

Changes in the Weekly and Annual Earnings of Young Adults from 1979 – 2010: Progress and Setbacks Amidst Widening Inequality

Andrew Sum and Joseph McLaughlin

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Introduction

The 2000-2010 decade has been referred to as a “Lost Decade” for the U.S. economy.¹ It was the first time in post-World War II history that the nation ended the decade with fewer payroll wage and salary jobs than when the decade began in 2000, and employment rates for all those under 55 years of age fell over the ten-year period.² The nation’s young adults (under 30) faced the steepest employment losses over the decade. This policy research brief will examine the real weekly and annual earnings experiences of the nation’s 16 to 29 year olds with analysis of gender, age, race-ethnic and educational attainment subgroups of this population. The earnings analysis will go beyond the most recent decade and will discuss time trends in weekly and annual earnings from 1979 through 2010, with some comparisons dating back to 1973.

Following the end of the Golden Era of post-World War II America in 1973, the near constant and high annual rates of growth in the real (inflation adjusted) wages and earnings of young workers and the incomes of young families came to an abrupt end. Since then, the real weekly earnings of most full-time employed men and women under 25 years old have fallen sharply, annual earnings for many non-college educated males declined steeply, while earnings for those with a four-year degree or higher grew, especially for females. The distributions of weekly wages, annual earnings, and annual incomes have become considerably more unequal over the past 37 years, and economic mobility for the younger and less educated members of our society has become more restricted. A growing share of the less educated are jobless year-round, which adds to the already large disparities in weekly and annual earnings across educational attainment groups of young adults. As a result of these economic changes, many young workers and young families, especially those with children, have fared both

absolutely and comparatively more poorly in recent decades.

Trends in the Real Weekly Earnings of Full-Time Employed Young Adults (16-24), 1973-2010

Among the most important measures of the labor market success of employed young adults is their real (inflation adjusted) weekly and annual earnings.³ Growth in real weekly and annual earnings is needed to boost the standard of living of young workers and their families. The monthly Current Population Survey (CPS) household surveys that are the source of the data on the number of employed and unemployed adults in the U.S. also collect information on the median weekly earnings of both part-time and full-time employed respondents. These data can be used to estimate changes in the median, real weekly earnings of those young adults who were employed as full-time wage and salary workers. The median weekly earnings of workers are that level of earnings that divides the entire weekly earnings distribution of workers into two equal halves. One-half of employed 16-24 year olds will earn more than the median and one-half will earn less. In Table 1, trends in the median real weekly earnings of full-time employed young men and women (in 2009 dollars) over the past 37 years from 1973-2010 are displayed.

The time series begins with the year 1973 since it represented a historical peak in weekly earnings for the nation’s young male and female workers, especially those without four year college degrees. The median weekly and annual earnings of young adult men, including high school dropouts and high school graduates with no post-secondary schooling, grew steadily and strongly during the 1960s decade. Toward the end of the 1960s decade and in the early 1970s, weekly earnings growth slowed as increased

numbers of the baby boom generation entered the job market. Despite this rapid increase in labor supply, the real weekly earnings of full-time employed young men and women still grew by 8 percent and 7 percent, respectively, between 1967 and 1973. This would not happen again until the labor market boom of the mid to late 1990s.

Real Weekly Earnings Decline

Since 1973, the median real weekly earnings of full-time employed young men and women declined substantially with the bulk of these earnings declines taking place between 1973 and 1995 and then again after 2001. Between 1973 and 1989, the median real weekly earnings of young men fell by a substantial 24 percent while the median real weekly earnings of young women declined by a more modest 9 percent (Table 1).⁴ The median weekly earnings of full time employed young men in 1973 were \$619 (in 2010 dollars). By 1989, the median weekly wage of the nation’s young men had fallen by \$152 to \$477 (in 2010 dollars).⁵ Over this same time period, the median weekly earnings of young women fell by \$44 to \$432 (in 2010 dollars). The median real weekly wages of both young men and women continued to decline during the early to mid-1990s as the U.S. experienced an economic recession and a slow jobs recovery between 1991-92 with stronger job growth thereafter. Between 1989 and 1996, the median weekly wages of young men and women fell by \$51 and \$37, respectively.

During the second half of the 1990’s decade, as job growth strengthened, labor productivity improved, and the national labor market moved to full employment, young men and women experienced strong and steady growth in their real weekly earnings. Over the 1996-2001 time period, the median real weekly of earnings of young men increased by \$57 and that of women increased by \$41. Rising labor productivity and near full employment conditions in the nation’s labor markets steadily boosted the real weekly earnings of young men and women for the first time since the late 1960s and early 1970s.

Unfortunately, since the economic downturn of 2001, the median real weekly earnings of young

adults have again declined, especially in the early and later years of the 2001-2010 decade. Over the 2001-2010 time period, the median real weekly earnings of young men and women fell by eight percent and three percent, respectively (Table 1). These declines in weekly earnings have been accompanied by steep declines in both the overall employment rate of 16-24 year olds and the full-time employment rate of young adults, especially those with only a high school diploma or less education.⁶ Despite the strong and steady gains that occurred from 1996-2001, the median real weekly earnings of young men and women in 2010 were 30 percent and 11 percent below their inflation-adjusted levels in 1973.

