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## Addressing Long-Term Unemployment After The Great Recession: The Crucial Role Of Workforce Training

United States Congress Joint Economic Committee

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## Addressing Long-Term Unemployment After The Great Recession: The Crucial Role Of Workforce Training

### Abstract

[Excerpt] With almost five unemployed workers for every job opening, the economy is not yet creating enough jobs to make a significant reduction in unemployment. Yet employers report that they are having difficulty finding skilled workers for key positions, despite the high ratio of unemployed workers to job openings. Helping workers build new skills and search more effectively for positions that are a good match for their skillset can help to address the mismatch. But to address the high rate of long-term unemployment, this report finds that policymakers will need to simultaneously spur job creation while also investing in education and training programs that can prepare workers for new employment opportunities.

### Keywords

jobs, employment, recession, unemployment, training, skills

### Comments

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**U.S. Congress Joint Economic Committee**

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**Addressing Long-Term  
Unemployment After The  
Great Recession:  
The Crucial Role Of Workforce Training**

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**A Report by the Joint Economic Committee Chairman's Staff  
Senator Bob Casey, Chairman**

**August 2011**

## **Addressing Long-Term Unemployment after the Great Recession: The Crucial Role of Workforce Training**

### **Executive Summary**

Two years after the Great Recession officially ended, unemployment remains above 9 percent. Equally alarming, the record long-term unemployment that characterized the Great Recession has shown few signs of abating and remains at near-record levels. Almost 4.5 million workers have been unemployed for a year or more. Another 1.7 million have been jobless for between six months and a year.

While no group of workers has been spared by the high-rates of long-term unemployment, older workers, those with only a high-school degree, construction workers, and African-American workers have faced disproportionately high rates of long-term unemployment. Even college-educated workers, who experience much lower rates of unemployment than their less-educated peers, have encountered long spells of unemployment, with more than one million of the 6.1 million long-term unemployed possessing a college degree.

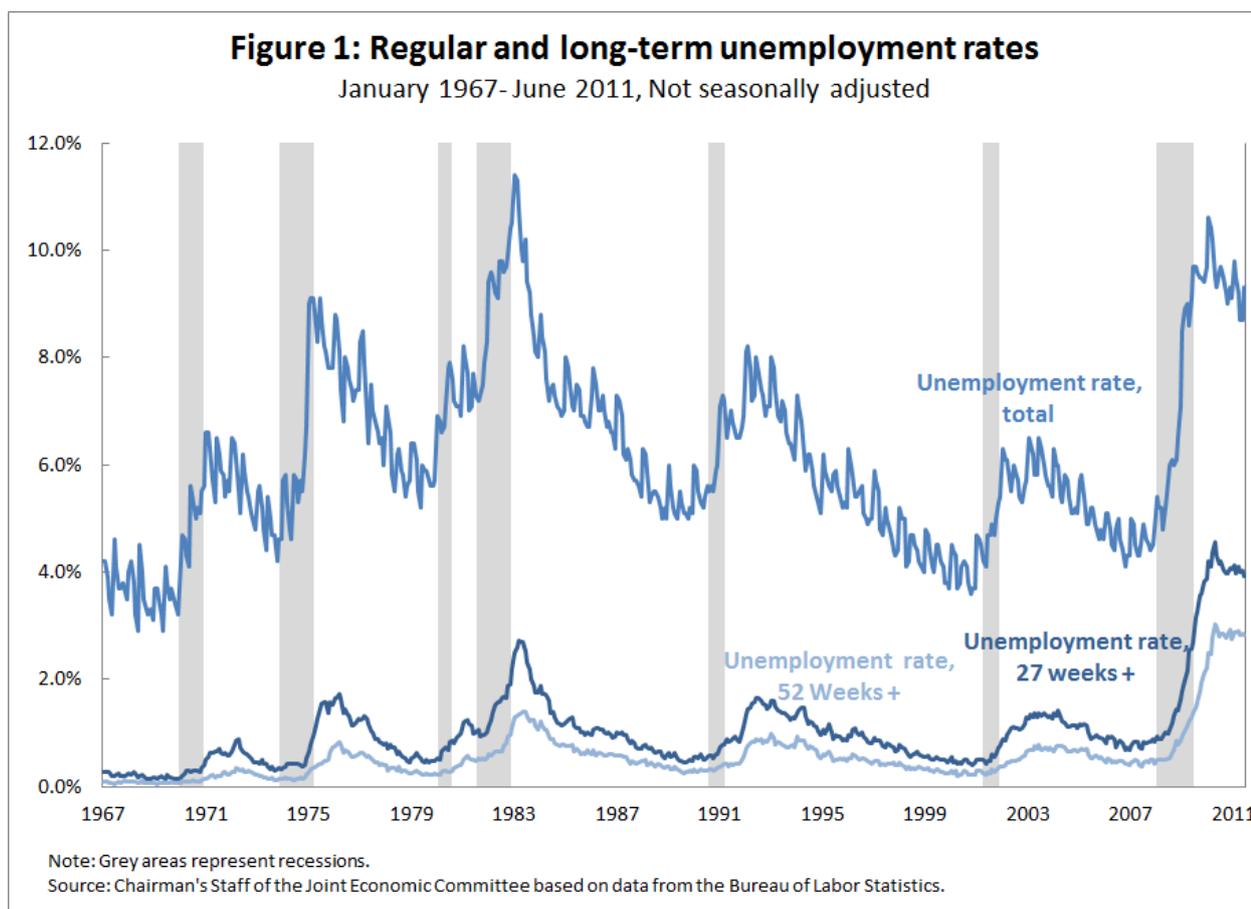
The challenge for policymakers is to begin to cut into these high rates of long-term unemployment and to do so quickly. The longer an individual is unemployed, the harder it is to find a job. Data from the Bureau of Labor Statistics show that those workers who are unemployed for less than five weeks are three times as likely to find work as those who have been unemployed for more than six months.

