The impact of the coronavirus (COVID-19) pandemic on The Employment Situation for June 2020

(NOTE: On September 23, 2020, BLS corrected data in the response to item 17 in this document. Minor corrections were made to occupation estimates. For more information on these corrections, see www.bls.gov/bls/errata/revision-to-current-population-survey-estimates-for-January-through-July-2020.htm.)

The improvements in the labor market data from the establishment and household surveys for June reflect the continued resumption of economic activity that had been curtailed in March and April due to the coronavirus (COVID-19) pandemic and efforts to contain it. The material below addresses some questions about the effect of the pandemic on The Employment Situation for June 2020, which presents national-level estimates from the establishment (Current Employment Statistics, or CES) and household (Current Population Survey, or CPS) surveys. (See the assessments of the impact on The Employment Situation for March 2020, April 2020, and May 2020.)

Additional detail at the state and local area level will be available in forthcoming releases with data from the CES State and Metro Area and the Local Area Unemployment Statistics (LAUS) programs.

1. Establishment survey: Was there an impact on data collection in the establishment survey?

Yes. Data collection for the establishment survey was impacted by the coronavirus. Approximately one-fifth of the data is assigned to four regional data collection centers. Although these centers were closed during the collection period, interviewers at these centers worked remotely to collect data by telephone. Additionally, BLS encouraged businesses to report electronically. Approximately 30 percent of data that are typically collected by the data collection centers were instead collected by web this month. As a result, web collection represented 31 percent of June data, and Computer Assisted Telephone Interviewing (CATI) represented 15 percent.

Table A. Establishment survey data by collection method at first preliminary release, June 2020 and recent months (Percent distribution)

Collection method	June 2019	Average for 12 months ending February 2020	May 2020	June 2020
All methods	100	100	100	100
Computer Assisted Telephone Interviewing (CATI)	27	26	11	15
Web	20	20	30	31
Electronic Data Interchange (EDI)	46	47	50	46
Touchtone Data Entry (TDE)	2	2	2	2
Fax	2	1	1	1
Other	3	3	7	4

Note: Estimates may not sum to 100 due to rounding.

The collection rate for the establishment survey in June was 63 percent. This is lower than the average for the 12 months ending in February 2020, before data collection was impacted by the pandemic, and lower than May (69 percent). This rate was also lower than that for June 2019 (71 percent). Collection rates were adversely impacted by pandemic-related issues to some degree, but as in the past, a larger influence on the establishment survey collection rates is the length of the collection period, which can range between 10 and 16 days. The June collection period had only 10 collection days. Additional information and a full time series is available in the establishment survey collection rate documentation.

Table B. Establishment survey collection rate for first preliminary release, June 2020 and recent months (Percent)

June 2019	Average for 12 months ending February 2020	May 2020	June 2020
71	75	69	63

Note: See establishment survey collection rates over time.

The collection rates for manufacturing, wholesale trade, leisure and hospitality, other services, and state government declined between 10 and 20 percentage points in June from the average for the 12 months ending in February 2020. The collection rate for financial activities declined by a little more than 20 percentage points in June compared with the average for the 12 months ending in February 2020, and the rate for federal government declined by more than 30 percentage points; both were especially impacted by the short collection cycle. The collection rates for all other major industries were within 10 percentage points of the average.

Although the collection rates were adversely affected by pandemic-related issues, BLS was still able to obtain estimates that met our standards for accuracy and reliability. Additionally, for subsequent releases of the data, collection rates have been less impacted. The May second preliminary and April final collection rates were completely within the average range.

2. Establishment survey: Were there methodological changes to the establishment survey estimates?

Yes. BLS made changes to the establishment survey net birth-death model used in the estimation process for data back to March. These changes apply to data for April, May, and June.

Business births and deaths cannot be adequately captured by the establishment survey as they occur. Therefore, the establishment survey estimates use a model to account for the relatively stable net employment change generated by business births and deaths. Due to the impact of the pandemic, the relationship between the two was no longer stable starting in March. To account for the shifting relationship between business births and deaths, the establishment survey made changes to the birth-death model.

These changes include using a portion of business deaths and births reported by establishments in the estimation process for March final estimates through the current month's estimates. Business births and deaths are normally excluded from the estimation process. Beginning with estimates for April 2020,

BLS also added a regression variable to the model for forecasting net business births and deaths. The regression variable added more recent information to the model, which typically relies on inputs only available at a lag of several months. See additional information about changes to the net birth-death model.

3. Establishment survey: How did the pandemic response impact employment, hours, and earnings estimates?

As highlighted in The Employment Situation news release, total nonfarm payroll employment rose by 4.8 million in June, following an increase of 2.7 million in May. These gains reflect a partial resumption of economic activity that had been curtailed due to the coronavirus pandemic in April and March, when employment fell by a total of 22.2 million in the 2 months combined. In June, nonfarm employment was 14.7 million, or 9.6 percent, lower than its February level. (See table C.) (A full discussion can also be found in the BLS Commissioner's statement on the Employment Situation. See also historical data from the establishment survey.)

