

The Great Recession of 2007-2009, the Lagging Jobs Recovery, and the Missing 5-6 Million National Labor Force Participants in 2011: Why We Should Care

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Introduction

The past decade in the United States (2001-2010) was not a favorable one for many of America's workers.¹ Total nonfarm payroll employment failed to grow over the decade for the first time in the past 70 years. Over the decade, the nation experienced two recessions (2001, 2007-2009) and two lengthy periods of jobless recoveries.² The Great Recession of 2007-09 generated a wide array of labor market problems for America's workers including rising levels of unemployment, increasing durations of unemployment, underemployment, hidden unemployment, and mal-employment.³

During the Great Dislocation of 2007-2009, more than 15 million workers (20+) were permanently displaced from their jobs.⁴ Many of these dislocated workers experienced severe difficulties regaining any type of new employment (fewer than half were re-employed in January 2010) and some chose to withdraw from active labor force participation. From the fourth quarter of 2007 through the fourth quarter of 2009, both nonfarm payroll employment and total civilian employment (persons 16+) declined by over 8 million, and both the number of unemployed and underemployed (those working part-time for economic reasons) more than doubled.⁵ Those job losses and rising underemployment problems were not evenly shared across demographic and socioeconomic groups of workers. Blue collar employees, males without college degrees, Black men, younger workers (16-24), and low income workers were the most adversely affected. This was not an Equal Opportunity recession.

Among the other important labor market developments over the past few years was the absence of any labor force growth over the 2008-2011 period. The official 2011 labor force was

¹ See: Andrew Sum, "Ringing Out the Lost Decade of 2000-2010," The Huffington Post, December 30, 2010.

² The National Bureau of Economic Research, the official arbiter of business cycle dating, identified December 2007 as the peak month of the business cycle and June 2009 as the trough month. The recession lasted for 18 months, the longest in post-World War Two history.

³ For a review of the causes and consequences of the Great Recession and the poor economic performance of the entire 2000-2010 decade,

See: (i) Menzie D. Chinn and Jeffry A. Friedman, Lost Decades: The Making of America's Debt Crisis and the Long Recovery, W.W. Norton and Company, New York, 2011; (ii) Robert B. Reich, Aftershock: The Next Economy and America's Future Vintage Books, New York, 2011; (iii) Michael Heno Siam-Heng, The Great Recession: History, Ideology, Hubris and Nemesis, World Scientific Publishing, Hackensack, New Jersey, 2010.

⁴ See: (i) U.S. Bureau of Labor Statistics, Worker Displacement in the U.S., 2007-2009, Washington, D.C., 2010; (ii) Andrew Sum, Mykhaylo Trubskyy and Joseph McLaughlin, "The Great Dislocation of 2007-09 and Its Impact on Workers," Challenge, September-October 2011, pp. 18-45.

⁵ Andrew Sum and Joseph McLaughlin, "The Massive Shedding of Jobs in America," Challenge, November-December 2010, pp. 62-76.

slightly below its level in 2008. The U.S. Bureau of Labor Statistics had earlier projected that the nation's labor force would grow by about 4.5 million over this three year period. This gap of more than 5 million labor force participants is deserving of further scrutiny. What are the sources of this gap between the projected and actual number of participants? Who are these "missing labor force participants"? Should the nation's economic policymakers be concerned about this large labor force gap?

An Overview of the Remainder of this Report

Our paper on the "missing labor force" will begin with a description of the data sources underlying all of our analyses and the key labor force and labor force activity measures appearing in the report.⁶ This will be followed by a review of key findings of the BLS civilian labor force projections for the 2008-2018 time period with an emphasis on projected labor force developments over the 2008-2011 time period. Comparisons of projected labor force developments with actual labor force growth and decline over this three year period based on the monthly CPS household surveys will be presented and assessed. Gaps between the actual and projected numbers of civilian labor force participants in 2011 will be presented for gender and age groups. The findings will be used to identify the gender and age characteristics of the nation's missing labor force in 2011. The role of population developments and changing labor force participation rates of key demographic groups in producing the gaps between projected and actual labor force estimates will be identified.

The changing gender and age patterns of labor force participation rates over the entire 2000-2011 period will be reviewed and assessed. A great age twist in labor force participation behavior took place over this time period, with residents in the 55-74 age group experiencing a substantial rise in their rate of attachment to the labor force while residents in all younger age groups from 16 to 54 were characterized by declines in participation with the youngest groups (16-19, 20-24) faring the worst. Results of a scenario aimed at identifying the loss in the number of civilian labor force participants in 2011 from this drop in labor force attachment over the 2000-2011 period will be presented. The size of this "missing labor force" under age 55 over the past decade is quite substantial.

⁶ With the exception of the "hidden unemployment rate", all of the other labor force measures are based on official definitions of the U.S. Bureau of Labor Statistics.

The final section of the paper will review and assess changes in the number of working-age adults in the labor force reserve or the ranks of the so-called hidden unemployed over the 2007-2011 period. Estimates of hidden unemployment rates will be provided for major age groups, and changes in the employment/population ratios of teens and 20-24 year olds over the above time period will be examined. The economic and social consequences of the missing labor force and the sharp rise in the pool of hidden unemployed will be discussed.

Data Sources and Key Labor Force and Labor Force Activity Measures

All of the data on the projected and actual size of the nation's civilian labor force are based on two sources of data. The projected data on the civilian labor force for the 2008-2018 time period were generated by the U.S. Bureau of Labor Statistics.⁷ Projected labor force data are available for gender, age, and race-ethnic groups. Estimates of the actual numbers of persons in the civilian labor force are based on the findings of the monthly Current Population Survey, which is conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. It is the source of data for the monthly national estimates of the employed and unemployed populations and the national unemployment rate as well as a wide array of other labor force activity and employment measures.

