

Scarring Effects: Demographics of the Long-Term Unemployed and the Danger of Ignoring the Jobs Deficit

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EXECUTIVE SUMMARY

Four years after the official end of the Great Recession, millions of America's workers continue to struggle to survive without a paycheck. This persistently high level of unemployment is the real cliff that threatens our economy. Lost wages, a smaller tax base, less consumer spending, and disproportionate growth in lower-wage sectors pose fiscal challenges for decades to come.

This report—the first of two being released by the National Employment Law Project this spring—explores who the long-term unemployed are and how their ongoing estrangement from the labor force hurts the entire economy. We suggest that the diversity of this population means it will take a variety of job creation measures to reattach them to the workforce, and that the longer we wait in the name of austerity to implement these programs, the more intractable the problem of long-term unemployment will become. The second report, scheduled for release next month, will propose a range of policies to trigger a recovery for those who have thus far been left out, ranging from short-term options designed to give the long-term unemployed a leg up in the labor market, to longer-term projects that would invest in America's workers and communities. Among this report's key findings are the following:

- Taken together, the “sequester” and other budget-cutting policies will likely slow GDP this year by 2.1 percentage points, costing the U.S. economy over 2.4 million jobs.¹
- All told, there are 27 million unemployed or underemployed workers in the U.S. labor force, including not only the unemployed counted by official jobs reports, but also the eight million part-time workers who would rather be working full-time and the 6.8 million discouraged workers who want to work but who have stopped looking altogether.
- Several years after the official end of the recession, the average duration of unemployment remains at least twice that of any other recession since the 1950s. An unprecedented four in ten jobless workers—nearly five million people—have been out of work for 27 weeks or longer, pushing the average duration of unemployment up to 37 weeks, nearly 16 weeks longer than during the worst of the 1980s downturn.
- Women constitute a smaller portion of the long-term unemployed than their overall representation in the workforce, but continuing budget cuts and public sector job losses since the recession officially ended have unnecessarily slowed the recovery for women.

- Austerity measures and public sector layoffs contribute to a disproportionately high representation of African-American workers among the long-term unemployed. One in five jobs in state and local government lost during the downturn resulted in a pink slip for an African-American worker.² And because Latino youth make up 30 percent of all youth enrolled in federal job training programs,³ cuts to federal and state education and workforce budgets threaten to reverse recent gains for these workers and could disproportionately affect Latinos.
- Older unemployed workers suffer the highest percentage of long-term unemployment of all age groups, with more than half of unemployed workers ages 45 and older out of work for longer than 27 weeks. With families to support and mortgage payments to make, older unemployed workers have fewer years to make up for lost retirement savings and are likely to instead fall back on already strained disability, medical, and income support programs.
- A college degree is not a guarantee of work. During the Great Recession, the number of long-term unemployed with a bachelor's degree increased fivefold, while those with some college experienced a similar increase. Even now, there are just over 900,000 long-term unemployed workers with a bachelor's degree.
- Public sector jobs are an important avenue for workers with more formal education: almost 16 percent of recent graduates with a bachelor's degree go into government work, as do nearly 26 percent of those with advanced degrees.⁴ With ongoing austerity measures limiting these employment opportunities, however, more of these workers will be pushed to join the 15 percent who already go into service occupations.
- The Great Recession exacerbated a long-term trend away from good jobs. Six in ten jobs lost during the downturn were in mid-wage occupations.⁵ By comparison, during the recovery, employment in lower-wage occupations grew by 2.8 times more than employment in mid- and high-wage occupations. Not only do these jobs pay inadequate wages, low-wage jobs in food services, retail, and employment services are synonymous with high turnover, erratic work schedules, limited access to employee benefits, and few opportunities for career advancement.

The elimination of good jobs over the past three decades continues to hollow out our nation's middle class and fuel growing income inequality.⁶ Recent economic research indicates that growing inequality could lead to lower economic growth and slower job creation in the future.⁷ The focus on austerity, with its concomitant decrease in quality mid-wage public sector jobs and decrease in public sector demand for goods and services from the private sector, is exacerbating this trend. Rather than taking the lead by employing workers to provide the quality public services our country needs to thrive, we are cutting teaching, public safety, and public service workers. Instead of investing in improved physical infrastructure, transit, and energy efficiency, we are allowing the backbone of our economy to crumble.

MISGUIDED AUSTERITY MEASURES FORESTALL RECOVERY

In just a few short months, we will hit the fourth anniversary of the official end to the Great Recession. As of June 2009, economists said that the recovery had begun, which to most people would imply that we would all begin to see real improvements in our economic situation. And, indeed, corporate profits

are experiencing a golden age and the stock market has returned to its heady peaks. The recovery has been rockier for the rest of us: the percentage of national income going to workers is at its lowest point since 1967, and millions of Americans are still not receiving a paycheck at all. The federal cuts that went into effect last month, known as the “sequester,” will exacerbate this situation, with one firm predicting it will result in 700,000 job losses by the end of 2014.⁸

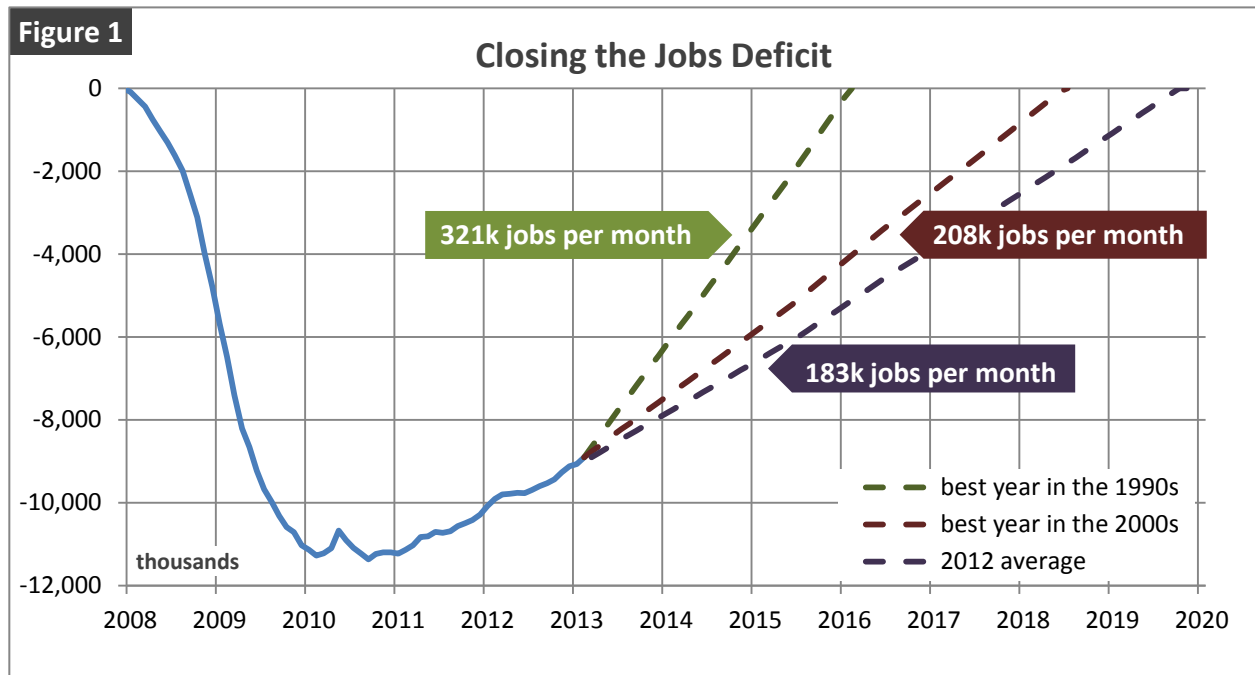
But the sequester is only the latest incarnation of a philosophy of economic austerity that threatens to turn our current post-recession long-term unemployment crisis into a permanent one. Taken together with other deficit reduction policies, GDP growth is likely to slow by 2.1 percentage points this year, costing the U.S. economy 2.4 million jobs.⁹ This is the latest in a long line of missed opportunities and wrong-headed austerity plans that have slowed a recovery for the rest of us. The 2009 Recovery Act may have been the best anti-recessionary plan that was politically possible, but it constituted less than half of what was needed to address more than \$2 trillion in lost production.¹⁰ The prolonged 2011 battle over raising the debt ceiling itself created a dip in consumer spending that led to weak GDP growth, and resulted in government cuts that, as one analyst warned, threatened to create “so much damage to the denominator, which is growth of GDP, that what we do in the numerator, reducing the debt, may end up being insufficient.”¹¹ It remains to be seen if the partisans of austerity in the Congress will again demand government cuts as their ransom for raising the debt ceiling, but the Congressional Budget Office is warning that unemployment is likely to stay above 7.5 percent through 2014, marking the sixth consecutive year with unemployment that high, “the longest such period in the past 70 years.”¹² As one economist has noted, “nothing converts cyclical unemployment into structural unemployment more certainly than prolonged unemployment.”¹³

This persistently high level of unemployment is the real cliff that threatens our economy. “Regardless of its root cause, persistent long-term unemployment has troubling long-term consequences for workers and for the economy,” warned the U.S. Congress Joint Economic Committee, “including lost wages, declining labor force participation, less consumption and a smaller tax base.”¹⁴ Inasmuch as some long-term unemployed are older or disabled workers, they may simply stop trying to participate in the labor force, begin spending down retirement savings and make demands on strained social service programs earlier than they otherwise would.¹⁵ Young workers who struggle with long-term unemployment suffer from what some call “scarring effects,” including a higher likelihood of experiencing unemployment again later and lower lifetime wages than their consistently employed peers.¹⁶ The stresses of long-term unemployment have repercussions for workers, their families, and their communities long into the future in the form of increased risks of mental illness and suicide, higher mortality rates, domestic violence, and academic underperformance by their children.

It is astonishing that federal lawmakers so blithely disregard the urgent need for policy responses addressing the 4.8 million long-term unemployed. That is roughly the population of Chicago and Houston, and they have been slowly draining their savings and struggling to keep their families afloat for more than six months, some of them for much more than six months. It is a testimony to the success of social safety net programs like unemployment insurance and supplemental nutritional assistance that this massive group remains largely invisible to the general public. They are men and women, young and

old, of every race and ethnicity. They are highly skilled workers and entry-level workers. They once worked in nearly every part of the economy, in the public and private sectors.