Table C. Changes in nonfarm payroll employment by industry, June 2020 and recent months
(Numbers in thousands)

Industry	March 2020 over-the-month change	April 2020 over-the-month change	March and April total change	May 2020 over-the-month change	June 2020 over-the-month change	May and June total change	Net change since February 2020	Percentage change since February 2020
Total nonfarm	-1,373	-20,787	-22,160	2,699	4,800	7,499	-14,661	-9.6
Total private	-1,356	-19,835	-21,191	3,232	4,767	7,999	-13,192	-10.2
Mining and logging	-8	-53	-61	-19	-10	-29	-90	-12.6
Construction	-65	-1,018	-1,083	453	158	611	-472	-6.2
Manufacturing	-46	-1,317	-1,363	250	356	606	-757	-5.9
Wholesale trade	-12	-385	-397	12	68	80	-317	-5.3
Retail trade	-85	-2,299	-2,384	372	740	1,111	-1,273	-8.1
Transportation and warehousing	-10	-560	-570	-28	99	70	-499	-8.8
Utilities	0	-4	-4	-2	-3	-5	-9	-1.6
Information	-6	-279	-285	-39	9	-30	-315	-10.9
Financial activities	-18	-261	-279	10	32	42	-237	-2.7
Professional and business services	-94	-2,202	-2,296	160	306	466	-1,830	-8.5
Education and health services	-178	-2,603	-2,781	399	568	967	-1,814	-7.4
Leisure and hospitality	-743	-7,575	-8,318	1,403	2,088	3,491	-4,827	-28.6
Other services	-91	-1,279	-1,370	261	357	618	-752	-12.7
Government	-17	-952	-969	-533	33	-500	-1,469	-6.5

Note: Estimates for May and June are preliminary.

Average weekly hours for all private-sector workers fell by 0.2 hour in June, following an increase of 0.5 hour in May. The average workweek for manufacturing rose by 0.5 hour in June. Since estimates of average weekly hours take into account the size of each industry's employment, one should continue to be cautious when interpreting changes in the workweek at the total private level. In particular, large employment changes in industries with shorter or longer than average workweeks can complicate monthly comparisons of the average weekly hours figures.

Similarly, changes in average hourly earnings in recent months must be interpreted with caution. Average hourly earnings of all employees on private nonfarm payrolls declined by 35 cents in June to $29.37, following a decrease of 31 cents in May and a gain of $1.34 in April. The increase in average hourly earnings in April largely reflects the disproportionate number of lower-paid workers who went off payrolls, which put upward pressure on the total private average hourly earnings estimate. Some of these workers returned to payrolls in May and June, and job gains among lower-paid workers put downward pressure on average hourly earnings, though the effect is more muted given the smaller magnitude of employment changes in the past 2 months.

4. Household survey: What was the impact on data collection in the household survey?

The household survey is conducted by the Census Bureau and normally includes both in-person and telephone interviews, with the majority of interviews collected by telephone. Interviewing for the household survey began on June 14th, 2020.

Households are in the survey's sample for a total of 8 months, meaning that interviewers attempt to interview someone in the household each of those 8 months. Generally, households entering the sample for their first month are interviewed through a personal visit, and households in their fifth month also often receive a personal visit. Interviews for other months are generally conducted by telephone.

For the safety of both interviewers and respondents, the Census Bureau did not conduct in-person interviews in June. (The Census Bureau suspended in-person interviews on March 20, 2020.) Additionally, the two Census Bureau call centers that usually assist with telephone interviewing did not conduct interviews for the household survey in June. The Census Bureau continued to conduct the household survey by telephone and made efforts to conduct telephone interviews for households that would normally have been interviewed in person.

The response rate for the household survey, at 65 percent in June 2020, continued to be adversely affected by pandemic-related issues. For comparison, the average response rate for the 12 months ending in February 2020 was 83 percent. (See table D.)

In June, the response rate for households entering the sample for their first month was again particularly low. The response rate for these households, which would normally have been interviewed in person, was 32 percentage points lower than the average for the 12 months ending in February 2020. In addition, the rate for households in the sample for their second month—which entered the sample for the first time in May and had a low response rate for that month—was down 27 percentage points compared with the average for the 12 months ending in February. The rates for those in the sample for their third and fourth months were lower by 23 percentage points and 15 percentage points, respectively.

Although the response rate was adversely affected by pandemic-related issues, BLS was still able to obtain estimates that met our standards for accuracy and reliability.

Table D. Household survey response rates by month in sample, June 2020 and recent months
(Percent)

Month in sample interview	Prior average*	March 2020	April 2020	May 2020	June 2020	Percentage point difference from prior average*			
						March 2020	April 2020	May 2020	June 2020
Total	82.5	73.0	69.9	67.4	64.9	-9.5	-12.6	-15.1	-17.6
Month in sample									
First	80.1	56.8	46.7	47.8	48.4	-23.3	-33.4	-32.3	-31.7
Second	83.1	74.2	63.5	56.4	55.8	-8.9	-19.6	-26.7	-27.3
Third	83.7	77.3	75.7	67.7	60.7	-6.4	-8.0	-16.0	-23.0
Fourth	83.8	77.5	78.2	76.5	68.9	-6.3	-5.6	-7.3	-14.9
Fifth	80.7	68.6	68.6	68.3	68.4	-12.1	-12.1	-12.4	-12.3
Sixth	82.4	75.2	72.7	71.4	70.9	-7.2	-9.7	-11.0	-11.5
Seventh	82.7	76.1	76.2	73.7	72.0	-6.6	-6.5	-9.0	-10.7
Eighth	83.6	78.6	78.1	77.7	74.3	-5.0	-5.5	-5.9	-9.3

* Prior average is the average for the 12 months ending in February 2020.

