community Surveys (ACS), the E/P ratio of 16-24 year old high school dropouts in Massachusetts was only 39%, a substantial drop.

Central cities typically are characterized by lower employment rates for high school dropouts partly due to weaker labor market conditions and more intense competition from immigrant labor. At the time of the 2000 Census, the E/P ratio for all

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<sup>5</sup> See: Ishwar Khatiwada, Andrew Sum and Tim Barnicle, New Foreign Immigrant Workers and the Labor Market in the U.S.: The Contributions of New Immigrant Workers to Labor Force and Employment Growth and Their Impact on Native Born Workers, 2000 to 2005, Center for Labor Market Studies, Northeastern University, Prepared for National Center on Education and the Economy, Washington, DC, August 2005.

16-24 year old high school dropouts in the city of Boston was 42%, but these employment rates varied markedly by gender and race-ethnic group (Table 5). The employment to population ratio for dropouts was highest for Whites (57%), followed by “Other” race-ethnic groups (51%), and Hispanics (48%) and lowest for Asians (15%) and Blacks (25%). Overall, male dropouts were nearly 2 percentage points more likely to be employed than their female peers (42.4% versus 40.8%). Among all race-ethnic groups, except for Whites, however, female dropouts were 2 to 15 percentage points more likely to be employed than their male peers (Table 5). Both Black and Asian male dropouts were employed at extremely low rates. Only 15% of Black male dropouts in the city of Boston were employed at the time of the 2000 Census.

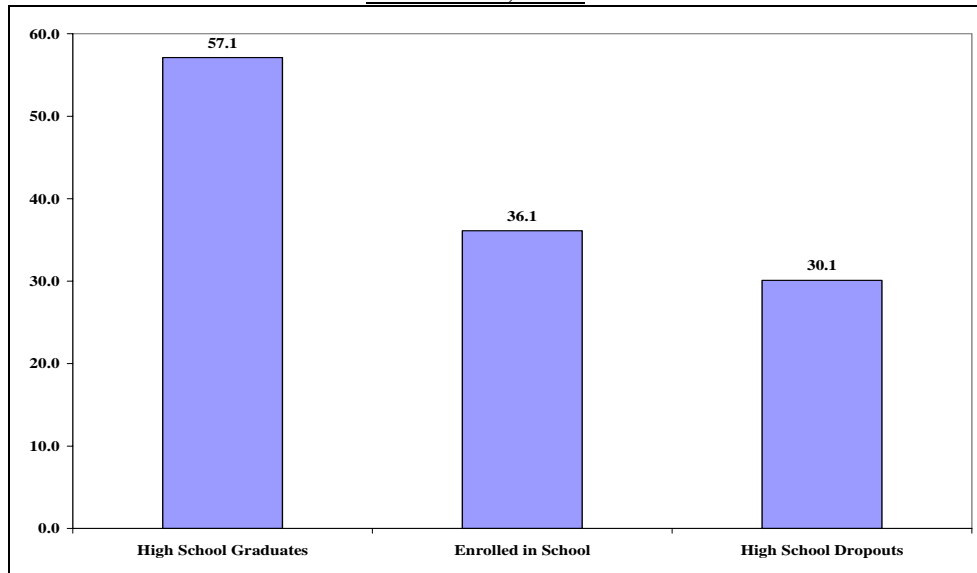
Table 5:  
Employment-Population Ratios of 16-24 Year Old High School Dropouts in  
Boston at the Time of the 2000 Census (In %)

Race-Ethnicity	All	Male	Female	Male-Female
All	41.7	42.4	40.8	1.6
White	57.0	59.4	54.0	5.4
Black	24.6	18.2	33.2	-15.0
Asian	15.5	11.7	23.4	-11.7
Hispanic	48.0	53.1	40.3	12.9
Mixed	33.5	30.8	36.2	-5.4
Other	50.9	50.0	51.9	-1.9

Source: Public use micro files (PUMS 5%), 2000 Census of Population and Housing, U.S. Census Bureau, tabulations by Center for Labor Market Studies.

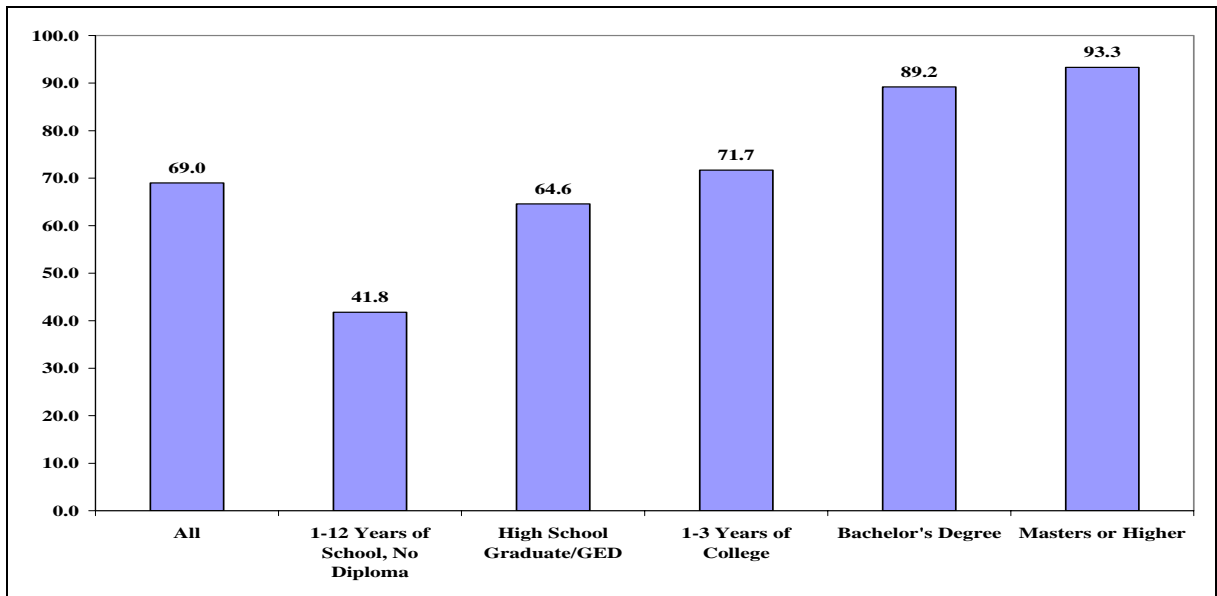
As mentioned earlier, young high school dropouts typically fare the worst in securing any type of employment. In Boston, only 30% of 16-19 year old high school dropouts were employed versus 36% of enrolled teenage students and 57% of teenaged high school graduates at the time of the 2000 Census (Chart 1).

Chart 1:  
Employment-Population Ratios of 16-19 Year Olds in Boston by Selected Educational Attainment, 2000



Among young adults in Boston, there was a strong positive statistical correlation between the educational attainment of youth and their employment rates. Chart 2 displays employment-population ratios for non-enrolled 16-24 years old in the city of Boston at the time of the 2000 Census by their educational attainment level. In Boston, high school dropouts were characterized by the lowest E/P ratio in 2000. Only 42% of young high school dropouts were employed versus 65% of high school graduates, 72% of those with some college, 89% of those with a Bachelor's degree, and 93% of young adults with a Master's or higher degree. The gap between the employment ratios of high school dropouts and other groups was 23 percentage points for high school graduates, 47 percentage points for youth with a Bachelor's degree, and 51 percentage points for youth with a Master's or higher degree.

Chart 2:  
Employment-Population Ratios of 16-24 Year Olds Not Enrolled in School in the City of Boston by Educational Attainment, 2000



To place the job market findings for Boston youth in comparative perspective, we also compared the E/P ratios of teenagers in Boston with those of 16-19 year old youth in the largest 50 cities of the U.S. at the time of the 2000 Census. For all 16-19 years olds, the E/P ratio in Boston was 37.1%, and Boston ranked 26<sup>th</sup> among the 50 most populous cities of the U.S. For those teens enrolled in school, Boston's E/P ratio was 36.4%, and the city ranked 21<sup>st</sup> among the 50 cities. Teen high school graduates had an employment rate of 57% and ranked right in the middle of the distribution. However, high school dropouts in Boston fared among the worst performers. In 2000, the E-P ratio of dropout teens in the city of Boston ranked 44<sup>th</sup> or sixth lowest among the 50 largest cities in the U.S. (Appendix Table A1 and A2). The five cities with the highest E/P ratios for teen dropouts were Austin (55.5%), Colorado Springs (54.8%), Mesa, Arizona (54.3%), Omaha (53.1%) and Charlotte, North Carolina (52.7%). (Table 6). The bottom five cities were St. Louis (29%), Miami (27%), Philadelphia (26%), Baltimore (24%), and New Orleans (22%). Clearly, young Boston high school dropouts faced severe obstacles in securing any type of employment in 2000 when the local and state economies were performing quite well. Their labor market position has likely weakened since then.

