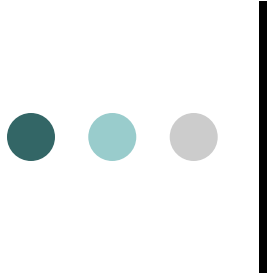


The Economic, Social, Civic and Fiscal  
Consequences of Dropping Out of High  
School: Findings for Connecticut Adults in  
the 21<sup>st</sup> Century

Andrew Sum  
Center for Labor Market Studies  
Northeastern University

Prepared for:  
Governor's Summit on Dropout Prevention  
October 19, 2009

“This report was commissioned by Our Piece of the Pie® and Capital Workforce Partners with additional funding support from the Nellie Mae Education Foundation and the Connecticut Office of Workforce Competitiveness.”



## The Economic, Social, Civic and Fiscal Consequences of Dropping Out of High School in Connecticut

- The economic, civic and social case for addressing high school dropout problems in Connecticut (a need for both prevention and recovery efforts)
- The labor market difficulties of teen and young adult (20-34 year old) dropouts in Connecticut; declining lifetime earnings and income prospects of 18-64 year old dropouts
- The key social consequences of dropping out of high school in Connecticut: declining marriage rates, increasing out-of-wedlock childbearing, high income inadequacy problems of children, lower rates of ownership, less civic engagement and volunteering, poor health, higher rates of incarceration in jails and prisons
- The fiscal consequences of dropping out of high school: lower tax payments at all levels of government, increased dependency on government for cash and in-kind transfers, a higher incarceration cost, a major net fiscal burden

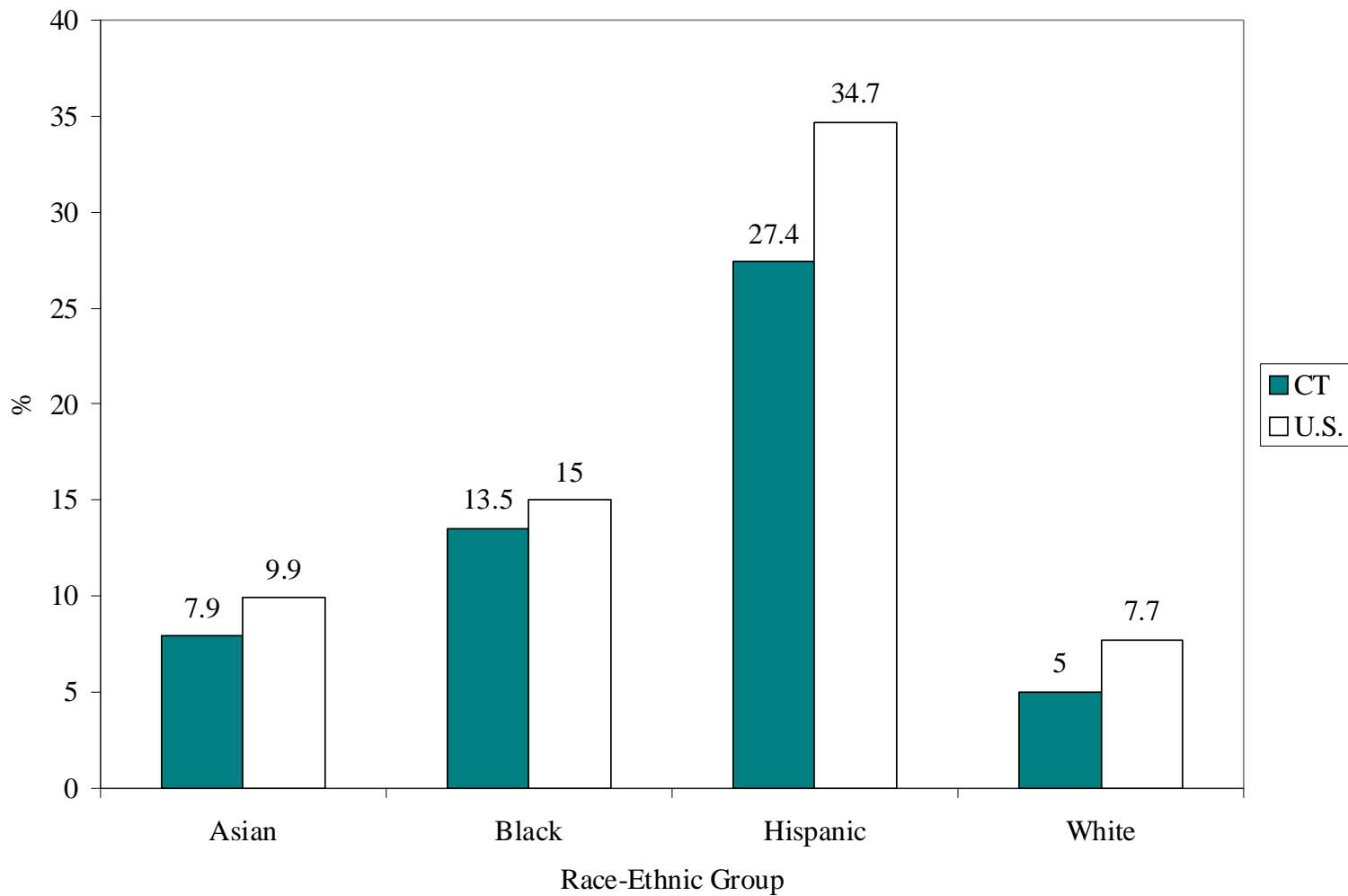


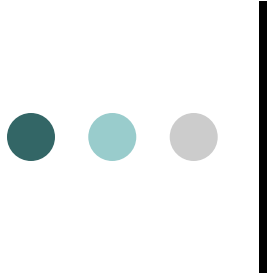
The Distribution of the 18-64 Year Old Resident Population  
in Connecticut by Their Level of Educational Attainment and  
Nativity Status, 2005-2007

	(A)	(B)	(C)
Educational Attainment	Total	Native Born	Foreign Born
H.S. dropouts	8.3	5.5	20.2
H.S. graduates, with no post-secondary schooling	29.0	28.6	31.0
Some College, no degree	20.8	22.5	13.5
Associate degree	7.7	8.0	6.6
Bachelors degree	20.1	21.1	15.7
Masters or higher degree	14.0	14.3	12.9

● ● ●

## The Percent of High School Dropouts in the 18-64 Year Old Population of Connecticut and the U.S. By Race-Ethnic Group, 2005-2007





## Estimating the Number of 18-24 Year Olds Who Left High School Without a Regular Diploma:

○ High school dropouts, no GED	22,516
○ The estimated ACS “undercount” of high school dropouts	2,501
○ 18-24 year olds with a GED in 2007	10,011
○ Projected number of high school students who will drop out before receiving a regular diploma	2,198
<b>○ Total, above four groups</b>	<b>37,226</b>
<b>○ Total 18-24 Year Old Population</b>	<b>300,223</b>
<b>○ Dropouts as a share of the 18-24 Year Old Population</b>	<b>12.4%</b>

