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Article

The COVID Retirement Boom: Did Data Collection Disruption Play a Role?

by Daniel Thompson*

One of the most frequently discussed labor market patterns of the COVID-19 pandemic was an increase in retirements, particularly among persons aged 65–74. This article considers whether the measured rise in the retired share of the population reflects changes to Current Population Survey (CPS) data collection procedures that were necessitated by public health efforts. These changes contributed to a sharp increase in survey nonresponse from February to June 2020. The largest apparent growth in the retired share of the population occurred in March 2020, when data collection procedures changed and nonresponse started to increase. However, that survey's reference period preceded the declaration of COVID-19 as a pandemic and the implementation of public health measures, suggesting that nonresponse bias may have driven the CPS-measured increase in the retired share of the population. Other surveys and data sources show little evidence of an increase in retirements during the pandemic.

Introduction

Economic commentaries have drawn attention to a "COVID retirement boom" (Faria-e-Castro 2021), a "great retirement" (Rodgers and Ricketts 2022), or "excess retirements" (Montes, Smith, and Dajon 2022; Faria-e-Castro and Jordan-Wood 2023) that emerged as the COVID-19 pandemic unfolded. Labor markets were massively disrupted in the first several months of the pandemic as nonessential businesses were closed (and in many cases failed), schools and childcare facilities suspended in-person learning and services, and consumer and business demand patterns shifted. Older persons experienced substantially higher COVID-19 hospitalization and mortality rates than younger persons did. Intuitively, this would seem to motivate many older persons to retire, increasing the retired share of the population. Monthly Current Population Survey (CPS) data in fact show an increase in the retired share of the population aged 55 or older in the first several months of the pandemic, from 48.1 percent in February 2020 to 49.5 percent in June 2020, as the number of retirees rose by about 1.5 million. This increase is mostly concentrated among individuals aged 65–74 (Rodgers and Ricketts 2022; Davis 2021; Fry 2021), whose retired share increased abruptly from 63.8 percent in February 2020 to 65.3 percent in March 2020.

This article examines whether CPS data collection disruptions, necessitated by emergency public health measures, played a role in the measured increase in the retired share of the U.S. population in 2020. Major changes to CPS data collection processes occurred in March 2020, including the suspension of in-person interviews, the closure of two call centers that had previously assisted field interviewers, and last-minute attempts to find phone numbers that corresponded with each sampled residential address (Bureau of Labor Statistics [BLS] 2020a; Rothbaum and Bee 2021; Berchick, Mykyta, and Stern 2020). These changes contributed to a marked increase in nonresponse rates in 2020 from 18 percent in February to

Selected Abbreviations

ACS	American Community Survey
BLS	Bureau of Labor Statistics
CDC	Centers for Disease Control and Prevention
CES	Current Employment Statistics
CPS	Current Population Survey

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Selected Abbreviations—*Continued*

CPS-ASEC	Current Population Survey Annual Social and Economic Supplement
IPUMS	Integrated Public Use Microdata Series
MIS	month-in-sample
SIPP	Survey of Income and Program Participation
WHO	World Health Organization

27 percent in March and 35 percent in June. Census Bureau working papers have considered a potential increase in nonresponse bias in the CPS Annual Social and Economic Supplement (CPS-ASEC)[1] (Rothbaum and Bee 2021; Berchick, Mykyta, and Stern 2020), and Rothbaum and others (2021) have examined nonresponse bias in the American Community Survey (ACS) during the pandemic. So far, however, only Ward and Edwards (2021) have examined whether monthly labor market data were affected by changes to CPS data collection, finding some evidence of bias in unemployment rates and other labor market measures.

This article suggests that the increase in the share of respondents reporting that they were retired corresponds more closely with the CPS data collection changes than with the trajectory of events during the pandemic. The largest month-to-month increase of the retired share occurred from February to March 2020, corresponding with the onset of data collection changes. However, the reference period for the March 2020 CPS was the week before widespread business closures and the start of lockdowns. This pattern, if valid, would suggest that millions of older workers anticipated the trajectory of the pandemic before major disruptions occurred. Moreover, the analysis shows that attrition for potentially reinterviewed respondents increased in March 2020 and the following several months, and as interview cohorts from the first months of the pandemic moved in and out of interview months, the retired share of the population rises and falls. The article concludes by suggesting ways that researchers can further consider CPS nonresponse bias and measurement error more broadly, for data covering the pandemic era and other times.

Retirement Patterns in the CPS and Other Data Sources During the Pandemic

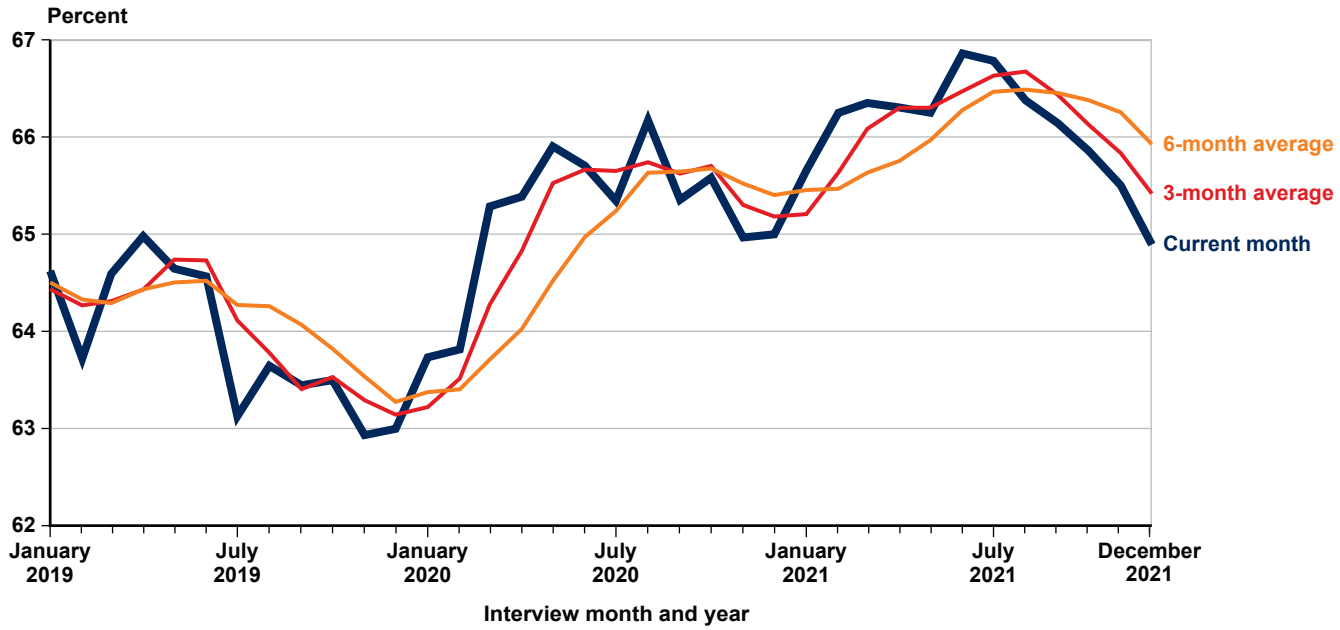
The CPS, a monthly labor market survey administered by the Census Bureau for BLS, is one of two sources of official U.S. employment statistics. (The other source being the Current Employment Statistics [CES] establishment, or payroll, survey.) The CPS is a survey of the noninstitutional population aged 15 or older, drawn from a sample of residential addresses across the United States. Each month, a new panel of households begins a 16-month participation cycle, following a 4-8-4 schedule: Responding households are interviewed in each of the first 4 consecutive months, known as month-in-sample (MIS) 1–4. Households in the panel are not interviewed for the next 8 months, then are reinterviewed in each of the final 4 months (MIS 5–8). The interview in the first month of each in-sample period (MIS 1 or MIS 5) is typically conducted in person and the interviews in the other in-sample months are conducted mostly by phone, although about one quarter of respondents are interviewed in person in all months. CPS panels are rotating: From the address sample, a new cohort of responding households enters MIS 1 each month. (CPS data are available for researchers in the University of Minnesota's Integrated Public Use Microdata Series [IPUMS] database [Flood and others 2022].)