Employment rates for high school dropouts in central cities have deteriorated in recent years, especially in central city high poverty neighborhoods.<sup>6</sup>

Table 6:  
Employment-Population Ratios of 16-19 Year Old Dropouts in a Selected Subset of the 50 Largest Cities in the U.S., 2000

Rank	City	E-P Ratio (%)
	<b>Top 10 Cities</b>	
1	Austin, Texas	55.5
2	Colorado Springs, Colorado	54.8
3	Mesa, Arizona	54.3
4	Omaha, Nebraska	53.1
5	Charlotte, North Carolina	52.7
6	San Jose, California	51.3
7	Nashville-Davidson(balance), Tennessee	50.7
8	Dallas, Texas	50.0
9	Portland, Oregon	49.7
10	Seattle, Washington	49.0
	<b>Bottom 10 Cities</b>	
41	Detroit, Michigan	31.7
42	Fresno, California	31.3
43	El Paso, Texas	30.7
<b>44</b>	<b>Boston, Massachusetts</b>	<b>30.1</b>
45	New York city, New York	29.7
46	St. Louis, Missouri	28.8
47	Miami, Florida	27.4
48	Philadelphia, Pennsylvania	25.8
49	Baltimore, Maryland	24.2
50	New Orleans, Louisiana	21.7

Source: 5% PUMS, Census 2000, U.S. Census Bureau, tabulations by Center for Labor Market Studies

### **Unemployment Rates Among 16-24 Year Old High School Dropouts in Boston**

The unemployment rates of the nation's youth also tend to vary considerably by educational attainment and to be cyclically sensitive. During an economic recession, aggregate job opportunities decline, and fewer youth receive job offers from employers. Their unemployment rate rises, and their labor force attachment weakens, depressing

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<sup>6</sup> See: Andrew Sum and Paulo Tobar with Joseph McLaughlin and Sheila Palma, Trends in Key Labor Market Outcomes for Teens and Young Adults in the U.S. and in High Poverty Neighborhood, 2000-2004, Center for Labor Market Studies, Northeastern University, Prepared for Decision Information Resources, YOG Evaluation, May 2005.

their employment-population ratio. The national labor market boom of the 1990s came to an immediate halt in early 2001. The national recession of 2001 and the largely jobless recovery of 2002-2003 resulted in the loss of a large number of wage and salary jobs and a steady rise in the overall unemployment rate<sup>7</sup> through mid 2003. The relative size of the employment losses was most severe among young persons under the age of 25.<sup>8</sup> Young dropouts in our state have been particularly impacted by these labor market developments. During 2000, the unemployment rate of 16-24 year old high school dropouts in Massachusetts was 20%, but it more than doubled in recent years rising to 41% in 2004 due to deteriorating labor market conditions.

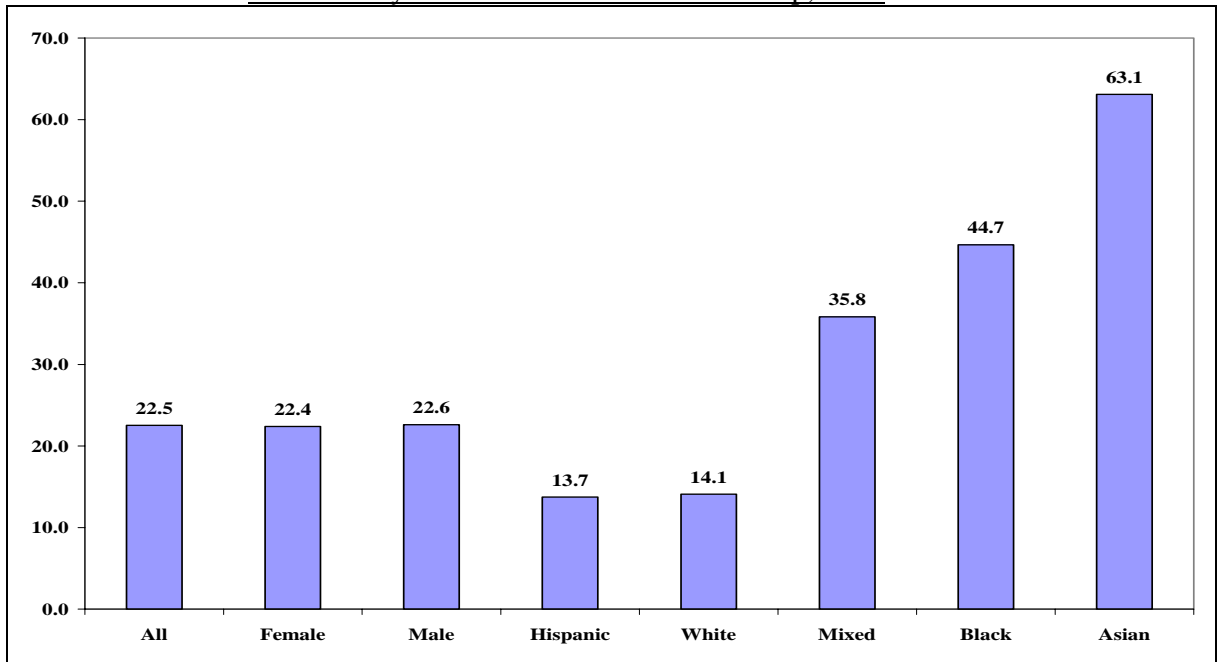
At the time of the 2000 Census, twenty-two percent of young high school dropouts active in the labor force in Boston were unemployed. This occurred at a time when the state's unemployment rate during that entire year was only 2.6%, the lowest in the past 40 years. The unemployment rates for both male and female dropouts in Boston were identical (22%); however, unemployment rates of dropouts varied widely across race-ethnic groups, ranging from lows of 14% among Hispanics and Whites to highs of 45% among Blacks and 63% among Asians (Chart 3).

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<sup>7</sup> Those jobless persons who had looked for work in the four weeks prior to the ACS survey and were available for work were classified as unemployed. With this information, we estimated unemployment rates for high school dropouts. The unemployment rate is calculated by dividing the number of unemployed high school dropouts by the number of high school dropouts in the civilian labor force (the sum of the employed and unemployed). If the jobless youth was not actively looking for work or not available for work at the time of the survey, he/she was excluded from both the numerator and denominator of the formula used to calculate the unemployment rate.

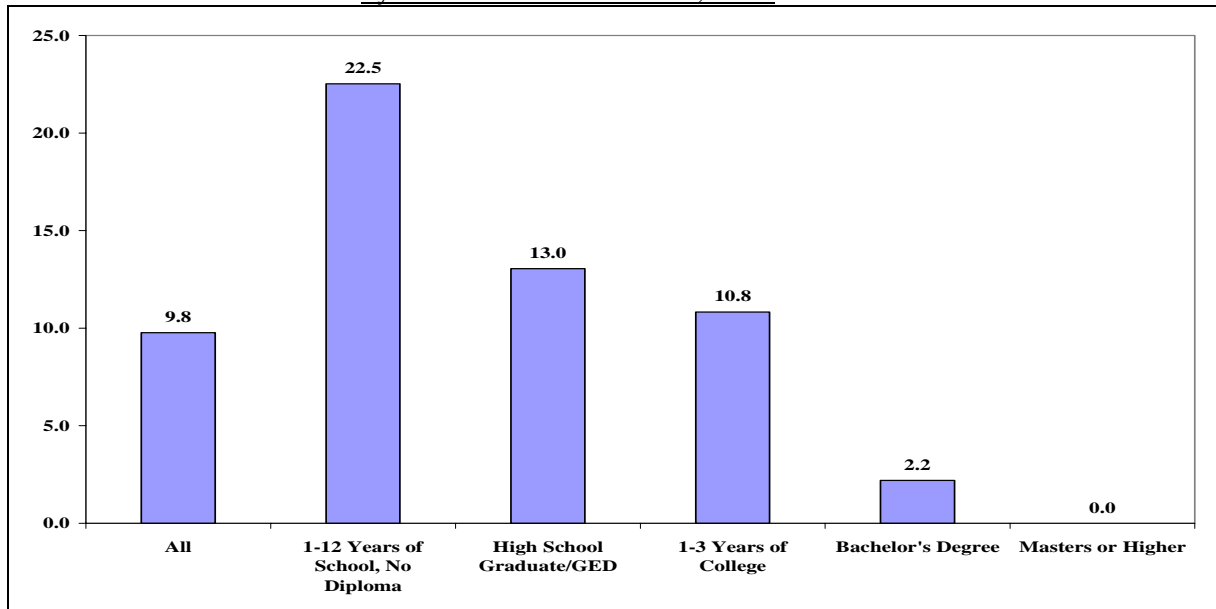
<sup>8</sup> See: Andrew Sum, Ishwar Khatiwada, with Sheila Palma and Susan Perron, Still Young, Restless, and Jobless: The Growing Employment Malaise Among U.S. Teens and Young Adults, Center for Labor Market Studies, Northeastern University, Report Prepared for Jobs for America's Graduates, Alexandria, January 2004.

