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July 27, 2016

Introduction to U.S. Economy: Unemployment

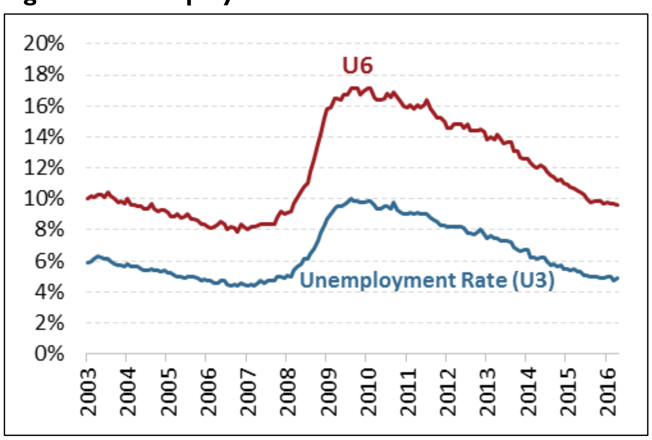
How is the Unemployment Rate Calculated?

The official unemployment rate, also known as U3, released on a monthly basis by the Bureau of Labor Statistics (BLS), measures the number of unemployed individuals as a percentage of the entire labor force. It is important to define these terms, as the BLS definitions are not entirely intuitive.

$$\text{Unemployment Rate} = \frac{\text{Number of Unemployed Individuals}}{\text{Number of Individuals in Labor Force (Employed + Unemployed Individuals)}}$$

The labor force is defined as all individuals aged 16 and over who are either unemployed or employed, excluding active duty military personnel. Individuals are considered employed if they did any work for pay or profit in the previous week. Individuals are considered unemployed if they satisfy the following three criteria: (1) they do not have a job, (2) they have actively looked for work in the previous four weeks, and (3) and they are currently available to work. If an individual does not have a job, but has not looked for work in the previous four weeks, or are not currently available for work, that individual is not considered part of the labor force. **Figure 1** displays the U3, which has been equal to or below 5% since October 2015.

Figure 1. Unemployment Rate



Source: BLS.

This formulation of the unemployment rate can cause confusion because the size of the labor force, employment, and unemployment can all change simultaneously. For example, the jobs report for June 2016 found that employment increased by 287,000 jobs, yet the unemployment rate also *increased* by 0.2 percentage points. This can occur if the number of individuals joining the labor force outnumbers those who found work, and often happens temporarily as the economy recovers from a recession. As employment prospects improve, many individuals who had previously given up looking for work rejoin the labor force by restarting their job search.

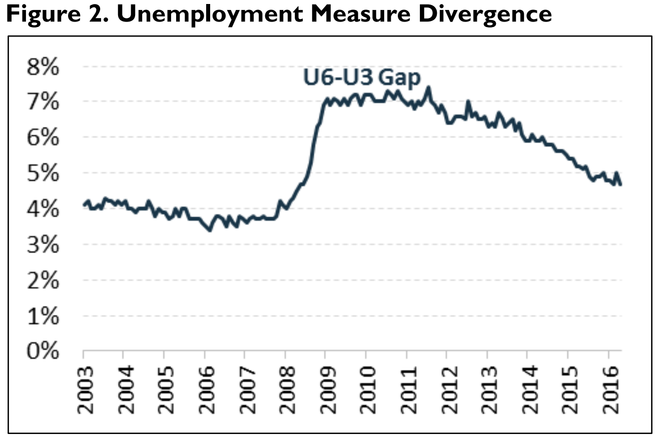
Alternative Measures of Unemployment

BLS reports other measures of unemployment—officially called "measures of labor underutilization"—that include additional groups with different employment statuses in the calculation. These rates can provide a broader sense of labor market conditions. The most prominent alternative measure is the U6 unemployment rate.

The U6 unemployment rate measures the number of unemployed, as defined under U3, but also includes the number of marginally attached workers and individuals working part time for economic reasons as a percentage of an expanded labor force. Marginally attached workers include individuals who are available for work, have expressed a desire to work, and have looked for work in the past 12 months. The expanded labor force under U6 includes all individuals employed, unemployed, and marginally attached to the labor force. **Figure 1** displays the U6 unemployment rate over time, which dropped below 10% beginning in October 2015.

The U6 unemployment rate may provide a better sense of labor market conditions, especially since the last recession. Many individuals dropped out of the labor force as a result of the recession and the subsequent poor labor market prospects. This caused the difference between the U6 and U3 rates to grow higher than pre-recession rates, and the elevated gap still persists six years after the recession, as shown in **Figure 2**.

