

April 09, 2014

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Special Commentary

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Labor Force Participation: Where to Now?

The Fed's Participation Rate Conundrum

To judge the state of the labor market, the unemployment rate is likely the most ubiquitous data point used and has been a more pronounced input into monetary policy decision making since the 2008 financial crisis. In recent communications, however, the Federal Open Market Committee (FOMC) has backed away from its focus on the unemployment rate as a primary gauge of the labor market, eliminating its explicit tie of the unemployment rate to a potential rise in the federal funds target rate and stressing the review of other labor market indicators in policy making. The move has come as the unemployment rate has consistently declined faster than the Fed and most other analysts have projected in this recovery.

One key reason for the unexpectedly swift decline in the unemployment rate has been a drop in labor force participation. Since 2007, the labor force participation rate has fallen nearly three percentage points, the steepest decline in the post-World War II era. Multiple factors have played a role in the decline, including cyclical weakness in the labor market that has kept some workers from even searching for jobs. However, the participation rate began to decline in 2001, well ahead of the Great Recession, amid demographic and cultural shifts independent of the business cycle.

The degree to which the drop in labor force participation is due to cyclical influences versus structural trends is important in assessing the amount of slack remaining in the labor market. If the decline in labor force participation is due more to cyclical factors rather than longer-run secular trends, there may be more scope for the Fed to continue its historically accommodative monetary policy. Alternatively, if structural trends that have put downward pressure on labor force participation persist, the unemployment rate may be depicting a fairly accurate picture of the decline in labor market slack.

In this note, we look at how cyclical factors affect labor force participation and then review the structural trends that have dominated the participation rate over the past few decades. We then narrow in on the role demographics have played in the drop in the participation rate since the Great Recession. With the baby boomers reaching ages where labor force participation tends to decline dramatically, we find that about half of the drop in the participation rate since 2007 has been due to demographics. Demographics look likely to continue to weigh on the participation rate in the coming years. Even under a relatively optimistic scenario for a cyclical rebound in participation alongside more favorable secular trends, we see the labor force participation rate rebounding only slightly before beginning to decline again in 2016. If structural trends in place ahead of the recession continue and the cyclical recovery remains muted, the participation rate is set to fall at a pace similar to the decline experienced over the past five years.

Based on FOMC members' projections for growth and the unemployment rate, the Fed seems to anticipate a rebound in participation in the coming years. Yet if this outlook does not materialize, the unemployment rate would likely continue to fall faster than the Fed expects. With less slack in the labor market, inflation may sneak up on the Fed (and investors) and necessitate a rise in interest rates ahead of the timing currently signaled by committee members.

The labor force participation rate began to decline well ahead of the Great Recession.

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Cyclical Factors More Pronounced This Time Around

The labor force participation rate is the share of the civilian working-age population—ages 16 and older—employed or at least actively looking for work (i.e., searched for a job within the past four weeks). It is typical for participation to decline, or at least weaken, in periods in which the labor market has deteriorated. As employment falls and the ranks of the unemployed swell, some workers drop out of the labor force for a period to learn new skills, take care of family, or simply wait until the job market improves. Once hiring picks up, workers come back into the labor force as their perceived job prospects have improved, which puts upward pressure on the unemployment rate. This accounts for the tendency to treat the unemployment rate as a lagging indicator.

The cyclical dynamics of labor force participation have been fairly muted in the modern era.

As illustrated in Figure 1, the cyclical dynamics of labor force participation have been fairly muted in the modern era as secular trends have swamped cyclical movements. Since 1948, the participation rate has fallen an average of 0.02 percentage points per month during a recession compared to an average uptick of 0.01 percentage points per month during expansions. The trend in labor force participation since the Great Recession marks a significant departure from prior periods. More than four years after employment began to recover, labor force participation continues to decline. The severity of the past recession suggests that the cyclical forces of the most recent recession have been more pronounced than in prior periods.¹ For example, the number of workers marginally attached to the labor force—those who have looked for work within the past year but are not currently looking—remain elevated relative to the labor force (Figure 2). However, the continued decline in the labor force participation rate is also due to a turnaround in secular trends that have prevailed over the past five decades.

