

**The Labor Market Experiences and
Fortunes of Connecticut Working Age Adults
16-64 by Educational Attainment:
Dire Straits for High School Dropouts**

Prepared by:

Andrew Sum

Ishwar Khatiwada

Joseph McLaughlin

With

Sheila Palma

Center for Labor Market Studies

Northeastern University

Boston, Massachusetts

Prepared for:

Bob Rath

Our Piece of the Pie

Hartford, Connecticut

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Introduction

The labor market fortunes of the nation's teens and young adults (20-29 year olds) have been quite troublesome over the past decade, especially over the past few years as the nation entered into its worst economic recession since the end of World War II. Rising joblessness, underemployment, and mal-employment problems and declining earnings have plagued many groups of teens and young adults over the past decade.¹ No group of young workers (and older adults) has been more adversely affected by these developments than high school dropouts. Nationally young adults lacking high school diplomas, especially native born adults, have been increasingly shut out of the labor market, and they have experienced rising joblessness and declining wages and earnings. The labor market difficulties of high school dropouts have not been confined to young adult workers over 30, especially males, also have been beset by declining employment, real wages, and annual earnings in recent decades and especially in the Great Recession.

Their labor market difficulties have made it increasingly difficult for them to transition to adulthood, to form independent households, to marry, and to raise their children in a stable, non-poverty environment.² Young male dropouts also are incarcerated at rates well above those of their better educated peers, and male and female dropouts are becoming unmarried fathers and mothers at very high rates. Their limited earnings are increasing the likelihood of the being poor/near poor or members of low income families and reducing their ability make any positive net fiscal contributions to the federal and state governments.

This research monograph is devoted to a detailed analysis of the labor market experiences of high school dropouts and their better educated peers in Connecticut and selected substate areas

¹ Mal-employment refers to the employment of workers in jobs that do not utilize their skills or education resulting in sharply lower earnings and a declining return to their investment in schooling.

See: (i) Frederick Harbison, Human Resources as the Wealth of Nations, Oxford University Press, New York, 1973; (ii) Andrew Sum, Ishwar Khatiwada, Labor Market, Educational and Social Indicators for Massachusetts Youth, Report Prepared for the Commonwealth Corporation, Boston, 2009.

² For a review of the economic, social, and fiscal consequences of dropping out of high school in the U.S. and the state of Michigan,

See: (i) Andrew Sum, Ishwar Khatiwada, and Joseph McLaughlin, The Consequences of Dropping Out of High School, Center for Labor Market Studies, Northeastern University, Boston, 2009; (ii) Andrew Sum, Ishwar Khatiwada, Joseph McLaughlin, et al., The Labor Market, Income, Social, Civic, Health and Fiscal Consequences of Dropping Out of High School: Findings for Michigan Adults in the 21st Century, Report Prepared for the Charles S. Mott Foundation, Flint, Michigan, 2008.

across the state in recent years.³ Our initial analysis will be heavily focused on teens, young adults (16-24), and 25-34 year olds, but we also will examine the lifetime earnings and income experiences of all adults in the state through age 64. The analysis will cover a wide array of labor market topics, including the labor force participation behavior of dropouts and more highly educated groups, their unemployment rates, their employment rates, their ability to obtain employment at any time during the year, their annual weeks and hours of employment, and their mean hourly and annual earnings. Findings for high school dropouts in Connecticut will be compared to those of high school graduates, those completing 1-3 years of college including Associate degree holders, Bachelor degree holders, and those with a Master's or higher academic degree.⁴ We will track changes in their labor market well being as they transition into older age groups (25-34), and estimate trends in their mean lifetime earnings and income status over the past few decades.

Following papers in this research project will identify and assess key social, health, civic, incarceration, and fiscal behaviors and outcomes for high school dropouts and other educational attainment groups in Connecticut and the U.S. These other outcomes will cover a wide array of topics, including marriage rates, out-of-wedlock births, single parent family formation, health status, disability status, health insurance coverage, voting and volunteering behavior, incarceration rates, and net annual fiscal contributions to federal, state, and local governments. The personal and social consequences of dropping out of high school in Connecticut have grown in size over the past few decades, especially among men, and impose huge costs on the dropouts themselves, their families, their communities, and the nation. This constitutes serious educational and economic crisis.

An Overview of the Report's Findings

Our report will begin with a brief overview of the key data sources and labor force, employment, unemployment, work experience, and earnings concepts and measures underlying all of the empirical findings on the labor market experiences of Connecticut youth and adults appearing in this paper. A variety of national and state data bases were used in conducting this analysis. The discussions of data bases and labor force/employment measures will be followed

³ A high school dropout in this research report refers to an individual who left high school without obtaining a regular high school diploma and does not hold a GED or its equivalent.

⁴ These higher degrees include both Ph.D.'s and professional degrees (medicine, law).

by an overview of employment developments by age group in Connecticut and the U.S. over the 2000-2009 period. The labor market fate of key educational attainment groups ages 16-20 and 16-29 in Connecticut will then be presented, with a specific identification of the severe drops in employment among young high school dropouts.

To obtain a more detailed and disaggregated analysis of the labor market experiences of teenaged and young adult dropouts and their better educated peers across the state, we then present our analysis of key findings from the 2005-2007 American Community Surveys in Connecticut together with comparisons of findings with the entire nation. The analysis covers a wide array of labor force and employment measures including their labor force participation, unemployment, and employment behavior at the time of the surveys and their work experiences in the prior 52 week period; e.g., any paid work experiences, weeks of employment, and annual hours of paid employment. Estimates of their mean hourly wages and annual earnings are also presented. These estimates are provided for all 16-24 year olds, those young adults in five educational attainment groups including high school dropouts, and at times for gender and race-ethnic groups. Findings will be presented for the state as a whole and at times for young adults in selected cities and their surrounding towns, and comparisons will be made with those for the entire nation.

Key segments of the analysis will be repeated for the state's 25-34 year olds to identify how the labor market fate of young dropouts changes as they age. This analysis will include their employment and unemployment rates over the 2005-2007 period, mean weeks and hours of employment during a year, and their annual earnings from employment. The final section will focus on the expected lifetime earnings of male and female adults in selected educational attainment groups in Connecticut at the end of the 1970s decade and in more recent years 2005-2007. Time trends in the expected lifetime earnings of men and women over these two time periods will be described and assessed. Trends in expected years with poverty/near poverty incomes and low incomes over the 18-64 age range over the same 1979-2006/07 period also will be presented for men and women in each educational group.⁵ Both male and female high school

⁵ The near poor are those living in families with an income between 100 and 125% of the federal government's poverty lines while low income refers to those with annual, pre-tax money incomes below 200% of the poverty line. For a review of alternative criteria for defining income inadequacy, See: Garth Mangum, Stephen Mangum, and Andrew Sum, The Persistence of Poverty in the United States, Johns Hopkins University Press, Baltimore, 2003.

dropouts and high school graduates with no post-secondary schooling will be found to have become more exposed to poverty and other low income programs across the state in recent decades.

Key Data Sources and Labor Force Activity Concepts and Measures Underlying Our Labor Market Analysis

The empirical findings on the labor market experiences of high school dropouts and their counterparts in other educational groups are based on a number of different data bases. The three most important data sources were the national Current Population Surveys, the 2005-2007 American Community Surveys, and the decennial Censuses of Population and Housing for 1980 and 2000. The monthly Current Population Survey is a national household survey conducted by the U.S. Census Bureau for the U.S. Department of Labor's Bureau of Labor Statistics.⁶ It is the source of the monthly data on the size of the nation's civilian labor force, its employed and unemployed working-age population (16 and older), and the national unemployment rate.⁷ We have used the public use files for the CPS for 2000, 2008, and 2009 to track changes in the employment rates of Connecticut adults by major age group and by educational attainment for workers under 30. A second key source of data is the American Community Surveys (ACS) for 2005-2007. The ACS surveys are a large scale national household survey conducted by the U.S. Census Bureau in every state across the country. Over the past three years, more than 20,000 Connecticut households per year were interviewed as part of the ACS, and since 2006 residents of group quarters (including college dormitories, nursing homes, jails, and prisons) also have been interviewed. The ACS collects data on the labor force activities of all working-age respondents (16 and older) at the time of the survey and their employment and earnings experiences in the prior 52 week period, including weeks of employment, average hours of work per week, and annual earnings. Public use files from the 1980 Census of Population and Housing were used to help generate estimates of the lifetime earnings and income experiences of men and women by educational attainment in Connecticut.

A wide array of labor force activity measures appear in this report. To understand how these measures were derived, we present key definitions of the underlying labor force concepts

⁶ For details on the design features and key labor force concepts and measures from the CPS survey, See: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, January 2007, Washington, D.C., 2007.

⁷ See: U.S. Bureau of Labor Statistics, The Employment Situation: September 2009, Washington, D.C., BLS website.

and measures.⁸ In the monthly Current Population Survey, each working-age respondent is classified into one of the following three, mutually exclusive labor force categories:

Employed (E) A person is classified as employed if he or she meets one of the following three criteria: (i) worked for pay or profit for one or more hours in the reference week;⁹ (ii) had a job from which they were temporarily absent due to vacation, a temporary illness, weather conditions, etc.; (iii) worked without pay for a family business for 15 or more hours.

Unemployed (U) A persons is classified as unemployed if they did not work in the prior week, actively looked for work in the prior four weeks and was available to take a job if offered.¹⁰

Not in the labor force (OLF). A person is classified as not in the labor force if they could not meet the criteria for being employed or unemployed. These persons include retired individuals, persons with disabilities not actively looking for work, adults with home responsibilities, students not interested in looking for work, those who want a job but are discouraged from looking due to poor job prospects, and those not interested in work.

The estimated numbers of employed (E), unemployed (U) and out of labor force participants (OLF) are used to calculate three key labor force activity measures:

The civilian labor force participation rate, which is measured by the ratio of the sum of the employed and unemployed by the total number of persons in the civilian, non-institutional population.¹¹

The unemployment rate, which is measured by the ratio of the unemployed to the total number of persons in the civilian labor force, $E + U$.

The employment/population ratio (E/P) which measures the percent of the working-age civilian, non-institutional population that is employed. The value of the E/P ratio is determined

⁸ These definitions are from the CPS survey but they are nearly the same in the ACS survey. The latter survey (ACS) uses a slightly less rigorous definition of unemployment since it does not require the jobseeker to report active job search.

⁹ The reference week is the calendar week immediately prior to the survey which takes place during the calendar week containing the 19th day of the month.

¹⁰ The BLS distinguishes active from passive job search. Passive job search includes reading the want ads or reviewing job openings on the Internet without applying actively for such jobs. Passive job search does not qualify an individual for being unemployed.

¹¹ The civilian non-institutional population excludes members of the nation's armed forces and those living in institutions such as nursing homes, juvenile homes, long stay hospitals, jails and prisons.

by the value of the civilian labor force participation rate (L/P) and the unemployment rate (U/L). The higher the labor force participation rate and the lower the unemployment rate, the higher is the E/P ratio.¹² We place great value on the E/P ratio as a measure of the labor market well being of teens and young adults (20-24) rather than the unemployment rate. If labor market conditions for teens and young adults are depressed, more of them will withdraw from the labor force, lowering the official unemployment rate but simultaneously lowering the employment rate. Their problem will thus be hidden by the official unemployment rate.

The American Community Surveys also capture information on the work experiences and earnings of all working-age individuals (16 and older) during the 52 week period prior to the survey.¹³ They collect information on weeks worked, average weekly hours of work and annual earnings from all wage and salary jobs and from self-employment. By combining data on weeks worked and average (mean) weekly hours of work, we can calculate annual hours of work. By dividing annual earnings by annual hours of work, we can estimate average hourly earnings. Each of the above critical labor market outcomes will be analyzed in this research report with the ACS data from 2005-2007. While the CPS survey collects similar data in March of each year, the resulting sample sizes are too small to support the desired analyses (the yearly ACS sample is more than 25 times as large as the March CPS household sample in Connecticut).

Trends in the Labor Market Fortunes of Teens and Young Adults and Young High School Dropouts in Connecticut, 2000 – 2009

Nationally, the labor market for both teens (16-19) and young adults (20-24) has been extremely depressed since the end of the national labor market boom in early 2001.¹⁴ Teens experienced steep drops in their employment rates during the national recession of 2001 and the largely jobless economic recovery of 2002-03, failed to capture any share of the job gains from

¹² Algebraically, $E/P = L/P * E/L$ where L/P is the value of the civilian labor force participation rate and E/L is equal to $(1 - U/L)$ where U/L is equal to the unemployment rate.

¹³ The ACS surveys are conducted throughout the calendar year. The timing of the prior 52 week period will, thus, differ across individuals depending on the date that they completed the ACS questionnaire.

¹⁴ For earlier findings on the severe labor market difficulties of teens and young adults across the nation in recent years,

See: (i) Catherine Rampel, "Teenage Jobless Rate Reaches Record High," The New York Times, September 5, 2009, p. A-1; (ii) Andrew Sum, Ishwar Khatiwada, and Sheila Palma, The Depression in the Nation's Teen Job Market: Who Worked and Who Didn't Work in the Summer 2009, Center for Labor Market Studies, Northeastern University, Boston, September 2009; (iii) Andrew Sum, Joseph McLaughlin and Sheila Palma, The Current Depression in Teen and Young Adult Labor Markets in the U.S.: The Case for New Youth Job Creation Programs, Center for Labor Market Studies, Northeastern University, Boston, August 2009.

2003 to mid 2007 and were ravaged by the forces of the economic recession that began in December 2007. Between 2000 and the first eight months of 2009 (January-August), the national teen E/P ratio fell by a massive 15.2 percentage points. This decline in their E/P ratio was more than three times as high as that for all working-age persons (-4.8 percentage points over the same time period (Table 1). Fewer teens and young male adults (20-29) were working in 2009 than at any other time since the end of World War II. Young adults (20-24 and 25-29) also experienced very large declines in their E/P ratios over this time period across the country. The percentage point size of the drops in E/P ratios declined with age. Among the nation's workers 55 and older, a higher share of adults were at work in 2009 than in 2000 (42% vs. 37%). These changes in the age patterns of employment in the U.S. can be summed up by “out with the young, in with the old”.

