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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

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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

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"A man willing to work and unable to find work is perhaps the saddest sight that fortune's inequality exhibits under this sun."

Thomas Carlyle

"Not only our future economic soundness but the very soundness of our democratic institutions depends on the determination of our governments to give employment to idle men."

President Franklin D. Roosevelt

"Our lives begin to end the day we become silent about things that matter."

Martin Luther King

Introduction

The onset of the national economic recession in December 2007 and rapidly deteriorating labor market conditions over the past four months have led to renewed calls for a major federal stimulus package to put America's jobless back to work, including investments in public infrastructure and green technologies, federal assistance to state and local governments, and possible income tax reductions. Missing from the entire debate, thus far has been any mention of a case for a public sector jobs creation program for the nation's teens and young adults (20-24), especially those out-of-school youth lacking college degrees, low income youth, and minority males.[1] The nation's teens and young adults failed to secure any net gain in employment over the 2000-2007 period and were the largest net losers of jobs from the labor market downturn over the past 12 months.[2] Yet, past evidence on public sector job creation programs for youth has shown that such programs create more net jobs per slot than for any other age group, that jobs can be created more cost effectively for youth, and that the value of the goods and services created by young adults often was large enough to offset the costs.

At the same time that teens and young adults failed to obtain any new jobs between 2000-2007 and incurred a substantial share of the job losses over the past year, the nation's older population (55 and older) experienced near continued growth in their employment rates over the 2001-2007 period, and their employment levels have risen strongly over the past 12 months while those of adults under 30 fell substantially.[3] As a nation, we have taken the old adage, "in

[1] The need for a national jobs creation program for teens was recently spelled out in a New York Times editorial. See: "Even Worse for Teens," New York Times, December 8, 2008, p. A-28. An earlier case for a youth jobs creation program was made in 2003. See: Andrew Sum, Garth Mangum, and Robert Taggart, "The Case for a Young Adult Jobs Creation Program, Indicators: The Journal of Social Health, Winter 2002-2003.

[2] For an earlier analysis of the changing age twist in employment rates, see: Andrew Sum, Ishwar Khatiwada, Sheila Palma, "The Age Twist in Employment Rates, 2000-2004," Challenge: The Magazine of Economic Affairs, July-August 2005, pp. 51-68.

[3] Robert Gavin, "Losing Jobs in Unequal Numbers," The Boston Globe, December 5, 2008, p. A-1, A-8.

with the new and out with the old" and stood it on its head. We have steadily increased the ranks of the employed with older workers and thrown the young out in the cold. Yet, few leaders in either political party have stood up and called for a massive job creation program, including private sector jobs, to put our nation's teens and young adults back to work immediately. This research report tells the tragic story of how our labor markets over the past four years have failed the young in record numbers and calls for an immediate jobs stimulus by the U.S. Congress and the incoming Obama Administration.

Key Data Sources and Employment Concepts and Measures

The bulk of the data appearing in this research report on the employment levels, employment rates, and employment losses of America's youth (under age 30) are based on the findings of the monthly Current Population Survey, a national household survey conducted by the U.S. Census Bureau for the U.S. Department of Labor's Bureau of Labor Statistics.[4] The Current Population Survey (CPS) is based on interviews with a nationally representative sample of approximately 60,000 households each month. The CPS collects data on the current labor force activities of all household members 16 and older, and the findings are used by the U.S. Bureau of Labor Statistics to generate estimates of the monthly number of working-age residents in the national labor force, the number of employed and unemployed, and the monthly unemployment rate.[5] We have relied upon CPS data appearing on the U.S. Bureau of Labor Statistics' website, findings published by BLS in the publication Employment and Earnings, and on our own analysis of the CPS data in the public use files provided to the research community by the U.S. Bureau of Labor Statistics.

Proper interpretation of the employment levels and employment rate estimates appearing in this report is dependent on knowledge of the employment concepts and measures from the Current Population Survey. In the CPS survey, a person (16 and older) is categorized as employed if he or she meets one of the following three definitions:

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[4] For a review of the key design features of the Current Population Survey and employment concepts and measures, See: U.S. Bureau of Labor Statistics, Employment and Earnings, January 2007, U.S. Government Printing Office, Washington, D.C., 2007.

[5] See: U.S. Department of Labor, Bureau of Labor Statistics, The Employment Situation: November 2008, December 5, 2008. This monthly publication available on the BLS website provides a wide array of employment estimates from the monthly CPS survey.

- Worked for one or more hours for pay or profit during the reference week; i.e., the calendar week immediately preceding the CPS survey.[6]
- Had a paid job from which he was temporarily absent for such reasons as vacation, temporary illness, bad weather, or an industrial dispute at the work place.
- Worked without pay for a family owned business for 15 or more hours per week.

The employment data can be combined with data on the estimated number of young (and older) adults in the civilian, non-institutional population to calculate the employment/population ratio (E/P) sometimes referred to as the employment rate. The E/P ratio represents the percent of the civilian non-institutional population of young adults that were employed during a given time period. The E/P ratio is influenced by both the labor force participation behavior of a given age group and its unemployment rate. If a drop in labor demand for young adults, especially teens, leads to a drop in their labor force attachment rather than to a rise in their unemployment rate, it will show up as a decline in the E/P ratio.

We also examine the full-time nature of the jobs held by employed young adults at various points in time. The CPS defines a full-time employed person as one who works for 35 or more hours per week. Declines in the employment rates of young adults since 2000 also have been accompanied by a reduced share of full-time jobs among young adults, especially those with no four year college degrees. Rising joblessness among young adults in the U.S. has been accompanied by increasing underemployment (working part-time but desiring full-time jobs) and mal-employment (holding jobs that do not utilize one's education or occupational skills). Young college graduates in recent years have become mal-employed at higher rates, sharply reducing their weekly and annual earnings and displacing less educated young adults from paid employment.

