Testimony before the U.S. Senate Committee on Finance

Robert E. Hall
McNeil Joint Senior Fellow and Professor
Hoover Institution and Department of Economics
Stanford University
January 22, 2015

Chairman Hatch, Ranking Member Wyden, and Members of the Committee, I am pleased to appear before you today to discuss the state of the U.S. labor market. I am an economist with a long-standing research program on the labor market and the overall performance of the U.S. economy. I am a past president of the American Economic Association and a member of the National Academy of Sciences.

1 Low employment growth despite falling unemployment

At 5.6 percent in December 2014, the U.S. unemployment rate is back to normal. But the number of people at work is well below its historical growth path. Between 2011 and 2014, unemployed fell by a heartening 2.7 percentage points. This three-year decline was the second largest in the history of the unemployment survey, exceeded only by a decline in 1951 during the Korean War. But employment rose by only 4.6 percent over those three years. Normal three-year employment growth during expansions with large declines in unemployment has been 7.1 percent. The U.S. has suffered a severe employment shortfall despite the excellent progress in bringing unemployment back to normal since the depths of the Great Recession.

Though the labor market is, overall, in normal conditions today, some imbalances remain from the financial crisis and deep recession. On the one hand, short-term unemployment—the fraction of the labor force who became unemployed within the past 6 weeks—is remarkably low. At 1.6 percent, it is lower than ever before recorded. This measure of unemployment was 1.7 percent in the strong labor market of 2007, just before the crisis, when the overall

unemployment rate was a robust 4.6 percent, and was 1.8 percent in the even stronger labor market of 2000, when the unemployment rate was 4.0 percent. Another measure showing an exceptionally strong market is the average time taken by employers to fill jobs. Longer recruiting times indicate that the condition of the labor market is favorable to jobseekers and correspondingly more difficult for employers to match with those jobseekers. At 28 days, average duration is the same as in the strong market of 2007 and above the 26 days recorded in 2001, a year of low (4.8 percent) unemployment.

On the other hand, long-term unemployment, a legacy of the wave of deep job loss from the crisis, remains above normal. In 2014, workers still searching after 6 months of unemployment accounted for 2.1 percent of the labor force, down from a peak of double that level in 2010, but above the normal level of about one percent of the labor force. Fortunately, long-term unemployment is on a fairly steep downward path and should reach normal soon. Another indicator showing remaining slack in the labor market is the fraction of workers who would choose full-time work if available, but are now on part-time schedules. At 3.0 percent, it is above its normal level of about two percent. It too is declining and should reach normal soon.

Another indicator of that some economists bring into the diagnosis of labor-market conditions is the rate of increase of workers' pay. The Employment Cost Index of the Bureau of Labor Statistics is a comprehensive measure of pay, including fringe benefits, and incorporating adjustments for the changing composition of the workforce. Its recent rate of growth, in 2012 and 2013, has been just under two percent per year, below its average level from 2000 through 2011 of 3.1 percent. Because the rate of growth of the cost of living fell by about one percent per year over the same period, growth in real, inflation-adjusted, wages has been close to constant. Declining rates of productivity improvement have also been a drag on wage growth. The role of labor-market conditions in determining wage growth appears to be fairly small—over the period of stable, low inflation starting in 1985, the ECI grew by 3.6 percent per year in years of below-average unemployment and by 3.1 percent per year in years of above-average unemployment. Most of the fluctuations in wage growth arise from other factors, including productivity growth.

My conclusion is that the U.S. labor market is back to normal in terms of unemployment, job-finding, and recruiting. The success of the our economy in repairing the damage in the labor market from the financial crisis is a tribute to the functioning of our market-based

economy. U.S. success in restoring normal unemployment stands in sharp contrast to some major European economies, where unemployment remains high—in some cases, much higher than it ever reached here.

2 Disappointing employment growth

Many observers take the low rates of employment growth during the recovery from the Great Recession as a conclusive indicator of poor labor-market performance. My investigation suggests that the forces governing employment growth are more complicated. The starting point for the analysis is the simple observation that employment is the number of people desiring to work multiplied by the fraction of them who are working. Those desiring to work are called labor-force participants. They comprise the employed plus the unemployed. Thus unemployment is a central determinant of employment—if the number of participants is constant, employment fluctuates in the opposite direction from unemployment. On the other hand, if unemployment is constant, fluctuations in employment arise from from fluctuations in the number of participants. With growth in the working-age population, it is customary to state these relationships in terms of the employment/population ratio, the labor-force participation rate (participants/population), and the unemployment rate (unemployment/particpants).