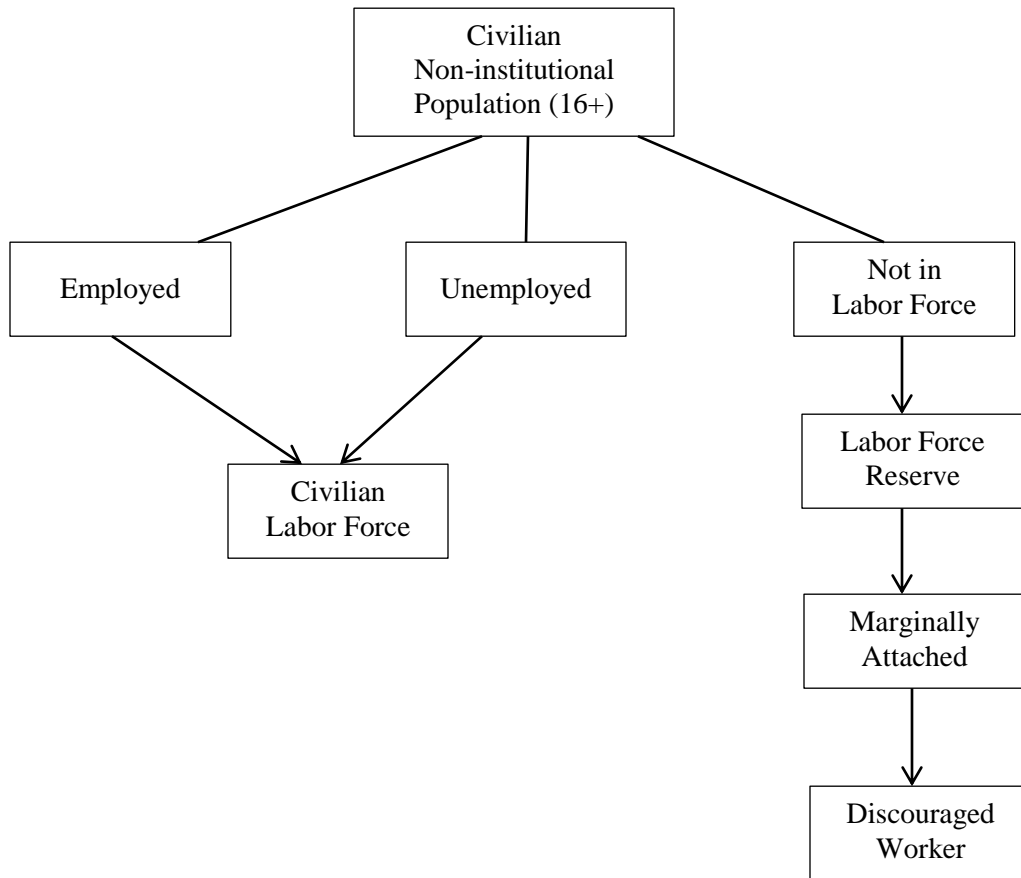
The civilian labor force measure in both the BLS projections program and the monthly CPS survey represents the sum of the employed and unemployed residents in the working-age (16+), civilian non-institutional population. The employed include the self-employed, wage and salary workers, unpaid family workers employed for 15 or more hours per week, and those with a job but not at work due to personal vacation, temporary illness, weather related conditions, or an industrial dispute. The unemployed are those individuals who did no work at all during the reference week of the survey⁸, have actively looked for a job in the past 4 weeks and are available to take a job now.⁹

⁷ The overall labor force projections findings for 2008 and 2018 can be found in the November 2009 Monthly Labor Review article by Mitra Toosi. More detailed year to year estimates of the projected labor force are available on the BLS web site, www.bls.gov.

⁸ The reference week of the survey is the week containing the 12th day of the month. The interviews take place during the week containing the 19th of the month.

⁹ Those persons on temporary layoff who have a definite recall date or expect to be recalled within the next six months do not have to meet the active job search test.

Chart 1:
Measuring the Nation's Civilian Labor Force and
the Labor Force Reserve or the Hidden Unemployed in the U.S.



$$\text{Civilian Labor Force} = \text{Employed} + \text{Unemployed}$$

$$\text{Civilian Labor Force Participation Rate} = \frac{\text{Civilian Labor Force}}{\text{Civilian Non-institutional Population}}$$

$$\text{Adjusted Civilian Labor Force} = \text{Civilian Labor Force} + \text{Labor Force Reserve}$$

$$\text{Hidden Unemployment Rate} = \frac{\text{Labor Force Reserve}}{\text{Adjusted Civilian Labor Force}}$$

The official unemployed exclude those persons who report to the CPS interviewer that they want a job now but have not actively looked for work in the past four weeks. In this report, we will refer to this group of individuals as the labor force reserve or the hidden unemployed. This group needs to be distinguished from the so-called marginally attached and the discouraged worker (See Chart 1). The marginally attached are a subset of the labor force reserve. They have looked for a job at some point in the past 12 months and are currently available to work. The

discouraged are a subset of the marginally attached (See Chart 1). They consist of those respondents who report that they have not looked for work in the past four weeks either because they previously looked and could not find a job or thought they were too young, too old, or too poorly educated/skilled to be hired. The discouraged typically represent a very small fraction (under 15%) of the hidden unemployed.¹⁰

The civilian non-institutional working age population consists of all U.S. residents 16 and older, but excludes the homeless, those serving in a branch of the nation's armed forces, and those residing in institutions, such as nursing homes, mental hospitals, juvenile homes, jails, and prisons. The civilian labor force participation rate represents the ratio of the number of persons in the civilian labor force to the number of working-age persons in the civilian, non-institutional population. This rate can be calculated at the aggregate level and for demographic subgroups (gender, age, race-ethnic group). The hidden unemployment rate is calculated by dividing the number of persons in the labor force reserve by the adjusted civilian labor force, which is the sum of the hidden unemployed and the official civilian labor force.

The Projected National Labor Force From 2008-2018 and Comparisons of Projected and Actual Labor Force Growth from 2008-2011

The U.S. Bureau of Labor Statistics has been producing labor force projections since the late 1950s. The most recent round of national labor force projections by the U.S. Bureau of Labor Statistics is that for the 2008-2018 period. The main findings of this projections exercise were published in the November 2009 Monthly Labor Review.¹¹ Over this 10 year period, the national labor force was projected to rise from 154.363 million in 2008 to 166.911 million in 2018, an increase of 12.548 million or slightly over 8 percent. This 8 percent projected growth rate for the 2008-2018 time period would essentially match the nation's labor force growth rate for the past decade 2000-2010. The nation's labor force growth has been falling steadily for the past three decades. In the 1970s decade, the national labor force increased by close to 30%, then fell to 18% in the 1980s, to 13% in the 1990s, and to 8% in the past decade.¹²

¹⁰ For example, in December 2011, of the 6 million persons in the labor force reserve, only 945,000 or 15% were classified as "discouraged".

See: U.S. Bureau of Labor Statistics, The Employment Situation: December 2011, January 6, 2012.

¹¹ See: Mitra Toosi, "Labor Force Projections to 2018: Older Workers Staying More Active," Monthly Labor Review, November 2009, pp. 30-51.

¹² These estimates are based on the CPS household survey from 1970 to 2010,

See: U.S. Bureau of Labor Statistics, Employment and Earnings, January 2007, Table A-1, 11.