This report explores who the long-term unemployed are and how their ongoing estrangement from the labor force hurts the entire economy. We suggest that the diversity of this population means it will take a variety of job creation measures to reattach them to the workforce, and that the longer we wait to implement these programs in the name of austerity, the more intractable the problem of long-term unemployment will become. Having already achieved the longest period of high unemployment in 70 years, we simply cannot afford to keep breaking the record.



Source: Adapted from The Hamilton Project at the Brookings Institution and the Economic Policy Institute.

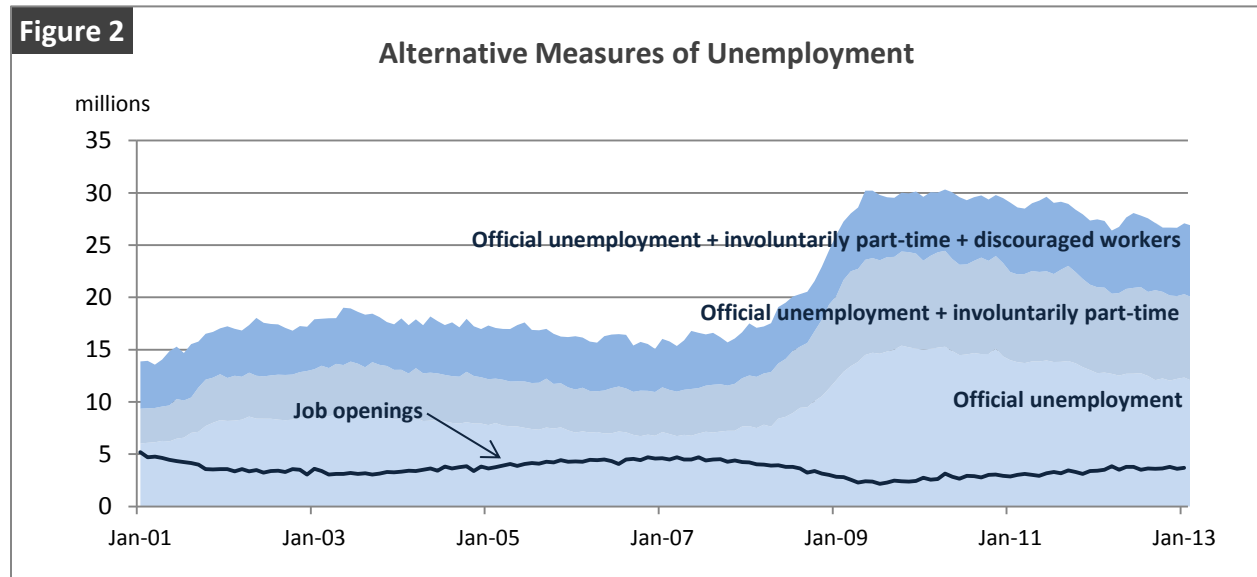
SLOW RECOVERY MEANS FEW JOB OPPORTUNITIES

While some accuse the unemployed of preferring to stay out of the workplace, the fact is that the economy is simply not creating job openings fast enough to absorb the millions looking for work. The Bureau of Labor Statistics still reports 3.3 unemployed for every job opening, and the long-term unemployed in particular face discrimination from potential employers who prefer to hire those who already have jobs.¹⁷ After losing nearly 8.8 million jobs during the downturn, private sector employment increased in each of last 36 months. Expanding payrolls are a welcomed sign, but the pace of job growth remains slow, while the types of jobs being added are disproportionately low-wage.

Today, the United States faces a jobs deficit of nine million. This is the number of jobs needed to restore the labor market to its pre-recession health after accounting for jobs lost during the downturn as well as potential labor market entrants.¹⁸ At the current pace of job growth (183,000 jobs per month in 2012),

the United States will not close the jobs deficit until 2019 (**Figure 1**). As a direct result of the jobs deficit, there are nine million fewer people earning a wage and paying income taxes. In an economy that depends on consumer spending, having so many workers on the sidelines, struggling just to make ends meet, is a problem.

Additionally, there are also signs that private sector job growth is slowing as Recovery Act spending fades and Congress ratchets up counterproductive austerity rhetoric. Total job creation in 2012 was up over the previous year, but the increase was the result of fewer public sector job losses, rather than an acceleration of monthly private sector job growth, which declined last year to 189,000 from 202,000 a year earlier. Meanwhile, public sector job losses at the local level continue to be drag on economic recovery. Not only should the public sector have added jobs to simply maintain levels of employment, but the accompanying loss of demand for private sector goods by government agencies and the diminished consumer spending power of public sector workers meant an estimated loss of 750,000 private sector jobs too.¹⁹ Since the recovery officially started over three years ago, state and local governments shed 722,000 jobs, including 355,000 teachers,²⁰ 56,000 police officers, and 30,000 first responders.²¹ In addition to hurting the economy, the loss of vital public sector jobs will negatively impact the quality of education we provide our children and threaten the health and safety of our communities.



Source: NELP analysis of Current Population Survey data. (Note: Discouraged workers are individuals who are not in the labor force but who want a job.)

“REAL” UNEMPLOYMENT AND THE SHRINKING LABOR MARKET

At the current rate of job creation, the U.S. economy is barely adding enough jobs to absorb new labor market entrants, let alone reemploy the millions of individuals who lost their jobs during the downturn. Over the past five years, millions of discouraged workers left the labor force out of frustration or resorted to part-time work when no full-time positions were available. The nation’s unemployment rate

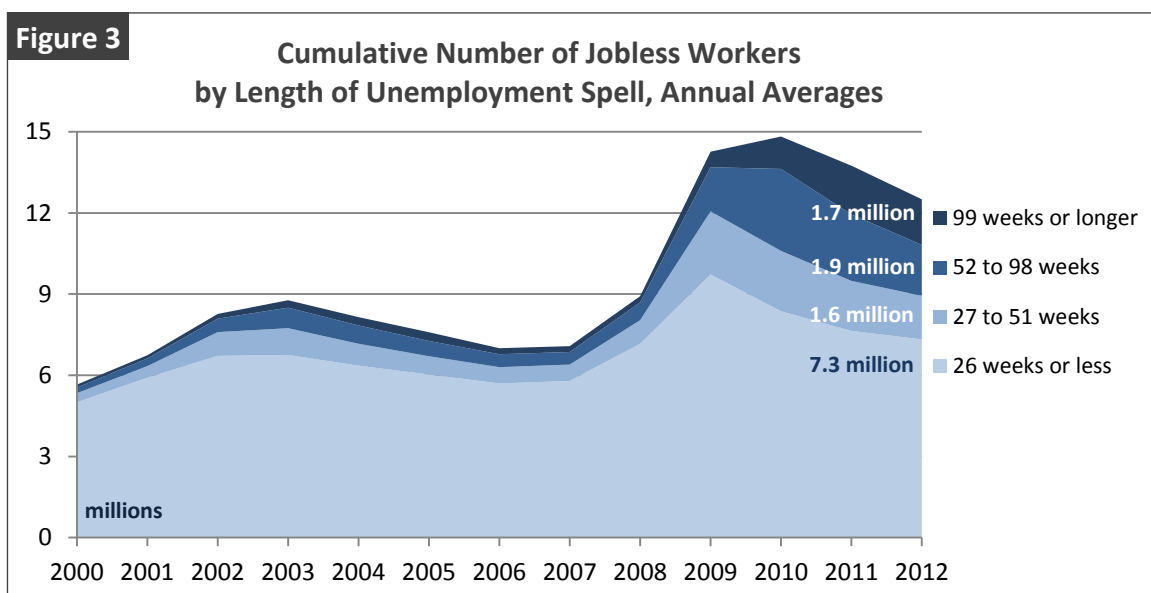
may be the most common barometer of labor market health, but this measure only includes individuals who are in the labor market and does not capture underemployment—the eight million part-time workers who would rather be working full-time. Additionally, there are 6.8 million discouraged workers who want to work but who have stopped looking. All told, there are 27 million unemployed or underemployed workers—over two times more than the official number (**Figure 2**).

During the recovery period, the percentage of Americans who are either employed or actively looking for work (i.e., the labor force participation rate) fell to the lowest point in over 30 years. Between December 2007 and February 2013, the labor force participation rate dropped an astounding 2.5 percentage points. About two-thirds of the decline is attributable to the weak labor market, while the remaining third is explained by long-term demographic trends such as the retiring baby boomers.²² As a result of labor market weakness alone, there are four million fewer workers in the labor force than there should be. If this number of workers were to enter the labor force today, the official unemployment rate would increase from 7.7 percent to 10.1 percent.

UNPRECEDENTED LONG-TERM UNEMPLOYMENT

While quick action to implement the Recovery Act kept overall unemployment numbers below catastrophic levels during the recession, this recovery is unlike other post WWII recoveries in that long-term unemployment remains at unprecedented levels and rates. This is uncharted economic territory and it will take conscious policy innovations to address it. Today, an unprecedented four in ten jobless workers—nearly five million people—have been out of work for 27 weeks or longer (**Figure 3**), pushing the average duration of unemployment up to 37 weeks, nearly 16 weeks longer than during the worst of the 1980s downturn.