Table 1:
Median Real Weekly Earnings of Full-Time Employed
16-24 Year Olds by Gender, U.S., Selected Years 1973-
2010 (in Constant 2010 Dollars)

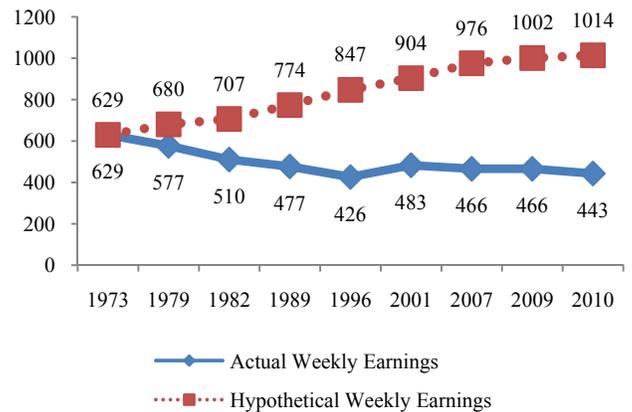
Time Period	(A) Men	(B) Women
1973	629	476
1979	577	453
1989	477	432
1996	426	395
2000	477	433
2001	483	436
2008	467	425
2009	466	431
2010	443	422
Percent Change, 1973-1989	-24.2%	-9.2%
Percent Change, 1989-1996	-10.7%	-8.6%
Percent Change, 1996-2001	+13.4%	+10.6%
Percent Change, 2001-2010	-8.3%	-3.3%
Percent Change, 1973-2010	-29.6%	-11.3%

Source: (i) U.S. Bureau of Labor Statistics, Monthly Labor Review, 1974; (ii) U.S. Bureau of Labor Statistics, Employment and Earnings, January 1990 to January 2001; (iii) U.S. Bureau of Labor Statistics, unpublished historical weekly wage data for the U.S., 1979-1998; (iv) U.S. Bureau of Labor Statistics, 2001-2010 weekly wage data published on the BLS website, www.bls.gov.

The steep drop in the median real weekly earnings of young men that occurred after 1973 stood in sharp contrast to the weekly earnings growth experienced by these young men during the

1960s and early 1970s. Even though real earnings growth slowed over the 1967-1973 time period, young men's weekly earnings still grew by eight percent over those six years or at a 1.3 percent annual rate. To simulate what the earnings trajectory of young men would have looked like if they had simply maintained the modest earnings growth that occurred over the 1967-1973 period, we constructed a hypothetical earnings trajectory for the 1973-2010 time period (Table 2 and Chart 1). If young men's earnings had maintained the 1.3 percent annual growth rate of the 1967-1973 period, then the median weekly earnings of 16-24 year old men in 2010 would have been \$1,014, more than double its actual level of \$443. Instead of declining by 30 percent over the 1973-2010 time period, the real median weekly earnings of young men would have increased by 61 percent over this time period from \$629 to \$1,014 (Chart 1). Their median weekly earnings in 2010 would have been 2.3 times as high as their actual level. What a radically different economic world these young workers would have faced in recent years!

Chart 1:
Comparisons of the Actual Median Real Weekly Earnings of Full-Time Employed Young Men and the Median Weekly Wages They Would Have Earned If They Had Maintained Their 1967-1973 Real Weekly Earnings Growth Rates, Selected Years 1973-2010
 (in 2010 Dollars)



Earnings of Young Men Relative to Older Men

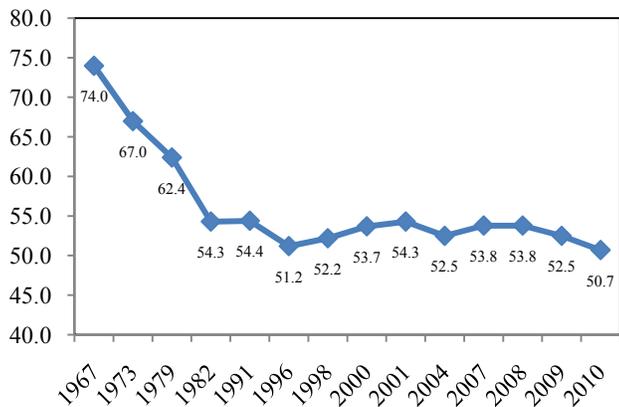
As a result of the sharp deterioration in their own median real weekly earnings and the growth in real weekly earnings experienced by the nation's workers 45 years of age and older, younger men have seen their earnings fall sharply relative to their older peers (25 years and older). In Chart 2, young men's weekly earnings as a percent of older men's (25+) weekly earnings are displayed. In 1967, the median weekly paycheck of young men was about 74 percent as high as that of older men, a relatively high ratio. This relative weekly earnings ratio, however, declined sharply to 54 percent by 1982 and has remained in the 51 to 54 percent range over the last 28 years. As a result of being more adversely affected by the Great Recession than their older, more experienced peers, young men's weekly earnings relative to older men fell to an all-time low of 50.7 percent in 2010.

Table 2:
Comparisons of the Actual Median Real Weekly Earnings of Full-Time Employed Young Men and the Median Weekly Wages They Would Have Earned If They Had Maintained Their 1967-1973 Earnings Growth Rate, Selected Years 1973-2010
 (in 2010 Dollars)

	(A)	(B)	(C)
Year	Actual Weekly Earnings	Hypothetical Weekly Earnings	Hypothetical as % of Actual
1973	629	629	100
1979	577	680	118
1982	510	707	139
1989	477	774	162
1996	426	847	199
2001	483	904	187
2007	466	976	210
2009	466	1,002	215
2010	443	1,014	229

Note: Hypothetical weekly earnings are based on an annual growth rate of 1.3% from 1973 onward.

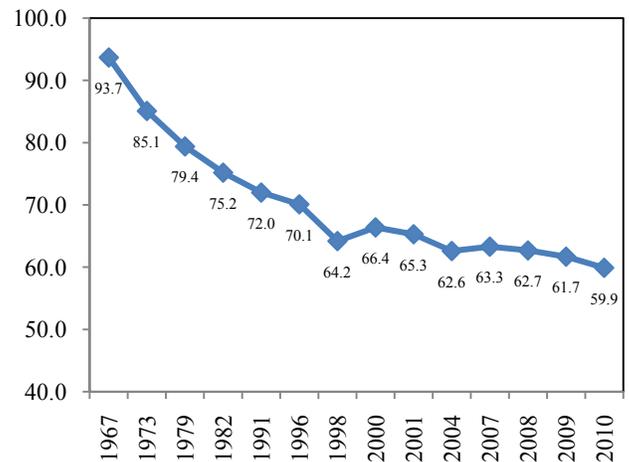
Chart 2:
Median Weekly Earnings of Young Men (16-24)
Relative to Older Men (25 and Over), Selected Years,
1967-2010 (in %)



Earnings of Young Women Relative to Older Women

Trends in the relative weekly earnings ratio of young women to older women over the 1967-2010 time period are displayed in Chart 3. In 1967, the median weekly paychecks of full-time, young women were 94 percent as high as those of older women (25+). The relative weekly earnings ratio of young women to older women also fell sharply through the 1970s, 1980s, and early 1990s to 64 percent in 1998. The strong growth in young women’s weekly earnings that occurred in the late 1990’s improved their relative wage standing during 2000 and 2001, but since that time the relative weekly earnings ratio has declined to an all-time low of 60 percent in 2010. However, much of the deterioration in the relative weekly earnings ratio of young women was not due to steeply declining weekly earnings of young women as was the case with men, but instead due to more substantial growth in the weekly earnings of older women (25+) as they obtained higher returns to their educational attainment and work experience, a favorable development.