Even as economists continue to debate whether the high rates of unemployment and long-term unemployment are the result of cyclical or structural forces, there is an emerging consensus that continued long-term unemployment may be an ominous sign of lasting labor market problems that require government interventions. Cyclical unemployment should respond to continued growth in the economy. So far, the response has been slow. Structural unemployment presents different challenges and may require policy actions to better align workforce skills with job openings, among other steps. But, regardless of its root cause, persistent long-term unemployment has troubling long-term consequences for workers and for the economy, including lost wages, declining labor force participation, less consumption and a smaller tax base.

With almost five unemployed workers for every job opening, the economy is not yet creating enough jobs to make a significant reduction in unemployment. Yet employers report that they are having difficulty finding skilled workers for key positions, despite the high ratio of unemployed workers to job openings. Helping workers build new skills and search more effectively for positions that are a good match for their skillset can help to address the mismatch. But to address the high rate of long-term unemployment, this report finds that policymakers will need to simultaneously spur job creation while also investing in education and training programs that can prepare workers for new employment opportunities.

## Long-Term Unemployment Following the Great Recession

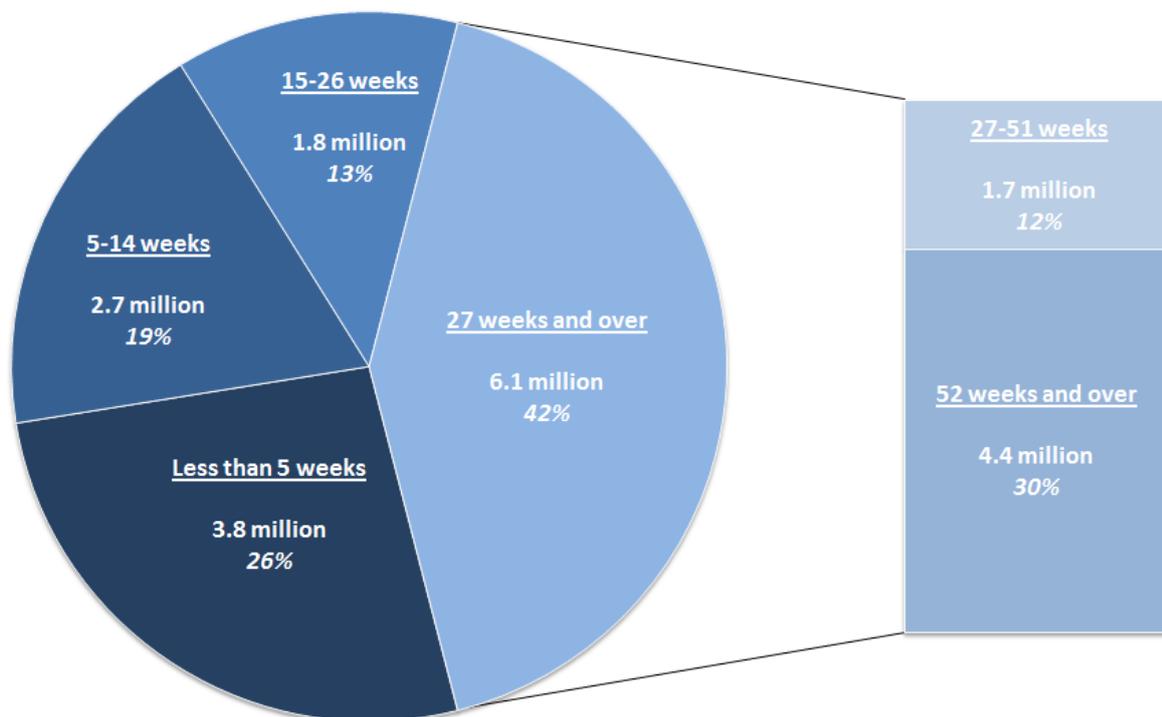
The Great Recession, which began in December 2007, was the most severe economic contraction the United States has experienced since the Great Depression. Although the recession officially ended in June 2009, monthly job losses continued until December 2009, pushing the unemployment rate to 10.1 percent at its peak. Even though the overall unemployment rate never reached the record set in during the 1980s downturn, the long-term unemployment rate quickly eclipsed the 1982-recession peak, hitting an all-time high of 4.4 percent following the Great Recession. (See **Figure 1**.) A string of sixteen consecutive months of expanding private-sector payrolls has added nearly 2.2 million jobs; however, it has done little to cure the problem of long-term unemployment. In fact, extraordinarily high rates of long-term unemployment are now a hallmark of the Great Recession and the ensuing recovery.



Long-term unemployment by all measures—the number of workers, as a percent of the labor force, and as a share of total unemployment—remains at near-record levels. Currently, more than 14.4 million Americans are unemployed and actively searching for work.<sup>1</sup> As the breakdown in **Figure 2** illustrates, forty-two percent (6.1 million unemployed workers) have been looking for work for at least six months and are considered long-term unemployed. Of those, 4.4 million—over 30 percent of all unemployed workers—have been searching for work for at least one year, referred to as very-long-term unemployed in the following discussion. Although some fraction of the unemployed had difficulty finding a job prior to the recession, the long-term and very-long-term unemployment rates were significantly lower before the most recent economic downturn began. In 2007, 17.6 percent of the unemployed had been looking for a job for over six months, while 9.9 percent had been searching for over a year.

**Figure 2: Share of unemployed by duration**

June 2011, Not seasonally adjusted



Source: Chairman's Staff of the Joint Economic Committee based on data from the Bureau of Labor Statistics.

### Long-term Unemployment across Demographic Groups, Industries, and Occupations

Long-term unemployment is not exclusive to any one industry, occupation or demographic group; however unemployed individuals in certain segments of the labor force are more prone to lengthy spells of joblessness than others.<sup>2</sup> In particular, among the unemployed, men are more likely to be long-term unemployed than women are, even though women have historically had a higher unemployment rate than men. Similarly, among the unemployed, older persons (55 and older) are more likely to be long-term unemployed than prime age persons (25 to 54 years). Across industries, jobless individuals from manufacturing, information, and financial activities are the most likely to be long-term unemployed, while those in the construction, education and health services, and leisure and hospitality industries are the least likely. Across occupations, the likelihood of being long-term unemployed is highest among jobless individuals in management, business and financial operations occupations, as well as in production, transportation, and material moving.<sup>3</sup>

As evidenced in **Table 1**, long-term unemployment rates—the number of individuals unemployed for 27 or more weeks as a percent of the relevant segment of the labor force—increased for all groups during the Great Recession. Rates also increase for the very-long-term unemployed. However, as **Table 2** shows, certain groups of workers are over-represented among the total unemployed population, meaning their share of the unemployed population is larger than their share of the labor force, and some groups make up disproportionate shares of the long-term and very-long-term unemployed.