Note: In the household survey, interviewers attempt to interview each household for 8 months total. The first month is generally an in-person interview; the fifth month is often an in-person interview.

5. Household survey: Were there modifications to the seasonal adjustment methodology for the household survey?

Yes. During their review of household survey data for June, BLS staff tested for outliers to determine whether any changes were needed to the seasonal adjustment models. BLS staff determined that, as in May, the vast majority of household survey data series had significant outliers in June. Therefore, BLS staff made adjustments to the models used in seasonal adjustment processing to better account for these outliers.

Seasonal adjustment factors can be either multiplicative or additive. A multiplicative seasonal effect is assumed to be proportional to the level of the series. A sudden large change in the level of the series will be accompanied by a proportionally large seasonal effect. In contrast, an additive seasonal effect is assumed to be unaffected by the level of the series. In times of relative economic stability, the multiplicative option is generally preferred over the additive option. However, in the presence of a large level shift in a time series, multiplicative seasonal adjustment factors can result in systematic over- or under-adjustment of the series; in such cases, additive seasonal adjustment factors are preferred since they tend to more accurately track seasonal fluctuations in the series and have smaller revisions.

Prior to April, most seasonally adjusted household data series used multiplicative seasonal adjustment factors. In April, the vast majority of series had significant outliers, and BLS staff specified these series

as additive. BLS staff specified as additive two additional series in May and four additional series in June. In accordance with the household survey's usual practice, the seasonal adjustment models and factors will be reviewed at the end of the calendar year, when 5 years of seasonally adjusted estimates will be subject to revision.

More information about seasonal adjustment is available in the household survey documentation.

6. Household survey: Were there any changes to measures of error for the household survey estimates?

As with all survey-based estimates, the household survey estimates are subject to sampling error. When a sample is surveyed, there is a chance that the sample estimates may differ from the true population values they represent. The component of this difference that occurs because samples differ by chance is known as sampling error, and its variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence, that an estimate based on a sample will differ by no more than 1.6 standard errors from the true population value because of sampling error. BLS analyses are generally conducted at the 90-percent level of confidence.

In general, estimates based on a large number of observations have lower standard errors (relative to the size of the estimate) than estimates based on a small number of observations. Also, estimates of higher magnitude tend to have higher standard errors than estimates of lower magnitude.

The relatively low June response rate—meaning that household survey estimates were based on fewer observations in June than in the months prior to the pandemic—increased standard errors for most measures. However, many estimates had substantially different magnitudes than in prior months, which also had an effect on standard errors. For example, the 90-percent confidence interval for the over-the-month change in the unemployment rate was +/- 0.4 percentage point in June 2020, compared with +/- 0.2 percentage point in June 2019. The increase in the size of the confidence interval was largely due to the increase in the magnitude of the unemployment rate (11.1 percent in June 2020 versus 3.7 percent in June 2019) rather than to the lower response rate. See information about the reliability of estimates in the household survey.

7. Household survey: Were interviewers provided with any special guidance?

Yes. Due to the unusual circumstances related to the pandemic, Census Bureau interviewers have been given additional training prior to collecting data in each month since March. In June, field supervisors conducted another training to review the guidance issued to the interviewers, and additional training aids were supplied to the interviewers. Special instructions were also embedded in the data collection instrument to make them more readily accessible during survey interviews. Before the collection of May data, supervisors held all-interviewer training sessions and reviewed the guidance that had been provided in March and April on how to record answers to the three survey questions detailed below. Information was not provided for other survey questions.

(Continues on next page.)

The guidance can be summarized as follows:

If someone who usually works full time (35 hours or more per week) reports working 1 to 34 hours during the survey reference week, interviewers ask them the main reason why they worked less than 35 hours. If a person says they were under quarantine or self-isolating due to health concerns, interviewers were instructed to select "own illness, injury, or medical problem." For people who were not ill or quarantined but say that their hours were reduced "because of the coronavirus," interviewers were instructed to select "slack work or business conditions." An example would be "the store cut back hours during the coronavirus."

For those who do not work at all during the survey reference week, if a person says they were under quarantine or self-isolating due to health concerns, interviewers were instructed to select "own illness, injury, or medical problem." For people who were not ill or quarantined but say that they did not work last week "because of the coronavirus," interviewers were instructed to select "on layoff (temporary or indefinite)." Examples include "I work at a sports arena and everything is postponed" or "the restaurant closed for now because of the coronavirus."