Table 1:
Employment/Population Ratios of Connecticut and U.S. Adults by
Major Age Group, 2000-2009⁽¹⁾ (in %)

	(A)	(B)	(C)
	2000	January – August 2009 (not Seasonally Adjusted)	Percentage Point Change 2000 – 2009
Connecticut			
All 16+	66.8	63.6	-3.2
16 – 19	48.5	36.0	-12.5
20 – 24* ⁽¹⁾ (not enrolled)	81.0	75.5	-5.5
25 – 29	82.9	78.0	-4.9
30 – 34	83.3	79.6	-3.7
35 – 44	84.0	80.8	-3.2
45 – 54	85.6	80.1	-5.5
55+	37.4	42.2	+4.8
U.S.			
All 16+	64.5	59.7	-4.8
16 – 19	45.5	30.3	-15.2
20 – 24 (not enrolled)	77.8	68.7	-9.1
25 – 29	81.2	73.3	-7.7
30 – 34	81.8	76.1	-5.7
35 – 44	82.2	77.3	-4.9
45 – 54	80.5	75.7	-4.8
55+	31.9	37.4	+5.6

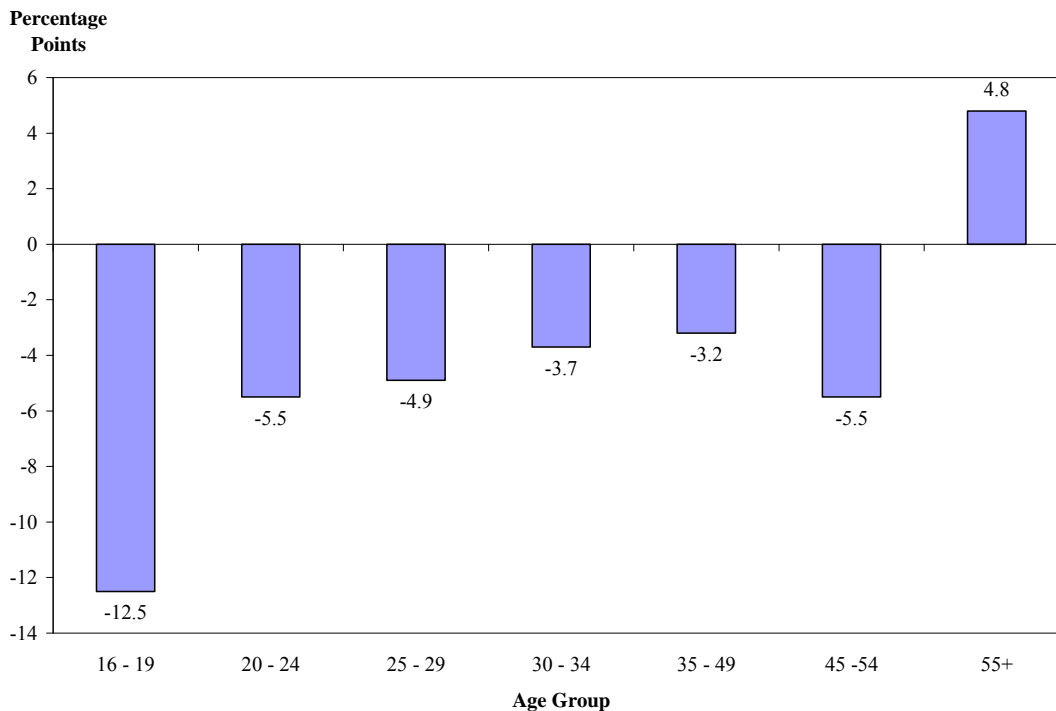
Note⁽¹⁾: College students in Connecticut and the U.S. are excluded from the calculations. The E/P ratio for 20-24 year old college students in Connecticut was basically unchanged over this 9 year period.

Source: U.S. Current Population Survey, CPS public use files, tabulations by authors.

Within Connecticut between 2000-2009, very similar age patterns in employment rates prevailed (Table 1).¹⁵ Overall, the E/P ratio in Connecticut fell by a slightly lower amount than it did in the U.S. over this nine year period. As in the U.S., teens experienced the largest decline in their E/P ratio, falling by 12.5 percentage points by 2009 (Table 1 and Chart 1). Both groups of young adults (20-24) and (25-29) also incurred steep declines in their E/P ratios (5 to 6 percentage points) while older adults (55+) in Connecticut were the only major age group to be more likely to be employed in 2009 than they were in 2000.

¹⁵ There are no seasonal adjustment factors for employment rates by age group in Connecticut. There are such adjustment factors for the U.S. All of the state and national data for 2009 are not seasonally adjusted.

Chart 1:
Changes in the Employment/Population Ratios of Working-Age Adults in the
State of Connecticut by Major Age Group, 2000-2009 (in Percentage Points)



Teen and young adult employment tends to be highly path dependent.¹⁶ The more a teen works this year, the more likely he or she is to work in following years. Early work experience also helps build the soft skills highly desired by many employers (attendance, dress, ability to work with others, good customer relations). Cumulative work experience in the teen and young adult years also raises the wages and earnings of young adults in their early to mid 20s and increases their access to formal training and apprenticeship training opportunities.

To identify changes in the employment rates of key educational groups of 16-20 year olds in Connecticut over the 2000-2009 period, we assigned them into the following four groups: high school students, college students, high school dropouts and non-enrolled high school graduates (Table 2). Three of these four educational groups saw their employment rates decline by double digits between 2000 and 2009, with high school dropouts faring the worst by far. Their E/P ratio declined from slightly under 58% in 2000 to 34% during the first eight months of 2009 (Table 2).

¹⁶ See: Andrew Sum, Ishwar Khatiwada, and Robert Taggart, The High Rates of Path Dependency in Teen Employment: Implications for Youth Workforce Development Policy, Paper Prepared for U.S. Conference of Mayors, Washington, D.C., 2007.

Connecticut’s high school students also were characterized by a steep drop in their employment rate falling from just under 40% in 2000 to 24% in 2009. Young, non-college enrolled high school graduates in Connecticut were twice as likely to be employed in 2009 as were high school dropouts.

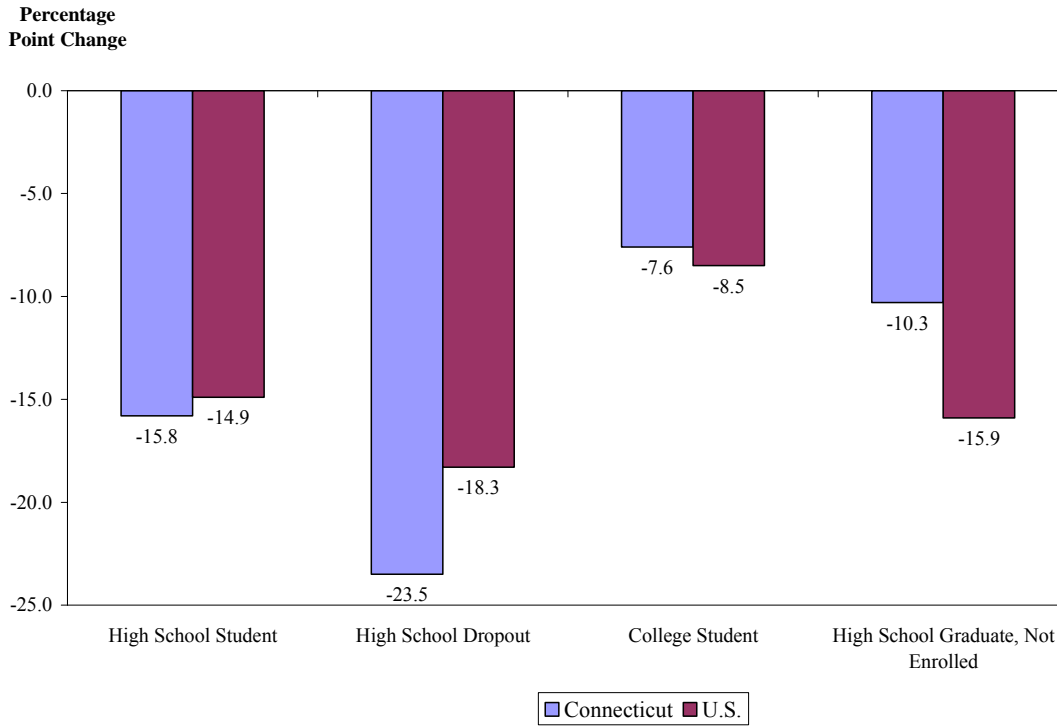
Table 2:
Trends in the Employment/Population Ratios of 16-20 Year Olds in
Connecticut by Educational Attainment/School Enrollment Status, 2000 – 2009

Educational Group	(A)	(B)	(C)	(D)
	2000	2008	2009 January – August	Percentage Point Change, 2000 – 2009
High school student	39.7	28.2	23.9	-15.8
High school dropout	57.6	43.9	34.2	-23.5
College student	53.0	46.3	45.4	-7.6
Non-enrolled high school graduate	79.6	70.0	69.3	-10.3
All	50.8	41.4	39.8	-11.0

Source: Current Population Surveys, monthly public use files, 2000, 2008, January-August 2009.

Similar patterns of employment rates by educational attainment among 16-20 year olds prevailed in the nation as a whole over the past 9 years. Nationally, high school dropouts also fared the worst in the nation (Chart 2), experiencing an 18 percentage point decline in their E/P ratio, but they fared somewhat better than their Connecticut counterparts whose E/P ratio dropped by close to 24 percentage points. Nationally, young high school graduates not enrolled in college also faced a steep drop in their E/P ratio, falling by close to 16 percentage points, making their transition to the labor market upon graduation a more difficult one.

Chart 2 :
Comparisons of the Declines in the E/P Ratios of 16-20 Year Olds in
Connecticut and the U.S. by Educational Attainment / School Enrollment Status, 2000=2009



The analysis of time trends in the E/P ratios of out-of-school youth in Connecticut and the U.S. over the 2000-2009 period was repeated for 16-29 year olds (Table 3). The pattern of changes in the E/P ratios of these young adults in Connecticut was quite mixed. Again, high school dropouts were characterized by the steepest decline (17 percentage points) in their employment rate, followed by high school graduates (-9 percentage points) and those with 1-3 years of college (-7 percentage points). Fewer than one half of young high school dropouts held any type of job in 2009. In substantial contrast, the E/P ratios of young college graduates in Connecticut were higher in 2009 than they were in 2000.

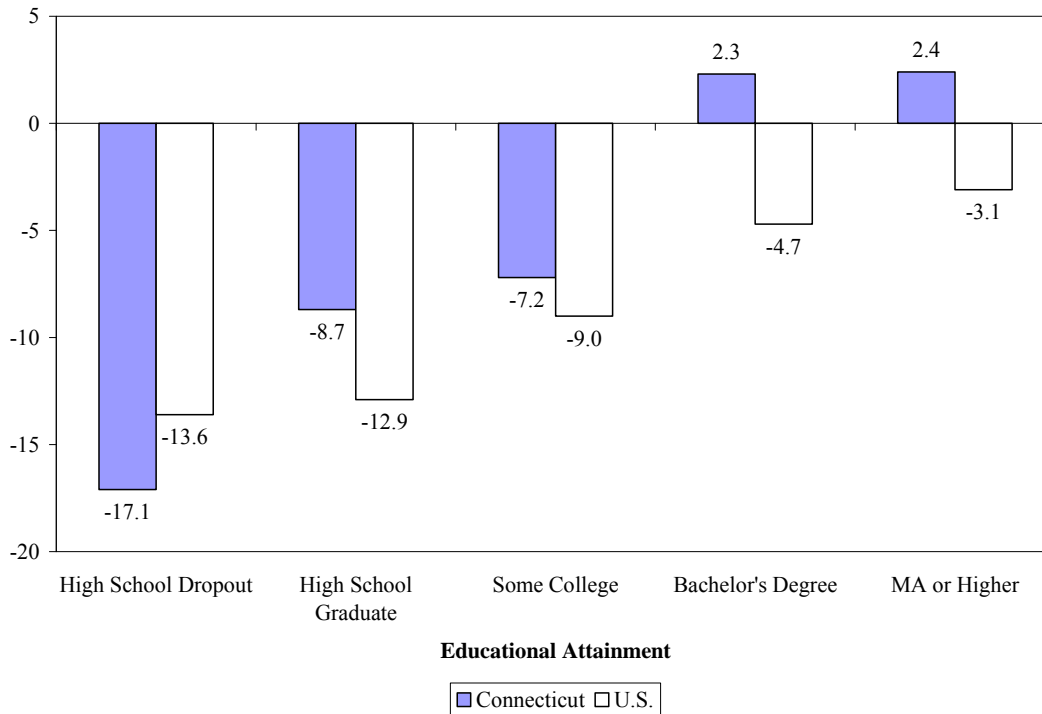
Table 3:
Trends in the Employment/Population Ratios of Out-of-School, 16-29 Year Olds in Connecticut,
by Educational Attainment, Selected Years from 2000 to 2009 (in %)

	(A)	(B)	(C)	(D)
Educational Attainment	2000	2008	2009 January – August	Percentage Point Change, 2000 – 2009
High school dropout	66.5	54.3	48.4	-17.1
High school graduate	76.8	72.0	68.1	-8.7
13-15 years, including Associate degree	87.4	79.3	80.3	-7.1
Bachelor's degree	83.4	88.8	85.6	+2.3
Master's or higher degree	89.7	82.1	92.1	+2.4

Source: 2000, 20080, and January-August 2009, CPS public use files, tabulations by authors.

Patterns of change in the E/P ratios of out-of-school youth in the U.S. were quite similar but not identical to those in Connecticut. The higher the educational attainment of young adults in the U.S., the smaller the decline in their E/P ratios. Both bachelor degree holders and those with a Master's or higher degree also saw their employment rates decline between 2000 and 2009 by three to nearly five percentage points. In recent years, young Bachelor degree holders in the U.S. also have encountered growing mal-employment problems, working in jobs that do not require a college degree and obtaining weekly and annual earnings well below (30-35 percent) those of their employed peers working in college labor market jobs.

Chart 3:
Comparisons of Percentage Point Changes in the E/P Ratios of Out-of-School 16-29 Year Old Youth in the State of Connecticut and the U.S. by Educational Attainment, 2000-2009
 (January – August)



The Labor Force Behavior, Unemployment Problems, and Employment Rates of 16-24 Year Olds in Connecticut, 2005-2007 Averages

To obtain a more detailed and disaggregated analysis of the labor market experiences and problems of young adult dropouts in Connecticut and their better educated peers across the state in recent years, we analyzed the findings of the 2005-2007 American Community Surveys.¹⁷ The large sample sizes from the ACS survey (over 22,000 households per year in the state plus interviews with residents of group quarters) allow us to both identify findings for key demographic groups (gender, race-ethnic group, substate geographic areas) and to estimate their work experiences during an entire year (any work, weeks worked, average hours per week, annual hours of work).

Our estimates of civilian labor force participation rates, unemployment rates, and employment/population ratios of 16-24 year olds in six educational groups, including high

¹⁷ The public use files for the 2008 ACS survey have not yet been released by the U.S. Census Bureau. Data for selected variables for the state are available on the U.S. Census Bureau website.