Table 1:
Trends in the Actual (2008) and Projected Number of Civilian Labor
Force Participants (16+) of the U.S. Through 2018 (Numbers in Millions)

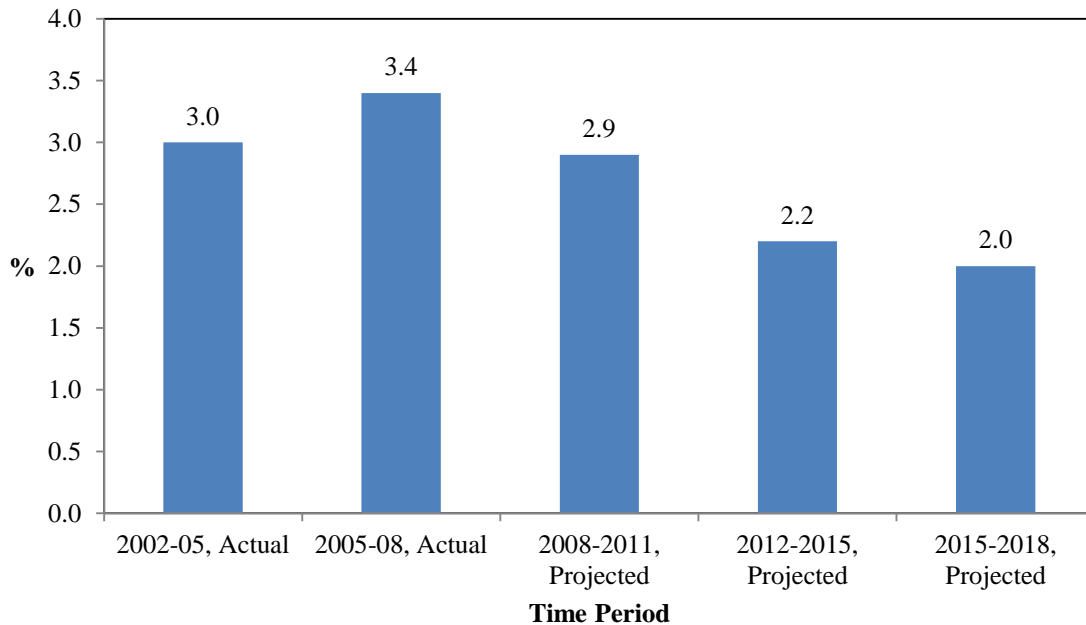
Year	Number of Participants
2008 ⁽¹⁾	154.363
2010	157.502
2011	158.875
2012	160.109
2015	163.642
2018	166.911
2008-2018	+12.548
Percent Change in Civilian Labor Force	
2008 – 2011	2.9%
2012 – 2015	2.2%
2015 – 2018	2.0%
2008 – 2018	8.1%

(1) The 2008 estimated number is the number of civilian labor force participants based on the CPS survey.

The nation’s civilian labor force was projected to rise steadily over the 2008-2018 period; however, the rate of growth was projected to decline over the decade. Over the first three years of this time period (2008-2011), the civilian labor force was projected to rise by 2.9% (See Chart 1). The growth rate over the 2012-2015 period was projected to rise by only 2.2% and would fall to 2.0% between 2015 and 2018. The continued aging of the nation’s baby boomers, (i.e., those born between 1946 and 1964), despite rising labor force participation rates among them, would put downward pressure on the nation’s labor force growth over the decade.¹³ The population of persons 55 and older was projected to rise by 17 million between 2008-2018 accounting for nearly 85% of the entire growth in the working age population. The nation’s labor force had been growing at a rate slightly above 1 percent per year over the 2002-2008 period, with a 3.4% increase between 2005 and 2008.

¹³ See: Landon Y. Jones, Great Expectations: America and the Baby Boom Generation, Coward, McCann, and Geoghegan Publishers, New York, 1980.

Chart 1:
Actual and Projected Percentage Point Changes in the Civilian Labor Force of the U.S.,
Selected Three Year Time Periods, 2002 to 2018 (in %)



The onset of the Great Recession of 2007-09¹⁴ in early 2008 led to a steep drop in payroll employment in 2008 and 2009, to rising levels and eventually durations of unemployment, and to other forms of increased labor underutilization, including underemployment and mal-employment.¹⁵ One would expect these deteriorating labor market conditions to discourage some working-age residents from actively entering the labor force, especially the young, and to lead some of the unemployed to withdraw from the labor force.

Estimates of the actual, annual average number of labor force participants in the U.S. from 2008 to 2011 are displayed in Chart 2 together with the projected estimate for 2011. Over the 2008-2011 period, the annual average number of labor force participants declined modestly, with a three year decline of nearly 900,000.¹⁶ The estimated 2011 civilian labor force was only

¹⁴ The Great Recession of 2007-09 lasted from December 2007 to June 2009, an 18 month recession, the longest in the nation's post-World War Two era. December 2007 was the cyclical peak month.

¹⁵ The underemployed are those persons who are working part-time but want and are available for full-time work.

¹⁶ The CPS estimate for 2008-2010 is a decline of about 500,000. In its separately published set of labor force estimates smoothed for population adjustments, the BLS estimates a modest gain of 100,000 over this two year period. The 2008 labor force was only estimated at 153.3 million.

See: U.S. Bureau of Labor Statistics, "Labor Force and Employment Estimates Smoothed for Population Adjustments, 1990-2010," Washington, D.C., February 2011.

153.5 million versus an earlier projected civilian labor force of 158.9 million, a difference of 5.4 million participants or -3.4%.

Chart 2:
Trends in the Nation's Civilian Labor Force (16+) from 2008 to 2011 (in Millions) and the
Actual and Projected Civilian Labor Force for 2011