Chart 3:
Median Weekly Earnings of Young Women (16-24)
Relative to Older Women (25 and Over), Selected Years,
1967-2009



The declines in the absolute and relative earnings position of young men and many young women have led to a longer period of “economic adolescence,” in which young men and women fail to assume adult responsibilities. The declining earnings positions of young men and women make it more difficult for them to form independent households, afford apartments, or buy homes. Thus, a rising fraction of young people, especially those with no post-secondary schooling, live with their parents longer and have a reduced ability to form independent households, marry, and provide adequate support for their children.

The Real Weekly Earnings of 24-29 Year Old Men and Women, 1979-2010

The previous section was devoted to an analysis of the changing weekly earnings of full-time employed 16-24 year olds. It might be argued that young men and women more than make up these losses as they move through their mid to late 20s.⁷ To track the real weekly wages of young adults (24-29) in their formative adult years, we analyzed the findings of the CPS weekly wage data for selected years from 1979 to 2010.⁸ Data are presented for men and women separately (Table 3).

24-29 Year Old Men

The median real weekly earnings of full-time employed men and women 24 to 29 years of age have taken different paths over the past 31 years. In 1979, the median real weekly earnings of 24-29 year old males were \$778 (in 2010 dollars). Median real weekly earnings of men fell considerably over the next 15 years, declining by \$167 to \$611 in 1994. During the economic expansion of the mid-to-late 1990s, the median real weekly earnings of younger men stopped declining and instead grew by \$44 per week over this five-year period. However, that brief recovery in the median real weekly earnings of 24-29 year old males ended at the end of the 1990-2000 decade as their median real weekly earnings fell over the next ten years. By 2010, the median real weekly earnings of 24-29 year old males were \$646, which was \$132 or 17 percent less than their earnings level in 1979.

24-29 Year Old Women

The median real weekly earnings of full-time employed 24-29 year old females also declined over the 1979-1994 time period, but by 2010 young females' median real weekly earnings surpassed their 1979 levels. From 1979 to 1994, the median real weekly earnings of 24-29 year old females fell from \$560 (in 2010 Dollars) to \$546, a decline of 2.5 percent. Over the 1994-1999 period, the median real weekly earnings of 24-29 year old females grew strongly rising to \$576 over this five year period. Their median real weekly earnings continued to grow over the 1999-2010 period while that of their male counterparts fell. Over the 31 year period, the median real weekly earnings of 24-29 year old women increased by \$40 or seven percent, a far different experience than that of their male peers. As a result, the ratio of young women's median real weekly earnings to young men's have increased from 72 percent in 1979 to 93 percent in 2010.

Table 3:
Trends in the Median Real Weekly Earnings of
Full-Time Employed, 24-29 Year Old
Men and Women, Selected Years 1979 to 2010
(in Constant 2010 Dollars)

	(A)	(B)	(C)
Year	Men	Women	Ratio of Women to Men
1979	778	560	.72
1994	611	546	.89
1999	655	576	.88
2010	646	600	.93
Absolute Change, 1979-2010	-132	+40	
Percent Change, 1979-2010	-17.0%	+7.1%	

By Educational Attainment

Among both male and female 24-29 year olds, median real weekly earnings changes varied sharply across educational attainment groups (Tables 4 and 5). Among males, those 24-29 year olds without a four-year degree experienced steep reductions in their median real weekly earnings while those with a four-year degree maintained their earnings levels in the case for men and boosted their weekly earnings considerably in the case of females. Male high school dropouts experienced a 32 percent reduction in their median real weekly earnings over the 1979-2010 period. Their median real earnings fell from \$589 in 1979 to only \$400 in 2010, a decline of \$189. Male high school graduates and those with some college fared only slightly better in relative terms with 25 and 26 percent declines in their median real weekly earnings over this same time period. Among male bachelor degree holders, their median real weekly pay increased by only \$10 over the past 31 years or one percent. The median real weekly earnings of all 24-29 year olds would have fallen by much more than 17 percent had there not been a substantial shift in their educational composition. There were more 24-29 year old males

with bachelor's or higher degrees in 2010 than there were in 1979.

Table 4:
Trends in the Median Real Weekly Earnings of Full-Time Employed, 24-29 Year Old Males By Educational Attainment 1979 to 2010
(in Constant 2010 Dollars)

	1979	1999	2010	Absolute Change, 1979-2010	Percent Change, 1979-2010
H.S. Dropouts	589	445	400	-189	-32
H.S. Graduates	752	602	560	-192	-25
Some College	811	655	600	-211	-26
B.A. Degree Only	855	881	865	10	+1
M.A. Degree or Higher	N/A	1,058	1,038	N/A	--
All	778	655	646	-132	-17

The median real weekly earnings of full-time employed 24-29 year old females without a four year college degree also fell over the 1979-2010 time period although the declines were not as severe as those experienced by males (Table 5). The median real weekly earnings of female high school dropouts declined from \$395 in 1979 (in 2010 dollars) to \$354 in 2010, or 10 percent. Female high school graduates and those with some college but no degree experienced similar 11 and 14 percent drops in their median real earnings over the 1979-2010 period. In sharp contrast, the median real weekly earnings of female B.A. degree holders rose by \$125 or 20 percent over the 1979-2010 period, increasing from \$619 to \$744 (in 2010 dollars). However, all of the gains occurred prior to 2000 with their median real weekly earnings actually declining by \$11 over the 1999-2010 period. As a result of an increasing number of female 24-29 years old with a B.A. degree over this 31 year period, the median real weekly earnings of all 24-29 year olds combined increased by 7 percent. The weekly earnings growth was entirely due to those with a B.A. degree or higher and the increased share of full-time employed females with a B.A. degree.