The CPS nonresponse rate, like that of other federal surveys, had been slowly increasing in the years before the pandemic (Meyer, Mok, and Sullivan 2015). CPS nonresponse bias is mitigated by a four-stage process that weights the survey data to Census Bureau population counts. The process also includes a nonresponse bias adjustment by region. Conditional on the weighting variables—which include age, race, sex, and geographic region—labor market outcomes are assumed to be unbiased by nonresponse. To assure that direct measures of labor market status remain exogenous to survey weights, they are omitted from the weighting procedure.

Chart 1 shows the retired share of respondents aged 65–74, the age group for whom the increase in retirements was greatest (Rodgers and Ricketts 2022; Davis 2021; Fry 2021).[2] It plots current-month values and 3- and 6-month averages as of January 2019–December 2021. The plots do not extend past 2021 because BLS updated the CPS population controls[3] in January 2022, such that ongoing CPS estimates were no longer consistent with the estimates for earlier periods.

Chart 1 shows considerable volatility, with a notable decrease in the retired share in 2019; an abrupt, almost discontinuous increase in March 2020; and sizable swings during the months that followed. Most of the analyses of retirement trends during the pandemic have used moving averages to smooth this volatility and have tried to focus on the underlying trend. However, moving averages mask the abrupt upward shift that occurred in March 2020—when data collection

Chart 1.
Percentage of CPS respondents aged 65–74 who reported that they were retired: Current month, and 3-month and 6-month averages, monthly 2019–2021



SOURCE: Author's calculations using CPS data from the IPUMS database.

procedures changed—and the discontinuity appears to have unfolded over the first several months of the pandemic. Although the gradual change shown by the moving averages may seem like a plausible labor market response to the pandemic, this study finds that the discontinuity in the underlying, unsmoothed monthly data is more reflective of the sudden CPS data collection changes that occurred at the time.

Several analyses have used CPS data to examine retirement trends during the first several months of the pandemic, finding substantively significant increases in the number of retirements and labeling the trend a "COVID retirement boom" (Faria-e-Castro 2021) or a "great retirement" (Rodgers and Ricketts 2022). Faria-e-Castro shows that the 12-month moving averages of observed retirements during the pandemic considerably exceeded his projected cubic trend. Using 3-month moving averages, Rodgers and Ricketts show an almost 11 percent increase in the number of retirees aged 65–74 from January 2020 to October 2021. Fry (2021) finds that the retired share of the population aged 65–74 increased from 64.0 percent in the third quarter of 2019 to 66.9 percent in the third quarter of 2021; however, Fry notes that these measures may have been affected by data collection changes. Davis (2021) finds that the 6-month moving average of the retired share of the population diverged significantly from prepandemic trends for those aged 55–64, 65–74, and 75 or older. Montes, Smith, and Dajon (2022) and Faria-e-Castro and Jordan-Wood (2023) estimate "excess retirements," or those that would not have been likely if the pandemic had not occurred. Montes, Smith, and Dajon find that excess retirements were concentrated among those aged 65 or older, and Faria-e-Castro and Jordan-Wood attribute many of them to abnormally high returns on certain investment assets. Tüzemen (2022) attributes the difference in prepandemic and pandemic-era labor force participation almost entirely to increased retirements among workers aged 65 or older.

Other research using CPS data has arrived at more modest conclusions. Davis and others (2023) use CPS panel data and find that, while the likelihood of workers aged 55–79 leaving employment increased by 6.7 percentage points, the likelihood of retirements increased by only 1.0 percentage point. Tamborini and Kim (2022) also examine CPS panel data, finding that the retired share of those aged 65–69 increased from 56.7 in April 2019 to 57.2 in April 2020, while the retired shares of those aged 55–59 and 60–64 declined slightly. However, note that these panel studies examine only the subset of CPS respondents who do not attrit. If panel CPS respondents attrit, their responses are dropped from the panel data. Writing when CPS

nonresponse was one-third its current rate, Shimer (2012) suggested that the CPS panel data may not be representative of the U.S. population.

Research using labor market data other than CPS data suggests that any COVID-era changes to the retired share of the population were limited. The composition of each CPS cross-section changes each month, which means that monthly changes in nonresponse bias could affect CPS-based summary labor market measures. By contrast, the Survey of Income and Program Participation (SIPP) is a retrospective annual survey that uses the same sample for each month of the calendar year. As a result, nonresponse bias essentially affects all months equally. SIPP data show that the retired share of the population was statistically unchanged throughout 2020 (Thompson 2022). However, SIPP data suffer from "seam" bias: Reported transitions (such as changes in employment or Social Security beneficiary status) tend to cluster at the December-to-January seams of annual interviews (National Academies of Sciences, Engineering, and Medicine 2018; Bennett, Klee, and Munk 2022), because of misreporting or interviewer error. This means that estimates of retirement transitions in the SIPP during the early pandemic months may be biased downward. Data from another source, the CES establishment/payroll survey, show that total nonfarm payroll employment (of workers of all ages) decreased by 1.4 million in March 2020. Almost half of this decrease occurred in the leisure and hospitality industries, particularly food service (BLS 2020b), which tends to employ younger workers than other industries do. For the same month, the CPS data show an abrupt increase of 1 million retirements, an apparent inconsistency with the CES data in both magnitude and composition.[4] A third data source is administrative data on Social Security retired-worker benefit claims, which are publicly available as aggregate counts. These are administrative data, not based on a sample, and therefore unaffected by nonresponse bias. The volume of claims changed little in 2020 (Goda and others 2022), suggesting that the number of retirements did not increase.