To be classified as unemployed on temporary layoff, a person has either been given a date to return to work by their employer or expects to be recalled to their job within 6 months. (They must also be available to return to work if recalled.) Additional guidance was also provided to household survey interviewers regarding the question "Have you been given any indication that you will be recalled to work within the next 6 months?" If, because of the coronavirus, a person is uncertain when they will be able to return to work and thus is unsure how to answer the question, interviewers were instructed to enter a response of "yes," rather than "don't know." This would allow the individual to be included among the unemployed on temporary layoff. In light of the uncertainty of circumstances related to the pandemic, this unusual step was taken as part of an attempt to classify people who were effectively laid off due to temporary pandemic-related closures among the unemployed on temporary layoff.

8. Household survey: How did the pandemic response impact June estimates?

As highlighted in The Employment Situation news release, household survey total employment rose and unemployment fell in June. These improvements in the labor market reflect the continued resumption of economic activity that began in May following the curtailment in March and April due to the coronavirus pandemic and efforts to contain it. Although unemployment fell in May and June, the jobless rate and the number of unemployed people are up by 7.6 percentage points and 12.0 million, respectively, since February. (A full discussion can also be found in the BLS Commissioner's statement on The Employment Situation. See also historical data from the household survey.)

The household survey can identify people who were not at work during the survey reference week for reasons such as their own illness, vacation, or taking care of a family member. Under the guidance provided to the household survey interviewers, most workers who indicate that they were not working during the entire reference week due to efforts to contain the spread of the coronavirus should be classified as unemployed on temporary layoff. (See details in item 7.)

Among the unemployed, the number of people on temporary layoff decreased in June, but remained high. However, as happened in March, April, and May, some workers who were not at work during the

entire reference week were not classified as unemployed on temporary layoff in June. Rather, they were classified as employed but absent from work. BLS and Census Bureau analyses of the underlying data suggest that this group still included some workers affected by the pandemic who should have been classified as unemployed on temporary layoff. However, the degree of misclassification declined considerably in June. (See details in item 11.)

The number of hours some people worked were affected by efforts to contain the pandemic. Employed people who usually work full time (35 hours or more per week) but indicate that they had worked fewer than 35 hours in the reference week because of slack work or business conditions, including those due to pandemic-related closures, are classified as employed part time for economic reasons. (See details in item 15.) Other effects can be seen in the number of people at work part time for noneconomic reasons. (See details in item 16.)

The number of people not in the labor force who currently want a job fell again in June, but remained higher than usual as the impact of the pandemic likely kept many individuals from engaging in labor market activity. (See details in item 18.)

9. Household survey: How are people who are absent from their jobs counted in the household survey?

The monthly household survey has two measures that show the number of people who missed work. One addresses people who did not work at all in the survey reference week, and the other addresses people who usually work full time but were at work part time (1 to 34 hours) during the reference week.

First, the survey collects data on the number of people who had a job but were not at work for the entire reference week due to reasons like vacation or their own illness. People who have a job but were not at work may be classified as employed or unemployed depending on the reason they missed work. For example, people who missed work due to vacation, illness, parental leave, or bad weather are classified as employed. People who were temporarily laid off and expecting recall (and available to return to their job if recalled) are classified among the unemployed on temporary layoff. (See details in item 10.)

Second, the household survey provides a measure of the number of people who usually work full time (35 hours or more per week) but were at work part time (1 to 34 hours) during the survey reference week. Depending on the reason provided, these workers are then grouped into those at work part time for economic or noneconomic reasons. Economic reasons include working reduced hours due to slack work or business conditions, seasonal work, or starting or ending a job during the week. Noneconomic reasons include illness, vacation, holidays, schooling, childcare problems, labor dispute, bad weather, and other reasons. (See items 15 and 16.)

10. Household survey: How many employed people were not at work during the reference week?

In June, 7.9 million workers were classified as employed with a job but not at work during the survey reference week (not seasonally adjusted). This measure is somewhat higher than the typical level at this time of the year. (See table E.) Although the total number of people not at work is closer to its usual

range than were the estimates in recent months, there were differences among some of the reason categories that likely reflect the impact of the coronavirus pandemic.

Table E. Employed people with a job but not at work, May and June, selected years, not seasonally adjusted
(Numbers in thousands)

Year	May		June		Difference* (June - May)	
	Total employed	With a job not at work	Total employed	With a job not at work	Total employed	With a job not at work
2016	151,594	4,224	151,990	7,682	396	3,458
2017	153,407	3,915	154,086	7,500	679	3,585
2018	156,009	3,949	156,465	7,533	456	3,584
2019	157,152	4,249	157,828	7,255	676	3,006
2020	137,461	8,350	142,811	7,937	5,350	-413

* Users are generally cautioned against over-the-month comparisons of not seasonally adjusted data, as the change could be affected by some seasonal component.

There were many reasons why employed people were not at work for the entire survey reference week. BLS tabulates data on employed people not at work whose main reason for being absent was vacation, own illness, childcare problems, other family or personal obligations, labor dispute, bad weather, maternity or paternity leave, school or training, civic or military duty, and other reasons. Vacation and a person's own illness are typically the most common reasons people are not at work. (See table F. All data about people with a job but not at work are not seasonally adjusted.)

