

Frequently asked questions: The impact of the coronavirus (COVID-19) pandemic on the Current Population Survey/Housing Vacancy Survey (CPS/HVS)

The coronavirus pandemic affected data collection operations for the CPS/HVS during the first and second quarters of 2020. Data users should understand and consider these changes in data collection operations when interpreting the CPS/HVS estimates for the first and second quarters of 2020.

How did the data collection procedures change for the CPS/HVS in response to the coronavirus pandemic?

The Census Bureau suspended in-person interviews for the CPS/HVS on March 20th, 2020. The suspension of in-person interviews continued through the entirety of data collection for the second quarter during April, May, and June. During this period, the Census Bureau continued to conduct the CPS/HVS by telephone, including efforts to collect telephone interviews for households and vacant units that would normally have been in-person interviews.

The CPS/HVS sample design seeks to collect data on sampled housing units for a total of 8 months, meaning that interviewers attempt to complete an interview in each of those 8 months. Once selected, a housing unit is in the sample for 4 consecutive months, out for 8 months, and then in the sample for 4 months. Under normal procedures, the first and fifth interviews are conducted via in-person interviews. In other months, a telephone interview can be conducted instead of an in-person interview if certain conditions are met. The suspension of in-person interviews during the second quarter of 2020 meant that telephone contact attempts replaced in-person interview attempts for all housing units in the sample, regardless of their month in sample.

These telephone contacts relied on phone numbers identified through multiple sources. For housing units with a completed interview in a previous month, interviewers attempted to contact the occupant or knowledgeable proxy interviewed during the previous month. Additionally, interviewers were encouraged to use the resources available to them to identify contact information for sample housing units and/or knowledgeable proxy respondents. These resources included internal resources such as purchased third-party telephone lookup databases, as well as public records databases such as tax assessor records. They also included telephone contacts with knowledgeable local sources such as landlords, leasing offices, neighbors, and postal workers who might be able to identify vacant units, provide contact information for the property owner, and/or complete a proxy interview.

The suspension of in-person interviews affected the entirety of the data collection period for the second quarter during April, May, and June. It also affected data collection during the first quarter of 2020 because the suspension began prior to the end of data collection operations in March. In each month, CPS/HVS data collection begins at the start of the week containing the 19th and closes out early the following week. The suspension of in-person interviews on March 20th, 2020 occurred on Friday during the week of data collection. Interviewers were able to make at least one in-person visit attempt to most sample units before in-person visits were suspended.

How does the CPS/HVS weighting and methodology account for non-response?

The CPS/HVS methodology assumes that the in-person visits and other data collection steps will allow interviewers to make a determination for every unit in the sample of whether the unit is an occupied unit with a completed CPS interview or a Type A (eligible but no data collected/refusal), Type B (eligible but unoccupied/vacant), or Type C (ineligible/not a residential unit) non-interview. In months when normal data collection procedures are in place, this process relies on in-person visits to allow the interviewer to observe the visible attributes of the unit and attempt to contact neighbors or other individuals who may have knowledge of the vacancy status of the unit in order to identify all potential HVS-eligible units. Following the suspension of in-person interviewing, the number of HVS eligible interviews (Type Bs) declined in April, May, and June relative to their historical averages, and the number of Type A units increased. These changes may be due to the data collection changes resulting in more units with unresolved interview statuses or to a true decrease in the number of vacant units, and the data collected for the second quarter does not distinguish between these possibilities.

The CPS/HVS weighting and estimation procedures are designed under the assumption that the data collection procedures will accurately determine the interview status (Type A, B, or C) of the units in the housing sample. The CPS/HVS weights adjust for changes over time in the overall response rate by adjusting the weights to ensure that the estimates total to the overall number of housing units in the United States and to several other control totals. However, the weighting methodology does not include a non-response component to adjust for differences in response rates between vacant versus occupied units, rental versus homeowner units, or other subgroups. If the suspension of in-person interviews disproportionately reduced the ability of interviewers to complete data collection for HVS-eligible vacant units compared to occupied units, the impact would be a lower estimate of the vacancy rate.

In addition to the implications for the overall level of the vacancy rate estimates, data users should also consider the potential for the changes in data collection procedures to disproportionately affect data collection among some groups more than others, along with the consequences of differential non-response for the CPS/HVS estimates. Because the CPS/HVS weights do not include a non-response component to adjust for differences in the response rates of different subgroups, the CPS/HVS estimates would reflect any differences in the relative response rates of specific subgroups. For example, if the changes in data collection procedures increased the difficulty of data collection for vacant units more than occupied units, the CPS/HVS estimates would reflect this impact on data collection by showing a lower vacancy rate. Similarly, if the changes in data collection procedures increased the difficulty of data collection for vacant rental units more than vacant homeowner units, the CPS/HVS estimates would reflect the impact on data collection by showing a relatively larger reduction in the rental vacancy rate than in the homeowner vacancy rate.

Were there any changes to the methodology for processing the data or producing estimates?

No, there were no changes to the procedures used to process the data and produce estimates. The CPS/HVS methodology is described in Technical Paper #77, "[Design and Methodology: Current Population Survey—America’s Source for Labor Force Data](#)," published in October 2019.

What was the response rate for the second quarter of 2020?

