



Cornell University
ILR School

Cornell University ILR School
DigitalCommons@ILR

Federal Publications

Key Workplace Documents

5-27-2015

An Overview of the Employment-Population Ratio

Sarah A. Donovan
Congressional Research Service

Follow this and additional works at: http://digitalcommons.ilr.cornell.edu/key_workplace

Thank you for downloading an article from DigitalCommons@ILR.

Support this valuable resource today!

This Article is brought to you for free and open access by the Key Workplace Documents at DigitalCommons@ILR. It has been accepted for inclusion in Federal Publications by an authorized administrator of DigitalCommons@ILR. For more information, please contact hlmdigital@cornell.edu.

An Overview of the Employment-Population Ratio

Abstract

[Excerpt] This report provides an overview of the employment-population ratio. It opens with a discussion of its value as a labor market indicator, noting its key features and limitations. This is followed by an examination of long-term and recent trends. The contribution of demographic and economic factors to recent patterns is explored at the close of the report.

Keywords

employment-population ratio, labor market indicators, labor force participation, unemployment

Comments

Suggested Citation

Donovan, S. A. (2015). *An overview of the employment-population ratio*. Washington, DC: Congressional Research Service.



**Congressional
Research Service**

Informing the legislative debate since 1914

An Overview of the Employment-Population Ratio

Sarah A. Donovan
Analyst in Labor Policy

May 27, 2015

Congressional Research Service

7-5700

www.crs.gov

R44055

Summary

The Bureau of Labor Statistics (BLS) defines the employment-population ratio as the ratio of total civilian employment to the civilian noninstitutional population. Simply put, it is the portion of the population that is employed. The ratio is used primarily as a measure of job holders and to track the pace of job creation, relative to the adult population, over time.

The employment-population ratio has several properties that make it an attractive indicator for labor market analysis. It is easy to interpret and can be used to make meaningful comparisons across time and groups with dissimilar population size. Because it takes into account both the impacts of labor force participation and unemployment, it is a useful summary measure when those forces place countervailing pressures on employment. Like all labor market indicators, it has limits. For example, it does not distinguish between part-time and full-time employment, and it is silent on wages, benefits, and job conditions. Trends in the employment-population ratio also do not provide information about job flows (i.e., whether a drop in employment represents more people exiting employment or fewer new entrants).

Recent estimates show that employment as a percentage of the civilian population has not returned to pre-recessionary levels. In November 2007, the employment-population ratio was 62.9%, indicating that 62.9% of the adult population had a job in that month. This rate fell steadily during the recession and several months beyond, before stabilizing around 58.5% in October 2009. Between October 2009 and March 2014, the ratio fluctuated within 0.3 percentage points of 58.5%. Since then, the employment-population ratio has climbed slowly to 59.3%, its value in April 2015.

These patterns should be taken in the context of shifting demographics and other recent developments in the United States. Notably, the large baby boomer cohort has started to retire, and younger individuals are spending more time in school or otherwise delaying labor market entry. A comparison of recent employment-population ratio trends for the “prime-age” population (persons in the 25- to 54-year-age group) with those for the full adult population (persons 16 years and older) suggests that recent labor force participation patterns of young and older workers have placed downward pressure on the employment-population ratio, but age factors do not fully explain its slow recovery.

Contents

Introduction.....	4
Value as a Labor Market Indicator.....	4
Straightforward Interpretation.....	5
Accounts for Working-Age Population Differences and Growth.....	5
Summarizes the Net Impact of Market Forces on Employment.....	6
Limitations.....	7
Long-Term and Recent Trends.....	7
The Employment-Population Ratio and the Unemployment Rate.....	8
The Employment-Population Ratio and Recent Labor Force Participation Rate Patterns.....	9
Employment-Population Ratio Patterns for Prime-Age Individuals.....	10
Employment-Population Ratio Patterns for Prime-Age Individuals by Gender.....	12

Figures

Figure 1. Employment-Population Ratio.....	8
Figure 2. The Unemployment Rate and Employment-Population Ratio.....	9
Figure 3. Employment-Population Ratios for Prime-Age and Adult Populations.....	11
Figure 4. Employment-Population Ratios for Prime-Age (25-54 Years) Individuals, by Gender.....	12
Figure 5. Unemployment Rate for Prime-Age (25-54 Years) Workers, by Gender.....	13
Figure 6. Labor Force Participation Rates for Prime-Age (25-54 Years) Individuals, by Gender.....	14
Figure A-1. Labor Force Participation Rates, by Age Group.....	15

Appendixes

Appendix. Recent Labor Force Participation Patterns by Age Group.....	15
---	----

Contacts

Author Contact Information.....	15
---------------------------------	----

Introduction

The Bureau of Labor Statistics (BLS) defines the employment-population ratio as the ratio of total civilian employment to the civilian noninstitutional population.¹ Simply put, it is the portion of the adult population (16 years and older) that is employed. The ratio is one of several indicators used to assess labor market strength, and is reported monthly alongside the unemployment rate and other statistics by BLS. It is used primarily as a measure of job holders and to track the pace of job creation, relative to the adult population, over time.

Recent estimates show that employment as a percentage of the civilian population has not returned to pre-recessionary levels.² In November 2007, the employment-population ratio was 62.9%, indicating that 62.9% of the adult population had a job in that month. This rate fell steadily during the recession and several months beyond, before stabilizing around 58.5% in October 2009. Between October 2009 and March 2014, the ratio fluctuated within 0.3 percentage points of 58.5%. Since then, the employment-population rate has climbed slowly to 59.3%, its value in April 2015.