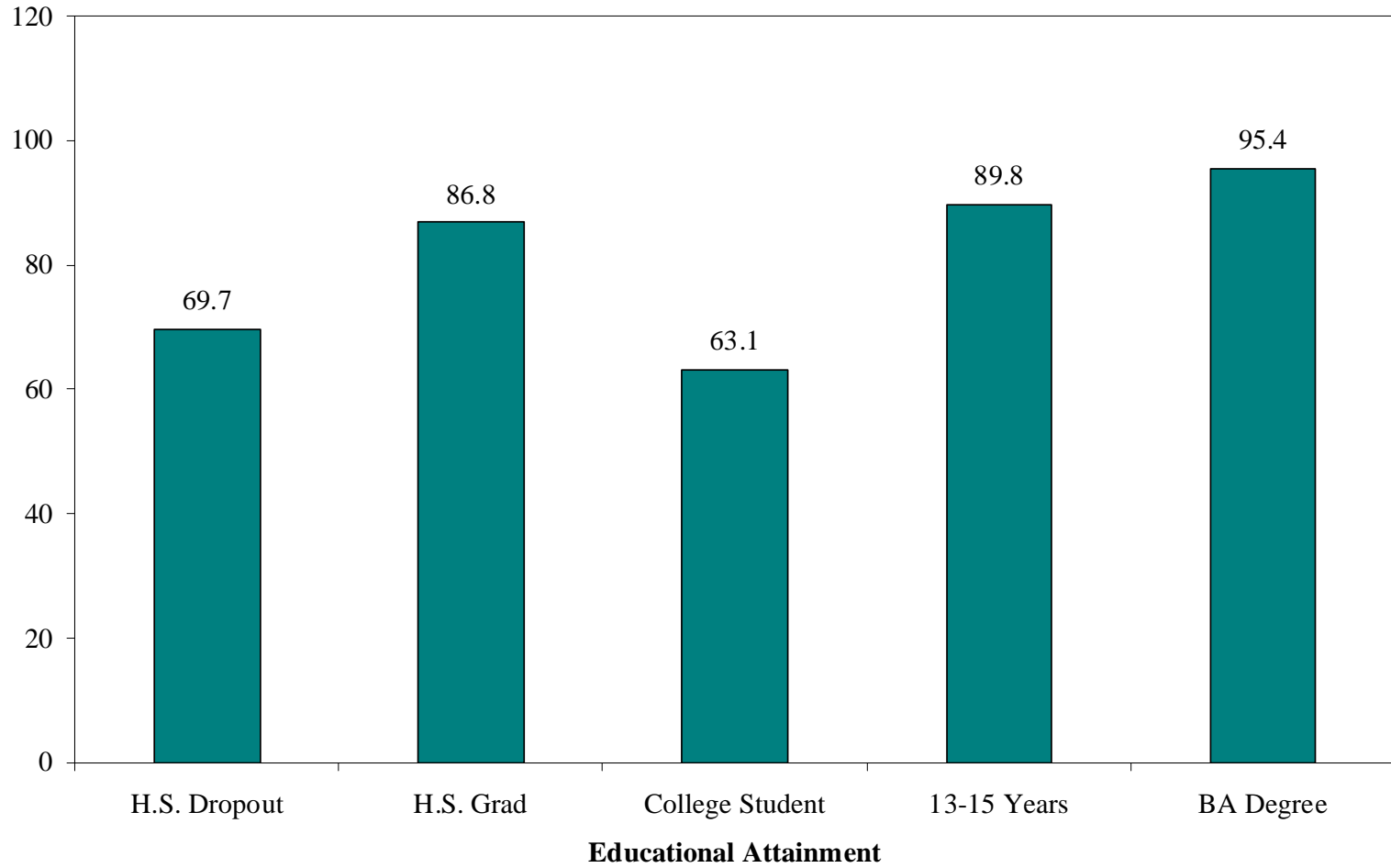


## The Labor Market Experiences and Earnings Outcomes of Connecticut Adults (16-64) by Educational Attainment

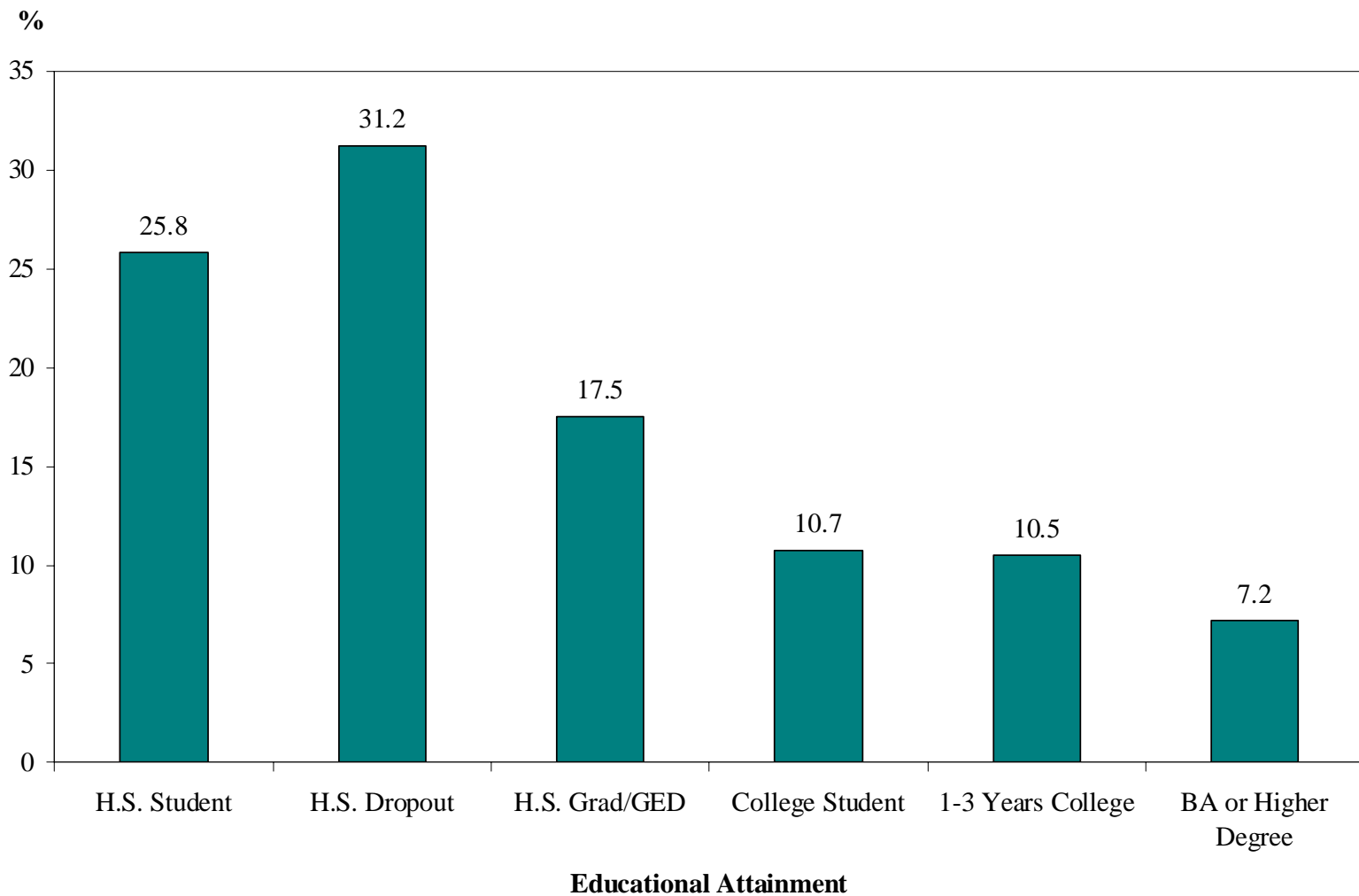
- The civilian labor force participation behavior and unemployment rates of 16-24 year olds in Connecticut by educational attainment
- The employment rates of 16-24 year olds in Connecticut and the U.S. by educational attainment
- The mean annual hours of work and annual earnings of teens and young adults in Connecticut; large earnings gaps by level of educational attainment
- Trends in lifetime earnings of 18-64 year old men and women in Connecticut by educational attainment
- Differences in the mean expected lifetime earnings of male and female high school dropouts and graduates in Connecticut, 2005-2007
- Mean lifetime years in a poverty/near poverty and low income status among Connecticut men and women by educational attainment, 2005-2007