Trends in the Employment Rates of Young Adults (16-29) and Older Workers (55+) in the U.S. from 2000 to 2008

One of the core measures of the employment status of persons in a given demographic/socioeconomic group is their employment/population ratio (E/P). In Table 1, we present estimates of the E/P ratios of three age groups of young adults (16-19, 20-24, 25-29) and

[6] The CPS survey is conducted during the calendar week containing the 19th of the month; i.e., the survey week. The reference week is, thus, the calendar week containing the 12th of the month.

two older age cohorts (55-64) and 65+ both in 2000 and during the October-November period of 2008, the most recent two month period for which CPS employment estimates are available (Table 1).[7]

Table 1:
Trends in the Employment/Population Ratios of Teens, Young Adults, and Adults in Older Age Groups, 2000 to October/November 2008
(in %)

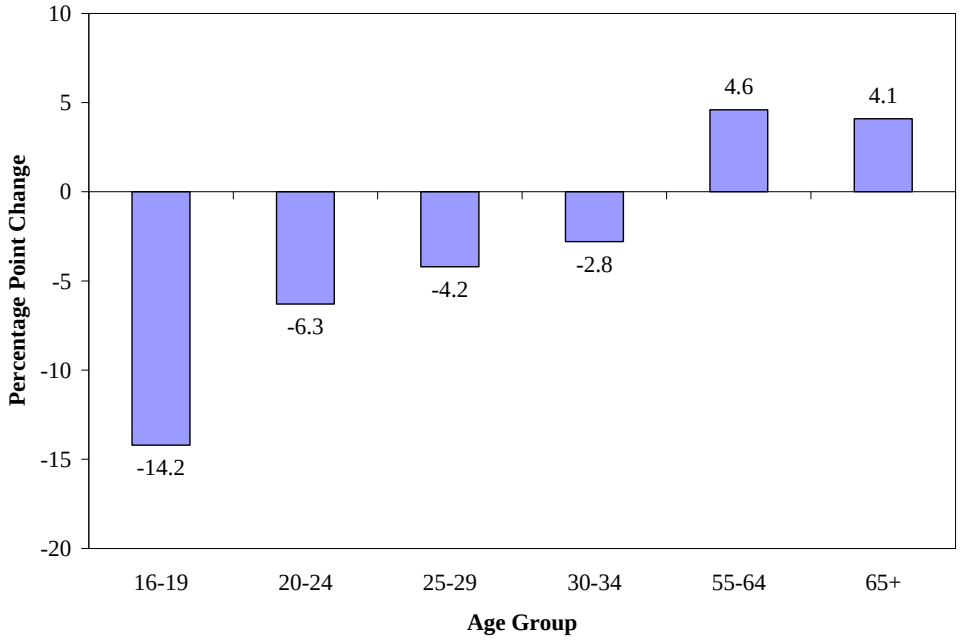
Age Group	(A) 2000 (Annual Average)	(B) October-November 2008	(C) Percentage Point Change
16-19	45.2	31.0	-14.2
20-24	72.3	66.0	-6.3
25-29(1)	81.0	76.8	-4.2
30-34(2)	82.0	79.1	-2.9
55-64(1)	57.8	62.4	+4.6
65+(1)	12.5	16.5	+4.0

Note: (1) Employment rate estimates for persons 25-29 and 30-34 as well as those 55-64 and 65+ for October-November 2008 are not seasonally adjusted.

Over this eight year period, the employment rates (E/P ratios) of each age group of workers under 35 have declined sharply, with the magnitude of these declines being larger the younger the age group. Over the same time period, the employment rates of older residents, both 55-64 and 65 and older, rose strongly, increasing by 4 to 5 percentage points. Among those under 30, the reductions in E/P ratios ranged from a high of over 14 percentage points among teens, to slightly over 6 percentage points among 20-24 year olds, and to over 4 percentage points among 25-29 year olds (See Table 1 and Chart 1). Even adults 30-34 years old experienced a near 3 percentage point drop in their E/P ratio.[8]

[7] Both nonfarm payroll employment and civilian household employment have declined considerably over the past few months. Between August and November 2008, payroll employment fell by 1.256 million, seasonally adjusted.
[8] Among adults 35-44, the decline in the E/P ratio was 2.5 percentage points with more than half of this decline occurring since the fall of 2007.

Chart 1:
Percentage Point Changes in the Employment/Population Ratios of Key Age Groups of the U.S. Working-Age Population from 2000 to October/November 2008
(Seasonally Adjusted)



The magnitude of these dramatic age twists in the employment rates of U.S. workers is historically unprecedented. At no time since the end of World War II did the labor market ever experience such a phenomenon especially between the youngest and oldest workers.[9] In calendar year 2000, the E/P ratio of the nation's teenagers was 45 percentage points, only 12 percentage points lower than that of 55-64 year olds. By the fall of 2008, the absolute size of the gap between these two employment rates had increased to 31 percentage points. Persons 55-64 were twice as likely to be working as their teenaged peers. In 2000, the nation's teens were nearly 4 times as likely to be working as elderly adults (65+). By the fall of 2008, the employment rate of teens had fallen to less than two times as high as that of their elderly counterparts (31% vs. 16%). At a time when the retirement of the baby boom generation will place unprecedented demands on the fiscal coffers of the federal government, especially the Social Security retirement and Medicare systems, the nation is denying its youngest adults the opportunities to acquire the work experience and skills that will boost their future annual earnings and their contributions to the

[9] For an earlier assessment of these age twists in E/P ratios between teens and older workers,
See: Andrew Sum and Ishwar Khatiwada with Sheila Palma, "The Age Twist in Employment Rates, 2000-2004," Challenge: The Magazine of Economic Affairs, July-August 2005, pp. 51-68.

federal budget, including Social Security payroll and federal income taxes.[10] The reduced work experiences of America's youth during their teenage years will have negative consequences on their employability and earnings in their early to mid 20s. Their lower work experience will be coming at a time when real wage growth tends to be at its peak. Findings of National Longitudinal Surveys from the late 1970s through the mid 1990s revealed that the real hourly earnings of young men and women rose by 7.4 percentage between ages 18 and 22, by 5.5 percent between ages 23 and 27, but by only 2.6% between ages 28 and 32.[11] For both young men and women without four year degrees, labor supply behavior tends to be strongly positively associated with their expected hourly earnings from work.[12] To paraphrase the Matthew effect, "from those who expect more remuneration from employment, more work shall be offered".[13] The lower expected wages and labor supply of non-college educated men will sharply reduce their future earnings and their attractiveness as marriage partners, lowering marriage rates and raising out-of-wedlock childbearing in the U.S.

The Employment of Teens and Young Adults (20-24 Years Old) From 2000 to 2007: Deep Job Losses in the Recession and Jobless Recovery of 2002-2003; Few Gains in the Labor Market Recovery 2003-2007

The labor market fortunes of the nation's from teens and young adults (20-24) deteriorated more rapidly than those of any other age groups over the past eight years. The very poor employment performance of teens and young adults over this time period can be divided into three time periods: the 2001-2003 time period that covered the recession of 2001 and the largely jobless recovery from the end of 2001 through mid-2003, the job growth period from mid 2003-to the late fall of 2007, and the period from the fall of 2007 to the fall of 2008.[14]

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[10] Strengthening the labor force attachment and employability of persons 62 and older also will help offset these rising retirement and health costs. For a recent review of the tax impacts of alternative strategies to boost the labor force participation of older workers,
See: Eugene Steverle, "Labor Market Trends for Older Americans', Presentation to the New England Federal Reserve Bank Seminar on the Regional Work Force, Boston, December 2008.