Individuals who have been unemployed the longest are the least likely to find work. Today, the three million individuals who have been jobless for more than a year face a less than 1-in-10 chance of finding a job in a given month.²³ The challenge of finding work is only compounded by employers that discriminate against well-qualified applicants who are currently out of work, with some employers going so far as to specify “unemployed need not apply” in job announcements.²⁴



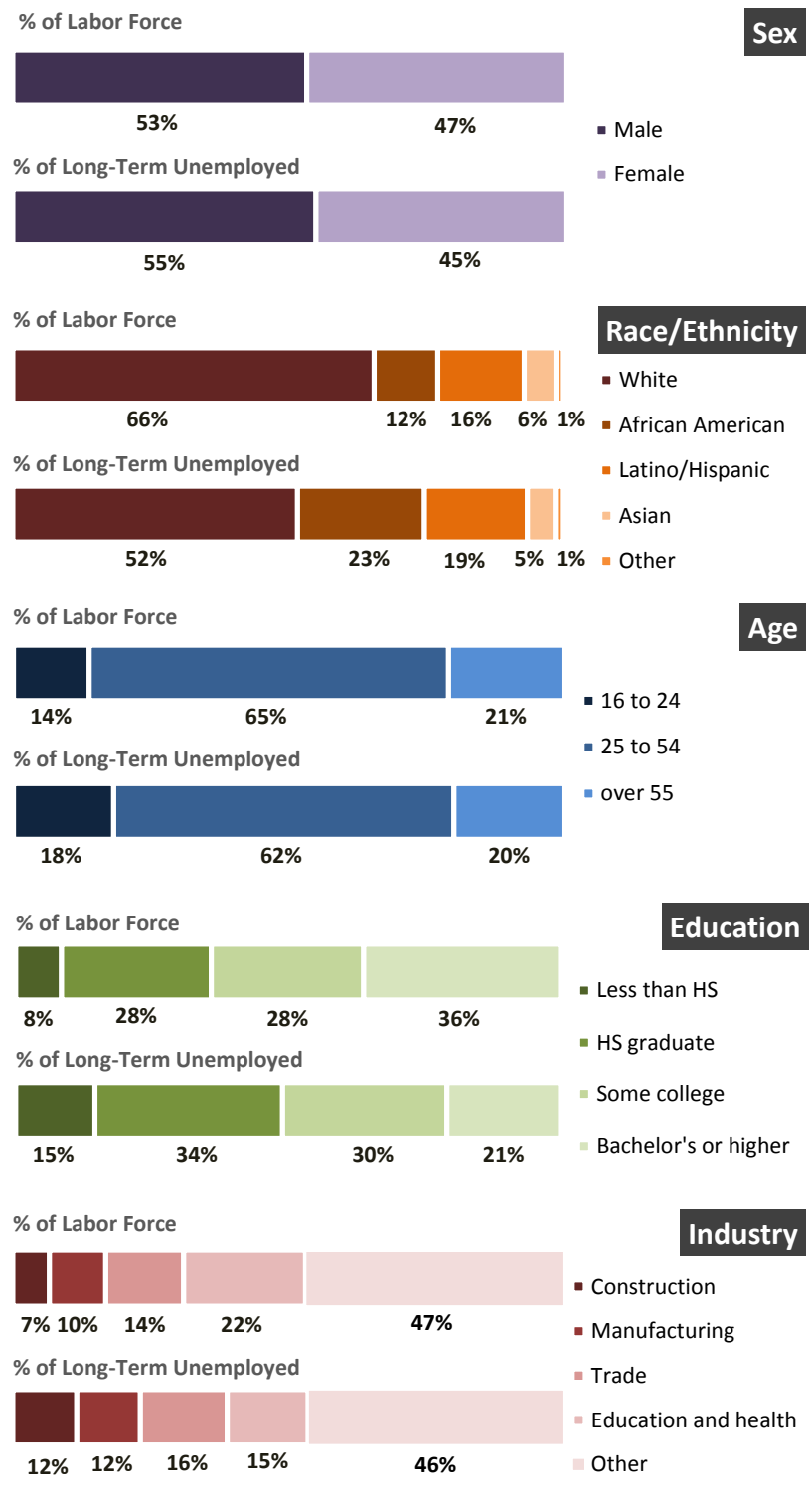
Source: NELP analysis of CEPR Current Population Survey Outgoing Rotational Group uniform extracts.

CONSEQUENCES OF LONG-TERM UNEMPLOYMENT

Long-term unemployment is an enormous waste of our nation's human capital that will have lasting repercussions for the economy as well as the health and financial security of workers and their families. Empirical research shows that the loss of a good job during a severe downturn—the job-loss pattern of this downturn—leads to a 20 percent earnings loss lasting 15 to 20 years.²⁵ Earnings losses are more severe for long-term unemployed workers who run a greater risk of dropping out of the labor force and falling into poverty.²⁶ Our economy cannot afford to lose valuable productive capacity and tax revenue associated with good jobs by allowing millions of today's long-term unemployed workers to become tomorrow's disadvantaged workers.

Beyond earnings losses, there is a host of health and social issues associated with unemployment and long-term unemployment in particular that affect families, but also have a larger cost to society. As a result of increased health problems, individuals who lose their jobs during a severe downturn can expect to live 1 to 1.5 years less.²⁷ Health care costs may also rise with an increased risk of mental illness,

Figure 4 Long-Term Unemployment by Demographic, 2012



Source: NELP analysis of CEPR Current Population Survey Outgoing Rotational Group uniform extracts. Graphic design adapted from Pew Charitable Trusts, "Five Long-Term Unemployment Questions." (Note: Education is limited to individuals ages 25 and over.)

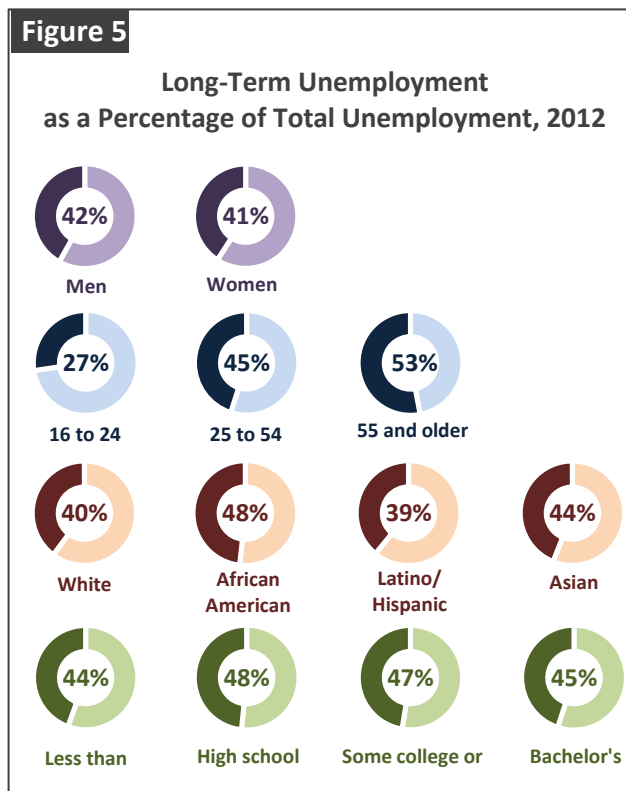
domestic violence, and suicide. Family instability associated with job loss leads to higher divorce rates, while children of unemployed parents also perform worse in school and have lower future earnings as adults compared to children without unemployed parents.

DEMOGRAPHICS OF THE LONG-TERM UNEMPLOYED

The phrase “long-term unemployment” likely conjures images of older men who lost lifelong jobs in the construction and manufacturing industries at the height of the recession. In reality, the picture is much more nuanced. Some populations were harmed by the recession more than others, but surprisingly, long-term unemployment cuts across sex, education, race, and age. And, while the manufacturing and construction industries experienced massive job losses, they only account for one-fifth of long-term unemployment. This stereotype of the long-term unemployed contributes to discussions about overseas outsourcing or skills mismatches that may account for some of our ongoing unemployment crisis, but not the majority. In order to craft and implement policies that will get the long-term unemployed reattached to the workforce, we must have a truer sense of who they are and to which industries they are connected. The following section breaks down the incidence of long-term unemployment by sex, age, education, race and ethnicity, and industry. In addition to examining the number of long-term unemployed within these populations, we also identify which groups experienced the greatest increases in long-term unemployment.

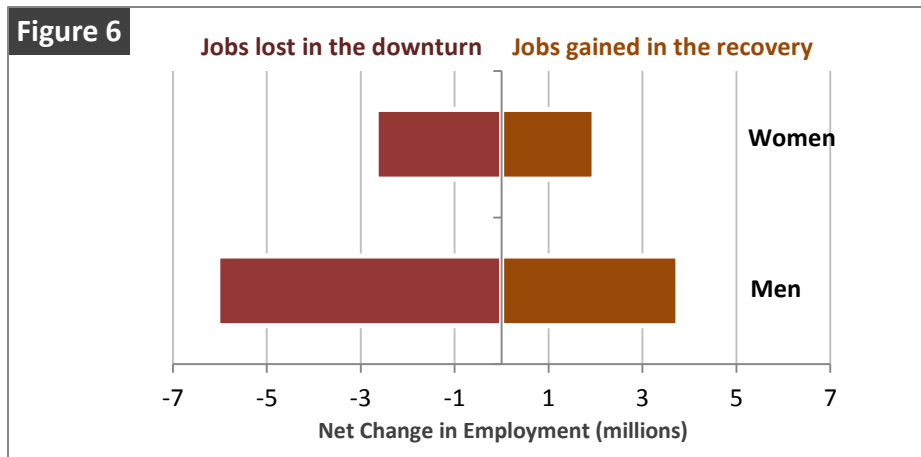
Public Sector Cuts Disproportionately Harm Women

Men lost over two times as many jobs as women during the downturn as early job losses were heavily concentrated in the male-dominated manufacturing and construction industries (**Figure 6**). While male job loss began seven months before the recession began, women started losing significant numbers of jobs five months after the Great Recession began.²⁸ In fact, female employment did not bottom out until September 2010—over a year *after* the official end of the recession—when steep public sector cuts had a disproportionate impact on women workers.²⁹ Women held 70 percent of the 765,000 state and local government jobs that were lost between 2007 and 2011.³⁰



Source: NELP analysis of CEPR Current Population Survey Outgoing Rotational Group uniform extracts. Graphic design adapted from Pew Charitable Trusts, "Five Long-Term Unemployment Questions." (Note: Education is limited to individuals ages 25 and over.)

Relative to their share of the labor force (47 percent), women account for a smaller share (45 percent) of the country's approximately five million long-term unemployed workers (**Figure 4**). However, since 2007, their share of long-term unemployment relative to men has increased by two percentage points (**Table 2**). Additionally, one in five long-term jobless women is a single mother, while nearly one million children are living in households with mothers who have been out of work for over six months.³¹



Source: NELP analysis of Bureau of Labor Statistics, Current Employment Statistics. (Note: Employment losses are measured from December 2007 to February 2010 and employment gains are measured from February 2010 to February 2013.)

While women's employment has been growing in recent months—by February 2013 women had regained almost three-quarters of the jobs lost since hitting bottom—continued austerity policies are undercutting those gains by triggering ongoing layoffs in the public sector. Already, public sector job losses for women have wiped out 25 percent of all the private sector job gains they made from the start of the recovery until January 2013.³² By focusing on ever-deeper cuts in public spending, policymakers could prolong the pain of the recession for women workers and further damage the overall economy.