Thus the key to understanding the puzzlingly low growth of employment during the recovery from the Great Recession is the decline in the labor-force participation rate. Figure 1 shows the history of the rate for years since 1990. The working-or-searching fraction of the working-age population rose gradually during the 1990s, began to decline in 2000, flattened for a few years, then began falling dramatically starting in 2009.

In the years immediately after 2009, the decline was generally interpreted as a response to the high unemployment of the Great Recession. In early recessions, small declines in participation occurred. But that interpretation is not tenable today, because the recovery of unemployment resulted in no recovery in participation. Rather participation fell by about the same amount per year while unemployment was rising, in 2009 and 2010, as when it was falling, in 2011 through 2014. The evidence points unambiguously toward other forces, in addition to poor availability of jobs prior to 2014.

The changing composition of the working-age population is one candidate to explain the decline in participation—the entry of the baby-boom generation to years of possible

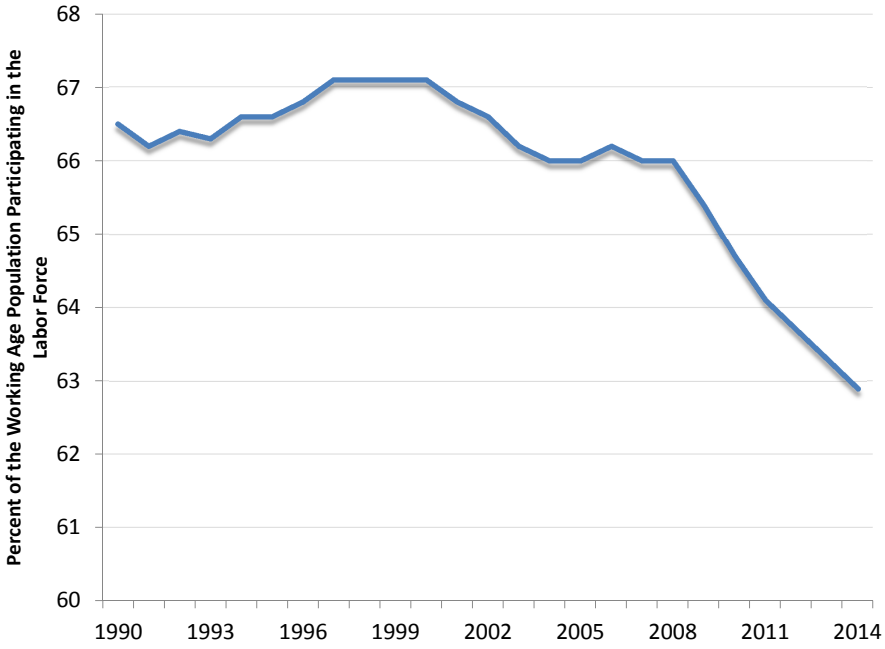

Figure 1: Labor-Force Participation Rate, 1990-2014

retirement decreased the participation rate. But another demographic trend, toward higher education, had the opposite composition effect, and the net effect of demographic change is essentially zero, according to research by Robert Shimer at the University of Chicago.

Economists have pointed to the increasing role of the social safety net in the labor market over the years since the crisis as a source of declining participation. A bulge in the number of individuals receiving disability benefits is one aspect of this trend. The social security disability program discontinues support for claimants who start working, so those receiving benefits face a strong disincentive to join the labor force. A much larger bulge in the fraction of families receiving food-stamp benefits is a similar source of disincentive. Both bulges have failed to dissipate despite the recovery of normal job availability.

Professor Nicolas Petrosky-Nadeau of Carnegie-Mellon University (currently on leave at the Federal Reserve Bank of San Francisco) and I have launched a research project aimed at understanding the forces leading to the decline in overall labor-force participation rate and variations around that rate in segments of the labor force. This testimony and the attached brief report are early results of the project.