The overall response rate for the second quarter of 2020 was 67 percent. This is approximately 12 percentage points lower than the 79 percent response rate for the first quarter of 2020. The second quarter 2019 response rate was 79 percent.

The overall response rate for the second quarter of 2020 reflects three monthly data collection efforts in April, May, and June. The monthly response rates were 70 percent in April, 67 percent in May, and 65 percent in June. These monthly rates reflect the presence of the changes to CPS/HVS data collection procedures during all three months.

During the first quarter of 2020, the monthly response rates were 82 percent in January, 83 percent in February, and 73 percent in March. These rates reflect the use of normal data collection procedures during January and February and the suspension of in-person interviews midweek during the data collection operations for March.

The table below displays the monthly response rates for April, May and June 2020 separately for each month in sample (MIS) group. For comparison, the table also displays similar estimates for each month and MIS in 2019.

Table 1: Response Rate by Month-In-Sample (MIS) for each Month in Q2 2020 and Q2 2019.

| Month in Sample | April 2020 | May 2020 | June 2020 | April 2019 | May 2019 | June 2019 |
|-----------------|------------|----------|-----------|------------|----------|-----------|
| Total | 70 | 67 | 65 | 83 | 82 | 82 |
| 1 | 47 | 48 | 48 | 81 | 80 | 80 |
| 2 | 64 | 56 | 56 | 83 | 83 | 83 |
| 3 | 76 | 68 | 61 | 84 | 83 | 83 |
| 4 | 78 | 77 | 69 | 84 | 83 | 84 |
| 5 | 69 | 68 | 68 | 83 | 80 | 81 |
| 6 | 73 | 71 | 71 | 82 | 83 | 82 |
| 7 | 76 | 74 | 72 | 83 | 81 | 84 |
| 8 | 78 | 78 | 74 | 83 | 83 | 82 |

Could the changes in data collection procedures affect the CPS/HVS estimates of vacancy?

The changes in data collection procedures could have affected the CPS/HVS estimates of vacancy for the second quarter of 2020. We have been investigating the potential impacts of the data collection changes, but given available resources and data we have not been able to precisely measure the effects of the data collection changes apart from the effects of the COVID-19 pandemic. Because the data collection changes occurred in response to the onset of the COVID-19 pandemic, it is difficult to separate the effects of the data collection changes from the effects of COVID-19. Data users should therefore exercise caution when comparing the second quarter estimates to previous quarters, interpreting the differences between quarters to reflect both the effects of the COVID-19 pandemic and the effects of changes in data collection procedures.

Could the changes in data collection procedures affect the CPS/HVS estimates of the homeownership rate?

The changes in data collection procedures could have affected the CPS/HVS estimates of the homeownership rate for the second quarter of 2020. In particular, data users should consider the potential for the suspension of in-person interviews to disproportionately affect the response rates of renters versus homeowners. For example, if response rates declined further among rental units than homeowner units following the suspension of in-person interviews, the effects on the CPS/HVS estimates would be a lower estimate of the number of rental households, a higher estimate of the number of homeowner households, and a higher estimate of the homeownership rate. Data users should therefore exercise caution when comparing the second quarter estimates to previous quarters, interpreting the differences between quarters to reflect both the effects of the COVID-19 pandemic and the effects of changes in data collection procedures.

Table 2 shows the homeownership rate by mode and region in 2019 prior to the suspension of in-person interviews. These estimates show that homeowners accounted for approximately 60 percent of in-person interviews in 2019, compared to 67 percent of phone interviews and 70 percent of interviews where the data collection mode is missing. The regional estimates show that this pattern is present in all four regions, with in-person interviews showing a lower share of homeowners and a higher share of renters than the other modes.

Table 2: Homeownership rates in 2019 by mode and region.

| | | Region | | | |
|--------------|------------|------------------|----------------|--------------|-------------|
| | All | Northeast | Midwest | South | West |
| In Person | 60% | 55% | 63% | 62% | 56% |
| Phone | 67% | 64% | 71% | 68% | 62% |
| Not Reported | 70% | 65% | 73% | 72% | 66% |

Note: Sample is limited to completed interviews of occupied housing units and includes data from all twelve months of 2019.

Could the changes in data collection procedures affect the CPS/HVS estimates of the housing inventory composition?

The changes in data collection procedures could have affected the CPS/HVS estimates of the components of the housing inventory. The CPS/HVS weights are controlled to the total number of housing units in the United States, so the estimated number of all housing units in the housing inventory is not affected by the data collection changes. However, the potential impacts of the data collection changes on the estimates of vacancy and tenure described in the previous sections could affect the estimated components of the housing inventory. Specifically, any change in the estimated vacancy rate will affect both the estimated number of vacant units and the estimated number of occupied units, because the sum of vacant and occupied units must equal the total number of housing units in the United States. Data users should therefore consider the CPS/HVS weighting methodology when interpreting the estimates of the components of the housing inventory.

Will the changes in data collection procedures continue in the third quarter of 2020?

Yes. While CPS/HVS data collection procedures for July 2020 will reintroduce in-person interviewing in some areas of the United States, in-person interviewing will continue to be suspended in many areas. These data collection procedures may also continue to change in August and September. Documentation of the data collection procedures used in the third quarter of 2020 will therefore be included in the release of the third quarter CPS/HVS estimates—which is scheduled for October 27, 2020.