*Age.* Young workers (16-19 years) make up a larger share of the total unemployed but constitute smaller shares of the long- and very-long-term unemployed. Young workers often leave the labor force to obtain additional training and education, keeping the duration of their unemployment spells relatively short. Conversely, older workers (45-54 and 55-64) are less likely to be unemployed, but make up larger shares of the long- and very-long-term unemployed populations.

*Race and Ethnicity.* The majority of long-term unemployed workers are white. However, long-term unemployment remains extraordinarily high among the black community, given their share of the labor force. In 2010, 21.5 percent of workers unemployed for more than 27 weeks were black and 22.4 percent of workers unemployed for more than 52 week were black, compared with 11.6 percent of the labor force. Hispanic workers' share of long-term unemployment also exceeds their share of the labor force, though to a lesser extent than for blacks.

*Education.* Across education groups, individuals without high school diplomas are less than one-tenth of the labor force but are one-fifth of unemployed persons. However, they are smaller shares of the long-term and very-long-term unemployed. Workers with only a high school diploma make up a much larger share of the unemployed and the long-term unemployed. In 2010, these workers made up one-fourth (24.8 percent) of the labor force, but more than one-third of the total, long-term, and very-long-term unemployed populations. Meanwhile, workers with a college-degree made up 30 percent of the labor force but only 16.7 percent of the long- and very-long-term unemployed populations.

*Industry.* Workers in several industries make up larger shares of the long-term and very-long-term unemployed relative to their shares of the labor force. The construction industry, which was hard-hit by the recession, represented 12.1 percent of long-term unemployment and 11.9 percent of very-long-term unemployment, but only 5.7 percent of the labor force in 2010. Similarly, manufacturing workers make up 13.8 percent of the long-term unemployed and 14.6 percent of the very-long-term unemployed, but only 9.9 percent of the labor force. Retail trade, leisure and hospitality, information, transportation and warehousing, and professional and business services also made up larger shares of long- and very-long-term unemployment than of the labor force.

*Occupations.* The largest gap between labor force shares and long-term unemployment shares are in lower-skilled occupations including production, transportation and material moving, as well as natural resources, construction and maintenance.

**Table 1. Long-term unemployment rates, 2007 and 2010 annual averages**

	Long-term unemployment rate (27 weeks or more)		Very-long-term unemployment rate (52 weeks or more)	
	2007	2010	2007	2010
<b>Gender</b>				
Male	0.9%	4.7%	0.5%	3.1%
Female	0.8%	3.6%	0.4%	2.4%
<b>Age</b>				
16-19	1.5%	5.9%	0.8%	3.5%
20-24	1.1%	5.3%	0.6%	3.3%
25-34	0.8%	4.3%	0.4%	2.8%
35-44	0.7%	3.8%	0.4%	2.5%
45-54	0.8%	4.0%	0.4%	2.8%
55-64	0.7%	3.9%	0.5%	2.7%
65 and older	0.6%	3.5%	0.4%	2.6%
<b>Race</b>				
White	0.7%	3.7%	0.4%	2.4%
Black	1.9%	7.7%	1.2%	5.4%
Hispanic	0.8%	4.9%	0.5%	3.3%
Asian	0.7%	3.6%	0.4%	2.6%
<b>Education</b>				
Less than high school diploma	2.4%	9.7%	1.4%	6.5%
High school diploma but no college degree	1.2%	6.3%	0.6%	4.2%
Some college	0.9%	7.7%	0.5%	5.2%
Associates degree	0.6%	3.6%	0.4%	2.4%
College graduates (4-year degree)	0.5%	2.3%	0.3%	1.6%
<b>Industry</b>				
Mining	0.4%	4.7%	0.1%	3.2%
Construction	1.0%	8.9%	0.5%	5.9%
Manufacturing	0.9%	5.8%	0.5%	4.1%
Wholesale trade	0.6%	3.9%	0.3%	2.7%
Retail trade	0.9%	4.5%	0.5%	3.0%
Transportation and warehousing	1.1%	5.0%	0.6%	3.7%
Utilities	0.5%	1.9%	0.1%	1.4%
Information	0.9%	5.1%	0.6%	3.6%
Financial activities	0.5%	3.6%	0.3%	2.3%
Professional and business services	0.9%	5.0%	0.5%	3.2%
Education and health services	0.7%	3.0%	0.4%	1.9%
Leisure and Hospitality	1.2%	4.8%	0.6%	3.1%
<b>Occupation</b>				
Management, business and financial operations	0.4%	2.6%	0.2%	1.7%
Professional and related occupations	0.4%	1.9%	0.2%	1.3%
Service occupations	1.0%	4.0%	0.5%	2.6%
Sales and office occupations	0.8%	4.1%	0.4%	2.8%
Natural resources, construction, and maintenance	0.9%	6.7%	0.5%	4.5%
Production, transportation, and material moving	1.1%	6.2%	0.6%	4.3%
Note: Unemployment rates are calculated as a percent of the relevant labor force.				
Source: Chairman's Staff of the Joint Economic Committee based on data from the Bureau of Labor Statistics, Current Population Survey.				