Table 1 shows the change in participation from the years of high participation, 1998-1999, to recent years, 2011-2013, broken down by age, sex, and two categories of household income (above or below the median). Income includes all cash earnings plus all cash benefit

	Men		*Women*	
	Lower half	*Upper half*	*Lower half*	*Upper half*
Teenagers	-7.1	-15.6	-8.8	-15.9
20 to 34	-4.4	-4.7	-1.9	-3.8
35 to 59	1.4	-1.7	0.4	-0.9
60+	4.7	2.8	3.9	8.9

Table 1: Changes in Labor-Force Participation Rates by Age, Sex, and Family Income, from 1998-2000 to 2011-2013

receipts. Teenagers had huge declines in participation in all four groups: men in lower and higher income households and women in those households. In most cases, the teenagers are not the major contributor to income. The most telling finding for teenagers is that for both men and women, the decline in participation was greater in the more prosperous families.

Young adults, those aged 20 through 34, also had declines in all four groups, with about equal declines in the two income groups for men and larger declines for women in the more prosperous families. In the group containing the highest earners, those aged 35 through 59, participation remained about the same, with small increases in lower-income families and slight decreases in higher-income ones. Among people of retirement age, 60 and above, men had moderate increases in participation, larger in lower-income families, while women had quite a large increase in participation in higher-income families and a moderate increase in lower-income families.

The table makes it clear that a single force, such as low availability of work, is an unlikely candidate to explain the changes that occurred in participation. Rather, the changes seem likely to be different for people in different situations. Most of the decline in participation occurred among teenagers and young adults. The finding that these effects tend to be larger in more prosperous families points strongly away from much of a role for rising influence of benefit programs, because these programs, especially food stamps, are only available to families with incomes well below the median.

Some indication about the changing balance between work and other uses of time comes from the American Time Use Survey, which began in 2003. Table 2 shows the change in weekly hours between 2003 and 2013 in a variety of activities. For men, the biggest change by far is the decline of 2.5 hours per week at work, a big drop relative to a normal 40-

	Personal care	*Household work*	*Market work*	*Education*	*Leisure*	*Other*
Men	1.3	0.1	-2.5	0.2	1.3	-0.4
Women	1.6	-0.7	-0.8	-0.1	0.8	-0.8

Table 2: Changes in weekly hours of time use, 2003 to 2013, people 15 and older

hour work week. A small part of the decline is attributable to higher unemployment—the unemployment rate was 6.0 percent in 2003 and 7.4 percent in 2013. The decline for women is much smaller, at 0.8 hours per week. For both sexes, the big increases were in personal care (including sleep) and leisure (mainly video-related activities). Essentially no change occurred in time spent in education. Women cut time spent on housework.

3 Conclusions

The return to essentially normal unemployment conditions is an important milestone for the U.S. labor market. The period of abnormal difficulty for new job-seekers is over, and the legacy of long-duration unemployment appears likely to work itself out soon. In that respect, the labor market is performing well, especially in comparison to the markets of many other countries. No special policies related to unemployment and job-finding are indicated at present.

The decline in labor-force participation is one of the factors contributing to the stagnation of the earnings of American families, especially those not enjoying the rising wages of the highly educated. But a study of the data on the decline does not suggest the desirability of policy changes focusing on reversing the decline. In particular, the data do not seem to support the view that the social safety net is discouraging participation—participation by those in low-income families has generally risen, not fallen. That said, the case for structural reform of some parts of the safety net, notably disability programs, remains strong, because reform promises payoffs apart from stimulating participation.

Changes in US Household Labor-Force Participation by Household Income*

Robert E. Hall
Hoover Institution and Department of Economics
Stanford University
National Bureau of Economic Research
rehall@stanford.edu; stanford.edu/∼rehall

Nicolas Petrosky-Nadeau
Federal Reserve Bank of San Francisco
and Carnegie Mellon University
nicolas.petrosky-nadeau@sf.frb.org; sites.google.com/site/npetroskynadeau/

January 19, 2015

The fraction of the working age population in the U.S. working or looking for work—the participation rate—decreased steadily from a high of 67 percent in the late 1990s to 64 percent in 2013. But the overall trend masks important differences in labor supply behavior across households of varying levels of income. The Survey of Income and Program Participation (SIPP) reveals that individuals living in the poorest households have bucked the trend—their participation in the labor market rose over the same period.