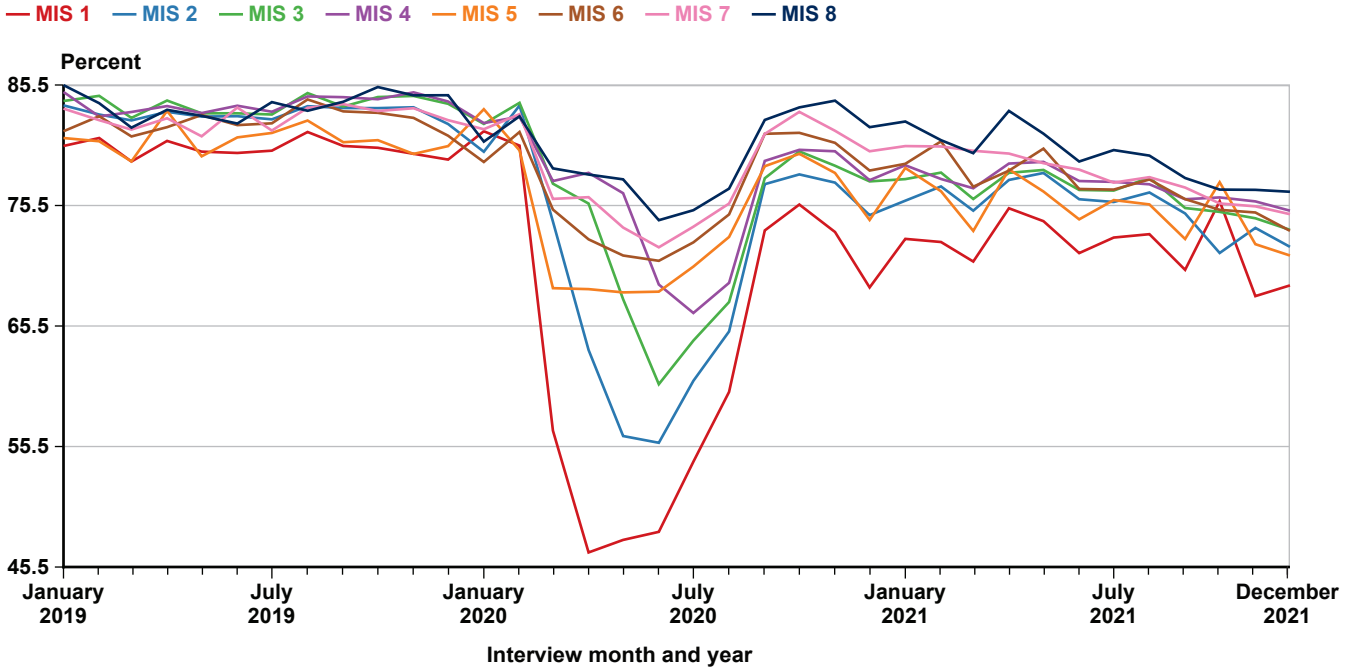
CPS Data Collection Changes and Growing Nonresponse

Data collection disruptions during the pandemic could have affected CPS summary measures (BLS 2020a; Rothbaum and Bee 2021; Berchick, Mykyta, and Stern 2020). A key change was the suspension of in-person interviewing. CPS interviews are normally conducted in person for MIS 1 and MIS 5, and most interviews are conducted by phone for the other in-sample months. This is partly because CPS uses an address sample rather than a phone number sample, meaning that the phone numbers needed for subsequent interview months must be collected in person. However, the Census Bureau suspended in-person interviewing on March 20, 2020, and Ward and Edwards (2021) suggest that an informal suspension of in-person interviewing may have occurred before then. Interviewers attempted to find phone numbers corresponding with the address-based sampling frame, but detailed records are not available of the methods that interviewers used to find these phone numbers, how successful they were, or the biases that potentially resulted. Another notable change was that two call centers that assisted with phone interviewing were closed. Although the effects of these changes are not fully known, survey researchers generally consider changes to the interview mode to be substantial methodological differences.

Those changes likely contributed to the substantial decrease in CPS response rates during the pandemic, most notably from March to June in 2020. Chart 2 shows monthly CPS response rates from 2019 through 2021 by respondent MIS. The largest decrease in the response rate during the pandemic was for those respondents in MIS 1. The response rate for MIS 1 respondents was 80.5 percent in February 2020. For those who entered MIS 1 in the following month, it was 56.8 percent; and for those who entered in April, it was only 46.7 percent. Across successive respondent cohorts from February to May 2020, response rates dropped by 27 percentage points for those entering MIS 2 and by 16 percentage points for those entering MIS 3. In the first months of the pandemic, nonresponse rates more than doubled from rates that had already concerned social scientists (Meyer, Mok, and Sullivan 2015). Although response rates improved from July to September 2020 as in-person interviews resumed and other data collection procedures normalized, they remained depressed relative to prepandemic levels.

Table 1 examines another facet of nonresponse by comparing sample attrition over time for respondents aged 65–74 in 27 successive CPS panels, as identified by their MIS 1 interview cohort. The table shows, for all respondents in each panel cohort who completed their MIS 1 interview, the percentage distribution by the first MIS of nonresponse. Recall that respondents are interviewed for 4 consecutive months (MIS 1–4), are not interviewed in the next 8 months, then are interviewed again for the next 4 months (MIS 5–8). A respondent attrits if, after completing an interview

Chart 2.
Monthly CPS response rates, by respondents' MIS, 2019–2021



SOURCE: Author's calculations using CPS data from the IPUMS database.

in one MIS, he or she is not interviewed in the next scheduled MIS. Some attrition is expected because of residential moves, vacations, mortality, and other factors.

The shaded cells in Table 1 highlight the attrition percentages that occurred in March 2020 for each MIS 1 interview cohort. For example, March 2020 was MIS 2 for members of the February 2020 cohort, and it was MIS 5 for the March 2019 cohort. The table shows that, for each cohort, attrition was substantially higher in March 2020: For each MIS column, the percentages in the shaded cells are greater than those for all previous cohorts. Table 1 also shows that the percentage of respondents who were interviewed in MIS 1 and never attritted from their panel declined from 70–74 percent for prepandemic cohorts to 64–69 percent among those cohorts that were in MIS 2–8 in March 2020.