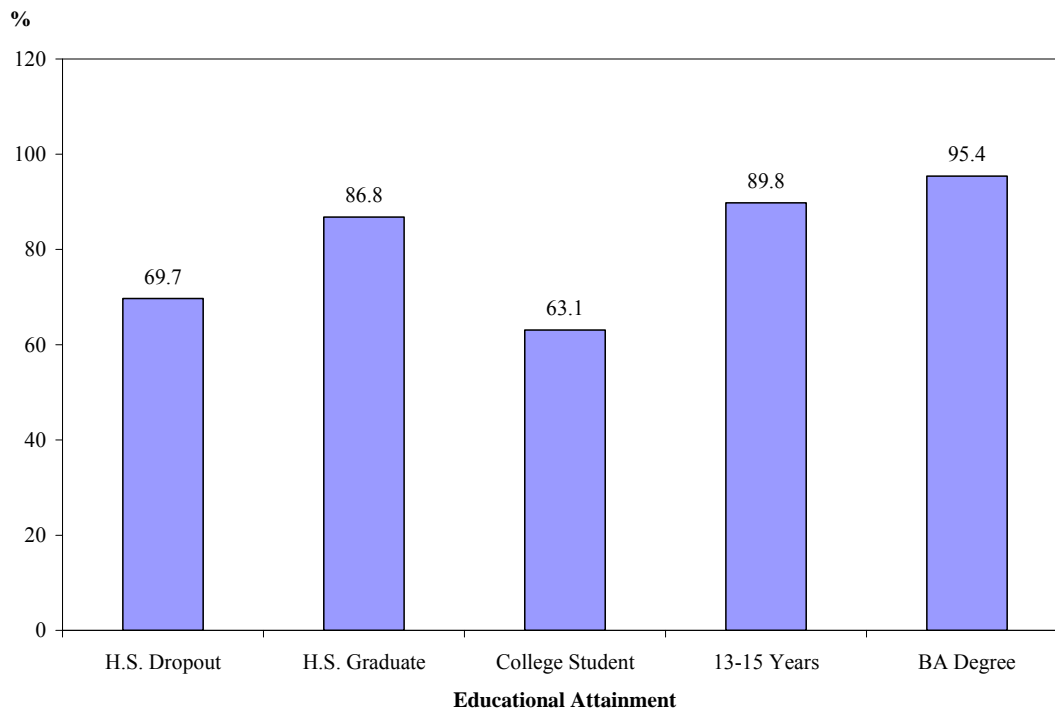
school dropouts, over the 2005-2007 period are displayed in Table 4 and Chart 4. Among the four out-of-school groups, civilian labor force participation rates varied from a low of slightly under 70 percent among high school dropouts to nearly 87 percent for high school graduates/GED holders to over 95 percent for those with a BA or higher degree (Table 4 and Chart 4). The labor force participation rate of young high school dropouts excludes all those in jails, prisons, and juvenile homes. Their participation rate was 17 percentage points below that of high school graduates and 26 percentage points below those of four year college graduates.

Table 4:
Civilian Labor Force Participation Rates, Unemployment Rates, and Employment/Population Ratios of 16-24 Year Olds in Connecticut by Educational Attainment/School Enrollment Status
(in %, 2005-2007 Averages)

	(A)	(B)	(C)
Educational Group	Labor Force Participation Rate	Unemployment Rate	E/P Ratio
High school student	38.4	25.8	28.5
High school dropout/no GED	69.7	31.2	47.9
High school grad/GED holder	86.8	17.5	71.6
College student	63.1	10.7	56.4
1-3 years college	89.4	10.5	80.1
BA or higher degree	95.4	7.2	88.5
All	63.8	15.9	53.7

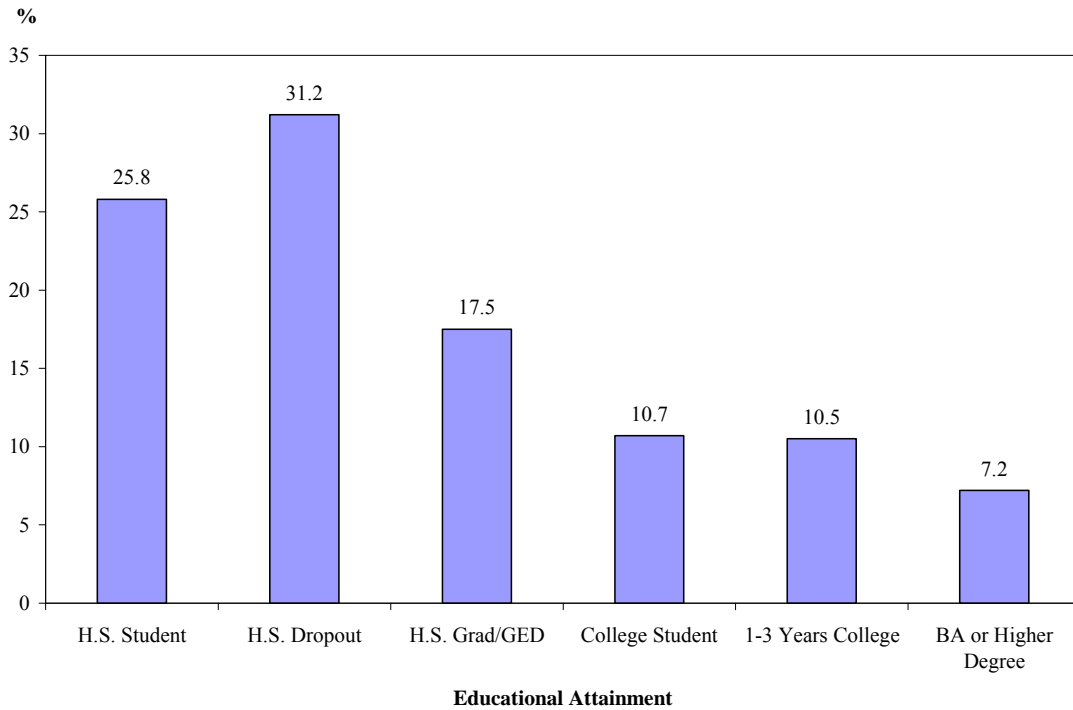
Source: 2005-2007 American Community Surveys, public use files, tabulations by authors.

Chart 4:
Civilian Labor Force Participation Rates of 16-24 Year Olds in Connecticut by
Educational Attainment, 2005-2007 Averages (in %)



Those high school dropouts in the labor force encountered very high unemployment rates when they did seek work. Over 31% of the young high school dropouts in the labor market were unemployed on average over the 2005-2007 period (Table 4 and Chart 5). Their unemployment rate was nearly twice as high as that of high school graduates, three times higher than that of young adults with 1-3 years of college, and more than four times higher than that of young adults with a bachelor's or higher degree in the state. The more depressed labor market conditions in the recessionary environment of 2008 and 2009 likely increased the unemployment rate of young dropouts above the 31% rate prevailing over the 2005-2007 period.

Chart 5:
Unemployment Rates of 16-24 Year Olds in Connecticut by Educational Attainment/School Enrollment Status, Both Genders Combined, 2005-2007 Averages (in %)



The unemployment rates of high school dropouts (16-24) and high school graduates in Connecticut in seven urban areas of the state are displayed in Table 5. High school dropouts faced very high unemployment rates in all 7 of these areas with extremely high unemployment rates of 48 to 54 percent in Bristol, Hartford, and New Britain. In each of the areas, dropouts fared much worse than high school graduates in securing employment when they did seek work. In five of these seven areas, their unemployment rates were at least twice as high as those of high school graduates not enrolled in college.

Table 5:
Unemployment Rates 16-24 Year Old High School Dropouts and High School Graduates/GED
Holders in Selected Cities and Towns of Connecticut, 2005-207 Averages (in %)

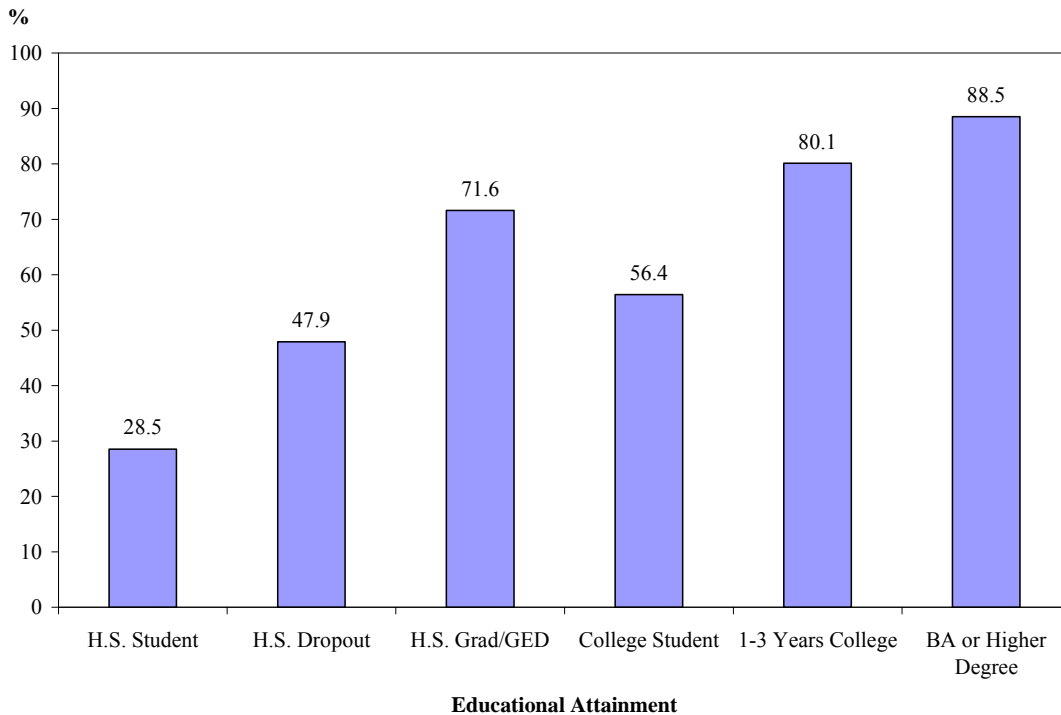
City/Town	(A) High School Dropouts	(B) High School Graduates/GED	(C) High School Graduates – Dropouts (in percentage points)
Bridgeport	27.4	18.0	-9.4
Bristol	54.8	13.5	-41.3
East Hartford/Manchester	29.3	14.3	-15.0
Hartford	50.6	28.9	-21.7
New Britain	48.3	15.7	-32.6
Waterbury	33.3	15.8	-17.5
West Hartford	28.6	19.1	-9.5
Connecticut	21.2	17.5	-13.7
• Men	26.2	16.1	-10.1
• Women	38.7	19.2	-19.5

Given their below average labor force participation rates and their high unemployment rates, young high school dropouts in Connecticut had a very low average employment rate over the 2005-2007 period. Only 48% of young dropouts were employed in any type of job over this three year period (Table 6). Their employment rate was 24 percentage points below that of high school graduates/GED holders and 41 percentage points below that of bachelor degree holders in the state. Young adult dropouts in Connecticut were the only one of six educational groups in the state to be less likely to be employed than their U.S. counterparts.

Table 6:
Comparisons of the Employment/Population Ratios of 16-24 Year Olds in Connecticut and the
U.S. by Educational Attainment/School Enrollment Status, 2005-2007 Averages

Educational Group	(A)	(B)	(C)
	Connecticut	U.S.	Connecticut - U.S.
High school students	28.5	26.3	+2.2
High school dropouts/no GED	47.9	51.4	-3.5
High school graduates/GED holders	71.6	67.9	+3.7
College students	96.4	55.2	+1.2
1-3 years college, including AA degree	80.1	79.3	+0.8
Bachelor's degree	88.5	83.9	+4.6
All	53.7	52.8	+0.9

Chart 6:
Employment/Population Ratios of 16-24 Year Olds in Connecticut by Educational
Attainment/School Enrollment Status, 2005-2007 Averages



A separate analysis of the labor force participation rates, unemployment rates, and employment rates of 16-24 year old males and females in each educational group is displayed in Table 7. Young male dropouts were more likely than their female counterparts to have been active participants in the labor force and to have found jobs when they did seek work. The

unemployment rate of young female dropouts was nearly 39% over the 2005-2007 period versus only 27% among male dropouts. Both young male and female dropouts were considerably less likely to be employed than high school graduates and those completing 1-3 years of college. Male dropouts were 24 percentage points less likely to be employed than male high school graduates, and female dropouts were nearly 30 percentage points less likely to be working than their high school graduate counterparts and 44 percentage points less likely to be working than their peers with a Bachelor's or higher degree.

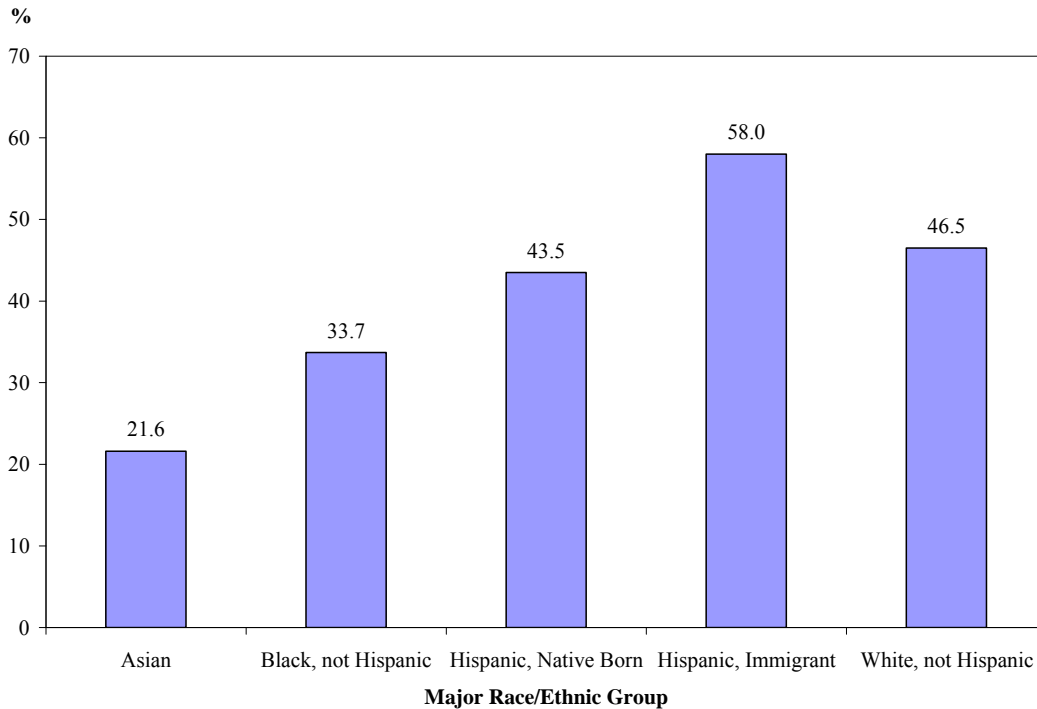
Table 7:
Civilian Labor Force Participation Rates, Unemployment Rates, and Employment/
Population Ratios of 16-24 Year Old Men and Women in Connecticut by Educational
Attainment, 2005-2007 Averages (in %)

	(A)	(B)	(C)
Educational Attainment	Civilian Labor Force Participation Rate	Unemployment Rate	E/P Ratio
Men			
H.S. Students	37.1	27.8	26.8
H.S. Dropouts	73.1	27.4	53.1
H.S. Graduates/GED Holders	91.7	16.4	76.7
College Students	61.7	12.0	54.3
1-3 Years College	90.2	12.8	78.7
BA Degree or Higher	93.2	9.7	84.1
Women			
H.S. Students	39.9	23.5	31.4
H.S. Dropouts	63.8	38.7	46.5
H.S. Graduates/GED Holders	79.9	19.2	75.0
College Students	64.3	9.6	57.3
1-3 Years College	88.5	7.9	82.1
BA Degree or Higher	97.0	5.4	90.5

The employment rates of young dropouts in Connecticut varied quite widely across race-ethnic groups. They were lowest by far for Asian (22%) and Black dropouts (39%) and highest for White, non-Hispanics (46%) and Hispanic immigrants (58%). These immigrant dropouts were more likely to be employed than native born Hispanic dropouts in Connecticut. Nationally, a high fraction of young Hispanic immigrants are undocumented workers whose presence in the labor force displaces native born young workers, primarily dropouts and high school graduates, and reduces their weekly wages and earnings. High fractions of the undocumented are paid under

the table and increase the size of the informal labor market, with the most negative effects on poorly educated, native born Black and Hispanic workers.