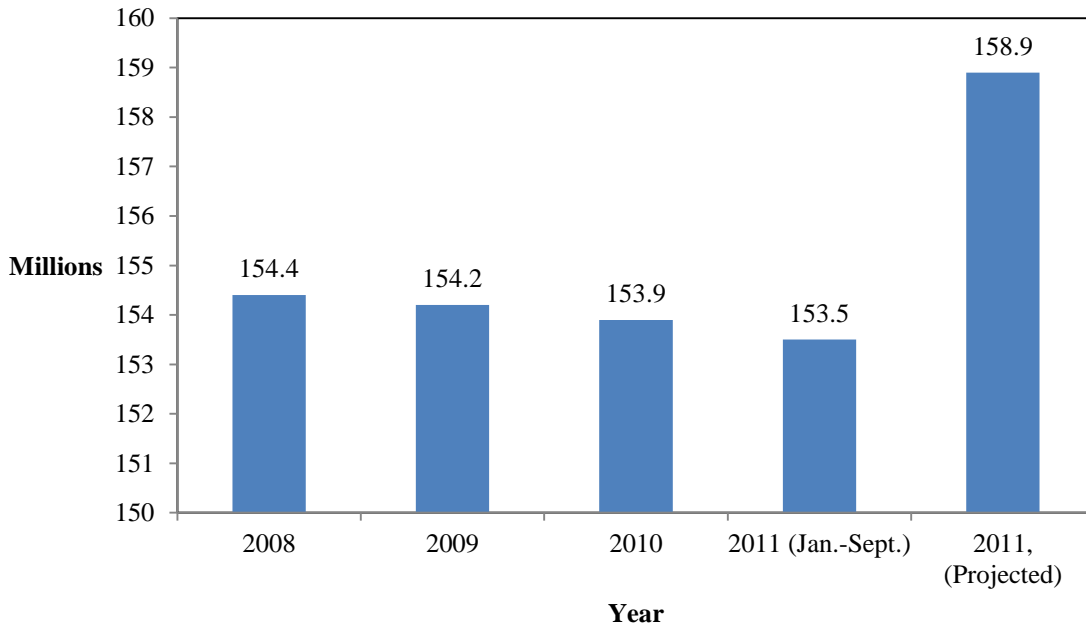


Table 2 compares the actual number of civilian labor force participants in the U.S. during the first three quarters of 2011 with the projected number for that year both overall and by gender. As noted above, the gap between the actual and projected total number of labor force participants was -5.4 million. Large negative gaps prevailed for both men (-2.966 million) and for women (-2.441 million). While only three years of the projections period have passed so far, the absolute and relative size of the gap between the actual and projected labor force far exceeds that for earlier BLS projections.¹⁷

¹⁷ See: Howard N. Fullerton, "Evaluating the BLS Labor Force Projections to 2000," Monthly Labor Review, October 2003, pp. 3-12.

Table 2:
Comparisons of the Actual Number of Civilian Labor Force Participants in 2011 with the Number of Projected Participants, All Persons (16+) and by Gender (in Millions)

	(A)	(B)	(C)
Group	Actual Participants ⁽¹⁾	Projected Participants	Actual – Projected
All	153.468	158.875	-5.407
Men	81.825	84.791	-2.966
Women	71.643	74.084	-2.441

Sources: (i) U.S. Bureau of Labor Statistics, “Labor Force Projections to 2018”; (ii) U.S. Bureau of Labor Statistics, “Labor Force Statistics from the Current Population Survey”, www.bls.gov.

Note: ⁽¹⁾ Estimates of actual participants are based on findings for the first three quarters of 2011.

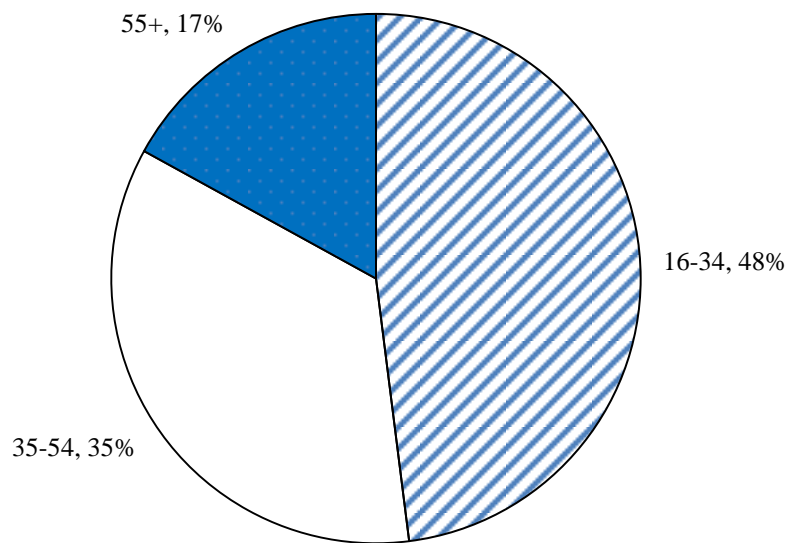
How did the gaps between the projected and actual labor force of the nation in 2011 vary by age group? Answers to this key question are presented in Table 3 where we compare the actual and projected number of labor force participants in seven age groups, ranging from those 16-19 years old to those 75 and older. The actual number of labor force participants in 2011 fell short of the projected number in each age group, with a very large gap (-1.663 million) among the nation’s youngest workers (16-24 years old).

Table 3:
Comparisons of the Projected and Actual Number of Civilian Labor Force Participants in the U.S. by Age Group in 2011 (in Millions)

	(A)	(B)	(C)	(D)
Age Group	Projected	Actual	Actual – Projected	Actual – Projected / Projected (in %)
All	158.875	153.468	-5.407	-3.4
16-19	6.683	5.701	-.982	-14.7
20-24	15.897	15.216	-.681	-4.3
25-34	34.573	33.664	-.909	-2.6
35-44	33.889	32.732	-1.157	-3.4
45-54	36.214	35.446	-.768	-2.1
55-64	24.303	23.697	-.606	-2.5
65-74	5.906	5.695	-.215	-3.6
75+	1.409	1.317	-.092	-6.5

Of the missing 5.4 million labor force participants in 2011, nearly 2.6 million or 48% were under the age of 35. Together with their high unemployment and underemployment, the nation's younger workers were being deprived of work experience, a key form of human capital investment that will add to their future employability and earnings. Another 35% of the missing labor force participants were between the ages of 35-54, and the remaining 17% were 55 and older. Persons 45-64 had the smallest relative gaps in their levels of participation in 2012.

Chart 3:
The Percent Distribution of the Nation's Missing
Civilian Labor Force in 2011 by Major Age Group



The labor force projections program of the U.S. Bureau of Labor Statistics does not provide projections of the future labor force by educational attainment or by household income. Previous research by the authors has revealed that less educated and lower income workers (those living in households with incomes under \$25,000) have experienced the steepest increase in their labor underutilization rates, including the hidden unemployed, over the past four years. It is quite likely that a high fraction of the missing labor force consists of less educated and lower income individuals with very undesirable impacts for their future labor market success.

Identifying the Sources of the Gap Between the Projected and Actual 2011 Civilian Labor Force

The above analysis has identified a very large 5.4 million gap between the actual and projected labor force in 2011. Gaps between the projected and actual number of civilian labor force participants in any given year can be produced by two different forces: a lower than projected working-age population (persons 16 and older) and actual civilian labor force participation rates lower than those projected by the U.S. Bureau of Labor Statistics.¹⁸ We have conducted a separate analysis of gaps between the projected and actual size of the nation's working-age population and of gaps between the projected and actual labor force participation rates of key age groups between 2008 and 2011. Key findings of the analysis are presented in Tables 4 and 5.

Each year, typically in January, the U.S. Bureau of Labor Statistics updates its estimates of the working-age population, the civilian labor force, and employment based on updated population control estimates provided to it by the U.S. Census Bureau.¹⁹ For each of the last four years, the U.S. Bureau of Labor Statistics has revised downward its estimates of the size of the working-age population by anywhere from 230,000 to 438,000 due largely to downward adjustments in net international migration as well as revisions in the vital statistics estimates of population change. Downward revisions in the Hispanic working-age population have accounted for 70-80 percent of the population adjustments in the past three years. Most of this adjustment was attributable to changes in estimates of in and out-migration. The deepening labor market problems in the U.S. and increased border patrol enforcement have led to reductions in in-migrants and an increase in return migration to Mexico, Central America, and South American countries.