The slow pace of growth in the employment-population ratio in the post-recessionary period is further remarkable because it coincided with a sharply falling unemployment rate. This is interesting because, in recent decades, the employment-population ratio has tracked the unemployment rate closely in the United States, though moving in opposite directions. Based on this pattern, the expectation was that falling unemployment would be met with a rising employment-population ratio; but this has not been the case. The new pattern points to significant changes in the labor force participation rate (i.e., a decline) that counterbalance the effects of a lower unemployment rate on adult employment.

This report provides an overview of the employment-population ratio. It opens with a discussion of its value as a labor market indicator, noting its key features and limitations. This is followed by an examination of long-term and recent trends. The contribution of demographic and economic factors to recent patterns is explored at the close of the report.

Value as a Labor Market Indicator

Several features of the employment-population ratio make it an attractive employment indicator for labor market analysis. It is easy to interpret, and can be used to make meaningful comparisons across time and groups with dissimilar population size. Because it takes into account the impacts of both labor force participation and unemployment, it is a useful summary measure when those forces place countervailing pressures on employment.

¹ The Bureau of Labor Statistics (BLS) defines the civilian noninstitutional population as individuals 16 years of age and older who do not reside in institutions (e.g., prisons or other penal facilities, mental facilities, and eldercare homes) and who are not on active duty in the Armed Forces.

² Monthly estimates of the employment-population ratio are available from the BLS website at <http://www.bls.gov/cps>.

Straightforward Interpretation

The employment-population ratio has a simple interpretation: it is the share of adults who are employed. As such it provides information about the magnitude of employment (relative to population), and the degree to which an economy is using a key productive resource (labor). This is important to labor market analysis, but has broader economic significance as well (i.e., to national output and growth).

That the employment-population ratio gauges employment against *population*, and not the *labor force*, is an interpretational advantage over several other labor market indicators, including the unemployment rate. As the U.S. economy recovers from the most recent recession, considerable discussion has centered on the unemployment rate and how its decline should be interpreted. Analysts have debated the extent to which a falling unemployment rate indicates a strengthening labor market, or signals an exodus of discouraged workers from the labor force.³

Unlike the unemployment rate, which assesses the job status of workers in the labor force, the employment-population ratio places employment in the context of a much broader group of potential workers (i.e., the adult population).⁴ This feature provides the employment-population ratio a degree of stability, because movement in and out of the labor force only registers in the numerator of the ratio. When the employment-population ratio rises, it means that a larger percentage of the adult population has a job. By contrast, the unemployment rate can fall without a corresponding rise in employment if unemployed workers leave the labor force.

Accounts for Working-Age Population Differences and Growth

Placing employment in the context of the adult population permits more meaningful comparisons over time and across countries than mere employment levels. Consider, for example, that approximately 136.6 million workers were employed in the United States in February 2000. Fifteen years later, in February 2015, U.S. employment stood at nearly 148.3 million workers. Despite the addition of 11.7 million workers, the employment-population ratio in February 2015 (59.3%) was 5.3 percentage points *below* the ratio for February 2000 (64.6%), indicating that the adult population grew faster than employment over that period. Similarly, controlling for population facilitates international comparisons, particularly between countries with markedly different population sizes.⁵

³ Blanchflower and Levin, for example, note the limits of using the unemployment rate as a sole measure of labor market slack. David G. Blanchflower and Andrew T. Levin, *Labor Market Slack and Monetary Policy*, National Bureau of Economic Research, Working Paper no. 21094, April 2015, <http://www.nber.org/papers/w21094>.

⁴ The civilian population encompasses not only workers in the labor force, but also individuals classified as being outside the labor force. This latter group includes workers without employment who want jobs, but do not meet the statistical criteria to be considered unemployed (i.e., discouraged and other marginally attached workers). Individuals who are not employed and do not want jobs are also included in the “out of the labor force” group.

⁵ The employment-population ratio is also an attractive indicator for international comparisons because it is simple to compute and interpret, and the data needed to calculate the indicator is available to any country with a basic census (for population counts) and labor force survey (for employment counts).

Summarizes the Net Impact of Market Forces on Employment

The employment-population ratio has additional value as a summary measure when the unemployment rate and labor force participation rate send conflicting signals about employment growth. To see this, it helps to look at the employment-population ratio in terms of its principal components: (1) the rate at which the adult population participates in the labor market (i.e., the labor force participation rate), and (2) the proportion of jobseekers who are able to secure employment (i.e., employment rate of the labor force). In other words, the employment-population ratio describes concurrently the proportion of the adult population *who want jobs* and the *success rate of this group in obtaining jobs*.