**Table 2. Distribution of labor force and unemployment, 2010 annual averages**

	Share of total labor force	Share of total unemployed	Share of persons unemployed for 27 weeks or more	Share of persons unemployed for 52 weeks or more
<b>Gender</b>				
Male	53.3%	58.2%	59.9%	60.1%
Female	46.7%	41.8%	40.1%	39.9%
<b>Age</b>				
16-19	3.8%	10.3%	5.4%	4.8%
20-24	9.8%	15.7%	12.4%	11.6%
25-34	21.8%	22.8%	22.5%	22.0%
35-44	21.7%	18.2%	19.6%	19.7%
45-54	23.4%	18.7%	22.4%	23.2%
55-64	15.1%	11.2%	14.0%	14.7%
65 and older	4.4%	3.0%	3.6%	4.1%
<b>Race</b>				
White	81.3%	73.6%	71.3%	70.3%
Black	11.6%	19.2%	21.5%	22.4%
Hispanic	14.8%	19.2%	17.4%	17.3%
Asian	4.7%	3.7%	4.1%	4.4%
<b>Education</b>				
Less than high school diploma	7.7%	20.5%	18.0%	18.1%
High school diploma but no college degree	24.8%	36.0%	37.6%	37.7%
Some college	14.9%	27.3%	27.7%	27.5%
Associates degree	9.0%	7.3%	7.9%	7.9%
College graduates (4-year degree)	29.9%	16.1%	16.7%	16.7%
<b>Industry</b>				
Mining	0.5%	0.5%	0.6%	0.6%
Construction	5.7%	12.3%	12.1%	11.9%
Manufacturing	9.9%	11.1%	13.8%	14.6%
Wholesale trade	2.5%	2.0%	2.4%	2.4%
Retail trade	10.8%	11.4%	11.7%	11.8%
Transportation and warehousing	3.2%	3.4%	3.8%	4.2%
Utilities	0.6%	0.3%	0.3%	0.3%
Information	2.0%	2.1%	2.5%	2.6%
Financial activities	5.9%	4.3%	5.2%	5.0%
Professional and business services	9.4%	10.7%	11.3%	10.7%
Education and health services	14.0%	11.1%	10.0%	9.4%
Leisure and Hospitality	8.5%	11.1%	9.7%	9.6%
<b>Occupation</b>				
Management, business and financial operations	14.3%	7.5%	9.0%	9.0%
Professional and related occupations	21.0%	9.8%	9.7%	9.4%
Service occupations	17.8%	19.0%	17.1%	16.5%
Sales and office occupations	23.9%	22.4%	23.6%	23.7%
Natural resources, construction, and maintenance	10.1%	16.9%	16.2%	16.2%
Production, transportation, and material moving	12.1%	16.0%	17.8%	18.5%
Note: Gender, race, age and education categories may not sum to 100 percent due to rounding. Industry and occupation categories do not sum to 100 percent because several categories are excluded from this table.				
Source: Chairman's Staff of the Joint Economic Committee based on data from the Bureau of Labor Statistics, Current Population Survey.				

## Has the Cyclical Unemployment Problem Become Structural?

Economists continue to debate whether stubbornly high unemployment and long-term unemployment in today's economy are cyclical or structural phenomena. If cyclical factors are keeping unemployment elevated, the problem will cure itself as the economy improves. However, structural factors such as a skills mismatch will keep unemployment high even if job creation improves significantly. In that case, a persistent high unemployment rate will impair the labor market recovery and eventually derail the economic recovery.

Data initially released by the Bureau of Labor Statistics suggested that relative to the unemployment rate at the time, the number of job openings was unusually high during and following the recession, leading some economists to hypothesize that the unemployment problem could be structural.<sup>4</sup> A subsequent revision to the data showed fewer job openings than initially reported, allaying some fears; however, several recent studies have found evidence of significant structural unemployment among the unemployed. A recent IMF Working Paper found that structural unemployment has increased at the national level, with large variation across states.<sup>5</sup> Likewise, a separate analysis found that as much as 40 percent of the increase in long-term unemployment during the Great Recession is attributable to structural factors.<sup>6</sup>

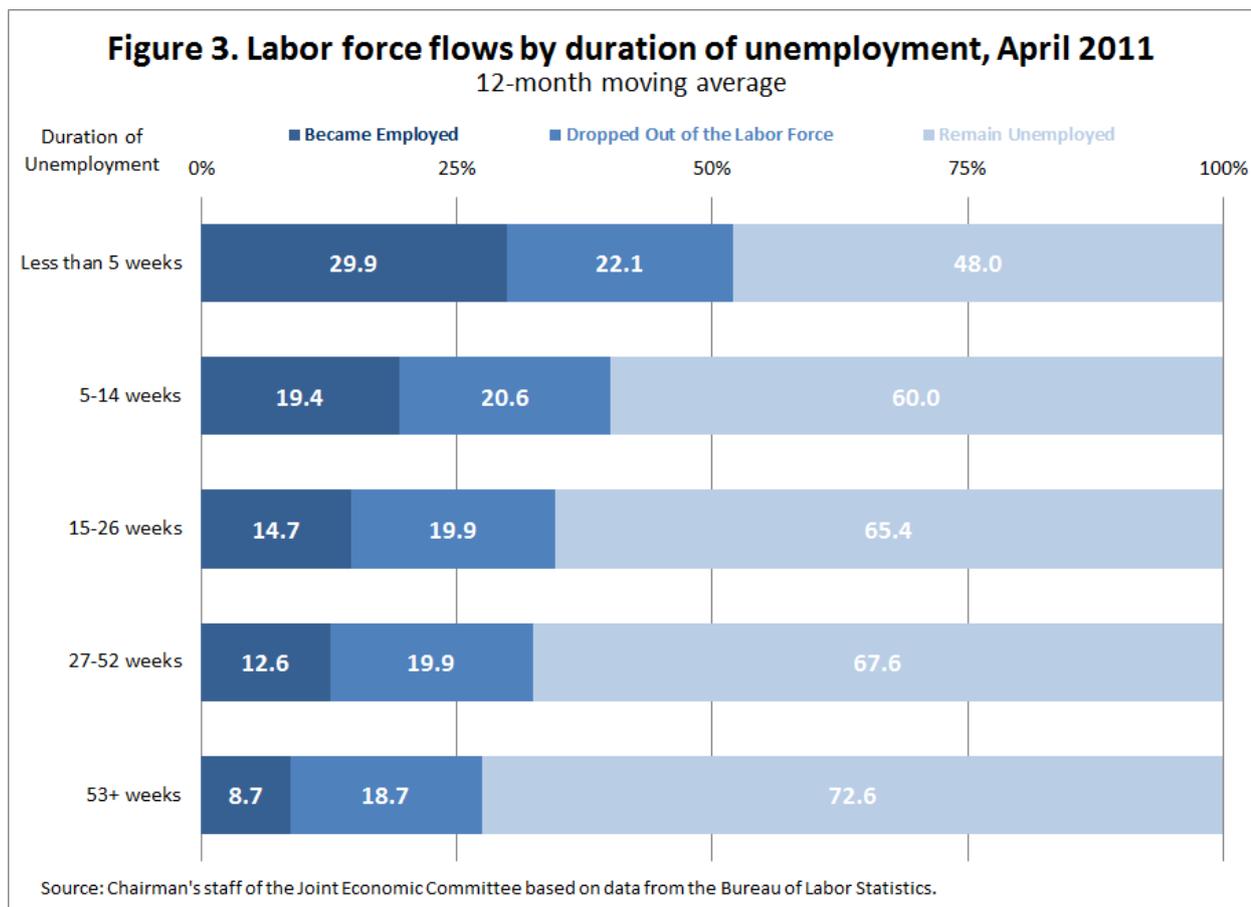
Many economists who believe that the current unemployment rate is due to weak demand worry that persistent cyclical unemployment could lead to a future structural unemployment crisis – as occurred in Europe in the 1980s. Former Council of Economic Advisers Chair Christina Romer recently cautioned that structural unemployment “could rise further if we don't reduce cyclical unemployment quickly.”<sup>7</sup>