Table 5:
Trends in the Median Real Weekly Earnings of Full-Time Employed, 24-29 Year Old Females By Educational Attainment 1979 to 2010
(in Constant 2010 Dollars)

	1979	1999	2010	Absolute Change, 1979-2010	Percent Change, 1979-2010
H.S. Dropouts	395	361	354	-41	-10
H.S. Graduates	507	466	450	-57	-11
Some College	578	524	500	-78	-14
B.A. Degree Only	619	755	744	125	+20
M.A. Degree or Higher	N/A	943	900	N/A	--
All	560	576	600	40	+7

Trends in the Mean Real Annual Earnings of 20-29 Year Old Males, 1979-2009

Another key measure of the labor market success of young workers, and perhaps the most important economic measure, is their real annual earnings from employment. The mean real annual earnings of workers, including the self-employed, provides a measure of how much on average they are able to earn in inflation adjusted dollars from paid employment during an entire calendar year taking into account earnings all along the distribution. A number of factors influence a worker's annual earnings. They are the number of weeks worked during the year, the average number of hours worked per week, and the real hourly earnings of workers. Earlier research on trends in mean real annual earnings of young men found a steep decline in the annual earnings of those young adult men with no post-secondary schooling from the early 1970s through the late 1980s and mid-1990s.⁹ This group of young men and women has been referred to as "the Forgotten Half" by the William T. Grant Foundation Commission on Work, Family and Citizenship.

Male Earnings Decline

Findings on the mean real annual earnings of employed 20-29 year old males in the U.S. over the 1979-2009 time period are displayed in Table 6. These estimates only include those men with some paid employment during the year. Among all employed 20-29 year old males, their mean real annual earnings declined by 15 percent between 1979 and 2009. The mean real annual earnings of young men in 2009 were only \$28,914 or approximately \$5,100 less than their mean earnings level of \$34,062 in 1979.

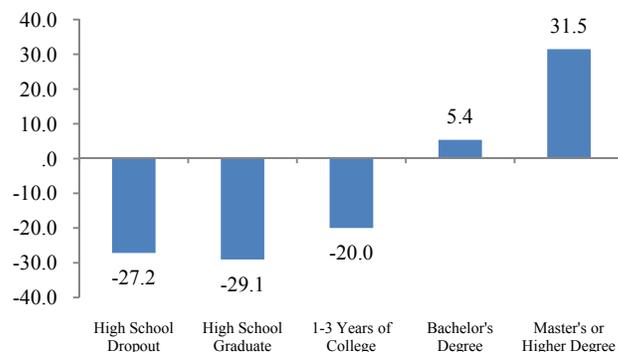
By Educational Attainment

Trends in the mean real annual earnings of these 20-29 year old males varied considerably across educational attainment groups. Those young men with no high school diploma or GED experienced a substantial 27 percent decline in their mean real annual earnings over the 1979-2009 time period, with their earnings falling from \$25,751 in 1979 to only \$18,751 in 2009 (Table 6 and Chart 4). Young high school graduates with no post-secondary schooling experienced a similar steep relative decline in mean real annual earnings over the same time period. The earnings of this educational subgroup of male workers fell from \$33,374 in 1979 to \$23,672 in 2009, or 29 percent. Young males with 1-3 years of college (including associate degree holders) also experienced a steep decline (-20 percent) in their mean real annual earnings over the 1979-2009 period. In sharp contrast to the findings for young males without a four year college degree, the mean real annual earnings of employed 20-29 year old males with a bachelor's degree have increased by 5 percent over the 1979-2009 time period while those with a Master's degree experienced a very substantial 31 percent growth in their mean real annual earnings (Table 6 and Chart 4).

Table 6:
Trends in the Mean Real Annual Earnings of Employed 20-29 Year Old Males in the U.S., Selected Years 1979-2009**
(in 2010 CPI-UX1 Dollars)

	(B)	(C)	(D)	(E)	(F)
Educational Attainment	1979	1989	1999	2009	% Change 1979-2009
High School Dropout	25,751	22,341	22,950	18,751	-27
High School Graduate	33,374	29,164	28,364	23,672	-29
1-3 Years of College	36,368	33,960	33,750	29,100	-20
Bachelor's Degree	40,962	44,353	48,026	43,175	+5
Master's or Higher Degree	45,519	55,278	58,301	59,849	+31
All	34,062	31,804	32,552	28,914	-15

Chart 4:
Percent Change in the Mean Real Annual Earnings of Employed Males 20-29 Years Old Between 1979-2009 By Educational Attainment



Given the highly divergent growth paths of the annual earnings of young men based on their level of educational attainment, the relative gaps in earnings between better educated and less educated young males have grown substantially over the last 30 years. In 1979, the mean annual earnings of young men with a bachelor's degree exceeded those of young male high school graduates by 23 percent (Chart 5). The relative annual earnings gap between four year college graduates and high school graduates increased substantially during the 1980s and 1990s decades. By 2009, employed young

males with a bachelor's degree had mean annual earnings that exceeded those of high school graduates by 82 percent.

Black males who were not enrolled in school reported that they did not have any paid work experience in 2009 (Chart 7). The fraction of zero earners among Black high school dropouts was close to 50 percent.