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

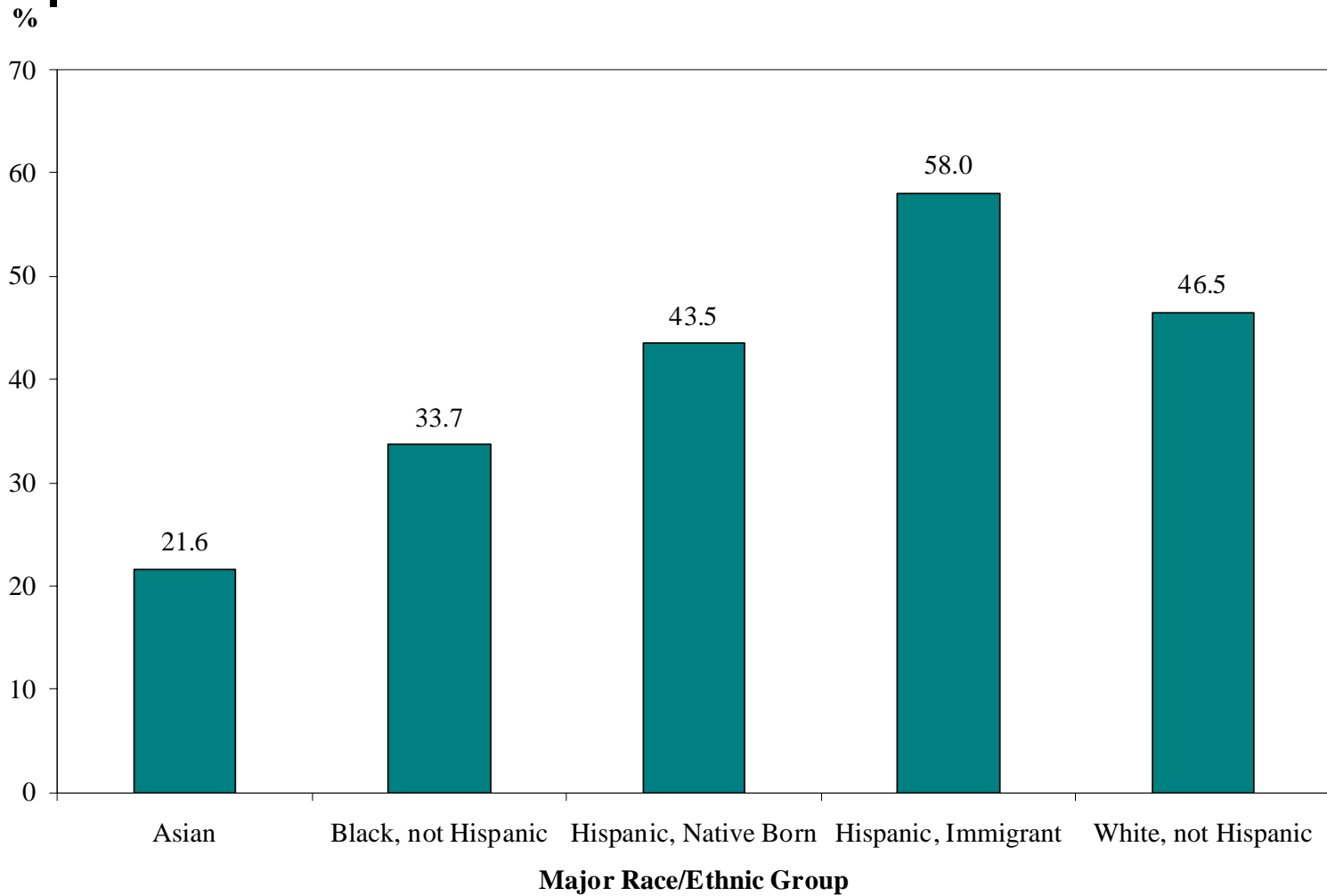
%



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



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



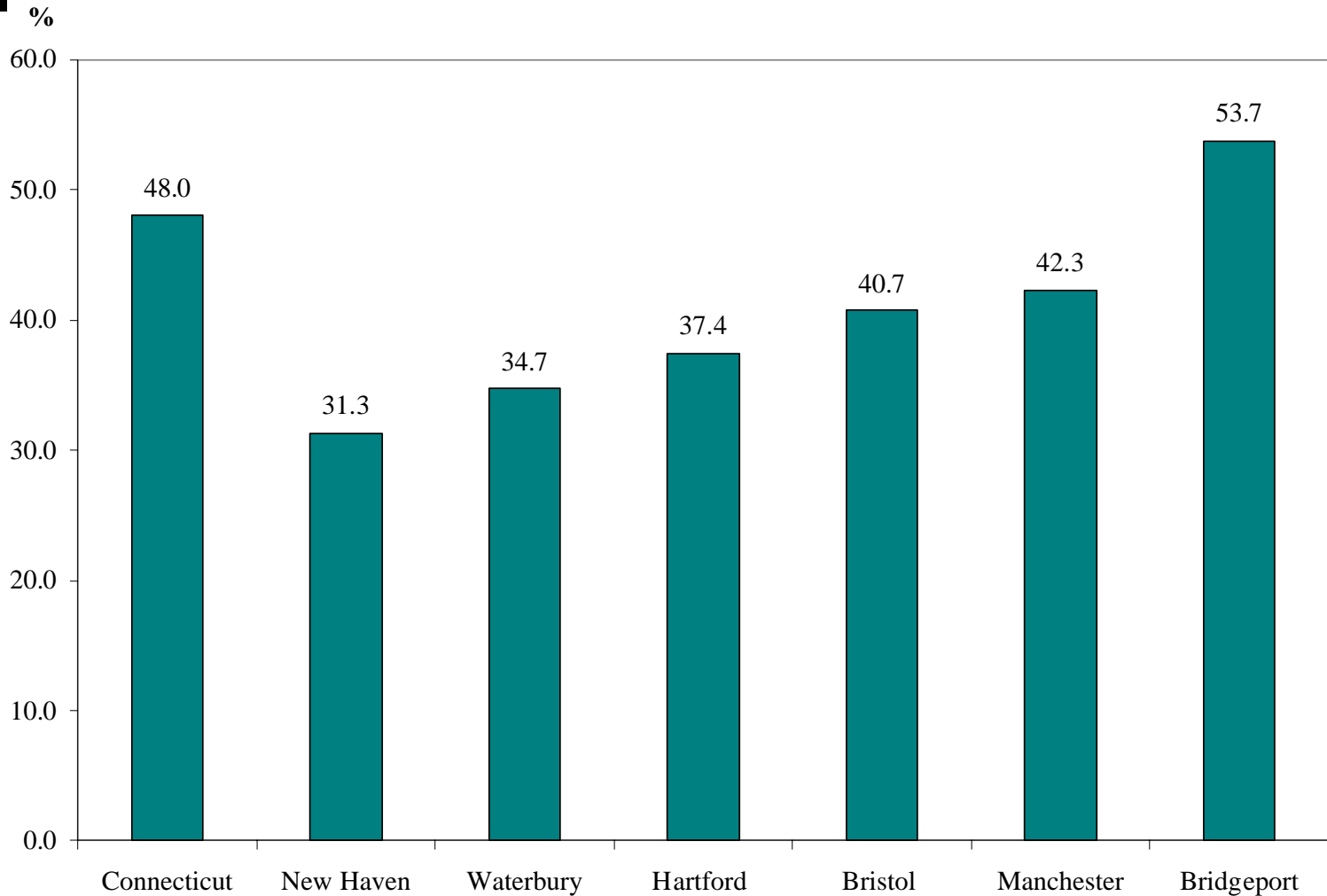


Comparisons of the Employment/Population Ratios of  
16-24 Year Olds in Connecticut and the U.S. by Educational  
Attainment/School Enrollment Status, 2005-2007 Averages

	(A)	(B)	(C)
Educational Group	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	80.1	79.3	+0.8
Bachelor's degree	88.5	83.9	+0.6
All	53.7	52.8	+0.9



## Employment Rates of 16-24 Year Old Dropouts in Connecticut and Selected Cities/Areas of the State, 2005-2007



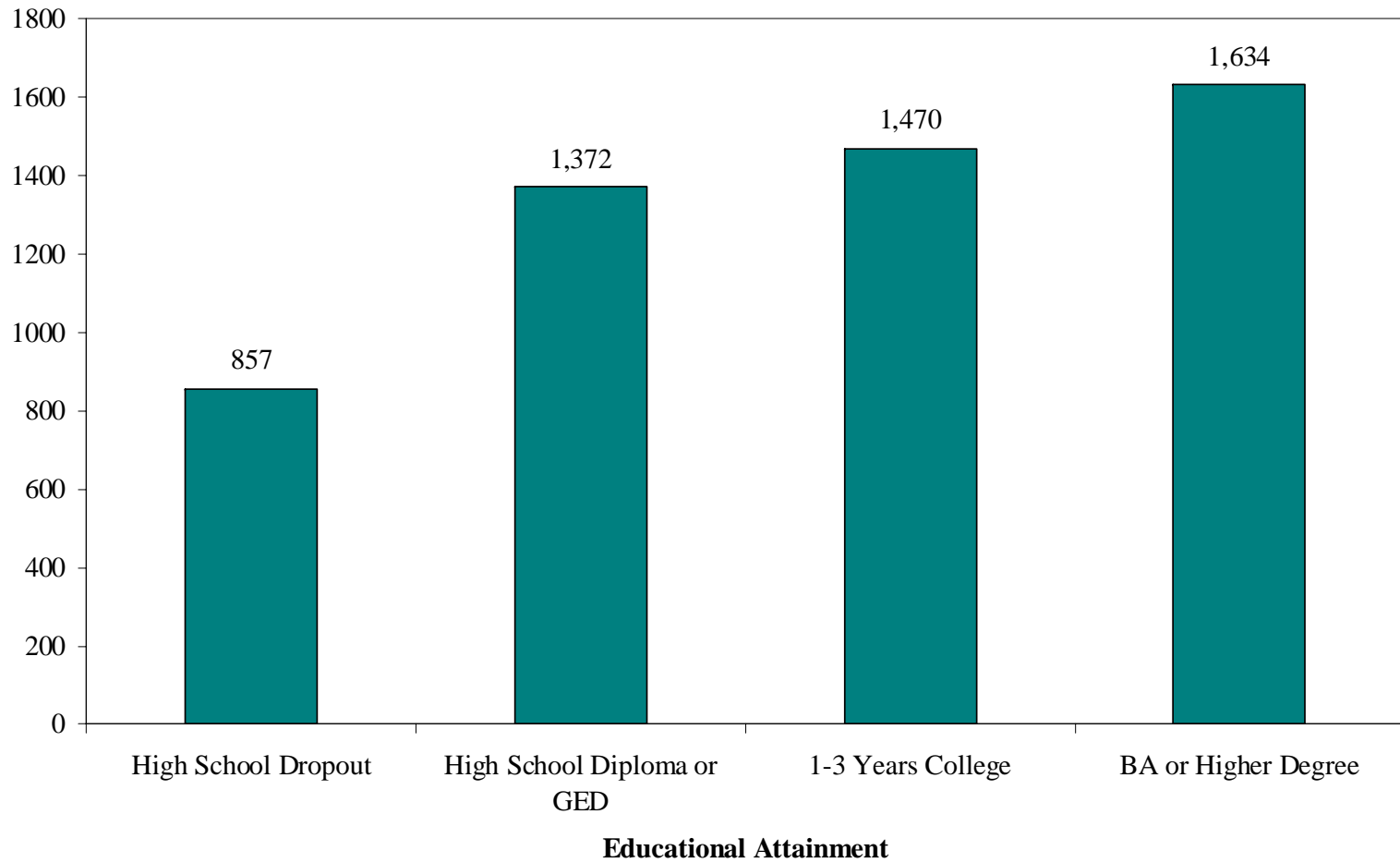
Mean Annual Hours of Work of 16-24 Year Olds in Connecticut and Mean Hourly Earnings of Employed by Educational Attainment, All and by Gender, 2005 – 2007 Averages

	(A)	(B)	(C)	
Mean Annual Hours of Work (Including Non-Workers) 00	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	
	(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	

● ● ●

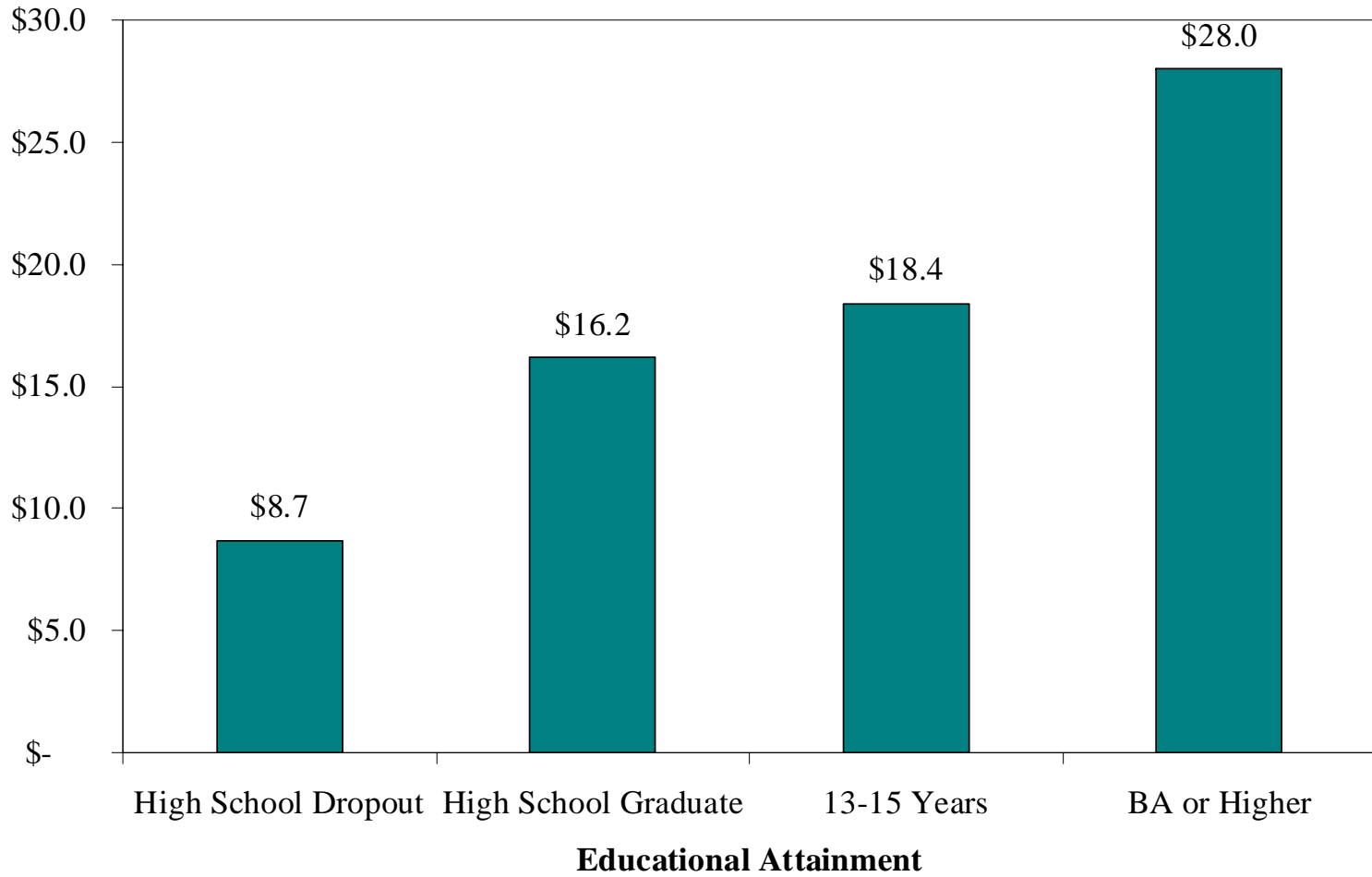
## Mean Annual Hours of Work Among Non-Enrolled 16-24 Year Olds in Connecticut by Educational Attainment, 2005-2007 Averages (includes non-workers)