This can be seen mathematically through a simple decomposition:

$$\frac{\text{Employment}}{\text{Population}} = \frac{\text{Labor Force}}{\text{Population}} \times \frac{\text{Employment}}{\text{Labor Force}}$$

That is:

$$\begin{array}{ccccc} \text{Employment} & & \text{Labor Force} & & \text{Employment} \\ \text{Population} & = & \text{Participation} & \times & \text{Rate of the} \\ \text{Ratio} & & \text{Rate} & & \text{Labor Force} \end{array}$$

Because the labor force is the sum of all employed and unemployed workers (i.e., labor force = employment + unemployment), the expression can be re-written in terms of the unemployment rate:

$$\frac{\text{Employment}}{\text{Population}} = \frac{\text{Labor Force}}{\text{Population}} \times \left(1 - \frac{\text{Unemployment}}{\text{Labor Force}}\right)$$

That is:

$$\begin{array}{ccccc} \text{Employment} & & \text{Labor Force} & & \\ \text{Population} & = & \text{Participation} & \times & (1 - \text{Unemployment Rate}) \\ \text{Ratio} & & \text{Rate} & & \end{array}$$

Changes in the employment-population ratio are therefore determined by changes in the labor force participation rate and changes in the unemployment rate (or, equivalently, by changes in the labor force participation rate and the employment rate).⁶ All things equal, a rise in the labor force participation rate or a decline in the unemployment rate will increase employment.⁷ When they occur together (i.e., a simultaneous rise in labor force participation and drop in the unemployment rate), the employment-population ratio will necessarily increase. This is intuitive, because when a larger share of the population are seeking employment *and* finding it with greater success, employment will rise. Similarly, a simultaneous decline in labor force participation rate and increase in the unemployment rate will cause the employment-population ratio to fall.⁸

⁶ Together, employment and unemployment sum to form the labor force. As such, the employment rate (i.e., the number employed divided by the number of persons in the labor force) and the unemployment rate (i.e., the number unemployed divided by the number of persons in the labor force) sum to 100%. This means that any percentage point gain in the employment rate is matched with the same percentage point drop in the unemployment rate.

⁷ Rising labor force participation signals a growing pool of workers seeking employment, and tends to increase employment. Falling unemployment generally indicates increased labor demand, which also tends to lift employment.

⁸ The story here is that fewer people are seeking employment (i.e., lower labor force participation rate) and, of those who search, fewer find jobs (i.e., a higher unemployment rate).

The net impact on employment is less clear when the unemployment rate and the labor force participation rate are *both rising* or *both falling*. In these cases, the employment-population ratio is a particularly valuable summary measure of these competing forces on employment. Under the both falling scenario, for example, the share of adults looking for jobs *decreases* (i.e., the labor force participation rate falls) but the portion of jobseekers who successfully find employment *increases* (i.e., the unemployment rate falls). Under these conditions, the labor force participation rate and employment rate place countervailing pressures on employment. Because it accounts for both factors, the employment-population ratio reports their net impact on employment. This feature of the indicator was particularly useful to labor market assessments following the 2007-2009 recession, when declining unemployment coincided with declining labor force participation.

Limitations

Like all labor market indicators, the employment-population ratio has limits. For one, the employment-population ratio does not provide the full picture of labor market conditions. It does not provide information about hours of work (i.e., whether jobs held are part-time or full-time), wages and benefits, or job quality. On its own, the employment-population ratio cannot be used to assess labor force flows. That is, additional information is needed to determine whether a drop in employment represents more people exiting employment or fewer new entrants. Additional information is also needed to determine whether changes in the employment-population ratio are driven by cyclical factors (i.e., the impacts of economic recession and growth on labor demand) or structural factors (e.g., demographic trends).

Long-Term and Recent Trends

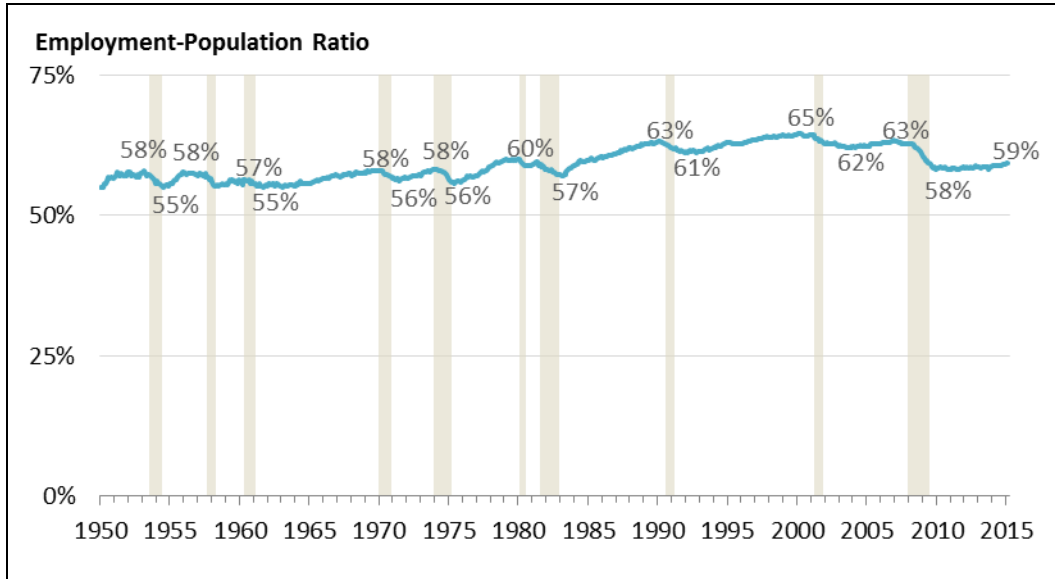
Figure 1 plots the employment-population ratio from January 1950 to April 2015. In addition to providing a long-term view of the employment-population ratio, the figure illustrates the indicator's cyclical nature. Sharp declines in the ratio coincide with each of the 10 recessions shown in the figure, followed by growth during expansions. Between 1960 and 2000, the employment-population ratio more than recovered from each economic downturn and followed an upward trend.⁹ After peaking at 64.7% in April 2000, however, the trend reversed.¹⁰ Although the employment-population ratio continued to rise during periods of expansion, its gains were not sufficient to offset the large declines that occurred during the 2001 and 2007-2009 recessions.

