IRis

Northeastern University

Center for Labor Market Studies Publications

Center for Labor Market Studies

November 01, 2011

High school dropouts in Chicago and Illinois: the growing labor market, income, civic, social and fiscal costs of dropping out of high school

Andrew Sum
Northeastern University

Ishwar Khatiwada
Northeastern University

Joseph McLaughlin
Northeastern University

Sheila Palma

Northeastern University - Center for Labor Market Studies

Recommended Citation

Sum, Andrew; Khatiwada, Ishwar; McLaughlin, Joseph; Palma, Sheila; and Northeastern University - Center for Labor Market Studies, "High school dropouts in Chicago and Illinois: the growing labor market, income, civic, social and fiscal costs of dropping out of high school" (2011). *Center for Labor Market Studies Publications.* Paper 41.

This work is available open access, hosted by Northeastern University.

High School Dropouts in Chicago and Illinois: The Growing Labor Market, Income, Civic, Social and Fiscal Costs of Dropping Out of High School

Prepared by:
Andrew Sum
Ishwar Khatiwada
Joseph McLaughlin
Sheila Palma

Center for Labor Market Studies
Northeastern University

Prepared for:
Chicago Alternative Schools Network

November 2011

CENTER FOR LABOR MARKET STUDIES
Northeastern University

Table of Contents

Introduction 1

Estimates of High School Dropouts in the City of Chicago, the Chicago Metro Area, and the State of Illinois 1

Trends in the Employment/Population Ratios of 16-24 Year Olds in Chicago and Illinois: Declining Employment Prospects for Young Dropouts 3

Percent of Native Born Adults in Illinois Who Were Jobless Year Round in 2009-2010 6

The Employment Problems of 18-64 Year Old Dropouts in Chicago and Illinois 7

Labor Underutilization Problems Among High School Dropouts and Their Better Educated Peers in Illinois, 2009-2010 8

The Limited Annual and Lifetime Earnings of High School Dropouts 12

Home Ownership Among Households Headed By High School Dropouts in Illinois 14

The Very Limited Annual Property Income Receipts of High School Dropouts in Illinois 15

Poverty/Near Poverty and Low Income Problems of High School Dropouts 17

Receipt of Cash Public Assistance Income/Food Stamps by High School Dropouts in Illinois 21

Marital Behavior of High School Dropouts in Illinois and Its Impact on Child Living Arrangements 22

The Civic Behavior of High School Dropouts in Illinois 25

Incarceration Rates of Younger High School Dropouts (18-34 Years Old) in Illinois 26

The Contributions of U.S. Adults (18-64 Years Old) to the Fiscal Well-Being of National, State, and Local Governments by Educational Attainment 28

"We can't make it here anymore"
James McMurtry

"Don't Drop Out!"
James Brown

Introduction

Over the years, educational attainment in the U.S. has become a more important determinant of personal success and well-being in the labor market, social and family life, civic participation, personal physical and mental health, and overall life satisfaction. Those adults who fail to graduate from high school with a diploma face enormous obstacles in achieving adequate employment, earnings, and incomes over their entire adult life. The costs of dropping out of high school have increased over time for both the dropouts themselves and for society at large in the form of reduced federal, state, and local taxes and increased expenditures on dropouts in the form of cash and in-kind transfers. This policy brief provides a summary of key recent research findings on what we know about the costs of dropping out in the city of Chicago and the state of Illinois.

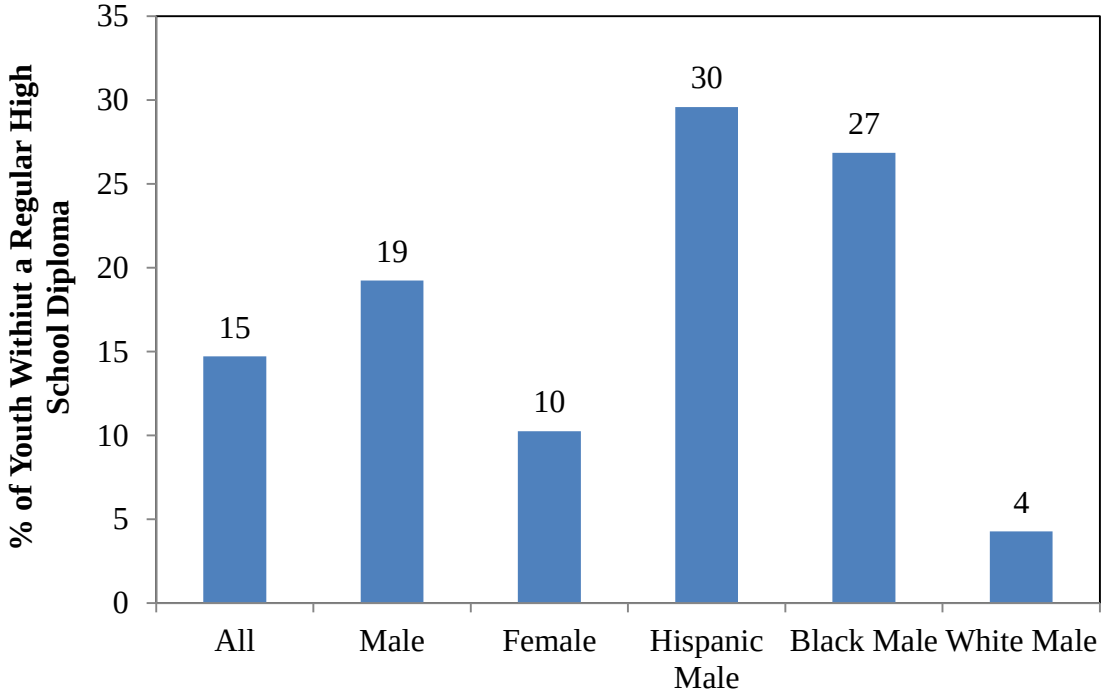
Estimates of High School Dropouts in the City of Chicago, the Chicago Metro Area, and the State of Illinois

Knowledge of the numbers of young adults lacking regular high school diplomas and the incidence of such problems among gender and race-ethnic groups is indispensable for educational and workforce development planning. Based on findings of the 2009 and 2010 American Community Surveys, nearly 42,000 or 15 percent of 19-to-24 year old youth in the city of Chicago did not have a regular high school diploma (See Chart 1).[1] Male youth in the city were nearly two times more likely to be dropouts than their female peers (19.2% versus 10.2%). Among major race-ethnic groups, the share of youth without a regular high school diploma varied widely, ranging from a low of 4 percent among White, non-Hispanics to highs of 20 percent among Blacks and nearly 24 percent among Hispanics. Among males, only 4 percent of White, non-Hispanics did not have a regular diploma while 27 percent of Black males and 30 percent of Hispanic males did not have a regular high school diploma. The share of youth in the

[1] These are conservative estimates of the number of high school dropouts. The American Community Survey tends to have below average coverage rates for low income households and respondents are known to sometimes exaggerate their educational credentials.

city of Chicago without a regular high school diploma (15%) was higher than that of the remainder of the Chicago Metro area (9.7%), state of Illinois (11.5%), and the entire U.S. (13.7%) (Chart 1).

Chart 1:
Percent of 19-to-24 Year Old Youth Who Did Not Have a Regular High School Diploma in the City of Chicago, All and by Gender and Selected Race-Ethnic Groups



Share of Native-Born and Foreign Born Youth Lacking a Regular High School Diploma in the City of Chicago, the Chicago Metro Area, Illinois, and the U.S., 2009-2010

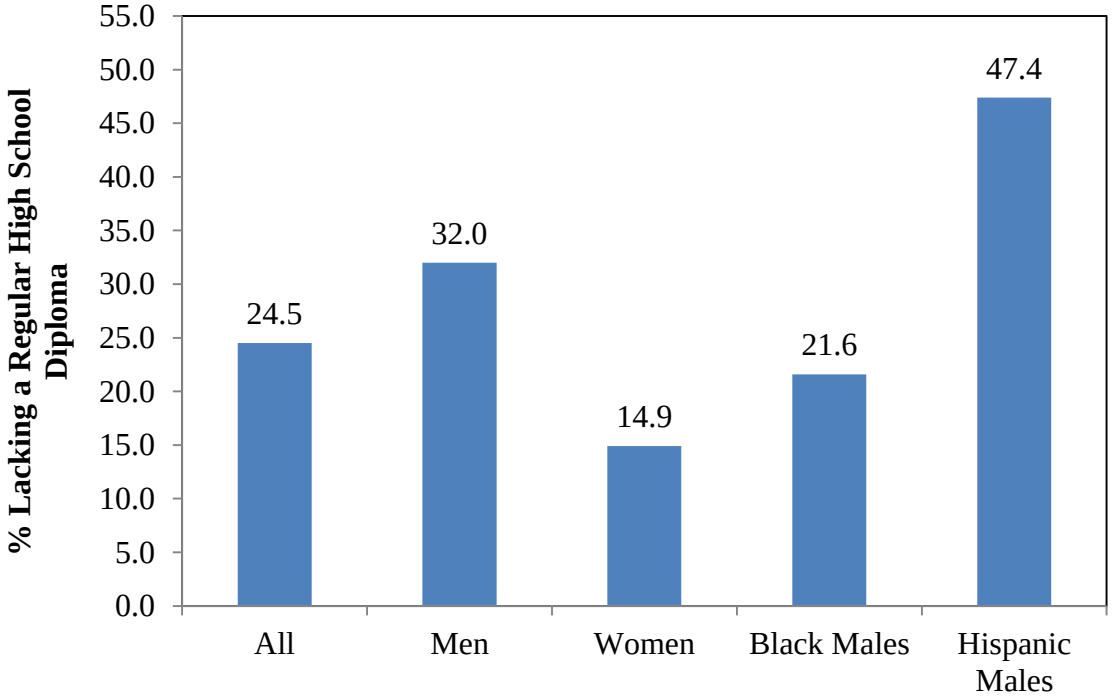
A high share of youth (19-24) without a regular high school diploma in the city of Chicago were foreign-born. Of all such youth lacking a high school diploma, 30 percent were foreign-born with above average shares of males and Hispanics being foreign-born. Foreign-born youth were two times as likely to lack a regular high school diploma as their native born peers (24.5% versus 12.6%). Foreign-born males, especially Hispanics, were the most likely to lack a regular high school diploma. Nearly one half of foreign-born male Hispanics ages 19-24 lacked a regular high school diploma versus only 19% of their native-born peers. In contrast, native-born Black males in the city of Chicago were more likely to lack a regular high school diploma than their foreign-born peers (27% versus 22%).

Table 1:
Percent of 19-to-24 Years Old Youth Who Lacked a Regular High School Diploma in the City of Chicago, 2009-2010 Averages

Area/Group	Native-Born	Foreign-Born	Foreign-Born Less Native-Born
All	12.6	24.5	+11.9
Male	16.0	32.0	+16.0
Female	9.4	14.9	+5.6
Black Male	27.0	21.6	-5.5
Hispanic Male	18.7	47.4	+28.7
White Male	3.8	7.5	+3.7

Source: 2009 and 2010 American Community Surveys, public use files, U.S. Census Bureau, tabulations by authors.