**Chart 3:**  
**Unemployment Rates of 16-24 Year Old High School Dropouts in the City of Boston,**  
**Total and by Gender and Race-Ethnic Group, 2000**



There is also a strong statistical correlation between the unemployment rates and the educational attainment of young adults. For example, slightly more than 22% of 16-24 year old high school dropouts were unemployed in 2000 versus only 13% of high school graduates, 11% of those with some college, 2% of Bachelor's degree holders, and 0% among those with a Master's or higher degree. Thus, high school dropouts were two and ten times, respectively, more likely to be unemployed than their peers with a high school diploma/GED and a Bachelor's degree (Chart 4).

Chart 4:  
Unemployment Rates of 16-24 Year Olds Not Enrolled in School in the City of Boston  
by Educational Attainment, 2000



### **Annual Earnings of Employed 16-24 Year Old High School Dropouts in Boston**

One of the most comprehensive and economically important measures of the labor market success of workers is their real annual earnings, i.e., how much they were able to earn in inflation-adjusted dollars from their paid employment during an entire year. A variety of labor market behaviors, including the number of weeks that they work during the year, their average hours of work per week of employment, and their real hourly earnings, influence the annual earnings of employed workers. It should be noted that the annual earnings of youth are also quite cyclically sensitive, rising during periods of strong economic growth and declining during recessionary periods as a result of fewer hours of paid employment and lower real hourly wages. Annual earnings of the nation's young male high school dropouts in the decades of the 1980s and 1990s were characterized by a substantial decline.<sup>9</sup> This trend in declining earnings for youth has continued for most subgroups in recent years. During 1999, the mean real annual earnings of 16-24 year old dropouts in Massachusetts (in 2004 dollars) was \$13,792, but

<sup>9</sup> See: Andrew Sum, Neeta Fogg, and Garth Mangum, Confronting the Youth Demographic Challenge: The Labor Market Prospects of Out-of-School Young Adults, Sar Levitan Center for Social Policy Studies, Johns Hopkins University, Baltimore, October 2000.

it fell to just \$11,196 during 2004, a decline of \$2,596 or 19% over this four year period.<sup>10</sup>

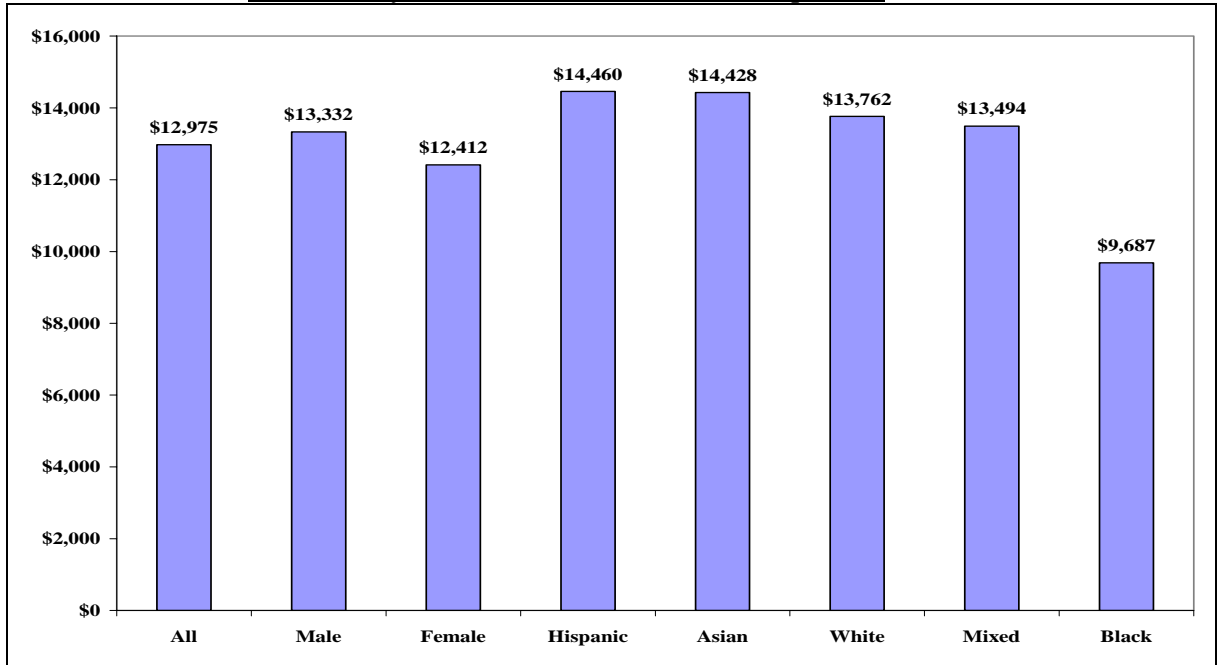
During 1999, the mean annual earnings of employed 16-24 year old high school dropouts in the city of Boston were \$12,975. Male dropouts' mean annual earnings was 7% higher than the earnings of their female counterparts (\$13,332 versus \$12,412). Among race-ethnic groups, there was a greater degree of variability in the mean annual earnings of employed high school dropouts. The annual mean earnings of employed young high school dropouts ranged from a high of \$14,400 among Hispanics and Asians to a low of only \$9,700 among Blacks. These mean annual earnings of young high school dropouts in Boston (or anywhere else in the country) are far too low to independently support themselves, especially considering the sharply higher cost of living in Boston. A recent study of the cost of living by the Economic Policy Institute in Washington, D.C. ranks the Boston metropolitan area as the most expensive area in which to live, outpacing the cost of living in New York and San Francisco.<sup>11</sup> Given this harsh fact, young high school dropouts are not only less likely to obtain any kind of job in the present day competitive labor market, but also are more likely to experience poverty and become dependent on state and federal transfers to support themselves in their adult lives.

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<sup>10</sup> The estimate for 2004 is based on the findings of the American Community Surveys (ACS) for that year.

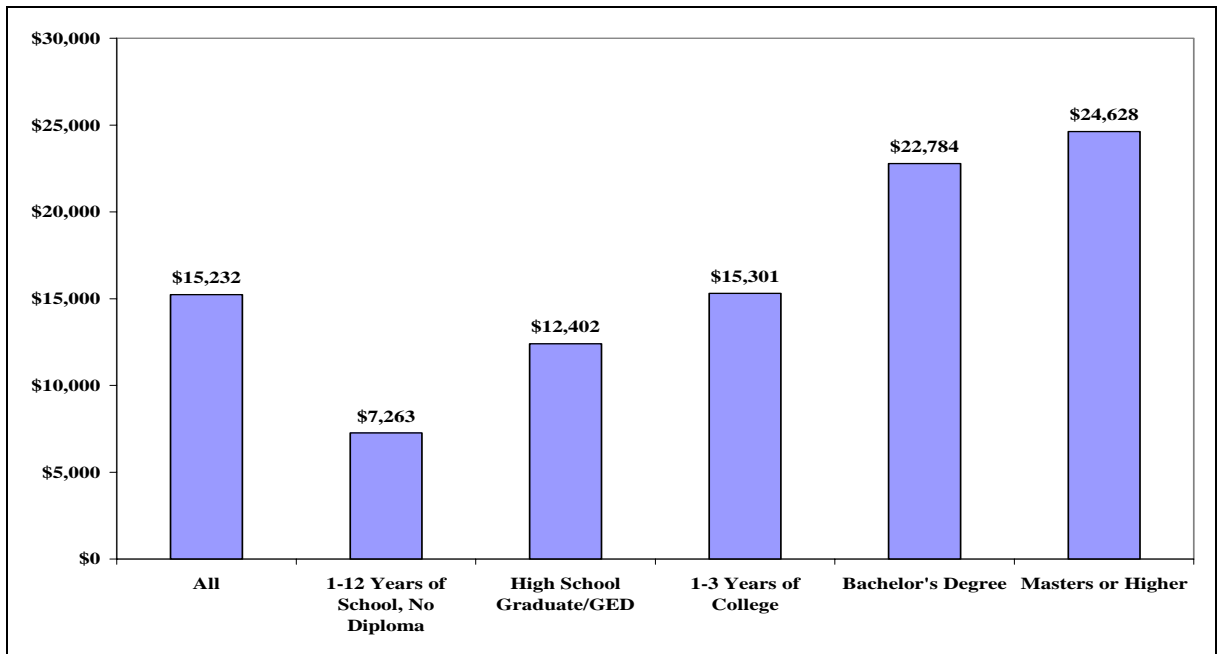
<sup>11</sup> See: Bonnie Heudorfer and Barry Bluestone, The Greater Boston Housing Report Card 2004: An Assessment of Progress on Housing in the Greater Boston Area, Prepared by The Center for Urban and Regional Policy (CURP), Northeastern University, Prepared for The Boston Foundation and Citizen's Housing and Planning Association (CHAPA), September 2005.