If nonresponse is uncorrelated with retirement status (conditional on weighting and nonresponse adjustment variables including race or ethnicity, geography, and age), the marked increase in nonresponse rates will not bias summary labor market measures. However, there are several reasons why labor market status may affect the propensity to respond to a survey, such as whether someone is available to accept a visit or take a call from a Census Bureau interviewer, and whether an address has a corresponding phone number. These reasons may have also changed or increased in importance during the pandemic, as many people worked from home, were laid off, had canceled travel, or were avoiding contact with people outside their household.

Researchers have considered whether nonresponse bias affected surveys differently during the pandemic, concluding that "coronavirus infects surveys, too" (Rothbaum and Bee 2021). Both that study and Rothbaum and others (2021) use address-based administrative records to examine nonresponse bias in the CPS-ASEC and the ACS. They find little evidence of nonresponse bias in the 2019 CPS-ASEC, but the 2020 CPS-ASEC is tilted toward older, more educated, and more affluent respondents. The bias is large enough that the authors construct and release new weights adjusted for pandemic nonresponse, but for the CPS-ASEC and ACS only, not for the monthly CPS data. Berchick, Mykyta, and Stern (2020) conclude that CPS data collection changes may have affected CPS-ASEC–based estimates of health insurance coverage and other measures. Ward and Edwards (2021) find that nonresponse increased among hard-to-reach monthly CPS respondents, which biased unemployment rates downward and labor force participation rates upward. However, no published research has considered how nonresponse bias affected estimates of the retired share of the population.

Table 1.
Percentage distribution of CPS respondents aged 65–74 by MIS of first attrition: By interview cohort, 2018–2020

Interview cohort (MIS 1)	MIS[a] of first attrition							
	2	3	4	5	6	7	8	No attrition
2018								
June	1.8	3.7	2.0	9.4	4.4	3.1	3.4	72.2
July	2.9	2.8	2.2	9.9	4.1	4.0	3.7	70.3
August	2.2	1.8	2.6	9.2	3.0	4.6	2.4	74.0
September	1.8	3.3	3.0	10.7	4.5	3.1	2.4	71.4
October	2.3	3.1	1.9	9.5	3.5	2.8	3.9	73.0
November	2.2	2.4	3.7	9.9	3.5	4.2	3.3	71.0
December	2.6	2.6	3.4	10.7	4.1	4.0	[b] 6.1	66.7
2019								
January	1.8	3.1	2.2	12.4	3.4	[b] 6.9	4.1	66.3
February	2.4	1.8	3.8	9.2	[b] 6.6	5.1	2.5	68.7
March	1.9	2.5	3.2	[b] 15.2	4.5	4.0	5.2	63.6
April	2.4	2.5	3.7	13.6	3.9	5.3	3.1	65.5
May	2.4	2.5	3.0	14.9	3.5	4.7	2.7	66.3
June	2.2	2.6	3.4	13.6	4.6	4.5	3.2	66.0
July	2.3	2.6	2.3	13.4	4.0	3.8	3.6	68.0
August	2.4	1.8	2.5	13.6	3.9	2.6	2.5	70.7
September	2.3	2.3	2.9	9.4	4.4	3.5	3.2	72.0
October	2.4	2.7	3.1	11.2	5.0	3.7	3.0	68.9
November	2.5	3.4	3.0	10.2	5.2	3.2	3.1	69.5
December	2.6	2.0	[b] 4.8	9.5	3.7	4.9	5.5	67.0
2020								
January	2.5	[b] 5.7	3.4	9.5	4.2	4.8	3.2	66.7
February	[b] 4.6	3.2	2.8	9.8	6.8	3.3	3.1	66.5
March	1.9	3.0	3.6	10.7	5.6	4.5	3.8	67.0
April	2.0	3.7	4.4	9.4	4.3	5.9	5.5	64.8
May	1.5	2.2	4.1	11.8	6.2	5.8	3.5	64.9
June	2.0	2.9	3.4	15.6	6.8	6.5	5.3	57.6
July	2.4	1.7	5.1	11.4	5.2	7.1	3.9	63.3
August	1.9	3.0	3.0	13.6	6.9	4.6	4.0	63.0

SOURCE: Author's calculations using CPS data from the IPUMS database.

NOTES: Weighted using MIS 1 weights.

Rounded components of percentage distributions do not necessarily sum to 100.0.

a. Months in sample are not all consecutive. Respondents are interviewed for 4 months (MIS 1–4), unobserved for 8 months, and then interviewed again for 4 months (MIS 5–8).

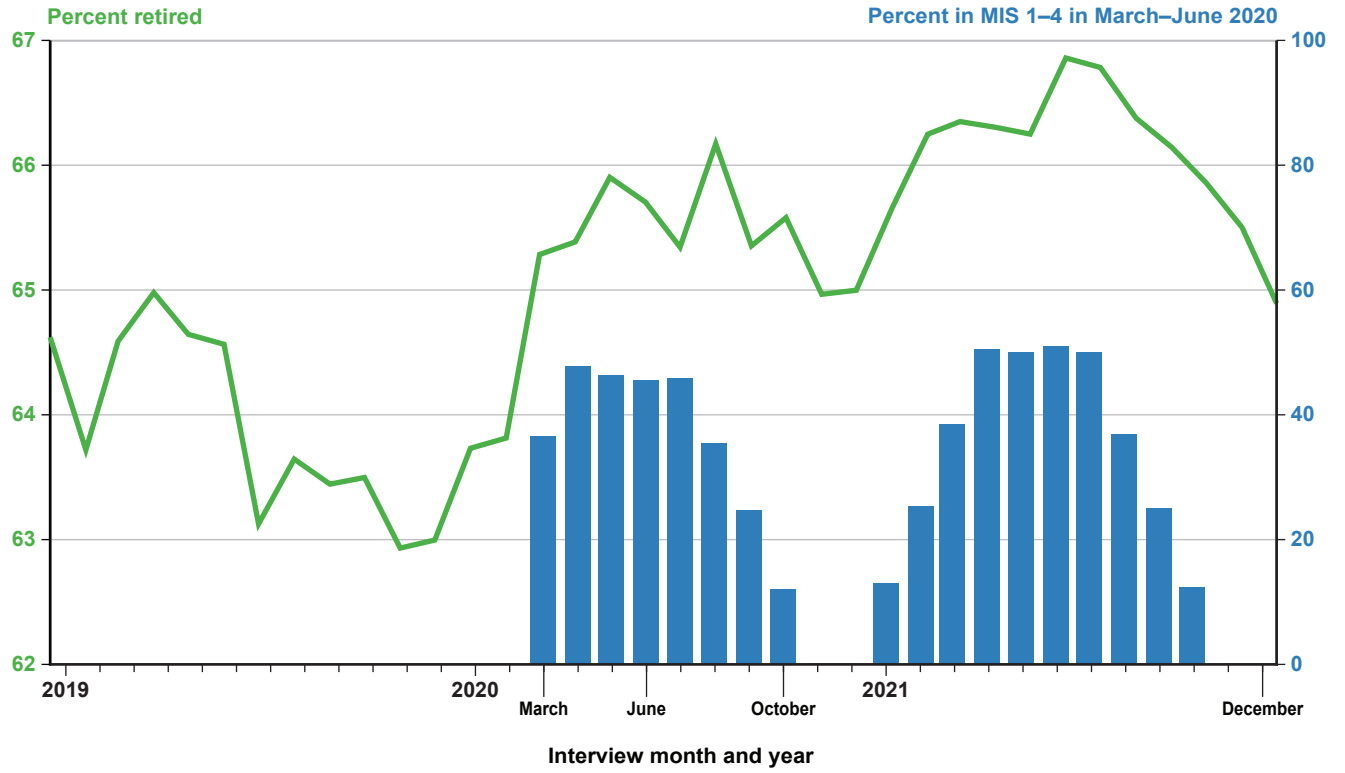
b. Highlighted cells show interviews conducted in March 2020.