Chart 2:
Percent of Foreign-Born 19-to-24 Year Old Youth in the City of Chicago Who Lacked a Regular High School Diploma, All and by Gender and Selected Race-Ethnic Group, 2009-2010 Averages



Trends in the Employment/Population Ratios of 16-24 Year Olds in Chicago and Illinois: Declining Employment Prospects for Young Dropouts

Younger workers under 25 years old have been disproportionately affected by the Great Recession of 2007-2009 and the jobless recovery from the recession. Nationally, teens (16-19)

and young adults (20-24) experienced steeper declines in their employment rates than any other age group over the 2007-2011. However, the labor market problems experienced by younger workers under 25 predate the Great Recession as their employment rates have declined steeply since 2000.[2] Unfortunately, teens and young adults in Chicago and Illinois did not escape these deteriorating employment prospects that occurred both over the entire decade and the past few years.

The employment rates of 16-24 year olds are displayed in Table 2. In 2000, the employment rate of 16-24 year olds in Chicago was nearly 51%. It fell to 45% in 2007 as youth were adversely affected by the 2001 recession and the jobless recovery that followed that recession. By 2007, young adults had still not recovered their employment rate that prevailed in 2000. Employment rates fell sharply after 2007, declining to under 37% in 2010-2011. Over the decade, the employment rate fell by 14 percentage points or 28 percent.

The pattern for Illinois young adults was quite similar with even steeper declines in their employment rates over the decade. Sixty-one percent of 16-24 year olds in Illinois were employed in 2000 at the peak of the 1990's boom. Their employment rate fell substantially over the decade to 51% in 2007 prior to the onset of the Great Recession and to 43% in 2010-2011. Over the decade, their employment rate fell by nearly 19 percentage points or 30%.

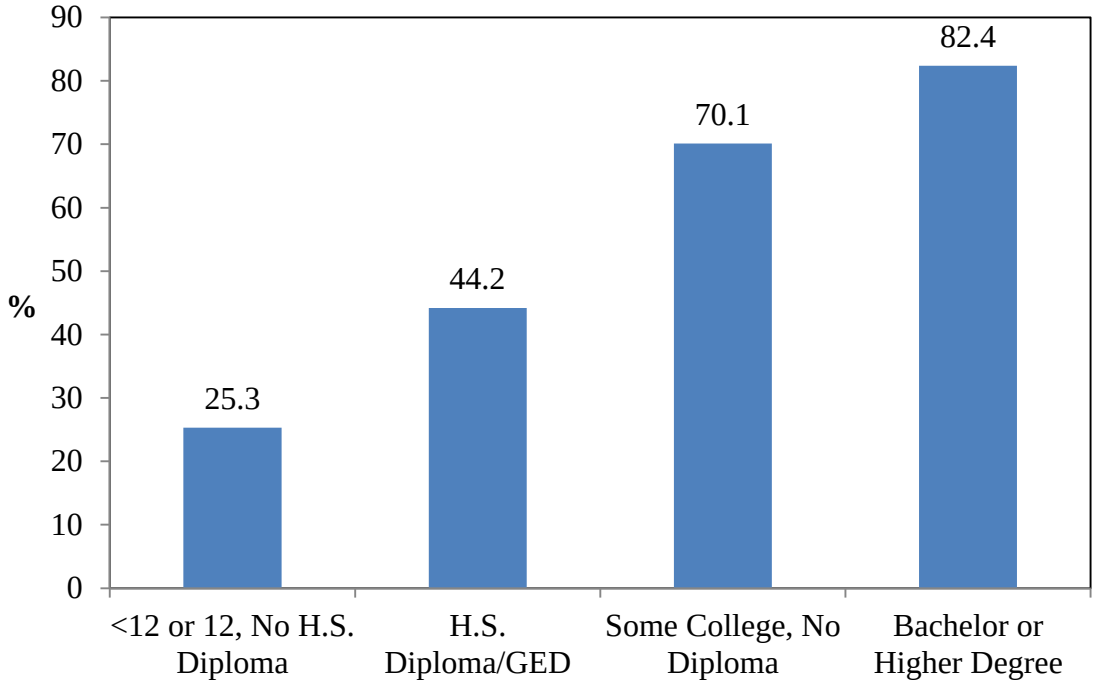
[2] Andrew Sum, Ishwar Khatiwada, and Joseph McLaughlin, The Lost Decade for Teen and Young Adult Employment in Illinois: The Current Depression in the Labor Market for 16-24 Year Olds in the Nation and State, Prepared for the Alternative Schools Network, Chicago, Illinois, January 2010

Table 2:
Trends in the Employment/ Population Ratios of
16-24 Year Olds in Chicago and Illinois, 2000-2010

	(A)	(B)	(C)	(D)	(E)
	2000	2007	2010-2011 (2-year Ave.)	Absolute Change, 2000-2010	Percent Change, 2000-2010
Chicago	50.7	44.7	36.7	-14.0	-27.6%
Illinois	61.1	51.0	42.6	-18.5	-30.3%

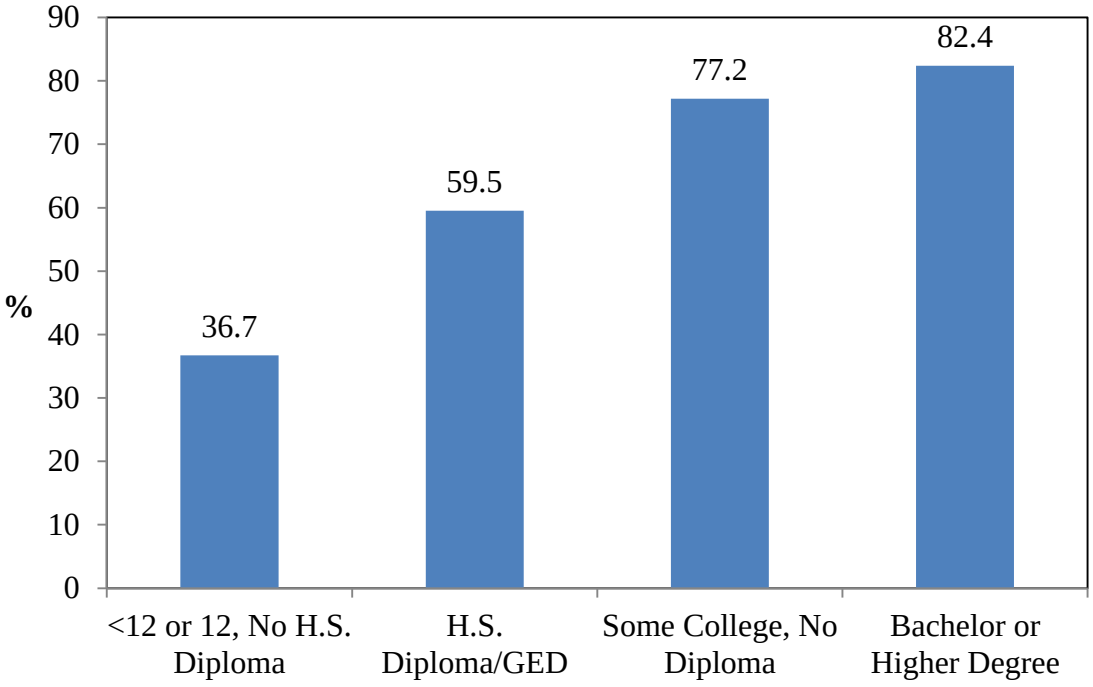
As was true for all working-adults, the employment rates of 16-24 year olds rise considerably with increasing educational attainment. Among 16-24 year olds in the city of Chicago in 2011, employment rates ranged from a low of only 25% for high school dropouts to 44% for high school graduates, to 70% for those with some college and to 82% for those with a Bachelor's or higher degree. The latter group was more than 3 times as likely to be working as their peers with no high school diploma. Barely one in four dropouts in the city of Chicago were employed in 2011.

Chart 3:
Employment/ Population Ratios of 16-24 Year Olds by
Educational Attainment Group, Chicago, 2010-2011



For Illinois as a whole, similar patterns existed across educational attainment groups. With the exception of Bachelor or higher degree holders, the employment rates for each group were higher statewide than in the city of Chicago. Employment rates for 16-24 year olds in 2010-2011 ranged from a low of 36% for dropouts to 60% for high school graduates to 82% for Bachelor degree holders. Even though dropouts fare slightly better statewide, still only slightly more than a third were employed in 2010-2011.

Chart 4:
Employment/ Population Ratios of 16-24 Year Olds by Educational Attainment Group, Illinois, 2010-2011

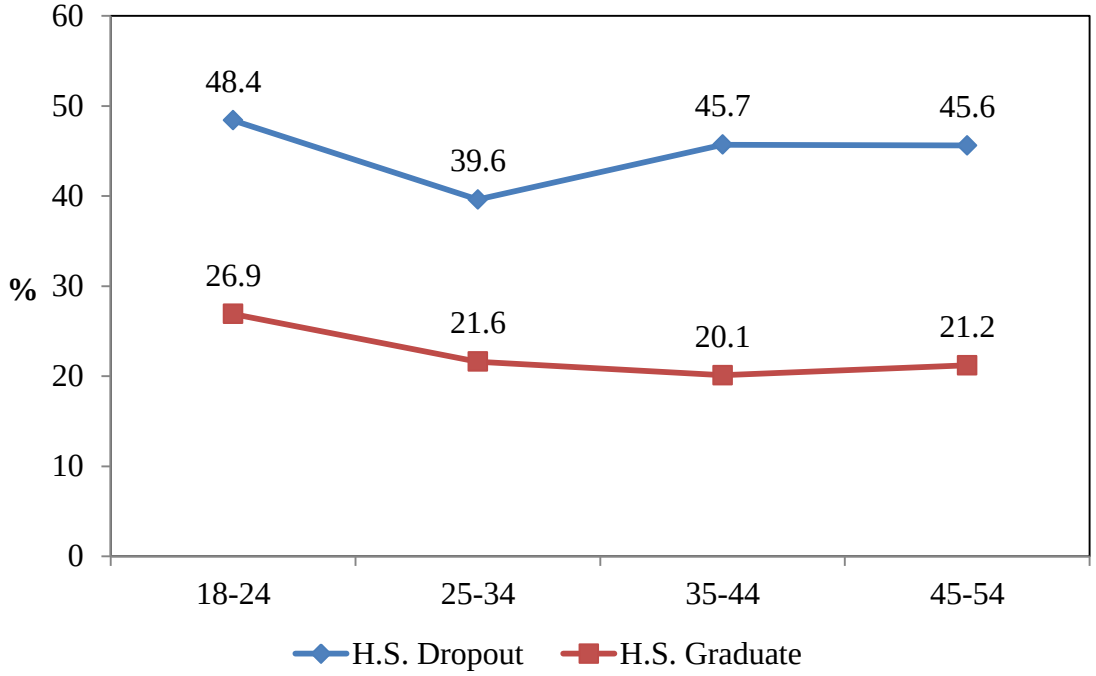


Percent of Native Born Adults in Illinois Who Were Jobless Year Round in 2009-2010

The American Community Surveys asked survey respondents about their labor force status at the time of the survey and their employment behavior during the 12 months leading up to the survey. Recent research has found that a high share of native born high school dropouts are not only jobless at the time of the ACS survey but also have not worked at all in the prior 12 months. These adults are referred to as the year-round jobless. Joblessness rates for high school dropouts and high school graduates by age group are displayed in Chart 5.