Of the 7.9 million employed people not at work during the survey reference week in June 2020, 1.2 million people were included in the "own illness, injury, or medical problems" category. This was down from 1.5 million in May and 2.0 million in April, but was larger than the average of 949,000 for June 2016–2019. People who were not at work to care for a sick family member should be counted in the "other family or personal obligations" category. As it had been in April and May, this measure was within the range for the month in recent years.

In June 2020, 3.1 million people were recorded as absent from work because of vacation. This is about two-thirds of the average number usually recorded in the vacation category for June.

In June 2020, 2.8 million people were included in the "other reasons" category—about one-third of the total 7.9 million employed people not at work during the survey reference week. This was considerably lower than the 5.4 million people not at work for "other reasons" in May (when that category represented two-thirds of the total not at work), but was substantially higher than the average of 895,000 for June in recent years.

As happened in March, April, and May, BLS and Census Bureau analyses of the underlying data suggests that this group not at work for "other reasons" still included some workers affected by the pandemic who should have been classified as unemployed on temporary layoff. However, the degree of

misclassification was considerably lower than in prior months. (See item 11.) Even though there was marked improvement in June in the extent of misclassification, the issue persists to some degree, and the Census Bureau will conduct additional training before collection of data for July. (See item 14.)

Table F. Employed people with a job but not at work, June, selected years, not seasonally adjusted
(Numbers in thousands)

June	Total not at work	Vacation	Own illness, injury, or medical problems	Childcare problems	Other family or personal obligations	Labor dispute	Bad weather	Maternity or paternity leave	School or training	Civic or military duty	Other reasons
2016	7,682	4,949	972	36	274	4	17	326	144	13	947
2017	7,500	4,858	892	33	256	9	45	276	150	15	966
2018	7,533	5,042	970	34	275	-	16	288	150	12	745
2019	7,255	4,548	962	38	281	9	42	342	108	5	921
2020	7,937	3,076	1,228	83	241	-	10	409	44	1	2,845

Note: Dash indicates no data.

11. Household survey: Was there less misclassification in June?

Other than those who were themselves ill, under quarantine, or self-isolating due to health concerns, most people who did not work during the survey reference week due to efforts to contain the spread of the coronavirus should have been, and were, classified as "unemployed on temporary layoff." However, as happened in March, April, and May, some people who were not at work during the entire reference week for reasons related to the coronavirus were not included in this category but were instead misclassified as employed but not at work for "other reasons."

The degree of misclassification declined considerably in June. BLS and Census Bureau staff have been reviewing survey responses that might have been misclassified. The misclassification hinges on a question about the main reason people were absent from their jobs. If people who were absent due to temporary, pandemic-related closures were recorded as absent due to "other reasons," they could have been misclassified. When interviewers record a response of "other reason," they also add a few words describing that other reason. The review of these brief descriptions found that the share of responses that may have been misclassified was much smaller in June than in prior months.

The obvious indication of misclassification is the number of people not at work for "other reasons." This measure was smaller in June than in the prior 2 months, both in the number of people and as a percentage of the total not at work. For example, the number of people not at work for "other reasons" has fallen from 8.1 million in April to 5.4 million in May and to 2.8 million in June.

Even with these declines, the estimate of 2.8 million people for the "other reasons" category was higher than the average of 895,000 for June 2016–2019. The difference between the current number and the average for the same month in prior years has been used to estimate the potential size of the misclassification. (See item 13.) The exact extent of the misclassification is unknown; however, this represents the upper bound of our estimate of misclassification.

It is important to realize that not everyone included in the "other reasons" category is necessarily misclassified. The category includes people who mention reasons other than those related to the pandemic. Moreover, the "on layoff (temporary or indefinite)" response option is not available for business owners who have no other job, so the "other reasons" category could be the appropriate category for them.

BLS is continuing to evaluate the misclassification issue and will publish a detailed description of the findings in a forthcoming article.

According to usual practice, the data from the household survey are accepted as recorded. To maintain data integrity, no ad hoc actions are taken to reassign survey responses.

12. Why doesn't BLS adjust the unemployment rate to account for the misclassification?

The misclassification hinges on a question about the main reason people were absent from their jobs. While some workers classified as absent from work for "other reasons" are misclassified, there is no easy correction that could have been made to the data to count these individuals as unemployed. Changing a person's labor force classification would involve more than changing the response to the question about why people were absent from their jobs.

Although BLS and the Census Bureau believe some responses to the question on why people were absent from their jobs were incorrectly recorded, we do not have enough information to reclassify each person's labor force status. To begin with, the exact information provided by the person responding to the survey is not known. The brief descriptions included in the "other reasons" category often appear to go against the guidance provided to the survey interviewers, but these descriptions are not full transcripts of the interaction between the interviewer and the person responding to the survey.

Also, people whose answers were recorded as absent from work for "other reasons" were not asked the follow-up questions needed to determine whether they should be classified as unemployed. Specifically, there is no information about whether they expected to be recalled to work and whether they could return to work if recalled. Therefore, shifting people's answers from "other reasons" to "on layoff (temporary or indefinite)" would not have been enough to change their classification from employed to unemployed. Assumptions would have had to be made about how they would have responded to the follow-up questions. Changing answers based on incorrect assumptions would also have introduced error.