[11] See: U.S. Department of Labor, Bureau of Labor Statistics, Number of Jobs, Labor Market Experience, and Earnings Growth: Results from a Longitudinal Survey, Washington, D.C., June 1998.

[12] See: Stephanie Aaronson, Looking Ahead: Young Men, Wage Growth and Labor Market Participation, Federal Reserve Board of Governors, 2001.

[13] In the education field, several researchers have referred to the "Matthew effect" in which those who have stronger literacy and numeracy skills are provided with more opportunities to acquire education and training.

[14] For an earlier set of findings on the steep job losses of teens and 20-24 year olds during the 2001-2003 periods of recession and the jobless recovery of 2002- to mid 2003,
See: Andrew Sum, Robert Taggart, Ishwar Khatiwada, and Sheila Palma, Still Young, Restless and Jobless: The Growing Employment Malaise Among U.S. Teens and Young Adults, Sar Levitan Center for Social Policy Studies,

During the national recession of 2001 and the jobless recovery from November 2001 to mid-2003, the employment rates of teens and 20-24 year old adults fell steadily and steeply.[15] From 2000 to 2003, the E/P ratio of the nation's teens fell by 8.6 percentage points and that of 20-24 year olds declined by 4.4 percentage points while that of adults 25 and older fell by less than 1.5 percentage points and those of adults 55 and older rose over the same time period.[16]

Table 2:
Changes in Total Civilian Employment and the Number of Employed 16-24 Year Olds Between 2000 and 2007
(Annual Averages, in Millions)

Age Group	(A) 2000	(B) 2007	(C) Change 2000-2007
16+	136,891	146,047	9,156
16-24	20,418	19,875	-543
16-19	7,189	5,911	-1,278
20-24	13,229	13,964	+734
16-24, excluding new immigrants from 2000 on	20,418	18,685	-1,733

Sources: (i) U.S. Bureau of Labor Statistics, "CPS Employment Series", website; (ii) 2007 monthly CPS survey public use files, tabulations by authors.

During the national jobs recovery from mid-2003 to the late fall of 2007, the teen employment rate failed to grow. While some moderate job growth among teens was experienced between the early fall of 2004 and the late fall of 2006,[17] employment among teens declined from the fall of 2006 through the late fall of 2007. Between the late spring of 2003 and the fall of 2007, the teen employment rate declined from 36.8% to 34.3%, a decline of 2.5 percentage points while national civilian employment rose by nearly 9 million over the same time period.

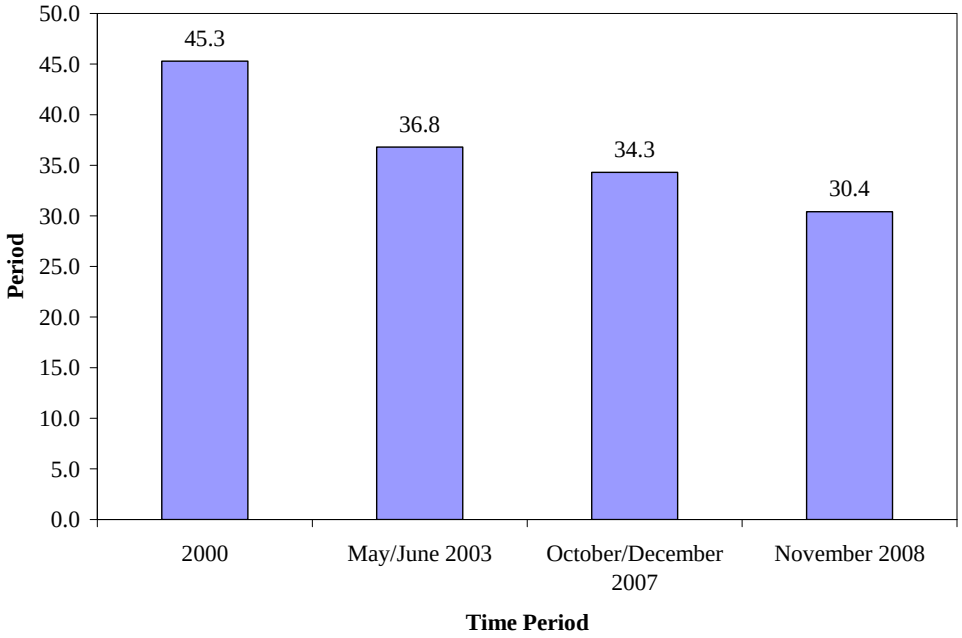
Johns Hopkins University Baltimore, 2003; (ii) Peter Cole, Michelle Conlin and Emily Thornton, "A Lost Generation?" Business Week, November 4, 2002, pp. 44-46; Andrew Sum, Nathan Pond, with Sheila Palma, The Impacts of the 2001 Recession and the Ensuring Jobless Recovery on the Employment of the Nation's Teens and Young Adults, Report Prepared for the National League of Cities, Washington, D.C., 2002.

[15] According to the National Bureau of Economic Research, the recession of 2001 officially ended in November of that year. Nonfarm payroll employment, however, did not begin to grow steadily until mid-2003.

[16] See: Andrew Sum, Neeta Fogg, and Mykhaylo Trubs'kyy, with Frim Ampaw and Sheila Palma, The Summer Job Market for Teens 2002-2003 and the Projected Job Outlook for the Summer of 2004, Report Prepared for Jobs for America's Graduates, Washington, D.C., April 2004.

[17] Teen employment roses about 200,000 over this time period but this failed to keep pace with their population growth.

Chart 2:
Trends in the Nation's Teen Employment/Population Ratios,
Selected Time Periods from 2000 to November 2008
(in %)



The steep decline in teenage employment during the recessionary year of 2001 and the largely jobless recovery period from early 2002 through mid-2003 was not surprising. Teens have tended to suffer disproportionate job losses during post-World War II recessions, but they typically fared well during periods of strong job growth. For example, between 1992 and 1997, the U.S. economy created jobs for an additional 11 million individuals 16 and older (See Table 3). During this five year period, the number of employed teens rose by just under 1 million, accounting for 9 of every 100 additional employed persons. During the spring 2003 to fall 2007 period, the U.S. economy generated job opportunities for 8.771 million additional working age persons, but the nation's teens did not capture any of these net new jobs.[18] In fact, teen employment at the end of the labor market boom in the fall of 2007 was 39,000 below where it was at the beginning of national job growth in the spring of 2003 despite a sharp increase in the

[18] For an earlier review of the job losses of native born teens and young adults during the 2001-2003 period and their failure to benefit from the employment boom from the late Spring of 2003 to the late Fall of 2007,
See: Andrew Sum, Ishwar Khatiwada, and Joseph McLaughlin, The Declining Labor Market Fortunes of the Nation's Teens and Young Adults: Their Implications for National Youth Workforce Development Policy, Testimony Prepared for the U.S. House of Representatives Subcommittee on Labor, Health, Human Services, and Education, Washington, D.C., March 2008.

number of teens in the civilian non-institutional population during this time period. The number of teens rose by 900,000 or nearly 6% between 2003 and 2007.

