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Introduction to U.S. Economy: Unemployment

The U.S. economy has seen historically high levels of unemployment as a result of the Coronavirus Disease 2019 (COVID-19) pandemic. This In Focus provides an introduction to the official unemployment rate and alternative measures of unemployment, briefly examines the reasons for unemployment, and places the unemployment rate in a broader economic context.

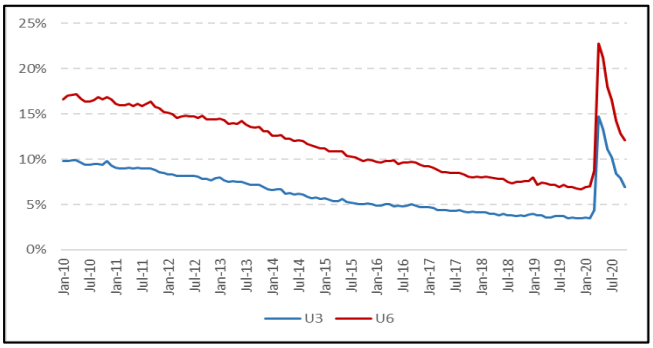
How Is the Unemployment Rate Calculated?

The Bureau of Labor Statistics (BLS) releases the official unemployment rate, commonly known as the U3 series, on a monthly basis. The U3 rate measures the number of unemployed individuals as a percentage of the entire labor force.

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

The labor force is all employed and unemployed individuals aged 16 and older, excluding active duty military personnel or the institutionalized. Individuals are considered employed if they did any work for pay or profit in the previous week. Individuals are considered unemployed if they do not have a job, have actively looked for work in the previous four weeks, and are currently available to work. If an individual does not have a job, but has either not looked for work in the previous four weeks or is not currently available for work or both, that individual is not considered part of the labor force. **Figure 1** displays the official unemployment rate (U3) since 2010, which increased as a result of COVID-19.

Figure 1. Unemployment Rate



Source: Bureau of Labor Statistics (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, if the number of individuals joining the labor force outnumbers those who found work, then the unemployment rate would increase despite the increase in employment. This can happen as the economy recovers from a recession and individuals who had previously given up looking for work rejoin the labor force by restarting their job search.

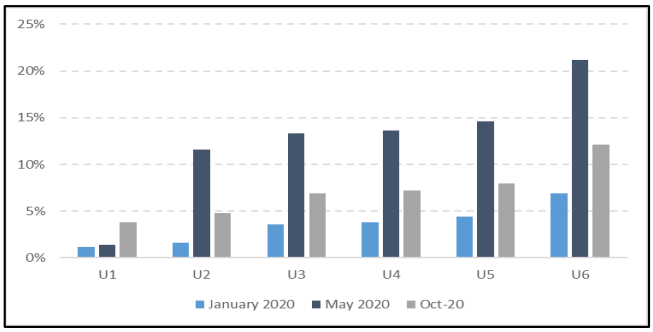
Alternative Measures of Unemployment

BLS reports other measures of unemployment—called "measures of labor underutilization"—that include additional underemployed groups. These measures can provide a broader sense of labor market conditions. The most prominent alternative measure is the U6 unemployment rate, also shown in **Figure 1**.

Alternative measures of labor underutilization include (1) the U1 rate—individuals unemployed for 15 weeks or longer; (2) the U2 rate—individuals who lost jobs or completed temporary jobs; (3) the U4 rate—the U3 rate plus discouraged workers (individuals who give a job-market-related reason for not currently looking for work); (4) the U5 rate—the U4 rate plus marginally attached workers (individuals who are available to work, have expressed a desire to work, and have looked for work in the past 12 months); and (5) the U6 rate—the U5 rate plus individuals working part time for economic reasons.