Consequences of the new employment-population ratio trend depend importantly on what is driving the change, and whether recent developments are permanent or transitory. Some information about drivers and the permanency of the new trend can be gained from a look at the employment-population ratio's principal components: the unemployment rate and the labor force participation rate.

⁹ This trend may be attributed in large part to the growing labor force participation of married women over this period. See the "Summarizes the Net Impact of Market Forces on Employment" section of this report for a discussion of the relationship between the labor force participation rate and the employment-population ratio.

¹⁰ The employment-population ratio trend reversal in 2000 is examined by Moffitt. Robert A. Moffitt, *The Reversal of the Employment-Population Ratio in the 2000s*, Brookings Papers on Economic Activity, Fall 2012, <http://www.brookings.edu/about/projects/bpea/papers/2012/employment-population-ratio-moffitt>.

Figure I. Employment-Population Ratio
January 1950-April 2015



Source: Figure created by the Congressional Research Service (CRS) using data from the Bureau of Labor Statistics (BLS), Current Population Survey (CPS) Program, available from <http://www.bls.gov/cps/>.

Notes: Periods of recession are shaded in gray. Recession data are from the National Bureau of Economic Research (NBER), <http://www.nber.org/cycles.html>. Data are seasonally adjusted. Percentages shown are rounded to the nearest percentage point.

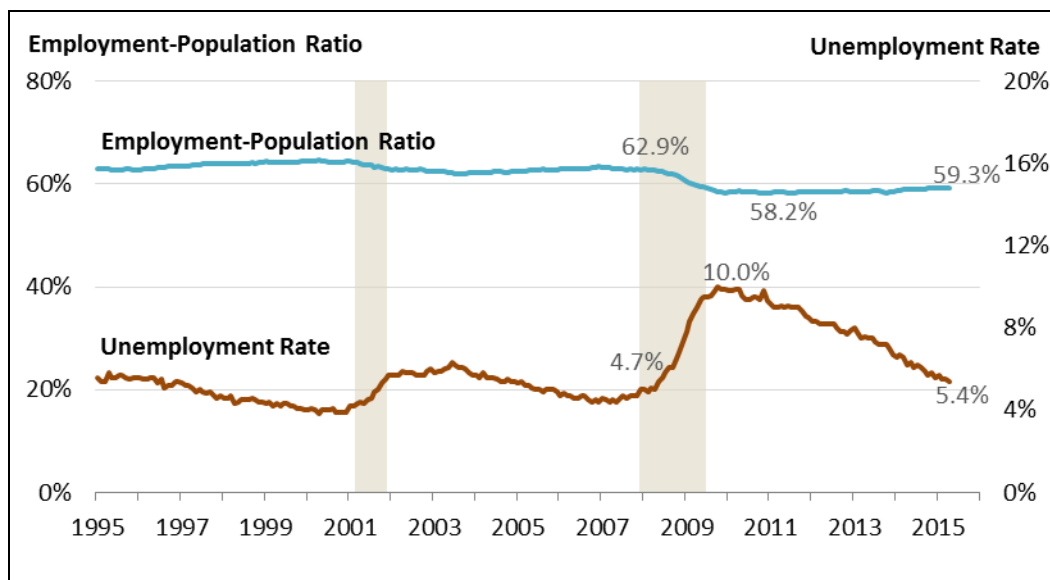
The Employment-Population Ratio and the Unemployment Rate

Figure 2 plots the employment-population ratio (blue line, left axis) and the unemployment rate (red line, right axis) from January 1995 to April 2015. It shows that, until recently, movements in the employment-population ratio mirrored those of the unemployment rate, falling with a rising unemployment rate and rising as the unemployment rate falls. The close tracking of the employment-population ratio and unemployment rate can be seen until the beginning of 2010. After that point, the unemployment rate falls steadily, with little movement in the employment-population ratio.

These patterns suggest that between 1995 and 2010, the unemployment rate (i.e., the success rate of jobseekers) was the driving factor behind movement in the employment-population ratio. More recently, however, the disconnect between the employment-population ratio and the unemployment rate patterns points to changes in labor force participation.

Figure 2. The Unemployment Rate and Employment-Population Ratio

January 1995-April 2015



Source: Figure prepared by CRS using data from BLS CPS, available at <http://www.bls.gov/cps/>. Recession data are from NBER, <http://www.nber.org/cycles.html>, and reflect the March 2001-November 2001 recession and the December 2007- June 2009 recession.

Notes: The employment-population ratio is indicated on the left-axis and the unemployment rate is indicated on the right-axis. Periods of recession are shaded in gray. Data are seasonally adjusted.

The Employment-Population Ratio and Recent Labor Force Participation Rate Patterns

Several factors can affect labor force participation.¹¹ Demographics such as age and gender have played an important role in the recent decline in the overall labor force participation rate. The ongoing retirement of baby boomers, for example, accounts for some downward pressure on the overall labor force participation rate.¹² Younger workers' decisions to pursue or extend schooling have affected participation rates at the other end of the age spectrum.