Figure 1

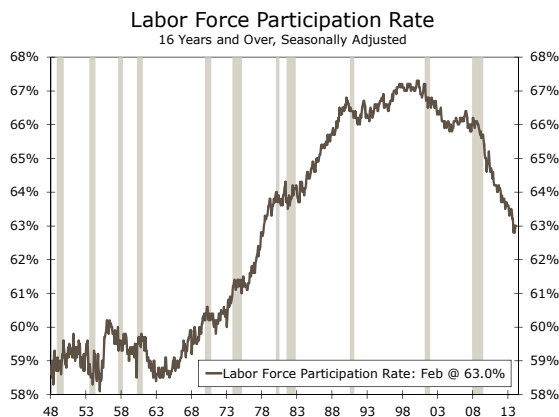
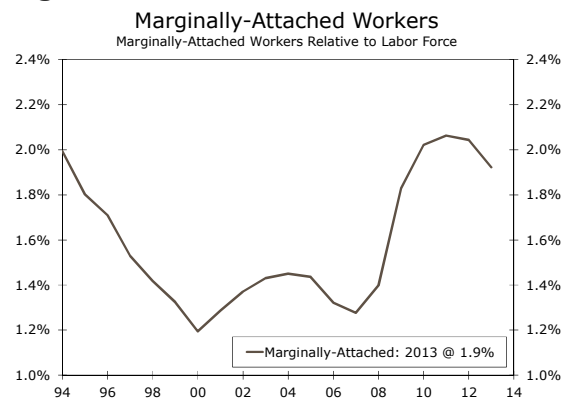


Figure 2



Source: U.S. Department of Labor and Wells Fargo Securities, LLC

Structural Trends: A Forceful Driver of Labor Force Participation

Beginning in the mid-1960s, the labor force participation rate was dominated by secular, rather than cyclical trends. First, women joined the workforce in droves. From 1948-1999, the female rate of participation nearly doubled (Figure 3). Second, in 1971, the first of the baby boomers entered their prime working years.² The sheer size of this cohort, combined with the traditional patterns of high rates of participation for workers age 25-54, further drove the overall labor force participation rate higher. After fluctuating around 59 percent between the late 1940s and early 1960s, the labor force participation rate climbed to reach a little more than 67 percent in the late 1990s.

¹ Van Zandweghe, Willem. 2012. "Interpreting the Recent Decline in Labor Force Participation." Federal Reserve Bank of Kansas City, *Economic Review*, First Quarter 2012.

² In this paper, we define the baby boom generation as those born between 1946-1964.

Figure 3

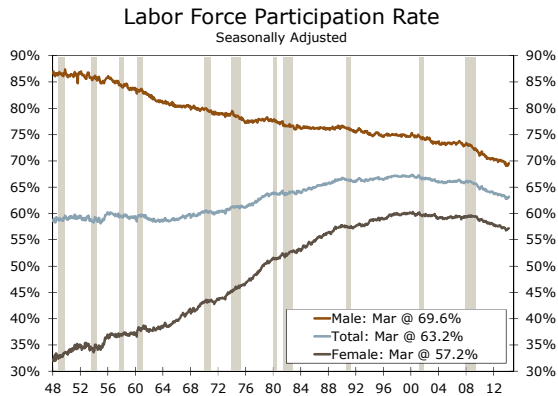
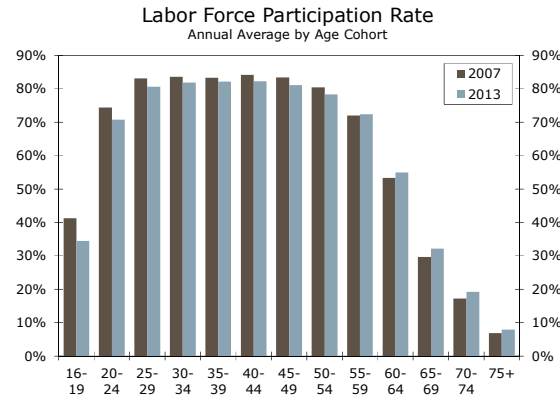