Chart 5:  
Mean Annual Earnings of Employed 16-24 Year Old High School Dropouts in Boston,  
Total and by Gender and Race-Ethnic Group, 1999



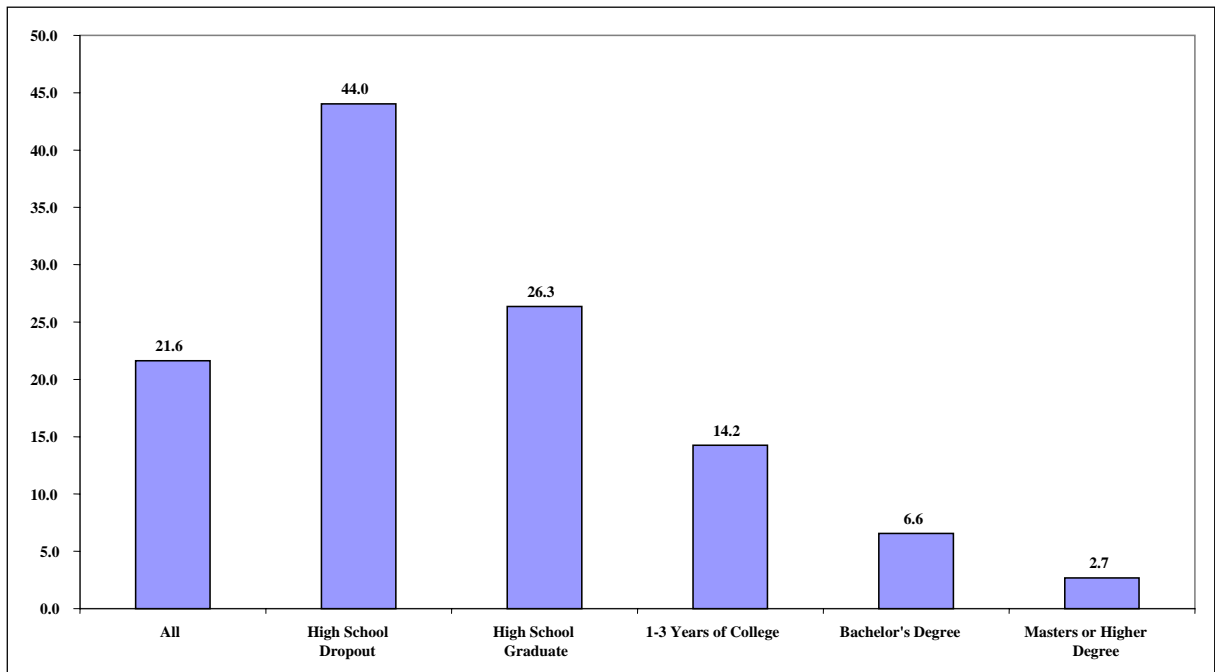
The changing industrial and occupational mix of jobs in the U.S. and Massachusetts economies over the past two decades has considerably altered the demand for workers by education and literacy levels. Workers with more formal schooling and stronger literacy skills have found themselves in stronger demand while their less educated and literate peers found their job opportunities diminished. Given these developments, the mean annual earnings of young adults and their educational attainment are characterized by strong positive associations. Chart 6 reveals the mean annual earnings of non-enrolled 16-24 year olds by educational attainment level in the city of Boston in 1999. The estimates in this chart include the non-employed, i.e., those with no positive earnings in the prior year. During 1999, 16-24 year old high school dropouts in Boston had mean annual earnings of only \$7,263, which was 71% less than the mean annual earnings of high school graduates (\$12,402). In 1999, young Bachelor's and Master's degree recipients in the city of Boston earned more than three times as much as high school dropouts (Chart 6).

Chart 6:  
Mean Annual Earnings of 16-24 Year Olds Not Enrolled in School in the City of Boston  
City at the Time of the 2000 Census (Including the Non-Employed)



The difference between the mean annual earnings of 16-24 year old high school dropouts in Boston in Charts 5 and 6 is due to the exclusion of zero earners (i.e., those who did not work in 1999) in chart 5 and their inclusion in Chart 6. In 1999, forty-four percent of young high school dropouts did not work at all. Thus, the inclusion of the non-employed in Chart 6 considerably lowered the mean annual earnings of high school dropouts (\$7,263). High school dropouts were nearly two times more likely to be jobless all year than their non-enrolled peers with a high school diploma/GED (44% versus 26%). Only 14% of non-enrolled youth with some college did not work in 1999 versus 7% of four year college graduates and only 2% of those youth with a Master's or higher degree.

Chart 7:  
Percent of Non-Enrolled 16-24 Year Olds in the City of Boston Who Did Not Work At  
Any Time in 1999, Total and by Educational Attainment



### **Poverty, Near Poverty, and Low Income Status of Young High School Dropouts**

Many of Boston’s young high school dropouts live in families with low incomes. To identify the degree to which the families of these young dropouts experienced income inadequacy problems, we estimated the share of such youth living in families with incomes below the following three income thresholds:

- The official poverty income thresholds of the federal government
- 125% of the above poverty income thresholds, i.e., the poor and the near poor
- 200% of the poverty line, an income threshold frequently referred to as “low income” in the social welfare and poverty literature.

Our findings reveal that a relatively large share of Boston’s young high school dropouts were categorized as poor, near/poor or low income in 1999. Nearly 31 percent of all young high school dropouts in Boston were members of poor families as defined by the Federal government’s poverty income thresholds (Chart 8 and Table 2). Young

female dropouts were substantially more likely than their male peers to be poor (39% versus 26%) partly reflecting the very high poverty rates of young single mothers. Among race-ethnic groups, Hispanic dropouts had the highest poverty rate (35%) followed by Blacks (33%), Asians (30%), and Whites (16%).

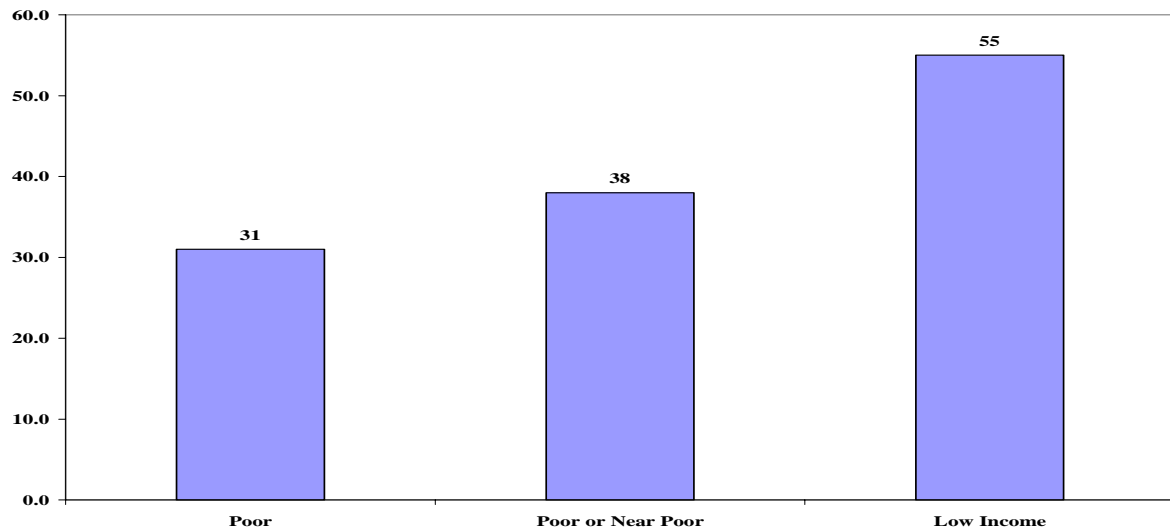
We also estimated the incidence of poverty/near poverty problems among young high school dropouts with the 2000 Census PUMS data. Nearly 38% of all young high school dropouts in Boston were categorized as poor/near poor. Female high school dropouts were nearly 9 percentage points more likely than their male peers to be poor/near poor. Nearly half of young Asian dropouts were members of poor/near poor families versus 42 percent of Hispanics, 38 percent of Blacks, and only 22 percent of Whites.