Nearly half of all native born high school dropouts between the ages of 18 and 24 in Illinois did not work at all during the past year. The share of high school graduates in this age group that were year-round jobless was considerably lower at 27%. The jobless share for each educational group fell for the next older age group. Among 25-34 year olds, 40% of high school dropouts and 22% of high school graduates were year-round jobless in 2010-11. For high school dropouts, year-round joblessness rates spike back upward for the 35-44 and 45-54 year old age groups to 46%. Throughout most of their work lives, a very high share of high school dropouts will spend the entire year being jobless.

Chart 5:
Percent of Native Born H.S. Dropouts and H.S. Graduates in Illinois
Who Were Jobless Year-Round By Age Group, 2009-2010



The Employment Problems of 18-64 Year Old Dropouts in Chicago and Illinois

The labor market problems of high school dropouts are quite severe in the city of Chicago, Illinois, and the U.S. The employment rates of 18-64 year olds increase steadily and substantially with their educational attainment. In Illinois, employment rates in 2010 ranged from a low of only 50% for adult high school dropouts (18-64), to 65% for high school graduates, and to 79% for those with an Associate's degree. Dropouts residing in the city of Chicago fared even

worse. Only 44% of 18-64 year old high school dropouts in Chicago were employed at the time of the 2010 ACS survey versus 56% of high school graduates and 73% of Associate degree holders.

The low employment rates of high school dropouts in both the city of Chicago and Illinois are not due to short-term or temporary bouts of unemployment. A high share of 18-64 year old high school dropouts did not work at any time in the 12 months prior to the 2010 ACS survey. Nearly 48% of 18-64 year old high school dropouts in the city of Chicago did not work one week in the past year. Statewide, 42% of dropouts did not work at all during the past year. In sharp contrast, only 11-13% of 18-64 year old adults with a bachelor's or higher degree in Chicago and Illinois were jobless for an entire year. The very low employment rates and high year-round joblessness rates of high school dropouts in the city of Chicago and Illinois have substantial adverse effects on their annual earnings and incomes

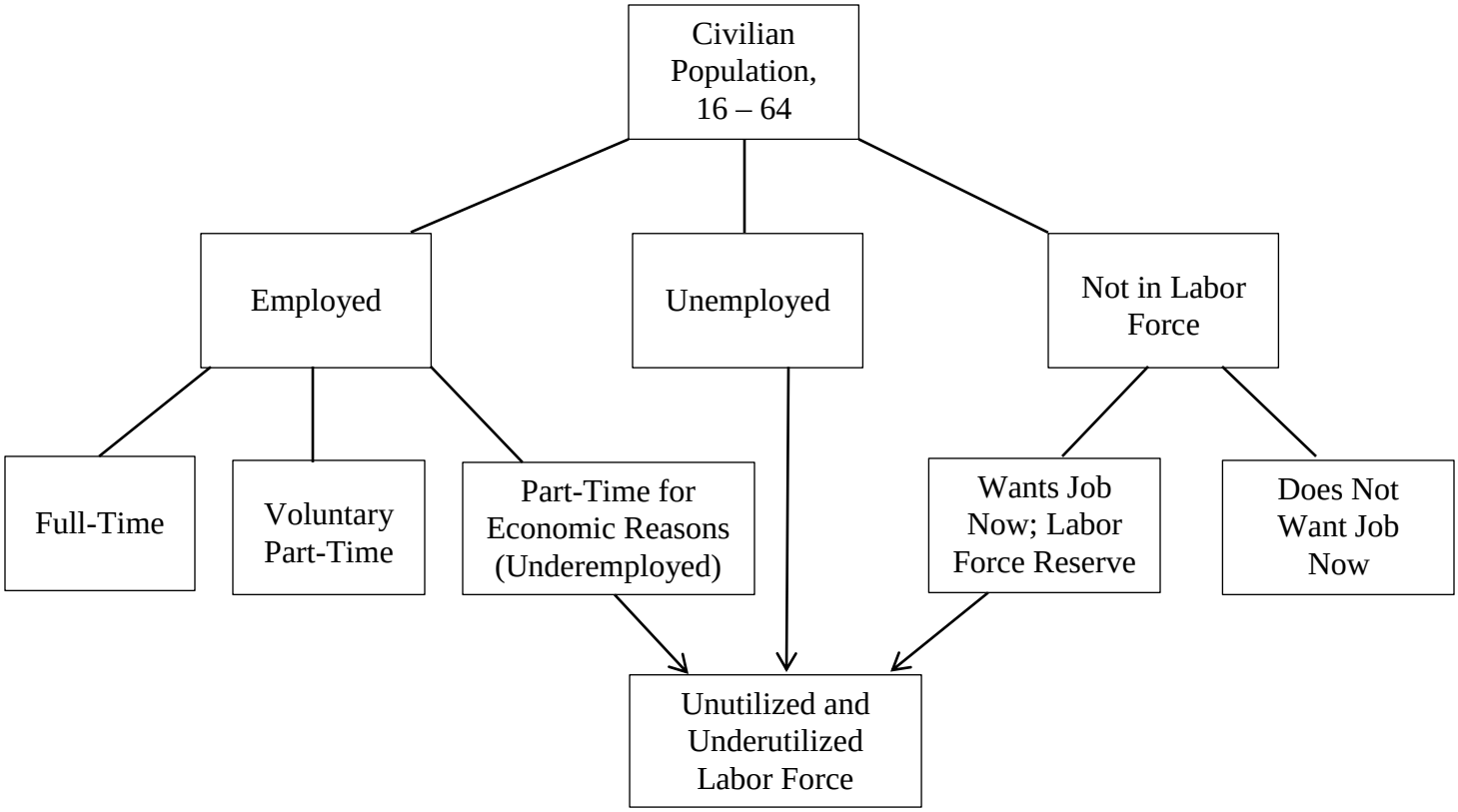
Labor Underutilization Problems Among High School Dropouts and Their Better Educated Peers in Illinois, 2009-2010

High school dropouts in the city of Chicago and the state of Illinois face a diverse array of labor market problems that go well beyond that of open unemployment.[3] In addition to the open or official unemployed, there are the underemployed and the labor force reserve or the hidden unemployed (Chart 6). The underemployed are those individuals who are working part-time (under 35 hours per week) but desire full-time work and are available for full-time jobs. In recent years in the U.S., the pool of underemployed workers has increased substantially in size with nearly 9 million underemployed workers in the past few months (July – September 2011). We have calculated an underemployment rate for each educational group by dividing the underemployed by the employed. The average underemployed worker is employed for only about 21-22 hours per week and earns only about 40% of the mean weekly wage of a similar educated and age peer.[4]

[3] We use the term "open unemployment" to refer to the count of the official unemployed; i.e., those that meet the active job search test and are available for employment at the time of the survey. They will be distinguished from the "hidden unemployed".

[4] See: Andrew Sum and Ishwar Khatiwada, "The Nation's Underemployed in the Great Recession of 2007-09," Monthly Labor Review, November 2010, pp. 3-15.

Chart 6:
Identifying the Number of Unemployed, Underemployed, and Hidden Unemployed in Illinois, 2009 – 2010



A third labor market problem group is the hidden unemployed. These are individuals who are jobless, have not actively looked for a job in the past four weeks, but report that they want a job now. A hidden unemployment rate was calculated by dividing the number of hidden unemployed by the adjusted labor force.

Estimates of the open unemployment, underemployment, and hidden unemployment rates of Illinois residents 16-64 years old in 2009-2010 are displayed in Table 3. For each of these three labor market problems, the incidence was highest among high school dropouts and fell steadily and steeply with their educational attainment. The unemployment rate of high school dropouts in Illinois was close to 20%, nearly double that of all adults ages 16-64 in the state (10.3%). The unemployment rate of high school graduates in 2009-2010 was 12.8%, or 35 percent lower than that of high school dropouts. The unemployment rate fell to 8% for Associate degree holders to slightly under 6% for Bachelor degree holders and to 5% for those with a

Master's or higher degree. High school dropouts were four times as likely to be unemployed as the best educated group of adults in the state (19.7% vs. 4.9%).

Table 3:
Unemployment Rates, Underemployment Rates, Hidden Unemployment Rates, and Labor Underutilization Rates Among 16-64 Year Old Adults in Illinois by Educational Attainment, 2009-2010 Averages (in %)

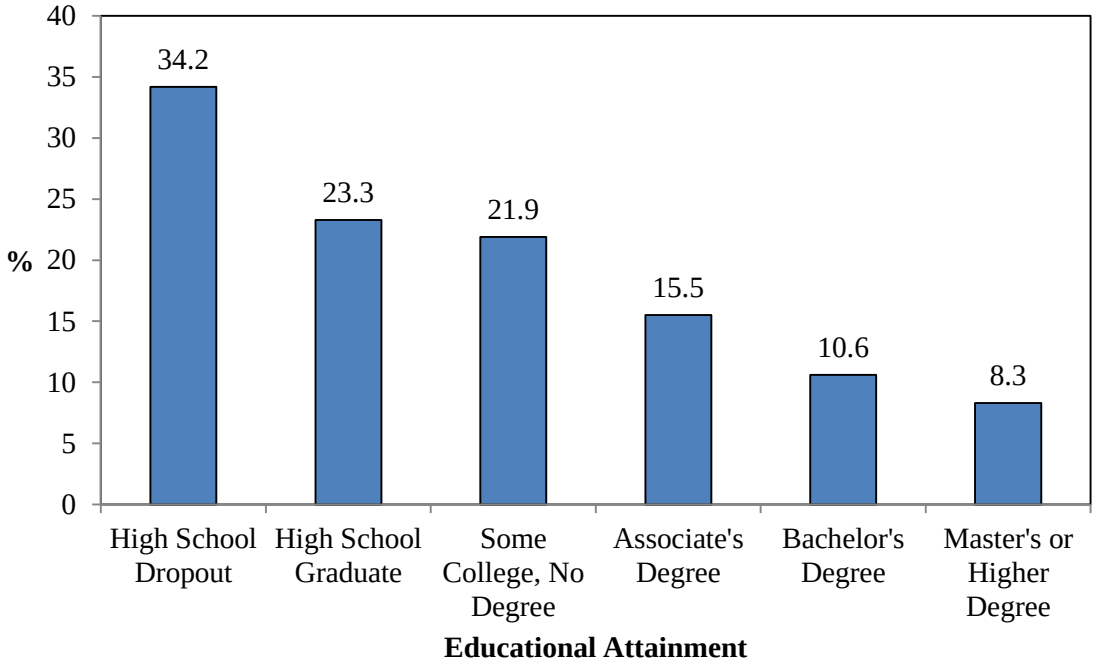
Educational Group	(A) Unemployment Rate	(B) Underemployment Rate	(C) Hidden Unemployment Rate	(D) Underutilization Rate
High school dropout	19.7	14.0	4.7	34.2
High school graduate	12.8	9.3	3.0	23.3
Some college, no degree	10.4	7.9	2.7	21.9
Associate's degree	8.0	6.1	2.2	15.5
Bachelor's degree	5.9	3.6	1.5	10.6
Master's or higher degree	4.9	2.3	1.2	8.3
All	10.3	6.1	2.9	18.7

Source: 2009 and 2010 monthly CPS household surveys, public use files, tabulations by authors.