Most importantly, the high long-term unemployment rate is an omen of persistent labor market problems that must be addressed. The Great Recession markedly impacted the likelihood of moving out of unemployment and into employment, and this problem is likely to continue. The likelihood of finding a job declines dramatically the longer an unemployment spell lasts even during periods of economic growth. In 2010, individuals who were unemployed for at least 27 weeks had only a 10 percent chance of becoming employed in the subsequent month, compared to 30 percent for those unemployed for less than 5 weeks.<sup>8</sup> As job searches drag on, workers' skills may deteriorate and employers may be more likely to deem them unemployable, making it more difficult for these workers to find new jobs. Additionally, many job postings now explicitly state that only currently employed or recently laid-off workers will be considered, which presents another hurdle for those workers who have been out of work for six months or more.<sup>9</sup>

## Data Foreshadow a Potential Labor Force Participation Crisis

The probability of unemployed individuals finding work falls as their unemployment spells drag on, meaning they become more likely to either stay unemployed or drop out of the labor force entirely. As **Figure 3** shows, as of April 2011, 29.9 percent of workers unemployed for less than 5 weeks found employment, 22.1 percent dropped out of the labor force, and the remaining 48 percent stayed unemployed. For individuals unemployed for 27 to 52 (6 months to one year) weeks, far fewer, 12.6 percent, found work, 19.9 percent dropped out of the labor force, and the remaining 67.6 percent stayed unemployed. Among those unemployed for more

than one year, only 8.7 percent found work, 18.7 percent dropped out, but almost three-quarters, 72.6 percent, stayed unemployed meaning they continued searching for work.

