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INSIGHT

COVID-19: Measuring Unemployment

July 13, 2020

Due to the effects of the Coronavirus Disease 2019 (COVID-19) pandemic, unemployment has risen to levels unseen since the Great Depression, peaking at a rate of 14.7% in April before decreasing to 11.1% in June. The unemployment rate is seen as a crucial metric for judging policy outcomes, but confusion among many observers about how the unemployment rate is calculated has been exacerbated by COVID-19 and the difficulties it has presented. This Insight discusses how unemployment data are collected and classified, delves into the challenges COVID-19 has introduced, and puts these issues into context with a brief look at recent unemployment trends.

Unemployment Rate Methodology

How Are Unemployment Data Collected?

Unemployment data are released every month by the U.S. Bureau of Labor Statistics (BLS). The BLS calculates unemployment rates based on data provided by the Current Population Survey (CPS), a monthly survey conducted by the U.S. Census Bureau. Each month, the CPS is given to a representative sample of about 60,000 households, which covers about 110,000 individuals. A given household is included in the sample eight times. Survey responses are collected in person or over the phone, with the initial survey typically collected in person.

Who Counts as Unemployed?

The CPS poses a series of questions to determine the employment status of individuals. Individuals are categorized as employed if they did any work (including part-time or temporary work) for pay or profit during the survey reference week. In general, individuals are categorized as unemployed if they do not have a job at the time of interview, have actively looked for a job in the four weeks preceding the interview, and are currently available to work. A respondent who was laid off part way through the survey reference week is considered employed because they worked for part of the reference week. If an individual does not have a job and either has not looked for work in the previous four weeks or is not currently available for work or both, then that individual is not considered part of the labor force.

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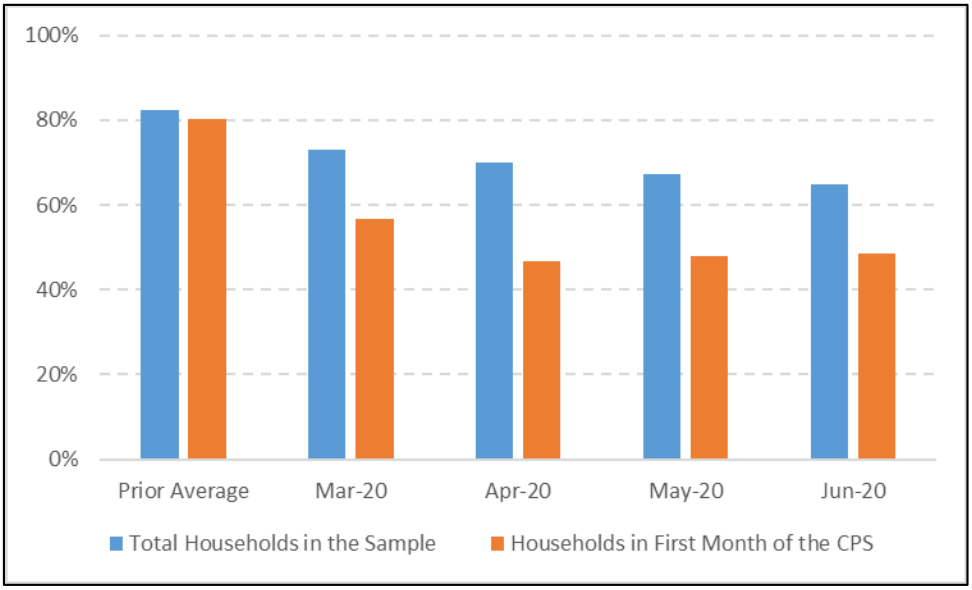
Challenges Posed by COVID-19

Response Rate

Throughout the COVID-19 pandemic, the response rate for the CPS has been lower than rates seen before the pandemic. **Figure 1** shows the response rates during COVID-19 compared with the average for the 12 months ending in February 2020. The total response rate decreased to a low of 64.9% in June. In-person interviews have been suspended since March 20, possibly leading to the considerably lower response rate for households in the initial month of interview. The 90% confidence interval for the unemployment rate estimate for both May and June 2020 was +/- 0.4 percentage points, compared with +/- 0.2 percentage points in May and June 2019, but this is likely due to the higher magnitude of the unemployment rate as opposed to the lower response rate.