Employed high school dropouts also experienced a high incidence of underemployment problems. Fourteen of every 100 employed high school dropouts were underemployed more than twice the incidence (6%) of such problems for all employed workers in the state. Again, the incidence of these underemployment problems fell steadily with the educational attainment of the employed, dropping to 3.6% for Bachelor degree holders and to a low of 2.3% for the employed holding a Master's or other advanced degree. High school dropouts were six times as likely to be underemployed as the best educated group of adults. Hidden unemployment also was highest among high school dropouts. Nearly 5 of every 100 dropouts in the adjusted labor force were members of the hidden unemployed versus only 3 of every high school graduates and only slightly more than 1 of every 100 of those with a Master's or higher degree.[5]

[5] The adjusted labor force is the sum of the regular civilian labor force (employed plus unemployed) and the hidden unemployed. The U.S. Bureau of Labor Statistics does not include the hidden unemployed in the count of the official civilian labor force.

Chart 7:
Labor Underutilization Rates Among 16-64 Year Olds in Illinois by Educational Attainment, 2009-2010 Averages (in %)

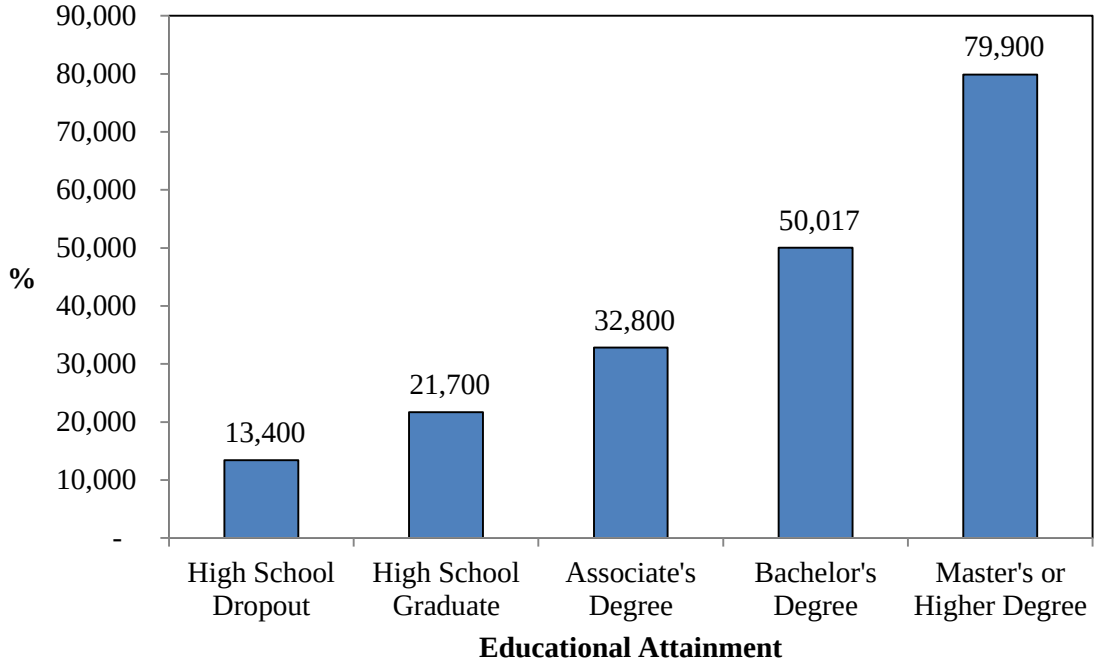


The numbers of the open unemployed, the underemployed, and the hidden unemployed can be combined to form the pool of underutilized labor. The labor underutilization rate represents the ratio of the underutilized to the adjusted civilian labor force. In 2009-2010, the labor underutilization rate for high school dropouts was 34%, nearly twice as high as that for all adults in the state. The incidence of these labor underutilization problems of Illinois workers fell steadily and steeply with their educational attainment, declining from 34% among high school dropouts to 23% among high school graduates, to 10% among Bachelor degree holders, and to 8% for those with a Master's or higher degree. Over the past decade, these underutilization problems among high school dropouts in both Illinois and the U.S. had deteriorated considerably. In Illinois, the labor underutilization rate among high school dropouts had risen from 17.8% in 1999-2000 to 34.2% in 2009-2010, a near doubling of their underutilization problems over the decade from 1-6 at the end of the labor market boom of the 1990s to 1-3 in the aftermath of the Great Recession.

The Limited Annual and Lifetime Earnings of High School Dropouts

As a consequence of their fewer annual weeks and hours of employment and their lower average hourly earnings when working, the mean annual earnings of Illinois adults lacking high school diplomas or GED certificates are both quite low and well below those of their better educated peers in every age group. During 2009-2010, the mean annual earnings of dropouts ages 18-64 in Illinois were only $13,400 versus $21,700 for high school graduates, and $32,800 for those with an Associate's degree.

Chart 8:
Mean Annual Earnings of Adults Ages 18-64 in Illinois by Educational Attainment Group 2009-2010 Averages



The expected mean annual earnings of high school dropouts in Illinois fall well below those of high school graduates and other better educated adults from their late teens and early 20s through their pre-retirement years (55-64) (Table 4). In fact, the mean size of these annual earnings differences tends to increase in size as they age. Over the 18-24 age range, the mean annual earnings of Illinois high school graduates exceeded those of high school dropouts by $4,200 per year. This annual earnings gap widened to $8,260 over the 25-34 age group, to $13,200 over the 35-44 age range, and to a peak of $14,200 from ages 45-54 before declining to $8,540 from ages 55-64. Many adult high school dropouts in Illinois were totally withdrawn

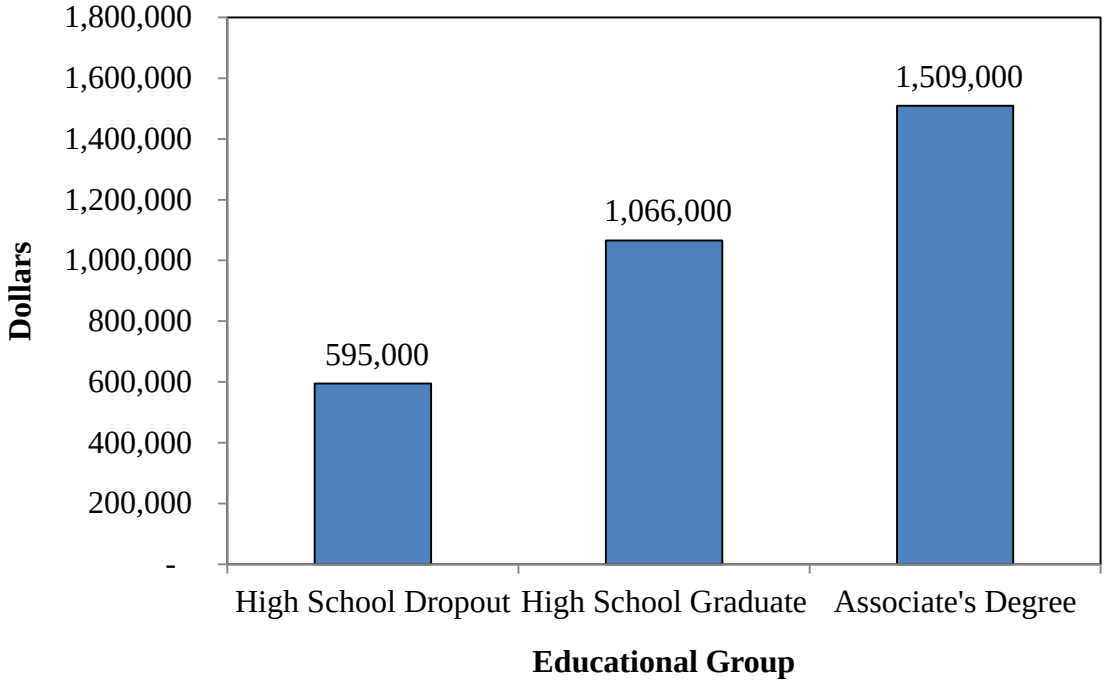
from the labor market by the time they reach their late 30s. Nearly 46% of high school dropouts ages 35-44 and 45-54 reported no paid employment at all in 2009 and 2010. This ratio rose to 60% when they reached the 55-64 age group.

Table 4:
Mean Earnings from Employment of 18-64 Year Olds in Illinois by Educational Attainment Group Over Selected Years of Their Work life
(2009-2010 Averages)

	(A)	(B)	(C)	(D)	(E)
Educational Group	18 – 24	25 – 34	35 – 44	45 - 54	55 – 64
High school dropout	40,074	129,735	141,591	153,897	129,765
High school graduate	69,443	212,329	273,509	296,146	215,208
Associate degree holder	88,827	299,608	374,393	420,791	325,931
Bachelor degree	161,001	461,805	635,728	674,061	517,037
High school graduate – High school dropout	29,369	821,594	131,918	142,249	85,443
Annual size of earnings gap per year	$4,200	$8,260	$13,200	$14,200	$8,540

Over their entire working life from ages 18-64, the mean lifetime earnings of high school dropouts (both men and women combined) in Illinois will be only $595,000, well below those of high school graduates ($1,066,000), and those with an Associate's degree ($1.509 million). The gap in lifetime earnings between high school graduates and dropouts was $471,000 and was even greater for males. The lifetime earnings of male high school graduates in Illinois were estimated to be $1.330 million or $573,000 above those of males who failed to graduate from high school. Among women, lifetime earnings from ages 18-64 of high school dropouts were estimated to be only $411,000 or $367,000 below those of high school graduates ($778,000). A woman who obtained an Associate's degree would have expected mean lifetime earnings of $1,229 million, or basically three times as high as those of a high school dropout.