As a consequence of these population revisions, the BLS' earlier projected population of the working-age population exceeds that of the revised population in calendar year 2010 by nearly 1.6 million and in 2011 by 2.26 million (Table 4). At the aggregate level, the impact of the

¹⁸ The gaps between actual and projected participation rates can be produced by either a declining incidence of attachment (fewer persons with any labor force attachment) or declining intensity of participation; i.e., fewer weeks of labor force participation over the year.

¹⁹ See: (i) U.S. Bureau of Labor Statistics, Adjustments to Household Survey Population Estimates in January 2011, February 2011; (ii) U.S. Bureau of Labor Statistics, Adjustments to Household Survey Population Estimates in January 2010, February 2010; (iii) U.S. Bureau of Labor Statistics, Adjustments to Household Survey Population Estimates in January 2009, February 2009.

population over-projection of 2011 would have exaggerated the 2011 labor force by about 1.45 million persons.²⁰ This portion of the “missing labor force” accounts for about slightly more than one-fourth of the total.

Table 4:
Comparisons of the BLS Projected Size of the Nation’s
Civilian Non-institutional Population in 2010 and 2011 with the
Revised Population Estimates of the U.S. Census Bureau for those Two Years
(in Millions)

	(A)	(B)	(C)
Year	Projected Population	Revised Estimate of Population	Revised – Projected
2010	239.418	237.830	-1.588
2011	241.890	239.623 ⁽¹⁾	-2.267

Impact of 2011 population over-projection on the estimated size of the 2011 civilian labor force = (.2267 million) (.640) = -1.451

Note: ⁽¹⁾Estimate for 2011 is partly based on the authors’ projection of the likely population estimate for December 2011.

The most important force underlying the 2011 “missing labor force” is the gap between the projected and actual labor force participation rates of the nation’s working age residents in 2011. The U.S. Bureau of Labor Statistics had projected an overall labor force participation rate of 65.7% in 2011. Over the first eleven months of 2011, the estimated actual labor force participation rate for the entire working-age population was only 64.1%, representing a gap of 1.6 percentage points (See Table 5). The over-projection of the 2011 labor force participation rate was higher for men than for women (-1.9 vs. -1.3 percentage points), reflecting the greater labor market difficulties faced by men during the Great Recession of 2007-09.

²⁰ Due to a lack of comprehensive information on the age, gender, educational backgrounds of the “missing” working-age population, we simply assumed that 64% of these missing residents would have been active participants in the civilian labor force.

Table 5:
Comparisons of the Projected and Actual Civilian Labor Force Participation Rates of Working-Age Individuals 16 and Older, All and by Gender (in %)

	(A)	(B)	(C)
Group	Projected	Actual	Actual – Projected
All	65.7	64.1	-1.6
Men	72.3	70.4	-1.9
Women	59.4	58.1	-1.3

By multiplying these lower labor force participation rates for men and women by their projected population in 2011, we estimated that the projected male labor force in 2011 was exaggerated by 2.23 million and that of women by 1.62 million, yielding a combined total of 3.85 million missing labor force participants. This group of missing labor force participants accounted for about 73% of the total missing labor force in 2011. The weakened national labor markets of 2008-2011 were clearly the dominant factor underlying the historically high labor force over-projection for 2011.

Changing Labor Force Participation Behavior Over the 2000-2011 Time Period: The Huge Age Twist in Participation Rates and Its Impacts on the Size of the Labor Force Under Age 55

The decline in the rate of labor force participation among U.S. adults over the 2008-2011 was not unique to that time period. Over the past decade (2000-2011), the labor force participation rates of U.S. adults, especially those under age 55, also declined in the early part of the decade before stabilizing from 2004-2007 (See Table 6). In calendar year 2000, the overall labor force participation rate of the nation hit 67.1% matching its previous all-time high. From 2000-2004, a time period marked by the national recession of 2001 and the largely jobless recovery through late 2003, the overall labor force participation rate of the nation fell from 67.1% to 66.0%, a decline of 1.1 percentage points. The overall participation rate then held fairly steady through 2007, but it then fell by nearly two full percentage points over the next four years down to 64.1% in 2011. Over the entire 11 year period, the aggregate civilian labor force participation rate dropped by three percentage points. The decline in labor force attachment over

this time period was far more severe among men than among women (-4.4 percentage points for men versus only -1.8 percentage points for women).

Table 6:
Trends in the Civilian Labor Force Participation Rates of Persons (16+),
All, Men, and Women, Selected Years from 2000 to 2011 (in %)

	(A)	(B)	(C)
Year	All	Men	Women
2000	67.1	74.8	59.9
2004	66.0	73.3	59.2
2007	66.0	73.2	59.2
2011	64.1	70.4	58.1
Percentage Point Change, 2000-2011	-3.0	-4.4	-1.8