These alternative measures are particularly useful during recessions in pinpointing the effects on the labor market. **Figure 2** compares each measure of underutilization in January, May, and October 2020. Similar to the U3 rate, the U4, U5, and U6 rates remain roughly doubled in October from January. However, earlier in the pandemic, the U6 rate increased 14 percentage points as compared with the roughly 10 percentage-point increase from the U3, U4, and U5 rates. This indicates that the number of individuals working part-time for economic reasons has been a more volatile category than other measures of underutilization.

Figure 2. Comparison of Unemployment Rates
January, May, and October 2020



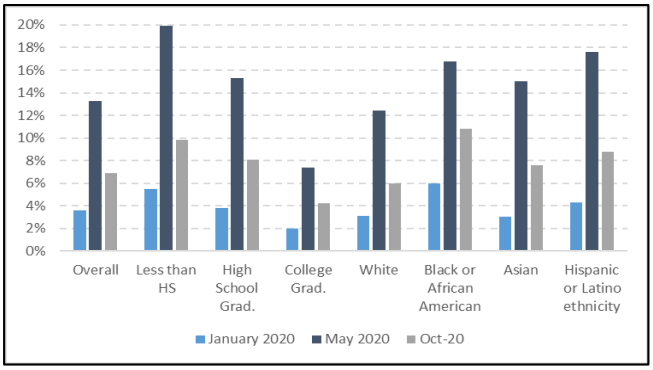
Source: BLS.

Unemployment Across Demographics

The average U3 rate in the United States varies significantly across groups depending on educational attainment and race or ethnicity, as shown in **Figure 3**. Recessions, such as the one caused by COVID-19, can cause disproportionate effects among groups as well.

Figure 3. Unemployment Comparison by Educational Attainment and Race or Ethnicity

January, May, and October 2020



Source: BLS.

Notes: Hispanic or Latino ethnicity is a separate demographic concept from race in the Current Population Survey statistics. Individuals of Hispanic or Latino ethnicity may be of any race.

How Is the Unemployment Rate Data Collected?

BLS calculates the unemployment rate based on the results from the Current Population Survey conducted by the Census Bureau. This monthly survey has a sample size of about 110,000 individuals who are selected to be representative of the U.S. population. Interviewers contact individuals to collect information on their labor force activities and a number of personal characteristics. 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.

A common misconception about the unemployment rate is that it is based on unemployment insurance claims. This is not the case, as some unemployed individuals do not apply or qualify for unemployment insurance or remain jobless after their benefits run out. Another common misconception is that the government collects data from every household each month, which is also not the case, as this would be prohibitively time consuming and costly.

Reasons for Unemployment

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

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. These shifts are often permanent but policymakers can respond to these shifts and create policies that reduce structural unemployment.

Frictional unemployment refers to short-term unemployment due to job searching or transition. After an individual leaves a job, it generally takes some period of time to find a new position. 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 normal ups and downs of the economy, often referred to as the business cycle. As the economy slows or enters a recession, firms reduce hiring or lay individuals off and cyclical unemployment rises. When the economy grows, firms hire and cyclical unemployment falls. Short-term deviations are mostly attributable to cyclical factors, and are difficult to predict, as was the case with the COVID-19 pandemic.

When the economy is operating at its full potential, cyclical unemployment is zero and the unemployment rate is roughly equal to the sum of structural and frictional unemployment. This is referred to as the *natural unemployment rate*. It is not directly observable, but the Congressional Budget Office estimates the U.S. natural unemployment rate is about 4.4%.

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 the broader state of the economy.

Unemployment and Economic Activity

Gross domestic product (GDP) and the unemployment rate have a negative long-run relationship. In general, for economic production to increase, the number of individuals who work must increase. 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

Inflation refers to the general upward trend of prices across the economy. Most economists agree that unemployment and inflation are inversely related in the short term. Unemployment is expected to gravitate toward a certain rate, called the nonaccelerating inflation rate of unemployment (NAIRU), when the economy is at full potential. Economists have found that as the unemployment rate falls below NAIRU, inflation tends to accelerate, and when the unemployment rate increases above NAIRU, inflation tends to decelerate. However, this relationship has been weaker in recent years.

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