Chart 5:
Ratio of the Mean Annual Earnings of Employed 20-29 Year Old Males With a Bachelor's Degree to those With Only a High School Diploma, 1979-2009

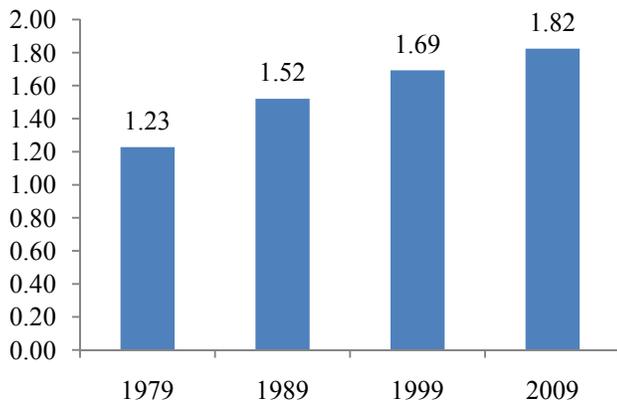
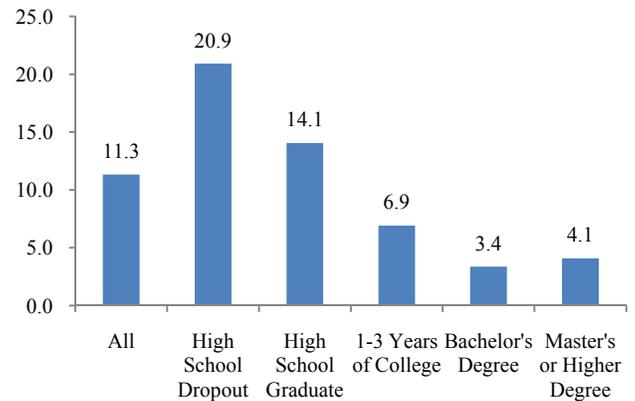


Chart 6:
Percent of 20-29 Year Old Males Not Enrolled in School Who Had No Paid Work Experience During 2009 By Level of Educational Attainment



The Impacts of Rising Year Round Joblessness On the Annual Earnings of Young Men

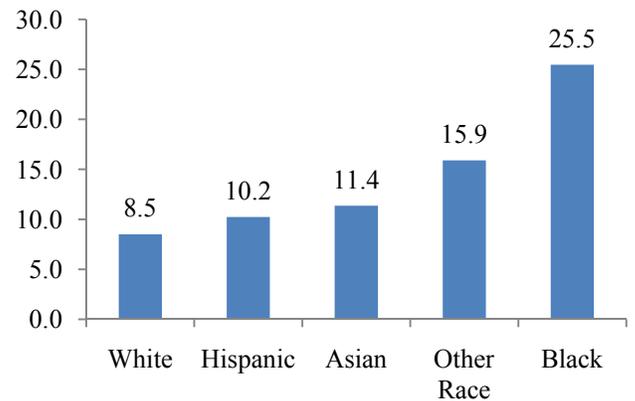
Link to Educational Attainment

The above findings on the mean annual earnings of 20-29 year old males pertained only to those young men that were employed at some point during the year. A rising share of young men 20-29 years old have experienced year round joblessness in recent decades. The share of young men without any paid work experience during the year is influenced by their level of educational attainment (Chart 6). Approximately 21 percent of the nation's 20-29 year old men with no high school diploma did not have any paid work experience in 2009. Only 14 percent of young men with a high school diploma reported that they had no paid work experience followed by seven percent for those men with one to three years of post-secondary schooling and a low of three percent for Bachelor degree holders.

By Race-Ethnic Groups

The fraction of young men lacking any paid work experience in 2009 also varied considerably across the four major race-ethnic groups. Only 8-10 percent of White and Hispanic men reported no paid work experience in 2006 versus 11 percent of Asian men and 25 percent of Black men. One-fourth of 20-29 year old

Chart 7:
Percent of 20-29 Year Old Males Not Enrolled in School Who Had No Paid Work Experience During 2009 By Race-Ethnic Group



Mean Real Annual Earnings Declined

Given the fairly high share of 20-29 year old men reporting no paid work experience in 2009, we estimated mean annual earnings for all men 20-29 years old regardless of whether they were employed in a given year. In Table 7, the mean annual earnings of 20-29 year old men are displayed for selected years from 1979-2009. Given the decline in employment rates of young men especially since 2000, the decline in mean annual

earnings for all young males is larger than that for those men with some paid employment. In 1979, the mean real annual earnings of 20-29 year old men not enrolled in school was \$32,098. By 2009, the mean real annual earnings of this age group of men fell to only \$25,637 or nearly \$5,900 below its level in 1979. The relative decline in the mean annual earnings (-20 percent) of all young men was greater than the decline in annual earnings for all 20-29 year employed men (-15 percent).

Table 7:
Trends in the Mean Annual Earnings Of 20-29 Year Old Non-Enrolled Men, 1979-2009 (in 2010 CPI-U-X1 Dollars, Includes Zero Earners)

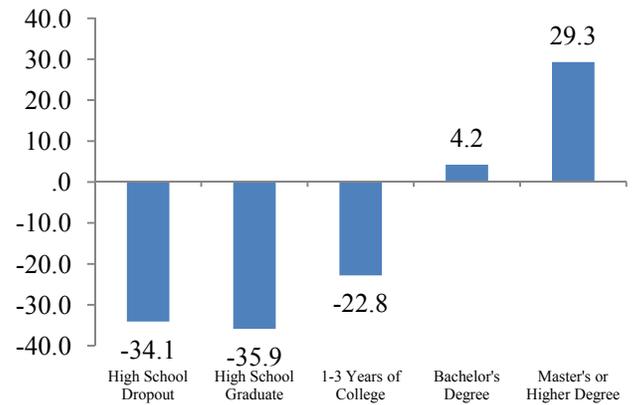
	Mean Annual Earnings
1979	32,098
1989	29,509
1999	29,522
2009	25,637
Absolute Change, 1979-2009	-5,867
Percent Change, 1979-2009	-20.1

Source: (i) 1980, 1990, and 2000 Censuses of Population and Housing; (iii) 2009 American Community Survey, public use files, tabulations by authors.

Over the 1979-2009 time period, the mean annual earnings of all non-enrolled males 20-29 year olds varied substantially across educational attainment groups. The mean annual earnings of high school dropouts, high school graduates, and those with only 1-3 years of college declined by 34 percent, 36 percent, and 23 percent, respectively (Chart 8). The mean annual earnings of young men with a bachelor's degree grew four percent over this same time period while those of young men with a Master's or higher degree increased by 29 percent. The absolute sizes of the gaps in the annual earnings of 20-29 year old men across educational groups have widened considerably over the past three decades due to rising differences in employment rates, annual hours of work, and hourly earnings. Less educated males are finding it more difficult to obtain any type of employment and they earn considerably less when they do. The steep decline in blue collar and unionized manufacturing jobs has been a key factor at work in depressing these young men's earnings and contributing to a

sharp rise in annual earnings inequality among young men.

