Trends in Labor Force Participation

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Assessing the Labor Market Recovery

Elevation and Recovery of Broader Measures of Unemployment

Remaining Elevation as of June 2015

- Percent Increase to Great Recession Peak
- Percent Recovered

Overall Unemployment Rate (UR) 0 90 100
Young (16-24) 6 71 92
Prime Age (22-54) -1 108 101
Elderly (55+) 5 110 95
U-4 (Unemployed + Discouraged) 3 92 97
U-5 (U-4 + Other Marginally Attached) 3 84 96
U-6 (U-5 + Part Time for Economic Reasons) 15 87 83
Short-Term (26 Weeks or Fewer) UR -8 64 113
Long-Term (27 Weeks or More) UR 31 326 91

Note: All rates are expressed as a percent of the labor force and are seasonally adjusted unless noted (*). Source: Bureau of Labor Statistics, Current Population Survey; CEA calculations.
Trends In Labor Force Participation and the Employment-Population Rate

Labor Force Participation and Employment/Population Rates

Percent of Population

Note: Shading denotes recession. All figures restricted to persons 16 years and older.
Four Potential Explanations of LFPR Decline

The LFPR rate fell 3.1 percentage points from 2007-Q4 to 2015-Q2. This can be attributed to:

**Structural**
1. **Aging of the population.** This is the mechanical impact of, for example, having fewer 55-59 year olds (male e-pop = 73%) and more 70-74 year olds (male e-pop = 20%).

2. **Non-aging trends.** E.g., prime-age male participation rates have been declining since the early 1950s and prime-age female participation rates have been declining since the late 1990s.

**Cyclical**
3. **Normal business cycle.** Historically, for every 1 percentage point elevation in the unemployment rate, the participation rate is 0.1 to 0.2 percentage points lower.

4. **Unusual business cycle.** The Great Recession was unusually severe and hit a labor market that has undergone structural changes, making the cyclical impact different.

*Note – CEA’s statistical analysis combines 2 and 4 as a residual.*
CEA’s Decomposition of the LFPR Decline

Labor Force Participation Decomposition

Percent of Civilian Non-institutional Population Aged 16+

Note: Year axis denotes first quarter of year noted. See 2015 Economic Report of the President for methodological details.
### Everyone Else’s Decomposition of the LFPR Decline

#### Comparison of Participation Rate Estimates

<table>
<thead>
<tr>
<th></th>
<th>Time Period</th>
<th>Shares of the Total Decline</th>
<th>CEA Estimated Shares Over Same Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Trend</td>
<td>Cycle</td>
</tr>
<tr>
<td><strong>Beginning in 2007</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBO (2014)</td>
<td>2007:Q4 – 2013:Q4</td>
<td>50%</td>
<td>33%</td>
</tr>
<tr>
<td>S. Aaronson et al. (2014)</td>
<td>2007:Q4 – 2014:Q2</td>
<td>82%</td>
<td>11%</td>
</tr>
<tr>
<td>D. Aaronson et al. (2014)</td>
<td>2007:Q4 – 2014:Q3</td>
<td>74%</td>
<td>13%</td>
</tr>
<tr>
<td>Erceg and Levin (2013)</td>
<td>2007-2012</td>
<td>17%</td>
<td>55%</td>
</tr>
<tr>
<td>Fallick and Pingle (2013)</td>
<td>2007:Q4 – 2013:Q2</td>
<td>75%</td>
<td>16%</td>
</tr>
<tr>
<td>Kudlyak (2013)</td>
<td>2007-2012</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Shierholz (2012)</td>
<td>2007-2011</td>
<td>31%</td>
<td>--</td>
</tr>
<tr>
<td>Van Zandweghe (2012)</td>
<td>2007-2011</td>
<td>42%</td>
<td>58%</td>
</tr>
<tr>
<td>Aaronson et al. (2006)</td>
<td>2007-2013</td>
<td>82%</td>
<td>--</td>
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</tbody>
</table>

**Other time periods**

<table>
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<tr>
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<th></th>
<th>Shares of the Total Decline</th>
<th>CEA Estimated Shares Over Same Time Period</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Trend</td>
<td>Cycle</td>
</tr>
<tr>
<td>Fujita (2014)</td>
<td>2000:Q1 – 2013:Q4</td>
<td>65%</td>
<td>30%</td>
</tr>
<tr>
<td>Aaronson, Davis, and Hu (2012)</td>
<td>2000-2011</td>
<td>40%</td>
<td>--</td>
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</tbody>
</table>

Source: Cited studies; CEA calculations.
Cyclical Component of the Decline

Detrended Participation Rate and (Inverted) Unemployment Gap

Source: Bureau of Labor Statistics; CEA calculations.
The Case for the Residual Being Non-aging Trends (i.e. Structural)

Source: Bureau of Labor Statistics; Aaronson et al. (2006); CEA calculations.
The Case for the Residual Being Unusual Business Cycle (i.e. Hopefully Cyclical)

Labor Force Participation Decomposition
Including Mean Duration of Unemployment

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Remaining Residual</th>
<th>Other Effects</th>
<th>Mean Duration (t-4)</th>
<th>Mean Duration (t-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>-0.0330*</td>
<td>0.00429</td>
<td>0.0151</td>
<td>-0.00406</td>
<td>-0.0142*</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td>0.00222</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Regression is estimated using data from 1960:Q1 to 2014:Q2. Newey-West standard errors using a maximum lag of 12 are reported in parentheses. Participation rate and unemployment gap are detrended using the procedure described in Appendix A. F-tests are joint significance tests of the disability insurance, mean duration, and schooling variables. * p<0.01.

Source: Bureau of Labor Statistics; CEA calculations.
Are a Range of Labor Market Variables Increasingly Cyclically Sensitive?

Labor Market Indicator Response
as a Percent of Increase in Overall Unemployment Rate

Source: Bureau of Labor Statistics; CEA calculations.
Rising Trend for Older Workers and Falling Trend for Younger

Labor Force Participation by Age

- Older (55+, right axis)
- Prime-Age (25-54, left axis)
- Younger (16-24, left axis)

Prime-Age LFPR Across OECD Economies

Prime-Age Male Labor Force Participation

Prime-Age Female Labor Force Participation
The Outlook for Participation

Alternative Scenarios for the Participation Rate

- Slow Cyclical, Full Residual Rebounds
- Slow Cyclical, Partial Residual Rebounds
- Slow Cyclical, No Residual Rebounds
- Slow Cyclical Rebound, Residual Decline
- Fast Cyclical, Full Residual Rebounds
- Fast Cyclical, Partial Residual Rebounds
- Fast Cyclical, No Residual Rebounds
- Fast Cyclical Rebound, Residual Decline

Actual
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