



# Comparing Federal Government Surveys That Count the Uninsured: 2021

## INTRODUCTION

Timely and accurate estimates of the number of people who do not have health insurance coverage are important for understanding trends in health insurance coverage and the impacts of policy changes that affect health insurance coverage. This brief provides an annual update to comparisons of uninsurance estimates from four federal surveys<sup>i,ii</sup>:

- The American Community Survey (ACS)
- The Current Population Survey (CPS)
- The Medical Expenditure Panel Survey – Household Component (MEPS-HC)
- The National Health Interview Survey (NHIS)

In this brief, we present current and historical national estimates of uninsurance along with the most recent available state-level estimates from these surveys. We also discuss the main reasons for variation in the estimates across the different surveys, including how these surveys and their estimates were affected by the ongoing COVID-19 pandemic and how data users should consider these impacts when considering if and when to selectively use these data.

## National Estimates

Table 1 shows the most recent available estimates of uninsurance from each of the four surveys listed above. Some of the surveys produce estimates of the number of adults who were uninsured for an entire year, while others estimate uninsurance at a specific point in time (i.e., at the time of the survey), and some collect multiple measures of uninsurance.

**Table 1. National Uninsurance Estimates from Four Federal Surveys: Total Population**

Survey	Time Period	Uninsured for the Entire Year		Uninsured at a Specific Point in Time	
		Number (millions)	Percent of Population	Number (millions)	Percent of Population
ACS	2020	N/A	N/A	28.6	8.8
CPS	2020	28.0	8.6	N/A	N/A
MEPS	2019	20.6	6.3	N/A	N/A
NHIS	2020	19.1	6.0	31.6	9.7

Sources: CPS estimates from U.S. Census Bureau, 2021, "Health Insurance Coverage in the United States: 2020"; ACS estimates for civilian noninstitutionalized population from SHADAC analysis of 2020 ACS 1-Year Experimental Data Tables, "Table XK202701. Age by Health Insurance Coverage Status"; NHIS estimates from Cohen, Terlizzi, Cha, & Martinez, 2021, "Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey, 2020" and from SHADAC analysis of the 2020 NHIS Public Use Files; MEPS estimates from <https://dataatools.ahrq.gov/meeps-hc>.

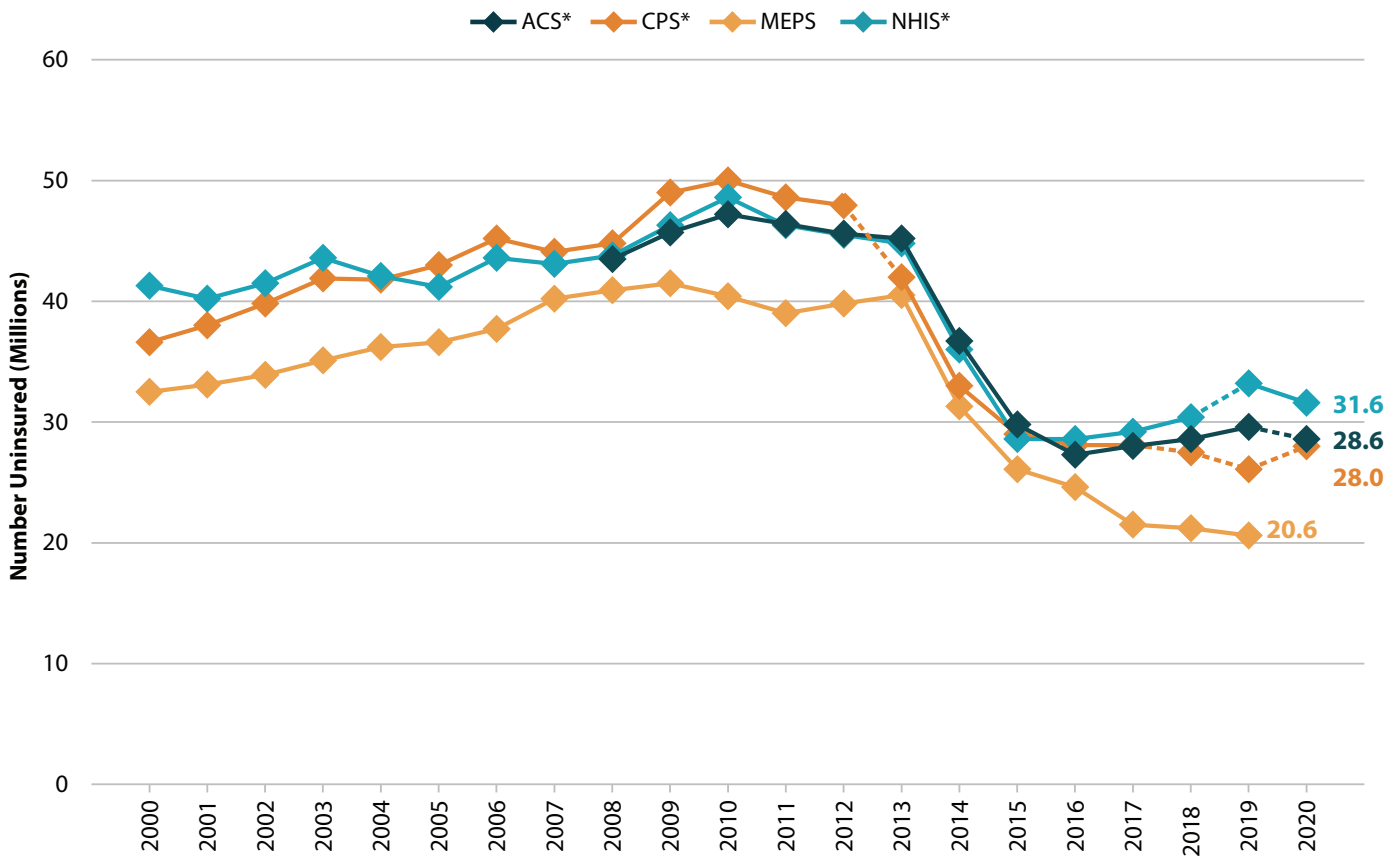
<sup>i</sup> See Appendix for key information from each of these surveys, such as who is included in the survey, when and how the survey is conducted, response rates, and the availability of state-level insurance estimates.