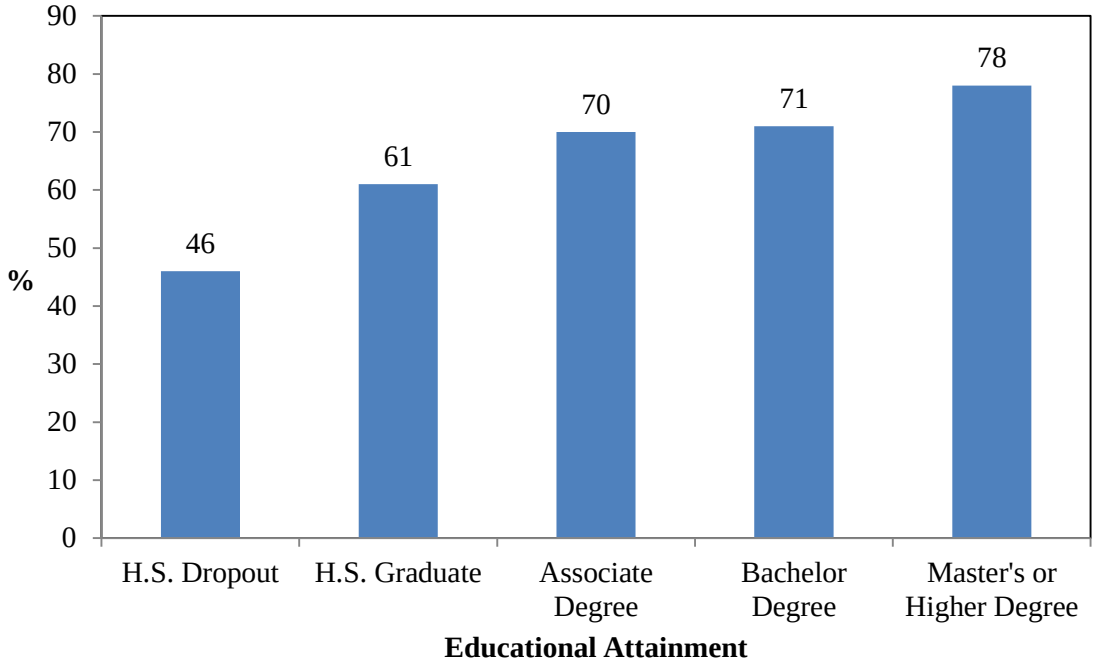
Chart 9:
Mean Expected Lifetime Earnings from Ages 18-64 of Native Born High School Dropouts, High School Graduates, and Associate Degree Holders in Illinois, 2009-2010 Averages



Home Ownership Among Households Headed By High School Dropouts in Illinois

Among the key elements of the American Dream has been the ability to own one's home. Over the years, especially among younger high school dropouts, this Dream has become a fading reality as home prices rose faster than their annual incomes. In Illinois, during 2009 and 2010, only 46% of the state's households headed by an 18-64 year old high school dropout owned their housing unit, and this ratio fell to 30% when the householder was under age 40.An above average fraction of households headed by high school dropouts are dependent on either public housing or rental subsidies for their housing. Home ownership rates rose steadily with the educational attainment of the householder, increasing to 61% for high school graduates, to 71% for householders with a Bachelor's degree and to 78% for those headed by an individual with a Master's or higher degree. The mean values of the homes owned by Illinois adults also rose steadily with their level of educational attainment. Since one's home is often the primary asset owned by middle to low-middle income families, a majority of the state's households headed by high school dropouts report little to no net worth.

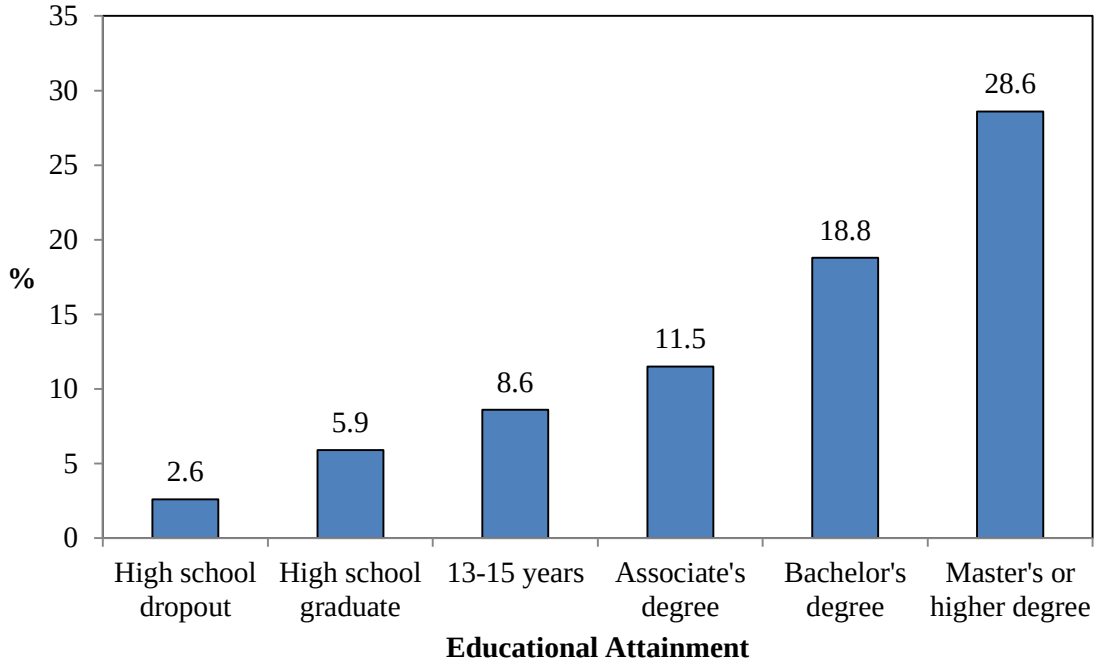
Chart 10:
Home Ownership Rates of Illinois Householders 18-64 Years Old by Educational Attainment, 2009-2010



The Very Limited Annual Property Income Receipts of High School Dropouts in Illinois

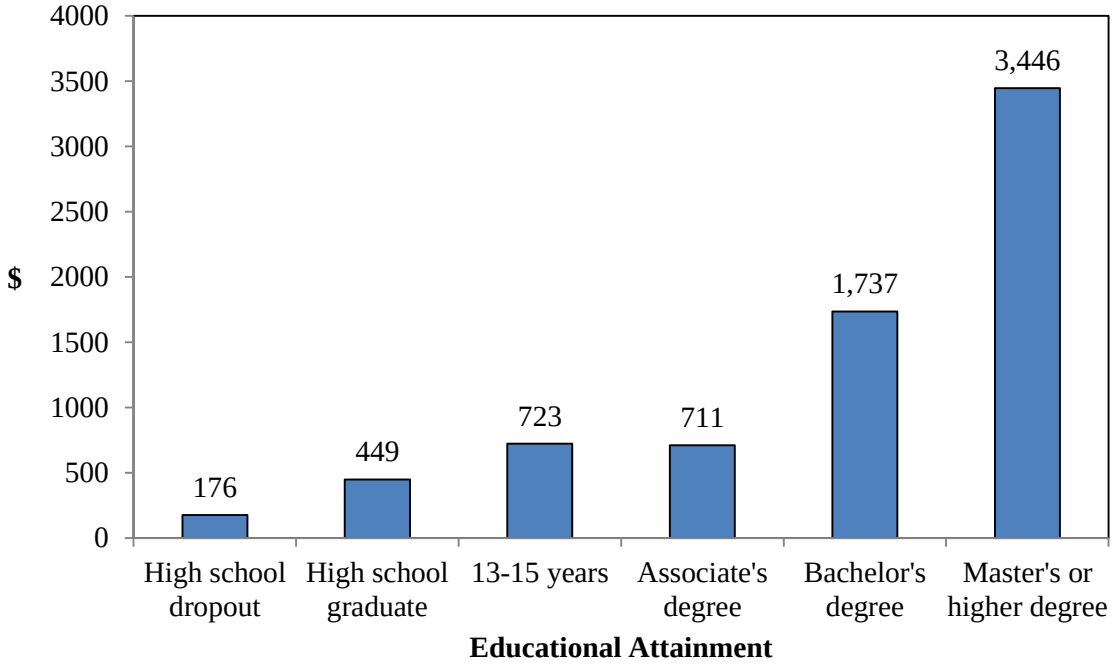
The limited annual earnings of many adult dropouts reduces their ability to acquire financial assets over their work life. Many high school dropouts have no financial assets or physical property (other than their own home) that can generate an annual income in the form of interest payments on savings account, mutual funds, bonds, dividends from stock holdings, or rental income from residential or commercial property. During 2009-2010, only 2.6% or approximately 1-40 high school dropouts (ages 18-64) in Illinois reported any annual income in the form of interest, dividends, or rental income (Chart 11). This share was only about 40 percent as high as that of high school graduates (6%) and only one-seventh as high as that of adults with a Bachelor's degree.

Chart 11:
Percent of Illinois Adults 18-64 Years Old Reporting Any Positive Interest, Dividend or Rental Income During the Year by Educational Attainment 2009-2010 Averages



The mean annual amount of property income received by high school dropouts in Illinois was quite limited at $176. Approximately 97% reported no positive income from property holdings. Such limited annual income from property implies that the vast majority of high school dropouts have few assets to fall back on to support themselves if they lose their jobs. High school graduates in Illinois received about 2.5 times as much property income as high school dropouts, and those adults with a Bachelor's degree received ten times as much income in interest/ dividends/rents ($1,737 vs. only $176 for dropouts).

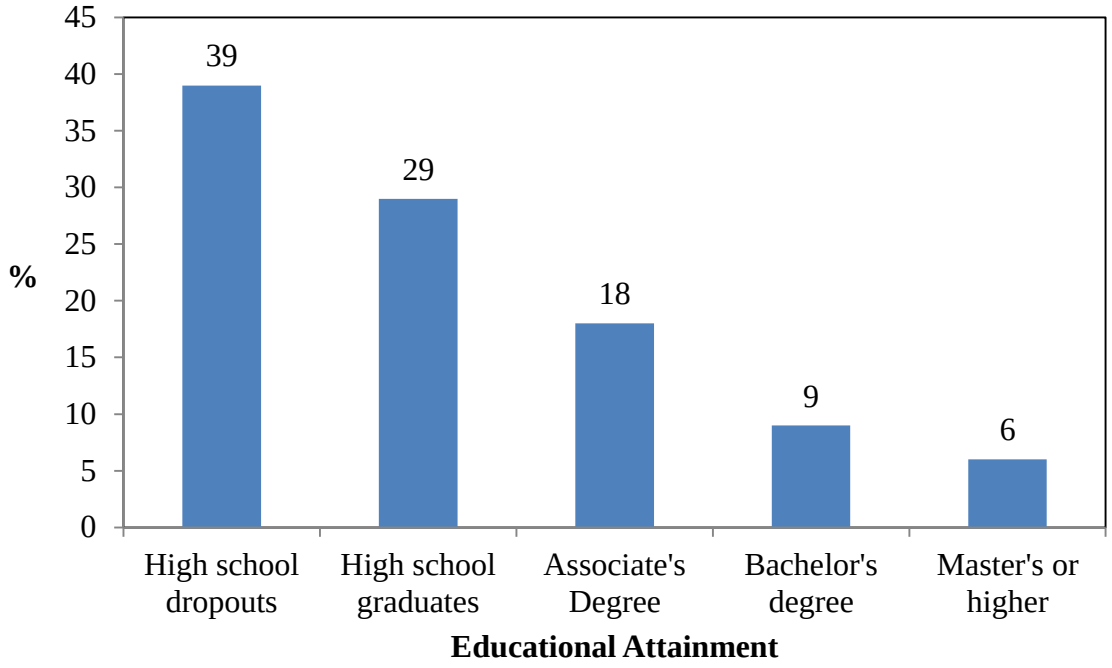
Chart 12:
Annual Amount of Interest, Dividend or Rental Income Received During the Year by Illinois Adults 18-64 Year Old by Educational Attainment 2009-2010 Averages



Poverty/Near Poverty and Low Income Problems of High School Dropouts

Due to their low average annual earnings, their limited receipt of income from any property holdings, and their lower marriage rates that reduce the presence of multiple earners in their households, adult high school dropouts (18-64 years old) are considerably more likely to face severe income inadequacy problems, including poverty and low income problems. In 2009-2010, nearly 40 of every 100 adult dropouts in the city of Chicago were either poor or near poor and 58 of every 100 of them were low income; i.e., having an annual income below 200% of the poverty line. Each of these income inadequacy rates was well above those of their peers with a high school diploma and especially those with college degrees. While close to 40 of every 100 adult dropouts in the city of Chicago were poor or near poor, only 29 percent of high school graduates and 18 percent of those with an Associate's degree had such a low income. Children living in families headed by high school dropouts face a substantially above average probability of encountering cognitive, health, housing adequacy, and nutrition problems that will limit their future economic and educational development. Their chances of securing a Bachelor's degree by their mid-20s are very close to zero.