When the income adequacy threshold is raised to 200 percent of the poverty line, the share of young dropouts with inadequate incomes rises sharply. Fifty-five percent of high school dropouts in Boston were members of low income families in 1999. Slightly more than 56% of young female dropouts were low income versus 54 percent of male dropouts. Nearly two-thirds of young Asian high school dropouts were residing in low-income families, followed by 60% of Hispanics and Blacks and 36% of Whites. The low incomes of the families of many of these young dropouts place them at an even greater disadvantage in the labor market of the present and future. There are fewer employed adults and siblings residing in their families, thereby reducing their access to job finding networks. They are much more likely than their better educated peers to live in high poverty neighborhoods with fewer employed neighbors and jobs in their neighborhoods. Finally, the limited incomes of their families reduce their access to a pool of money to finance future education and training investments.<sup>12</sup> Their more limited investments in human capital will reduce their future earnings potential.

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<sup>12</sup> The higher cost of financing educational investments on their own will, *ceteris paribus*, reduce the amount of human capital they can be expected to acquire over their lifetime. See: Gary S. Becker, Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education, (Third Edition), University of Chicago Press, Chicago, 1993

**Chart 8:**  
The Share of Boston's 16-24 Year Old Dropouts that Were Members of Poor, Near Poor or Low Income Families in 1999 (In %)



**Table 7:**  
Poor, Near Poor and Low Income Status of 16-24 Year Old High School Dropouts in Boston, Total and by Gender and Race-Ethnic Group, 1999

Group	Poor	Poor or Near Poor	Low Income
All	30.9	37.8	54.9
Female	37.8	42.8	56.4
Male	25.9	34.2	53.7
Hispanic	34.7	42.2	60.0
Black	32.9	38.5	59.6
Asian	30.4	48.4	64.6
White	15.6	22.3	36.4

To place the above findings for young Boston high school dropouts in comparative perspective, we also compared the share of high school dropouts in Boston who were poor, near poor and low income with their peers in 13 other large central cities in the U.S. Among these fourteen cities in the U.S., the share of Boston's dropouts that were poor and near poor was 5<sup>th</sup> lowest in 1999. Charlotte and Portland had the lowest share of young high school dropouts who were poor and near poor while New York, Los

Angeles, and Cleveland had the highest shares of young dropouts with this income characteristic (Table 8).

**Table 8:**  
Comparisons of the Share of Boston's 16-24 Year Old Dropouts That Were Poor, Near Poor, and Low Income With Those of Other Cities, 1999  
 (Ranked from Lowest to Highest)

Rank	City	% Poor	City	% Near Poor	City	% Low Income
1	Charlotte	24.8	Charlotte	32.0	Charlotte	51.9
2	Denver	26.5	Portland	34.9	San Francisco	53.7
3	Portland	28.1	Denver	35.4	<b>Boston</b>	<b>54.9</b>
4	San Francisco	30.4	San Francisco	35.9	Portland	55.6
<b>5</b>	<b>Boston</b>	<b>30.9</b>	<b>Boston</b>	<b>37.8</b>	Chicago	59.6
6	Chicago	31.3	Chicago	39.2	Denver	60.7
7	Minneapolis	33.7	Minneapolis	41.7	Washington, DC	61.0
8	Los Angeles	36.4	Milwaukee	44.4	Milwaukee	62.4
9	Baltimore	37.2	Washington, DC	44.4	Baltimore	63.7
10	Washington, DC	37.5	Baltimore	45.0	New York	64.9
11	Milwaukee	37.6	Philadelphia	45.8	Philadelphia	65.5
12	Philadelphia	37.8	New York	45.8	Cleveland	67.2
13	New York	38.6	Los Angeles	47.3	Minneapolis	71.0
14	Cleveland	39.9	Cleveland	48.1	Los Angeles	72.6

Source: 5% PUMS, Census 2000, U.S. Census Bureau, tabulations by Center for Labor Market Studies

Given the low incomes of the families of many young dropouts, one might anticipate that a number of them would be dependent on some form of cash public assistance income to support themselves.<sup>13</sup> In 1999, slightly more than 5 percent of these young dropouts were personally receiving some type of cash public assistance income. In other cases, their parents were the recipient of these cash transfers. Women were seven times more likely than men to be doing so (10.5% versus 1.5%), reflecting the single motherhood status of some of these young female dropouts and their dependence on TANF benefits for their economic support. (Table 9). More than 8 percent of Black dropouts were in families receiving some form of cash public assistance versus nearly 7 percent of Whites, and 3 percent of Hispanics.

<sup>13</sup> Welfare income includes Supplemental Security Income (SSI) and payments under the Temporary Assistance To Needy Families Program known more widely by its acronym (TANF).

**Table 9:**  
Number and Percent of 16-24 Year Old High School Dropouts Who Received Some  
Type of Cash Welfare Income in 1999 in Boston, Total and by Gender  
and Race-Ethnic Group, 1999

Group	% with Some Type of Public Assistance	Number with Some Type of Public Assistance	Total Population
All	5.4	431	7,933
Male	1.5	69	4,607
Female	10.9	362	3,326
White	6.8	101	1,478
Black	8.4	167	1,977
Asian	0.0	0	401
Hispanic	3.5	124	3,575

Source: 5% PUMS, Census 2000, U.S. Census Bureau, tabulations by Center  
for Labor Market Studies

### **Single Parenthood Among High School Dropouts**

The likelihood of a young woman being a single mother is influenced by her educational expectations, academic skills, and her family's socioeconomic status.<sup>14</sup> Many of these women who become young mothers are at a high risk of poverty and dependency. At the time of the 2000 Census, there were 4,427 women between 16 and 24 in the city of Boston who were mothers. (Table 10). They accounted for slightly more than 8% of all female residents in this age group. Of these young mothers, high school dropouts accounted for 23%. High school dropouts were more likely to have borne a child than any of the other four educational subgroups that were analyzed. Three out of every ten female high school dropouts had a child. Approximately 64% of the young high school dropouts that were mothers were never married. This ratio was the same as that for all other young mothers in the city.

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<sup>14</sup> For a more detailed discussion of the factors influencing non-marital childbearing among teens in the U.S., See: Neeta Fogg, "An Economic Analysis of the Determinants and the Long-term Labor Market Consequences of Teenage Childbearing in the United States, 1979-1991," Unpublished Dissertation, Department of Economics, Northeastern University, 1997.

Table 10:  
Shares of 16-24 Year Old Women Who Were Mothers in the City of Boston by  
Educational Attainment, 2000

	(A)	(B)	(C)
Educational Attainment	Female Population, 16-24 Years of Age	Mothers, 16-24 Years of Age	Mothers as a percentage of the female population
High school dropouts	3,326	1,000	30.1
High school or college students	36,169	1,431	4.0
High school graduate, not enrolled in college	4,514	1,122	24.9
Some college, not enrolled in school	2,803	643	22.9
Bachelor's or higher degree, not enrolled in school	6,858	231	3.4
Total	53,670	4,427	8.2

Table 11:  
Share of 16-24 Year Old Mothers That Were Never Married, Boston, 2000

	(A)	(B)	(C)
Educational Attainment	Mothers, 16-24 Years of Age	Mothers (16-24) That Were Never Married	Single mothers as a percentage of all mothers
High school dropouts	1,000	639	63.9
High school or college students	1,431	1,011	70.6
High school graduate, not enrolled in college	1,122	662	59.0
Some college, not enrolled in school	643	407	63.3
Bachelor's or higher degree, not enrolled in school	231	129	55.8
Total	4,427	2,848	64.3

## **The Institutionalization Status of Young High School Dropouts in Massachusetts**

One additional adverse social consequence of being a young high school dropout, especially among males, is a relatively high rate of incarceration in juvenile institutions, jails, and prisons. Nationally, institutionalization rates of young male adults vary considerably by educational attainment. Young men with criminal convictions face severe difficulties in obtaining employment and will earn considerably less than their peers with no criminal records, especially Black males.<sup>15</sup> While the 2000 Census did collect data on the institutionalization status of residents of the city of Boston, many Boston city inmates of jails and prisons were not incarcerated in facilities located within the city's boundaries.<sup>16</sup> The true incarcerated population of the city will, thus, be sharply underestimated by confining our analysis only to those jail and prison inmates living in the city of Boston at the time of the 2000 Census. The inmates of institutions are assigned to the city or town in which the institution is located not to their permanent residence. We, thus, chose to examine the numbers and characteristics of young adult inmates on a statewide basis.