Table 3:
Comparisons of the Nation's Teens Share of the Growth in
Civilian Employment During the Job Growth Years 1992-1997 and from
The Spring of 2003 to the Late Fall of 2007
(Annual Averages or Seasonally Adjusted Numbers, in 1000s)

Time Period	(A) Growth in Total Employment (16+)	(B) Growth in Teen Employment (16-19)	(C) Teen Share of Employment Growth
1992 – 1997	11,066	992	9.0%
March – May 2003 to Sept. – Nov. 2007	8,771	-39	0

The absence of any teen job growth during a period of steady and sustained employment increases was clearly an anomaly that received little attention from national economic policymakers. Since the Fall of 2007, the labor market for teens and young adults (20-29) has deteriorated considerably, pushing down their employment rates, diminishing the active labor force participation of all teens and young adults with limited schooling, and increasing both underemployment and mal-employment problems.[19]

The employment levels of young adults (20-24) did experience some growth between the late spring of 2003 and the fall of 2007 (a gain of about 390,000 or under 3%), but a more disaggregated analysis of these employment gains revealed that the bulk of the gains were achieved by new immigrant arrivals, many of whom appear to be undocumented.[20] Very little employment growth took place among native born young adults (20-24) over this time period.

[19] Underemployment is used to describe persons working part-time even though they desire full-time work. The mal-employed are those persons who are employed but are not working in occupations that fully utilize their education or skills. Mal-employment is a growing problem for young college graduates that reduces their annual earnings and the payoff from their college investments. For a discussion of mal-employment problems,
See: Frederick Harbison, Human Resources as the Wealth of Nations, Oxford University Press, New York, 1973..

[20] For a more comprehensive review of employment developments among native born and new foreign born young adults in the U.S. between 2000 and 2007,
See: Andrew Sum, Joseph McLaughlin, Robert Taggart, et. al., The Nation's Temporary Guest Worker Program, the New Immigrant Workforce, and the Steep Deterioration in the Nation's Youth Labor Markets; the Case for Comprehensive National Policy Reform, Center for Labor Market Studies, Northeastern University, Boston, May 2008.

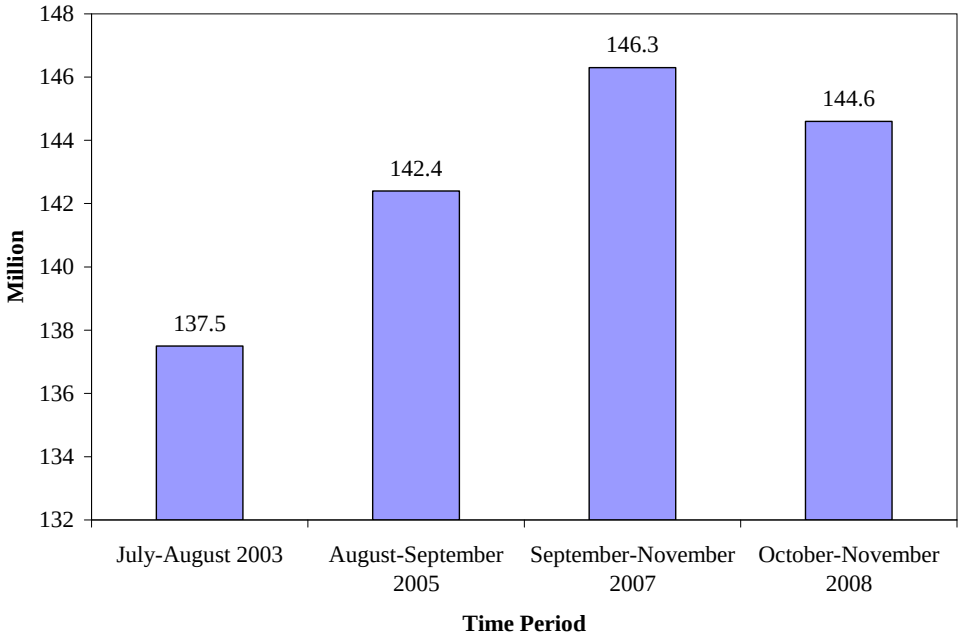
Over the entire 2000-2007 time period, the total number of employed civilians in the U.S. rose from 136.9 million to 146.0 million, a gain of slightly more than 9.1 million (Table 2). Over this time period, total employment among the nation's 16-24 year olds actually fell by 543,000 or 2.6% despite a very sharp rise in the number of 16-24 year olds in the civilian non-institutional population of the nation over this 7 year time period. The number of employed 20-24 year olds actually rose by 753,000 but the number of working teens fell by nearly 1.3 million, more than offsetting all of the job gains among young adults. An analysis of the monthly CPS public use files for all 12 months of calendar year 2007 revealed that there were approximately 1.2 million employed 16-24 year olds who had arrived in the U.S. at some point between 2000 and the time of the monthly CPS interviews in 2007. A relatively high fraction of these new immigrant arrivals appear to have been undocumented workers, many of whom were working as construction laborers, roofers, drywall installers, and rough carpenters in the booming home construction industry. When we exclude the number of newly-employed young immigrants from the total employment of 16-24 year olds in 2007, their employment level drops to 18.685 million, a net loss of 1.733 million or 8.5% over this seven year period, an extraordinary decline when considering the growth of employment of persons 16+ by 9.7 million over this same time period. Teens and young adults most in need of labor market experience (out-of-school youth with limited schooling, youth from low income families) were the least likely to receive it. The decline in employment opportunities among out-of-school youth by educational attainment will be described in more detail below.

The End of the Jobs Boom in the Fall of 2007; Job Losses by Age Group Since The Fall of 2007: The Demise of the Young and the Continued Rise of the Old

Nationally, both nonfarm payroll employment and total civilian employment peaked in the first quarter of 2001 before the U.S. economy officially entered into a recession in March of that year. Although the National Bureau of Economic Research declared that the recession ended in November 2001, neither civilian employment (persons 16+) nor payroll employment began to experience any steady growth until the late spring and summer of 2003. Between July-August of 2003 and the Fall of 2007, civilian employment in the U.S. increased fairly steadily from 137.5 million to 146.3 million, a gain of nearly 9 million (Chart 3). From September/November 2007 to October/November 2008, civilian employment had declined by 1.7 million. Recently, the

National Bureau of Economic Research declared that the U.S. entered into a recession in December 2007.