Chart 13:
Percent of 18-64 Year Olds in the City of Chicago Who Were Poor or Near Poor in 2009-2010 by Educational Attainment



Poverty/Near Poverty and Low income Problems Among Children Living in Families Headed by High School Dropouts in the City of Chicago, the Chicago Metro Area, and Illinois, 2009-2010

Children living in families headed by adults without a high school degree are likely to suffer from poverty and low income problems at an above average rate. In the city of Chicago, nearly 37 percent of children in families were categorized as poor/near poor[6] in 2009-2010 compared to 22 percent for both the Chicago metro areas and Illinois and 25 percent for the entire U.S. Chicago children living in families that were headed by high school dropouts had a substantially higher poverty/near poverty rate of 56 percent during 2009-2010. The incidence of poverty/near poverty problem declined steadily with an increasing level of education of the family head. Only 5 to 9 percent of children who were living in families headed by college graduates in the City of Chicago were poor/near poor. These educational patterns prevailed in each geographic area.

[6] The near poor are those with incomes between 100 and 125 per cent of the poverty line.

The incidence of low-income[7] problems among children in the city of Chicago was quite intense. Majority (56%) of all city children lived in low income families. More than 77 percent of children living in families headed by high school dropouts were low income in the City of Chicago during 2009-2010 (Table 6). In each of the four geographic areas including the U.S., over 70% of all children in families headed by high school dropouts were low-income.

Table 5:
Percent of Children Living in Families Who Were Poor/Near Poor by Educational Attainment of Family Head in the City of Chicago, Chicago Metro Area, Illinois, and the U.S., ACS 2009-2010 Averages

Education of Family Head	City of Chicago	Chicago Metro	Illinois	U.S.
All	36.6	21.7	22.3	24.6
<12 or 12, No H.S. Diploma	56.1	46.5	47.7	52.6
H.S. Diploma/GED	46.6	32.5	31.9	32.4
Some College, No Degree	36.9	23.7	24.3	25.0
Associate's Degree	24.4	13.6	14.7	15.7
Bachelor Degree	8.8	5.4	5.4	6.5
Master's or Higher Degree	5.4	3.1	3.1	3.4

Source: 2009 and 2010 American Surveys, public use files, U.S. Census Bureau, tabulations by authors.

Table 6:
Percent of Children Living in Families Who Were Low Income by Educational Attainment of Family Head in the City of Chicago, Chicago Metro Area, Illinois, and the U.S., ACS 2009-2010 Averages

Education of Head	City of Chicago	Chicago Metro	Illinois	U.S.
All	56.0	36.8	37.9	40.7
<12 or 12, No H.S. Diploma	77.4	71.4	71.4	74.1
H.S. Diploma/GED	71.4	55.0	53.6	53.5
Some College, No Degree	57.8	40.1	42.3	43.8
Associate's Degree	48.7	28.8	30.4	31.6
Bachelor Degree	20.7	11.9	12.7	14.8
Master's or Higher Degree	9.8	6.6	6.6	7.9

Source: 2009 and 2010 American Surveys, public use files, U.S. Census Bureau, tabulations by authors.

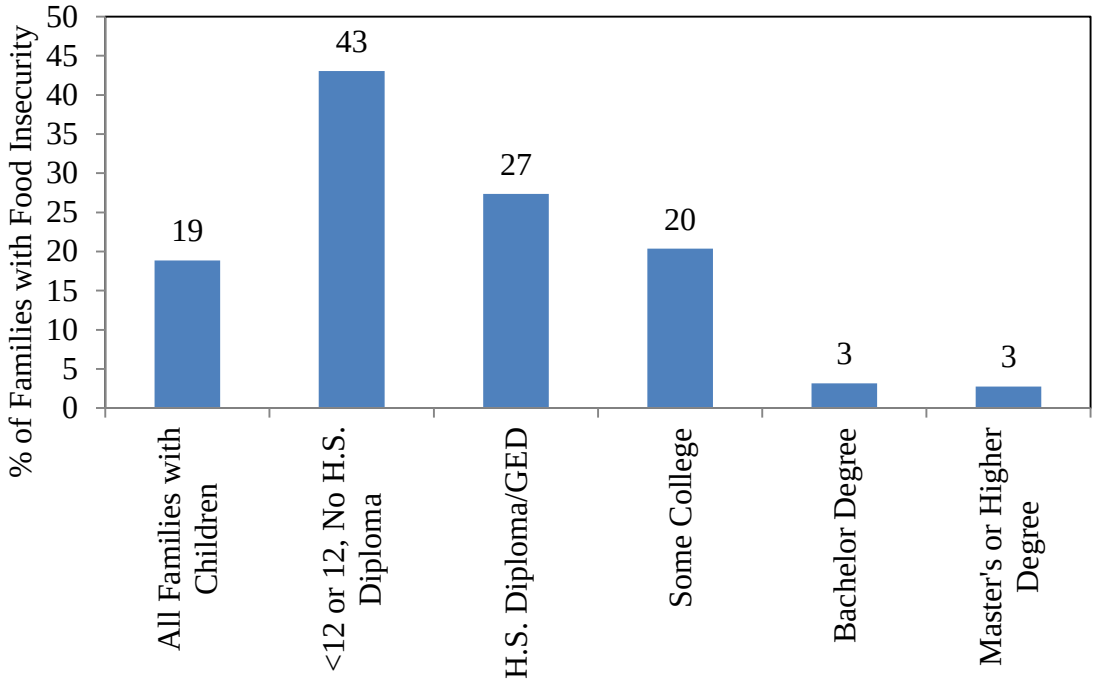
[7] The near poor are those with incomes between 100 and 200 per cent of the poverty line.

Food Insecurity Problems Among Families with Children Headed by High School Dropouts in Illinois

The incidence of food insecurity problems in the U.S. has increased during and after the Great Recession of 2007-2009.[8] A recent report by Feeding America, a non-profit network of food banks, indicates that 1 of 5 U.S. children were at risk of hunger in 2010.[9] Findings of U.S. Bureau of Census surveys for the U.S. Department of Agriculture reveal high rates of food insecurity in Illinois, with families headed by adults lacking high school diplomas faring worst. Nearly 1 in 5 families with children in Illinois reported food insecurity[10] problems during 2009 and 2010. Without a proper food diet, children will suffer mal-nutrition problems that will have adverse effects on their normal physical growth and their cognitive development. The incidence of food insecurity problems among families headed by high school dropouts with children in Illinois was the highest by far. Forty-three out of 100 families headed by high school dropouts with children reported some food insecurity problems during 2009-2010. Among family households headed by high school graduates and those with 1-3 years of college, 20% to 27% reported food insecurity problems. The incidence of such problems fell sharply among families headed by college graduates with a Bachelor's or higher degree. Only 3 percent of families with children in Illinois headed by four year college graduates reported food insecurity problems during this time period.

[8] See: Alisha Coleman-Jensen, Mark Nord, Margaret Andrews , and Steven Carlson, Household Food Security in the United States in 2010, Economic Research Report # 125, United States Department of Agriculture, September 2011.
[9] See: Alyse Shorland and Jamie Gumbrecht, "Report: 1 in 5 U.S. Children At Risk of Hunger", CNN.com, November 23, 2011.
[10] Food insecurity statistics are based on the December Food Insecurity Supplement CPS surveys conducted by the U.S. Census Bureau for the U.S. Department of Agriculture and the U.S. Department of Health and Human Services. Based on the responses of dozens of questions on the food security and hunger status of households, the U.S. Census Bureau recodes responses that identify whether the household was (i) food secure high or marginal food secure, (ii) low food secure, (iii) very low food secure. If the household was either low food secure or very low food secure, we considered them as food insecure households and generated estimates of the per cent of families with children who were food insecure.

Chart 14:
Percent of Families with Children With Food Insecurity During 2009-2010 in Illinois



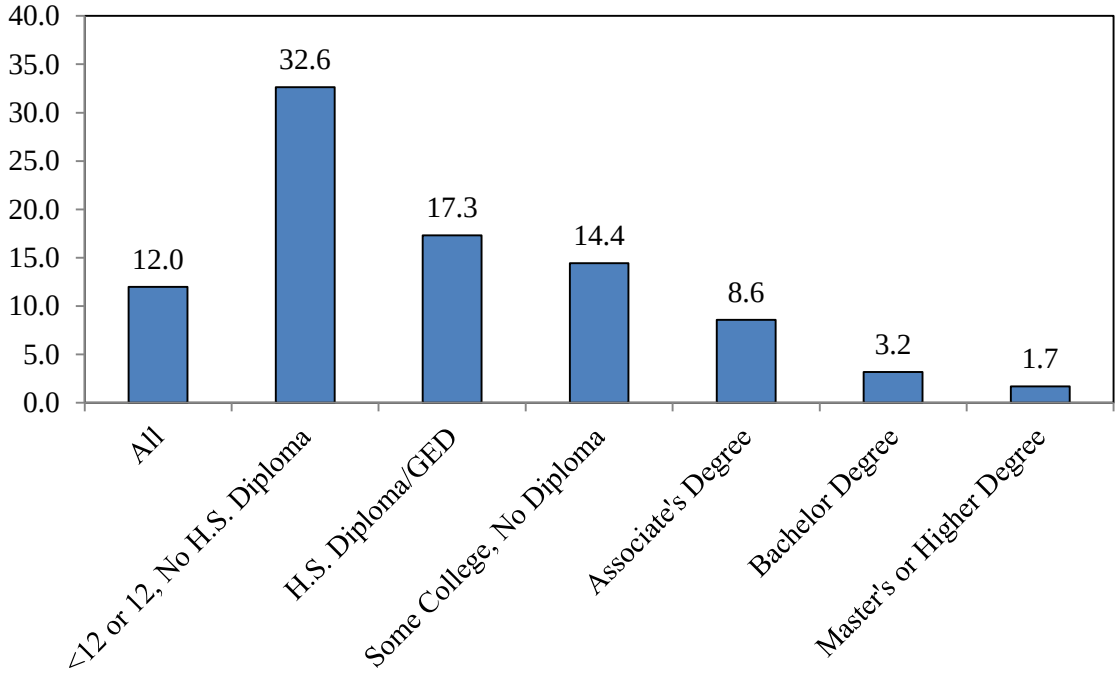
Source: December 2009 and 2010 CPS Food Security Supplements, public use files, U.S. Census Bureau, tabulations by authors.

Receipt of Cash Public Assistance Income/Food Stamps by High School Dropouts in Illinois

Due to their much lower employment and earnings, high school dropouts are more likely to rely on cash public assistance income for their support than their peers with higher levels of schooling. In Illinois nearly 9 percent of high school dropouts 18-to-64 years old obtained either cash public assistance income or Supplemental Security Income (SSI) during 2009-2010 compared to only 5 percent of high school diploma holders, 2 to 3 percent of those with 1-3 years of college and only 1 percent of those with a Bachelor's or higher degree.