At the time of the 2000 Census, there were approximately 6,400 young adults between the ages of 16-24 who were inmates of institutions across the state. High school dropouts dominated the ranks of these inmates. There were 4,057 young adults without a diploma in Massachusetts who were residing in juvenile homes, jails, prisons, and mental hospitals at the time of the 2000 Census.<sup>17</sup> They accounted for nearly 64% of all young adult inmates in the state. Only 479 persons with one or more years of college were inmates of institutions, representing only slightly more than 7 percent of all 16-24 year olds institutionalized at the time of the 2000 Census.

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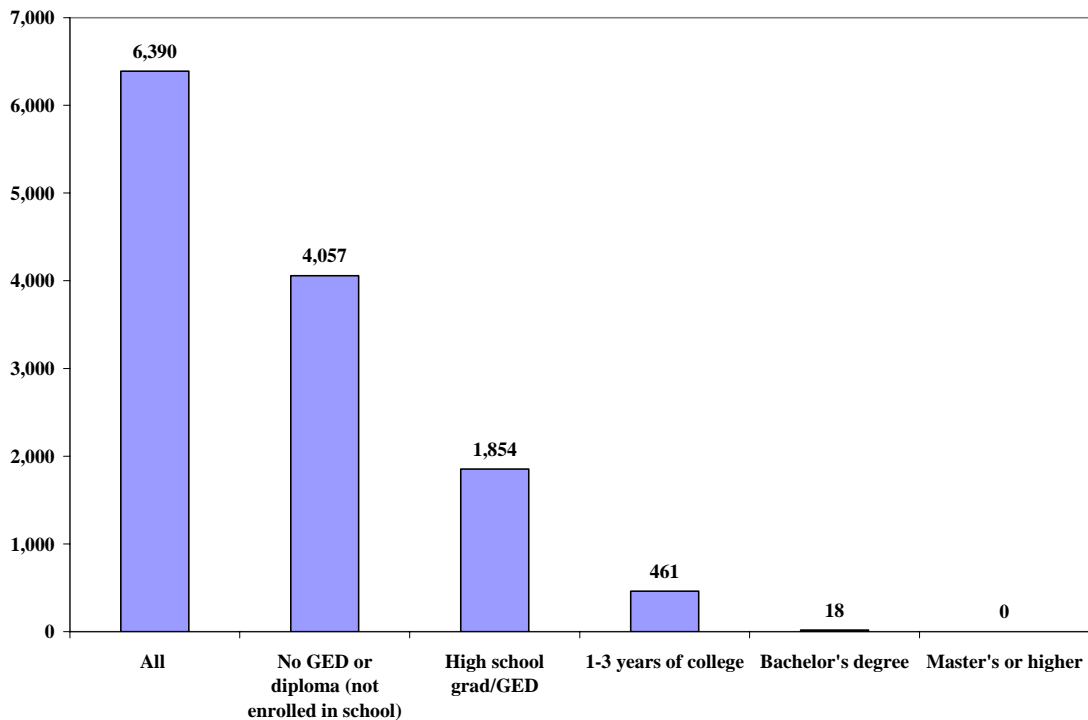
<sup>15</sup> See:

- (i) Richard Freeman, "Why Do So Many Young Americans Commit Crimes and What Might We Do About It?" *The Journal of Economic Perspectives*, Vol. 10, pp. 25-42;
- (ii) Jeffrey Grogger, "The Effect of Arrests on the Employment and Earnings of Young Men," *Quarterly Journal of Economics*, Vol. 110, 1995, pp. 51-72;
- (iii) Harry J. Holzer, Steven Raphael, and Michael A. Stoll, "*How Do Crime and Incarceration Affect the Employment Prospects of Less-Educated Young Black Men?*" Center for the Study of Urban Poverty, University of California at Los Angeles, July 2002.

<sup>16</sup> The institutionalized population for young adults also includes inmates of juvenile detention centers, mental hospitals, and other long stay hospitals.

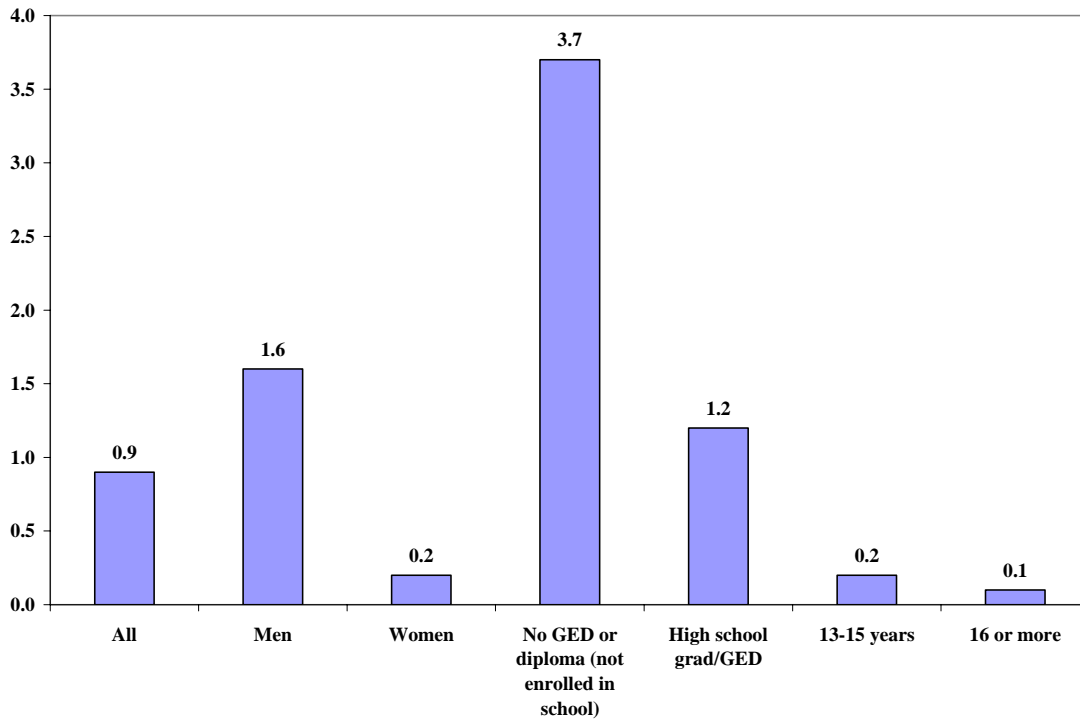
<sup>17</sup> A subset of these 16-24 year olds without a regular high school diploma or a GED were still enrolled in high school. Many DYS inmates receive educational instruction while housed in juvenile facilities.

Chart 9:  
Number of 16-24 Year Olds Institutionalized in Massachusetts by Educational Attainment