Minority Workers at High Risk of Long-Term Unemployment

The continuing focus on austerity over employment has distressing effects on racial inequality as well. Of the five million long-term jobless workers, just over half are white (**Figure 4**). However, relative to other groups, whites make up a much smaller proportion of the long-term unemployed relative to their share of the labor force.

African-American Workers

In comparison, African Americans are overrepresented relative to their share of the total labor force, accounting for 12 percent of the labor force, but 23 percent of the long-term unemployed (**Figure 4**). African Americans also face the highest unemployment rate (13.8 percent in 2012) and have the highest percentage of unemployed workers who are also long-term unemployed (48 percent) (**Figure 5**).

Research suggests several structural reasons for these disparities, ranging from the greater likelihood that African-American workers will lose their jobs earlier in a downturn due to application of “last hired/first fired” policies, to less access to networks that would alert unemployed African-American workers to potential openings or give them preference among applicants.³³ Furthermore, residential segregation can lead to significant challenges in finding a new job for unemployed African-American workers. According to the Department of Labor, between 2008 and 2010, unemployed African-

American workers were 60 percent more likely to live in an area with double-digit unemployment than non-African-American ones.³⁴

Because the public sector has also been an important source of quality jobs for African-American workers, the ongoing government cuts have had a disproportionate effect in this community. One in five jobs in state and local government lost during the downturn resulted in a pink slip for an African-American employee.³⁵

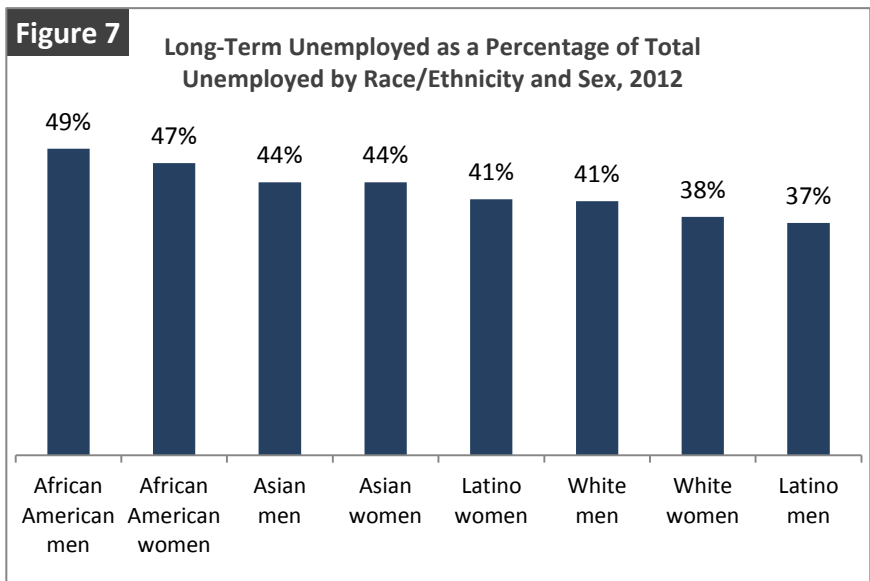
Asian-American Workers

Among the major racial and ethnic groups, Asian Americans are by far the most highly educated. Three-quarters of Asian-American workers ages 25 and over completed at least some college, and 57 percent have at least a four-year degree.³⁶ High educational attainment may be one reason that overall unemployment among Asian-American workers remains relatively low (6.7 percent in 2012).

Relative to whites and Hispanics, however, a large share (44 percent) of unemployed Asian Americans has been out of work for 27 weeks or longer, signaling that Asian-American workers could be more vulnerable to long-term unemployment upon job loss (**Figure 5**). Additionally, Asian Americans with some college experience and those with a four-year degree are unemployed at a higher rate than similarly educated whites.³⁷ Researchers attribute high rates of long-term unemployment to the significant proportion of Asian-American workers who are foreign-born as well as the fact that unemployment remains high in states such as California and New York that are home to over 40 percent of Asian-American workers.³⁸

Hispanic & Latino Workers*

The public sector has been a less important source of employment for Hispanic and Latino workers, with more than 8 in 10 employed in the private sector, especially in the hard-hit construction and manufacturing sectors. Austerity measures that fail to adequately fund public construction projects on bridges, roads, water mains, and other infrastructure projects also fail to generate demand in these sectors and contribute to the number of idled workers. Despite substantial job losses in industries with high concentrations of Latino workers,



Source: NELP analysis of CEPR Current Population Survey Outgoing Rotational Group uniform extracts.

* "Hispanic and Latino" are used interchangeably to include individuals of any race from South and Central America, Mexico, Puerto Rico, and Cuba.

Latinos still maintain the highest labor force participation rate of the primary racial and ethnic groups, while Latino men have the lowest share of unemployed workers who are considered long-term unemployed (**Figure 7**).³⁹ But because the overall Hispanic unemployment rate remains high (10.2 percent in 2012), Latinos and Hispanics are still overrepresented as a share of the long-term unemployed (19 percent), relative to their share of the overall labor force (16 percent) (**Figure 4**).

Rather than advocate for further budget cuts, policymakers would do well by workers of all race and ethnic backgrounds to resume aid to the states to increase important public sector jobs for teachers, firefighters, and public office workers and to support innovative measures like a national infrastructure bank and funding energy efficiency measures in public schools. By improving the infrastructure of our public services and our public resources, we could help workers suffering from long-term unemployment to contribute again to national productivity and economic growth.

Older Unemployed Workers at Highest Risk of Long-Term Unemployment

Unemployment has significant ramifications for workers at either end of the age scale, though extended unemployment for both older and young workers has devastating effects for years to come. If we fail to close the jobs deficit for older workers, we run the risk of straining safety net programs like Medicare and Social Security to their breaking point. And the longer we allow young workers to languish and postpone building work histories, the lower their incomes, spending, and tax revenues will be for decades to come.

Looking solely at the overall unemployment rate, workers aged 55 to 64 seem to fare relatively well. At 5.9 percent, their level of workforce displacement is significantly lower than that of workers in other age groups: workers 25 to 34 have an 8.2 percent unemployment rate, and those 16 to 24 suffer from an extraordinary 16.2 percent unemployment rate (**Table 1**). Yet, when we think of the long-term jobless, we have good reason to be concerned for these older workers. The reason behind this apparent paradox is that while older workers are less likely to lose their jobs, those who do become unemployed have more difficulty finding work.⁴⁰

Of unemployed workers ages 55 and older, over half (53 percent) have been out of work for longer than 27 weeks—a higher percentage than any of the other populations discussed here (**Figure 5** and **Table 2**). One survey of unemployed workers found that among those over 50 who were able to find work, half took over a year to find a job.⁴¹ Older workers are more vulnerable than younger workers to earnings losses associated with long-term unemployment. Not only do older workers generally have families to support and mortgage payments to make, they have fewer years to make up for lost retirement savings. Nearly one quarter of respondents to a survey of workers over age 50 had gone through their retirement savings in the prior three years.⁴² Between 2007 and 2011, 1.5 million Americans over age 50 lost their homes to foreclosure while an additional 3.5 million were underwater on their mortgages.⁴³

Furthermore, long-term unemployment among this population creates additional strain on safety net programs. Those over 62 years old are especially unlikely to find new jobs, and during the early years of the recovery many simply dropped out of the labor force and took advantage of early eligibility for Social Security benefits, even though those benefits are 25 percent lower than if they'd been able to work until age 66.⁴⁴ Those older workers who do find re-employment frequently do so with a pay cut or in a new

industry where their decades of experience are not rewarded. In the aforementioned survey, 60 percent of respondents reported taking a pay cut, while 40 percent found work in a new field.⁴⁵ Government surveys reveal that those aged 50 to 61 who found work saw their median monthly earnings decline 23 percent,⁴⁶ a cut that imperils their ability to save for retirement or make suitable contributions to Social Security.

High Youth Unemployment Has Long-Term Consequences for Employment and Earnings Prospects

Compared to older workers, the share of unemployed youth ages 16 to 24 who are long-term unemployed (27 percent) is relatively low (**Figure 5**). But because so many younger workers are unemployed, long-term unemployment still poses a problem for younger workers. Well into the recovery, the youth employment rate was stalled at its lowest level since WWII. Traditional avenues into the workforce—manufacturing, retail, and construction—have been closed to the youngest workers who have to compete against millions of unemployed with more job experience, making it hard to get a foothold. Over 900,000 individuals ages 16 to 24 have been out of work for 27 weeks or longer (**Table 2**), accounting for about 18 percent of the nation’s long-term unemployed workers (**Figure 4**). Because they have short working histories, these workers often lack the experience that employers seek, and when they do find work, their lack of seniority places them at the head of the line for layoffs.