Mean Annual Hours



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

in 1000s



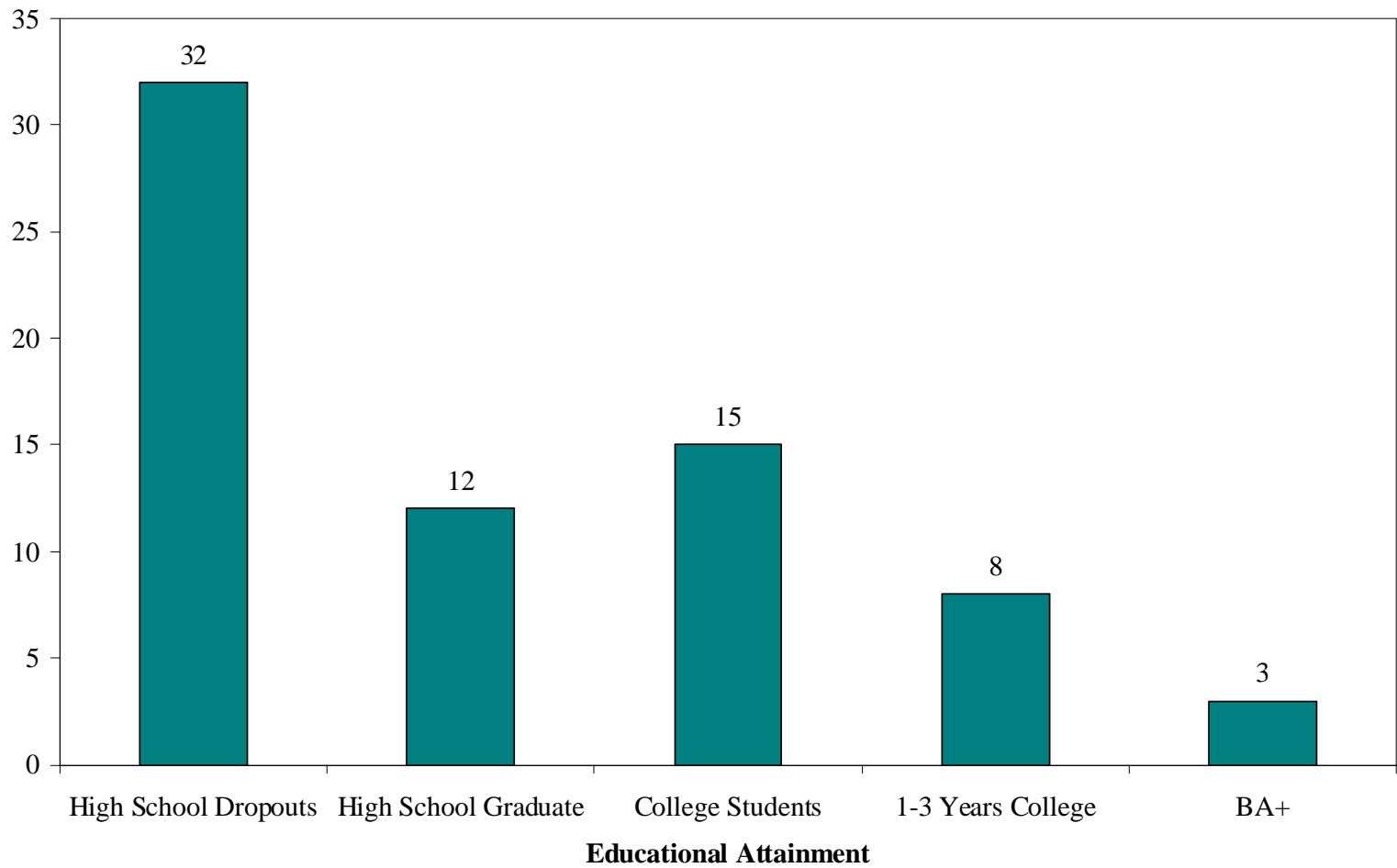


Percent of 16-24 Year Olds in Connecticut Experiencing Selected Types of Income Inadequacy Problems by Educational Attainment, 2005-2007 Averages (Excludes High School Students)

	(A)	(B)	(C)
Educational Attainment	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

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)

Percent





Trends in Male Mean Lifetime Earnings<sup>(1)</sup> 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

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



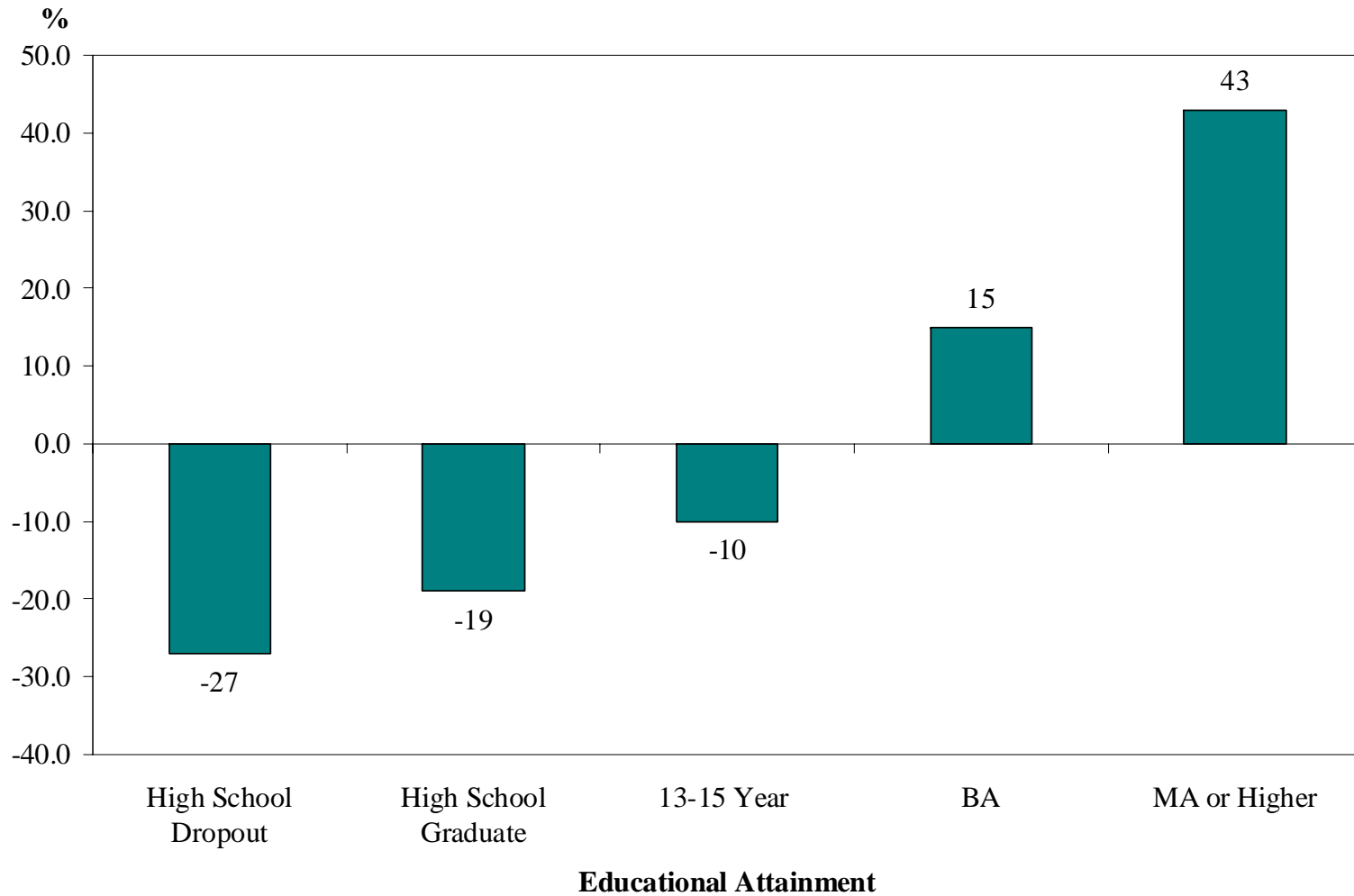
Trends in Female Mean Lifetime Earnings<sup>(1)</sup> from Employment in Connecticut From Ages 18-64 by Educational Attainment and by Gender (in \$1000 of 2009 Dollars)

**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.

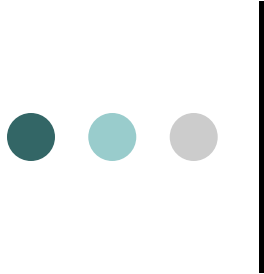
Percent Change in the Mean Real Lifetime Earnings of Males in Connecticut by Educational Attainment from 1979 to 2005-2007