Evidence of CPS Data Collection Changes and Nonresponse Bias

Chart 3 suggests that the measured increase in the retired share of the population is an artifact of data collection disruptions and nonresponse bias. It shows, for respondents aged 65–74, both the weighted percentage who reported that they were retired in each monthly interview from January 2019 through December 2021; and the weighted percentage who, from March through June 2020, had been in one of their first 4 months in sample. The volatility of the CPS-reported retired shares corresponds with the movement of early pandemic interview cohorts as they rotated in and out of interview months. Recall that nonresponse considerably increased from March to June 2020, and CPS panel attrition likewise increased. Interestingly, the retired share of respondents rose and fell as these cohorts transitioned in and out of interview months: As successive cohorts entered their out-of-sample months after MIS 4, the retired share also dipped. When they returned for MIS 5 and the ensuing three interviews, the retired share rose again. As successive cohorts finished their MIS 8 interviews, the retired share fell again. This pattern suggests that nonresponse bias is greater in cohorts that were interviewed during the first few months of the pandemic.

The initial increase in the retired share of respondents largely occurred in March 2020, when the Census Bureau suspended in-person interviews, two call centers closed, interviewers attempted to find phone numbers for addresses in the CPS sample, and nonresponse started to increase considerably. However, the March 2020 monthly CPS reference period was March 8–14 (BLS 2020a). That was the week before states and other authorities began to require closure of nonessential businesses and started mass lockdowns. Box 1 shows a timeline of key developments that occurred during the first months of the pandemic. When the March 2020 monthly CPS reference period started, the World Health Organization (WHO) had not yet declared COVID-19 to be a pandemic and confirmed U.S. cases were still relatively few. The only significant public health measures that had been initiated were the suspension of in-person instruction at many schools, colleges, and universities.

Chart 3.
Percentage of CPS respondents aged 65–74 who reported that they were retired; and the weighted percentage who were in one of their first 4 months in sample during March–June 2020; monthly 2019–2021



SOURCE: Author's calculations using CPS data from the IPUMS database.

More severe public health measures were implemented in the following week (March 15–21), when the March monthly CPS data were collected. The Centers for Disease Control and Prevention (CDC) and the White House recommended against holding or attending large events. States began to order the closure of nonessential businesses, and California issued a statewide stay-at-home order. CPS in-person data collection was suspended during this week, likely contributing to the increase in nonresponse from 18 percent in February 2020 to 27 percent in March and 35 percent in June, as noted earlier.

Restrictions on geographic mobility reached their greatest extent over the next few weeks. On March 23, the number of states with stay-at-home orders increased from four to 10, and then to 32 by March 31. As states implemented lockdowns, labor markets were massively disrupted.

Studies such as Goda and others (2023) have used Google Trends data to track search term usage patterns over time, providing another view of the unfolding pandemic in 2020 and how it affected labor markets. The prevalence with which users select certain search terms at certain times may indicate changes in retirement trends. Chart 4 plots relative search volume indexes for the use in the United States of each of three search terms: "unemployment benefits," "retirement," and "Social Security." The plots are scaled from 0 to 100, where 100 represents peak usage of that term. The indexes track daily search term usage from February through April 2020. The March monthly CPS reference period is shaded in blue, and the March monthly CPS data collection period is shaded in green. Searches for "unemployment benefits" began to increase substantially after March 15, which was after the CPS reference period and early in the CPS data collection period, suggesting that the major labor market changes started *after* the CPS reference period. Notably, the search history data provide little, if any, evidence to suggest that retirement preparation increased in response to the pandemic. Searches for "retirement" declined slightly as the pandemic started. There was a small increase in searches for "Social Security," but that occurred well after the CPS reference and data collection periods and the apparent increase in retirements among CPS respondents.

Comparing the cross-sectional and panel CPS data also shows some evidence of nonresponse bias. Most articles on retirement patterns during the pandemic have used all CPS observations and treated the survey as repeated cross-sectional data. A handful of other articles have used CPS panel data, linking respondents across months and reweighting respondents to adjust for attrition, or alternatively, using the IPUMS longitudinal weights (for example, Davis and others 2023 and Tamborini and Kim 2022). These analyses examine the same respondents at two different periods rather than viewing cross-sections comprising different respondents each month. Yet like the cross-sectional CPS, the panel CPS is potentially biased by an amalgam of initial nonresponse and attrition from subsequent interviews, and weights and nonresponse bias adjustments may not address these issues.