Those who have not completed post-secondary education are at even greater risk for unemployment, although those who have are often struggling with crippling student loan debt. Having a large proportion of young workers disconnected from both the workplace and school means a lifetime of lower earnings for them and lost productivity and revenues for the economy. It is imperative for us to get older workers back into jobs, but we also have to create opportunities for younger workers who face the highest unemployment rates and who make up the majority of the long-term unemployed. Studies have shown that young workers entering the workforce during a downturn, even those with high educational attainment, have lower lifetime earnings.⁴⁷

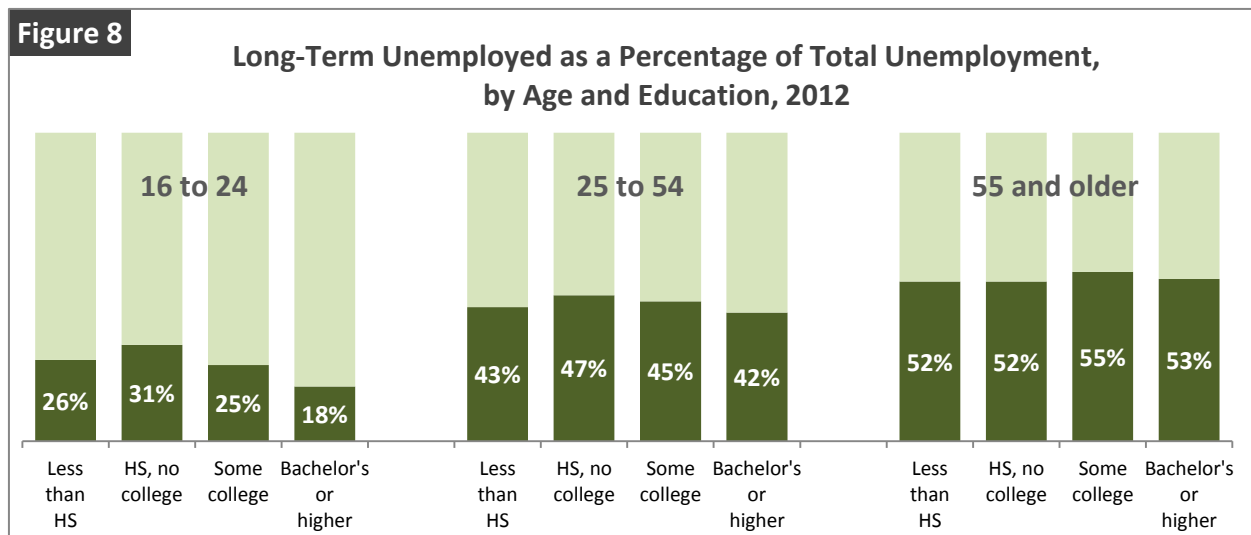
Research indicates that the future taxpayer burden for each 16-year-old out of school and work is more than \$250,000.⁴⁸ Furthermore, because these youngest workers often don’t qualify for safety net programs, they may become dependent on family members or parents, further straining the family’s resources or their parents’ ability to save for their own retirement. Others are themselves already parents, unable to find jobs so that they can care for themselves and their children. Summer youth employment programs, Job Corps programs, and public support for industries with robust apprenticeship structures could help to connect young workers to the job market and to establish the foundation for a lifetime of earnings.⁴⁹

Focusing on austerity policies today virtually ensures increased costs to help care for older workers tomorrow and a generation of lower tax revenues and consumer spending from young workers with which to finance them. We must have the foresight to see how policy decisions might exacerbate spending in the future and avoid purchasing cuts in federal budgets now with debts we will have to pay later.

Long-Term Unemployment Increased Sharply for All Levels of Education[†]

Less than a high school diploma

Today's labor market is more highly educated than ever before. While adults ages 25 and over with less than a high school education account for a small fraction of the labor force (**Figure 4**), this group was hit hard by the recession and still faced a double-digit unemployment rate in 2012 (**Table 1**). Once unemployed, these workers were slightly less likely to become long-term unemployed than more highly educated workers (**Figure 5**), suggesting that they either dropped out of the labor force more quickly or perhaps were more likely to accept low-wage work. Because a high percentage of individuals with less than a high school education are unemployed, they are overrepresented among the long-term unemployed relative to their share of the labor market.



Source: NELP analysis of CEPR Current Population Survey Outgoing Rotational Group uniform extracts.

High school or GED

The unemployment rate for workers with a high school diploma but no college experience is about four percentage points lower than the rate for those without a degree (**Table 1**). However, 48 percent of unemployed workers with only a high school degree are long-term unemployed (**Figure 5**). Numbering nearly 1.5 million, this group accounts for the largest fraction of the long-term unemployed (34 percent) and is overrepresented relative to the share of the labor force.

Some college or associate's degree

In comparison, workers with some college experience maintained a slightly lower unemployment rate throughout the recession, but are also overrepresented as a share of the long-term unemployed (**Figure 4**) and are about equally as likely to become long-term unemployed once unemployed. Individuals with

[†] Unless noted, the section on education limits the discussion to workers ages 25 and older.

some college experience make up the next largest group of long-term unemployed workers, numbering nearly 1.3 million. Of those workers in the labor force with some college education, the four in ten who earned an associate's degree or equivalent had better labor market outcomes—lower unemployment, higher labor force participation, and a smaller fraction of labor force participants who are long-term unemployed—than those who did not earn a degree or credential.

Bachelor's degree or higher

Workers with at least a bachelor's degree maintained the lowest unemployment rate throughout the downturn, but in 2012 the rate remains nearly twice as high as it was prior to the recession (**Table 1**). While college-educated workers make up a small fraction of the long-term unemployed relative to their share of the labor force, the probability of becoming long-term unemployed once unemployed is about the same as it is for workers with less education (**Figure 5**). For workers ages 55 and over, the percentage of unemployed workers who are long-term unemployed is greater than 50 percent for all education levels, implying that once an older worker loses his or her job, a four-year degree may not improve the likelihood of finding work (**Figure 8**). Indeed, nearly one-quarter of approximately 900,000 long-term unemployed workers with a bachelor's degree are between ages 55 and 64.

Only 18 percent of unemployed, college-educated workers ages 16 to 24 are long-term unemployed (**Figure 8**), indicating that this population is either likely to drop out of the labor force or to accept low-wage work. According to a survey of recent college graduates by Rutgers University, when recent graduates did find a job during the immediate aftermath of the recession, they typically did so with an average 10 percent wage penalty compared to those who found work in a healthier economy.⁵⁰ Some of this wage penalty may be related to having to take jobs that do not necessarily require post-secondary education; a study of 2011 college graduates with bachelor's degrees revealed that just over 15 percent went into service occupations and more than 23 percent were in sales and office jobs.⁵¹

While most new post-secondary graduates who find work do so in the private sector, almost 16 percent of those with bachelor's degrees go into government work, as do nearly 26 percent of those with advanced degrees.⁵² If we want an economy that takes advantage of the knowledge and skills of these highly educated workers, we must focus on funding new research and development, much of which is done in the public sector, and create more opportunities that make use of highly credentialed workers, which would also open up less-skilled jobs for those without post-secondary degrees.

Manufacturing and Construction Hit Hardest by Recession, but Majority of Long-Term Unemployed Come from Other Industries

During the Great Recession, some observers coined the phrase “mancession” because the most hard-hit industries were manufacturing and construction. The construction industry lost nearly two million jobs during the downturn, while manufacturing employment decreased by about 2.3 million (**Figure 9**). And even well into the recovery, workers in these industries are having troubles. Combined, these industries account for just over one-fifth of the long-term unemployed (1 million individuals) (**Figure 4**). While in absolute numbers there are actually more long-term jobless workers within wholesale and retail trade as well as education and health services, the share of these workers among the long-term unemployed is smaller than their proportion of the workforce. For instance, education and health services workers

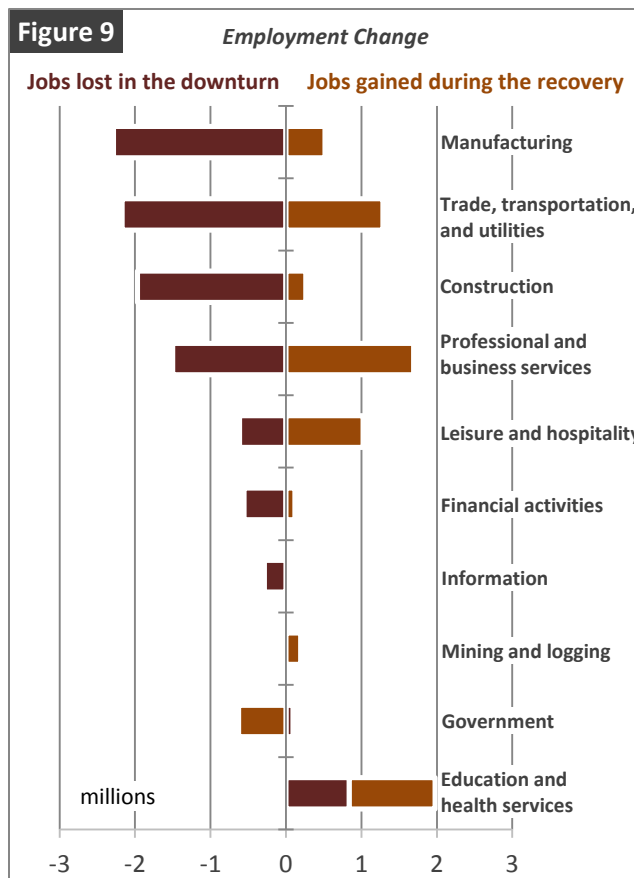
comprise 22 percent of the labor force but 13 percent of the long-term unemployed (**Figure 4**). (It should be noted that these are frequently public sector jobs or jobs financed by public monies, and so further austerity measures may make it more difficult for workers in these fields to find new employment in the future.) In the early stages of the economic recovery, manufacturing grew slowly while the construction industry continued to shrink, as low-wage service industries like retail, food services, and nursing care facilities grew at a more rapid pace.⁵³ According to Bureau of Labor Statistics predictions, the construction industry will continue to grow, but even by 2020 is not expected to return to its pre-recession levels.⁵⁴

One option for getting the long-term unemployed back to work, then, is for policymakers to support extensive retraining programs. If we are to reconnect these workers to the labor force, and the fastest growing industries will be in service providing industries, then we need to give the workers the skills needed for service sector jobs. However, it is also the case that to grow and thrive, our economy needs

construction workers on the job right now, rebuilding crumbling bridges, repairing roads, and retrofitting our buildings to be energy efficient. We need manufacturing workers back at work now to create the raw materials for new energy technologies, improved transportation, and energy-efficient consumer goods that will help us to battle climate change and its resulting physical and economic dangers. These improvements are critical for the well-being of our economy, but they are also only possible if policymakers cease calling for ever more austerity in public budgets and instead start making smart investments for a robust recovery.