Chart 7:
Employment Rates of 16-24 Year Old High School Dropouts in Connecticut by Race-Ethnic Group, 2005-2007 Averages



The employment rates of 16-24 year old high school dropouts and graduates in seven cities (and surrounding towns) across the state over the 2005-07 period are displayed in Table 8. The E/P ratios of dropouts in five of these seven cities were below the statewide average, with particularly low employment rates in Hartford (37%), New Britain (30%) and Waterbury (35%). In each of these seven areas, young adult dropouts were considerably less likely to be employed than high school graduates, with the size of these employment gaps ranging from a low of 12 to highs of 35 to 45 percentage points. Dropping out of high school clearly had large negative effects on the employability of youth in these larger urban areas of the state.

Table 8:
Employment Rates of 16-24 Year Old High School Dropouts and Non-Enrolled High School Graduates in Selected Cities/Towns of Connecticut, 2005-2007, Averages (in %)

City/Town	(A) High School Dropouts	(B) High School Graduates/GED	(C) High School Graduates – Dropouts
Bridgeport	53.7	66.2	+12.5
Bristol	40.7	68.5	+27.8
East Hartford/Manchester	61.9	77.9	+16.0
Hartford	37.4	58.5	+21.1
New Britain	29.7	74.4	+44.7
Waterbury	34.7	69.6	+34.9
West Hartford	42.3	72.8	+30.5
Connecticut	47.9	71.6	+23.7
• Men	53.1	76.7	+23.6
• Women	39.1	64.5	+25.4

The Annual Work Experiences, Hourly Wages, and Annual Earnings of 16-24 Year Olds in Connecticut

The American Community Surveys also collect data on the employment and earnings experiences of all working-age respondents in the 52 week period immediately prior to the completion of the questionnaires. The work experience questions gather information on the number of weeks worked, average weekly hours of work per week of employment, and annual earnings from paid employment, including self-employment. By combining data on weeks worked and average hours of work per week, we can estimate annual hours of work. Dividing annual earnings of the employed by their annual hours of work will yield estimates of their average hourly earnings from employment.

Estimates of the percent of young adults in each educational attainment/school enrollment group who worked at some point during the year over the 2005-07 period are displayed in Table 9. Overall, nearly 3 of every 4 Connecticut teens and young adults (16-24) worked at some point during each year between 2005-07. Among the non-enrolled, these work rates ranged from a low of 68% among high school dropouts to 88% among high school graduates/GED holders to a high of just under 97% among those with a bachelor's or higher degree. While young male dropouts were more likely to obtain some work experience than their

female counterparts (73% vs. 59%), both gender groups were considerably less likely to work than their peers who graduated from high school or obtained a GED certificate.¹⁸

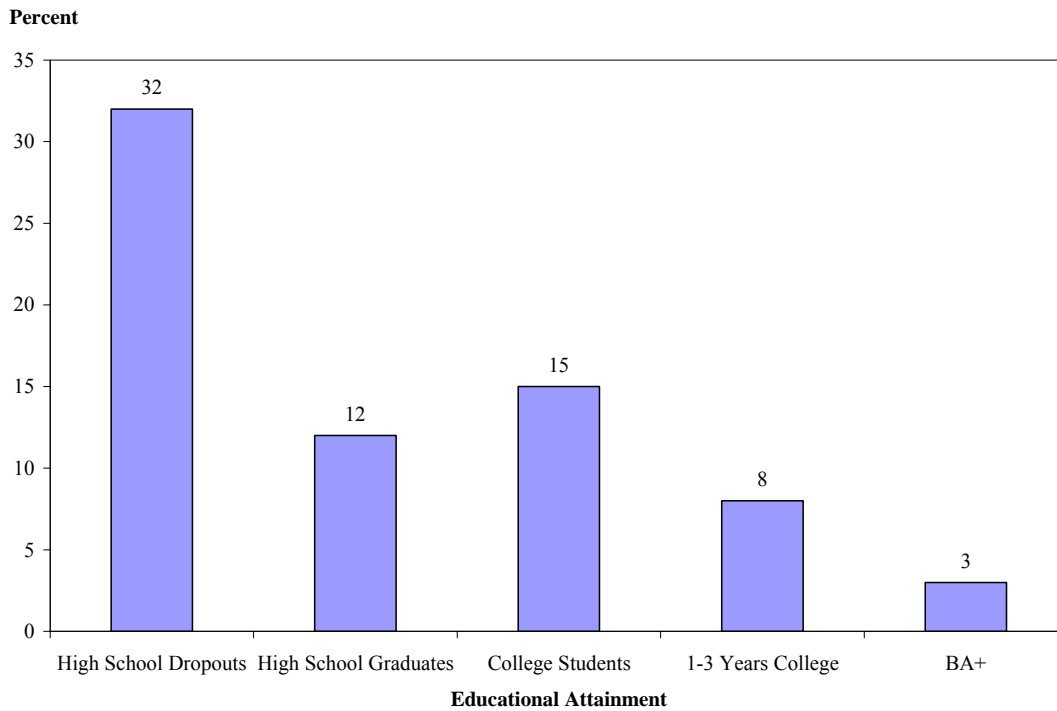
Table 9:
Percent of 16-24 Year Olds in Connecticut with Some Work Experience
During the Year by Educational Attainment, All and by Gender (2005-2007 Averages)

	(A)	(B)	(C)
	All	Men	Women
High school students	45.7	44.9	47.1
High school dropout/no GED	68.1	73.3	59.1
High school graduate/GED	87.9	91.7	82.5
College students	85.0	84.6	85.4
1-3 years of college, including Associate degree	91.6	92.7	90.3
Bachelor's or higher degree	96.8	95.3	98.0
All	74.5	74.4	74.6

Findings on the estimated percent of young adults with some reported work experience were used to identify the share of 16-24 year olds in each educational group with no work experience during the entire year (Chart 8). With the sole exception of high school students, young high school dropouts were the most likely to report no work experience during the year. Just under one-third of the young dropouts were jobless all year-round versus only 12 percent of high school graduates, 8 percent of those completing one to three years of college, and only 3 percent of those with a bachelor's or higher degree. Among these young school dropouts, a majority (53%) of Black and Asian dropouts reported no work whatsoever during the year. These very high year-round joblessness rates among young Black dropouts should be of serious concern to state educational, economic, and criminal justice policymakers. A following paper will reveal a very high rate of incarceration among young Black male dropouts that will exacerbate their future employability problem.

¹⁸ The ACS questionnaire does not ask respondents to identify whether they have a regular high school diploma or a GED certificate. The two groups are combined into one joint category. National CPS data reveal that GED holders are somewhat less likely to work than those with a regular high school diploma.

Chart 8:
Percent of 16-24 Year Olds in Connecticut with No Work Experience at Any Time During the Year by Educational Attainment, 2005-2007 Averages (Excluding High School Students)



The ability of young high school dropouts to gain some employment during the year varied fairly widely across key urban areas of the state (Table 10). Their annual work rates ranged from lows of 50 to 51 percent in Hartford and Waterbury to highs of 80% or more in Bristol, East Hartford, and Enfield. In each of these eight urban areas, young high school graduates were more likely to work than dropouts, but the size of these gaps varied widely from 2 to 4 percentage points in three areas to 23 to 36 percentage points in the bigger cities including Hartford, New Britain, and Waterbury.

Table 10:
Percent of 16-24 Year Old High School Dropouts and Non-Enrolled
High School Graduates Who Worked at Some Time in the Past Year in Selected
Cities/Towns of Connecticut, 2005-2007 Averages (in %)

City/Town	(A) High School Dropouts	(B) High School Graduates/GED	(C) High School Graduates – Dropouts
Bridgeport	67.7	77.7	+10.0
Bristol	86.4	88.6	+2.2
East Hartford/Manchester	89.6	92.2	+2.6
Enfield	82.5	86.7	+4.2
Hartford	51.5	87.5	+36.0
New Britain	65.4	92.4	+27.0
Waterbury	50.1	83.3	+33.2
West Hartford	70.9	94.1	+23.2
Connecticut	68.1	87.9	+19.8
• Men	73.3	91.7	+18.4
• Women	59.1	83.5	+23.4

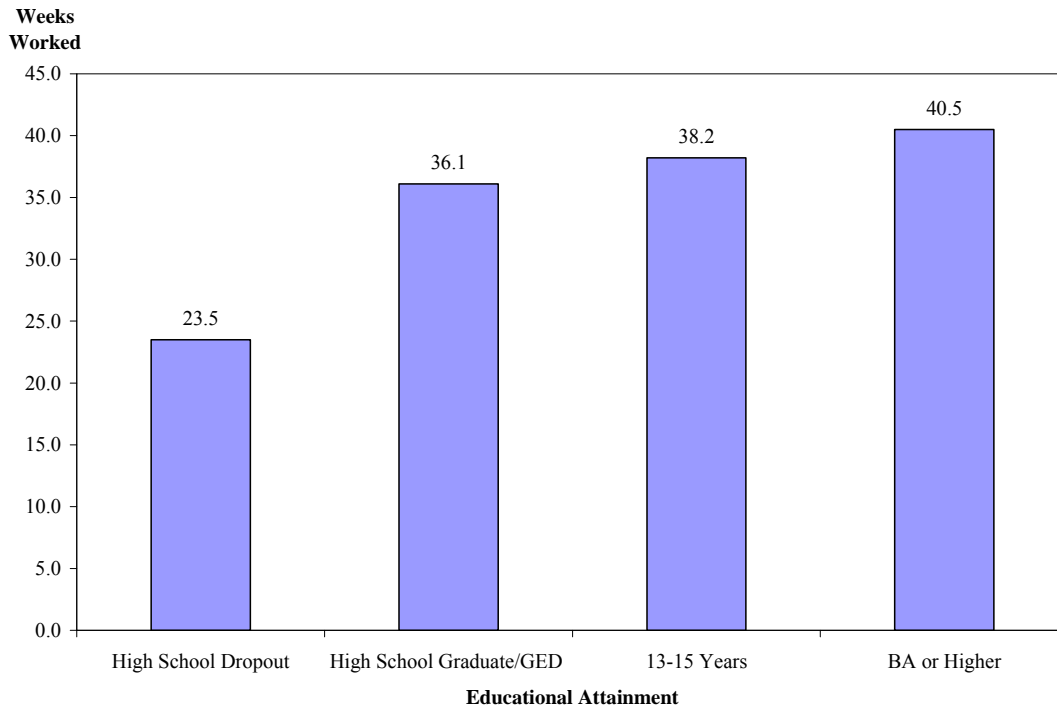
Source: American Community Surveys, 2005-2007, public use files tabulations by authors.

Mean annual weeks worked by 16-24 year olds overall and in each of six educational groups over the 2005-2007 period are displayed in Table 11 and Chart 9. The estimates include non-workers who were assigned 0 weeks of work during the year. Mean annual weeks worked among those youth not attending high school or college varied widely, with dropouts performing the worst on this employment measure. Mean weeks worked by high school dropouts were only slightly above 23 versus 36 among high school graduates and nearly 41 among bachelor degree holders. A clear majority of the employed youth in each educational group, including high school dropouts, worked full-time. Mean weekly hours of work among the employed ranged from 36 hours among high school dropouts to 38 hours among high school graduates and to a high of 40 hours among those with a bachelor's or higher degree (See Column B of Table 11).

Table 11:
Mean Annual Weeks Worked by Connecticut 16-24 Year Olds and Average
Hours Per Week of the Employed by Educational Attainment, 2005-2007 Averages

Educational Attainment	(A)	(B)
	Mean Weeks Worked (Including Zero)	Mean Weekly Hours (Employed Only)
High school student	9.8	16.7
High school dropout/no GED	23.5	36.4
High school graduate/GED holder	36.1	38.0
College student	26.3	26.5
1-3 years of college	38.2	38.5
BA or higher	40.5	40.3
All	24.6	31.1

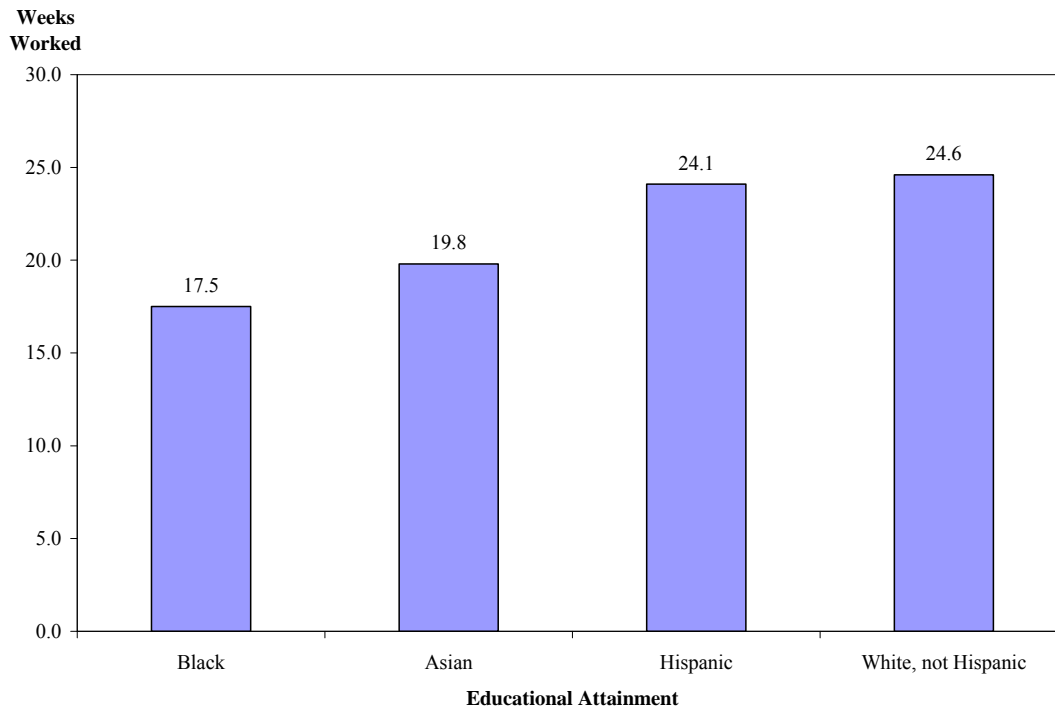
Chart 9:
Mean Annual Weeks Worked by Non-Enrolled 16-24 Year Olds in Connecticut by
Educational Attainment, 2005-2007 Averages



Again, there were fairly large differences in mean annual weeks of work among high school dropouts by race-ethnic group over the 2005-2007 period. These mean weeks of work

ranged from lows of 17 among Black and 20 among Asian dropouts to highs of 24 to 25 weeks among Hispanic and White, non-Hispanic dropouts across the state of Connecticut.