Chart 3:
Trends in Total Civilian Employment (16+) in the U.S.,
Selected Time Periods Spring 2003 to October/November 2008
(Seasonally Adjusted, in Millions)



Who has lost jobs during the economic downturn? To answer this question, we calculated changes in national employment by major age group between October 2007and November 2008, a 13 month period and over the October-November 2007 and October-November 2008 time periods (Table 4).[21] Over the first time period, civilian employment in the U.S. fell by 1.731 million. Each major age group of workers under 30 experienced declines in employment, with the size of these job losses being largest for the very youngest, i.e., those under 20. Teen employment fell by a staggering 700,000 followed by a drop of 358,000 20-24 year olds, and 154,000 25-29 year olds. The total number of employed persons under the age of 30 fell by 1.214 million, accounting for 70% of the net reduction in total civilian employment across the country. Adults 30-44 also experienced job losses; however, among those 55 and older, employment actually rose by 1.094 million. Substantial growth in the number of early baby boomers entering

[21] Civilian employment actually peaked in November 2007 at 146.647 million. If we take two month averages for October/November 2007 and October/November 2008, we also end up with a 1.7 million loss in the number of employed civilians in U.S. labor markets.

the ranks of those 55-60 years of age and increases in the employment rate of those 65 and older were responsible for the strong increase in the number of employed persons 55 and older over the above 13 month period while young workers were evicted from the labor market at very high levels.

Table 4:
Changes in the Number of Employed Persons (16+) and those
Under the Age of 30 by Major Age Group, October 2007 to November 2008
(Seasonally Adjusted)

Age Group	**Change in Employment**
16 and older	-1,731,000
16 – 19	-702,000
20 – 24	-358,000
25 – 29(1)	-154,000
55+	1,094,000
16 – 29	-1,214,000
As % of 16+	70.1%

To smooth out the potential sampling error from any one month's employment estimates, we also calculated employment changes for all working-age civilians (16+) and for those in key age subgroups for the October-November 2007 and October-November 2008 time periods. Over this time period, civilian employment (seasonally adjusted) fell by 1.710 million or 1.2% (Table 5). The number of employed teens alone fell by 553,000 or close to 10% and the number of 20-24 and 25-29 year olds fell by 393,000 and 423,000, respectively. Employment of young workers under 30 fell by 1.369 million, accounting for 80% of the net decline in total civilian employment. The relative employment decline among young workers was 3 times as high as that of adults 30 and older. Employment also fell among 30-34 year olds and 45-54 year olds but by a much more modest .6 to .8 percentage points.[22] Among adults 55 and older, employment increased by 984,000 or 3.8% due to the influx of the much larger post-World War II baby boom generation into this age cohort and the continued rise in employment rates among older workers 65+).[23] Only workers 65 and older were able to boost their employment rate over the past year.

[22] Employment among adults 35-44 fell by a stronger 3.2% but the bulk of this decline was due to a sharp drop in the population (the influx of the baby bust generation into this age group) rather than to a steep decline in their E/P ratio.

[23] The first members of the baby generation (those born in 1946) turned 55 years old in 2001. The last members of the baby boom will not turn 55 until 2019.

The old adage "in with the new, out with the old" has been stood on its head. U.S., labor markets since 2000 have been characterized by "in with the old, out with the new".

Table 5:
Changes in the Number of Employed Persons (16+) by Major Age Group, October-November 2007 to October-November 2008
(Seasonally Adjusted)

Age Group	Absolute Change in Employment	Percent Employment Change
16 and older	-1,710	-1.2%
• 16 – 19	-553	-9.4%
• 20 – 24	-393	-2.8%
• 25 – 29	-423[1]	-2.6%
Under 30	-1,369	-3.8%
• 30 – 34[1]	-120	-.8%
• 35 – 44	-1,080	-3.2%
• 45 – 54	-195	-.6%
55 and Older	+984	+3.8%
Under 30 as % of 16+	805	

Note: [1] Employment data for this age group were not seasonally adjusted.
Source: U.S. Bureau of Labor Statistics, web site, tabulations by authors.

The Labor Market Plight of the Nation's Out-of-School 16-24 Years Old

The steep deterioration in the labor market fortunes of the nation's young adults (16-24) over the past 8 years has affected both in-school and out-of-school youth. Among out-of-school youth, only slightly more than 68% were employed in some type of job, including part-time positions, in October-November 2008, down by nearly 7 percentage points from the same two month period in 2000. Among the nation's out-of-school youth, employment rate declines varied markedly by educational attainment, with the least educated faring the poorest. In October-November 2008, the employment rates of out-of-school 16-24 year olds ranged from a low of under 45% for high school dropouts to a high of 88% for those holding a bachelor's or higher degree (Table 6). Bachelor degree holders were twice as likely to have a job than high school dropouts. The declines in the employment rates of these out-of-school youth over this eight year period ranged from nearly 13 percentage points among young high school dropouts to 10

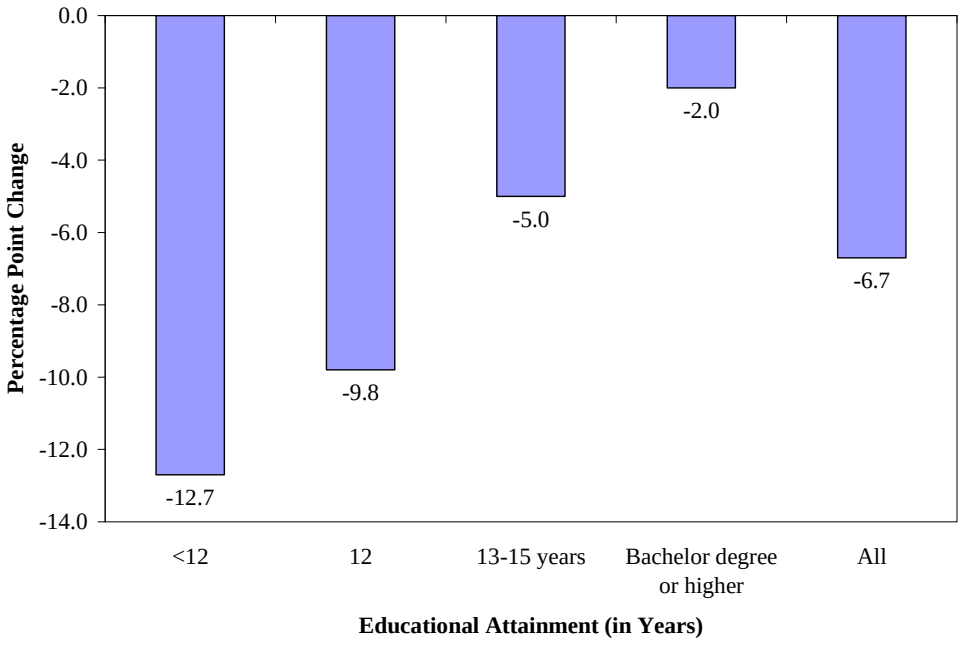
percentage points among high school graduates and to a low of only 2 percentage points among bachelor degree holders (Chart 4).