RECOVERY MARKED BY GROWTH IN LOW-WAGE OCCUPATIONS

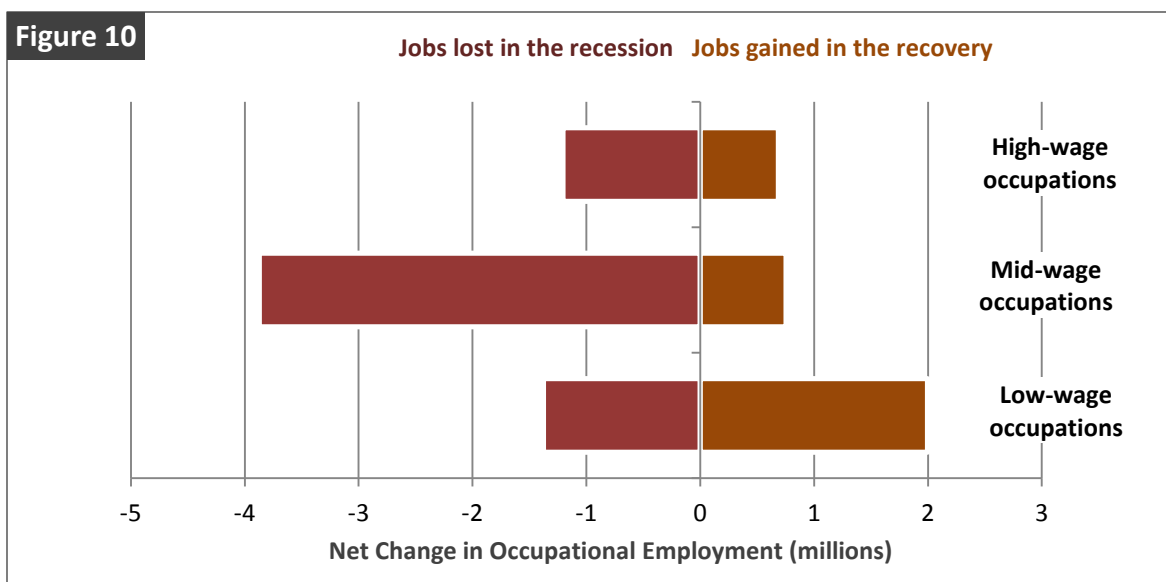
Erasing the jobs deficit by putting Americans back to work is essential, but policymakers must pay equal attention to the quality of jobs being created. Re-employing workers in productive, family-sustaining jobs will contribute to the long-term health, well-being, and competitiveness of our country. Implementing policies to put the long-term unemployed back to work will be less than optimal if we are not mindful of the quality of the jobs we create. As previously mentioned, this population is already vulnerable to lower wages when they do find work, and while this may in part be an indication of their own desperation, it should also serve as a cautionary flag for possible broader changes in the labor market. Specifically, evidence from the recovery thus far indicates that employment losses during the



Source: NELP analysis of Current Employment Statistics. (Note: Employment losses are measured from December 2007 to February 2010 and employment gains are measured from February 2010 to February 2013.)

recession were largely good jobs that paid a family-sustaining wage as well as provided health and retirement benefits, but jobs being created in the recovery are more heavily concentrated in lower-wage occupations.⁵⁵ This was a process that started well before the recession, and one that could have chilling ramifications for the levels of inequality in our economy.

Today’s labor force is older (i.e., more experienced) and far more educated than it was three decades ago; yet, the share of good jobs—those paying at least \$37,000 per year plus employer-provided health insurance and retirement plan—fell from 27.4 percent in 1979 to 24.6 percent in 2010.⁵⁶ Overall, the U.S. economy lost about one-third of its capacity to generate good jobs over the past three decades.⁵⁷



Source: Annette Bernhardt, “The Low-Wage Recovery and Growing Inequality,” 2012.

Given the disappearance of good jobs, it is not surprising that working-age households experienced a \$7,900 decline in the real median income over the past decade.⁵⁸ Over this period, employment in mid-wage occupations fell by over seven percent as the number of lower-wage jobs grew by nearly nine percent. The Great Recession only exacerbated the long-term trend away from good jobs. Six in ten jobs lost during the downturn were in mid-wage occupations.⁵⁹ By comparison, during the recovery, employment in lower-wage occupations increased by 2.8 times more than employment in mid- and high-wage occupations (**Figure 10**). Not only do these jobs pay inadequate wages, low-wage jobs in food services, retail, and employment services are synonymous with high turnover, erratic work schedules, limited access to employee benefits and few opportunities for career advancement. A shift in the distribution toward low-wage occupations should be cause for concern for anyone who cares about the long-term competitiveness of the U.S. economy as well as the types of jobs that will be available to our children if current trends continue.

The elimination of good jobs over the past three decades continues to hollow out our nation’s middle class and fuel growing income inequality.⁶⁰ Recent economic research indicates that growing inequality could lead to lower economic growth and slower job creation in the future.⁶¹ The focus on austerity, with its concomitant decrease in quality mid-wage public sector jobs and decrease in public sector

demand for goods and services from the private sector, is exacerbating this trend. Rather than taking the lead by employing workers to provide the quality public services our country needs to thrive, we are cutting teaching, public safety, and public service workers. Instead of investing in improved physical infrastructure, transit, and energy efficiency, we are allowing the backbone of our economy to crumble.

CONCLUSION

For millions of Americans, the economic recovery remains more theoretical than experienced as unemployment persists and those jobs that have returned are all too often lower-wage ones. Nevertheless, a number of policymakers continue to demand cutbacks in government programs rather than investing in efforts to put people back to work. State and local governments, facing falling tax revenues, have been compelled to cut services and eliminate hundreds of thousands of public sector jobs, a process that threatens to accelerate as federal relief to the states dries up. Now, the austerity experiment is being carried out on a grand scale as Congressional budget cuts and the sequester are likely to shave over two percentage points off of GDP growth in 2013, putting economic recovery and millions of more jobs at risk.

Monthly job reports show a slow but sustained growth in the private sector, but it isn't enough; at the current pace of job creation, we will not restore pre-recession labor market conditions until 2019. Those who are finding work are too often accepting lower wages as job growth thus far has been skewed toward low-wage occupations, rather than the mid-wage occupations that sustained the largest losses during the downturn. A "recovery" with 27 million workers who are unemployed or underemployed or who want to work but have given up looking for a job is not the kind of recovery our country needs. We are already producing nearly \$1 trillion less in goods and services that we could be with these human and capital resources.

Such high levels of long-term unemployment this long after a recession are unprecedented. We are approaching the sixth straight year of continuous high unemployment, with the duration of unemployment spells and percentage of unemployed workers who have been jobless for 27 weeks or more showing little improvement. This jobs deficit is the one we need policymakers to fill. This is the deficit that affects the daily lives of millions of Americans in every demographic group. Minorities, younger workers, and those without a high school education face double-digit unemployment rates. On the other hand, older workers are less likely to become unemployed than younger workers, but those who do lose their jobs are at high risk of becoming long-term unemployed, regardless of education level. Unless policymakers abandon calls for still more spending cuts and begin to fill this deficit, we will suffer lower productivity, lower tax revenues, lower consumer spending, and increased demand for publicly funded social services for decades to come. This jobs deficit will determine the magnitude of our country's fiscal deficit.

A forthcoming report by the National Employment Law Project will discuss a broad range of policy options that Congress could implement to promote immediate job creation and to make a much-needed long-term investment in our nation's infrastructure, communities, and human capital. Our policy recommendations will emphasize ways in which job creation policies can target long-term unemployed workers who are most at risk of leaving the labor force or becoming a permanent underclass.

Table 1 Labor Force Indicators by Sex, Education, Race/Ethnicity, and Age													
	Unemployment (thousands)		Long-Term Unemployment (thousands)		Employment-to- Population Ratio			Civilian Labor Force Participation Rate			Unemployment Rate		
	2007	2012	2007	2012	2007	2012	p.p. change	2007	2012	p.p. change	2007	2012	p.p. change
Gender													
Male	3,882	6,771	733	2,836	69.8%	64.4%	-5.4%	73.2%	70.2%	-3.1%	4.7%	8.2%	3.5%
Female	3,196	5,734	552	2,342	56.6%	53.1%	-3.5%	59.3%	57.7%	-1.6%	4.5%	7.9%	3.4%
Education (ages 25 and over)													
Less than HS	861	1,385	196	616	43.6%	39.9%	-3.7%	46.8%	45.5%	-1.4%	6.9%	12.3%	5.4%
HS graduate	1,629	3,013	330	1,459	60.0%	54.6%	-5.4%	62.7%	59.4%	-3.2%	4.2%	8.2%	4.0%
Some college	1,325	2,695	275	1,278	69.3%	63.9%	-5.4%	72.0%	68.9%	-3.1%	3.7%	7.2%	3.5%
Bachelor's or higher	920	1,963	182	882	76.2%	72.8%	-3.4%	77.8%	75.9%	-2.0%	2.1%	4.1%	2.0%
Race/Ethnicity													
White	4,057	6,741	644	2,682	63.4%	59.3%	-4.0%	65.9%	63.6%	-2.4%	3.9%	6.6%	2.7%
African American	1,426	2,480	378	1,197	58.3%	52.8%	-5.5%	63.5%	61.3%	-2.3%	8.3%	13.8%	5.6%
Latino	1,209	2,481	173	970	65.0%	59.6%	-5.4%	68.9%	66.3%	-2.5%	5.6%	10.2%	4.6%
Asian	261	598	68	263	64.8%	60.2%	-4.6%	67.1%	64.5%	-2.5%	3.4%	6.7%	3.3%
Other	126	206	23	67	55.3%	52.7%	-2.7%	60.1%	59.5%	-0.6%	7.9%	11.5%	3.5%
Age													
16 to 24	2,342	3,451	303	943	53.1%	46.0%	-7.1%	59.4%	54.9%	-4.5%	10.6%	16.2%	5.7%
25 to 34	1,522	2,727	286	1,125	79.6%	75.0%	-4.6%	83.4%	81.6%	-1.8%	4.6%	8.2%	3.6%
35 to 44	1,255	2,196	252	994	80.8%	77.0%	-3.9%	83.8%	82.5%	-1.3%	3.5%	6.7%	3.2%
45 to 54	1,127	2,181	248	1,083	79.4%	75.3%	-4.2%	82.0%	80.3%	-1.8%	3.2%	6.2%	3.1%
55 to 64	643	1,455	170	784	61.7%	60.7%	-1.0%	63.7%	64.5%	0.8%	3.1%	5.9%	2.8%
65 and over	189	496	28	249	15.5%	17.3%	1.8%	16.0%	18.5%	2.5%	3.2%	6.4%	3.2%
Total	7,078	12,506	1,285	5,179	63.0%	58.6%	-4.4%	66.0%	63.7%	-2.3%	4.6%	8.1%	3.4%

Source: NELP analysis of CEPR Current Population Survey Outgoing Rotational Group uniform extracts.