Chart 10:
Mean Annual Weeks Worked by 16-24 Year Old High School Dropouts in Connecticut by Race-Ethnic Group, 2005-2007 Averages



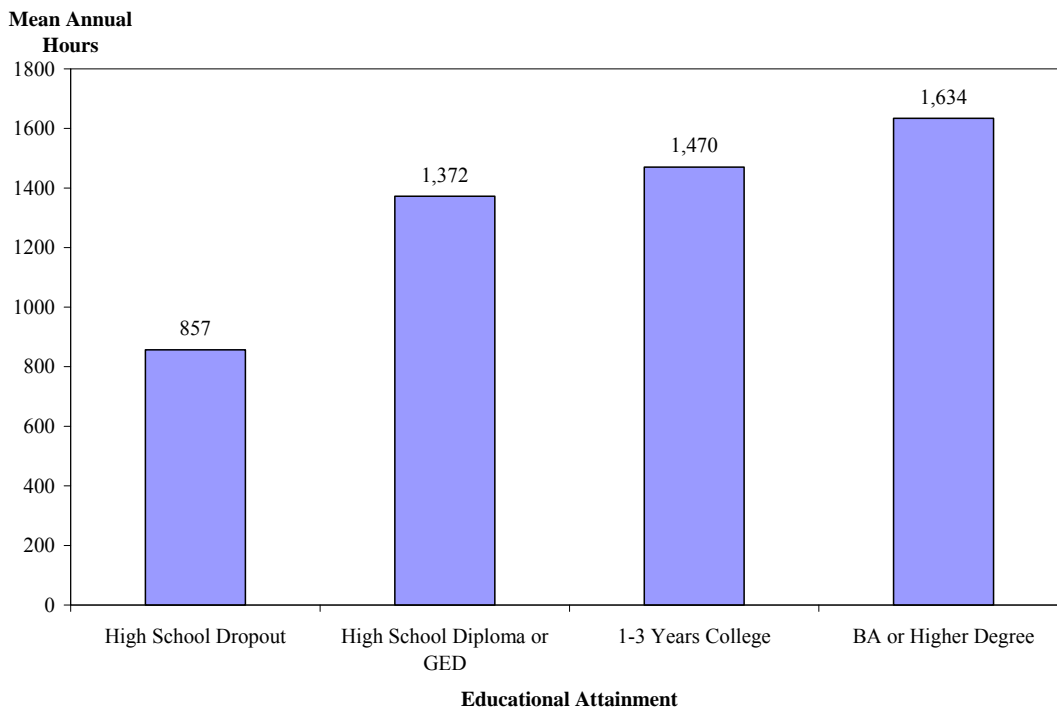
Our above estimates on mean weeks worked and average hours per week of employment were combined to generate estimates of mean annual hours of employment among young adults in each of the six educational groups. Non-workers are included in the totals. Each non-worker was assigned a value of zero hours of work during the year. As expected, mean annual hours of work were lowest by far among high school students. The average hours worked by all high school students was only 164, reflecting their frequent incidence of non-work and high rates of part-year and part-time work when employed (Table 12). Among the non-enrolled, mean annual hours of work ranged from a low of 857 among high school dropouts to 1,372 among high school graduates, and to a high of 1,634 among bachelor degree holders. The average young high school graduate in Connecticut worked 515 more hours than the average high school dropout, and the average BA holder worked nearly twice as many hours during the year as the average dropout (Chart 11). There were large differences in mean annual hours worked between high

school graduates and high school dropouts among both men (561) and women (479 hours) in Connecticut.

Table 12:
Mean Annual Hours of Work of 16-24 Year Olds in Connecticut by Educational Attainment, All and by Gender, 2005 – 2007 Averages

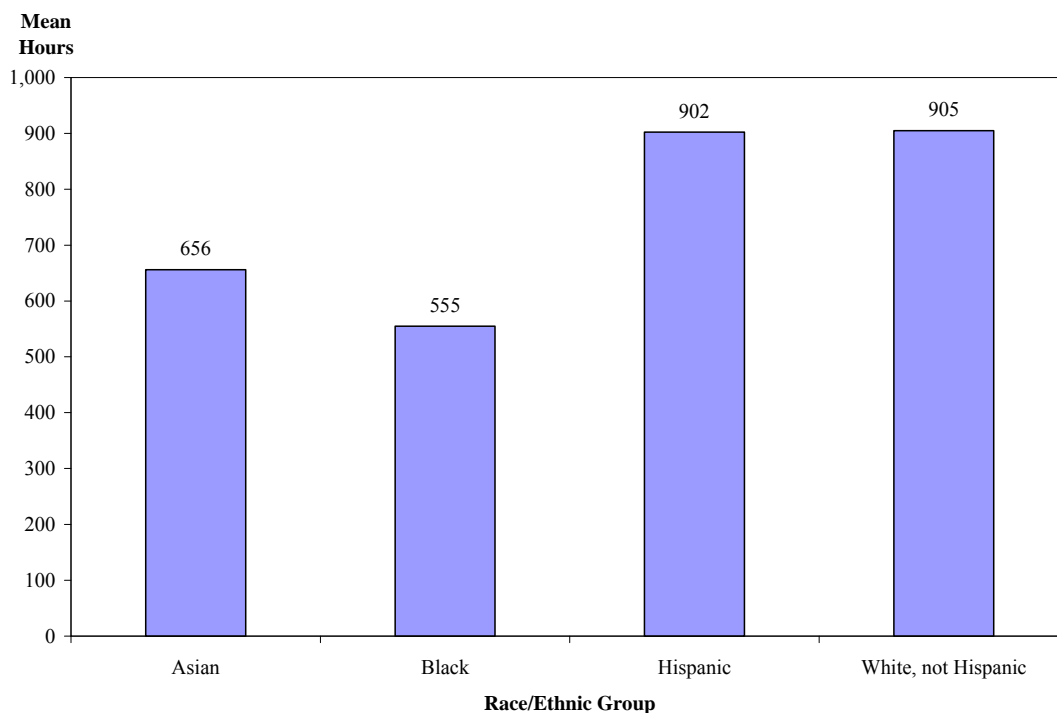
	(A)	(B)	(C)
Mean Annual Hours of Work (Including Non-Workers)	All	Men	Women
• High school students	164	165	162
• High school dropout, no GED	857	949	700
• High school graduates/GED	1,372	1,510	1,179
• College students	696	697	695
• 13-15 years	1,470	1,549	1,385
• BA or higher degree	1,634	1,650	1,622

Chart 11:
Mean Annual Hours of Work Among Non-Enrolled 16-24 Year Olds in Connecticut by Educational Attainment, 2005-2007 Averages (includes non-workers)



Again, there were large differences in mean annual hours of work among high school dropouts by major race-ethnic group. These estimated mean annual hours of work ranged from lows of 555 among Blacks and 657 among Asians to highs of slightly over 900 among both White, non-Hispanics and Hispanics. The low mean annual hours worked by Black dropouts reflect a combination of a high incidence of year-round joblessness and frequent part-year employment among those who did work at some point during the year.

Chart 12:
Mean Annual Hours of Work Among 16-24 Year Old High School Dropouts in Connecticut by Major Race-Ethnic Group



Mean annual hours of work among young dropouts varied fairly substantially across major urban areas of the state. Over the 2005-2007 period, these mean annual hours worked varied from a low of 440 in Waterbury and 650 to 695 in Hartford and Enfield to highs of between 1,100 and 1,200 in West Hartford and Bristol. In each area of the state, except Bristol, high school graduates/GED holders, an average worked considerably more hours during the year than their peers who failed to secure a high school diploma or its equivalent.

Table 13:
Mean Annual Hours Worked by 16-24 Year Old High School Dropouts and
Non-Enrolled High School Graduates in Selected Cities and Towns of Connecticut,
2005-2007 Averages (Includes Non-Workers)

City/Town	(A) High School Dropouts	(B) High School Graduates/GED	(C) High School Graduates – Dropouts
Bridgeport	958	1,246	288
Bristol	1,190	1,213	23
East Hartford/Manchester	724	1,373	649
Enfield	650	1,353	703
Hartford	695	1,384	689
New Britain	1,013	1,444	431
Waterbury	440	1,166	726
West Hartford	1,119	1,429	310
Connecticut	857	1,372	515
• Men	949	1,510	561
• Women	700	1,179	479

Mean Hourly and Annual Earnings of Young Adults

The mean hourly earnings (including overtime pay and tips/commissions) of young employed adults in Connecticut also varied widely across the six educational groups. Not surprisingly, the lowest mean hourly wages were earned by those youth who were still in high school (Table 14). Their mean hourly earnings were only \$8.47. Among those employed youth not enrolled in school, mean hourly earnings varied from \$10.11 among high school dropouts, to \$11.83 among high school graduates, to a high of \$17.16 among those with a bachelor's or higher degree. High school graduates earned about 17% more per hour than dropouts while BA degree holders obtained mean hourly earnings nearly 70% higher than those of high school dropouts. Similar patterns in mean hourly earnings by educational attainment group prevailed among both employed young men and women. Female high school dropouts were the most poorly paid of all 8 out-of-school groups.

Table 14:
Mean Hourly Earnings of Employed 16-24 Year Olds in Connecticut by
Educational Attainment, All and by Gender, 2005-2007 Averages

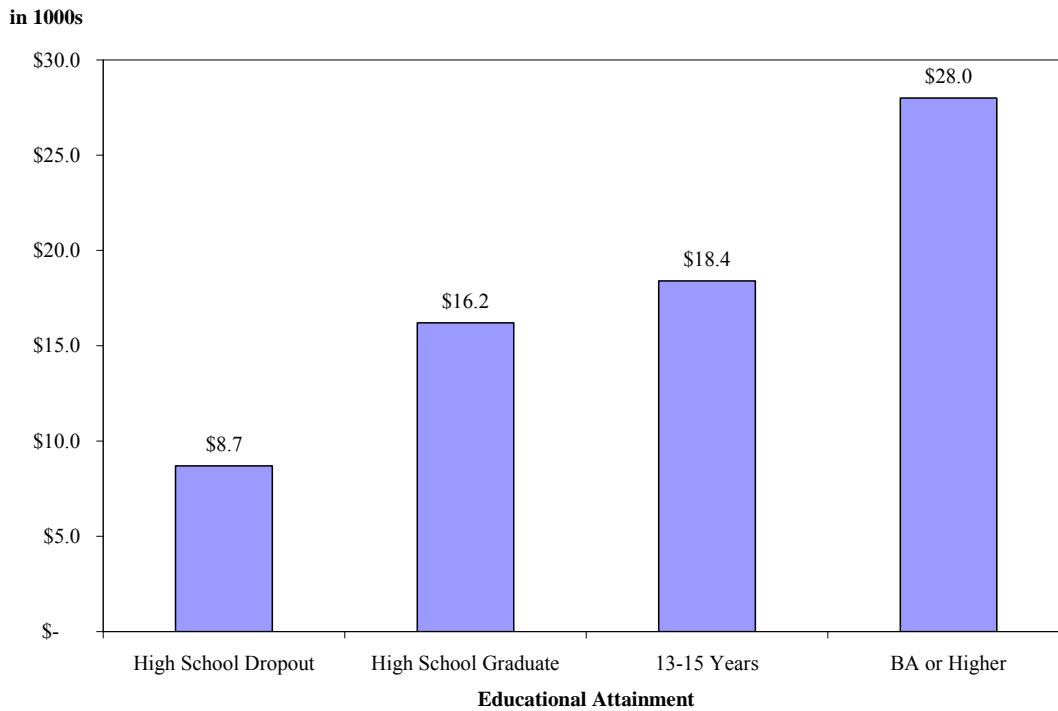
	(A)	(B)	(C)	(D)
Mean Hourly Earnings of Employed	All	Men	Women	Women as % of Men
• High school student	\$8.47	\$8.36	\$8.63	103
• High school dropout, no GED	10.11	10.51	9.16	87
• High school graduate, GED	11.83	12.15	11.28	93
• College students	10.77	10.88	10.69	98
• 1-3 years of college	12.53	12.68	12.35	98
• BA or higher degree	17.16	18.15	16.41	90

As a result of large differences in mean annual hours of work and sharp differences in mean hourly earnings, the mean annual earnings of young adults in Connecticut varied enormously across the six educational groups (Table 15 and Chart 13). For out-of-school youth, mean average annual earnings over the 2005-2007 period (including zero earners) varied from a low of \$8,668 among high school dropouts to \$16,232 among high school graduates and to a high of slightly over \$28,000 among four year college graduates. The average high school graduate earned nearly \$7,600 or 87% more than a high school dropout while the average young adult with 1-3 years of college had mean annual earnings that were nearly \$10,000 or 113% higher than those of dropouts in their early young adult years.

Table 15:
Mean Annual Earnings of 16-24 Year Olds in Connecticut by
Educational Attainment, All and by Gender (2005-2007 Averages, Includes Zero Earners)

	(A)	(B)	(C)
Educational Attainment	All	Men	Women
High school students	\$1,389	\$1,380	\$1,398
High school dropout	8,668	9,977	6,412
High school graduate/GED	16,232	18,346	13,301
College students	7,501	7,587	7,428
1-3 years of college	18,426	19,644	17,106
BA or higher	28,045	29,943	26,625
High school graduate/high school dropout	1.87*	1.84	2.07
1-3 years college / high school dropout	2.13*	1.97	2.67

Chart 13:
Mean Annual Earnings of Non-Enrolled 16-24 Year Olds in
Connecticut by Educational Attainment (in 1000s)



The gaps between the mean annual earnings of high school dropouts and high school graduates in Connecticut were quite high among both men and women in recent years. Among males the absolute mean size of the earnings gap was approximately \$8,400 while for women it was close to \$7,000 (See Table 15). The average female high school graduate obtained mean annual earnings that were more than twice as high as those of high school dropouts who earned an average of only \$6,442 over the 2005-007 period.