For the reasons above, the exact extent of the misclassification is unknown. In addition, BLS's usual practice is to accept data from the household survey as recorded. In the 80-year history of the household survey, we do not know of any actions taken on an ad hoc basis to change respondents' answers to the labor force questions. Any ad hoc adjustment would have relied on assumptions instead of being strictly based on what people answered during their interviews and also could appear to be a manipulation of the data.

13. Household survey: What would the unemployment rate be if these misclassified workers were included among the unemployed?

If the workers who were recorded as employed but not at work for the entire survey reference week had been classified as "unemployed on temporary layoff," the overall unemployment rate would have been higher than reported. This kind of exercise requires some assumptions. For example, first one needs to determine how many workers might be misclassified.

We provided an estimate of the potential size of the misclassification error and its impact on the unemployment rate in March, April, and May. Because the exact extent of the misclassification is unknown, we had to make assumptions to construct these estimates. Specifically, we assumed that *all* of the increase in the number of employed people who were not at work for "other reasons" compared with the average for recent years was due solely to misclassification. We also assumed that all of these people expected to be recalled and were available to return to work.

Following this same approach for June, there were 2.8 million workers with a job but not at work who were included in the "other reasons" category in June 2020, about 2.0 million higher than the average for June 2016–2019. If we assume that this roughly 2.0 million increase was *entirely* due to misclassification and that all of these misclassified workers expected to be recalled and were available for work, the number of unemployed people in June (on a not seasonally adjusted basis) would increase from 18.1 million to 20.0 million. The number of people in the labor force would remain at 160.9 million in June (not seasonally adjusted) as people move from employed to unemployed but stay in the labor force. The resulting unemployment rate for June would be 12.4 percent (not seasonally adjusted), compared with the official estimate of 11.2 percent (not seasonally adjusted). Estimates of people with a job but not at work are not available on a seasonally adjusted basis, so seasonally adjusted data, such as the unemployment rate mentioned in The Employment Situation news release, are not used in this exercise. (Repeating this exercise, but combining the not seasonally adjusted data on additional people with a job but not at work in the "other reasons" category with the seasonally adjusted estimates reported in The Employment Situation news release yields a similar 1.2 percentage point increase in the unemployment rate for June—or 12.3 percent, compared with the official seasonally adjusted rate of 11.1 percent.) Comparable calculations were previously published for March, April, and May.

These broad assumptions represent the upper bound of our estimate of misclassification—the largest estimate of unemployment and correspondingly the largest unemployment rate. However, these assumptions probably overstate the size of the misclassification error. It is unlikely that everyone who was misclassified expected to be recalled and was available to return to work. It is also unlikely that all of the increase in the number of employed people not at work for "other reasons" was due to misclassification. Some people may be correctly classified in the "other reasons" category. For example, someone who owns a business (and does not have another job) is classified as employed in the household survey. Business owners who are not at work due to labor market downturns (or in this case, pandemic-related business closures) should be classified as employed but absent from work for "other reasons." Business owners are classified as employed because it is assumed that they have a job to return to even if their businesses are not able to currently function or if the business lacks customers; they can engage in some work activity related to maintaining the operation of that business.

Regardless of the assumptions made as to the degree of misclassification, the trend in the unemployment rate over the period in question is the same—that is, the rate increased in March and April and eased in May and June.

BLS and the Census Bureau are continuing to investigate the misclassification and are taking additional steps to address the issue.

14. Household survey: What are BLS and the Census Bureau doing about the misclassification error?

BLS and our partners at the Census Bureau take the misclassification very seriously. Even though misclassification was substantially reduced in June (see item 12), we are continuing to take steps to address the problem.

Prior to the March data collection, instructions were provided to survey interviewers on how to record responses to the question about temporary absence if a person said that they had a job but did not work due to the coronavirus pandemic. (See item 7.) Prior to April data collection, an email was sent to all interviewers that included instructions with more detailed examples and a reference table to aid in coding responses. Prior to May data collection, every field supervisor had a conference call with the household survey interviewers they manage. In these conference calls, the supervisors went over the detailed instructions and examples and were available to answer interviewers' questions. Prior to June data collection, field supervisors conducted additional training to review the guidance issued to the interviewers, and extra training aids were supplied. Special instructions were also embedded in the data collection instrument to make them more readily accessible during survey interviews.

Census Bureau training over the last several months has done much to improve interviewers' understanding of the special instructions. Census Bureau staff monitored survey responses throughout the June collection period, specifically flagging responses that might have been misclassified. When interviewers record a response of "other reason," they also add a few words describing that other reason. For each potentially misclassified response, Census Bureau staff reviewed these brief descriptions and, in many cases, followed up with interviewers to discuss whether a particular response had been recorded correctly, remind interviewers of the guidance, and hopefully prevent future misclassification. No responses were changed as a result of these discussions.

All interviewers will be required to complete a newly developed computer-based training prior to July data collection. In addition, BLS is continuing to evaluate the misclassification issue and will publish a detailed description of the findings in a forthcoming article.

15. Household survey: How many people were at work part time for economic reasons in June?

The pandemic may have affected the number of hours some people worked during the survey reference week. For example, some people may have worked during the reference week, but not as many hours as they usually work. Some people may have worked more hours than usual.