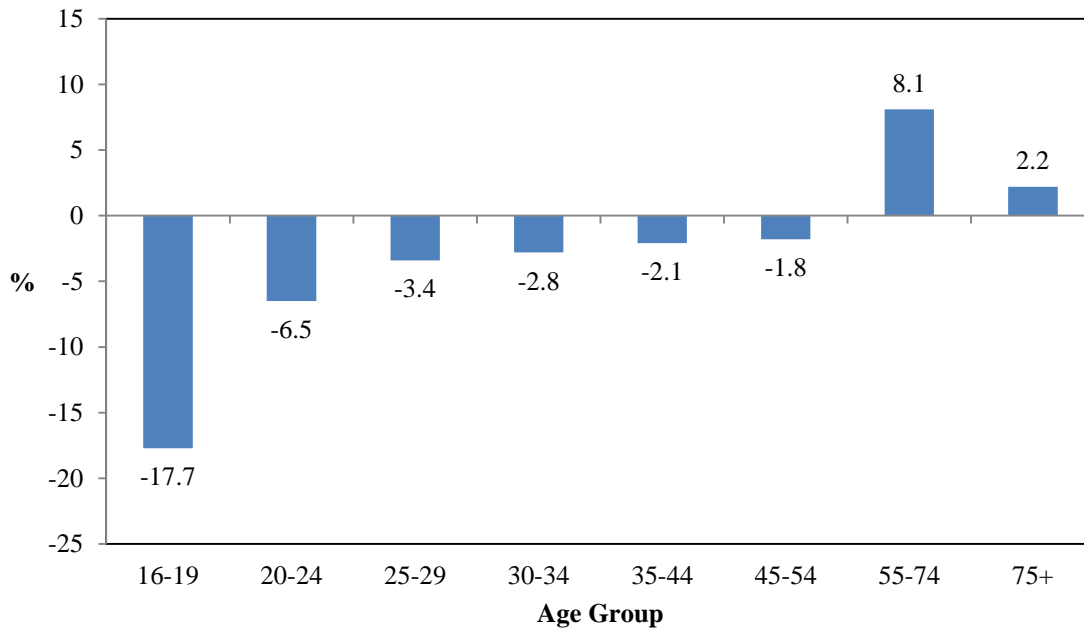
The declines in labor force participation over the past decade were entirely due to those working-age individuals under age 55. The nation's older residents strongly increased their degree of attachment to the labor force over the past decade, especially among those 55-74 years old whose participation rate rose by 8 full percentage points. For all age groups under age 55, the degree of labor force attachment weakened over the decade, with the percentage point sizes of these declines being higher the younger the age group (See Table 7 and Chart 4). The absolute size of these drops in participation ranged from slightly under two percentage points for those 45-54 years old to 3.3 percentage points for those 25-29 to a high of -17.7 percentage points for teenagers (16-19 years old). The 34% civilian labor force participation rate for teens in 2011 represents a new historical post-World War II low for the nation's teens. While all major demographic groups (gender, age, race-ethnic) of teens experienced steep drops in their labor force participation rates over the decade, those youth living in low income families, especially Blacks and Hispanics, were by far the least likely to work during the year. Their limited labor force attachment was compounded by high rates of open unemployment, thereby sharply curtailing their employment/population ratios.

Table 7:
Trends in the Civilian Labor Force Participation Rates of Persons in
Selected Major Age Groups from 2000 to 2011⁽¹⁾ (in %)

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Year	16-19	20-24	25-29	30-34	35-44	45-54	55-74	75+
2000	52.0	77.8	84.5	84.7	84.8	82.5	42.5	5.3
2004	43.9	75.0	82.0	83.4	83.6	81.8	46.8	6.1
2007	41.3	74.4	83.1	83.6	83.8	82.0	49.6	6.8
2011	34.1	71.3	81.1	81.9	82.7	80.7	50.6	7.5
Percentage Point Change, 2000-2011	-17.9	-6.5	-3.4	-2.8	-2.1	-1.8	+8.1	+2.2

⁽¹⁾ Data for 2011 are 11 month averages for the January-November period.

Chart 4:
Percentage Point Changes in Civilian Labor Force Participation Rates of
U.S. Working-Age Adults by Major Age Group, 2000-2011 (in %)



The steep reductions in the labor force attachment of the nation’s non-elderly adults over the past decade have clearly reduced the number of persons who were actively participating in the civilian labor force in 2011. To illustrate the size of this “missing labor force” in 2011, we conducted the following simulation exercise. How many more persons under age 55 would have been active members of the labor force in 2011 if each major age group of residents (from ages 16-19 to those 45-54 years old) had participated in the civilian labor force in 2011 at the same

rate as they had in calendar year 2000? To answer this key research question, we took the estimated size of the civilian non-institutional population in each of six age groups in 2011 and multiplied it by the increase in their labor force participation rate in 2011 that would have occurred if they had matched their 2000 labor force participation rate in that year. Estimates of the increase in the civilian labor force of each of these six age groups in 2011 are displayed in Table 8.

Table 8:
Estimating the Increase in the National Number of Civilian Labor Force Participants
(16-54) in 2011 if the 2000 Civilian Labor Force Participation Rates of Each Age Group
Had Been Maintained in 2011, by Age Group

Age Group	(A) Population in 2011 (in 1000s)	(B) Increase in Civilian Labor Force Participation Rate (in Percentage Points)	(C) Increase in Number of Labor Force Participants (in 1000s)
16-19	16,796	+17.7	2,973
20-24	21,411	+6.4	1,370
25-29	21,117	+3.3	697
30-34	20,222	+2.8	566
35-44	39,507	+2.1	830
45-54	43,859	+1.9	833
16-54, Total	162,912		7,269

The estimated size of these labor force increases was quite high in each age group, but they did vary fairly considerably across age groups, ranging from 1.263 million among 25-34 year olds to 4.343 million among teens and young adults (16-24). The combined size of these additional labor force entrants in 2011 was estimated at 7.269 million. This represented an extraordinary loss of human resource inputs that will have long-term adverse effects on the future employability, productivity, and earnings of these “missing labor force participants” and on the future growth of the U.S. economy. This finding of a substantial increase in “missing labor force participants” also suggests that the official unemployment statistics seriously underestimate the true labor market hardships faced by U.S. workers in 2011. This issue will be discussed more fully in the following section of this paper.

The Growth in the Nation's Hidden Unemployed, 2007-2011

Given the absence of any labor force growth over the past four years and the declining labor force participation rates of many younger age groups, one might ask whether there is evidence that shows more of the adults outside the labor force want to work. Is there a growing hidden unemployment problem in America? If so, who are these hidden unemployed? Should the nation's public policymakers be concerned about this group?

Each month, the Current Population Survey includes a set of questions on the job desires of those individuals not active in the labor force and their reasons for not currently seeking work. Those persons who indicate that they "want a job now" will be classified as members of the labor force reserve or the so-called hidden unemployed.²¹ Since these individuals are not actively looking for work, they are not categorized as unemployed and are not included in the ranks of the civilian labor force. They are, thus, hidden from the official count of the unemployed.