Estimates of the mean annual earnings of young high school dropouts and graduates in eight cities and their surrounding towns are displayed in Table 8. The mean average annual earnings of young dropouts varied fairly widely across these 8 urban areas, ranging from a low of \$5,000 in Waterbury to highs of \$11,000 in Bridgeport and West Hartford. In all eight of these areas, however, high school dropouts received mean annual earnings well below those of high school graduates. In 6 of these 8 larger urban areas, the gap between the mean annual earnings of these two groups exceeded \$6,800 (Table 16).

Table 16:
Mean Annual Earnings of 16-24 Year Old High School Dropouts and
Non-Enrolled High School Graduates in Selected Cities and Towns of Connecticut,
2005-2007 Averages (Includes Non-Workers)

City/Town	(A) High School Dropouts	(B) High School Graduates/GED	(C) High School Graduates – Dropouts
Bridgeport	11,014	14,239	+3,225
Bristol	8,992	14,205	+5,213
East Hartford/Manchester	6,453	18,342	+11,899
Enfield	9,785	19,311	+9,256
Hartford	7,351	14,149	+6,798
New Britain	8,428	18,611	+10,183
Waterbury	5,031	13,887	+8,885
West Hartford	11,183	17,957	+6,774
Connecticut	8,668	16,232	+7,564
• Men	9,977	18,346	+8,369
• Women	6,412	13,301	+6,889

The Income Inadequacy Problems of Young Adults in Connecticut by Educational Attainment

Given the lower employment rates and annual earnings of poorly educated young adults and the greater frequency of single parenthood among young female dropouts in Connecticut, one would expect that they would be more likely to experience an array of income inadequacy problems than their better educated peers. To identify the incidence of such income inadequacy problems, we estimated the percent of 16-24 year olds in Connecticut in each of five educational groups that were poor, poor or near poor, or low income in 2005-2007.

The definitions of the poor, poor and near poor, and low income members of the young adult population in Connecticut are displayed below. Our definitions of the poor and near poor populations are based on the official definitions of the U.S. Census Bureau in generating its annual estimates of the nation's poor and near poor population.

- The poor are those individuals living in families with annual, pre-tax money incomes below the federal government's poverty income threshold for a family of their given

size and age composition.¹⁹ These poverty lines do not vary across states or among local areas within states despite large differences in the local cost of living across the country, especially in rental housing costs. In 2006, a family of 3 persons in Connecticut would have been classified as poor if their combined annual income was under \$16,080.

- The near poor are those persons who live in families with incomes above the poverty line but less than 125% of the poverty line. The near poor income threshold for the above 3 person family would have been \$20,100 in 2006.
- The low income are those persons who live in families with annual incomes below 200 percent of the poverty line for a family of their given size and age composition. This specific definition of “low income” has been used by a number of poverty and welfare reform researchers in analyzing income inadequacy problems of all persons and the working poor in recent years.²⁰

On each of the three income inadequacy measures, young high school dropouts were considerably more likely than their better educated peers to encounter each of these problems. Slightly over 30% of young dropouts were living in poor families (households) and 35% were residing in poor/near poor families (Table 17 and Chart 14). Their poverty/near poverty rate was nearly three times as high as that of high school graduates and four times as high as that of young adults with 1 or more years of completed post-secondary schooling. The gaps in poverty/near poverty rates between high school dropouts and high school graduates were very high among both men and women in Connecticut although young female dropouts had the highest incidence of poverty/near poverty problems.

¹⁹ Persons living by themselves or with others to whom they are not related (roommates, partners) are treated by the U.S. Census Bureau as a household of one in determining their poverty status.

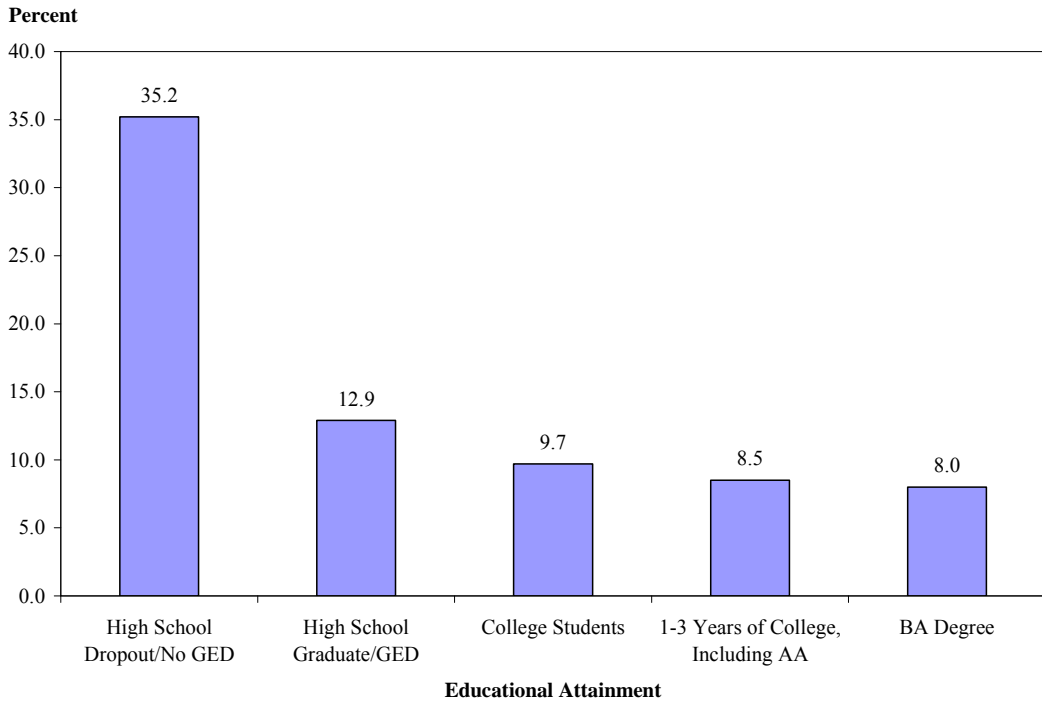
²⁰ For examples of such studies,

See: (i) Gregory Acs, Katherine Ross Phillips, and Daniel McKenzie, Playing by the Rules But Losing the Game: America's Working Poor, Urban Institute, Washington, D.C., May 2000; (ii) Garth Mangum, Stephen Mangum, and Andrew Sum, The Persistence of Poverty in the U.S., Johns Hopkins University Press, Baltimore, 2003.

Table 17:
Percent of 16-24 Year Olds in Connecticut Experiencing Selected Types of
Income Inadequacy Problems by Educational Attainment and Gender, 2005-2007 Averages
(Excludes High School Students)

	(A)	(B)	(C)
All	Poor	Poor / Near Poor	Low Income
High school dropout	30.3	35.2	52.0
High school graduate/GED	9.6	12.9	25.3
College students	8.2	9.7	16.1
Some college, including AA degree	7.3	8.5	19.4
Bachelor's degree	5.5	8.0	16.8
Men			
High school dropout	24.9	30.5	49.5
High school graduate/GED	6.5	9.5	19.6
College students	7.7	8.8	15.2
Some college, including AA degree	3.0	5.5	11.3
Bachelor's degree	3.2	4.4	13.4
Women			
High school dropout	39.5	43.3	56.2
High school graduate/GED	14.0	17.7	33.2
College students	8.7	10.5	16.9
Some college, including AA degree	8.7	11.9	28.1
Bachelor's degree	7.2	10.8	19.3

Chart 14:
Percent of 16-24 Year Olds in Connecticut Who Were Members of Poor/Near Poor Families by Educational Attainment / School Enrollment Status, 2005-2007 Averages



Young high school dropouts in 7 of the state’s 8 urban areas faced a very high incidence of poverty/near poverty (PNP) problems in 2005-2007, with a PNP rate of 35% or higher in six the eight areas and rates of 45 to 62 percent in three areas (Enfield, Hartford, Waterbury) (See Table 18). With the exception of West Hartford, young high school dropouts faced poverty/near poverty rates far in excess of those experienced by high school graduates.

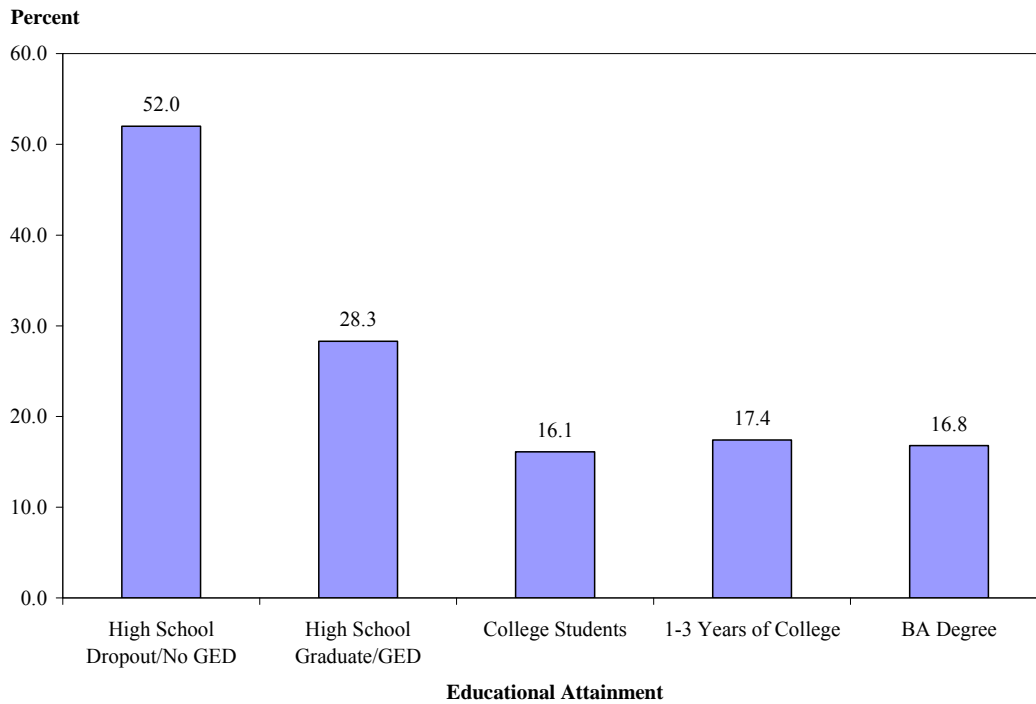
Table 18:
Percent of 16-24 Year Old High School Dropouts and High School Graduates
Not Enrolled in College Who Were Poor/Near Poor in Selected Cities and Towns of
Connecticut, 2005-2007 Averages

City/Town	(A) High School Dropouts	(B) High School Graduates/GED	(C) High School Graduates – Dropouts
Bridgeport	30.5	10.9	-19.6
Bristol	35.6	13.2	-22.4
East Hartford/Manchester	35.0	11.4	-23.6
Enfield	45.4	5.3	-40.1
Hartford	48.0	33.6	-14.4
New Britain	34.9	12.1	-22.8
Waterbury	62.3	15.0	-47.3
West Hartford	6.5 ¹	10.5	+4.0
Connecticut	35.2	12.9	-22.3
• Men	30.5	9.5	-21.0
• Women	43.3	17.7	-25.6

Note: ¹ The low PNP rate for West Hartford residents seems to be somewhat of an anomaly since 47% of these young dropouts were categorized as low income.

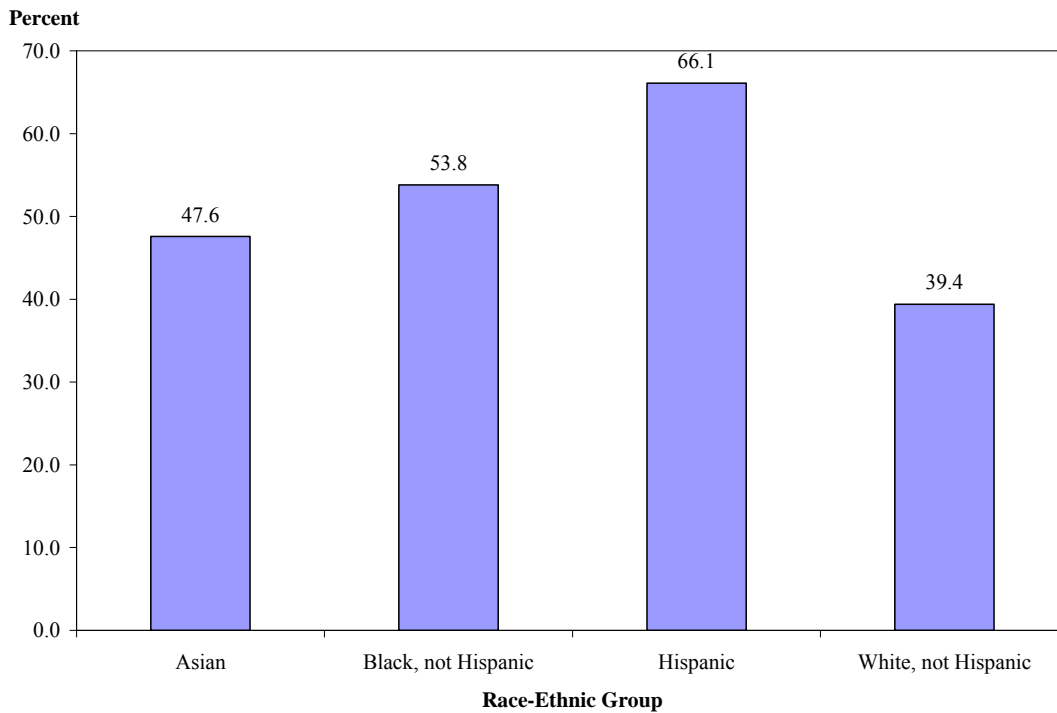
Very high shares of young high school dropouts (52%) lived in families with incomes that were low enough to classify them as “low income” (Chart 15). Young dropouts were nearly twice as likely as high school graduates to be classified as low income and three times as likely to do so as their peers with one or more years of post-secondary schooling.

Chart 15:
Percent of 16-24 Year Olds in Connecticut Who Were Members of Low Income Families by Educational Attainment / School Enrollment Status, 2005-2007 Averages



Young Connecticut dropouts in every major race-ethnic group faced a very high incidence of low income problems, but the share of young adults with such problems did vary from a low of slightly under 40% among White, non-Hispanics to highs of 54% among Blacks and 66% among young Hispanic dropouts. Very few of these low income dropouts have the economic wherewithal to contribute to the fiscal well-being of the federal, state, and local governments.

Chart 16 :
Percent of 16-24 Year Old Dropouts in Connecticut Who Were Members of
Low Income Families by Race-Ethnic Group, 2005-2007 Averages



The Labor Market and Earnings Experiences of 25-34 Year Olds in Connecticut by Educational Attainment

As most young adults in the U.S. age from their mid-20s to their late 20s and early 30s, their labor market fortunes tend to improve. Their attachment to the labor force rises, their employment rates and annual hours of work tend to increase, and they receive higher weekly wages and annual earnings. To identify how well high school dropouts, high school graduates, and their better educated peers fared in the labor market as they transitioned into their 25-34 year old age group, we analyzed a variety of their labor market experiences over the 2005-2007 period, beginning with their unemployment rates and their employment/population ratios.