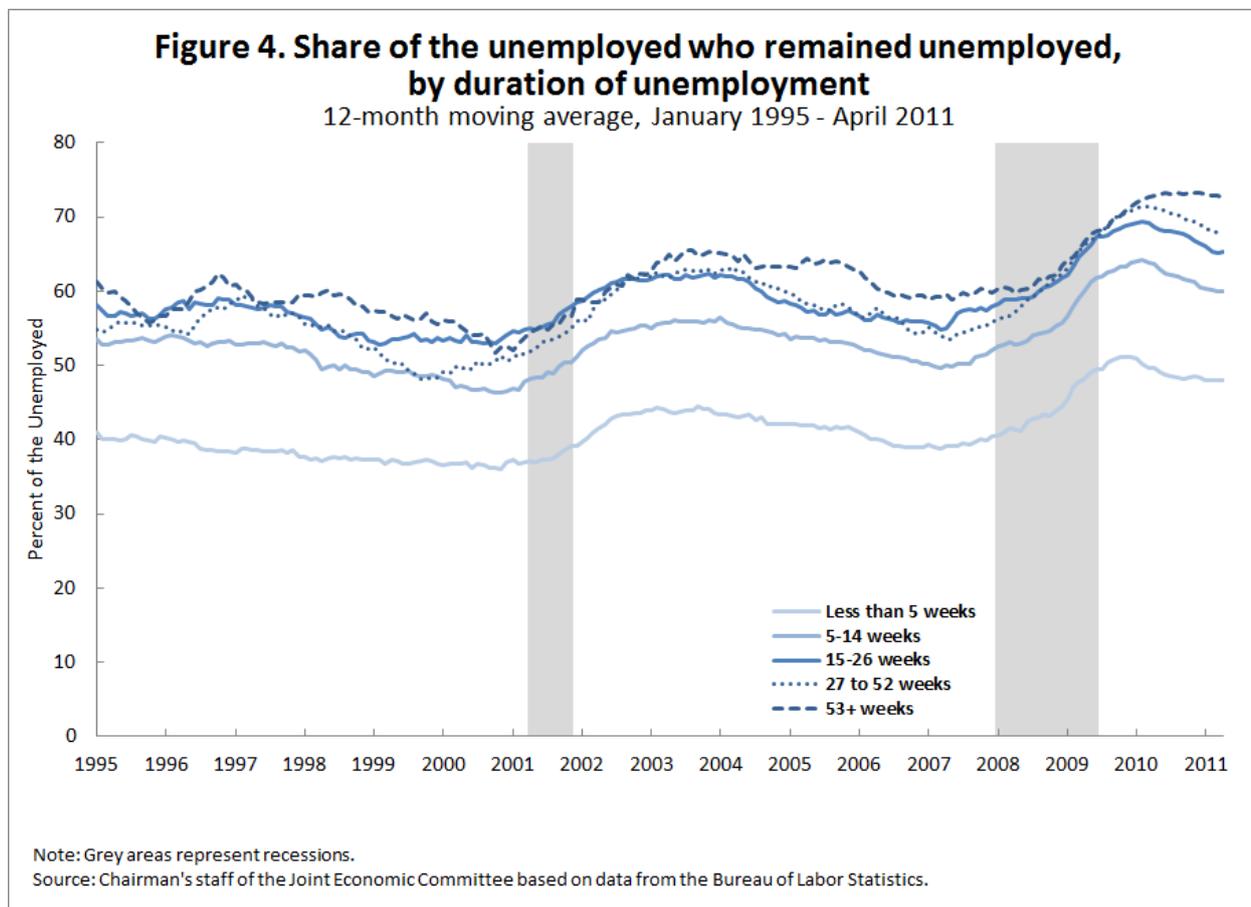


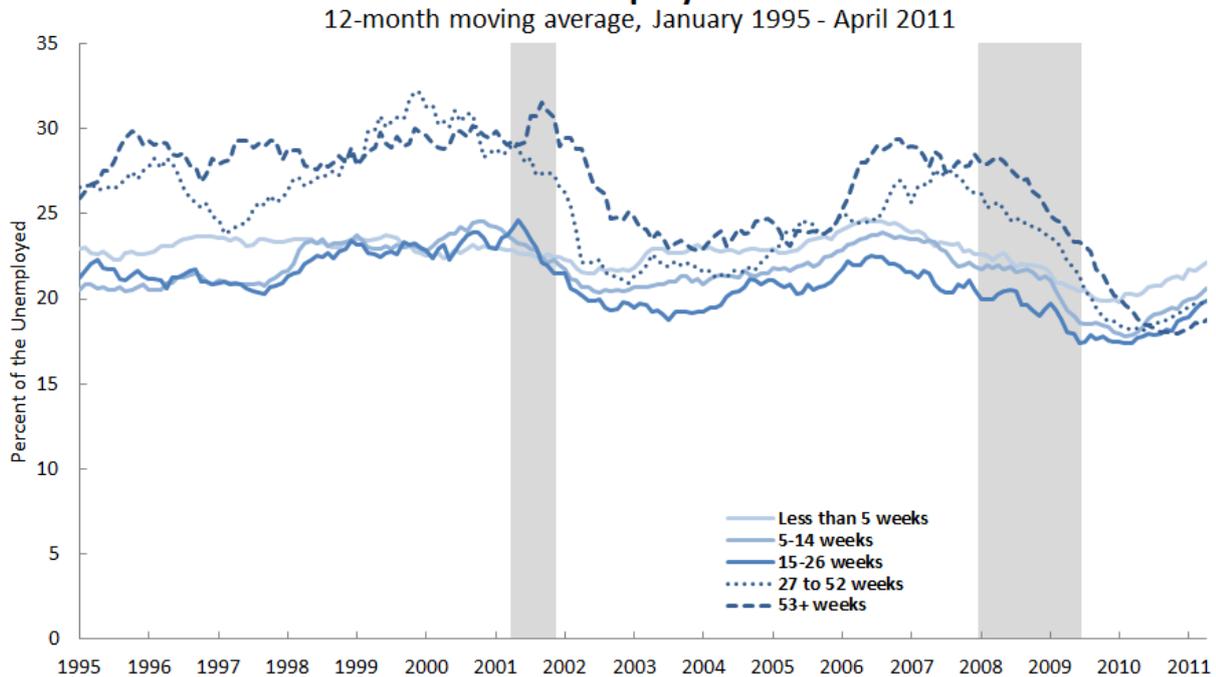
The Great Recession dramatically reduced the likelihood that long-term unemployed individuals find work and significantly increased the length of time unemployed persons spend looking for work before leaving the labor force. In 2010, unemployed individuals who dropped out of the labor force typically did so after searching for work for 20 weeks, or roughly five months. Prior to the recession, in 2007, unemployed individuals typically spent just 8.5 weeks, or roughly two months, searching before giving up.<sup>10</sup>

There are many possible explanations for the elevated attachment to the labor force in the aftermath of the Great Recession, including the extension of unemployment insurance benefits, reductions in household wealth associated with declining home values and equity markets, and a reluctance to accept a lower-paying job, especially among the highly-skilled.

The extension of unemployment insurance benefits to 99 weeks likely played a role in keeping some unemployed workers, including the very long-term unemployed, searching for work and attached to the labor force. However, for older workers, it is more likely that many of the unemployed simply cannot afford to retire. Household net worth as a share of disposable personal income started falling in mid-2007, due to dramatic declines in the stock market and housing values, and it has not yet recovered to pre-recession levels.<sup>11</sup> Retirement account balances also declined with the stock market, which has not recovered to its recent peak. In addition, the long-term unemployed population is now comprised of many highly-skilled and educated individuals who are less likely to leave the labor force in order to get more training. Instead they hold out and continue to search for a job that matches their skillset.<sup>12</sup> And some

workers may be holding out for higher-paying jobs that take advantage of their current skills and education in order to afford their mortgages; the housing market's collapse makes downsizing more difficult. The likelihood of staying unemployed has fallen over the past twelve months for most groups, except for those unemployed for over one year (see **Figure 4**), while the probability of leaving the labor force after being unemployed for over one year is near its historical low (see **Figure 5**).<sup>13</sup>



**Figure 5. Share of the unemployed who left the labor force, by duration of unemployment**

Note: Grey areas represent recessions.

Source: Chairman's staff of the Joint Economic Committee based on data from the Bureau of Labor Statistics.