Table 2 Long-Term Unemployment Indicators by Sex, Education, Race/Ethnicity, and Age														
	Long-Term Unemployment (thousands)		Long-Term Unemployment as a Percentage of Civilian Labor Force			Long-Term Unemployment as a Percentage of Total Unemployment			Demographic as a Percentage of Civilian Labor Force			Demographic as a Percentage of Long-Term Unemployment		
	2007	2012	2007	2012	p.p. change	2007	2012	p.p. change	2007	2012	p.p. change	2007	2012	p.p. change
Gender														
Male	733	2,836	0.9%	3.4%	2.6%	18.9%	41.9%	23.0%	53.6%	53.1%	-0.5%	57.0%	54.8%	-2.3%
Female	552	2,342	0.8%	3.2%	2.4%	17.3%	40.9%	23.6%	46.4%	46.9%	0.5%	43.0%	45.2%	2.3%
Education (ages 25 and over)														
Less than HS	196	616	1.6%	5.5%	3.9%	22.8%	44.5%	21.7%	9.5%	8.4%	-1.1%	19.9%	14.5%	-5.4%
HS graduate	330	1,459	0.9%	4.0%	3.1%	20.3%	48.4%	28.2%	29.4%	27.5%	-1.9%	33.6%	34.4%	0.9%
Some college	275	1,278	0.8%	3.4%	2.6%	20.8%	47.4%	26.6%	27.4%	28.0%	0.6%	28.0%	30.2%	2.2%
Bachelor's or higher	182	882	0.4%	1.8%	1.4%	19.7%	45.0%	25.2%	33.7%	36.1%	2.4%	18.5%	20.8%	2.4%
Race/Ethnicity														
White	644	2,682	0.6%	2.6%	2.0%	15.9%	39.8%	23.9%	68.5%	65.8%	-2.8%	50.1%	51.8%	1.7%
African American	378	1,197	2.2%	6.7%	4.5%	26.5%	48.3%	21.8%	11.3%	11.6%	0.3%	29.4%	23.1%	-6.3%
Latino	173	970	0.8%	4.0%	3.2%	14.3%	39.1%	24.8%	14.1%	15.7%	1.6%	13.4%	18.7%	5.3%
Asian	68	263	0.9%	2.9%	2.1%	26.1%	44.0%	17.8%	5.1%	5.8%	0.7%	5.3%	5.1%	-0.2%
Other	23	67	1.5%	3.7%	2.2%	18.6%	32.5%	13.9%	1.0%	1.2%	0.1%	1.8%	1.3%	-0.5%
Age														
16 to 24	303	943	1.4%	4.4%	3.1%	12.9%	27.3%	14.4%	14.5%	13.7%	-0.8%	23.5%	18.2%	-5.3%
25 to 34	286	1,125	0.9%	3.4%	2.5%	18.8%	41.3%	22.4%	21.6%	21.6%	0.0%	22.3%	21.7%	-0.5%
35 to 44	252	994	0.7%	3.0%	2.3%	20.1%	45.3%	25.2%	23.2%	21.1%	-2.1%	19.6%	19.2%	-0.4%
45 to 54	248	1,083	0.7%	3.1%	2.4%	22.0%	49.7%	27.7%	23.4%	22.7%	-0.7%	19.3%	20.9%	1.7%
55 to 64	170	784	0.8%	3.2%	2.4%	26.4%	53.9%	27.5%	13.5%	16.0%	2.4%	13.2%	15.1%	1.9%
65 and over	28	249	0.5%	3.2%	2.7%	14.6%	50.3%	35.6%	3.8%	5.0%	1.2%	2.1%	4.8%	2.7%
Total	1,285	5,179	0.8%	3.3%	2.5%	18.2%	41.4%	23.2%	100.0%	100.0%	0.0%	100.0%	100.0%	0.0%

Source: NELP analysis of CEPR Current Population Survey Outgoing Rotational Group uniform extracts.

ENDNOTES

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- ¹ Josh Bivens, Andrew Fieldhouse, and Heidi Shierholz, "From free-fall to stagnation: Five years after the start of the Great Recession, extraordinary policy measures are still needed, but are not forthcoming." Washington, DC: Economic Policy Institute (2013), <http://www.epi.org/files/2013/bp355-five-years-after-start-of-great-recession.pdf>.
- ² David Cooper, Mary Gable, and Algernon Austin, "The public-sector jobs crisis: Women and African Americans hit hardest by job losses in state and local governments," Washington, DC: Economic Policy Institute (2012), <http://www.epi.org/files/2012/bp339-public-sector-jobs-crisis.pdf>.
- ³ National Council of La Raza, "Monthly Latino employment report," Washington, DC (March 2013), http://issuu.com/nclr/docs/employment_report_march_2013_-_job_training_cuts?mode=window&pageNumber=2.
- ⁴ Thomas L. Spreen, "Recent college graduates in the U.S. labor force: Data from the Current Population Survey," *Monthly Labor Review* (February 2013), <http://www.bls.gov/opub/mlr/2013/02/art1full.pdf>.
- ⁵ Annette Bernhardt, "The good jobs deficit," New York, NY: National Employment Law Project (2012), http://www.nelp.org/page/-/Job_Creation/LowWageRecovery2012.pdf. The median hourly wage in 2012 dollars is \$7.69 to \$13.83 for low-wage occupations; \$13.84 to \$21.13 for mid-wage occupations, and \$21.14 to \$54.55 for high-wage occupations.
- ⁶ Emmanuel Saez, "Striking it richer: The evolution of top incomes in the United States," (2013), <http://elsa.berkeley.edu/~saez/saez-UStopincomes-2011.pdf>.
- ⁷ Annie Lowrey, "Income inequality may take toll on growth," *New York Times* (16 October 2012), <http://www.nytimes.com/2012/10/17/business/economy/income-inequality-may-take-toll-on-growth.html?pagewanted=all&r=0>.
- ⁸ Mark Thoma, "Sequester will mean lost jobs and less growth," *CBS News* (23 February 2013), http://www.cbsnews.com/8301-505123_162-57571850/sequester-will-mean-lost-jobs-and-less-growth/
- ⁹ Josh Bivens, Andrew Fieldhouse, and Heidi Shierholz, "From free-fall to stagnation: Five years after the start of the Great Recession, extraordinary policy measures are still needed, but are not forthcoming." Stephen S. Fuller, "The economic impact of the Budget Control Act of 2011 on DOD and non-DOD agencies," George Mason University (2012), http://www.aia-aerospace.org/assets/Fuller_II_Final_Report.pdf.
- ¹⁰ Paul Krugman, "How did we know the stimulus was too small?" *New York Times* (28 January 2010), <http://krugman.blogs.nytimes.com/2010/07/28/how-did-we-know-the-stimulus-was-too-small/>. Ryan Grim, "Why the stimulus is too small," *Huffington Post* (9 March 2009), http://www.huffingtonpost.com/2009/02/09/is-stimulus-too-small_n_165076.html. Veronica Cassidy, "The Deficit Distraction: Media push spending cuts over stimulus," *Fair* (1 September 2009), <http://fair.org/extra-online-articles/The-Deficit-Distraction/>.
- ¹¹ Rich Miller and Simon Kennedy, "Deficit-cutters ignore El-Erian's Growth 'denominator,'" *Bloomberg* (1 August 2011), <http://www.bloomberg.com/news/2011-08-01/debt-cutters-ignore-el-erian-growth-denominator-to-detriment-of-economy.html>. Binyamin Appelbaum and Catherine Rampell, "From spending to cuts, while economy stalls," *New York Times* (31 July 2011), http://www.nytimes.com/2011/08/01/us/politics/01econ.html?_r=1&pagewanted=all?src=tp.
- ¹² Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2013 to 2023," <https://www.cbo.gov/sites/default/files/cbofiles/attachments/43907-BudgetOutlook.pdf>.
- ¹³ Bradford J. DeLong, "Is Today's Unemployment Structural?" *The Economist's Voice* (2012), <http://fbkfinanzwirtschaft.files.wordpress.com/2010/10/delong-is-unemployment-structural.pdf>.
- ¹⁴ U.S. Congress Joint Economic Committee, "Addressing long-term unemployment after the Great Recession: The crucial role of workforce training." Washington, DC: U.S. JEC (2011), http://www.jec.senate.gov/public/?a=Files.Serve&File_id=97c2e98e-a791-47fc-a324-6b407948e083.
- ¹⁵ Linda Levine, "The increase in unemployment since 2007: Is it cyclical or structural?" Washington, DC: Congressional Research Service (2013), <http://www.fas.org/sgp/crs/misc/R41785.pdf>.