Administered by the Census Bureau since 1983, the SIPP is a panel survey intended to provide comprehensive information on the income and program participation dynamics of individuals and households in the United States. The sample is selected to be representative of the civilian non-institutional population age 15 and over, and the survey collects detailed information on respondents' labor force activities, cash and in-kind income, wealth, and participation in government programs, as well as a wide range of demographic data.

The federal government created the SIPP to remedy shortcomings in the existing survey data on household incomes and benefit-program dependence. Prior to the SIPP, the primary source of such data was the March Income Supplement to the Current Population Survey (CPS), administered by the Bureau of Labor Statistics. Among the major limitations of the March Supplement data was its reliance on respondents' ability to recall their income accurately over the prior year and its reliance on a single observation for each household, which prevented most analysis of the evolution of individuals' and households' income and program participation over time. The SIPP's design addressed these shortcomings by interviewing respondents every four months over the course of several years. The SIPP User's Guide (2001) provides additional information on the history and method of the survey.

Figure 1 shows the participation rates of individuals 16 and older broken down by the total

*This note is an early report on a research project on labor-force participation. Visit the authors' websites for updates. Opinions here are those of the authors and not the Federal Reserve Bank of San Francisco. We thank Canyon Bosler of the bank for excellent research assistance.

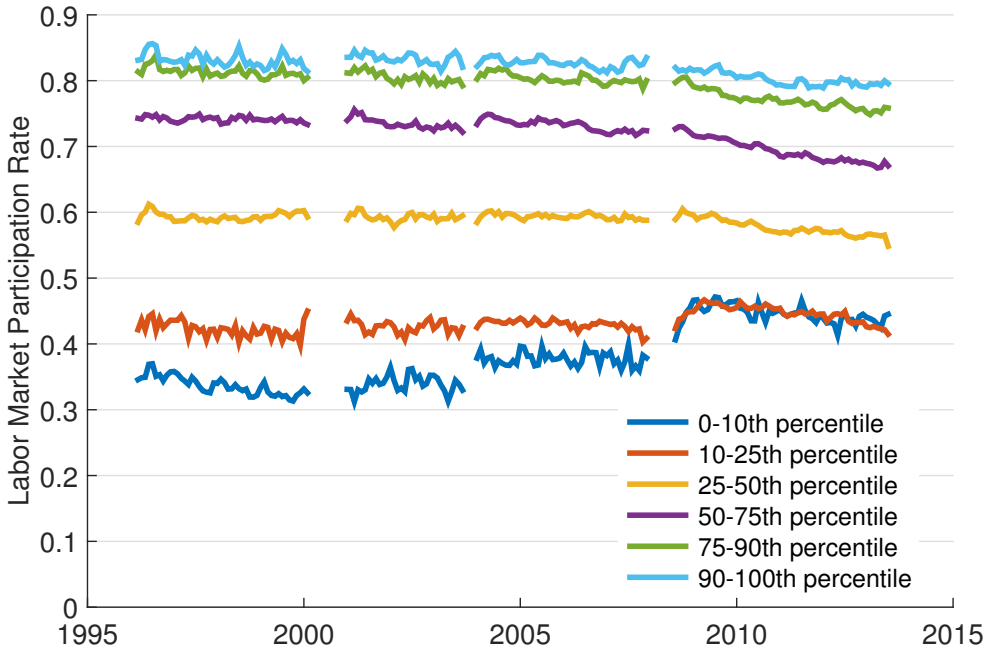

Figure 1: Labor market participation rates across the household income distribution. Author's calcultations based on SIPP data.

income of the household in which they live. Incomes are stated as ranges of percentiles, starting with the bottom 10 percent of the income distribution and ending with the top 10 percent. The data run from February 1996 through April 2013. In the latter period, the 10th-percentile group has incomes less then $935 per month. The next cut off, $1,740 per month, encompasses the lower quarter of U.S. household in terms of total income. The median household income is $ 3,360 per month, while the cut offs for the 75th and 90th percentiles are, respectively, $5,920 and $9,215 per month.