## The Importance of Labor Force Participation

Keeping workers attached to the labor force—actively searching for job opportunities while they are not employed—is critical to a healthy economy. Individuals may separate from the labor force for a number of reasons. On the one hand, they may leave the labor force upon retirement, to return to school, or to tend to family responsibilities. However, they may also drop out of the labor force because they become discouraged and believe they cannot find a job.<sup>14</sup> In the absence of a steady paycheck, disabled workers may turn to the Social Security disability insurance program and some workers may turn to other programs for financial support.<sup>15</sup> The absence of these workers in the labor force will further strain the federal deficit, even without any additional federal spending, as tax revenues from these workers are lost.

Despite the lower drop-out rates of the unemployed, at 64.1 percent, the overall labor force participation rate remains 1.9 percentage points below its pre-recession level and 3.2 percentage points below its all-time peak reached in early 2000. Labor force participation never fully recovered from the 2001 recession and has fallen throughout the most recent recession and recovery. Assuming the size of the civilian population did not change, an additional 7.7 million workers would need to enter the labor force in order for the participation rate to match its March 2000 level of 67.3 percent.

Even small changes in the labor force participation rate can have large consequences for the economy and budget by hindering the economy's potential. For example, Macroeconomic Advisers' latest long-term economic forecast projected a two percentage point increase in the labor force participation rate by 2020; while the Congressional Budget Office (CBO) projected the rate would decline by an additional percentage point to almost 63 percent. The three percentage point gap between the two forecasts—66 percent versus 63 percent—implies a difference of nearly five million potential workers in the labor force.<sup>16</sup> According to CBO, slower growth in the labor force would reduce the rate of return on capital which would have implications for the federal budget, including the amount of interest paid on federal debt and Social Security trust fund balances.<sup>17</sup>

### **Effective Workforce Training Programs Could Ease the Problem**

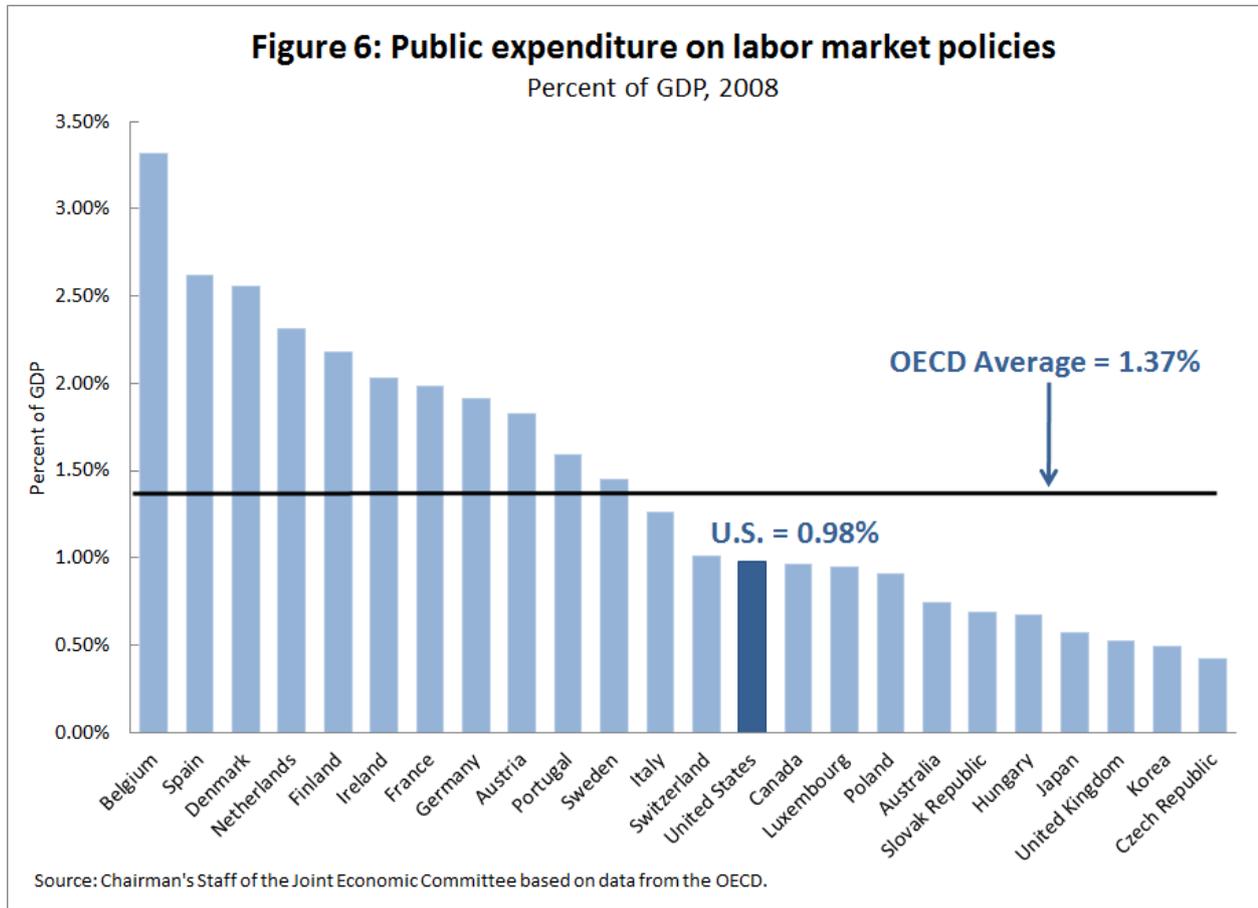
Whether or not structural unemployment is currently a problem, there is a strong likelihood that it will become a problem in the future. Scars on the labor force caused by a severe recession can cause a permanent rise in unemployment, or hysteresis, which has been documented in European countries.<sup>18</sup> As the BLS data show, the longer an individual is unemployed, the harder it becomes to find a job. Skills atrophy and networks fade making it harder and harder to find work. Investing in workforce training programs can help unemployed workers improve their job prospects and prevent hysteresis.

Nearly 2.5 million unemployed workers came from jobs in industries like construction and financial services that may take years—not months—to recover. When these sectors do recover, the jobs created in aftermath of the Great Recession will likely be very different than the jobs destroyed in the downturn. For these workers, job training could provide a path to employment in growing segments of the economy.