In June 2020, there were 9.1 million workers who worked part time for economic reasons (seasonally adjusted). These individuals, who would have preferred full-time employment, were working part time because their hours had been reduced or they were unable to find full-time jobs. This measure declined by 1.6 million over the month, but was still 4.7 million higher than in February, clearly reflecting slack work or business conditions due to the pandemic response.

The pandemic impact remained particularly acute in the accommodation and food services industry, where people working part time for economic reasons represented about 18 percent of those at work in that industry in June (not seasonally adjusted).

16. Household survey: What else do we know about why people were at work part time in June?

Employed people who usually work full time (35 hours or more per week) but indicated that they had worked fewer than 35 hours in the survey reference week are asked the main reason they worked part time that week. Depending on the reason provided, these workers are then grouped into those at work part time for economic or noneconomic reasons. Economic reasons include working reduced hours due to slack work or business conditions, seasonal work, or starting or ending a job during the week. (See item 15 for a discussion of people at work part time for economic reasons.) Noneconomic reasons include illness, vacation, holidays, schooling, childcare problems, labor dispute, bad weather, and other reasons.

In June 2020, 3.0 million full-time workers worked less than 35 hours because of vacation or personal days. This was about two-thirds of the number usually recorded in the vacation category for June. (A similar pattern also occurred in the number of people not at work the entire reference week due to vacation. See item 10.)

It is important to note that these household survey data do not reflect all cases of people who worked fewer hours during the month. They refer to work missed only during the survey reference week. They also are restricted to cases where people who usually work full time (35 hours or more per week) worked 1 to 34 hours. Thus, a person who usually works 50 hours per week but missed 8 hours would not be included in this measure since they still worked more than 35 hours. Additionally, the data do not reflect work missed by people who usually work part time.

17. Household survey: What were the effects of the coronavirus on occupational employment and unemployment?

The household survey estimate of total employment continued to increase and unemployment continued to decline in June. Although unemployment fell in May and June, both the unemployment rate and the number of unemployed people remain substantially higher than their pre-pandemic values. A similar pattern could be seen across most of the occupation groups. Notably, employment in service occupations rose by 2.1 million in June, following a rise of 1.1 million in May and a steep decline in April (-7.3 million). The unemployment rate for workers whose last jobs were in service occupations was 18.7 percent in June, down from 23.6 percent the month before (not seasonally adjusted).

Online monthly tables show additional information on employment and unemployment by occupation. Time series estimates of employment and unemployment by occupation from the household survey are also available in our online database. (These data are not seasonally adjusted. Users are generally cautioned against over-the-month comparisons of not seasonally adjusted data, as the change could be affected by some seasonal component. Additionally, changes in the classification of occupations complicate comparisons over time.)

18. Household survey: How many people want a job, but are not classified as unemployed?

People are categorized as either employed, unemployed, or not in the labor force based on how they respond to survey questions about their recent activities. People who have a job are employed, including those who may be temporarily absent (whether or not they are paid). People who do not have a job and are actively looking for and available for work are unemployed. People who are on temporary layoff and expect to be recalled to their job do not need to look for work to be counted as unemployed, but they do need to be able to return to work if recalled. Those who do not meet the criteria to be classified as either employed or unemployed are not in the labor force.

Among those not in the labor force, the survey identifies people who want a job. There were 8.2 million people not in the labor force who wanted a job in June. This figure is down from 9.0 million in May and 9.9 million in April (a high for the monthly series that dates back to 1994). Despite the declines in May and June, this measure was more than one and a half times as large as in February (5.0 million).

Relative to earlier months, the large number of people who wanted a job in April, May, and June likely reflects the impact of the pandemic on the job market, as mandatory business closures, stay-at-home orders, and concerns about the coronavirus may have kept many individuals from engaging in labor market activity. Most people who wanted a job had not looked for work recently. If they had actively looked for work in the past 4 weeks and were available to take a job, they would have been counted among the unemployed.

If all people who want a job but were not in the labor force were added to the total 17.8 million people unemployed in June, the resulting 25.9 million people would represent 15.4 percent of the combined total of the labor force plus those who want a job. A similar calculation results in 17.9 percent for May, 19.8 percent for April, and 7.5 percent for March.

19. How are these data different from the unemployment insurance (UI) claims data?

Every week, the Department of Labor's Employment and Training Administration (ETA) reports the number of people filing initial and continued claims for UI benefits. Individuals file initial claims to request a determination of basic eligibility for the UI program. A continued claim is filed after an initial claim to receive benefits for a particular week of unemployment. Because the UI claims data are weekly series, they can capture the impact of economic shocks more quickly than the BLS monthly household and establishment surveys, particularly when these shocks hit between survey reference periods.

Data users must be cautious about trying to compare or reconcile the UI claims data with the official unemployment figures derived from the household survey. The unemployment data gathered through the household survey in no way depend upon the eligibility for or receipt of UI benefits. There are conceptual, coverage, and scope differences between the two data sources.