Figure 4



Source: U.S. Department of Labor and Wells Fargo Securities, LLC

Starting in 2001, however, the labor force participation rate began to decline as the trend in female participation and demographic factors began working against the labor force participation rate. Female participation peaked in 1999 at 60 percent and then plateaued over the 2000s. Meanwhile, in 2001, the first of the baby boomers turned 55 years old—an age at which participation historically begins to decline notably (Figure 4). Even as the participation rate has trended upward for older workers over the past decade, the uptick has been more than offset by the significant drop in participation rates relative to prime working years.

At the younger end of the age spectrum, the growing emphasis on a college education has also weighed on labor force participation. Pressures on high-school aged students to get into college has depressed the rate of participation for 16-18 year olds, while the rising share of young adults enrolled in college has reduced the rate of participation for 20-24 year olds.³

Demographics Account for About Half of Drop in Participation

The shift in the aforementioned secular trends has made it difficult in determining precisely how much of the decline in the labor force participation rate since the Great Recession struck has been due to cyclical weakness and, therefore, how much participation rates may bounce back once the labor market strengthens. To assess the degree to which demographics have weighed on the labor force participation rate since 2007, we look at how the distribution of the working-age population has shifted in recent years. As the baby boomers have aged, the share of the population age 55 and older has grown (Figure 5). If holding constant the participation rate for each detailed cohort since the recession began, demographics alone would have lowered the participation rate to 64.6 percent, or by 1.5 percentage points (Figure 6). Therefore, demographics appear to account for a little over half of the 2.8 percentage point drop in participation since 2007.

Demographics appear to account for a little over half of the drop in participation since 2007.

³ Anderson, Daniel, Kyung-Hong Park and Daniel Sullivan. 2007. “Explaining the Decline in Teen Labor Force Participation.” Federal Reserve Bank of Chicago. *Chicago Fed Letter*, January 2007 No. 234.

Figure 5

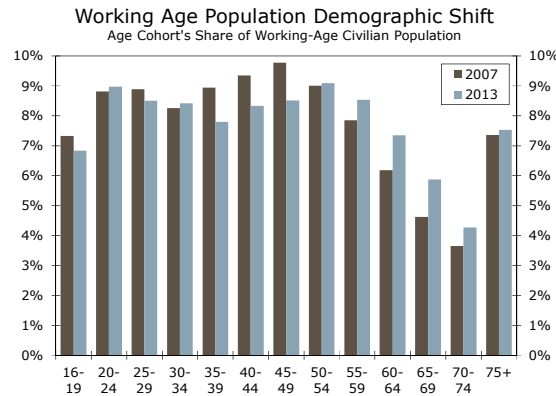
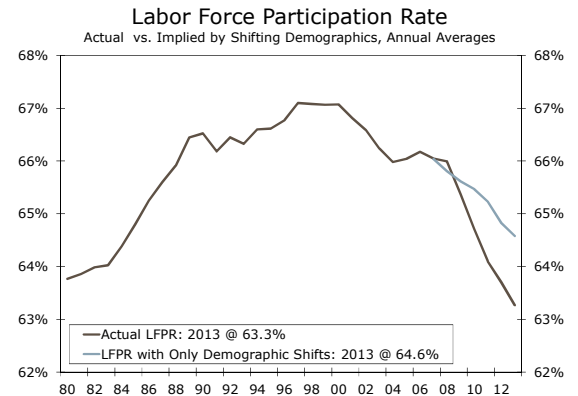


Figure 6



Source: U.S. Department of Labor and Wells Fargo Securities, LLC

That said, the participation rate for prime-age workers—ages 25-54—had started to fall well ahead of the 2007-2009 recession (Figure 7). Between 2000 and 2007, the prime labor force participation rate declined one percentage point. The drop in the prime-age participation rate ahead of the Great Recession suggests a structural decline beyond demographics and educational trends. More specifically, although the labor participation rate for prime-age women steadily increased in the latter half of the 20th century, it started to edge lower in 2000.