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



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**

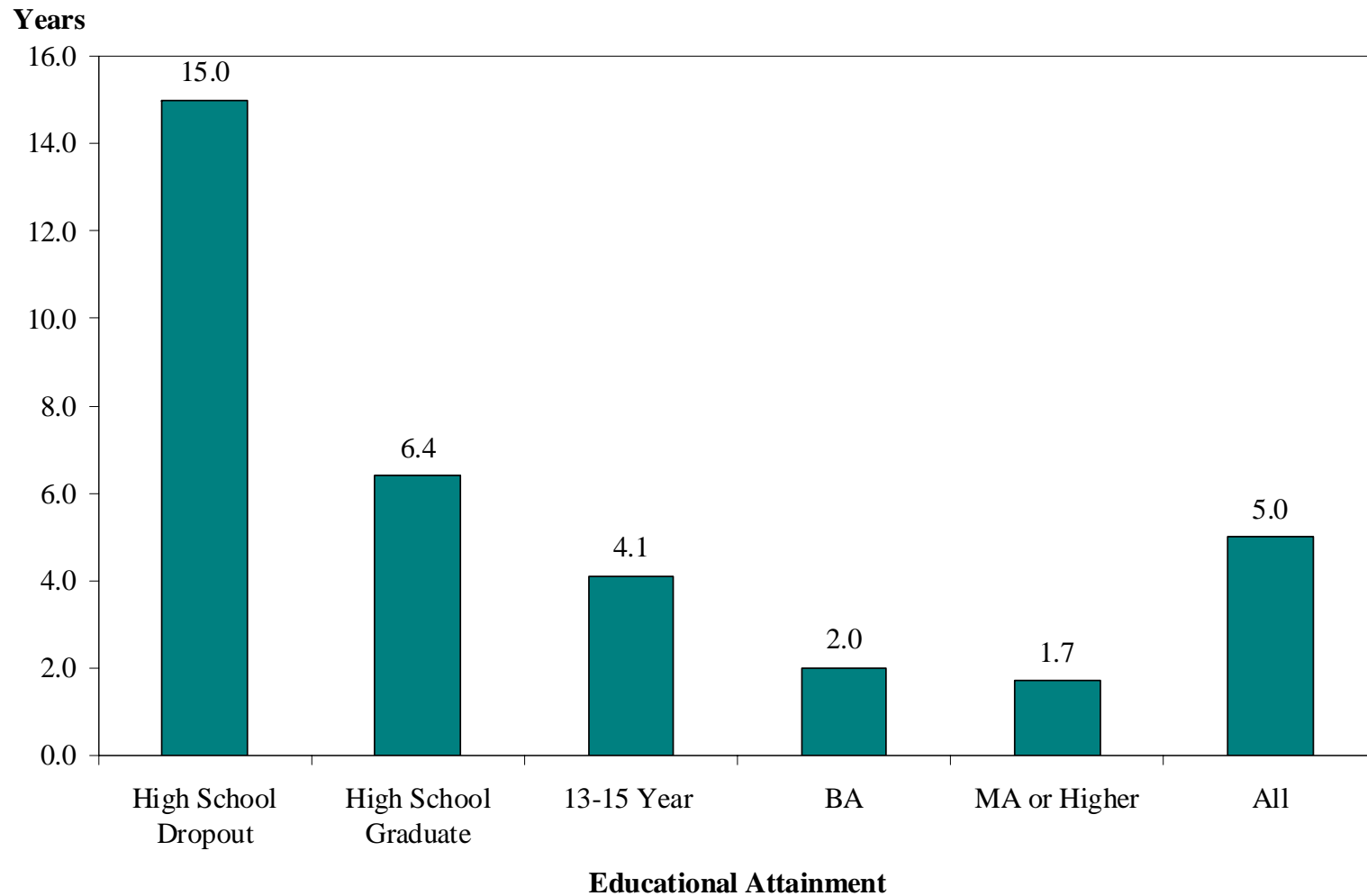
	(A)	(B)	(C)
Educational Attainment	1979	2005 – 2007	Change in Years
High school dropout	5.5	9.0	+3.5
High school graduate/GED	2.2	3.8	+1.6
Some college	1.8	2.4	+.6
Bachelor degree	1.6	1.5	-.1
Master's or higher degree	1.1	1.3	+.2
All	2.7	3.4	+.7

**Women**

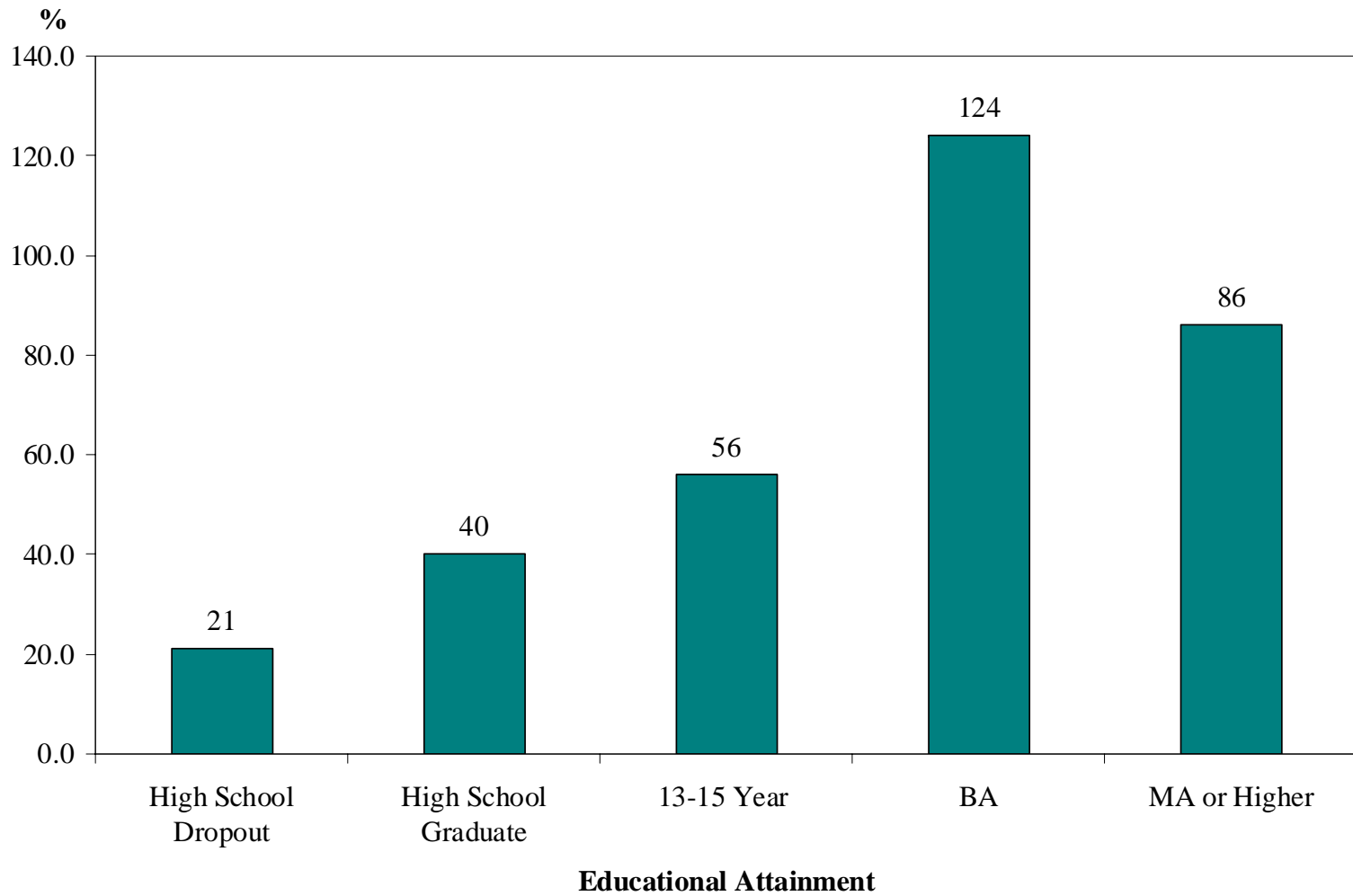
	(A)	(B)	(C)
Educational Attainment	1979	2005 – 2007	Change in Years
High school dropout	10.7	15.0	+4.3
High school graduate/GED	3.7	6.4	+2.7
Some college	2.9	4.1	+1.2
Bachelor degree	2.7	2.0	-.7
Master's or higher degree	1.7	1.7	0.0
All	4.6	5.0	+.4

● ● ●

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



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





## Key Social, Civic, Health, and Criminal Justice Consequences of Dropping Out of High School in Connecticut

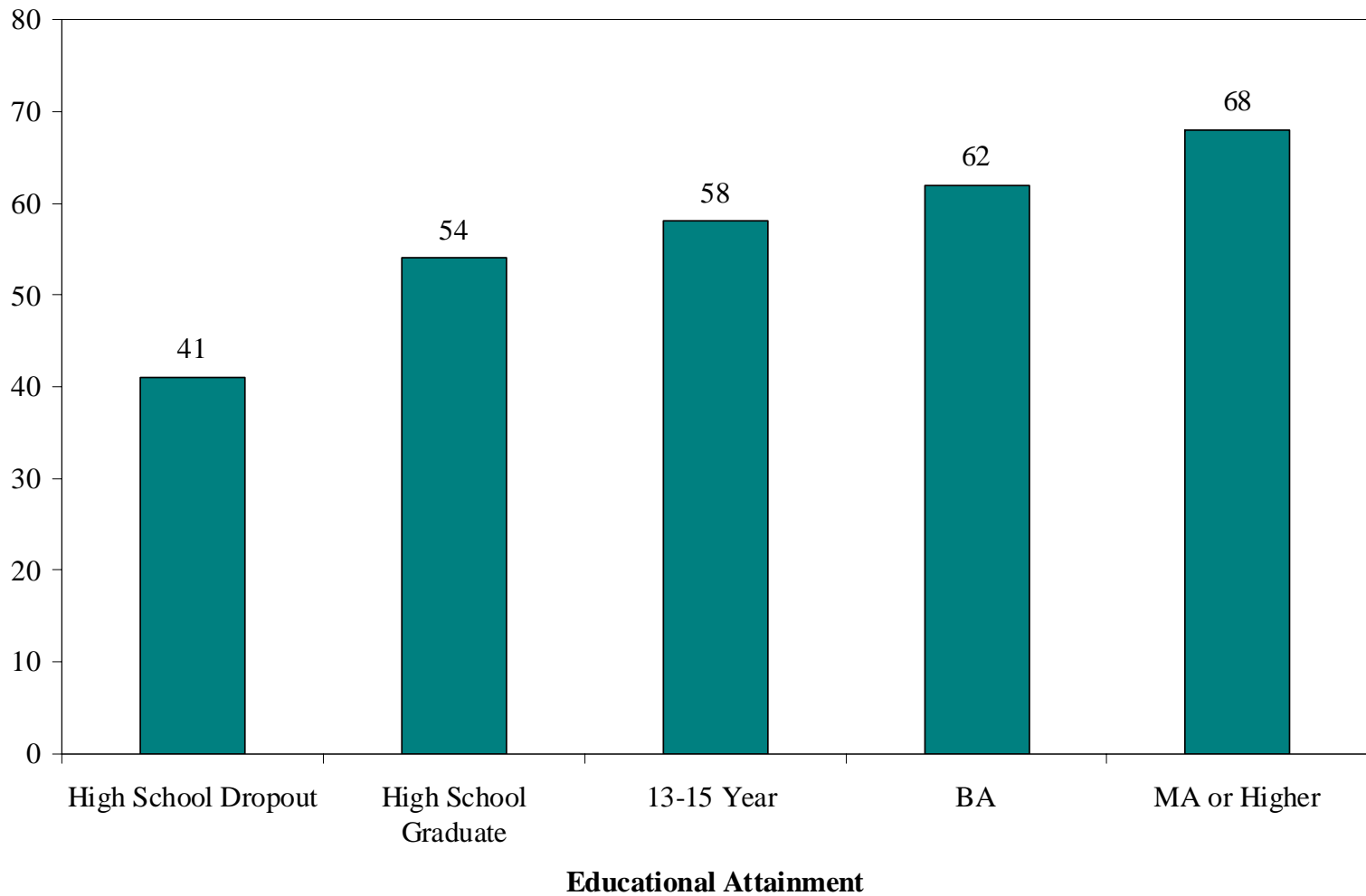
- Trends in marriage rates of Connecticut adults by educational attainment
- The share of births taking place out-of-wedlock to Connecticut women under 30 years old
- The dependence of Connecticut adults on welfare income and food stamps by educational attainment
- The voting and volunteering behavior of Connecticut adults
- The self-reported health status and disability status of Connecticut adults
- The health insurance coverage of non-elderly Connecticut adults
- The incarceration status of young adults by educational attainment