Figure 1. CPS Household Response Rates

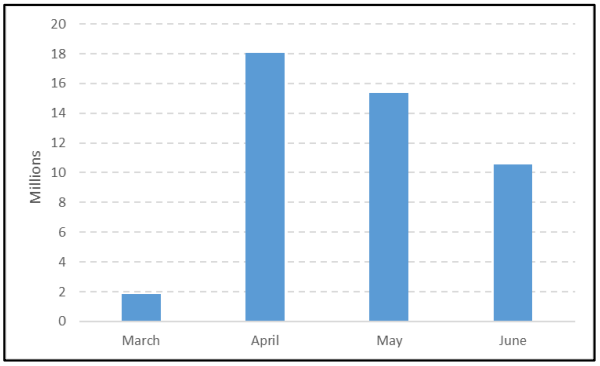


Source: U.S. Bureau of Labor Statistics (BLS).

Misclassification Error

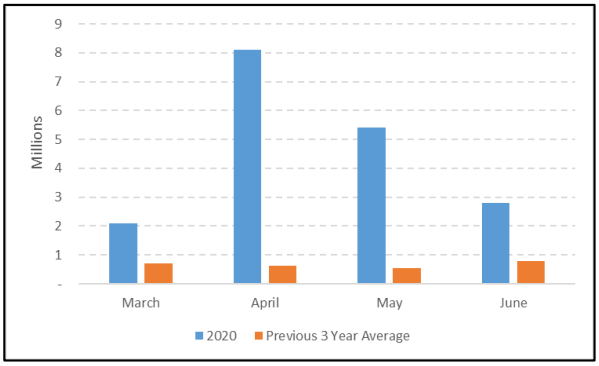
Many workers have been temporarily laid off as a result of COVID-19 (see **Figure 2**). BLS considers these workers to be unemployed and should therefore be classified as "unemployed on temporary layoff." However, many temporarily laid off workers were misclassified as employed but not at work in the "other reasons" category. CPS asks individuals who identify as being absent from work during the reference week to choose a reason for the absence. Among others, provided reasons include layoff, school/training, and other reasons. **Figure 3** compares this "other reasons" category in the months of COVID-19 with their previous three-year averages. The number of individuals classified as unemployed on temporary layoff and employed but not at work for other reasons increased substantially, most notably in April and May.

Figure 2. Individuals Classified as Unemployed on Temporary Layoff



Source: BLS.

Figure 3. Individuals Classified as Employed but Not at Work for Other Reasons

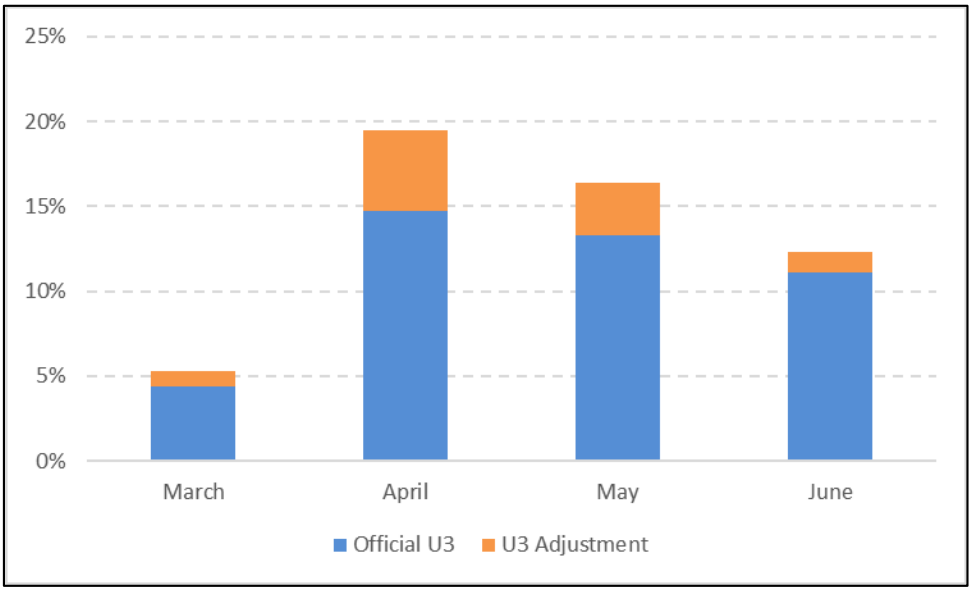


Source: BLS.