The rise in married women's labor force participation was a central driving force of the steep rise in labor force participation from 1965 to the late 1980s. By contrast, men's labor force participation has declined steadily since the 1950s, and the pace of decline accelerated during the most recent recession. In January 1950, 86.2% of men participated in the labor market. This rate

¹¹ Labonte provides an in-depth examination of labor force participation rate trends and summarizes research on recent patterns. CRS Report R43476, *Returning to Full Employment: What Do the Indicators Tell Us?*, by Marc Labonte. The Council of Economic Advisors estimates the contribution of several factors to the recent decline in labor force participation; their study also reviews the recent literature. Council of Economic Advisors, *The Labor Force Participation Rate Since 2007: Causes and Policy Implications*, Executive Office of the President, July 2014, http://www.whitehouse.gov/sites/default/files/docs/labor_force_participation_report.pdf.

¹² The baby boomer generation refers to the large group of Americans born between 1946 and 1964. Individuals in this cohort will turn 51 to 69 years old in 2015.

fell to 77.8% in January 1980 and 71.2% in January 2010. In February 2015, men’s labor force participation rate was 69.4%.¹³

Labor market conditions also play a part if they increase the number of discouraged workers or other persons marginally attached to the labor force.¹⁴ Demographic and labor force factors can be interrelated; for example, poor labor market opportunities may influence the timing of retirement and choices about educational investment.¹⁵

Employment-Population Ratio Patterns for Prime-Age Individuals

Trends in the employment-population ratio for “prime-age” individuals—those between 25- to 54-years old—can shed light on the extent to which recent patterns are driven by labor force participation patterns among older and younger workers. The aging population and the tendency for labor force participation rates to slow down for older workers imply a sizable structural decline in overall labor force participation. Despite an increase in their participation rate over the past 20 years, older individuals’ (55 years and older) participation rate is more than 40 percentage points below the rate for their prime-age counterparts. At the same time, younger adults (i.e., those in the 16- to 24-year-old-age group)—whose participation rates are relatively low—are delaying entry into the labor market and their participation rates are drifting further downward.¹⁶ See **Figure A-1** for additional details on labor force participation trends by age.

The employment-population ratio for the prime-age population is interesting in this context because this group is much less likely to be affected by retirement trends and schooling decisions than older and younger age groups. Their labor force participation rates are, however, likely to respond to overall labor market conditions, like labor demand, among other factors. Comparing employment-population ratio trends of the prime-age population to the full adult population (i.e., 16 years and older) can therefore provide some information about whether and to what extent the ratio’s slowdown is influenced by economic versus age factors.¹⁷

¹³ Estimates are from BLS and are available at <http://www.bls.gov/cps>. See section “Employment-Population Ratio Patterns for Prime-Age Individuals by Gender” of this report for additional analysis of labor force trends by gender.

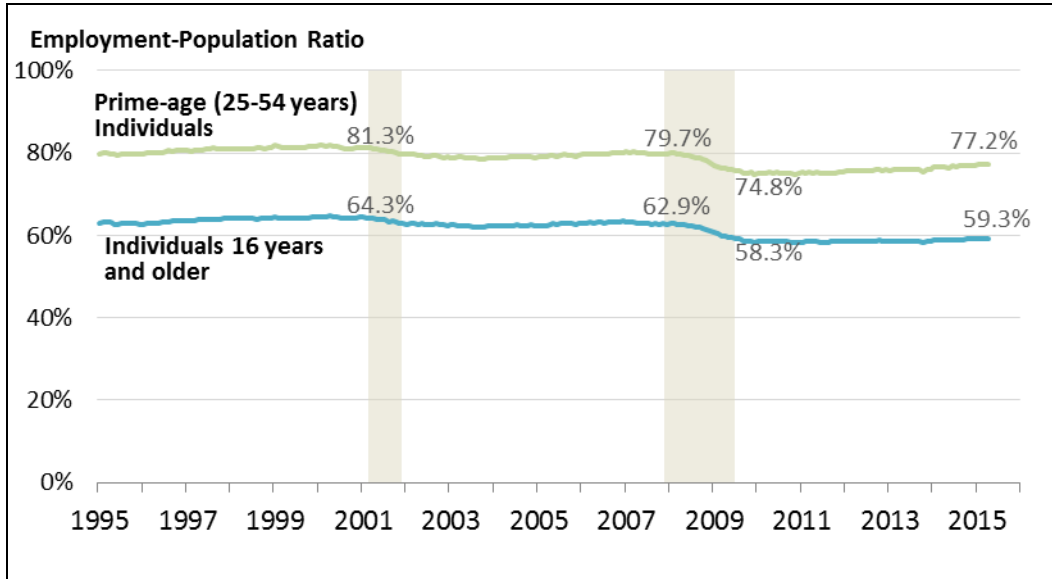
¹⁴ Persons marginally attached to the labor force are those who are currently without a job and are not looking for work, but indicate that they want and are available for a job and have looked for work at some point in the past 12 months. They are not counted as part of the labor force. A discouraged worker is an individual who is currently without employment, has not searched actively for work in the past four weeks, and reported a job-market related reason for not currently looking for work. Discouraged workers are a subset of persons marginally attached to the labor force.