<sup>ii</sup> Though the data are not presented here as they would not align with the single-year scope of this brief, the CPS also collects point-in-time estimates for the survey year (e.g., 2021 data-year estimates are collected in the 2021 survey year).

## National Trends

The uninsurance estimates from the four surveys have demonstrated similar national trends over time, as shown in Figure 1. See Appendix A for information on historical changes to the CPS that affect trend analyses.

**Figure 1. Trend in National Number of Uninsured, 2000 to 2020: All Ages**  
 ACS and NHIS point-in-time estimates of the uninsured; CPS and MEPS estimates of the full-year uninsured



\* Dashed line “---” indicates a break in series.

Sources: CPS estimates from U.S. Census Bureau, 2021, “Health Insurance Coverage in the United States: 2020”; ACS estimates for civilian noninstitutionalized population from SHADAC analysis of 2020 ACS 1-Year Experimental Data Tables, “Table XK202701. Age by Health Insurance Coverage Status”; NHIS estimates from Cohen, Terlizzi, Cha, & Martinez, 2021, “Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey, 2020”; MEPS estimates from <https://datatools.ahrq.gov/meps-hc>.

## State-Level Estimates

The ACS and CPS are designed to produce state-level uninsurance estimates for all 50 states and the District of Columbia. No state-level estimates of uninsurance are currently published from the NHIS and MEPS-HC.

**Until 2019, the NHIS consistently produced at least partial state-level uninsurance estimates. However, state estimates are no longer available due to reductions in the NHIS sample size.**

Table 2 presents the most recent state-level estimates of uninsurance from the ACS and CPS. As with the national estimates, the estimated level of uninsurance for states varies across the two surveys; however, general patterns are consistent, insofar as states with low uninsurance levels typically have low levels in both surveys, and states with high levels of uninsurance have high levels in both surveys, etc.