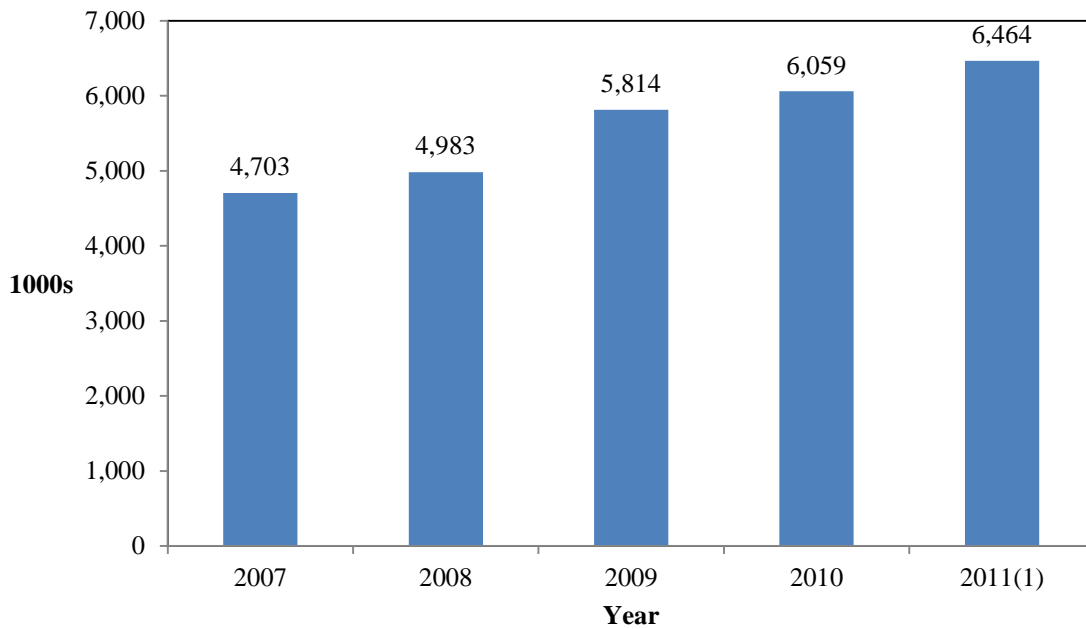
Over the past few decades, the pool of the hidden unemployed has been characterized by some cyclical sensitivity, rising during economic recessions and jobless recoveries and declining during periods of sustained job growth. For example, during the national recession of 2001 and the largely jobless recovery of 2002-03, the number of hidden unemployed rose by 313,000 and continued to rise through 2005, reaching close to 5 million. From 2005-2007, as national labor market conditions improved, the number of hidden unemployed fell by close to 300,000. Following 2007, the pool of hidden unemployed has risen steadily and strongly from 4.7 million in 2007 to close to 6.5 million in 2011; a rise close to 1.8 million or 40%. This was the third largest annual average number of hidden unemployed in the 45 year history for which such data exist dating back to 1967.²²

²¹ In his 1970s book on the changing labor force of the U.S. and their labor market problems, Eli Ginzberg referred to this group as the labor force overhang.

See: Eli Ginzberg, Good Jobs, Bad Jobs, No Jobs, Harvard University Press, Cambridge, 1978.

²² In 1982 and 1983, the hidden unemployed averaged slightly over 6.5 million.

Chart 5:
Growth in the Nation's Labor Force Reserve (16+) Between 2007 and 2011
(Numbers in Thousands)



Note: ⁽¹⁾ Data are based on estimates for January – November.

Over the past four years, the absolute numbers of hidden unemployed have increased in each gender group and every major age group. Close to another million males joined the ranks of the hidden unemployed over this time period. A high fraction (44%) of the increase in the ranks of the hidden unemployed took place among young adults under 35 years of age, and there was an above average relative increase in hidden unemployment among those 55 and older (Table 9).

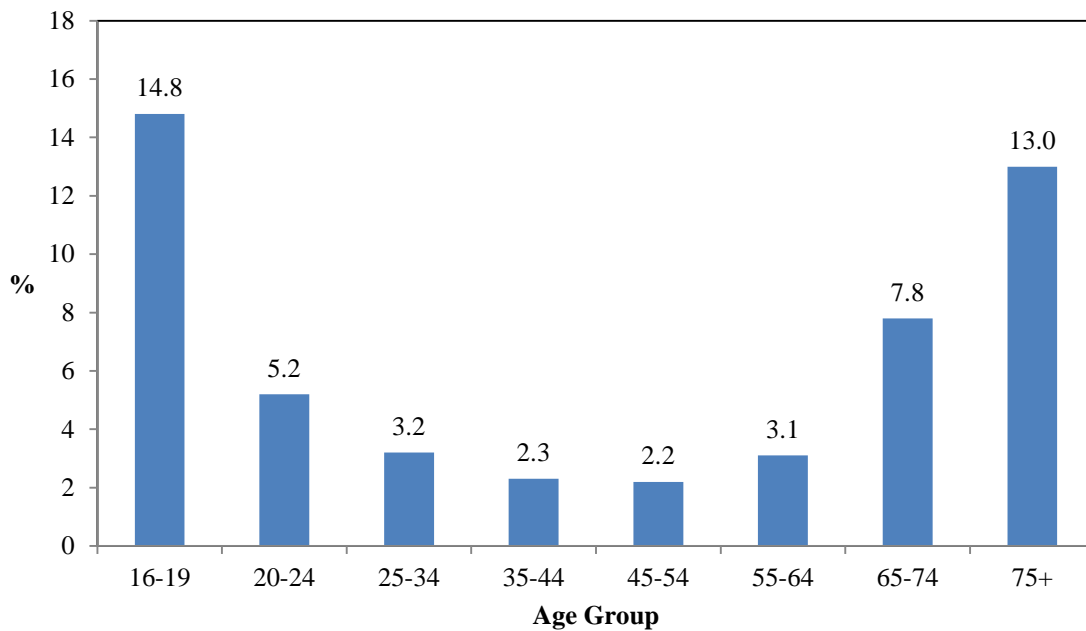
Table 9:
Estimates of Changes in the Hidden Unemployed or Labor Force Reserve of the U.S.
Between 2007 and 2011⁽¹⁾, All and by Gender and Age Group (Numbers in Millions)

Group	(A)	(B)
	Absolute Change (in Millions)	Relative Change (in %)
All	1.761	38%
Men	.963	50%
Women	.817	36%
16-19	.175	21%
20-24	.239	40%
25-34	.361	48%
35-44	.167	28%
45-54	.252	44%
55-64	.312	67%
65-74	.213	75%
75+	.071	55%

Note: ⁽¹⁾ Estimates for 2011 are based on the CPS survey estimates for the January-September 2011 time period.

Estimates of the relative severity of these hidden unemployment problems across age groups in 2011 were generated by calculating hidden unemployment rates. The hidden unemployment rate represents the ratio of the hidden unemployed to the adjusted civilian labor force, which consists of the official civilian labor force and the hidden unemployed. For all persons 16 and older, the hidden unemployment rate in 2011 was 4%. These hidden unemployment rates varied widely by age group, being highest for teenagers at close to 15% then falling sharply with age through the 45-54 age group where the hidden unemployment rate fell to a low of 2.2%. Hidden unemployment rates then rose with age through the oldest age group of workers, i.e., those 75 and older, where the rate rose to 13%. Low income older adults, i.e. those in households with incomes under \$20,000, experienced the highest open unemployment and hidden unemployment rates among older workers (55+).