¹⁵ Other decisions—like marriage and fertility—that affect labor force participation may be affected by economic cycles as well. Postponing marriage or pregnancy until better economic times is predicted to raise or maintain labor force participation during recession and reduce it during periods of economic expansion. A study by Julie Hotchkiss and Fernando Rios-Avila suggests that these decisions prevented the labor force participation rate from falling further than it did during the most recent economic downturn. Julie L. Hotchkiss and Fernando Rios-Avila, “Identifying Factors Behind the Decline in the Labor Force Participation Rate,” *Business and Economic Research*, vol. 3, no. 1 (2013), pp. 257-275, <http://www.macrothink.org/journal/index.php/ber/article/view/3370/2921>.

¹⁶ Research examining labor participation trends among younger workers include Daniel Aaronson, Kyung-Hong Park, and Daniel Sullivan, *The Decline in Teen Labor Force Participation*, Federal Reserve Bank of Chicago, Economic Perspectives, First Quarter, 2006, pp. 2-18, <http://www.kc.frb.org/publicat/econrev/pdf/12q1VanZandweghe.pdf>, and Maria E. Canon, Marianna Kudlyak, and Yang Liu, *Youth Labor Force Participation Continues to Fall, but It Might Be for a Good Reason*, Federal Reserve Bank of St. Louis, The Regional Economist, January 2015, <https://www.stlouisfed.org/publications/regional-economist/january-2015/youth-labor-force>.

¹⁷ Others have developed more sophisticated models to produce demographically adjusted estimates of the employment-population ratio (i.e., that take into account the impact of age, education, race and gender on labor force (continued...))

Figure 3. Employment-Population Ratios for Prime-Age and Adult Populations
January 1995-April 2015



Source: Figure created by CRS using data from BLS, CPS Program, available at <http://www.bls.gov/cps/>. Recession data are from NBER, <http://www.nber.org/cycles.html>.

Notes: Periods of recession are shaded in gray. Data are seasonally adjusted.

Figure 3 compares the standard employment-population ratio (for individuals 16 and older) and the employment-population ratio for the prime-age population. There are some similarities in employment-population ratio patterns across the two groups of workers: The employment-population ratios for both prime-age individuals and the full adult population declined sharply during the most recent recession and for a short period thereafter and have been slow to approach their pre-recession values.

The trends differ in notable ways as well:

- Prime-age workers' employment-population ratio fell by 4.9 percentage points—a 6.1% loss—between November 2007 (79.7%) and December 2009 (74.8%), when its decline came to a halt. Over the same period, the employment-population ratio for the full adult population fell by 4.6 percentage points (a 7.3% decline).
- The employment-population ratio for prime-age workers has made more progress toward recovery. Since reaching its low-point of 74.8% in December 2009, prime-age workers have recouped more than half of the 4.9 percentage point loss in ratio. By contrast, the full adult population has recovered less than a quarter of its 4.6 percentage point loss.

(...continued)

participation patterns). This literature includes, for example, Julie L. Hotchkiss, *Adjusted Employment-to-Population Ratio as an Indicator of Labor Market Strength*, Federal Reserve Bank of Atlanta, Working Paper no. 2014-8, August 2014, https://www.frbatlanta.org/research/publications/wp/2014/14_08.aspx, and Samuel Kapon and Joseph Tracy, *A Mis-Leading Labor Market Indicator*, Federal Reserve Bank of New York, Liberty Street Economics, February 3, 2014, <http://libertystreeteconomics.newyorkfed.org/2014/02/a-mis-leading-labor-market-indicator.html>.

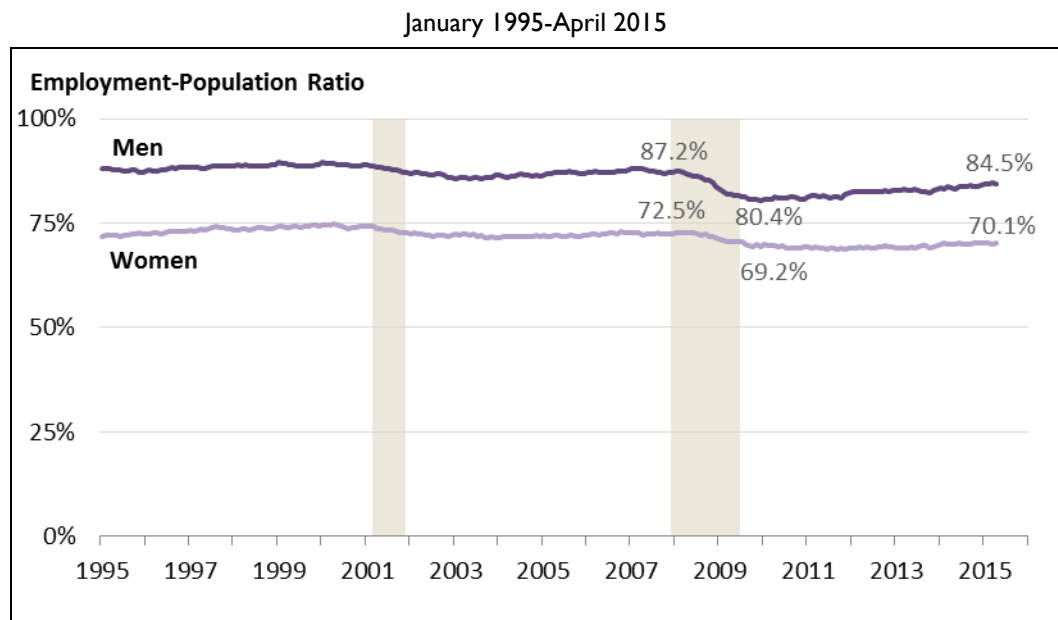
- In April 2015, the employment-population ratio among prime-age individuals was at nearly 97% of its pre-recession value. For the full adult population it remained at 94% of its pre-recession value.