Trends in the Marriage Rates of 22-34 Year Old Native Born Adults in Connecticut by Educational Attainment from 1980 to 2005-2007 (in %)

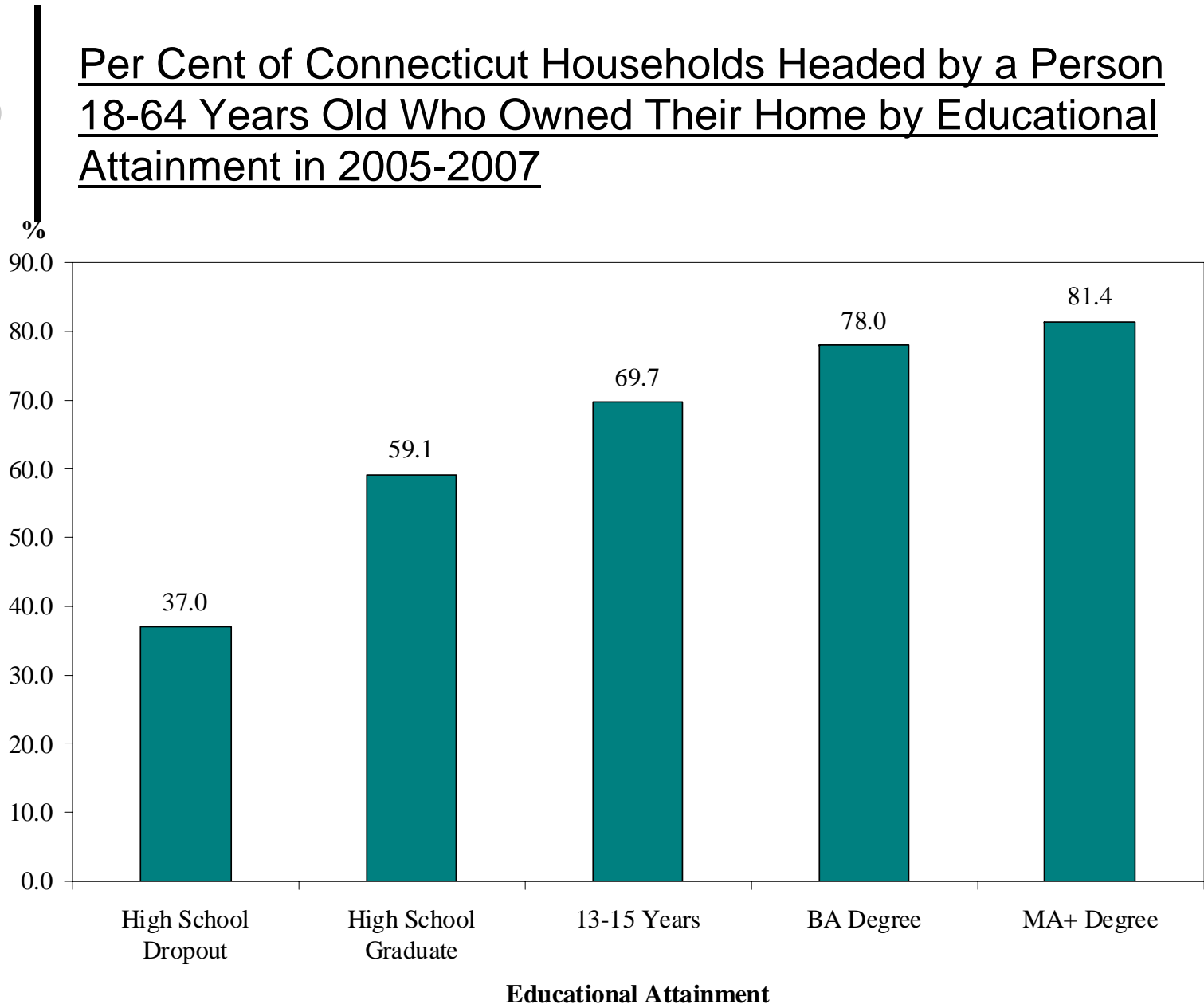
	(A)	(B)	(C)
Educational Attainment	1979	2005 – 2007	Change in Years
<b>All</b>			
High school dropout	66.4	40.9	-25.5
High school graduate/GED	72.1	54.4	-17.7
Some college	66.1	58.3	-7.8
Bachelor degree	67.9	63.9	-4.0
Master's or higher degree	74.5	72.7	-1.8
All	69.4	59.8	-9.6
<b>Men</b>			
High school dropout	70.6	43.0	-27.6
High school graduate/GED	71.8	55.9	-16.5
Some college	65.7	58.4	-7.3
Bachelor degree	69.4	65.6	-3.8
Master's or higher degree	79.2	77.8	-1.4
All	70.9	60.4	-10.5
<b>Women</b>			
High school dropout	62.2	38.6	-23.6
High school graduate/GED	72.4	55.9	-16.5
Some college	66.5	58.2	-7.3
Bachelor degree	66.1	63.3	-3.8
Master's or higher degree	66.4	68.3	+1.9
All	67.9	59.2	-8.7



## Marriage Rates of 22-64 Year Olds in the State of Connecticut by Educational Attainment, 2005-2007 Averages



Per Cent of Connecticut Households Headed by a Person  
18-64 Years Old Who Owned Their Home by Educational  
Attainment in 2005-2007





Voting Rates of 18-64 Year Old Citizens in Connecticut by Educational Attainment in the 2004, 2006, and 2008 National Elections (in %)

	(A)	(B)	(C)
Educational Attainment	2004	2006	2008
High school dropout	46.6	26.8	41.5
High school graduate/GED	53.9	40.1	55.8
1-3 years of college	63.4	47.0	73.1
Bachelor's degree	73.6	61.7	77.4
Master's or higher degree	82.3	76.8	82.4
All	63.3	49.7	67.2

Source: November 2004, 2006, and 2008 CPS surveys, public use files, tabulations by authors.



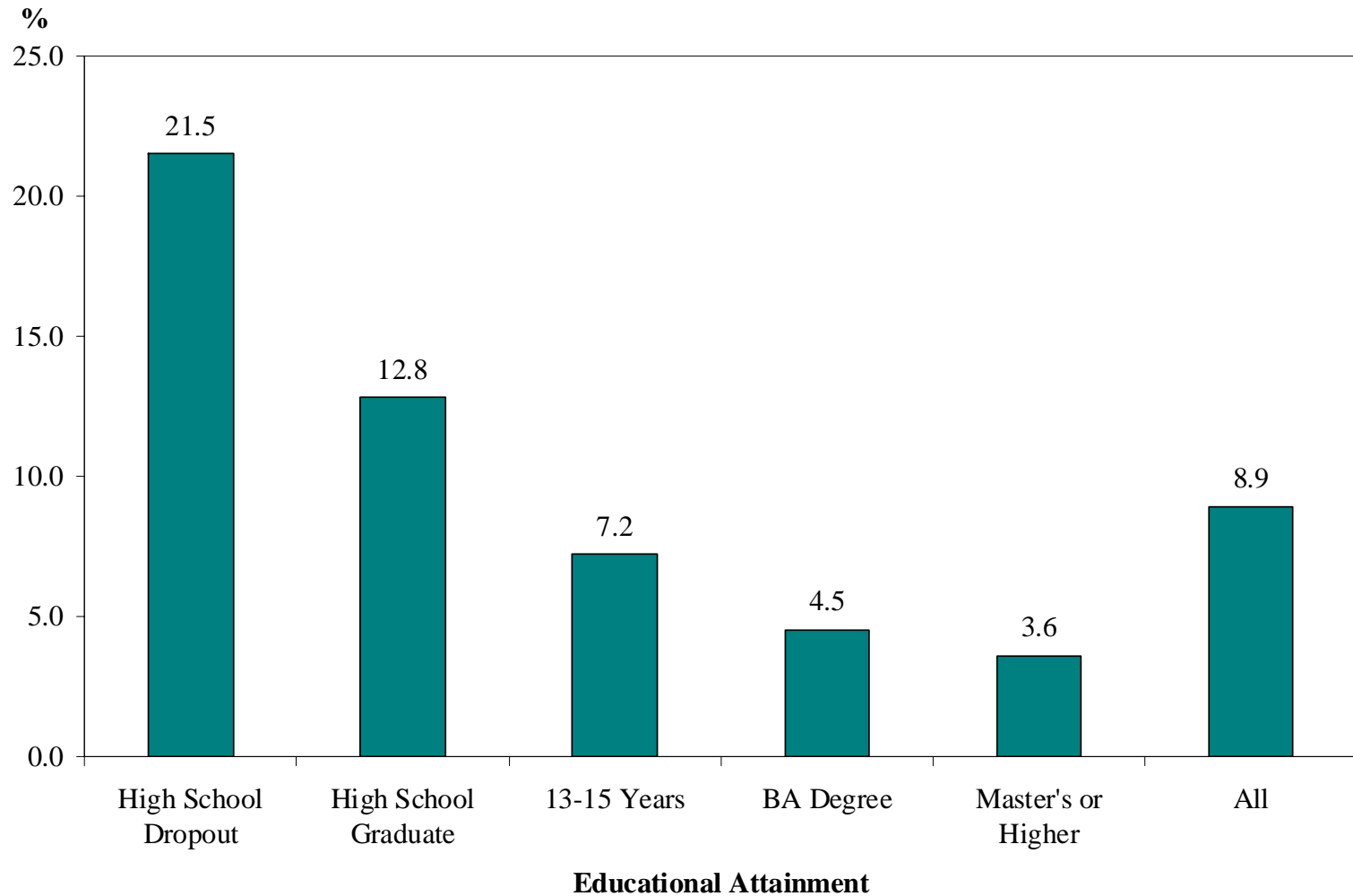
Volunteering Rates of 18-64 Year Olds<sup>(1)</sup> in Connecticut by  
Type Activity and by Educational Attainment, 2005-2008  
Averages

	(A)	(B)	(C)
Educational Attainment	Any Volunteering	Civic Volunteering	Health or Education Volunteering
High school dropout	11.5	1.9	5.1
High school graduate	20.7	3.0	9.8
1-3 years of college	32.5	7.5	14.8
BA degree	39.7	8.2	19.0
Master's or higher degree	51.3	12.3	22.4
All	31.6	6.7	14.4