-
- ¹⁶ Till von Wachter, "Responding to long-term unemployment," Testimony before the Subcommittee on Income Security and Family Support of the Committee on Ways and Means, (10 June 2010), http://www.columbia.edu/~vw2112/testimony_waysandmeans_Till_von_Wachter_10June2010_final.pdf. Kathryn Anne Edwards and Alexander Hertel-Fernandez, "The kid aren't alright: A labor market analysis of young workers," Washington, DC: Economic Policy Institute (April 2010), <http://www.epi.org/publication/bp258/>. Hanan Morsy, "Scarred generation," International Monetary Fund, *Finance and Development* 49 (March 2012), <http://www.imf.org/external/pubs/ft/fandd/2012/03/morsy.htm>.
- ¹⁷ National Employment Law Project, "Hiring discrimination against the unemployed," New York, NY (2011), <http://www.nelp.org/page/-/UI/2011/unemployed.discrimination.7.12.2011.pdf>. Institute for Research on Labor and Employment, "The stigma of unemployment: When joblessness leads to being jobless," Los Angeles: University of California Anderson School of Management (2011), <http://escholarship.org/uc/item/7nh039h1>.
- ¹⁸ Bivens et al., "From free-fall to stagnation."
- ¹⁹ Josh Bivens and Heidi Shierholz, "Three years into recovery, just how much has state and local austerity hurt job growth?" Washington, DC: Economic Policy Institute (July 2012), <http://www.epi.org/blog/years-recovery-state-local-austerity-hurt/>.
- ²⁰ State and local government as well as local education are as reported by Bureau of Labor Statistics, Current Employment Statistics (accessed 14 March 2013). The change in employment is measured from June 2009 to February 2013. Local education consist largely of positions in K-12, including teachers, support staff, and administrators. For more information on local education see Heidi Shierholz, "Who has the better solution to the 300,000 teacher gap?" Washington, DC: Economic Policy Institute (2012), <http://www.epi.org/blog/solution-300k-teacher-gap/>.
- ²¹ Adam Looney and Michael Greenstone, "A record decline in government jobs: Implications for the economy and America's workforce," http://www.hamiltonproject.org/papers/a_record_decline_in_government_jobs_implications_for_todays_economy_an/. The authors estimate the change in employment for police officers and first responders for the period 2009 to 2011 based on data from the Current Population Survey.
- ²² Heidi Shierholz, "Labor force participation: Cyclical versus structural changes since the start of the Great Recession," Issue Brief No. 333, Washington, DC: Economic Policy Institute (2012), <http://www.epi.org/publication/ib333-labor-force-participation-since-great-recession/>.
- ²³ Michael Greenstone and Adam Looney, "Shrinking Job Opportunities: The challenge of putting Americans back to work," Washington, DC: Brookings Institution (6 January 2012), <http://www.brookings.edu/blogs/jobs/posts/2012/01/06-jobs-greenstone-looney>.
- ²⁴ National Employment Law Project, "Hiring discrimination against the unemployed," New York, NY (2011), <http://www.nelp.org/page/-/UI/2011/unemployed.discrimination.7.12.2011.pdf>.
- ²⁵ Till von Wachter, Jae Song and Joyce Manchester, "Long-term earnings losses due to mass-layoffs during the 1982 recession: An analysis using longitudinal administrative data from 1974 to 2004," Mimeo, Columbia University (2009).
- ²⁶ Till von Wachter, "Responding to long-term unemployment."
- ²⁷ Daniel Sullivan and Till von Wachter, "Job displacement and mortality: An analysis using administrative data," *Quarterly Journal of Economics* 124(3): 1265–1306.
- ²⁸ Heidi Hartmann and Jeff Hayes, "The Job Loss Tsunami of the Great Recession: Wave Recedes for Men, Not for Women," Washington, DC: Institute for Women's Policy Research (July 2011).
- ²⁹ Reported employment figures are from the Current Population Survey. According the Current Employment Statistics survey of employers, female employment hit bottom in September 2010.
- ³⁰ David Cooper, Mary Gable, and Algernon Austin, "The public-sector jobs crisis: Women and African Americans hit hardest by job losses in state and local governments," Washington, DC: Economic Policy Institute (2012), <http://www.epi.org/files/2012/bp339-public-sector-jobs-crisis.pdf>.
- ³¹ NELP analysis of CEPR Current Population Survey Outgoing Rotational Group uniform extracts.
- ³² National Women's Law Center, "Stronger recovery reaching women," (1 February 2013),

<http://www.nwlc.org/resource/stronger-recovery-reaching-women>.

³³ Christian E. Weller and Jaryn Fields, “Why African Americans struggle to find jobs and remain employed compared to whites,” Washington, DC: Center for American Progress (25 July 2011), <http://www.americanprogress.org/issues/labor/report/2011/07/25/9992/the-black-and-white-labor-gap-in-america/>.

³⁴ Bureau of Labor Statistics, “The African-American labor force in recovery,” Washington, DC: U.S. Department of Labor (February 2012), <http://www.dol.gov/sec/media/reports/blacklaborforce/>.

³⁵ David Cooper, Mary Gable, and Algernon Austin, “The public-sector jobs crisis: Women and African Americans hit hardest by job losses in state and local governments,” Washington, DC: Economic Policy Institute (2012), <http://www.epi.org/files/2012/bp339-public-sector-jobs-crisis.pdf>.

³⁶ NELP analysis of CEPR Current Population Survey Outgoing Rotational Group uniform extracts. In 2012, 69 percent of whites ages 25 and over in the labor force had at least some college experience and 40 percent completed at least a bachelor’s degree.

³⁷ Algernon Austin, “Asian Americans continued to suffer the most from long-term unemployment in 2011,” Washington, DC: Economic Policy Institute (May 2012), <http://www.epi.org/publication/ib323s-asian-american-unemployment-update/>.

³⁸ Marlene Kim, “Unfairly disadvantaged? Asian Americans and unemployment during and after the Great Recession (2007–10),” Washington, DC: Economic Policy Institute (April 2012), <http://www.epi.org/publication/ib323-asian-american-unemployment/>.

³⁹ National Council of La Raza, “Monthly Latino employment report,” Washington, DC (March 2013), http://issuu.com/nclr/docs/employment_report_march_2013_-_job_training_cuts?mode=window&pageNumber=2.

⁴⁰ Dean Baker and Kevin Hassett, “The human disaster of unemployment,” *New York Times* (12 May 2012), http://www.nytimes.com/2012/05/13/opinion/sunday/the-human-disaster-of-unemployment.html?_r=2&pagewanted=all&. Government Accountability Office, “Many experience challenges regaining employment and face reduced retirement security, GAO-12-445 (2012), <http://www.gao.gov/assets/600/590408.pdf>. Mark Szeltner, Carl E. Van Horn, and Cliff Zukin, “Diminished lives and futures: A portrait of America in the Great-Recession era,” Rutgers, NJ: Heldrich Center for Workforce Development (2013), http://www.heldrich.rutgers.edu/sites/default/files/content/Work_Trends_February_2013.pdf.

⁴¹ Carl E. Van Horn and Cliff Zukin, “The long-term unemployed and unemployment insurance: Evidence from a panel study of workers who lost a job during the Great Recession,” Rutgers, NJ: Heldrich Center for Workforce Development (2011), http://www.heldrich.rutgers.edu/sites/default/files/content/UI_Unemployed_Brief_0.pdf.

⁴² Sara E. Rix, “Recovering from the Great Recession: Long struggle ahead for older Americans,” Washington, DC: AARP Public Policy Institute, http://assets.aarp.org/rgcenter/ppi/econ-sec/insight50_recovering.pdf.

⁴³ Lori Trawinski, “Nightmare on Main Street: Older Americans and the mortgage market crisis,” Washington, DC: AARP Public Policy Institute (2012), <http://www.aarp.org/money/credit-loans-debt/info-07-2012/nightmare-on-main-street-AARP-ppi-cons-prot.html>.

⁴⁴ Richard W. Johnson and Barbara A. Butrica, “Age disparities in unemployment and reemployment during the Great Recession and recovery,” Washington, DC: Urban Institute (May 2012), <http://www.urban.org/UploadedPDF/412574-Age-Disparities-in-Unemployment-and-Reemployment-During-the-Great-Recession-and-Recovery.pdf>.

⁴⁵ Carl E. Van Horn and Cliff Zukin, “The long-term unemployed and unemployment insurance: Evidence from a panel study of workers who lost a job during the Great Recession,” Rutgers, NJ: Heldrich Center for Workforce Development (2011), http://www.heldrich.rutgers.edu/sites/default/files/content/UI_Unemployed_Brief_0.pdf.

⁴⁶ Richard W. Johnson and Barbara A. Butrica, “Age disparities in unemployment and reemployment during the Great Recession and recovery.”

⁴⁷ Lisa B. Kahn, “The long-term labor market consequences of graduating from college in a bad economy,” Draft (13 August 2009), http://mba.yale.edu/faculty/pdf/kahn_longtermlabor.pdf. Heidi Shierholz, Natalie Sabadish, and Hilary

Wething, "The class of 2012: Labor market for young graduates remains grim," Washington, DC: Economic Policy Institute (3 May 2012), <http://www.epi.org/publication/bp340-labor-market-young-graduates/>.

⁴⁸ Clive R. Belfield, Henry M. Levin, and Rachel Rosen, "The economic value of opportunity youth," (January 2012), http://www.civicenterprises.net/MediaLibrary/Docs/econ_value_opportunity_youth.pdf

⁴⁹ Annie E. Casey Foundation, "Youth and work: Restoring teen and young adult connections to opportunity," Kids Count Policy Report, <http://www.aecf.org/~media/Pubs/Initiatives/KIDS%20COUNT/Y/youthandworkpolicyreport/kidscountyouthandwork.pdf>.

⁵⁰ Jessica Godofsky, Cliff Zukin, Carl Van Horn, "Unfulfilled expectations: Recent college graduates struggle in a troubled economy," Rutgers, NJ: Heldrich Center (May 2011), http://www.heldrich.rutgers.edu/sites/default/files/content/Work_Trends_May_2011.pdf.

⁵¹ Thomas L. Spreen, "Recent college graduates in the U.S. labor force: data from the Current Population Survey," *Monthly Labor Review* (February 2013), <http://www.bls.gov/opub/mlr/2013/02/art1full.pdf>.

⁵² Thomas L. Spreen, "Recent college graduates."

⁵³ Annette Bernhardt, "Where the jobs are: A first look at private industry job growth and wages in 2010," New York, NY: National Employment Law Project (August 2010), <http://www.nelp.org/page/-/Justice/2010/WhereTheJobsAreAugust2010.pdf>.

⁵⁴ Dixie Sommers and James C. Franklin, "Employment outlook 2010–2020: Overview of projections to 2020," *Monthly Labor Review* (January 2012), <http://www.bls.gov/opub/mlr/2012/01/art1full.pdf>.

⁵⁵ John Schmitt and Janelle Jones, "Where have all the good jobs gone?" Washington, DC: Center for Economic and Policy Research (2012), <http://www.cepr.net/documents/publications/good-jobs-2012-07.pdf>. Annette Bernhardt, "The low-wage recovery and growing inequality," New York, NY: National Employment Law Project (August 2012), http://www.nelp.org/page/-/Job_Creation/LowWageRecovery2012.pdf.

⁵⁶ Schmitt and Jones, 2012.

⁵⁷ Schmitt and Jones, "Where have all the good jobs gone?"

⁵⁸ Bivens et al., "From free-fall to stagnation."

⁵⁹ Annette Bernhardt, "The good jobs deficit." The median hourly wage in 2012 dollars is \$7.69 to \$13.83 for low-wage occupations; \$13.84 to \$21.13 for mid-wage occupations, and \$21.14 to \$54.55 for high-wage occupations.

⁶⁰ Emmanuel Saez, "Striking it richer: The evolution of top incomes in the United States," (2013), <http://elsa.berkeley.edu/~saez/saez-UStopincomes-2011.pdf>.

⁶¹ Annie Lowrey, "Income inequality may take toll on growth," *New York Times* (16 October 2012), http://www.nytimes.com/2012/10/17/business/economy/income-inequality-may-take-toll-on-growth.html?pagewanted=all&_r=0.