In many cases, UI claims data exclude people who would be identified as unemployed in the household survey. For example, the UI claims data generally exclude:

- Unemployed people who exhausted their benefits without finding work
- Unemployed people who have not yet earned benefit rights because they have not met their state's work and wage requirements, such as new entrants and reentrants to the labor force
- Unemployed people who voluntarily quit their previous jobs
- Unemployed people who were fired for cause from their previous jobs
- Otherwise eligible unemployed people who either delay filing for benefits or choose not to file for benefits

In other cases, the UI claims data include people who would not meet the household survey definition of unemployed. Some regular state UI programs allow individuals to collect partial benefits when their work hours have been reduced. These working people would be classified as employed in the household survey, and many might be included among those working part time for economic reasons, a category of workers that grew considerably as a result of the pandemic. (See item 15.)

In addition, the Families First Coronavirus Response Act, specifically the Division D-Emergency Unemployment Insurance Stabilization and Access Act of 2020, signed into law on March 18, 2020, allowed state UI programs to temporarily modify or suspend the "actively seeking work" requirement in response to the pandemic. With the exception of those unemployed on temporary layoff, people without a job who are not actively seeking work are not classified as unemployed in the household survey. Rather, they are classified as not in the labor force.

Thus, the number of claimants in the regular state UI programs includes both people who would be considered employed and people who would be considered not in the labor force in the household survey. ETA's weekly claims report does not include information on whether claimants are collecting partial benefits or actively seeking work.

With respect to geographic scope, the U.S. totals published by ETA include claims reported by Puerto Rico and the U.S. Virgin Islands, both of which maintain regular state UI programs. The household survey covers the 50 states and the District of Columbia, and does not include Puerto Rico or the Virgin Islands.

Furthermore, the Coronavirus Aid, Relief, and Economic Security (CARES) Act, signed into law March 27, 2020, created two new programs for unemployment compensation in response to the coronavirus pandemic. These are Pandemic Unemployment Assistance (PUA) and Pandemic Emergency Unemployment Compensation (PEUC). The PUA program provides for up to 39 weeks of benefits to individuals who are self-employed, seeking part-time employment, or otherwise would not qualify for or have exhausted all rights to regular unemployment compensation, extended benefits, or PEUC. The PEUC program provides for up to 13 weeks of benefits to individuals who have exhausted or have no

rights to regular benefits and who are able, available, and actively seeking work. Additionally, states must offer flexibility in meeting the "actively seeking work" requirement if individuals are unable to search for work because of illness, quarantine, or movement restriction.

The number of people claiming benefits under these new programs are listed in ETA's UI weekly claims report separately from the number of people claiming benefits under the regular state UI programs, with a one-week lag. As with the regular state UI programs, claimants under these new programs would cut across the household survey classifications of employed, unemployed, and not in the labor force.

Learn more about how the household survey measures unemployment.

20. Why are the unemployment insurance (UI) claims higher than the number of unemployed people?

People do not need to receive UI benefits to be classified as unemployed in the household survey. Likewise, not all people who receive UI benefits would be classified as unemployed in the household survey. Under normal circumstances, the conceptual, coverage, and scope differences tend to cause the household survey estimate of unemployed people to be larger than the number of individuals claiming benefits in UI programs. (See the explanation in item 19 and the recent comparison of household survey data and UI counts.) For example, there were 6.2 million unemployed people in February 2020, compared with 2.1 million continued claimants under the regular state UI programs for the week ending February 15th (both not seasonally adjusted). (See UI "insured unemployment" for continued claims as published March 12, 2020.)

However, the coronavirus pandemic and efforts to contain it resulted in a severe curtailment of economic activity. In response to this, there were unprecedented expansions of UI programs and eligibility for benefits. Under these unique circumstances, the relative relationship between unemployment as measured by the household survey and recipients of unemployment compensation has changed. For example, there were 18.1 million unemployed people in June 2020, compared with 17.9 million continued claimants under the regular state UI programs for the week ending June 13th (both not seasonally adjusted). (See UI "insured unemployment" for continued claims as published June 25, 2020.) In addition, the two new programs (see item 19) add many more people not included in the regular state UI program estimates, but are reported at a lag. For the week ending June 6th, PUA and PEUC claimants numbered 11.0 million and approximately 852,000, respectively. The total number of people claiming benefits in all programs for the week ending June 6th was 30.6 million (as published June 25, 2020).

21. How are workers under the Paycheck Protection Program (PPP) treated in these data?

BLS has no data on businesses participating in the Paycheck Protection Program (PPP) or on workers who receive payments through this program. We do not know how many people are working because of this program.

In the establishment survey, if employees receive pay for any part of the reference pay period, they are counted as employed. If they do not receive pay, they are not counted. The establishment survey does not determine what funds are used to pay employees.

The household survey does not ask about the Paycheck Protection Program (or program participation in general) in the basic monthly labor force questionnaire. No specific guidance was provided to survey interviewers and no specific determination was made to categorically classify people in the survey based on whether or not they receive payments from this program.

See additional questions related to the effects of the pandemic on the household and establishment survey data:

What is the reference period for the two surveys?

What's the difference between a furlough and a layoff in the household survey?

When are the household survey microdata files available?

How many working people had to take care of children who could not go to school?

Do the household and establishment surveys measure telework?

Are there plans to learn more about people affected by the pandemic?