Table 6:
Trends in the Employment Rates of 16-24 Year Old
Out-of-School Youth by Educational Attainment,
October-November 2000 to October-November 2008
(in %, not Seasonally Adjusted)

Educational Attainment	(A) October/ November 2000	(B) October/ November 2008	(C) Percentage Point Change	(D) Percent Change
All	75.0	68.3	-6.7	-9%
<12 years or 12 no diploma	57.3	44.6	-12.7	-22%
High School diploma/GED	76.9	67.1	-9.8	-13%
13-15 years no degree	83.2	78.2	-5.0	-6%
Bachelor's degree or above	90.3	88.3	-2.0	-2%

Source: (i) U.S. Bureau of Labor Statistics, Employment and Earnings, October and November 2000; (ii) U.S. Bureau of Labor Statistics, "CPS Series Employment Tables," website.

Chart 4:
Percentage Point Changes in the Employment Rates of Out-of-School
16-24 Year Olds in the U.S. Between October-November 2000 and
October-November 2008 by Educational Attainment



The employment rate gaps between young college graduates and those of their less educated peers have widened considerably in recent years. While bachelor degree holders have been successful in obtaining some employment in recent years, a relatively high and growing fraction of them have been working in occupations that do not require a college degree.[24] In the past year, between 35 and 40 percent of employed bachelor degree holders under age 25 were working outside of the college labor market, competing for jobs that frequently would have been filled by young adults with only a high school diploma or a year of post-secondary schooling. Those young adult college graduates working in jobs that do not require a college degree, on average, will earn 30 to 35 less per year than their employed counterparts holding jobs that require a college degree. The inability to secure college labor market jobs substantially reduces the private and social rates of return to college investments.

Declining Full-Time Employment Opportunities for the Nation's Out-of-School Young Adult Population

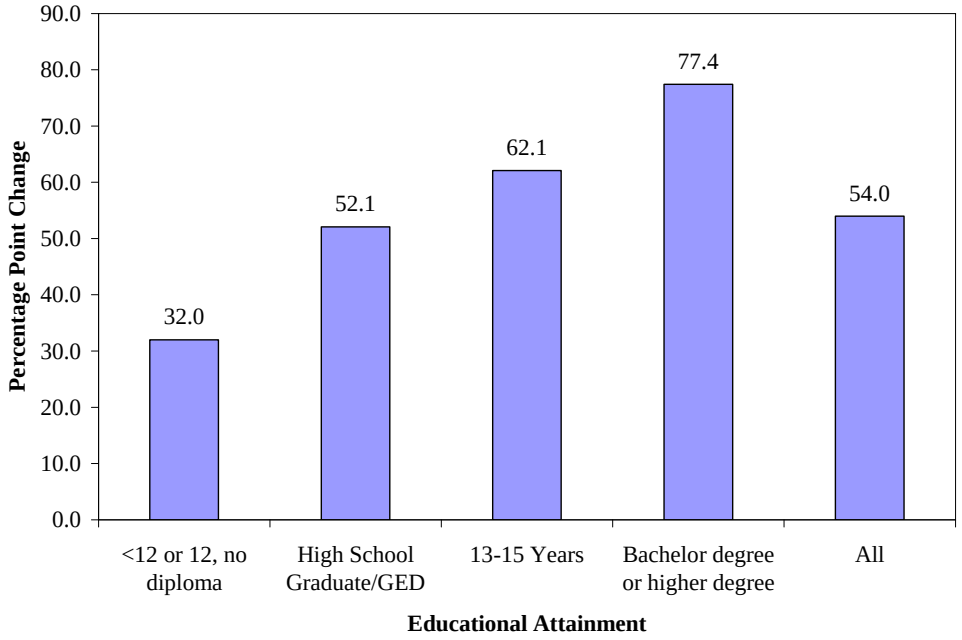
Employed out-of-school young adults also encountered greater difficulties in finding full-time jobs between 2000 and 2008. Overall, nearly 85 of every 100 employed, out-of-school youth were holding full-time jobs providing 35 or more hours of work per week in the fall of 2000 (Table 7). By October/November of 2008, the share of these employed youth working in full-time jobs had declined to 79.1%, a decline of nearly 6 percentage points. Employed, out-of-school youth in each of the four educational subgroups experienced declining shares of full-time jobs over this 8 year period. The magnitude of these declines in the share of full-time jobs ranged from 5 percentage points among four year college graduates to a high of 9 percentage points among young high school dropouts. Given their low and declining employment rate and their shrinking share of full-time jobs, only 32 of every 100 young adult high school dropouts worked full-time in the fall of this year versus 52 of every 100 high school graduates and 77 of every 100 four year college graduates (Chart 5).

[24] Our definition of college labor market job is primarily based on the average educational attainment of all employed persons in a given occupation. The college labor market includes professional, management-related, financial and business analysts, most technical, high level sales and some service occupations (sheriffs, detectives, police). For earlier studies of surplus schooling among U.S. workers and their adverse wage consequences, See: Russell Rumberger, "The Impact of Surplus Schooling on Earnings", The Journal of Human Resources, Vol. 22, November 1, 1987, pp 24-51.

Table 7:
Trends in the Share of Employed, Out-of-School 16-24 Year Old Youth Who Were Working Full-Time in October-November 2007 and October-November 2008
(in %)

Group	(A) October-November 2000	(B) October-November 2008	(C) Percentage Point Change
All Out-of-School 16-24 Year Olds	84.8	79.1	-5.7
• High school dropouts	80.8	71.7	-9.1
• High school graduates	83.1	77.6	-5.5
• 1-3 years of college	87.0	79.5	-7.5
• Bachelor's or higher degree	92.7	87.7	-5.0

Chart 5:
Comparisons of the Full-Time Employment/Population Ratios[(1)] of 16-24 Year Old, Out-of-School Youth in the U.S. in October/November 2008 by Educational Attainment
(in %)



Note: [(1)] The full-time employment/population ratio measures the percent of 16-24 year old youth in the civilian population of a given educational attainment group that were working full-time at the time of the CPS survey.