Chart 8:
Percent Change in the Mean Real Annual Earnings of Non-Enrolled 20-29 Year Old Men, 1979-2009 By Educational Attainment (Includes Zero Earners)



Trends in the Real Annual Earnings of 20-29 Year Old Women, 1979-2009

Earnings Increase

How well did women fare in improving their real annual earnings over the past few decades in the U.S.? The annual earnings experiences of employed 20-29 year old women in the U.S. during selected years over the 1979-2009 period are displayed in Table 8. These annual earnings estimates are mean estimates and apply only to those young women who worked for pay at some time during each year regardless of the number of weeks and hours of employment. In 2009, the mean annual earnings of this group of young women was \$24,133. This earnings level was \$3,500 or 17 percent higher than it was in 1979.

Table 8:
Trends in the Median Annual Earnings of Employed 20-29 Year Old Women in the U.S., Between 1979 and 2009, All and By Educational Attainment
 (in 2010 CPI-UX1 Dollars)

Educational Attainment	(A)	(B)	(C)	(D)	(F)
	1979	1989	1999	2009	% Change 1979-2009
All	20,622	23,182	24,780	24,133	+17
High School Dropout	13,623	13,798	15,141	12,261	-10
High School Graduate	19,200	19,044	19,426	16,921	-12
1-3 Years of College	21,808	23,764	23,854	21,517	-1
Bachelor's Degree	26,557	34,097	35,655	34,432	+30
Master's or Higher Degree	31,721	41,878	43,730	46,611	+47

Note: ** Earnings for 20-29 year olds enrolled in educational institutions at the time of the survey were excluded from the analysis.

Source: (i) 1980, 1990, and 2000 Censuses of Population and Housing; (iii) 2009 American Community Survey, public use files, tabulations by authors.

Link to Educational Attainment

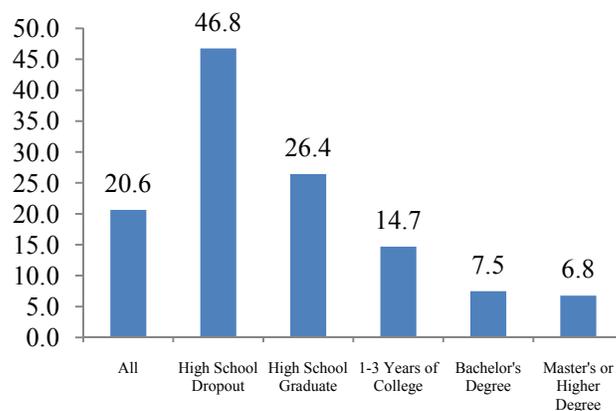
Growth rates in the annual earnings of these young women varied quite widely across the five educational attainment groups.¹⁰ Women who lacked a high school diploma or a GED certificate experienced a decline of 10 percent in their mean annual earnings and those with a high school diploma or its equivalent experienced a decline of 12 percent. Those women with 1-3 years of college experienced a very modest earnings decline (-1 percent) over the past 30 years while those women with a bachelor's degree or higher degree obtained substantial increases of 30 to 47 percent in their mean annual earnings. The bulk of the increases in the real annual earnings of these well-educated, employed women had taken place by the end of the 1990s.

Link to Employment Status and Low Earnings

As was the case for young men, the formal educational attainment of young women is also

strongly associated with their employment status during the year. Overall, nearly 21 percent of the nation's non-enrolled 20-29 year old women reported no paid employment during 2008-2009. The share of women with no paid employment varied quite substantially by educational attainment (Chart 9).¹¹ Nearly one-half of those young women lacking a high school diploma/ GED lacked any paid work during the entire year versus slightly over one-fourth of the women with a high school diploma, only 15 percent of those with 1-3 years of college, and seven percent of those women with a bachelor's degree or higher degree. The non-employment rate among young women lacking high school diplomas was six to seven times higher than that of women with a bachelor's degree or higher degree. Many of these young women without a high school diploma and with no paid work experience were single mothers. Their limited employment and annual earnings substantially increased the likelihood that they and their children would be poor/ near poor and economically dependent on the government for their economic livelihood.

Chart 9:
Percent of 20-29 Year Old Women Who Were Not Employed At Any Time in 2009, All and By Educational Attainment



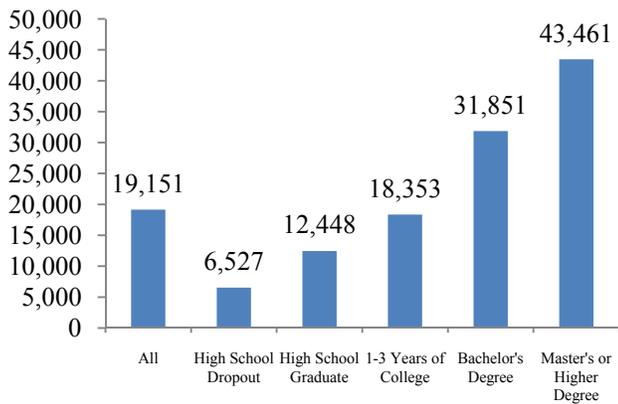
Note: Findings exclude those women who were enrolled in school at the time of the 2009 ACS survey.

The 2009 annual earnings experiences of all 20-29 year old women, including zero earners, were examined separately. The mean annual earnings of all young women varied enormously across the five educational attainment groups. Due to their high

rate of non-employment, the mean level of the annual earnings of women lacking a high school diploma during 2008-2009 was only \$6,527 versus \$12,488 for high school graduates, \$18,353 for those with 13-15 years of schooling, and highs of \$31,851 to \$43,461 among those women holding a bachelor's degree or higher academic degree.