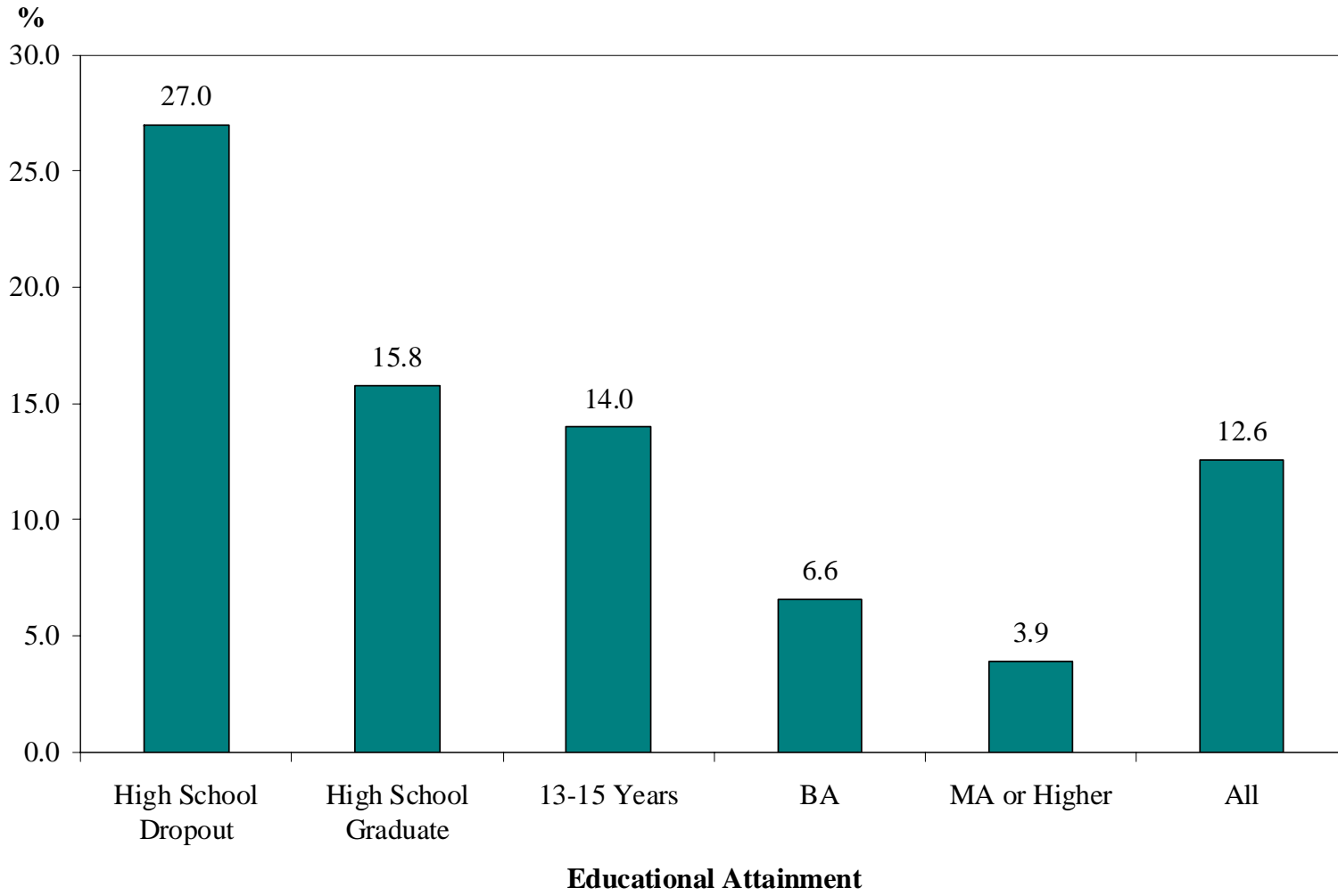
Note: Findings exclude high school and college students.

Source: September 2007 and September 2008 CPS surveys, public use files, tabulations by authors.

Percent of 18-64 Year Olds in Connecticut Who Report Their Health Status as Only Fair or Poor in 2007 and 2008 by Educational Attainment

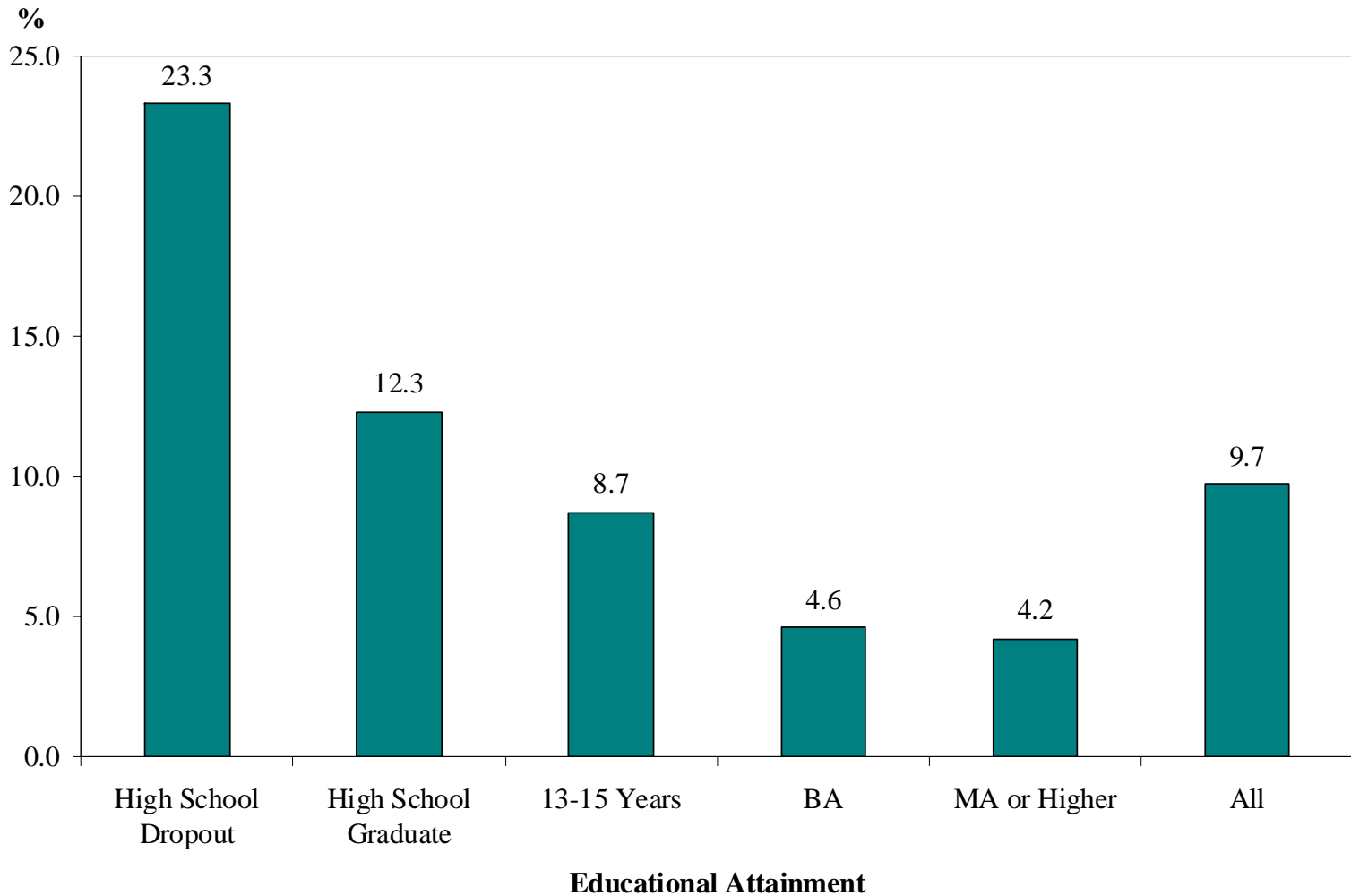


Percent of 18-64 Year Olds in Connecticut Who Lacked Any Health Insurance Coverage by Educational Attainment, 2007-2008 Averages



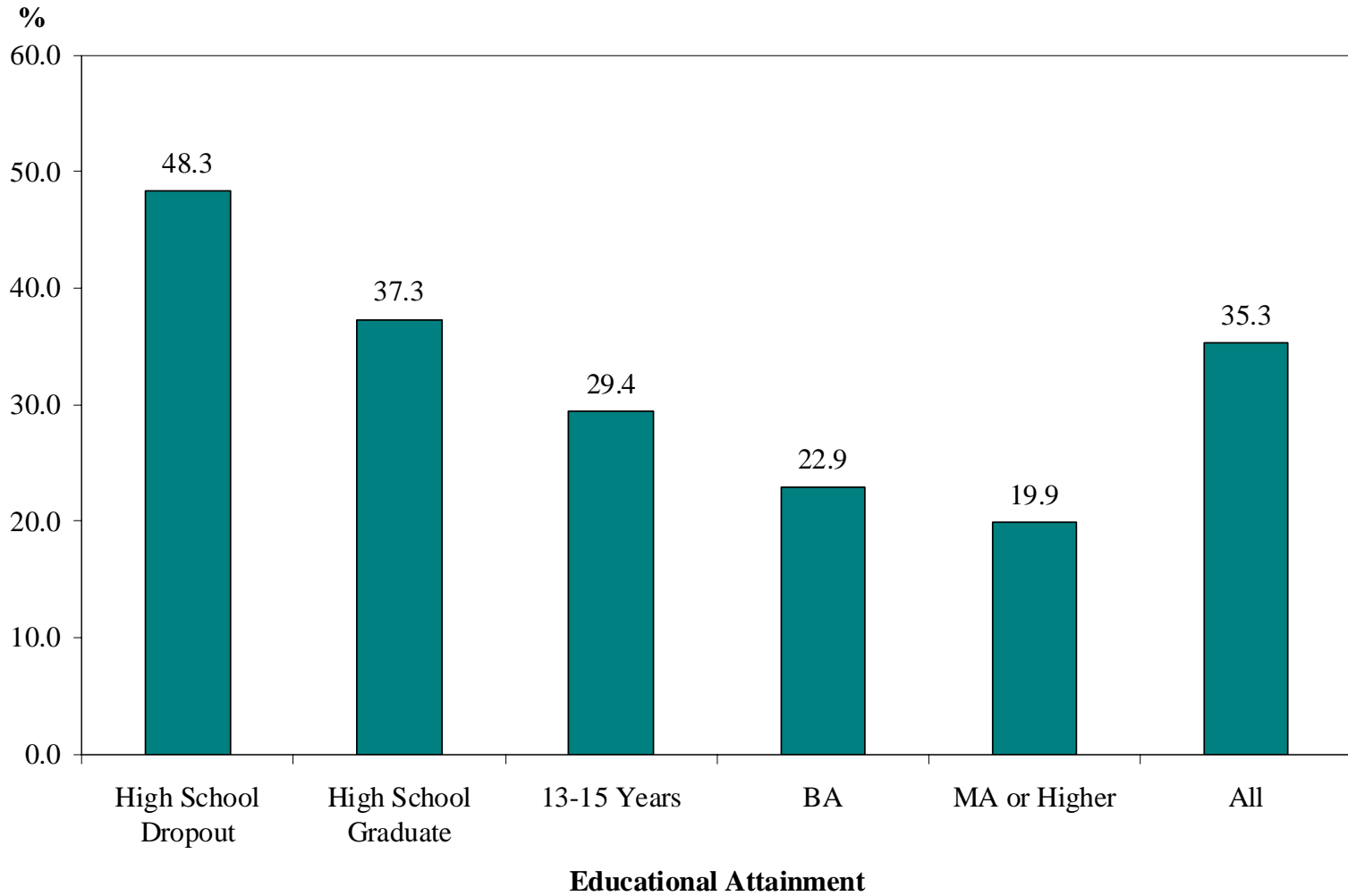


Percent of 18-60 Year Olds in the State of Connecticut Who Reported Some Type of Disability by Educational Attainment, 2005-2007 Average