Families headed by high school dropouts were considerably more likely to be dependent on food stamps to support themselves and their children. One in three households in Illinois headed by a person lacking a high school diploma obtained food stamps during 2009-2010 compared to 18 percent of households headed by a high school graduate, and 1 percent of households headed by four year college graduates.

Chart 15:
Percent of Households Headed by 18-to-64 Years Old in Illinois
Who Received Food Stamps During 2009-2010



Marital Behavior of High School Dropouts in Illinois and Its Impact on Child Living Arrangements

The declining employment and earnings prospects of males without high school diplomas over the past few decades have diminished their marriage attractiveness and increased divorce/ separation rates among those who were married, especially among the native born.[11] Over the few past decades in the U.S., a "marriage gap" across adults in different educational groups has been growing. According to findings in a report book by Kay Hymowitz, "we are now a nation of separate and unequal families, not only living separate and unequal lives but, more worrisome, destined for separate and unequal futures".[12]

In both Illinois and the U.S., the gap in marriage rates among the native born has widened most between high school dropouts and those with Bachelor or higher degrees. During 2009-2010, only 26 of every 100 adults (18-64 years old) lacking a high school diploma were married versus 44% of high school graduates, 53% of Associate degree holders, and 67% of those with a

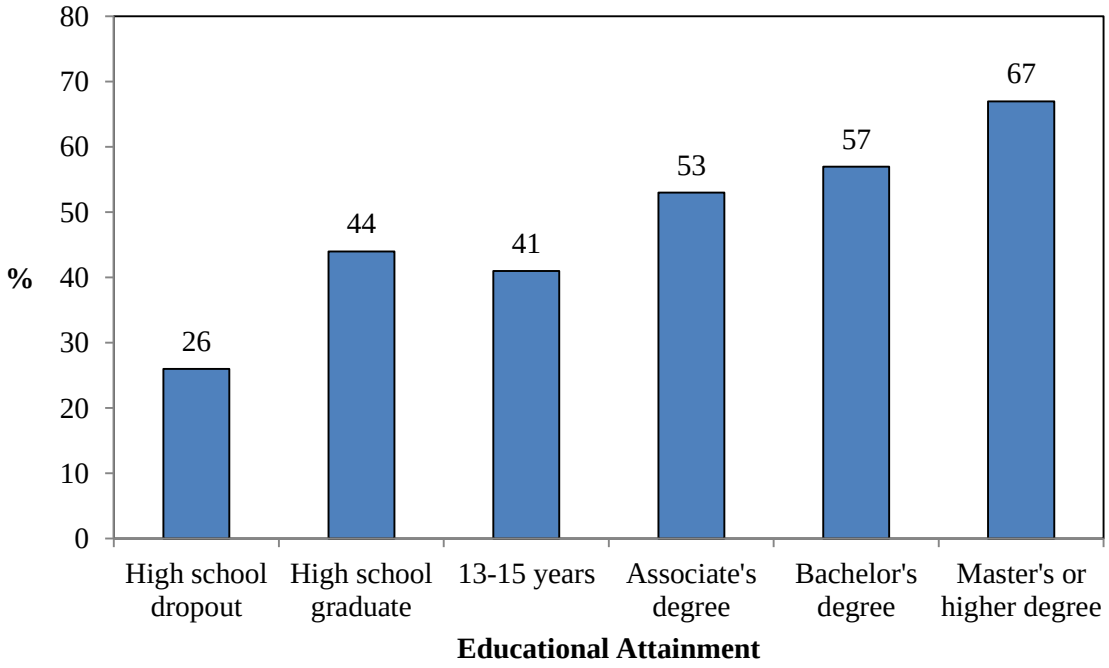
[11] The marriage rate among foreign born high school dropouts in Illinois in 2009-2010 was well above that of native born dropouts (63% vs. 26%).
[12] See: Kay S. Hymowitz, Marriage and Caste in America: Separate and Unequal Families in a Post-Marital Age, Ivan R. Dee, Chicago, 2006, p. 16.

Master's or higher degree (See Table 7 and Chart 16). The marriage rate among dropouts in Illinois was lower than it was in the U.S. (26% vs. 33%). The large gaps in marriage rates across educational groups in Illinois prevailed among both men and women. Only slightly more than 1 of 4 adult men and women without a high school diploma/GED in Illinois were married.

Table 7:
Marriage Rates Among 18-64 Year Old, Native Born Persons in Illinois by Educational Attainment, All and by Gender, 2009-2010 Averages (in %)

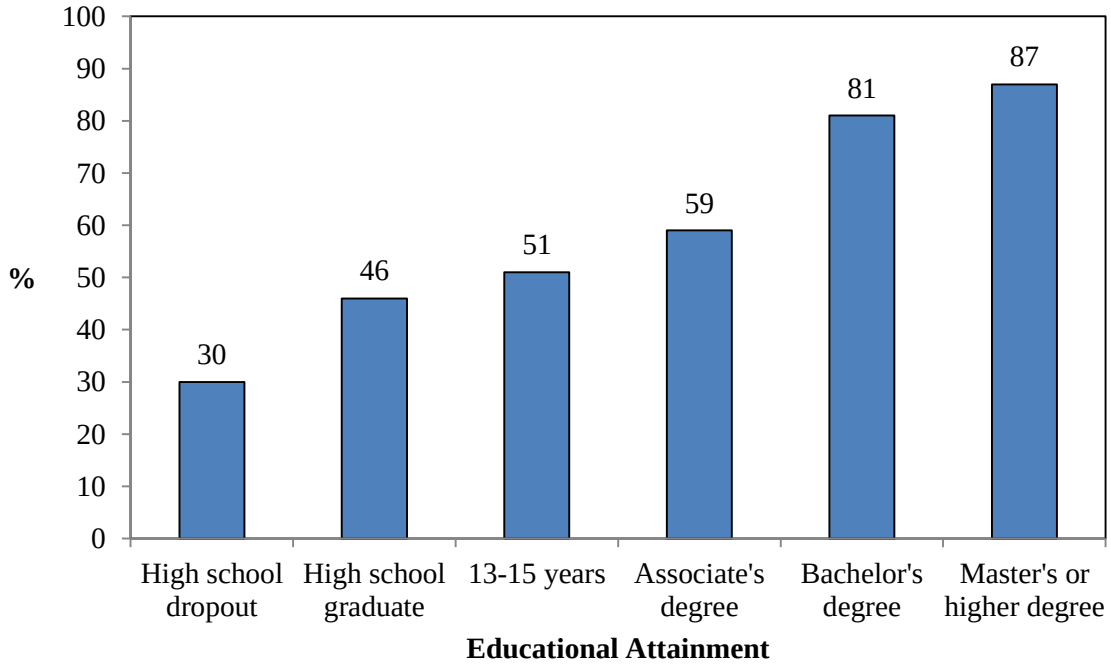
	(A)	(B)	(C)
Educational Attainment	All	Men	Women
High school dropout	26	26	27
High school graduate/GED	44	42	46
1-3 years of college, no degree	41	42	41
Associate's degree	53	54	53
Bachelor's degree	57	58	56
Master's or higher degree	67	72	64
All	48	47	48

Chart 16:
Marriage Rates Among 18-64 Year Olds in Illinois by Educational Attainment, 2009-2010 Averages



As a consequence of the declines in marriage among high school dropouts, an increasing fraction of births has been taking place out-of-wedlock, especially among women under age 30. A rising share of families with children under 18 in the home are now single parent families in Illinois. Among families with children with a native born family head, only 59% were married couple families in 2009-2010. The remaining 41% were either single mother families (33%) or single father families (8%). Families headed by a high school dropout (30%) were the least likely to be a married couple family (See Chart 17). Among families headed by high school graduates, the married couple share increased to 46%, and rose further to 81-87 percent among families headed by an individual with a Bachelor's or higher degree.

Chart 17:
Percent of Native Born Families with Children Under 18 in Illinois that Were Married Couple Families by Educational Attainment of Family Head, 2009-2010 Averages



Many of the children residing in single parent families will end up being raised in either poverty or low income conditions especially when the family head lacks a high school diploma. A high fraction of the children living in low income, single parent families headed by a high school dropout will have limited cognitive skills and other academic achievement deficits that will hinder their future educational attainment. Many of them also will fail to obtain a regular high school diploma, and few will succeed in obtaining a Bachelor's degree. Findings of national

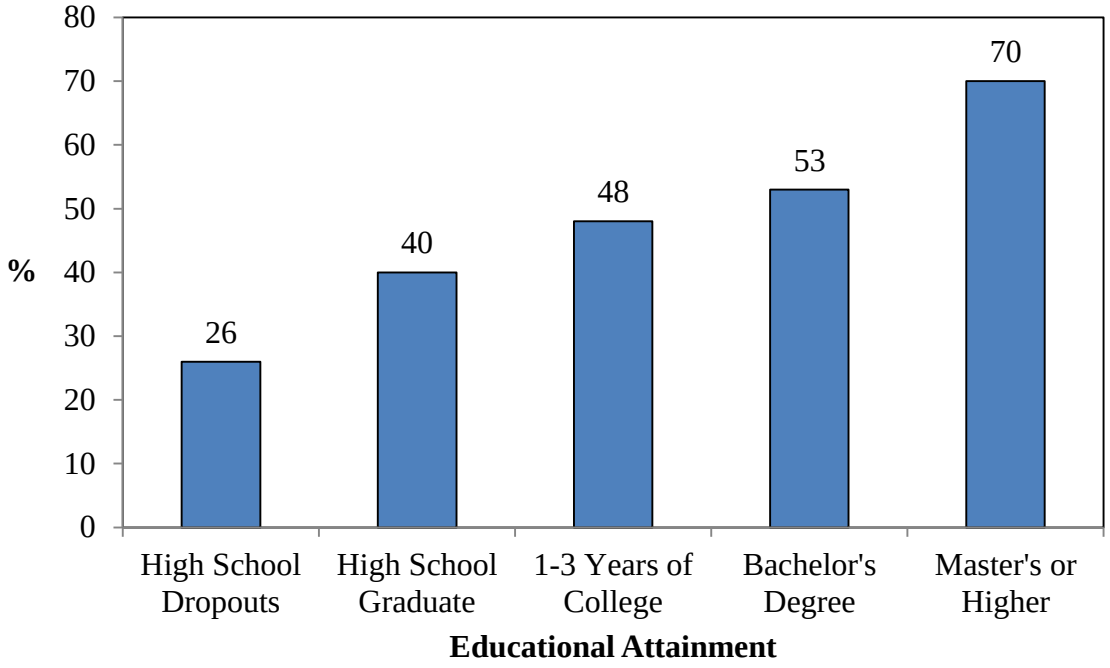
longitudinal survey data for a representative sample of 14-17 year olds in 1997 revealed that fewer than 1 in 10 of those youth raised in a low income family headed by a high school dropout had succeeded in obtaining a Bachelor's degree by the year 2009 when they were 26-29 years old.[13] A similar aged youth raised in a family where at least one parent had a Bachelor's degree and an income four or more times above the poverty line was six times as likely to have earned a Bachelor's degree by 2009.