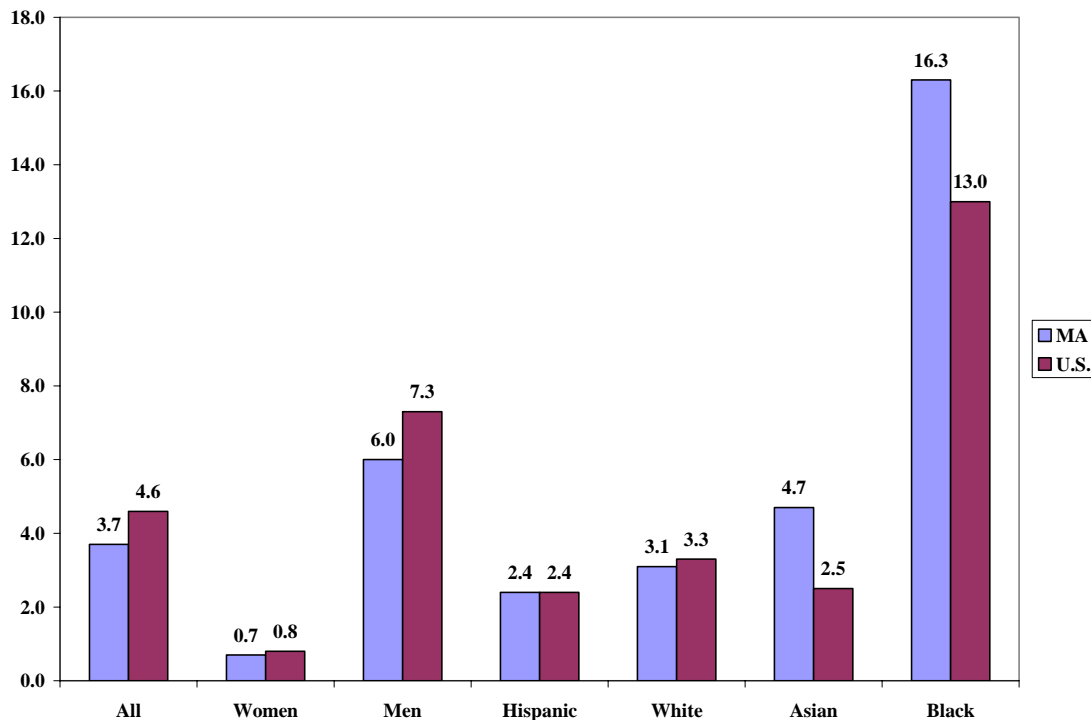
The institutionalization rate for all 16-24 year olds in the state at the time of the 2000 Census was slightly under one percent (Chart 10). Males were institutionalized at a rate eight times higher than that for young adult women (1.6% vs. .2%). The institutionalization rates of young adults varied quite widely by their educational attainment. Nearly 4 percent of high school dropouts were institutionalized versus only 1.2% of high school graduates with no completed years of post-secondary schooling and less than .1% of young adults with a Bachelor's or higher degree. In the aggregate, young high school dropouts were three times more likely than high school graduates to be institutionalized and 18 times more likely than their peers with one to three years of post-secondary schooling.

Chart 10:  
Institutionalization Rates of 16-24 Year Olds in Massachusetts by Gender and  
Educational Attainment, 2000 (in %)



The institutionalization rates of all 16-24 year old dropouts in Massachusetts were modestly lower than that of their peers across the country in 2000 (3.7% vs. 4.6%) (Chart 11). Within the state, however, the institutionalization rates of young dropouts varied quite widely across gender and race-ethnic groups. Male dropouts in Massachusetts were eight times more likely to be institutionalized than their female counterparts (6.0% vs. .7%). Across race-ethnic groups, the institutionalization rates of dropouts ranged from lows of 2.4% among Hispanics and 3.1% among White, non-Hispanic to a high of 16% among young Black dropouts. Both Asian and Black dropouts in Massachusetts were more likely to be institutionalized than their peers across the country.

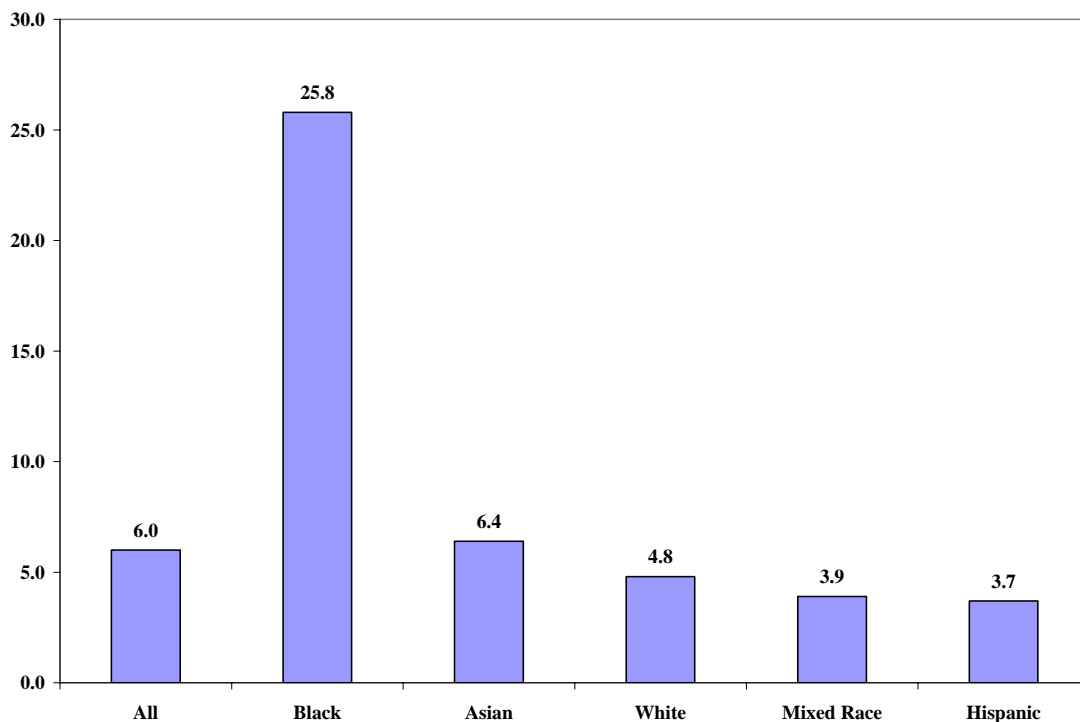
Chart 11:  
Percent of 16-24 Year Old High School Dropouts Who Were Institutionalized at the  
Time of the 2000 Census, Total and by Race-Ethnic Group, MA versus U.S.



Among the state’s male dropouts, six percent were residing in institutions at the time of the 2000 Census (Chart 12). The institutionalization rate of these male dropouts also varied substantially across race-ethnic group from a low of slightly under 4 percent among Hispanics and those of “mixed race” to a high of 26% among young Black, male dropouts (Chart 12). Recent national research on employer hiring practices has revealed that a large number of firms express an unwillingness to hire ex-offenders and that those firms who express such a desire and do not check backgrounds of job applicants for criminal records are considerably less likely to hire Black males for job openings. Black males who are not ex-offenders are adversely affected by those hiring practices since they experience a form of statistical discrimination. The very low rate of employment among young Black male dropouts in the city of Boston at the time of the 2000 Census likely reflects the intense employment problems of young ex-offenders and the reluctance of firms to hire from a pool of male workers who disproportionately contain youth with

criminal records. Targetted job development and placement programs for young Black male dropouts, especially those with a criminal record, will likely be needed to boost their future employability and earnings in the city of Boston.

Chart 12:  
Percent of 16-24 Year Old Male High School Dropouts in Massachusetts Who Were Institutionalized at the Time of the 2000 Census, Total and by Race-Ethnic Group



### **Summary of Key Findings**

At the time of the 2000 Census, there were nearly 8,000 high school dropouts between 16 and 24 years of age residing in Boston. Young male high school dropouts outnumbered young female high school dropouts by a ratio of 139 per 100. Young Black and Hispanic high school dropouts accounted for 70 percent of all of the high school dropouts (16-24 years old) residing in the city of Boston in 2000.

Boston's high school dropouts faced substantial difficulties in securing employment in 2000. The employment to population ratio of 16-24 year old high school dropouts in the city of Boston was 42% in 2000 versus 65% for high school graduates 16

to 24 years old. The employment to population ratio was the highest among Whites (57%), and the lowest among Asians (15%) and Blacks (25%). High school dropouts (16-24 years of age) were nearly two times more likely to be jobless all year than their non-enrolled peers with a high school diploma or GED. Young high school dropouts that did find employment earned substantially less than their peers with higher levels of educational attainment. Many high school dropouts in Boston were categorized as poor/near poor in 2000. Female high school dropouts were more likely to be poor than males, a finding that was largely due to the high rates of poverty among young single mothers. Another adverse social consequence of being a high school dropout, especially among males, is the high rate of incarceration in juvenile facilities, jails, and prisons. Young high school dropouts were three times more likely than high school graduates to be institutionalized, and Black male dropouts experienced an extraordinarily high rate of incarceration (26%). The evidence is quite clear about the high economic and social costs of being a young high school dropout. The magnitude of the costs borne by the individual and society grows even higher over the course of a high school dropout's lifetime. Further findings on this issue will be addressed more fully in a future paper in this series.