Chart 6:
The Hidden Unemployed as a Percent of the Adjusted
Civilian Labor Force in 2011, by Major Age Group

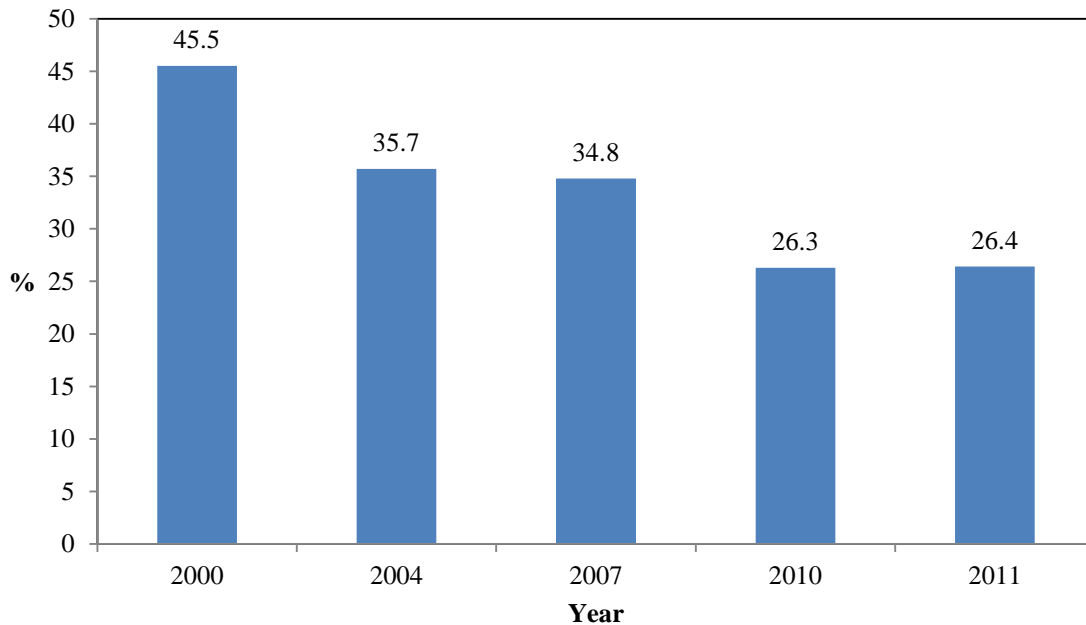


The Labor Market, Economic, and Social Consequences of the Missing Labor Force in the U.S.

The declines in the civilian labor force participation rates of U.S. adults coupled with the rise in hidden unemployment and open unemployment have led to very steep drops in the employment/population ratios of many groups of working age adults, especially teens and young adults (20-24).²³ The nation's teen employment rate fell nearly steadily over the decade, dropping from 45.5% in 2000 to below 35% in 2007 and then sharply to 26% in 2011 (See Chart 7). Over this 11 year period, the drop in the teen E/P ratio was 19 percentage points or 42%. Young adults (20-24 years old) saw their employment rates also fall by double digits from 72% in 2000 to slightly below 61% in 2010. These are the lowest E/P ratios for both teens and young adults (20-24) ever recorded in the U.S. since the end of World War II. The declines in employment rates were especially severe for male teens and young adults, especially those without four year college degrees.

²³ The E/P ratio is influenced by both the labor force participation rate (L/P) and the employment rate of those active in the labor force (E/L). Algebraically $E/P = L/P \cdot E/L$. the E/P ratio will decline if either or both of these ratios dropped in value over the decade.

Chart 7:
Time Trends in Teen Employment/Population Ratios, 2000-2011
(in %)



The missing members of the labor force and the rising ranks of the open unemployed and hidden unemployed over the past four years have had a number of adverse consequences for these individuals themselves and for society as a whole. Both teen and young adult employment are highly path dependent, i.e., the more work experience a person acquires by Year t , the more likely they are to work in Year $t + 1$.²⁴ Less work today leads to less work tomorrow. Work experience is also a form of human capital investment that often helps promote future wages and earnings.²⁵ Young adults who acquired more work experience in their teens and early 20s are more likely to receive formal training and apprenticeship training from their employers. These training investments also help raise future weekly wages and annual earnings.²⁶

²⁴ See: (i) Andrew Sum, Ishwar Khatiwada, and Robert Taggart, Path Dependency in Teen Employment: Its Implications for National Youth Workforce Development Policy, Paper Presented to U.S. House Committee on Education and Labor, Washington, D.C., 2007; (ii) Andrew Sum, Ishwar Khatiwada, and Joseph McLaughlin, Youth Labor Market Developments in Massachusetts From 2000-2007: The Case for A New Youth Workforce Development Strategy, Report Prepared for the Boston Foundation, Boston, 2007.

²⁵ See: (i) Andrew Sum, Neeta Fogg, and Garth Mangum, Confronting the Youth Demographic Challenge, Sar Levitan Center for Social Policy Studies, Johns Hopkins University, Baltimore, 2000; (ii) Xia Zha0, The Training Experiences of Young Adults in the U.S. and Their Labor Market Consequences, Master's Thesis, Department of Economics, Northeastern University, Boston, 2007.

²⁶ See: Lisa M. Lynch, "The Economic Payoff from Alternative Training Strategies," in Working Under Different Rules (Editor: Richard B. Freeman), Russell Sage Foundation, New York, 1995.

Keeping older teens and young adults actively engaged in schooling and employment is also critically important to their future job holding, income, and social success. Those youth who spent more time disconnected from both the world of work and school were substantially more likely to be jobless, poor, economically dependent, and less likely to be married in their mid to late 20s.²⁷ Disconnected women are more likely to become single mothers while disconnected males are more likely to become involved with the criminal justice system. A less experienced and less well trained future labor force will reduce the nation's employment and labor productivity, thereby lowering the growth of real output (GDP) and reducing future federal and state tax receipts.

At the other end of the age spectrum (55 and older), labor force withdrawals and other labor underutilization problems in recent years have been most intense among the less educated and lower income groups. Their reduced employment and earnings have pushed more of them into the ranks of the poor and near poor, increasing their dependence on an array of cash and in-kind transfers, including early filing for Social Security benefits. Annual rates of escape from the ranks of the poor tend to diminish with age, placing more of these older adults at risk of long-term poverty. These increases in joblessness and low income problems among older adults also have had a number of adverse effects on their general life satisfaction, their mental well-being, and their physical health.²⁸ These adverse impacts on physical and mental well-being, in turn, will adversely influence future employability, earnings, and annual incomes, which will reduce their net fiscal contributions to federal and state budgets. The economic and social costs of the missing labor force are, thus, borne by the individual members of the missing labor force and society at large at all levels.

²⁷ See: Douglas Besharov, (Editor), Disconnected Youth: Toward A Preventive Strategy, American Enterprise Institute and National Public Welfare Association, Washington, D.C., 1999.

²⁸ See: Andrew Sum, Ishwar Khatiwada, and Joseph McLaughlin, with Sheila Palma, The General Life Satisfaction, Mental and Physical Well-Being of Older Americans: The Influence of Employment, Income, Household Living Arrangements and Demographic Variables, Report Prepared for Senior Service America, Silver Springs, Maryland, 2011.