Table 19:
Key Labor Market Outcomes for 25-34 Year Olds in Connecticut by
Educational Attainment, All and by Gender (2005-2007 Averages)

E/P Ratios			
	(A)	(B)	(C)
Educational Attainment	All	Men	Women
High school dropout	62.7	71.7	50.1
High school graduate/GED	77.8	82.5	71.3
Some college	80.9	85.3	75.9
Bachelor degree	83.9	90.8	78.0
Master's or higher degree	84.2	90.5	80.0
All	79.1	84.0	74.3

Unemployment Rate			
	(A)	(B)	(C)
Educational Attainment	All	Men	Women
High school dropout	19.3	19.1	19.8
High school graduate/GED	7.8	8.0	7.5
Some college	6.6	6.6	6.6
Bachelor degree	3.6	3.4	3.8
Master's or higher degree	2.1	1.0	2.8
All	6.5	6.9	6.1
Dropout/High School Graduate	2.5*	2.4*	2.6*
Dropout/BA Degree	5.4*	5.6*	5.2*

Source: 2005-2007 American Community Surveys, public use files, tabulations by authors.

While the unemployment rate of 25-34 year olds in 2005-2007 was only 6.5%, well below the near 16% rate faced by their younger peers 16-24, the incidence of unemployment problems varied quite considerably across the educational groups, with high school dropouts faring the worst by far. The unemployment rate was highest among high school dropouts who were characterized by an unemployment rate close to 20% over the 2005-2007 period. In comparison, the unemployment rate of high school graduates was slightly under 8% and fell to 3.6% for bachelor degree holders. Similar patterns prevailed among both men and women in the 25-34 age group. Both male and female high school dropouts encountered unemployment rates in the 19-20 percent range over the 2005-2007 period, between 2 and 2.5 times as high as those of high school graduates and five to six times as high as those of bachelor degree holders.

Due to a combination of below average participation rates and high unemployment rates, 25-34 year old dropouts were the least likely to be employed in 2005-2007. Slightly under 63% of dropouts were working in any type of job versus 78% of high school graduates and 84 percent of those with a bachelor's or higher degree. Female dropouts fared the worst by far in the labor market, with only 50% of them holding any type of job.

Mean weeks and annual hours of work among 25-34 year olds also varied widely across educational attainment groups. Overall, the mean weeks of work among all 25-34 year olds was slightly under 41 weeks but varied from a low of 32-33 weeks among high school dropouts to over 43 weeks among bachelor degree holders (Table 20). Among both men and women, mean weeks worked rose steadily with the level of formal schooling.

Table 20:
Annual Mean Weeks Worked, Hours Worked, and Annual Earnings of 25-34 Year Olds in Connecticut by Educational Attainment (2005-2007 Averages)

Weeks Worked			
	(A)	(B)	(C)
Educational Attainment	All	Men	Women
High school dropout	32.6	36.4	27.3
High school graduate/GED	39.6	42.8	35.2
Some college	41.8	45.2	38.7
Bachelor degree	43.4	47.7	39.6
Master's or higher degree	42.1	45.5	39.9
All	40.9	44.2	37.5

Annual Hours Worked			
	(A)	(B)	(C)
Educational Attainment	All	Men	Women
High school dropout	1,282	1,522	945
High school graduate/GED	1,590	1,823	1,268
Some college	1,695	1,984	1,431
Bachelor degree	1,841	2,178	1,547
Master's or higher degree	1,844	2,111	1,669
All	1,688	1,946	1,429

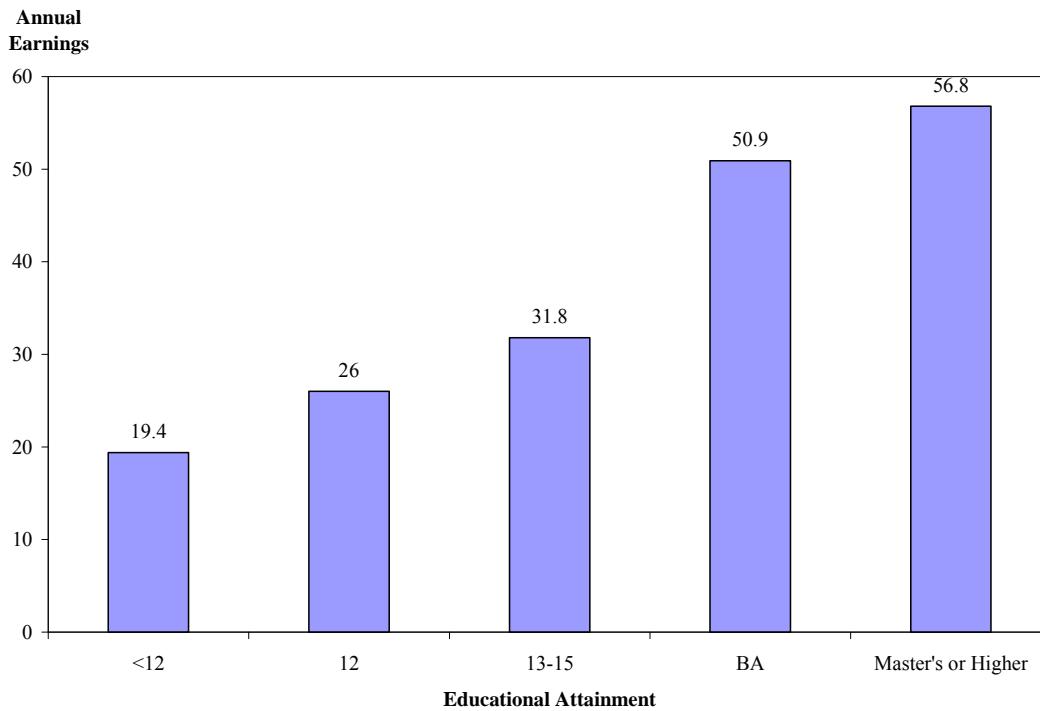
Table 20: (Continued)

Educational Attainment	Mean Annual Earnings		
	(A) All	(B) Men	(C) Women
High school dropout	\$19,413	\$25,223	\$11,231
High school graduate/GED	26,002	31,794	17,985
Some college	31,752	39,470	24,715
Bachelor degree	50,951	65,315	38,420
Master's or higher degree	56,818	72,922	46,246
All	37,348	45,273	29,821
High School Graduate – High School Dropout	\$6,589	\$6,571	\$6,754

Mean annual hours of work among 25-34 year olds over the 2005-2007 period also rose steadily with their level of formal schooling. High school dropouts (both genders combined) worked the fewest hours (1,282), more than 300 hours below those of high school graduates, and nearly 600 hours below those of bachelor and master degree holders. Gaps in annual hours worked by educational attainment were quite high among both men and women in the 25-34 age group over the 2005-2007 period.

Due to the large differences in mean annual hours of work and hourly earnings between high school dropouts and their better educated peers, there were very large differences in their mean annual earnings (Table 20 and Chart 17). For both gender groups combined, mean annual earnings in 2005-2007 ranged from a low of \$19,400 among high school dropouts to \$26,000 for high school graduates, nearly \$32,000 for those with 1-3 years of college, and just under \$51,000 for those with a bachelor's degree. The average high school graduate earned \$6,600 more per year than the average high school dropout, and those with a year or two of college earned more than \$12,000 more. Very large gaps in annual earnings between high school dropouts and their better educated peers prevailed among both men and women. The considerably lower and declining annual earnings of male dropouts has reduced their ability to marry and raise their children that they have fathered, contributing to the rise of single parent families and the economic and social difficulties of the children in those families.

Chart 17:
Mean Annual Earnings of 25-34 Year Olds in Connecticut by Educational Attainment
(includes zero earners, 2005-2007, Averages in 1000s)



Trends in the Lifetime Earnings of Connecticut Adults by Educational Attainment and by Gender, 1979 to 2005-2007

In a previous section of this report, we identified and analyzed the annual earnings experiences of Connecticut adults in the most recent years (2005-2006-2007) for which annual earnings data were available. We are also interested in tracking changes in the expected lifetime earnings of Connecticut adults by educational attainment over the past few decades. Findings of the 1980 Census as well as the 2005-2006-2007 American Community Surveys on the annual earnings of Connecticut adults between the ages of 18 and 64 were examined by single age group and by educational attainment. The annual earnings data for each of these years were used to construct a cross-sectional snapshot of the expected lifetime earnings of Connecticut adults from ages 18 to 64, including those with no paid employment during a given year. To illustrate the procedures that were used to calculate the expected lifetime earnings for each gender/educational attainment group, we have generated an actual subset of the lifetime earnings data for male high school graduates in Connecticut during the 2005-2007 time period. First, the mean annual

earnings of each single age group of male high school graduates from ages 18 to 64 are estimated, including those with zero earnings during the year. Annual earnings of each educational group tend to rise fairly continuously though eventually at a diminishing rate from their late teens to their mid 40s to early 50s depending on their level of formal schooling.²¹ Second, the mean annual earnings of each age group from 18 to 64 are then summed to estimate their expected mean lifetime earnings. The underlying assumption for this set of calculations is that over time the mean annual earnings of each age group in each educational group will remain at their 2005-2007 levels.²² Under this set of assumptions, the mean expected lifetime earnings of Connecticut, male high school graduates as of 2005-2007 was \$1.630 million.

Table 21:
Actual Calculation of the Mean Lifetime Earnings of Connecticut
Male High School Graduates from Ages 18 to 64 (2005-2007 Averages)

Age	Mean Annual Earnings
18	10,981
19	15,064
20	20,924
21	24,569
▪	
▪	
61	43,765
62	37,484
63	32,876
64	34,486
Sum, 18-64	2,007,756

Estimates of the mean lifetime earnings of Connecticut adults in five educational groups from ages 18-64 for men and women separately are displayed in Table 22. The cross-sectional estimates of these lifetime earnings are displayed for 1979 and for the 2005-2007 periods, and the estimated absolute and percent changes in these lifetime earnings between 1979 and 2005-

²¹ Earnings of adults in each educational group tends to rise most rapidly from their early 20s through their mid 30s. The age/earnings profiles of better educated adults tend to be more steeply sloped than that of their less educated peers and peak at a later age. The earnings gaps between adults in those different educational subgroups tend to widen over time as they gain more work experience.

²² For a review of alternative methods for adjusting lifetime earnings to correct for expected changes in these earnings over time,

See: Richard Freeman, The Overeducated American, St. Martin's Press, New York, 1976.

2007 are displayed in the last two columns of this table. Among both male and female adults, these mean lifetime earnings estimates varied widely across the five educational groups in both 1979 and the 2005-2007 time periods. Time trends in these lifetime earnings estimates varied quite differently by educational attainment for men than for women.

Among males, the mean lifetime earnings (in constant 2009 dollars) varied from a low of \$1.11 million among high school dropouts to \$1.63 million among high school graduates to \$3.770 million for bachelor degree holders and to a high of \$4.928 million for those with a Master's or higher degree (Table 20). From 1979 through the 2005-2007 period, the expected

Table 22:
Trends in Mean Lifetime Earnings⁽¹⁾ from Employment in Connecticut
From Ages 18-64 by Educational Attainment and by Gender (in \$1000 of 2009 Dollars)

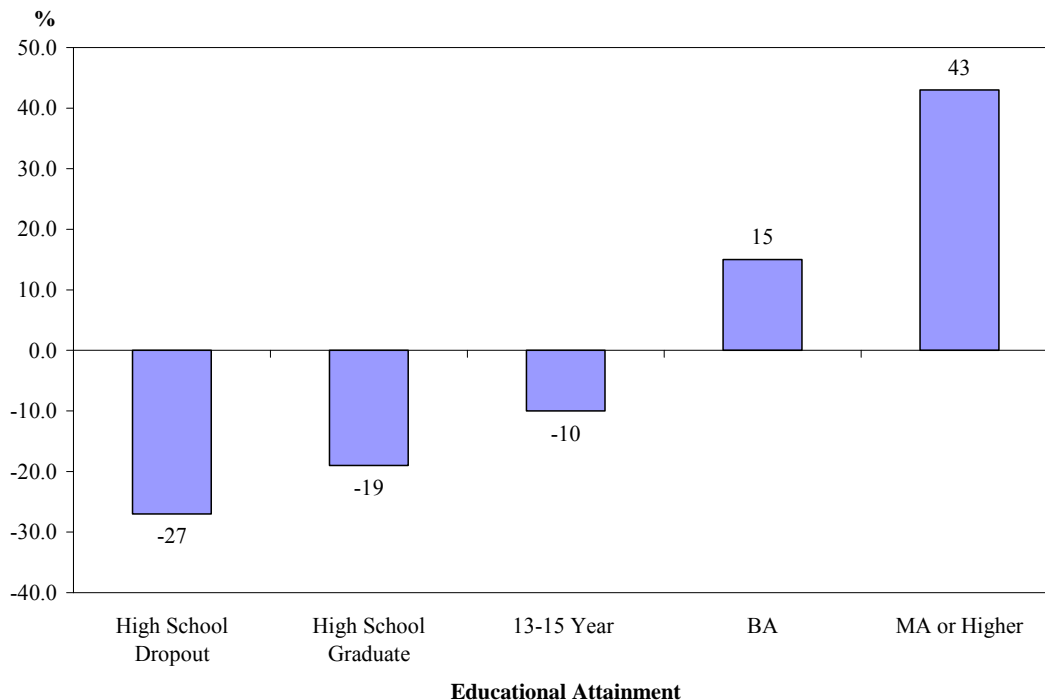
MEN				
	(A)	(B)	(C)	(D)
Educational Attainment	1979	2005-2007 Averages	Absolute Change	Percent Change
High school dropout	\$1,510	\$1,110	-400	-26.5
High school graduate/GED	2,008	1,630	-378	-18.8
13-15 years	2,387	2,156	-231	-9.7
Bachelor's degree	3,288	3,770	+482	+14.6
Master's or higher degree	3,454	4,928	+1,474	+42.7
All	2,318	2,699	381	+16.4

WOMEN				
	(A)	(B)	(C)	(D)
Educational Attainment	1979	2005-2007 Averages	Absolute Change	Percent Change
High school dropout	436	586	+100	+20.6
High school graduate/GED	693	971	+278	+40.1
13-15 years	790	1,2784	+494	+55.9
Bachelor's degree	816	1,826	+1,010	+123.8
Master's or higher degree	1,285	2,387	+1,102	+85.7
All	733	1,445	712	+97.1

Note: Earnings of all students ages 18-22 are ignored in the lifetime calculations.

mean lifetime earnings of every group of Connecticut men lacking a four year college degree fell, with the relative size of the declines being highest for high school dropouts followed by high school graduates. The mean lifetime earnings of male high school dropouts fell by \$400,000 or 27% while those of high school graduates declined by a more modest 19% and those of men with 1-3 years of college fell by slightly under 10% (Chart 18). In sharp contrast, the mean lifetime earnings of male bachelor degree holders increased by \$482,000 or nearly 15% and those men with a Master's or higher degree saw their mean lifetime earnings rise by a more substantial \$1.474 million or 43%.