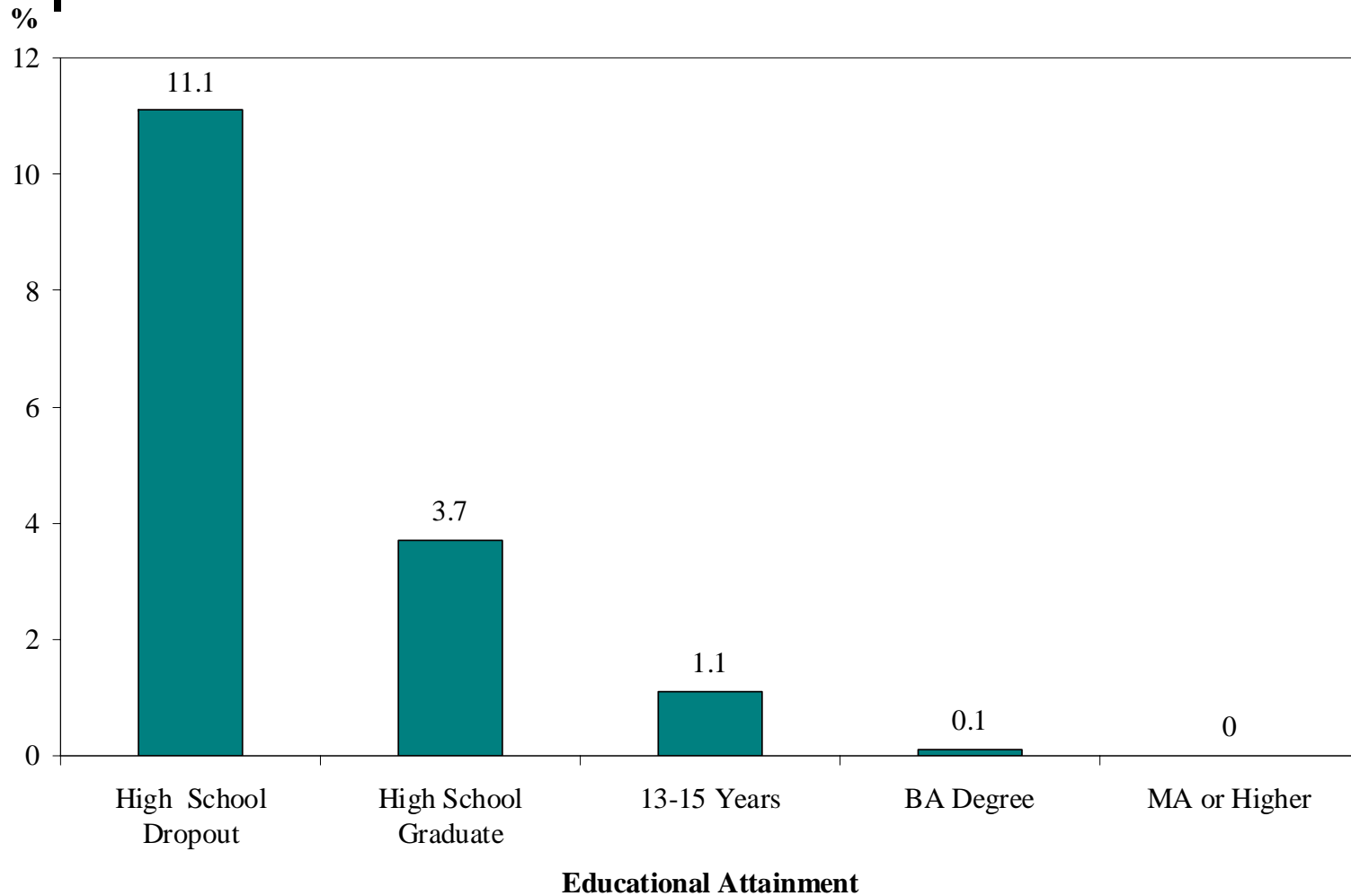




Percent of 18-60 Year Old Disabled Persons in the State of Connecticut Who Were Dependent on Some Form of Cash Public Assistance Income by Educational Attainment, 2005-2007 Averages



Percent of 18-64 Year Old Males in Connecticut Who Are Institutionalized by Educational Attainment, 2006-2007 Averages





## The Fiscal Consequences of Being a High School Dropout in Connecticut

- Measuring the net annual fiscal contributions of Connecticut adults by educational attainment
- The sources of federal, state, and local tax payments of each educational group
- The receipt of a wide array of both cash and in-kind transfers (rental subsidies, food stamps, Medicaid benefits, etc.) from the government
- Correctional institution costs imposed by each educational group
- Estimates of the mean size of the net annual fiscal contributions of each educational group
- The lifetime differences between the net tax payments of Connecticut high school dropouts, high school graduates, and those with 1-3 years of college



A Listing of the Income, Payroll, and Property Tax Payments to the Federal Government and State and Local Governments

(A) Federal Government	(B) State and Local Governments
Federal income tax payments	State income tax liability
Federal retirement payroll deductions	Property tax liability
Federal retirement payroll deductions	Property tax liability
Social Security retirement payroll taxes	State sales tax



Cash and Non-Cash Transfers Received by Individuals  
or Households That Are Used in the Computation of the  
Net Fiscal Impacts

Cash Transfers	Non-Cash Transfers (In-Kind Benefits)
Unemployment benefits	Market value of food stamps
Worker's compensation	Market value of Medicare insurance
Social Security payments	Market value of Medicaid benefits
Supplemental Security Income for the disabled and aged	Family market value of housing subsidies
Public assistance income (TANF, general relief)	Family market value of school lunch subsidies
Veteran's payments	Energy assistance payments
Survivor's income benefits	
Other disability income	
Federal Earned Income Tax Credits	



A Listing of the Tax Payments, Cash Transfers, Non-Cash Transfers, and Jail/Prison Cost Items Used in the Computation of the Net Fiscal Impacts

**(A) Total Tax Payments**

- + Mean Federal Income Tax Payments
- + Mean State Income Tax Payments
- + Mean Federal Government Retirement Contributions
- + Mean Social Security Payroll (Include Employer Contribution)
- + Mean Expected Property Tax Payment
- + Mean Sales Taxes

**(B) Total Transfers/Jail or Prison Costs**

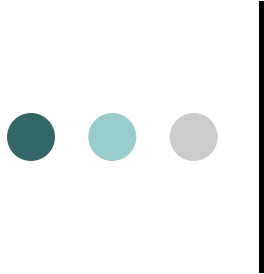
- + Mean Non-Cash Transfers
- + Mean Cash Transfers
- + Mean Jail/Prison Costs (for ages 18-60)

**Taxes Paid -Transfers/Jail or Prison Costs (A-B)**

**Ratio of Taxes Paid to Transfer/Jail or Prison Costs (A/B)**

The Mean Net Annual Fiscal Contributions of 18-64 Year Old Adults in Connecticut and the U.S. by Educational Attainment, Annual Averages, 2004-2007 (Dollars)

<b>Area/Education</b>	<b>Total Tax Payments</b>	<b>Total Transfers/ Jail or Prison Cost</b>	<b>Taxes Paid - Transfer/Jail or Prison Cost</b>
<b>Connecticut</b>			
<12 or 12, No HS Diploma	9,276	11,485	-2,209
HS Graduate or GED	13,452	4,642	8,810
1-3 Years of College	17,825	2,882	14,943
Bachelor's Degree	27,886	1,810	26,076
Master's or Higher	35,573	1,170	34,403
<b>Total</b>	<b>20,722</b>	<b>3,654</b>	<b>17,068</b>
<b>U.S.</b>			
<12 or 12, No HS Diploma	6,087	6,197	-110
HS Graduate or GED	9,938	3,551	6,386
1-3 Years of College	13,244	2,508	10,736
Bachelor's Degree	20,580	1,236	19,343
Master's or Higher	29,876	1,061	28,814
<b>Total</b>	<b>14,239</b>	<b>2,934</b>	<b>11,305</b>



Mean Lifetime Net Fiscal Contributions of U.S. Adults in Connecticut and the U.S. from Ages 18-64 by Educational Attainment, 2004-2007 Averages (In Dollars)

Educational Attainment	Connecticut	U.S.	Connecticut – U.S.
<12 or 12, No HS Diploma	-103,823	-5,170	-98,653
HS Graduate or GED	414,070	300,142	113,928
1-3 Years of College	672,435	483,120	189,315
Bachelor's Degree	1,095,192	812,406	282,786
Master's or Higher	1,341,717	1,123,746	217,971
Total	802,196	531,335	270,861



Differences Between the Estimated Mean Lifetime Net Fiscal Contributions of U.S. Adults in Selected Educational Groups

Groups Being Compared	Connecticut	U.S.	Connecticut – U.S.
High school graduate vs. dropout	517,893	305,312	212,581
13-15 years vs. high school graduate	258,365	182,978	75,387
B.A. degree vs. high school graduate	681,122	512,264	168,858
B.A. degree vs. high school dropout	1,199,015	817,576	381,439