Meanwhile, the rate for prime-age men has been declining since the mid-1950s. There is no widely agreed upon reason for the ongoing decline in prime-age male labor force participation. However, one possible reason is increased social insurance—particularly disability insurance.⁴ Another possible explanation for the long-term decline in prime-age male participation is declining real wages for lower-skilled jobs.⁵ In other words, the opportunity cost of leisure has declined for lower-skilled workers.

Where Will the Labor Force Participation Rate Go From Here?

With ongoing structural shifts clouding the effect of cyclical weakness in the labor market, it is difficult to pinpoint precisely where the labor force participation rate will go from here. Employment remains just shy of its prerecession peak, which is a reminder of how weak the labor market remains four years after employers have been adding jobs again. If workers who have left the labor force due to weak employment prospects return as jobs become more abundant, labor force participation would rebound, at least partially. However, if the trends in participation that were in place ahead of the Great Recession continue, the participation rate looks set to decline further, although at a slower pace than in recent years when cyclical forces have also depressed participation.

To assess the future path of the labor force participation rate, we look at three potential scenarios for the cyclical and structural drivers of labor force attachment. We apply these factors to the participation rates of 13 age cohorts. We then use the Bureau of Labor Statistics’ projections of the civilian noninstitutional population by cohort to account for demographic shifts between age groups to determine the participation rate for the total working-age population.⁶

If the trends in participation that were in place ahead of the Great Recession continue, the participation rate looks set to decline further.

⁴ Autor, David H., and Mark Dugan. 2003. “The Rise in Disability Rolls and the Decline in Unemployment.” *Quarterly Journal of Economics*, vol. 118 (1), pp. 157-206.

⁵ Juhn, Chinhui. 1992. “Decline of Male Labor Force Participation: The Role of Declining Market Opportunities.” *Quarterly Journal of Economics*, vol. 107 (1), pp. 79-121.

Moffit, Robert A. 2012. “The Reversal of the Employment-Population Ratio in the 2000s: Facts and Explanations.” *Brookings Papers on Economic Activity*, Fall 2012.

⁶ BLS Labor Force Projections 2012-2022; http://www.bls.gov/emp/ep_data_labor_force.htm

An Optimistic Scenario for the Labor Force Participation Rate

In the first scenario, we make rather optimistic assumptions about the future trends in structural and cyclical factors in labor force participation. We assume that the longer-term structural trends that have weighed on participation rates for cohorts ages 16-49 cease at 2013 levels and participation rates for cohorts 50-75+ rise based on each cohort’s individual long-run trend.⁷ For the cyclical component, we assume that a stronger labor market brings the number of persons currently out of the labor force but want a job back to 2007 levels, the low point in the last business cycle. We use all persons who want a job rather than only the marginally attached in this scenario assuming that the labor market has been so weak that it has kept some folks who would like to be working outside the labor force for more than one year. The return of these workers back to 2007 levels would bring an additional 1.7 million workers into the labor force and boost participation rates across cohorts.⁸ Under this scenario, the labor force participation rate would rebound in 2014 before beginning to decline again in 2016 (Figure 8).

Even under an optimistic assumption about recent cyclical and structural trends, demographics would drive the labor force participation rate lower again in 2016.

Figure 7

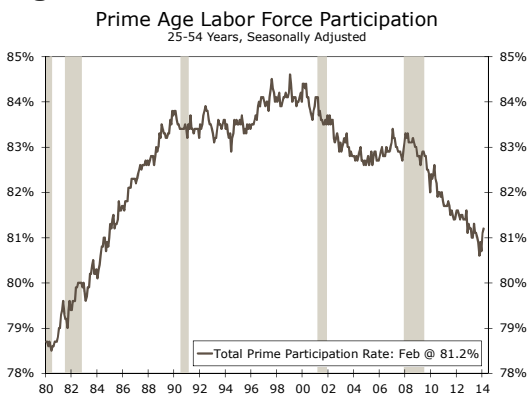
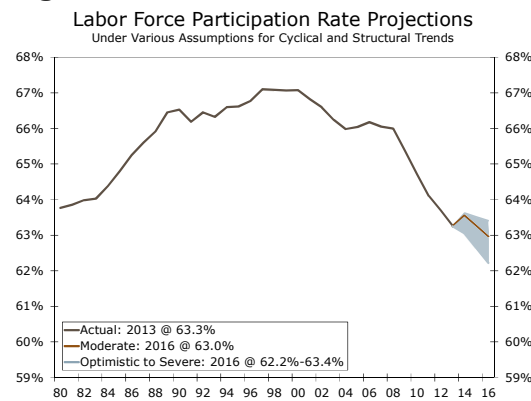