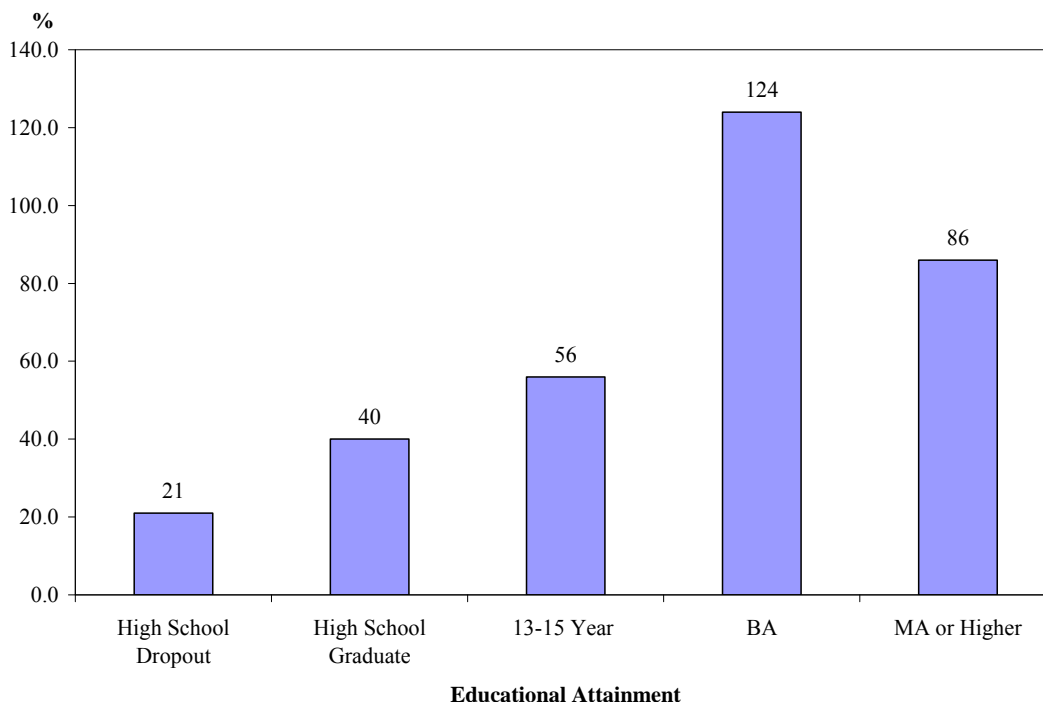
Chart 18:
Percent Change in the Mean Real Lifetime Earnings of Males in Connecticut by Educational Attainment from 1979 to 2005-2007



Among all women, mean lifetime earnings between 1979 and 2005-2007 rose from \$733,000 to \$1.445 million, a gain of \$712,000 or nearly 97%. The substantial increase in their mean lifetime earnings was due to a combination of more employment and higher real hourly earnings due in large part to sharp gains in their educational attainment (See Table 22). Among women, both the absolute and relative increase in their lifetime earnings varied extremely widely by educational attainment, with the most well educated faring the best. The relative size of these increases in lifetime earnings among women ranged from 21% among high school dropouts to

40% among high school graduates and to a high of 124% among those with a bachelor’s degree (Chart 19). In 1979, the mean lifetime earnings of Connecticut women with a bachelor’s degree were less than twice as high as those of high school dropouts. By 2005-2007, however, the mean lifetime earnings of women with a bachelor’s degree were more than three times as high as those of women lacking a high school diploma.

Chart 19:
Percent Change in the Mean Real Lifetime Earnings of Women in Connecticut by Educational Attainment from 1979 to 2005-07



As a result of the differences in the growth rates of their mean lifetime earnings over the past few decades, the gaps between the lifetime earnings of male and female dropouts and their better educated peers have been widening. In 2005-2007, the mean lifetime earnings of male high school graduates in Connecticut exceeded those of dropouts by \$528,000. Men who went on to complete 1 to 3 years of post-secondary schooling would earn \$1.046 million more than the average high school dropout over their working lives. Among women, the mean lifetime earnings of high school graduates exceeded those of dropouts by \$384,000 while those women completing 1-3 years of post-secondary schooling would earn nearly \$700,000 more than high school dropouts in the state. These widening gaps in lifetime earnings across educational groups

combined with high rates of assortative mating in family formation were creating larger degrees of inequality in the state’s earnings and family income distributions.

Table 23:
Differences Between the Mean Lifetime Earnings of High School Dropouts and High School Graduates and Those with 1-3 Years of College in Connecticut in 2005-2007 by Gender

Comparison	Men	Women
High school graduate vs. high school dropout	\$527,920	\$384,289
1-3 Years of College vs. High School Dropout	\$1,046,552	\$697,875

Trends in Lifetime Poverty/Near Poverty and Low Income Problems Among Connecticut Adults by Educational Attainment

The declining lifetime earnings of Connecticut male high school dropouts and graduates with no post-secondary schooling, the continuing earnings difficulties of Connecticut women without diplomas, and the accompanying steep drop in their marriage rates have placed adult dropouts at risk of worsening income inadequacy problems. To identify time trends in their exposure to selected types of income inadequacy problems, we estimated the mean lifetime years between 18-64 that Connecticut adults in five educational groups would be exposed to either poverty/near poverty problems or low income problems. Among men, overall, mean lifetime exposure to poverty near poverty problems increased slightly from 2.7 to 3.4 years between 1979 and 2005-2007. The rise in these PNP problems was overwhelmingly concentrated among those men with 12 or fewer years of schooling, with high school dropouts experiencing 3.5 more years of such income inadequacy problems (Table 24). Mean lifetime years in poverty/ near poverty among male high school dropouts were 9.0 versus only 3.8 for high school graduates and 1.5 years for those men with a bachelor’s degree. Male high school dropouts would experience six times as many years in poverty/near poverty as their counterparts with a bachelor’s degree.

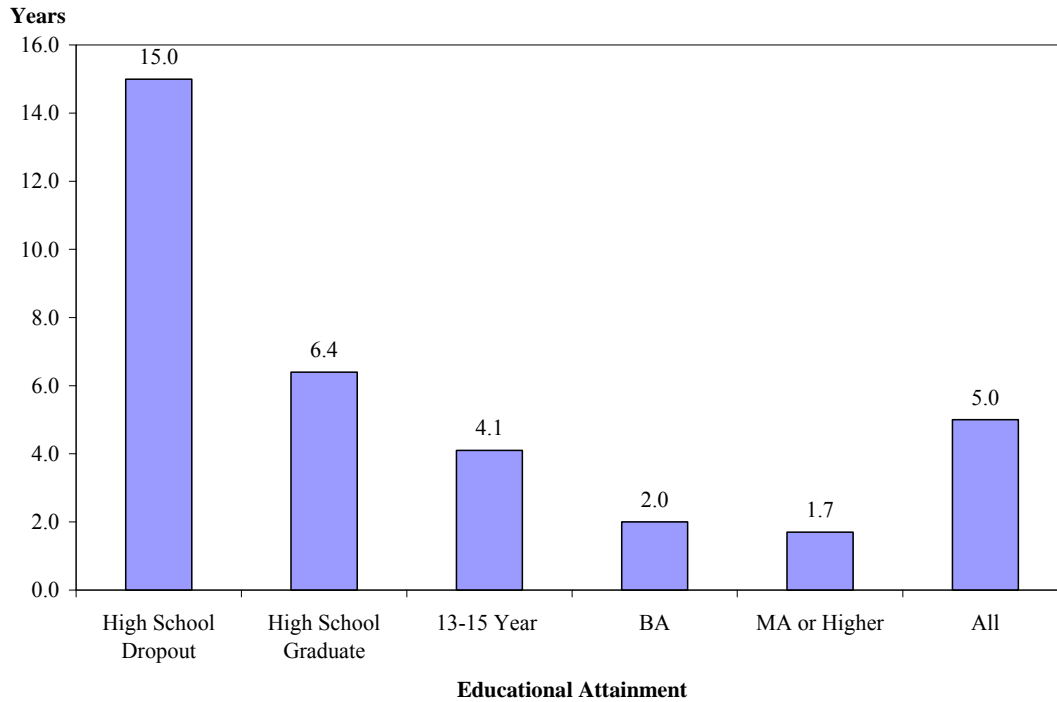
Table 24:
Mean Expected Lifetime Years in Poverty/Near Poverty Among 18-64 Year Olds in Connecticut by Educational Attainment and Gender, 1979 to 2005-07

Men			
	(A)	(B)	(C)
Educational Attainment	1979	2005 – 2007	Change in Years
High school dropout	5.5	9.0	+3.5
High school graduate/GED	2.2	3.8	+1.6
Some college	1.8	2.4	+.6
Bachelor degree	1.6	1.5	-.1
Master's or higher degree	1.1	1.3	+.2
All	2.7	3.4	+.7

Women			
	(A)	(B)	(C)
Educational Attainment	1979	2005 – 2007	Change in Years
High school dropout	10.7	15.0	+4.3
High school graduate/GED	3.7	6.4	+2.7
Some college	2.9	4.1	+1.2
Bachelor degree	2.7	2.0	-.7
Master's or higher degree	1.7	1.7	0.0
All	4.6	5.0	+.4

Similar time trends prevailed among women. For all adult women combined, mean years in poverty/near poverty rose modestly from 4.6 years in 1979 to 5.0 years in 2005-2007. As was the case for men, the vast bulk of these gains in poverty/near poverty problems took place among women who either dropped out of high school or only obtained a high school diploma. In 2005-2007, the average female high school dropout was expected to spend 15 years with a PNP income, or nearly one-third of their entire working live being poor or near poor. Among female high school graduates, mean lifetime years in poverty/near poverty were only 6.4 and fell to 2.0 for those with a bachelor's degree. Female high school dropouts on average would spend 7.5 times as many years in poverty/near poverty as their peers with a bachelor's degree.

Chart 20:
Mean Expected Years Living in Poverty/Near Poverty Among 18-64 Year Old Women in Connecticut by Educational Attainment, 2005-2007 Averages



We repeated this analysis of lifetime exposure to income inadequacy problems replacing the poverty/near poverty income standard with the “low income” standard, i.e., an income below two times the official poverty line. Findings on time trends in the lifetime incidence of low income problems among Connecticut men and women by educational attainment over the 1979-2005/2007 time period are displayed in Table 25.

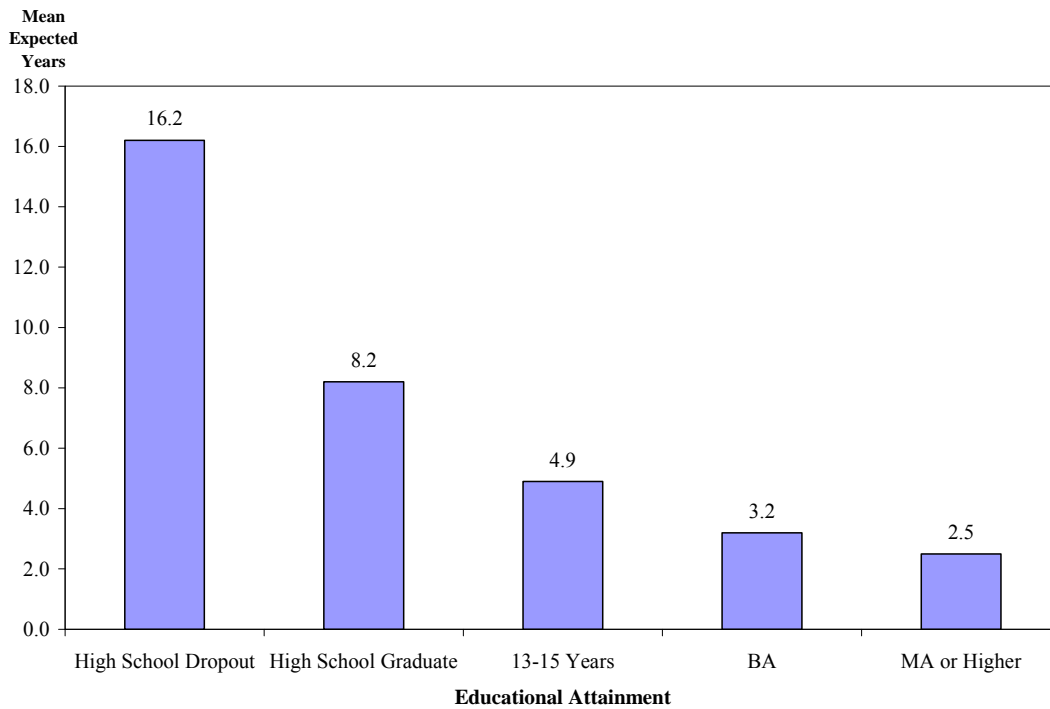
Table 25:
Mean Expected Lifetime Years in a Low Income Status Among 18-64 Year Olds in Connecticut by Educational Attainment and Gender, 1979 to 2005-07

Men			
	(A)	(B)	(C)
Educational Attainment	1979	2005 – 2007	Change in Years
High school dropout	11.6	16.2	+4.6
High school graduate/GED	5.6	8.2	+2.6
Some college	4.4	4.9	+.5
Bachelor degree	3.4	3.2	-.2
Master's or higher degree	2.5	2.5	0.0
All	6.0	6.7	+.7

Women			
	(A)	(B)	(C)
Educational Attainment	1979	2005 – 2007	Change in Years
High school dropout	17.3	22.1	+4.8
High school graduate/GED	8.1	11.8	+3.7
Some college	5.8	8.4	+2.6
Bachelor degree	4.9	3.9	-1.0
Master's or higher degree	3.5	2.8	-.7
All	8.8	8.8	.0

Among all men, there was a modest .7 year increase in expected years in a low income status, however, this increase was entirely attributable to the experiences of men who either lacked a high school diploma or only had a diploma/GED. The increase in lifetime years of low income was greatest among male high school dropouts, with their mean years rising from 11.6 to 16.2 years (Chart 201). Male high school dropouts in Connecticut would be expected to spend one-third of their working lifetime years from 18-64 in a low income status. Their expected years in a low income status was twice as high as that of high school graduates and five times higher than that of bachelor degree holders.

Chart 20:
Mean Expected Lifetime Years in a Low Income Status Among
Connecticut Males 18-64 by Educational Attainment, 2005-2007



Among adult women as a whole, there was no change in mean lifetime years in a low income status between 1979 and 2005-2007. This overall measure of stability masked very substantial changes in expected years of low incomes across educational groups, with the less educated groups experiencing large increases and college educated women experiencing declines. In 2005-2007, female high school dropouts would be expected to spend 22 years or half of their working lifetime in a low income status. They would spend twice as many years in a low income status as women with a high school diploma/GED and nearly six times as many years as their peers with a bachelor’s degree in the state. A lack of schooling beyond high school was condemning these women to more of a life with severe income inadequacy problems in Connecticut.