Taken together, these similarities and differences suggest that recent labor force participation patterns of young and older individuals have placed downward pressure on the overall employment-population ratio, but age factors do not fully explain its slow recovery.

Employment-Population Ratio Patterns for Prime-Age Individuals by Gender

Trends in the employment-population ratio also reflect labor market differences between men and women. **Figure 4** charts the employment-population ratio for prime-age men and women from January 1995 to April 2015.¹⁸

Figure 4. Employment-Population Ratios for Prime-Age (25-54 Years) Individuals, by Gender



Source: Figure created by CRS using data from BLS, CPS Program, available from <http://www.bls.gov/cps/>. Recession data are from the NBER, <http://www.nber.org/cycles.html>.

Notes: Periods of recession are shaded in gray. Data are seasonally adjusted.

The recent experience of prime-age men and prime-age women—that is, since the onset of the 2007-2009 recession—is particularly interesting. Prior to 2008, prime-age men’s and women’s employment-population ratios moved more-or-less in concert, although separated by approximately 15 percentage points. During the recent recession and the years thereafter, however, prime-age men’s employment-population ratio has been more volatile than that of

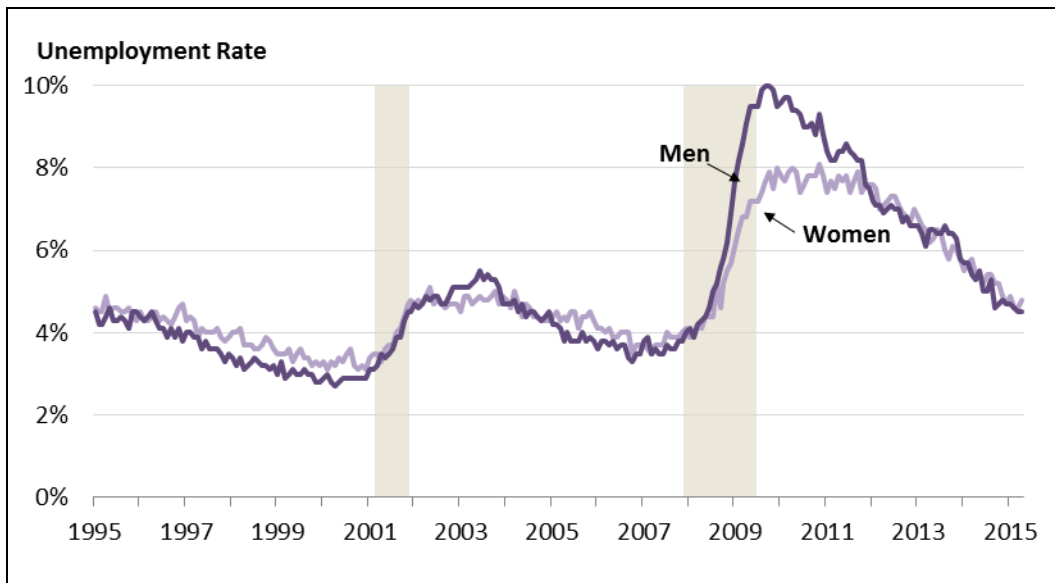
¹⁸ Analysis is restricted to prime-age individuals to reduce the influence of age factors that may affect employment differentially for men and women, e.g., gender differences in schooling and the timing of retirement.

prime-age women. Although moving in the same general direction, men experienced a greater loss during the recession, and a more pronounced recovery in the years that followed.

Additional insights can be gained by unpacking the employment-population ratio into its principal components: the unemployment rate (**Figure 5**) and labor force participation rate (**Figure 6**). Although both sexes experienced a sharp rise in unemployment during the most recent recession, the rise was experienced to a much greater degree by prime-age men. At the same time, prime-age men’s labor force participation rate, already on a downward trajectory, continued to decline, while prime-age women’s labor force participation rate was temporarily elevated and flat.

Labor market differences between men and women are likely to be the product of several factors. Among them is the tendency for men to be employed in occupations that experience relatively high job loss during recessions (e.g., production, construction, and material transport jobs).¹⁹ Women’s labor participation rates—elevated and flat during the recent recession—may reflect women’s labor market entry in response to lost income (i.e., from job loss of another household member), or as suggested by Hotchkiss and Rios-Avila, they may have delayed a planned departure from the labor market until the end of the economic downturn.²⁰

Figure 5. Unemployment Rate for Prime-Age (25-54 Years) Workers, by Gender
January 1995-April 2015



Source: Figure created by CRS using data from BLS, CPS Program, available at <http://www.bls.gov/cps/>. Recession data are from NBER, <http://www.nber.org/cycles.html>.