Appendix Table A1:  
Employment-Population Ratios of 16-19 Year Olds in the 50 Largest  
Cities in the U.S., 2000

<u>All 16-19 Year Olds</u>			<u>16-19 Year Olds Enrolled in School</u>		
Rank	City	E-P Ratio	Rank	City	E-P Ratio
1	Omaha, Nebraska	55.1	1	Omaha, Nebraska	53.1
2	Mesa, Arizona	52.1	2	Mesa, Arizona	46.6
3	Wichita, Kansas	48.5	3	Wichita, Kansas	46.5
4	Colorado Springs, Colorado	48.3	4	Colorado Springs, Colorado	44.0
5	Indianapolis (balance), Indiana	46.2	5	Tulsa, Oklahoma	43.6
6	Tulsa, Oklahoma	45.9	6	Columbus, Ohio	43.1
7	Columbus, Ohio	45.9	7	Indianapolis (balance), Indiana	43.0
8	Minneapolis, Minnesota	44.9	8	Minneapolis, Minnesota	42.1
9	Phoenix, Arizona	44.3	9	Seattle, Washington	41.4
10	Portland, Oregon	43.9	10	Phoenix, Arizona	41.2
11	Albuquerque, New Mexico	43.9	11	Albuquerque, New Mexico	40.6
12	Seattle, Washington	43.9	12	Virginia Beach, Virginia	40.3
13	Kansas City, Missouri	42.5	13	Milwaukee, Wisconsin	40.3
14	Virginia Beach, Virginia	42.1	14	Kansas City, Missouri	40.1
15	Fort Worth, Texas	42.0	15	Portland, Oregon	39.5
16	Milwaukee, Wisconsin	41.8	16	Jacksonville, Florida	38.9
17	Nashville-Davidson, Tennessee	41.8	17	Oklahoma City, Oklahoma	38.1
18	Jacksonville, Florida	41.7	18	Tucson, Arizona	37.3
19	Oklahoma City, Oklahoma	41.4	19	Fort Worth, Texas	37.0
20	Denver, Colorado	40.9	20	Nashville-Davidson, Tennessee	36.4
21	Charlotte, North Carolina	40.8	<b>21</b>	<b>Boston, Massachusetts</b>	<b>36.1</b>
22	Austin, Texas	40.7	22	Charlotte, North Carolina	35.5
23	Tucson, Arizona	40.1	23	Austin, Texas	34.6
24	Las Vegas, Nevada	39.0	24	Las Vegas, Nevada	33.8
25	San Jose, California	38.1	25	San Jose, California	33.5
<b>26</b>	<b>Boston, Massachusetts</b>	<b>37.1</b>	26	Denver, Colorado	32.9
27	Dallas, Texas	36.3	27	San Antonio, Texas	32.8
28	San Antonio, Texas	36.1	28	San Francisco, California	32.7
29	San Francisco, California	35.9	29	St. Louis, Missouri	30.9
30	Sacramento, California	34.3	30	Sacramento, California	30.6
31	Memphis, Tennessee	33.5	31	Cleveland, Ohio	29.8
32	St. Louis, Missouri	33.0	32	Baltimore, Maryland	29.7
33	Cleveland, Ohio	33.0	33	San Diego, California	29.5
34	Honolulu CDP, Hawaii	32.4	34	Memphis, Tennessee	29.0
35	Houston, Texas	32.2	35	Honolulu CDP, Hawaii	28.6
36	San Diego, California	31.1	36	Dallas, Texas	27.6
37	Baltimore, Maryland	30.5	37	Long Beach, California	27.0
38	Chicago, Illinois	30.4	38	Chicago, Illinois	26.6
39	Long Beach, California	29.7	39	Houston, Texas	26.5
40	Detroit, Michigan	29.2	40	Philadelphia, Pennsylvania	26.1
41	Oakland, California	28.9	41	Detroit, Michigan	25.5
42	Philadelphia, Pennsylvania	28.5	42	Fresno, California	24.6
43	Los Angeles, California	28.1	43	Oakland, California	24.5

44	Fresno, California	27.8	44	El Paso, Texas	24.2
45	El Paso, Texas	27.3	45	New Orleans, Louisiana	23.4
46	New Orleans, Louisiana	24.7	46	Los Angeles, California	23.3
47	Miami, Florida	24.7	47	Miami, Florida	22.4
48	Atlanta, Georgia	22.5	48	Washington, District of Columbia	19.4
49	Washington, District of Columbia	22.3	49	Atlanta, Georgia	18.0
50	New York, New York	20.2	50	New York, New York	16.8

Appendix Table A2:  
Employment-Population Ratios of 16-19 Year Olds in the 50 Largest  
Cities in the U.S., 2000

<u>All 16-19 Year Old High School Graduates,</u>			<u>16-19 Year Old High School Dropouts</u>		
<u>Not Enrolled in College</u>					
Rank	City	E-P Ratio	Rank	City	E-P Ratio
1	Mesa, Arizona	78.5	1	Austin, Texas	55.5
2	Omaha, Nebraska	72.9	2	Colorado Springs, Colorado	54.8
3	Nashville-Davidson, Tennessee	70.5	3	Mesa, Arizona	54.3
4	Charlotte, North Carolina	69.5	4	Omaha, Nebraska	53.1
5	Indianapolis (balance), Indiana	68.1	5	Charlotte, North Carolina	52.7
6	Denver, Colorado	67.8	6	San Jose, California	51.3
7	Minneapolis, Minnesota	67.7	7	Nashville-Davidson, Tennessee	50.7
8	Albuquerque, New Mexico	67.6	8	Dallas, Texas	50.0
9	Columbus, Ohio	67.5	9	Portland, Oregon	49.7
10	Wichita, Kansas	67.2	10	Seattle, Washington	49.0
11	Portland, Oregon	66.9	11	Fort Worth, Texas	48.5
12	Colorado Springs, Colorado	64.9	12	Denver, Colorado	47.1
13	Austin, Texas	64.5	13	Minneapolis, Minnesota	46.5
14	San Jose, California	64.5	14	Jacksonville, Florida	46.0
15	Tulsa, Oklahoma	64.2	15	Virginia Beach, Virginia	45.6
16	Phoenix, Arizona	63.3	16	San Francisco, California	45.1
17	Seattle, Washington	63.0	17	Oklahoma City, Oklahoma	44.8
18	Fort Worth, Texas	60.4	18	Phoenix, Arizona	44.3
19	Memphis, Tennessee	60.0	19	Tulsa, Oklahoma	43.9
20	Tucson, Arizona	59.5	20	Columbus, Ohio	43.9
21	San Francisco, California	59.1	21	Las Vegas, Nevada	43.9
22	Oklahoma City, Oklahoma	58.3	22	Indianapolis (balance), Indiana	43.4
23	Milwaukee, Wisconsin	58.1	23	Wichita, Kansas	42.6
24	Sacramento, California	57.3	24	Houston, Texas	42.5
<b>25</b>	<b>Boston, Massachusetts</b>	<b>57.1</b>	25	Kansas City, Missouri	41.9
26	Kansas City, Missouri	56.8	26	San Diego, California	41.4
27	San Antonio, Texas	56.3	27	Albuquerque, New Mexico	41.1
28	Las Vegas, Nevada	56.1	28	Los Angeles, California	41.1
29	Dallas, Texas	55.9	29	Honolulu CDP, Hawaii	40.6
30	Jacksonville, Florida	55.2	30	Tucson, Arizona	40.3
31	Houston, Texas	55.0	31	San Antonio, Texas	38.7
32	St. Louis, Missouri	54.4	32	Milwaukee, Wisconsin	38.6
33	Honolulu CDP, Hawaii	54.2	33	Memphis, Tennessee	38.3
34	Oakland, California	53.9	34	Sacramento, California	36.5

35	Fresno, California	53.2	35	Oakland, California	35.7
36	Los Angeles, California	52.6	36	Chicago, Illinois	34.5
37	Cleveland, Ohio	52.6	37	Cleveland, Ohio	33.8
38	El Paso, Texas	52.2	38	Long Beach, California	33.5
39	Philadelphia, Pennsylvania	50.3	39	Washington, District of Columbia	33.4
40	Chicago, Illinois	49.3	40	Atlanta, Georgia	31.9
41	Virginia Beach, Virginia	49.1	41	Detroit, Michigan	31.7
42	Atlanta, Georgia	47.9	42	Fresno, California	31.3
43	Detroit, Michigan	47.4	43	El Paso, Texas	30.7
44	Long Beach, California	45.6	<b>44</b>	<b>Boston, Massachusetts</b>	<b>30.1</b>
45	Baltimore, Maryland	43.7	45	New York, New York	29.7
46	Miami, Florida	41.6	46	St. Louis, Missouri	28.8
47	New York, New York	40.8	47	Miami, Florida	27.4
48	New Orleans, Louisiana	39.3	48	Philadelphia, Pennsylvania	25.8
49	Washington, District of Columbia	37.6	49	Baltimore, Maryland	24.2
50	San Diego, California	35.6	50	New Orleans, Louisiana	21.7