Chart 10:

Mean Annual Earnings of 20-29 Year Old Women in 2009 By Educational Attainment (Including Zero Earners, Earnings in 2010 CPI-U Adjusted Dollars)



Inequality in Annual Earnings

The rising share of young adults reporting no paid employment at any time during the year in recent years combined with widening gaps in annual earnings among those with some employment has created a heightened degree of inequality in the young adult earnings distribution over recent decades. Combining the annual earnings findings for men and women together, our estimates show that the earnings shares of the top ten and top twenty percent of young adults has risen considerably since 1979 while that of the bottom four quintiles has shrunk. In 1979, the top 10 percent of earners captured 29 percent of aggregate earnings, by the year 2000 this had risen to 32 percent, and in 2009 they received more than 36 percent of all earnings. The top quintile of earnings collected just under 57 percent of all earners received by young adults in 2009, much more than the bottom 80 percent combined. The bottom 20 percent received no earnings at all in 2009. While

some of these year-round jobless in 2009 were college students, the vast majority were not.

Table 9:

The Share of Combined Annual Earnings (Including Zero Earners) Captured By 20-29 Year Olds in the Top Decile, Top Quintile, and Bottom Quintile of the Earnings Distribution in 1979, 2000, and 2009, Both Genders Combined

Group of Earners	(A)	(B)	(C)	(D)
	1979	2000	2009	Percentage Point Change, 1979-2009
Top 10 Percent	29.0	32.1	36.4	+7.4
Top 20 Percent	48.3	50.7	56.9	+8.6
Bottom 20 Percent	.3	.3	0	-.3

Source: March 1980, March 2001, and March 2010 CPS surveys, Work Experience and Income Supplements, tabulations by authors.

Links to Educational Attainment

The extraordinarily high degree of inequality in the annual earnings of young women and young men by educational attainment has contributed in a very important manner to the rising degree of inequality in the distribution of young family incomes in the nation in recent decades. Better educated men and women are considerably more likely to marry than their less educated peers, and when they do marry, their spouses are likely to be college graduates as well. The high degree of assortative mating among young married couples yields very large differences in their combined annual hours of employment and annual earnings over the year, the primary source of their annual incomes. As a consequence, the economic well-being of the children in these young families varies far more considerably today than in prior decades placing disadvantaged children at far greater risk of educational and social failure.

Summary and Conclusions: Impacts on Young Families and Public Coffers

The declining real weekly and annual earnings of many young men and some young women over the past few decades, especially those without four year college degrees, have had a number of important impacts on their living arrangements, marital behavior, young children's living arrangements/economic well-being, criminal behavior/incarceration, and the fiscal well-being of national, state, and local governments.

More 20-29 Year Olds Live With Parents or Relatives

First, higher fractions of young men and women 20-29 years old remain living at home with their parents or other relatives, thereby reducing new household formation. In 2009, nearly 55 percent of native born men with a high school diploma or less were living at home versus only 33 percent in 1980. This increase in the length of time that young adults remain at home also has occurred in many other Western European countries, including Italy and Spain. While young adults without post-secondary degrees are less successful at forming new independent households than their college educated peers, a rising fraction of new college graduates have been returning home after graduation to live with their parents due to limited immediate earnings prospects and higher student debt loads.¹²

Marriage Rates Decline

Second, there has been a substantive decline in marriage among young adults over the past few decades. The per cent of 22-32 year old men that were married and living with their spouse has fallen from 56 percent in 1980 to only 32 percent of men 2007.¹³ The declines in marriage have been steeper for the less educated groups. Male marriage prospects are strongly tied to their annual earnings, rising fairly steadily and strongly with earnings up to the \$100,000 level.¹⁴ The links between annual earnings and marriage rates are quite strong for Blacks, Hispanics, and Whites. Longitudinal research on the persistence of cohabitating couples with newly born children remaining together over

time (3-5 years) shows that the earnings and educational attainment of the male partner play a key role in maintaining the relationship and/or becoming married.¹⁵

Increase in Out-of-Wedlock Births

Third, the decline in the marriage rate among the nation's young adults over the past few decades unfortunately has not been accompanied by a similar decline in the birth rate among young women. As a consequence, a growing fraction of the births to women under age 30 have been taking place out of wedlock. In 2007, the share of births to women under 30 that were out-of-wedlock surpassed 50 percent for the first time. The share of births taking place out-of-wedlock varied widely by the educational attainment of the mother, being highest among high school dropouts and declining steadily and sharply with increased educational attainment of the mother.

Increase in Single Parent Families

Fourth, the substantial rise in out-of-wedlock childbearing has increased the fraction of young families with children that are single parent families, contributing to declines in the median real incomes of young families with children, rising family income inequality, and increasing problems of income inadequacy, including poverty and near poverty among children in these young families.¹⁶

Increase in Incarceration of Young Males

Fifth, the deterioration in the economic fortunes of young males without college degrees, especially high school dropouts and high school graduates with limited academic skills, has been accompanied by a sustained, steep increase in the number of young males who were convicted of various crimes and incarcerated in the nation's jails and prisons.¹⁷ The U.S. is now a leader among all industrialized nations, including China and Russia, in the incarceration rate of its adult population. The nation's young males under 30 are the primary source of its incarcerated population. Their high levels of incarceration will diminish their human capital investments in the future (years of schooling, work experience), their future employability, and

earnings. Reduced future employment and earnings of these ex-offenders will increase the risks of recidivism, which will impose large fiscal costs on the rest of society as well.

Budgetary Challenges for Federal, State and Local Governments

Sixth, the declines in the real weekly and annual earnings of many employed young adults, especially males lacking four year college degrees, have contributed to the budgetary difficulties of the federal, state, and local governments. Lower annual earnings result in lower payroll tax collections (Society Security retirement, Medicare, unemployment insurance) from these young workers and their employers. Every lost dollar in annual earnings reduces payroll taxes by about 17 cents. Lower annual earnings of these young adults also results in reduced federal and state income taxes and lower state sales tax receipts. Lower rates of home ownership among the young also push down property tax collections at the local level, and declining young family incomes reduce the demand for housing and new home construction.