The declines in the share of employed, out-of-school youth who are able to obtain full-time jobs should be viewed as deeply troublesome by workforce development policymakers and program administrators. There are a number of important economic advantages to young adults

from securing full-time employment.[25] First, full-time work experience tends to increase future wages to a significantly higher degree than part-time work experience for young adults in their early to mid-20s. Work experience is a type of human capital investment that adds to one's future wages and earnings potential.[26] Second, workers employed full-time are much more likely to receive formal training on and off the job from their employers and are more likely to receive apprenticeship training. Third, young adults working full-time are more likely to receive key employee benefits including health insurance, paid vacation, and employee reimbursement for tuition in work-related courses that they take during the evenings or on weekends. Stronger employment and earnings experiences in the early to mid 20s also increase the likelihood that young men will marry and live with the children that they have fathered.[27] The steep loss of employment and especially full-time employment among the nation's young adults without four year college degrees will have a number of severe adverse consequences on their future employment, earnings, incomes, household formation, marriage behavior, and fiscal contributions to state and national governments.

Estimating the Additional Number of 16-29 Year Old Youth that Would Have Been Employed in the Fall of 2008 if Only Their 2000 E/P Ratios Had Been Maintained

The above findings have documented steep declines in the employment rates of key groups of young adults under age 30 over the past eight years and sharp drops in their employment levels since the late fall of 2007. In this section, we present a set of estimates of the additional number of young adults in each major age subgroup (16-19, 20-24, 25-29) that would have been employed in October/November 2008 if youth in each of these three age groups had been able to maintain their employment rates in 2000 at the peak of the economic boom of the

[25] For a review of the evidence on these advantages of full-time employment,
See: Andrew Sum, Neeta Fogg, and Garth Mangum, Confronting the Youth Demographic Challenge: The Labor Market Problems of Out-of-School Youth, Sar Levitan Center for Social Policy Studies, Johns Hopkins University, Baltimore, 2000.

[26] For a review of recent evidence on this from the National Longitudinal Survey of Youth 1997-2006,
See: Jia Zhao, Training Experiences of Young Adults in the U.S.: Their Determinants and Impacts on Hourly Wages and Annual Earnings, Master's thesis, Department of Economics, Northeastern University, Boston, 2008.

[27] A recent 8 year post-high school evaluation of the impacts of Career Academy programs by MDRC found that male participants enjoyed significant and substantial earnings gains over their control group counterparts,
See: James Kemple, Career Academies: Long-Term Impacts on Labor Market Outcomes, Educational Attainment, and Transitions to Adulthood, Manpower Demonstration Research Corporation, New York City, 2008.

1990s.[28] The estimated additional numbers of employed youth in the fall of 2008 were generated by multiplying the number of persons in the civilian non-institutional population in each age group by the increase in their employment rate in October/November 2008 that would have been needed to match their employment rate in 2000 (See Table 8).[29]

Table 8:
Estimating the Additional Number of 16-29 Year Old Persons that Would Have Been Employed in October-November 2008 if They Had Maintained Their 2000 Employment Rates, U.S.
(in Millions)

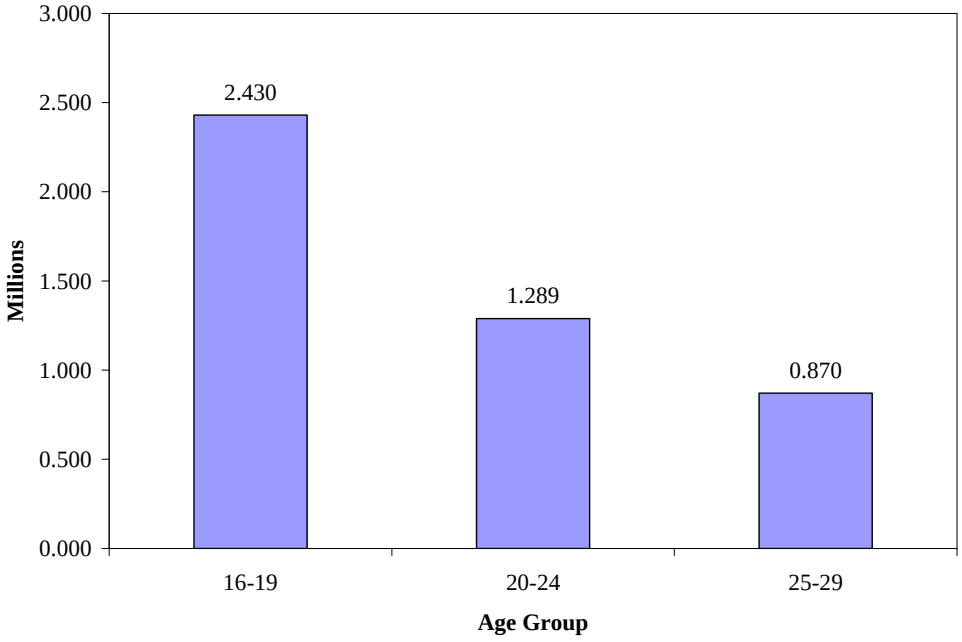
Age Group	(A) Civilian Non-institutional Population (Oct./Nov. 2008	(B) Increase in E/P Ratio (in Percentage Points)	(C) Increase in Number of Employed (Oct./Nov. 2008)
16-19	17.114	14.2	2.430
20-24	20.467	6.3	1.289
25-29	20.725	4.2	.870
16-29, Total	58.306	7.9	4.589

Source: U.S. Bureau of Labor Statistics, "CPS Employment Data Base," tabulations by authors.

Overall, the employment rate of 16-29 year olds in October/November 2008 would have been nearly 8 percentage points higher than it was if these youth had been able to maintain their 2000 E/P ratios. There would have been nearly 4.6 million additional youth at work. The gains in employment would have been very substantial for the nation's teens (2.430 million), followed by 20-24 year olds at just under 1.3 million, and 870,000 additional 25-29 year olds (Chart 6). Among 20-29 year olds, these employment gains would have been quite high among those young adults lacking four year college degrees, including out-of-school youth with high school diplomas and one or more years of post-secondary schooling but no formal college degree.

[28] It should be noted that the employment rates of 16-24 year olds, especially those of teens, in 2000 were nearly four to five percentage points below those prevailing in 1989 at the end of the labor market boom of the 1980s.
[29] The civilian, non-institutional population excludes all persons serving in a branch of the nation's armed forces or living in institutional group quarters, such as juvenile homes, jails, prisons, and nursing homes.

Chart 6:
The Increase in the Number of Employed 16-29 Year Olds in the U.S. in October-November 2008 if They Had Maintained Their 2000 Employment Rates
(in Millions)



The relative sizes of the hypothetical increases in the employment of young adults would have been quite substantial. For all 16-29 year olds, the increase of 4.589 million more employed youth would have raised their fall 2008 employment level by slightly more than 13% (See Table 9). Among teens, the 14 percentage point increase in their employment rate would have raised their employment ranks by 2.430 million or nearly 46 percent over their actual fall 2008 level. For 20-24 year olds, the rise in employment of 1.289 million would have represented a near 10 percent gain in their employment. The relative gain in employment among 25-29 year olds would have been a more modest 5.5%, but this increase would have been closer to 10% for those 25-29 year old native born persons with no post-secondary schooling.