The Civic Behavior of High School Dropouts in Illinois

Over the past few decades, substantial gaps in the voting and volunteering behavior of U.S. adults by educational attainment have opened up. The less educated across the country have trailed far behind their better educated peers in voting in both Presidential and Congressional/state elections and in volunteering their time to nonprofit and public organizations. Similar findings have prevailed in the state of Illinois. Over the past two national elections (2008 and 2010), adult dropouts (18+) were far less likely to vote than high school graduates and four year college graduates. In the most recent national election in the Fall of 2010, only 26% of the state's high school dropouts cast a vote versus 40% of high school graduates and 53% of Bachelor degree holders. The 26% voting rate of high school dropouts was the lowest ever recorded in an off year election in the past 40 years.

[13] These findings are based on an analysis of the 1997 National Longitudinal Survey of Youth data by the Center for Labor Market Studies of Northeastern University.
See: Andrew Sum and Mykhaylo Trubskyy, Bachelor Degree Attainment Rates and College Labor Market Employment Rates of Young Adults 24 to 28 Years Old in the U.S. in 2008, Paper Prepared for the Educational Testing Service, Princeton, New Jersey, 2010.

Chart 18:
Voting Rates of U.S. Citizens 18 and Older in the State of Illinois in the November 2010 Election by Educational Attainment (in Percent)



Volunteering rates among high school dropouts in Illinois in 2009-2010 also fell well below those of their better educated counterparts across the state. Only 7 of every 100 high school dropouts ages 18-64 provided any volunteering services to nonprofit or government organizations in 2009 or 2010 versus 15 of every 100 high school graduates and 38 of 100 adults with a Bachelor's degree. Only 1 of every 200 adult dropouts in Illinois provided any volunteer services to civic or political organizations in each of these two years.

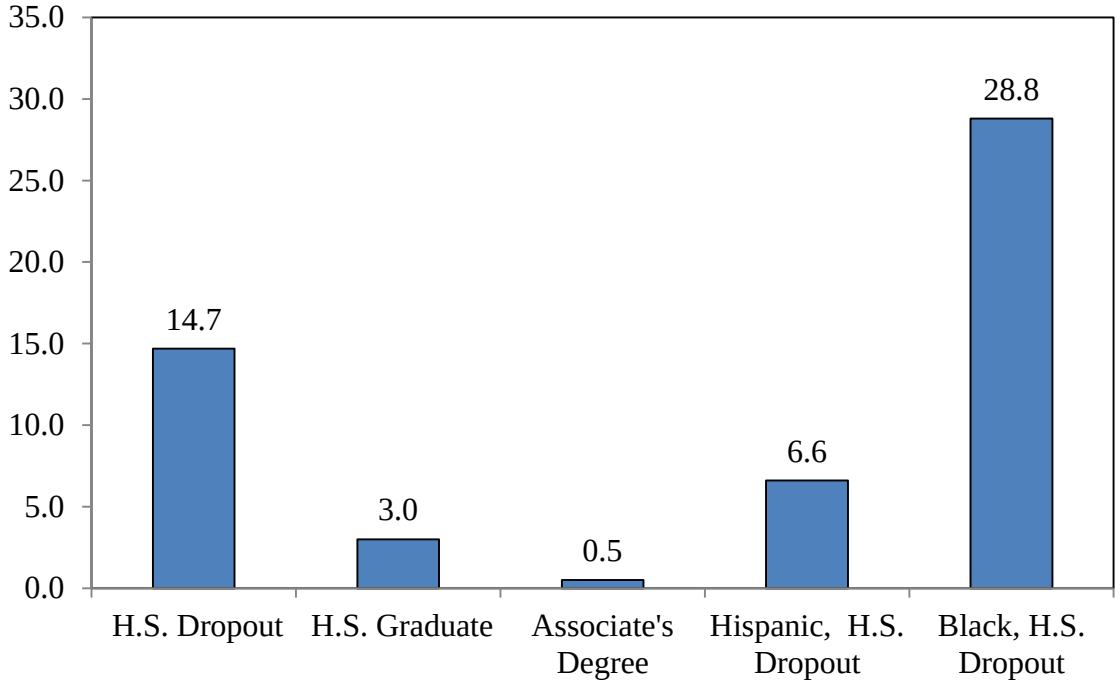
Incarceration Rates of Younger High School Dropouts (18-34 Years Old) in Illinois

Due in part to their inferior labor market outcomes and their limited employability skills, high school dropouts are much more likely than their better educated peers to end up incarcerated in jail or prison. In Illinois, dropouts accounted for 51% of the incarcerated population between the ages of 18 and 34 in 2010. In that year, 10% of native-born high school dropouts (18-34) in Illinois were in jail or prison, an incarceration rate that was 2 percentage points above the U.S. average (8.0%). Among 18-34 year old native-born males, incarceration rates ranged from lows of one-tenth of one percent for those with a B.A. or higher degree to 3% for high school graduates with no completed years of postsecondary schooling, and to a high of

15% for high school dropouts. A native born male high school dropout (18-34 years old) was 5 times more likely to be incarcerated than a native-born male with a high school diploma and nearly 30 times more likely to be in jail or prison as a native-born male with an Associate's degree.

The incarceration rates of young adult dropouts varied widely across gender and race-ethnic groups. Male dropouts in Illinois and the U.S. are much more likely to be incarcerated than their female peers. The incarceration rate of native-born 18 to 34 year old male dropouts in Illinois was 15%, compared to a rate of under 2% for native born female dropouts in this age group. Black male dropouts in Illinois had by far the highest incarceration rate among the three major race-ethnic groups. Nearly 29% of 18 to 34 year old, Black male dropouts in Illinois were incarcerated in 2010 (Chart 19). Incarceration rates of Black males fell sharply with their educational attainment, declining to under 8% for high school graduates and only 2% for Associate degree holders. Native-born Hispanic male dropouts (6.6%) in Illinois had a similar incarceration rate as native-born White male dropouts (6.5%). The annual costs of housing dropouts in jail or prison are quite substantial and contribute to the growing fiscal problems of state and local government. Spending time in jail or prison also has been found to reduce substantially the longer-term earnings potential of released inmates, making it difficult for them to find a job that will allow them to independently support themselves and their families.

Chart 19:
Incarceration Rates of 18-34 Year Old Males in Illinois By
Selected Educational Attainment and Race-Ethnic Groups, 2010 (in %)



The Contributions of U.S. Adults (18-64 Years Old) to the Fiscal Well-Being of National, State, and Local Governments by Educational Attainment

Among the potential economic benefits to society as a whole from investing in the education of the nation's population is an improvement in their ability to help finance the fiscal needs of our national, state, and local governments. The higher annual earnings, incomes, and property ownership of better educated adults would be expected to increase their net annual contributions to the budgets of government agencies through higher tax payments at all levels of government and lower dependence on both cash (welfare, unemployment compensation, Supplemental Security Income) and in-kind transfers (food stamps, rental subsidies) from government.

Using estimates of both annual tax contributions to federal, state, and local governments in the form of federal and state income taxes, Social Security payroll taxes, state sales taxes, and local property taxes and annual cash and in-kind transfers (unemployment benefits, TANF benefits, general relief, Social Security retirement and survivor benefits, food stamps, Medicare, Medicaid, rental subsidies), we have calculated the mean annual value of the total tax payments

and total cash and in-kind transfers (and jail/prison costs) of U.S. adults ages 18-64 in five different educational groups in 2009-2010. These findings also can be used to estimate the net annual fiscal contribution of each group. It is equal to the difference between cumulative taxes paid and cash/in-kind transfers received by a given individual.

The mean annual tax payments from all sources of U.S. adults ages 18-64 in 2009-2010 were slightly under $14,100 (Table 8).[14] These tax payments ranged from a low of $5,640 among high school dropouts to $9,400 among high school graduates to a high of just under $30,000 among adults with a Master's or higher degree. On average, high school graduates paid about $3,800 more in taxes per year than high school dropouts.

Table 8:
Mean Annual Tax Payments and Cash/In-Kind Transfers of U.S. Adults 18-64 by Educational Attainment, 2009-2010 Averages

Educational Attainment	(A) Total Taxes	(B) Cash and In-Kind Transfers Plus Jail/Prison	(C) Net Fiscal Contribution (A – B)
High school dropout	5,640	7,150	-1,510
High school graduate	9,420	4,400	5,020
13-15 years	12,510	3,380	9,130
Bachelor's degree	20,420	1,590	18,830
Masters or higher	29,830	1,400	28,430
All	14,090	3,590	10,500

Due to their low annual earnings and incomes, dropouts are more dependent on government for most cash and in-kind transfers, especially cash public assistance, food stamps, rental subsidies and Medicaid health insurance. They are also the most likely to be incarcerated in jail or prison imposing costs on tax payers at the state and local level. The mean value of the annual cash and in-kind transfers received by U.S. adults in 2009-2010 was just under $3,600. For high school dropouts, the mean annual value of these transfers and incarceration costs was twice as high at $7,150, exceeding that of high school graduates by about $2,750. Mean values of

[14] It should be noted that these tax payments include the employer's contribution to Social Security payroll taxes since national research has shown that the incidence of these taxes ultimately falls back on the workers.

these transfers fell steadily and steeply with the educational attainment of adults, declining to $1,400 for those holding a Master's or more advanced degree.

During 2009-2010, the average U.S. adult 18-64 years old contributed nearly $10,500 more in taxes than they received in cash and in-kind transfers. The mean values of these annual net fiscal contributions varied to an extremely high degree across educational groups. On average, adult high school dropouts were the only group to collect more in cash and in-kind transfers and impose incarceration costs than they paid in all forms of taxes. Their mean net annual contribution was a -$1,510. The mean annual fiscal contribution of high school graduates was +$5,020 and an adult with a Bachelor's degree contributed $18,830. The gap in mean annual fiscal contributions between high school graduates and dropouts was $6,530.

Table 9:
The Mean Net Annual and Lifetime Fiscal Contributions of 18-64 Year Old Adults in the U.S. by Educational Attainment, 2009-2010 Averages

Educational Attainment	(A) Annual Net Fiscal Contribution	(B) Lifetime Net Fiscal Contribution
High School Dropouts/no GED	-1,510	-70,970
High School Graduate/GED	5,020	235,940
1-3 years of College	9,130	401,770
Bachelor's Degree	18,830	790,860
Master's or Higher Degree	28,430	1,108,770
All	10,490	491,000
High School Graduate – High Dropout	6,530	306,910
1-3 Years of College – High School Dropout	10,640	500,080

These annual estimates of net fiscal contributions for each educational group were converted into lifetime fiscal contributions by multiplying each of them by the expected number of years between graduation (or school leaving for dropouts) and age 64.[15] Over their lifetime, based on observed experiences in 2009-2010, the average high school dropout would end up receiving nearly $71,000 more in cash and in-kind benefits than he/she paid in all taxes. This

[15] A high school graduate was assumed to graduate from high school at age 18 while a Bachelor degree holder was assumed to graduate at age 22, and a Master's or higher degree holder at age 25.

difference ignores the value of the services received by high school dropouts over their lifetime. In contrast, the average high school graduate would pay $236,000 more in taxes than he received in government benefits, and the average Bachelor degree holder would pay $885,000 more in taxes than he/she received in benefits. The gap between the mean lifetime net fiscal contributions of high school graduates and high school dropouts was nearly $307,000. Dropping out of high school before receiving a high school diploma places a substantial fiscal burden on the rest of society. Dropping out of high school is a Lose Lose, Lose proposition for the dropouts themselves, their families, and society at large.