A significant portion of the long-term unemployed are highly educated and may benefit from assistance in matching their current skills to employers' needs. Programs that help unemployed workers effectively search for job opportunities suited to their skillsets could help reduce the length of time it takes employers to fill job openings with qualified candidates. Additionally, if employers are having difficulty identifying workers with the desired skills, additional training for unemployed workers that matches the needs of expanding sectors and occupations could make those workers more attractive to hiring employers. Notably, the United States spends considerably less than other developed countries on labor market policies, including workforce training and job search programs.<sup>19</sup> As shown in **Figure 6**, the U.S. invested less than 1.0 percent of gross domestic product on labor market policies in 2008, compared to an average of nearly 1.4 percent of GDP among other OECD countries. At the individual level, the U.S. invested only \$908 per labor market participant—\$84 dollars or 9.3 percent less than the average amount spent by other OECD countries.

Putting in place and bringing to scale effective workforce programs that strengthen and target skills for growth sectors of the economy is critical to addressing the nation's long-term unemployment challenge. Without strategic investments in worker training, high rates of unemployment and long-term unemployment will persist, resulting in greater outlays for the government, a reduction in revenues and slower economic growth. The upcoming reauthorization of the Workforce Investment Act provides an opportunity to modernize and reform federal job training programs to ensure that the programs are as efficient and effective

as possible and are delivering the greatest return on investment. Proven training programs deliver benefits to both workers—who gain new skills which lead to employment—and employers who are able to find the skilled workers they need to operate and expand their businesses. Arming workers with new skills is not only needed to tackle high rates of long-term unemployment, it is critical to bolstering the United States’ competitive position and strengthening the economy.



## Sources

- <sup>1</sup> Bureau of Labor Statistics, Current Population Survey, as of June 2011. This discussion references data that are not seasonally adjusted. The seasonally adjusted number of unemployed persons was 14.1 million in June 2011, versus 14.4 million, not seasonally adjusted.
- <sup>2</sup> Hornstein, Andreas and Thomas A. Lubik. *The Rise in Long-Term Unemployment: Potential Causes and Implications*. The Federal Reserve Bank of Richmond. 2010 Annual Report.
- <sup>3</sup> Ibid.
- <sup>4</sup> Speech by Narayana, Kocherlakota. August 17, 2010. Available at [http://www.minneapolisfed.org/news\\_events/pres/speech\\_display.cfm?id=4525](http://www.minneapolisfed.org/news_events/pres/speech_display.cfm?id=4525).
- <sup>5</sup> Estevão, Marcello and Evridiki Tsounta. *Has the Great Recession Raised U.S. Structural Unemployment?* IMF Working Paper. May 2011. In addition, Kirkegaard (2009) and Sahin, Song, Topa and Vaiolante (2011) have found evidence of structural unemployment. For these papers see: Kirkegaard, Jacob Funk. *Structural and Cyclical Trends in Net Employment over U.S. Business Cycles, 1949-2009: Implications for the Next Recovery and Beyond*. Peterson Institute for International Economics, WP 09-5; and Sahin, Aysegul, Joseph Song, Giorgio Topa and Gianluca Violante. *Mismatch in the Labor Market: Evidence from the U.S. and the U.K.* 2011.
- <sup>6</sup> Chen, Jinzhu, Prakash Kannan, Prakash Loungani and Bharat Trehan. *New Evidence on Cyclical and Structural Sources of Unemployment*. IMF Working Paper. May 2011.
- <sup>7</sup> Speech by Christina D. Romer at Washington University. "The Continuing Unemployment Crisis: Causes, Cures, and Questions for Further Study." April 12, 2011.
- <sup>8</sup> Ilg, Randy. "How Long Before the Unemployed Find Jobs or Quit Looking?" *Issues in Labor Statistics*. U.S. Department of Labor, U.S. Bureau of Labor Statistics. May 2011.
- <sup>9</sup> "The Help-Wanted Sign Comes With a Frustrating Asterisk," New York Times, Catherine Rampell, July 25, 2011.
- <sup>10</sup> Ilg, 2011.
- <sup>11</sup> Federal Reserve, Flow of Funds Accounts of the United States. F.100 Household and Nonprofit Organizations, Balance Sheet as of 1<sup>st</sup> quarter of 2011. Available at <http://www.federalreserve.gov/releases/z1/Current/z1.pdf>.
- <sup>12</sup> Krueger, Alan. "Why Unemployment Rose So Much, Is Falling So Fast." Bloomberg Opinion. March 30, 2011.
- <sup>13</sup> Data on labor force flows by duration of unemployment are available beginning in 1994.
- <sup>14</sup> Bureau of Labor Statistics. Labor force participation during recent labor market downturns. *Issues in Labor Statistics*. U.S. Department of Labor. September 2003. Available at <http://bls.gov/opub/ils/pdf/opbils51.pdf>.
- <sup>15</sup> Joint Economic Committee. May 2010. *Extending Unemployment Insurance Benefits: The Cost of Inaction for Disabled Workers*. Available at [http://jec.senate.gov/public/?a=Files.Serve&File\\_id=d5003466-eb78-4a91-b5b1-eb99c2982166](http://jec.senate.gov/public/?a=Files.Serve&File_id=d5003466-eb78-4a91-b5b1-eb99c2982166).
- <sup>16</sup> Macroadvisers blog post. April 28, 2011. "Good News: U.S. Labor Force Growth Through 2020 Could Be Faster Than Widely Expected." Available at <http://macroadvisers.blogspot.com/2011/04/good-news-us-labor-force-growth-through.html>.
- <sup>17</sup> Congressional Budget Office. *How Slower Growth in the Labor Force Could Affect the Return on Capital*. October 2009.
- <sup>18</sup> Ball, Laurence. "The unemployment crisis." *Columbia Management: 2011 Perspectives*. Available at <http://www.columbiamanagement.com/Content/docs/2011Perspectives.pdf>.
- <sup>19</sup> Joint Economic Committee Chairman's Staff calculations based on data from the Organisation for Economic Co-operation and Development (OECD).