Figure 8



Source: U.S. Department of Labor and Wells Fargo Securities, LLC

A Moderate View of Future Trends in Labor Force Participation

In a more moderate scenario, we assume that the longer-term structural trends that were in place ahead of the Great Recession continue. Therefore the participation rates of persons ages 16-49 continue to decline, albeit at a more mild pace than in recent years, while participation rates for persons age 50 and older would increase in line with a cohort’s specific trend. We also assume that only the marginally attached—persons not in the labor force who are available for work and have looked for a job within the past year—return to the labor force as job conditions improve, rather than all persons out of the labor force but currently wanting a job, boosting the labor force by an additional 1.0 million workers between 2014 and 2016. The participation rate under this scenario would tick up in 2014 to 63.6 before resuming its downward trend and averaging 63.0 percent in 2016.

A Severe Case for the Labor Force Participation Rate

Under our pessimistic scenario, the long-term downward structural trends in participation rates for cohorts of workers 16-49 would continue. However, the upward trends in older workers’ participation rates would stabilize at 2013 levels as retirement savings have been rebuilt and workers feel more comfortable exiting the labor force. In this severe scenario, the labor market

⁷ We calculate a simple linear trend for each cohort based on when its participation rate trend began to change direction. In the case of cohorts ages 16-49, the trend ahead of the recession had been negative, while cohorts ages 55-75+ have seen participation rates trend higher to varying degrees over the past two decades. The participation rate for the 50-54 year old cohort was relatively flat from 1999-2007 before declining since the past recession, and therefore implies a modest rebound from 2013 levels in order to return to trend.

⁸ For the 1.7 million non-labor force participants who currently want a job, we assume they come back into the labor force over the next three years in proportion to their 2007-2013 average annual share of the “want a job” group.

recovery remains too weak to pull the marginally attached back into the workforce. The participation rate would decline to 62.2 percent in 2016 under this scenario.

Full Employment Reached Next Year?

As demonstrated since 2007, changes in participation can play a meaningful role in the path of the unemployment rate. Of course, the unemployment rate is also highly dependent on the pace of job creation in the economy. To view how these two factors interact, we estimate the unemployment rate under different rates of job growth, ranging from 150,000 to 250,000 jobs per month, and our projected rates of participation. Figure 9 plots the range of the unemployment rate, while detailed tables can be found in the appendix. It would take a slowdown in the rate of household employment growth to an average of 150,000 jobs per month under our optimistic and moderate scenarios for the decline in the unemployment rate to reverse course this year and average more than 2013's 7.4 percent. In contrast, the unemployment rate would decline further in 2014 from its current rate of 6.7 percent assuming job gains averaged 175,000 per month under our pessimistic outlook for the participation rate.

It appears FOMC members continue to anticipate a rebound in labor force participation.

Although the Fed has deemphasized the unemployment rate in recent months, it remains an important barometer for balancing the FOMC's objectives of price stability and maximum employment. Over the longer run, FOMC members project the unemployment rate would run between 5.2 percent and 5.6 percent under appropriate monetary policy. If structural trends in labor force participation remain unfavorable and/or job growth accelerates, the unemployment rate would be within the central tendency of FOMC members' long-term projections in 2015. The latest central tendency projections from the FOMC have the unemployment rate falling to a range of 5.6 percent to 5.9 percent in the fourth quarter of 2015. GDP growth is also expected to strengthen to more than 3.0 percent, which would presumably be accompanied by a pickup in employment growth. Therefore, it appears FOMC members continue to anticipate a rebound in labor force participation. If the Fed's outlook for labor force participation does not materialize, the Committee may be forced to raise rates more quickly than currently signaled or risk the inflation side of its mandate.