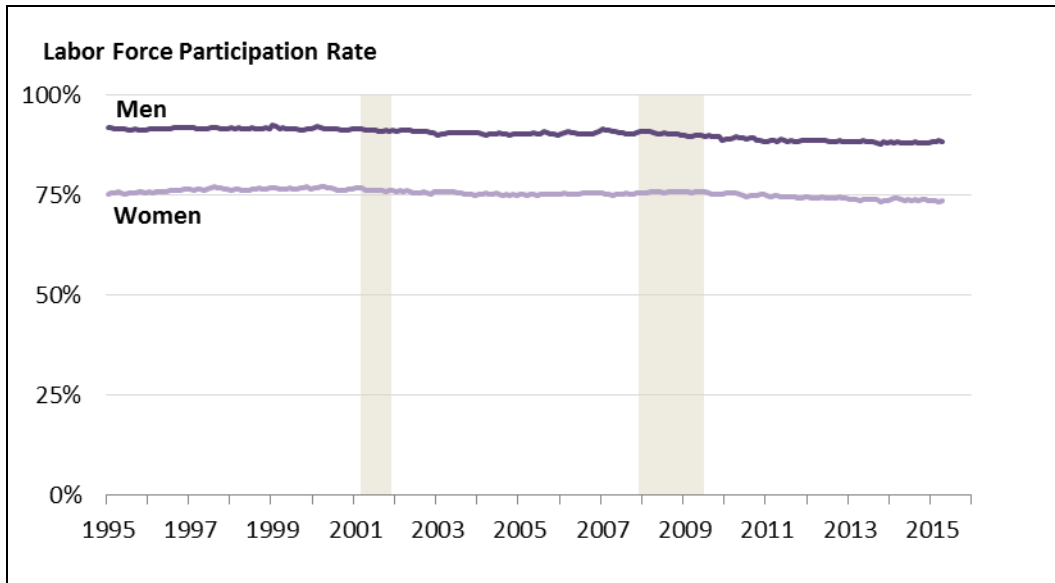
Notes: Periods of recession are shaded in gray. Data are seasonally adjusted.

¹⁹ C. Brett Lockard and Michael Wolf, “Occupational Employment Projections to 2020,” Bureau of Labor Statistics, *Monthly Labor Review*, January 2012, pp. 84-108, <http://www.bls.gov/mlr>.

²⁰ Julie L. Hotchkiss and Fernando Rios-Avila, “Identifying Factors behind the Decline in the Labor Force Participation Rate,” *Business and Economic Research*, vol. 3, no. 1 (2013), pp. 257-275, <http://www.macrothink.org/journal/index.php/ber/article/view/3370/2921>.

Figure 6. Labor Force Participation Rates for Prime-Age (25-54 Years) Individuals, by Gender

January 1995-April 2015

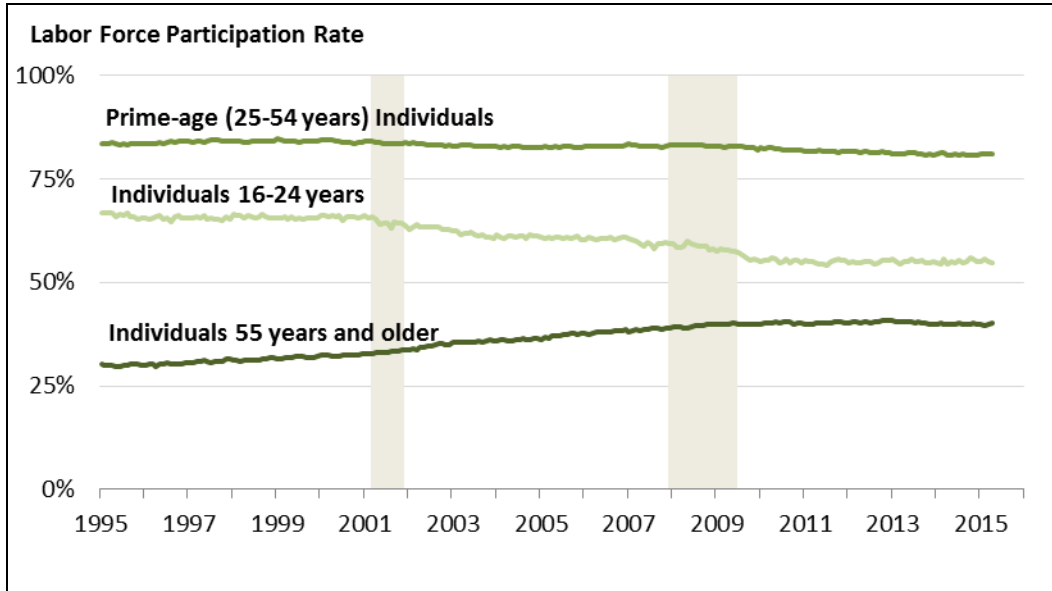


Source: Figure created by CRS using data from BLS, CPS Program, available at <http://www.bls.gov/cps/>. Recession data are from NBER, <http://www.nber.org/cycles.html>.

Notes: Periods of recession are shaded in gray. Data are seasonally adjusted.

Appendix. Recent Labor Force Participation Patterns by Age Group

Figure A-1. Labor Force Participation Rates, by Age Group
January 1995-April 2015



Source: Figure created by CRS using data from BLS, CPS Program, available from <http://www.bls.gov/cps/>.

Notes: Periods of recession are shaded in gray. Recession data are from NBER, <http://www.nber.org/cycles.html>. Data are seasonally adjusted.

Author Contact Information

Sarah A. Donovan
Analyst in Labor Policy
sdonovan@crs.loc.gov, 7-2247