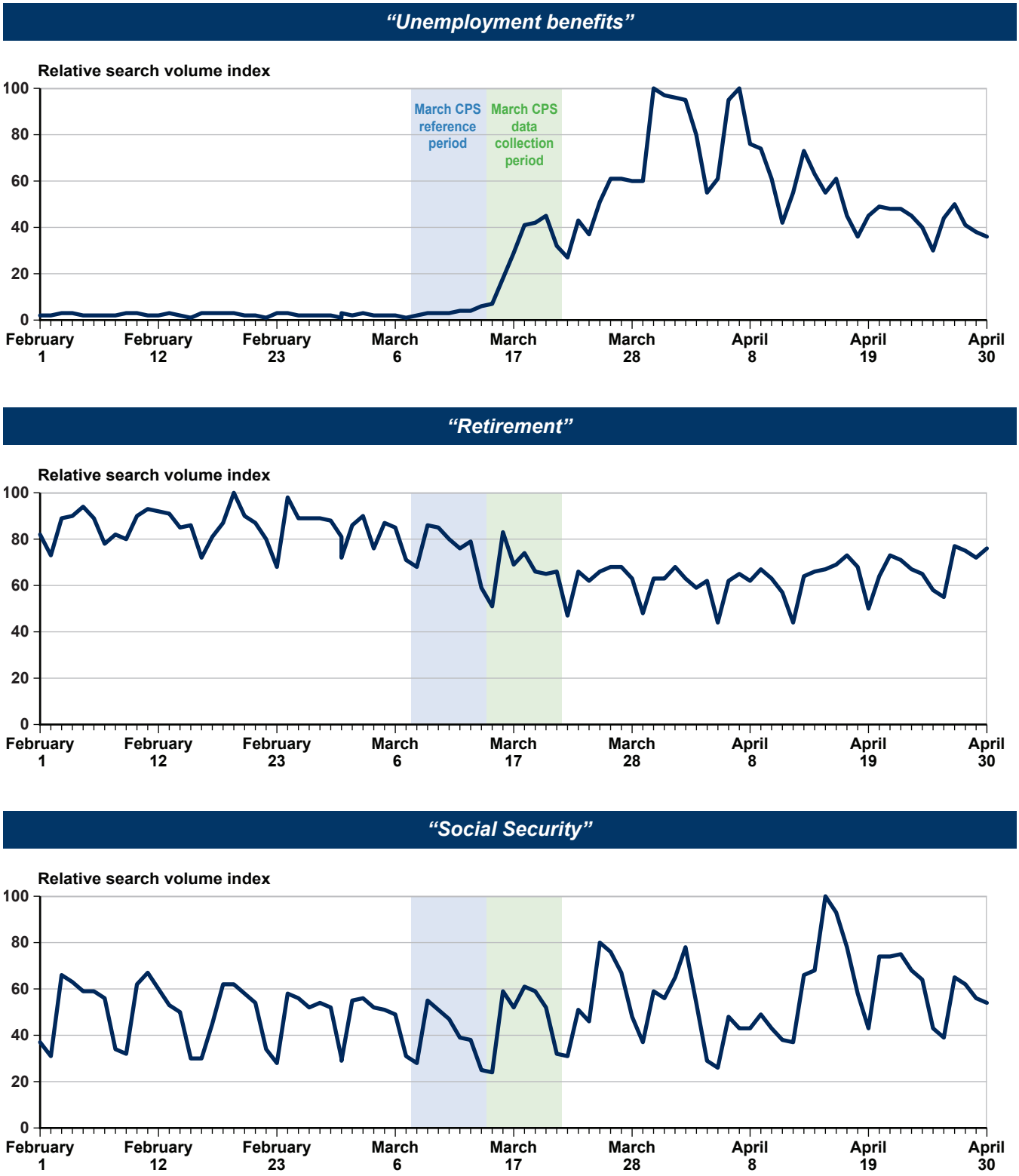
Chart 5 suggests that bias from nonresponse and attrition affects the cross-sectional CPS data, the panel CPS data, or both. It shows, for 2019–2021, alternative weighted monthly percentages of respondents aged 65–74 who reported that they were retired. A monthly weight applies to the cross-sectional data; a longitudinal weight applies to the CPS panel data, which includes only those respondents who completed all 8 months. Neither line is smoothed. If weighting and bias adjustment fully address nonresponse and attrition, these two lines should be similar because they refer to the same sample. The only conceptual difference between the two lines is that the panel line omits those respondents who do not respond in all 8 months in sample. However, the lines are quite different. The line for the longitudinal weight shows considerably more volatility, and it indicates that the beginning of the increase in the retired share of respondents preceded, by a few months, the increase indicated by the monthly weights.

Box 1.
Key COVID-19 pandemic–related events in 2020

Date	Event
January 20	First confirmed case of COVID-19 in the United States.
January 31	The WHO International Health Regulations Emergency Committee declares COVID-19 a Public Health Emergency of International Concern. Department of Health and Human Services Secretary Alex Azar declares COVID-19 a U.S. public health emergency.
February 13	CDC confirms the 15th case of COVID-19 in the United States.
March 8	**Start of March CPS basic monthly reference period.**[a] Schools, colleges, and universities begin suspending in-person instruction.
March 11	WHO declares COVID-19 a pandemic.
March 12	Diagnosed COVID-19 cases in the United States exceed 1,000.
March 14	**End of March CPS basic monthly reference period.**[a]
March 15	**Interviewing for the March CPS basic monthly begins.**[a] CDC recommends against gatherings of 50 or more people.
March 16	The White House advises against any gatherings of more than 10 people. Pennsylvania and Oregon are the first states to order statewide closures of nonessential businesses.
March 19	California is the first state to issue a statewide stay-at-home order.
March 20	**The Census Bureau suspends in-person interviewing for the CPS.**[a]
March 21	**Interviewing for the March CPS basic monthly ends.**[a]
March 23	States with stay-at-home orders increase from four to 10.
March 27	President Trump signs the Coronavirus Aid, Relief, and Economic Security (CARES) Act into law.
March 31	Number of states with stay-at-home orders increases to 32.
April 3	CDC announces new mask-wearing guidelines and recommends that all people wear a mask when outside of their homes.
July 19	**Interviewing for the July CPS basic monthly begins.**[a] In some areas, very limited in-person interviews resume, and two call centers resume limited interviewing.
September 13	**Interviewing for the September CPS basic monthly begins.**[a] In-person interviews are conducted after first attempting to reach households by telephone. The two call centers continue to help with a small number of interviews by telephone.

SOURCES: CDC and BLS.
a. CPS-related event (in **bold**).