**Table 2. 2020 State-Level Uninsured Rates from Two Federal Surveys: Total Population**

	ACS (Point-in-Time)	CPS (Full Year)		ACS (Point-in-Time)	CPS (Full Year)
<b>United States</b>	<b>8.8</b>	<b>8.6</b>	Missouri	10.1	9.7
Alabama	9.7	8.9	Montana	8.7	7.6
Alaska	11.6	12.6	Nebraska	8.1	7.3
Arizona	11.2	10.8	Nevada	12.0	10.2
Arkansas	8.5	8.5	New Hampshire	6.1	4.2
California	7.1	7.3	New Jersey	7.6	6.4
Colorado	8.4	10.4	New Mexico	9.7	11.8
Connecticut	4.6	4.8	New York	5.2	4.6
Delaware	6.3	8.4	North Carolina	10.6	10.0
Dist. of Columbia	3.5	3.3	North Dakota	7.2	6.2
Florida	12.4	12.3	Ohio	6.7	6.2
Georgia	13.0	14.5	Oklahoma	15.3	14.5
Hawaii	3.9	3.7	Oregon	6.6	4.7
Idaho	9.6	12.2	Pennsylvania	6.3	5.5
Illinois	7.1	6.5	Rhode Island	3.7	3.1
Indiana	7.5	6.1	South Carolina	10.5	8.5
Iowa	4.9	6.1	South Dakota	9.8	9.0
Kansas	8.8	9.2	Tennessee	10.2	11.4
Kentucky	5.8	6.9	Texas	17.5	17.5
Louisiana	8.2	7.7	Utah	8.5	9.7
Maine	7.5	5.1	Vermont	4.1	2.6
Maryland	5.7	4.3	Virginia	7.2	5.5
Massachusetts	2.6	2.4	Washington	6.3	7.8
Michigan	5.3	3.9	West Virginia	6.6	5.1
Minnesota	4.9	5.3	Wisconsin	5.6	4.8
Mississippi	11.7	11.9	Wyoming	11.3	9.6

Sources: ACS estimates for civilian noninstitutionalized population from SHADAC analysis of 2020 ACS 1-Year Experimental Data Tables, “Table XK202701. Age by Health Insurance Coverage Status”; CPS estimates for civilian noninstitutionalized population from SHADAC analysis of 2021 CPS ASEC microdata via U.S. Census Bureau Microdata Analysis Tool.

## COVID-19-Pandemic-Related Disruptions to Survey Data Collection and Data Quality

The 2020 ACS, 2020 and 2021 CPS Annual Social and Economic Supplements (ASEC), and 2020 NHIS were all subject to relatively major disruptions to data collection during the ongoing COVID-19 pandemic, forcing the surveys to temporarily change modes (e.g., substitute phone interviews for in-person), change survey designs or methods (e.g., introduce longitudinal components or new weighting strategies), or to temporarily suspend entire components of their data collection operations (e.g., suspend mail operations, suspend in-person follow-up). These disruptions decreased survey response rates and introduced varying amounts of nonresponse bias. Therefore, data users should use survey estimates collected during the pandemic with caution. See SHADAC brief, “Changes in Federal Surveys Due to and During COVID-19” for further discussion.

### 2020 American Community Survey

Stay-at-home orders disrupted the Census Bureau’s ability to mail out 2020 ACS questionnaires, causing the Census Bureau to suspend all ACS mail operations from mid-March through June 2020 and shift to calling sampled households (March–May) and to sending out full questionnaire packets and response reminders to areas with low response rates or poor internet connectivity. Other households with higher connectivity and response rates received information regarding online survey response options. Normal mail operations were able to partially resume in October 2020 and resumed in full in April 2021. In-person data collection was halted from March to June 2020, was resumed in a limited capacity in July, supplemented by phone follow-ups, and resumed fully for all areas without stay-at-home orders in September 2020.

These disruptions reduced the number of collected responses by one third, decreased response rates to 71 percent, and introduced measurable nonresponse bias, causing the survey to under-represent socioeconomically disadvantaged and harder-to-reach populations.<sup>1</sup> As a result, the Census Bureau determined that the 2020 ACS did not meet their data quality standards

and was not given an official release. An experimental version of the 2020 ACS data was released in November 2021, along with new experimental weights that use administrative, commercial, and decennial census data to help make the survey more representative of its target population.<sup>2</sup> Data users should exercise a high degree of caution when using the 2020 experimental ACS data and should not compare these data to other ACS data years or other non-experimental ACS data products.