Figure 9

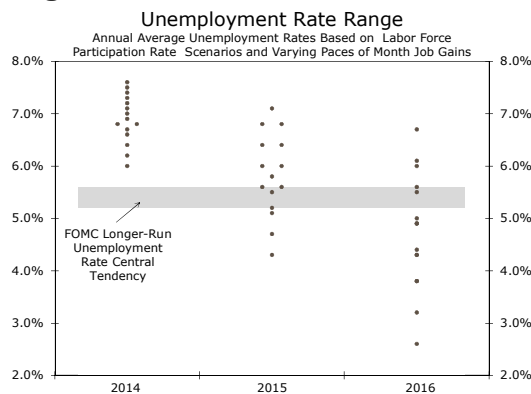
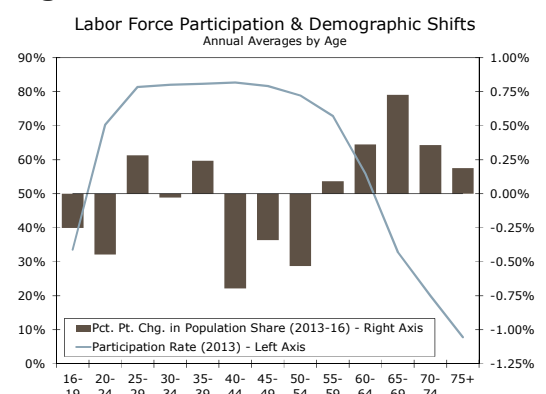


Figure 10



Source: U.S. Department of Labor and Wells Fargo Securities, LLC

Conclusion: Demographics Is Destiny

The graying of the population has been an important factor in the decline in the labor force participation rate since the past recession. Therefore, the drop in the unemployment rate may be more accurately depicting the amount of slack in the labor market than has been widely recognized. Even under our most optimistic scenario for workers coming back into the labor force and more favorable secular trends, the labor force participation rate is unlikely to rebound in a meaningful way between now and 2015 before beginning to decline again in 2016. Demographics will continue to weigh on the labor force participation rate as a greater share of the population reaches ages in which labor force attachment begins to decline markedly (Figure 10). In addition

to changing demographics, labor force participation in the coming years will be challenged if attachment continues to decline among prime-age workers, as was the case before the Great Recession.

If the labor force participation rate does not recover, the unemployment rate will likely continue to fall faster than the Fed expects. The unemployment rate would also reach the Fed's long-run target ahead of the Committee's latest projections, requiring the Fed to either raise interest rates earlier than currently signaled or risk a flare up in inflation greater than currently discounted in the marketplace. In a follow up report, we will look more closely at the slack in the labor market, given that the drop in the labor force participation rate will be difficult to reverse, and the implications on wage pressures and inflation.

Appendix

Unemployment Rate Projections

2014 Annual Average					
<u>LFPR Scenario</u>	Average Monthly Job Gains				
	150	175	200	225	250
Optimistic (63.6%)	7.6	7.4	7.2	7.0	6.8
Moderate (63.6%)	7.5	7.3	7.1	6.9	6.7
Severe (63.1%)	6.8	6.6	6.4	6.2	6.0

2015 Annual Average					
<u>LFPR Scenario</u>	Average Monthly Job Gains 2014-2015				
	150	175	200	225	250
Optimistic (63.5%)	7.1	6.8	6.4	6.0	5.6
Moderate (63.3%)	6.8	6.4	6.0	5.6	5.2
Severe (62.6%)	5.8	5.5	5.1	4.7	4.3

2016 Annual Average					
<u>LFPR Scenario</u>	Average Monthly Job Gains 2014-2016				
	150	175	200	225	250
Optimistic (63.4%)	6.7	6.1	5.6	5.0	4.4
Moderate (63.0%)	6.0	5.5	4.9	4.3	3.8
Severe (62.2%)	4.9	4.3	3.8	3.2	2.6

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