Unemployment During COVID-19

BLS policy is to *not* make ad hoc alterations to how CPS responses are classified so as to maintain integrity of the methodology. However, due to the significant nature of the misclassification error, it chose to provide adjusted estimates of the unemployment rate. The adjustment was to assume that any difference between the current and previous three-year average for the "other reasons" category was in error and then to include those individuals as unemployed in the calculation of the unemployment rate. BLS says it is likely that not all of these individuals were misclassified and, therefore, the adjusted estimates may overstate the error. **Figure 4** shows the official unemployment rate, called the U3 rate, and the U3 rate adjusted for the misclassification error. In April, the official rate was 14.7%, but the adjusted rate was 19.5%. The misclassification error dropped in June to 1.2 percentage points from 3.1 points in May and 4.8 points in April. The U3 rate has decreased since April but remains at a historically high level.

Figure 4. Measures of Unemployment During COVID-19

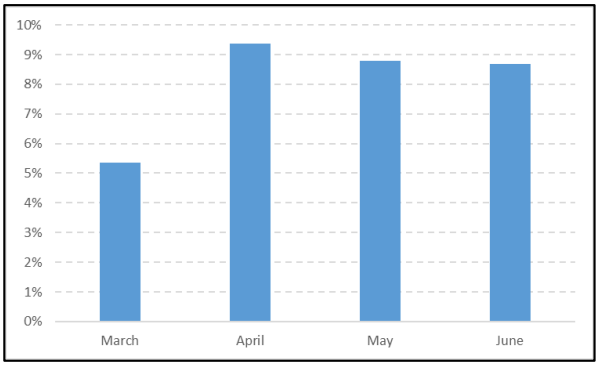


Source: BLS.

Note: See text for details.

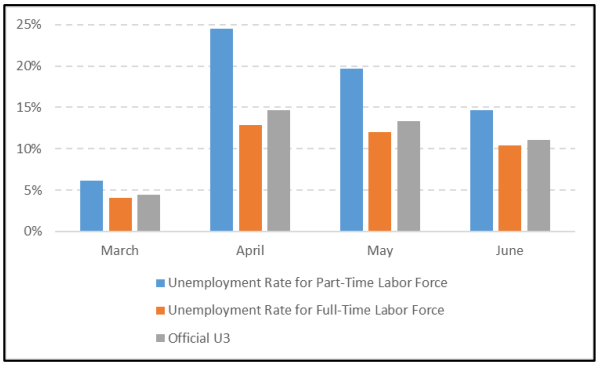
Even with the corrective adjustment, the U3 rate does not capture all the facets of unemployment and underemployment in the economy, and it is therefore important to consider this rate in a broader context. **Figure 5** shows the percent of individuals not in the labor force (and not included in the U3 rate) who want a job. This percentage rose significantly in April and has stayed elevated since, indicating a lack of jobs available. **Figure 6** shows a comparison of the U3 rate and unemployment rates for part-time and full-time workers. The data show that the current recession has hit part-time workers more substantially than full-time workers, with peaks of 24.5% for part-time workers and 12.9% for full-time workers in April. For more information on additional alternative underemployment measures, see CRS In Focus IF10443, *Introduction to U.S. Economy: Unemployment*, by Lida R. Weinstock.

Figure 5. Percent of Individuals Not in the Labor Force Who Currently Want a Job



Source: CRS calculations using BLS data.

Figure 6. Unemployment Outcomes for Part-Time vs. Full-Time Workers



Source: BLS.

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