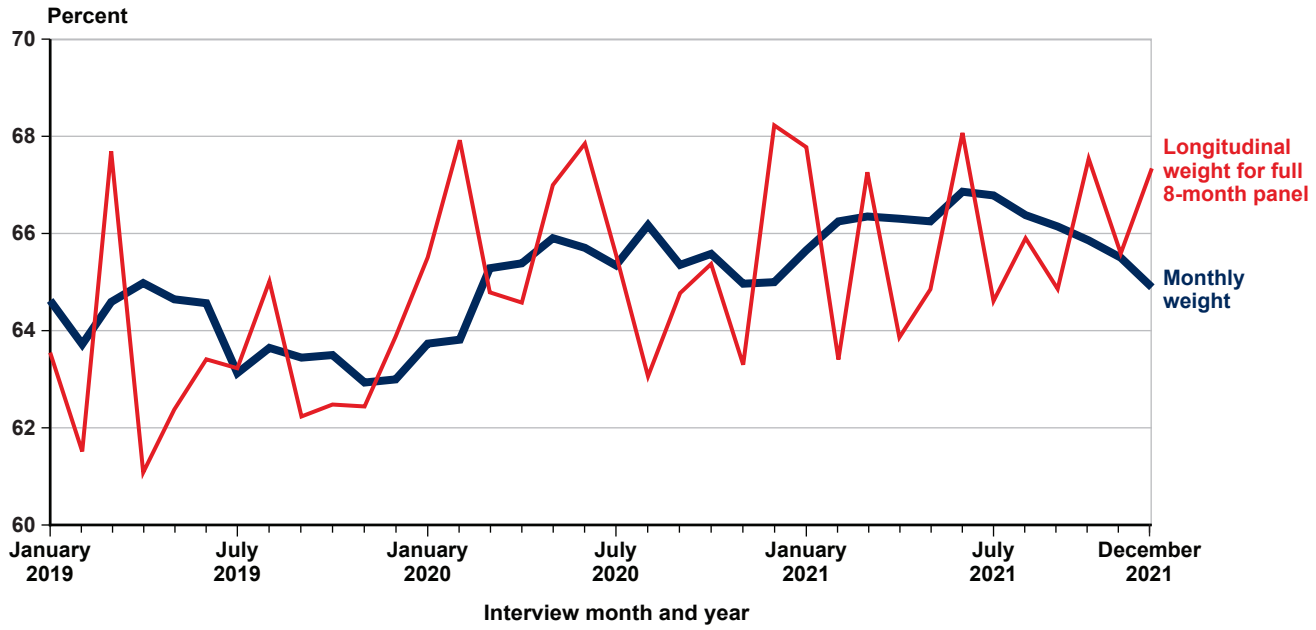
Chart 4.
Google relative search volume index in the United States for selected retirement planning–related search terms, February–April 2020



SOURCE: Author's analysis using Google Trends.

NOTE: "Relative search volume index" equals a search term's volume on a given day relative to the term's peak volume during the entire charted time frame.

Chart 5.
Weighted percentages of CPS respondents aged 65–74 who reported that they were retired, monthly 2019–2021



SOURCE: Author's calculations using CPS data from the IPUMS database.

Discussion

This analysis shows that most of the CPS-measured increase in the retired share of the population aged 65–74 occurred in March 2020, the first month CPS data collection was disrupted by the pandemic. Yet the CPS reference period for March was the week before major public health interventions began. This timeline suggests that much of that increase may be due to data collection disruptions and the substantial increase in nonresponse rather than because of the pandemic or actual labor market changes. When respondents who entered the CPS during the pandemic moved in and out of interview months, the shares who reported being retired rose and fell, which suggests that these cohorts may have more nonresponse bias. Other data sources, such as the SIPP, Social Security claims data, and Google Trends search histories, show little evidence of a COVID-19 retirement boom.

Several factors could influence nonresponse and its effects on the measured retired share of the population. First, survey researchers view retired workers as some of the most cooperative respondents. Their cooperativeness may have increased relative to non-retired respondents during the pandemic, perhaps if they were more likely to be at home and available for phone interviews. Second, the interview mode could play a role. Most respondents in MIS 1 and MIS 5 and nearly one-quarter of respondents in MIS 2–4 and 6–8 are typically interviewed in person, but in-person interviewing was suspended in March 2020. If the interview mode is correlated with retirement status, these mode changes likely introduced some bias. Third, changing migration patterns may have influenced nonresponse. Travel restrictions were among the first public health responses to the pandemic. Retirees who would otherwise have attrited from their CPS panels canceled their travel plans, possibly increasing the retired share of respondents. Moreover, some retirees are "snowbirds" or "sunbirds" who may have changed their migration patterns in response to the pandemic. Those changes may also have affected CPS estimates, as retired respondents who would typically be lost to survey follow-up before the pandemic now were available for further interviews.

Although this analysis suggests that the apparent COVID retirement boom in the early months of the pandemic may be an artifact of data collection changes, the true retired share of the population remains unclear. Because there is little information on nonrespondents, estimating nonresponse bias to any precise degree is challenging. The pandemic (and non-COVID factors) also affected other surveys such

as ACS and SIPP, making them imperfect external benchmarks. Administrative data, such as Social Security claims records, are indirect measures because not all retirees claim Social Security benefits at the time they retire. There are no definitive administrative indicators of retirement status against which CPS data can be benchmarked.

Further research could investigate the extent to which estimates of retirement status and other labor market indicators are affected by nonresponse bias and other survey research challenges. One informative analysis would be to link the CPS monthly data to administrative records on Social Security retired-worker benefit claims. The administrative data by themselves show that new claims did not increase during the first several months of the pandemic. If CPS cross-sectional data could be linked to administrative records and showed that Social Security benefit receipt increased in the first several months of the pandemic, this would suggest that CPS monthly data are not representative, and that the respondents interviewed during the pandemic months were more likely than respondents in a typical (prepandemic) month to be retired.

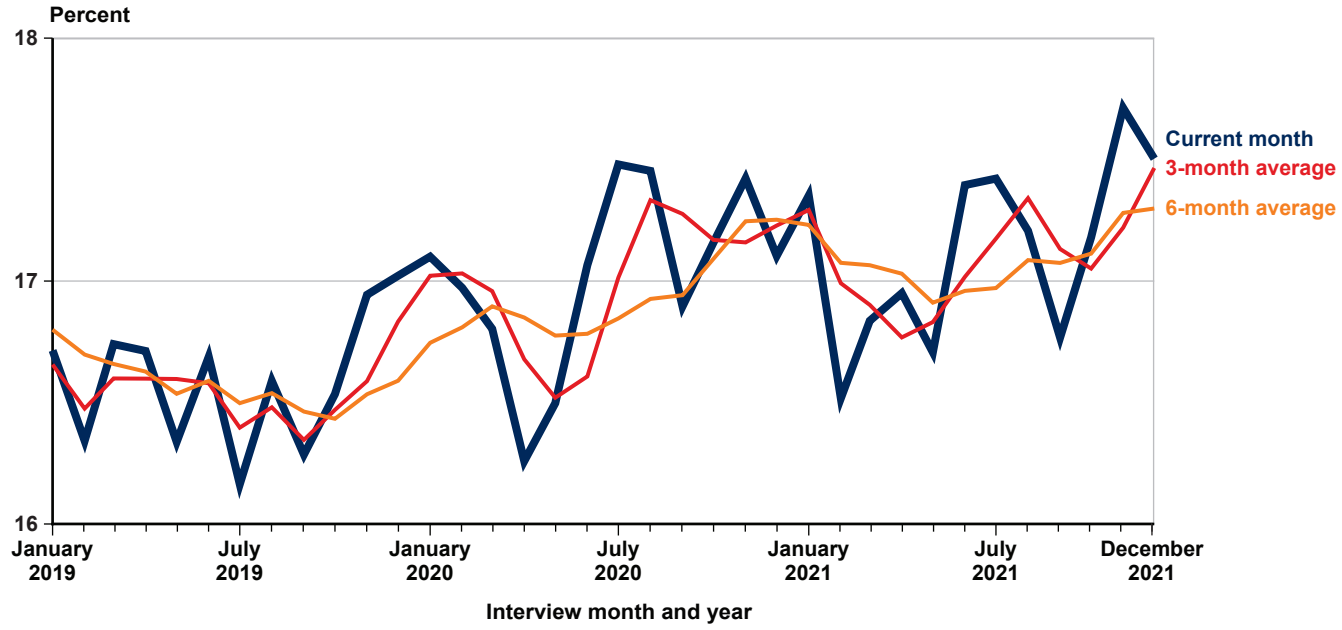
Research on nonresponse bias and measurement error in the CPS monthly files is limited by the fact that the monthly CPS has not been linked to administrative records. Results from the CPS-ASEC, SIPP, and ACS, as well as the University of Michigan's Health and Retirement Study, have been linked at the individual level to administrative records from the Social Security Administration and the Internal Revenue Service. These linked data have been used in a large body of research on measurement and sampling error. However, CPS monthly data have not been linked to administrative data, even though the data for the subset of CPS monthly respondents who are interviewed for the CPS-ASEC have been.