Table 9:
Comparisons of the Actual Number of Employed Persons (16-29) in October/ November 2008 with the Number that Would Have Been Employed Under the Hypothetical Employment Alternative
(in Millions)

Age Group	(A) Actual Employment	(B) Hypothetical Employment	(C) Hypothetical – Actual	(D) Difference As % of Actual
16-19	5.305	7.735	2.430	45.8
20-24	13.508	14.797	1.289	9.5
25-29	15.917	16.787	.870	5.5
Total	34.732	39.721	4.589	13.2

The lost 4.6 million employment opportunities for the nation's young adults do not simply represent a loss in employment and earnings for these youth today, but also a loss in their future employability, wages, and annual earnings. As noted earlier, work experience is a type of human capital investment that increases future wages and earnings with particularly large payoffs from the late teens through the late 20s. Lost work experience also reduces their exposure to informal and formal training by employers, both on and off the job, with a loss in economic returns from such training.[30]

A Comprehensive Workforce Development Response to the Young Adult Employment Crisis

By November 2008, the downturn in the national labor market was accelerating. Job losses were projected to continue through at least mid 2009 and the unemployment rate would rise throughout all of 2009. Given labor market experiences in the recovery from the 2001 recession, payroll employment did not begin to steadily increase until 19-20 months after the official end of the recession in November 2001. If the existing recession does not end until the summer of 2009, we could not expect civilian employment to rise until the beginning of 2011 with youth employment lagging even further behind. To prevent a further substantial rise in youth joblessness over the next few years, there are a variety of workforce development

[30] For a review of the economics of work experience and its payoffs to workers,
See: Solomon Polachek and W. Stanley Siebert, The Economics of Earnings, Oxford University Press, 1996; (ii) Andrew Sum, Neeta Fogg, and Garth Mangum, Confronting the Youth Demographic Challenge…, (iii) Lisa M. Lynch, "The Payoff from Alternative Training Strategies at Work", Working Under Different Rules, (Editor: Richard B. Freeman), Russell Sage Foundation, New York, 1993.

strategies that the federal government and state governments should pursue to put young adults to work in the private-for-profit, non-profit, and public sectors in the coming months, including a number of job creation strategies.

Among the proposed strategies are the following:

(i) A national jobs creation program (the Jobs for America's Youth Program) that would be funded by the U.S. Department of Labor and administered at the state and local level by the WIA Workforce Investment Boards.[31] This program would include both a year-round, jobs creation program for primarily out-of-school youth (16-24) in the non-profit and public sectors of the government and a new summer youth employment program targeted upon 16-21 year olds, with an emphasis on low income youth, i.e., those living in families with an income under two times the official poverty line for families of a given size and age composition. The year-round, jobs creation program would provide largely full-time employment for 500,000 out-of-school youth. Participants without high school diplomas or GED certificates would be expected to participate in basic education programs to improve their reading/math/writing proficiencies and to study for the GED or an alternative high school program. High school graduates enrolled in the jobs creation program would be expected to participate in academic remediation programs or occupational training to boost their future employability. The summer jobs program would provide up to 1 million job opportunities for 16-21 year olds beginning with the summer of 2009.

(ii) A wage subsidy program for jobless in-school and out-of-school youth (16-21) that would pay up to 25 percent of the gross wages for jobs in the private-for-profit sector for up to eight months. Employers participating in the program would be asked to make good faith efforts to employ these youth on an unsubsidized basis after the period of tryout employment was completed.[32]

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[31] The case for a federally-funded, year-round and summer jobs creation program for the nation's youth was earlier made by the authors in a series of publications earlier this year.
See: Andrew Sum, Ishwar Khatiwada, Joseph McLaughlin, et al., The Collapse of the National Teen Job market and the Case for An Immediate Summer and Year Round Youth Jobs Creation Program, prepared for U.S. House of Representatives, Subcommittee on Labor, Health, Human Services, and Education, Washington, D.C., March 2008.

[32] A variant of such a private sector wage subsidy program was implemented under the Youth Incentive Entitlement Pilot Program of the late 1970s in a number of central cities and rural labor markets across the country.
See: Joseph Ball and Carl Wolfhagen, The Participation of Private Businesses as Work Sponsors in the Youth Entitlement Demonstration, Manpower Demonstration Research Corporation, New York, 1981.

(ii) Intensive job development/placement programs for in-school and out-of-school youth, including the development of internships and work-based learning opportunities in the private-for-profit and non-profit sectors. State and local workforce investment boards would be funded to hire full-time staff to administer these programs with common intake and enrollment data, job placement, and follow-up reporting under the WIASRD data reporting system and local performance standards established by the U.S. Department of Labor's Employment and Training Administration.

(iv) Expanded school-to-career program services for high school juniors and seniors that would combine occupational training/intensive employability enhancement services with job placement in the private sector during the school year and the summer months in the last two years of high schooling, including Career Academies, ProTech programs, and Jobs for America's Graduates senior year school-to-work transition/post-secondary education programs.

(v) Expanded cooperative education programs in post-secondary educational institutions, including community colleges and four year colleges and universities, to boost student retention, degree completion, and movement into high demand college labor market occupations upon graduation.[33] Far too few of the students enrolling full-time in the nation's community colleges are graduating, and too many of our new bachelor degree holders are working outside of the college labor market, earning considerably lower wages and earnings and displacing their less educated counterparts from employment.

(vi) All future infrastructure programs funded by the U.S. Congress as part of a national stimulus package should contain provisions to recruit young adults under 25 and set aside some portion of funds to train young adults for employment in these infrastructure projects. National and state monitoring of these infrastructure worksites must guarantee that only U.S. citizens and legal immigrants are hired for such positions and that employers are complying with the rules to hire and train young adults. The private construction boom of the 2002-2007 period involved the hiring of large numbers of illegal immigrants who displaced young, native born workers from

[33] National research on the post-program labor market experiences of male community college leavers shows that only those men completing at least one year of occupationally-oriented classes and earning associate degrees in occupational fields earn significantly more as a result of their community college experiences.
See: Robert L. Lerman, "Are Skills the Problem: Reforming the Education and Training Systems in the United States", in A Future of Good Jobs? (Editors: Timothy J. Bartik and Susan N. Houseman), W.E. Upjohn Institute for Employment Research, Kalamazoo, 2008, pp. 17-80.

valuable employment and training experiences and reduced the apprenticeship system in this sector. Many native born, African American and Hispanic youth were adversely affected by these labor market developments, especially those with no college education, and their reduced employment has been accompanied by negative social consequences, including higher levels of crime and incarceration.