Figure 2. Unemployment Measure Divergence

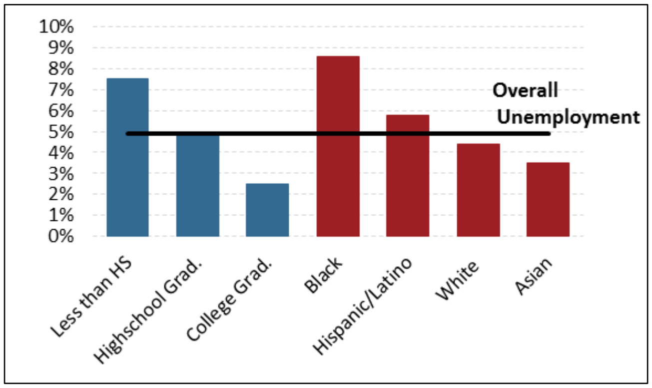


Source: CRS calculations based on data from BLS.

Unemployment Across Demographics

The average unemployment rate in the United States varies significantly across groups depending on educational attainment and race or ethnicity. See **Figure 3.**

Figure 3. Unemployment Across Demographics, June 2016



Source: BLS.

How is the Unemployment Rate Data Collected?

The unemployment rate is not based on unemployment insurance claims. Rather, it is calculated based on the results from the Current Population Survey (CPS) conducted by the Census Bureau. The monthly survey has a sample size of about 110,000 individuals, significantly larger than most public survey samples.

Interviewers contact individuals either over the phone or in person to collect information on individual's labor force activities and a number of personal characteristics. Individuals are not directly asked if they are unemployed or in the labor force. Rather, interviewers ask questions about labor market activities, such as when the person last worked or looked for work. An individual's labor force status is determined from their responses.

Reasons for Unemployment

Economists categorize unemployment into three general categories—structural, frictional and cyclical—depending on the cause of unemployment.

Structural unemployment refers to unemployment resulting from a mismatch of skills or interest between workers and the jobs available. This mismatch can occur for a number of reasons, including shifting consumer preferences, technological changes, or trade. For example, automated elevators likely led to a large number of elevator operator layoffs in the early 20th century; those operators would be considered structurally unemployed.

Frictional unemployment refers to short-term unemployment due to job searching or job transition. After an individual leaves a job, it generally takes some period of time to find a new position. Individuals engaging in this search are considered frictionally unemployed. Frictional unemployment tends to be present in the economy at all times because there is a certain amount of churn in the labor force as individuals move from one employer to another.

Cyclical unemployment results from the somewhat regular ups and downs of the economy, often referred to as the business cycle. As the economy slows or enters a recession, firms reduce their hiring, or even lay individuals off, and cyclical unemployment rises. When the economy grows, firms hire and cyclical unemployment falls.

When the economy is growing at a steady sustainable pace, cyclical unemployment is zero and the unemployment rate is roughly equal to the sum of structural unemployment and frictional unemployment. This is referred to as the "natural unemployment rate," which is said to occur when the economy is at full employment. The Federal Reserve estimates the U.S. natural unemployment rate is between 4.6% and 5.0%. The unemployment rate has hovered in this range for the first half of 2016, suggesting the economy may be approaching full employment if the Federal Reserve's estimates are accurate.

Unemployment and the Broader Economy

The unemployment rate is most often used as a measure of labor market strength but it is also a useful indicator and predictor of movements in the broader economy.

Unemployment and Economic Activity

Gross Domestic Product (GDP) and the unemployment rate are inversely related. For economic production to be high, a larger number of individuals have to be put to work. Therefore, as economic growth increases, unemployment tends to decrease and vice versa. Other factors can impact unemployment and GDP—such as changes in the labor force participation rate, the number of hours individuals work, and changes in productivity—so the two do not move perfectly in sync. However, over time the relationship tends to hold.

Unemployment and Inflation

Most economists agree that unemployment and inflation are also inversely related in the short term. As discussed earlier, a certain unemployment rate is expected to persist when the economy is growing at a steady pace, often referred to as the full employment or the natural rate of unemployment. Economists have found that as the unemployment rate falls below this natural rate, inflation tends to accelerate, and when the unemployment rate increases above this rate inflation tends to decelerate.

Most economists believe that policymakers cannot keep the unemployment rate below its natural rate with fiscal or monetary policy for an extended period without causing rising inflation. Excessive inflation is thought to slow economic growth by distorting market prices and altering individual behavior. However, policymakers may be able to decrease unemployment without causing inflation by lowering the natural rate of unemployment through policies that reduce structural and frictional unemployment.

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