Although recent research on survey error has examined measurement error from inaccurate responses or nonresponse to individual survey questions, researchers should also be aware of potential nonresponse bias because of nonparticipation in an entire survey. CPS response rates largely recovered once data collection procedures normalized after 2020 (Chart 2), but response rates have gradually decreased since then. As of July 2023, the CPS response rate was 70.2 percent (not shown), just 5.3 percentage points above the lowest value observed during the pandemic. Other surveys, such as the ACS, SIPP, the National Opinion Research Center's General Social Survey, and several health surveys, also have had decreasing response rates. If nonresponding households differ from responding households, and these differences are not captured by the basic demographic and geographic variables used in weighting and nonresponse bias adjustments, statistics generated from these surveys contain bias.

This article has explored CPS data collection changes, their effects on measured retirement status and measurement error, and researchers' interpretations of these changes. However, the magnitude of this potential measurement error should not be overstated. The bias this article addresses is at most a few percent, which, while substantively meaningful, is still relatively small. The Census Bureau, BLS, and field interviewers should be commended for adapting a 60,000-household national labor market survey to the massive disruptions of the pandemic in a short time and producing labor market statistics that seem fairly close to reality, even if they appear to contain some bias. Without switching to phone interviewing, entire states could have been omitted from the sample, or the CPS could have been paused altogether.

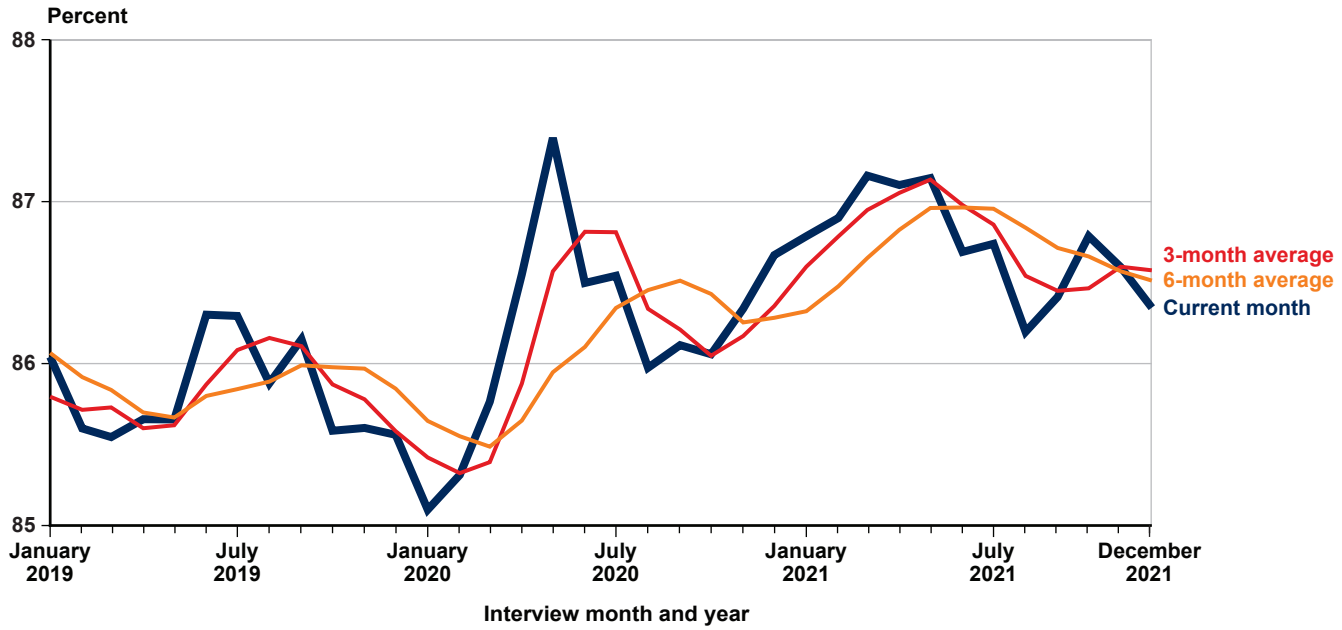
Appendix A

Chart A-1.
Percentage of CPS respondents aged 55–64 who reported that they were retired: Current month, and 3-month and 6-month averages, monthly 2019–2021



SOURCE: Author's calculations using CPS data from the IPUMS database.

Chart A-2.
Percentage of CPS respondents aged 75 or older who reported that they were retired: Current month, and 3-month and 6-month averages, monthly 2019–2021



SOURCE: Author's calculations using CPS data from the IPUMS database.

Notes

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[1] The CPS-ASEC includes supplementary questions on income, health insurance coverage, and other topics. In this article, "CPS" refers to the basic monthly surveys unless CPS-ASEC is specified.

[2] Appendix Charts A-1 and A-2, respectively, present similar plots for the populations aged 55–64 and 75 or older. Estimates for these groups show relatively little change in the retired share.

[3] Population controls are "independent estimates of population used to weight the household survey sample results to reflect the civilian noninstitutional population age 16 and older" (BLS 2022).

[4] Part of this discrepancy is likely because the BLS uses seasonally adjusted composite summary measures for CES payroll indicators. Differences in the survey universes (such as CES's exclusion of self-employed workers) and nonresponse from employers whose establishments closed likely also play a role.

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