### **2020 and 2021 Current Population Survey Annual Social and Economic Supplements**

The Census Bureau modified its data collection methods for the 2020 CPS Annual Social and Economic Supplement (ASEC), from which estimates of health insurance coverage for 2019 are generated. Due to the suspension of in-person and computer-assisted telephone interview (CATI) data collection and a complete shift to telephone-based interviewing, the response rate for the ASEC in March 2020 was about 10 percentage-points lower than in preceding months and resulted in measurable nonresponse bias.<sup>3</sup> The Census Bureau recommends exercising caution when using the 2020 CPS ASEC and suggests not comparing estimates from the survey to those from other data years.

In-person interviews resumed in most areas of the country for the 2021 CPS ASEC (2020 estimates), though attempts were first made to contact households by telephone.<sup>4</sup> Nonetheless, response rates continued to be substantially depressed, and levels of nonresponse in the 2021 CPS ASEC were more like levels observed in the 2020 survey than observed in surveys conducted before the pandemic.<sup>5</sup> Data users should continue to use caution when using 2020 estimates from the 2021 CPS.

### **2020 National Health Interview Survey**

Data collection for the National Health Interview Survey (NHIS), typically fielded through in-person visits to respondents' homes, was significantly impacted by the COVID-19 pandemic beginning in the second quarter (April to June) of 2020. The National Center for Health Statistics (NCHS) suspended all in-person visits starting March 19, 2020, and data was instead collected exclusively via telephone interviews through July 2020. A limited number of household visits resumed in select areas in July and in all areas of the country in September, though protocols to attempt contact via telephone first remained in place.

Additionally, starting in August and continuing through the end of December 2020, NCHS chose to simultaneously field the 2020 NHIS with a parallel subsample of about 20,000 adult respondents who completed the NHIS in 2019 and were re-contacted by telephone and asked to participate again.

These disruptions to NHIS data collection caused the household response rate to fall to 51 percent in 2020, down from 61 percent in 2019. The NHIS' re-interviews of 2019 respondents allowed NCHS to directly estimate the effect of the COVID-19 pandemic and related disruptions on nonresponse bias, finding that weighting procedures substantially reduced the level of bias in the 2020 NHIS, though some level of measurable bias was still present.<sup>6</sup>

### **Factors Contributing to Differences in Survey Estimates**

In addition to being affected differently by pandemic-related disruptions, there are many reasons why health insurance estimates typically vary across surveys. The surveys are designed to fulfill different goals, and they use different questions, statistical designs, and data collection and processing methods. Each of these factors likely contributes to differences in insurance estimates. The following section articulates specific differences between the surveys that are included in this brief.

#### **Conceptual differences in measures of uninsurance**

As noted earlier, some surveys collect information about whether a person lacked health insurance coverage for a full year, while others collect information on insurance status at a particular point in time, and some collect multiple measures of insurance coverage.

#### **Reference period**

Differences in the time period for which coverage is being reported contribute to differences in the survey estimates. Differences in the length of time for which respondents are being asked to recall their insurance coverage status can also result in differences in measurement error across the surveys.<sup>7,8,9,10,11,12</sup>

The CPS Annual Social and Economic Supplement (CPS ASEC), conducted in February-April annually, has historically asked respondents about their health insurance coverage during the entire previous calendar year, with respondents being asked to report their coverage for as long as 16 months prior to the interview. For their measures of coverage during the prior year, the NHIS and MEPS have shorter recall periods than the CPS. The ACS collects information about current coverage only.

### Differences in survey questions

Differences in the ways that health insurance questions are asked can also lead to differences in uninsurance estimates. For example, when the Census Bureau added a verification question to the CPS in 2000 that asked people who did not report any coverage if they were in fact uninsured for all of 1999, the estimated number of people without health insurance declined by 8 percent, from 42.6 million to 39.3 million.<sup>13</sup> The NHIS and MEPS also verify insurance status for people who do not report any of the specific types of coverage that the survey asks about, but the ACS does not.

Another difference in survey questions that can lead to different estimates across surveys is the fact that the CPS, NHIS, and MEPS use state-specific names for Medicaid and Children's Health Insurance Program (CHIP) programs while the ACS does not, instead referring to these programs as Medicaid, Medical Assistance, or any kind of government-assistance program for those with low incomes or a disability.

### Missing data and imputation

The CPS and ACS surveys have processes in place to manage missing data and impute missing values. In the CPS supplement that includes the health insurance questions, about 39 percent of households did not answer any questions in the 2020 survey, and this nonresponse was corrected by the Census Bureau using survey weights.<sup>14</sup> Similarly, in the 2019 ACS about 16 percent of responses had one or more of the health insurance items missing (information is not available for 2020); these missing data were imputed by the Census Bureau.<sup>15</sup> In contrast, the NHIS and MEPS impute little or no health insurance coverage information because the data for these two surveys are much more complete than either the CPS or ACS data.