The period we call 1998-1999 runs from December 1997 through November 1999 and the one we call 2011-2013 runs from May 2011 through April 2013. We chose these periods to avoid the times when one cohort of respondents is leaving the SIPP and another joining. In the bottom 10 percent of households by household income, 33 percent of individuals participated in the labor market in 1998-1999. By 2011-2013 this proportion was 44 percent. At the other end of the household income distribution, the rate of labor market participation fell from 81 to 76 percent. The largest decline was for individuals living in households in the third quartile of the household income distribution, where the participation rate fell from 74 percent to 68 percent. The total decline in participation between the two periods was quite similar in the SIPP and the CPS. The CPS does not collect data on household income comparable to the data collected in the SIPP.

There is variation by age and sex in these trends. Table 1 reports the percentage point change in labor market participation rates for women and men of different age groups, and living in households in different quartiles of the household income distribution. Several striking feature appear in the table. First, the overall pronounced decline in participation of teenagers, from 46 to 33 percent, is concentrated in households in the upper half of the income distribution. Teenagers living in the 25 percent of households with the highest incomes had a 16 percentage-point decline in participation, compared to a 5 percentage-point decline for teenagers in the lowest quartile. Second, men and

women aged 35 to 65 in the lowest income quartile increased participation substantially, by 8 percentage points for men between the ages of 35 and 50 and 11 percent for men in between the ages of 50 to 65. Third, the decline in labor market participation of prime aged workers is concentrated in household in the upper half of the income distribution. Finally, the overall increase in participation of individuals 65 years of age and over, from 13.7 percent to 18.2 percent, is mostly attributable to the increased participation of individuals in the highest household income quartile.

Table 1: Change in labor market participation rates: Age, sex, and household income

Quartile	1^{st}		2^{nd}		3^{rd}		4^{th}	
	men	women	men	women	men	women	men	women
Teenagers	-3.3	-7.1	-9.6	-10.4	-13.5	-15.6	-16.9	-16.2
20 to 35	-2.0	1.5	-5.3	-4.1	-5.6	-5.9	-3.9	-2.0
35 to 50	8.1	1.2	-0.2	-2.3	-1.5	-1.7	-1.0	-2.1
50 to 65	11.3	6.9	4.7	3.6	-0.4	3.3	-2.5	1.8
65 and over	3.0	1.4	-0.8	1.9	-0.2	4.4	6.2	8.7

Notes: Authors' calculations based on the SIPP. Each entry reports the difference in labor market participation rates between the average from December 1997 to November 1999, and the average from May 2011 to April 2013. The average cutoff for the "2011-2013" period for the first quartile is $1,740 per month, for the second $ 3,360 per month, and third $5,920 per month.

References

Bureau, C. (2001). *Survey of Income and Program Participation User's Guide* (Third ed.). Rockville: Census Bureau.

Data

Household total income

The SIPP collects a total household income variable and eleven variables tracking different types of income at the household level. The eleven variables cover social security (*thsocsec*), supplemental security (*thssi*), unemployment compensation (*thunemp*), veterans' payments (*thvets*), food stamps (*thfdstp*), earned income (*thearn*), means-tested cash transfers (*thtrninc*), property income (*thprpinc*), public assistance (*thafdc*), noncash/in-kind income (*thnoncsh*), and "other" income (*thothinc*). Total household income is the sum of the household-level earned, property, means-tested transfers, and "other" income variables.

Labor market status

Unlike the CPS, the SIPP constructs a comprehensive, week-by-week labor force history for all respondents, recorded on a weekly basis in the five variables *rwkesr1-rwkesr5*, with five different classifications:

(1) with job – working,

(2) with job – not on layoff, absent without pay,

(3) with job – on layoff, absent without pay,

(4) no job – looking for work or on layoff,

(5) no job – not looking for work and not on layoff.

This labor force history allow us to construct a CPS-style labor force classification for individuals in the SIPP. To do so, we classify someone as employed in a given month if their SIPP labor force status was 1 or 2 in the CPS reference week. For those whose SIPP status in the reference week was not 1 or 2 in the CPS reference week, we look at their status in the CPS reference week and the preceding three weeks. If during any of those weeks their SIPP labor force status was 3 or 4, they are classified as unemployed. If their SIPP labor force status was 5 for all four weeks, they are classified as not in the labor force.