The deteriorating real income position of many young families with children has increased their reliance on cash and in-kind transfers to support themselves and their children. This includes receipts of payments under the Temporary Assistance to Needy Families program, Supplemental Security Income for persons with disabilities, food stamps, rental subsidies, and Medicaid. The increased incarceration of young men also contributes to rising costs of maintaining state and local prisons and jails and providing probation and parole services once released from prison. In a number of states, more tax money is spent on annually operating and maintaining correctional institutions and other criminal justice system expenditures than on aid to higher education.¹⁸ The adverse shift in the net fiscal contributions of many young families has contributed to growing budgetary problems at the federal and state level.

¹ Andrew Sum, “Ringing Out the Old Year and the Lost Decade of 2000-2010”, Huffington Post, December 30, 2010

² Andrew Sum, et al., The Deterioration in the Labor Market Fortunes of America’s Young Adults During the Lost Decade of 2000-2010, Prepared for The Children’s Defense Fund, Washington, D.C., June 2011.

³ For earlier overviews of trends in the weekly and annual earnings of young adults, see: (i) Nathan Pond, Andrew Sum, Mykhaylo Trubskyy, et. al., Trends in the Level and Distribution of the Weekly and Annual Earnings of Young Adult Men and Women in the U.S., 1973 to 2001, Prepared for the National League of Cities, Washington, D.C., October 2002; (ii) Andrew Sum, Neeta Fogg, and Garth Mangum, Confronting the Youth Demographic Challenge: The Labor Market Prospects of Out-of-School Young Adults, Sar Levitan Center for Social Policy Studies, Johns Hopkins University, Baltimore, 2000; (iii) Andrew Sum, Ishwar Khatiwada, and Joseph McLaughlin, “No Country for Young Men: Deteriorating Labor Market Prospects for Low Skilled Men in the United States,” The Annals of the American Academy of Political and Social Science, Sage Publications, Thousand Oaks, California, 2011.

⁴ In Canada, the real annual wages of 18-24 year old men fell dramatically between 1979 and 1994, declining by 36 percent. See: Garnett Picot, “Working Time, Wage, and Earnings Inequality Among Men and Women in Canada, 1981-1993,” Working Time in Comparative Perspective, Volume 1, W.E. Upjohn Institute for Employment Research, Kalamazoo, 2001.

⁵ For an assessment of trends in the real weekly and annual earnings of subgroups of young male adults over the 1967 to 1989 period, See: (i) Andrew Sum, Neal Fogg, and Robert Taggart, From Dreams to Dust: The Deteriorating Labor Market Fortunes of Young Adults, Sar Levitan Center for Social Policy Studies, Johns Hopkins University, Baltimore, 1996; (ii) Ford Foundation Project on Social Welfare and the American Future, The Common Good, Ford Foundation, New York, 1989; (iii) Frank Levy, “Recent Trends in U.S Earnings and Family Incomes,” NBER Macroeconomics, Annual 1989, The MIT Press, Cambridge, 1989.

⁶ See: Andrew Sum, Joseph McLaughlin, et. al., Out With the Young and In With the Old: U.S. Labor Markets 2000-2008 and the Case for an Immediate Jobs Creation Program for Teens and Young Adults, Center for Labor Market Studies, Northeastern University, December 2008.

⁷ See: Andrew Sum, Joseph McLaughlin, Ishwar Khatiwada, et al., The Labor Market and Educational Experiences of the Nation’s Young Adults Since the Publication of America’s Choice, Report Prepared for the New Commission on the Skills of the American Workforce, Washington, D.C., January 2006.

⁸ In 1973, the CPS survey only collected weekly wage data for workers for the month of May. Since 1979, the weekly wage data have been collected from a sample of respondents each month during the calendar year.

⁹ For a review of the economic and social experiences of the nation’s Forgotten Half:

See: (i) William T. Grant Foundation Commission on Work, Family, and Citizenship, The Forgotten Half: Non-College Youth in America, Washington, D.C. 1988; (ii) The William T. Grant Foundation, The Forgotten Half Revisited, Washington, D.C., 1998; (iii) Andrew Sum, Neeta Fogg, and Garth Mangum, Confronting the Youth Demographic Challenge: The Labor Market Prospects of Out-of-School Youth, Sar Levitan Center for Social Policy Studies, Johns Hopkins University, Baltimore, 2000.

¹⁰ The growth rate of the real median annual earnings of all employed young women (+17%) also was favorably influenced by the shift of young women into higher educational groups over time.

¹¹ Those women who cited school as the main reason for not working in the prior year were excluded from the analysis.

¹² For examples of such recent stories on living arrangements of new college graduates, See: Amanda Fairbanks, “2011 College Graduates Moving Home In Record Numbers, Saddled with Historical Levels of Student Debt,” Huffington Post, May 13, 2011.

¹³ For recent evidence on changing marriage behavior of U.S. adults over the past four decades,

See: Andrew Sum, Ishwar Khatiwada, and Joseph McLaughlin, “No Country for Young Men: Declining Labor Market Prospects for Less Skilled Men,” The Annals, March/April 2011, pp. 24-55.

¹⁴ Ibid, pp. 24-55.

¹⁵ See: Sara McLanahan, Fragile Families and the Reproduction of Poverty, Princeton University, Working Paper 106, Princeton, New Jersey, 2007.

¹⁶ See: Andrew Sum, Ishwar Khatiwada, Joseph McLaughlin, et.al, The Deterioration in the Economic Fortunes of America’s Young Workers and Families: Black Families Have Fared the Worst, Paper Prepared for the Children’s Defense Fund, Washington, D.C., December 2010.

¹⁷ For a review of incarceration trends in the U.S. and the incidence of incarceration among various subgroups of young adult males and their economic consequences, See: (i) The Pew Foundation on the States, 1 in 100, Incarceration in the U.S., Washington, D.C., 2010; (ii) Bruce Western, Punishment and Inequality in America, Russell Sage Foundation; New York City, 2006.

¹⁸ See: Tom Reifer, “If Prison Costs Rob Education, What Then?,” Sign On San Diego, May 29, 2011.