### Deciding Which Survey Estimates to Use

Health policy analysts must decide which estimates to use among the multiple options available. No single survey provides the "best" estimates overall; rather, the most appropriate estimates will depend on the specific policy or research question being examined. The timeliness of the estimates, the geographies for which estimates are available, and the demographic or socioeconomic characteristics that are included in the estimates—along with the other factors described above—are among key considerations when choosing which estimates to use. For example, those interested in a "first look" at new health insurance coverage estimates will want to use the NHIS, since the NHIS estimates are released before the ACS and CPS estimates. If, on the other hand, sub-state estimates are of interest, the ACS will typically be the best source due to its large sample size, which allows for sub-state analyses (except in the case of the 2020 ACS experimental data). Every research question will require a consideration of survey characteristics in relation to analytic requirements.

The COVID-19 pandemic, and the resulting disruptions to the collection and quality of survey data, present a new factor to consider when deciding which data sources to use. Ultimately, when examining or evaluating any measure of health insurance coverage during 2020, it may be prudent to use more than one of the data sources discussed here to gain additional context on the range of estimates. Analysts should also consider using other sources of information about uninsurance and coverage such as administrative data, state-administered surveys, and other nationally representative government surveys such as the CDC's Behavioral Risk Factor Surveillance System (BRFSS) and Household Pulse Survey, administered by the Census Bureau.

## CONCLUSION

Federal surveys are essential resources for estimating the number of uninsured. Each survey provides a unique view of the problem of uninsurance, and together the surveys provide a wealth of information about how uninsurance varies by population characteristics and how it is associated with differences in access to and use of health care services and with health status. Data users should seek to understand how the pandemic affected surveys measuring coverage in 2020 and use caution when using data from those surveys.

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## About SHADAC

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## References

- <sup>1</sup> Asiala, M., Baumgardner, S., Galvin, S., Mykyta, L., Raglin, D., Renwick, T., Shin, H.B., Spader, J., Spence, M., & Stern, S.M. (2021, October 27). *An Assessment of the COVID-19 Pandemic's Impact on the 2020 ACS 1-Year Data* [#ACS21-RER-04]. U.S. Census Bureau 2021 ACS Research and Evaluation Report Memorandum Series. [https://www.census.gov/library/working-papers/2021/acs/2021\\_CensusBureau\\_01.html](https://www.census.gov/library/working-papers/2021/acs/2021_CensusBureau_01.html)
- <sup>2</sup> Rothbaum, J., Eggleston, J., Bee, A., Klee, M., & Mendez-Smith, B. (2021, November 30). *Addressing Nonresponse Bias in the American Community Survey during the Pandemic Using Administrative Data* [#ACS21-RER-05; SEHSD Working Paper #2021-24]. U.S. Census Bureau 2021 ACS Research and Evaluation Report Memorandum Series. [https://www.census.gov/library/working-papers/2021/acs/2021\\_Rothbaum\\_01.html](https://www.census.gov/library/working-papers/2021/acs/2021_Rothbaum_01.html)
- <sup>3</sup> Rothbaum, J. (2020, September 15). *How Does the Pandemic Affect Survey Response: Using Administrative Data to Evaluate Nonresponse in the Current Population Survey annual Social and Economic Supplement* [Blog post]. U.S. Census Bureau Research Matters. <https://www.census.gov/newsroom/blogs/research-matters/2020/09/pandemic-affect-survey-response.html>
- Berchick, E.R., Mykyta, L., Stern, S.M. (2020). *The Influence of COVID-19-Related Data Collection Changes on Measuring Health Insurance Coverage in the 2020 CPS ASEC* [SEHSD Working Paper 2020-13]. <https://www.census.gov/content/dam/Census/library/working-papers/2020/demo/se-hsd-wp2020-13.pdf>
- <sup>4</sup> U.S. Bureau of Labor Statistics. (2021). *Impact of the coronavirus (COVID-19) pandemic on The Employment Situation for March 2021*. <https://www.bls.gov/covid19/employment-situation-covid19-faq-march-2021.htm>
- <sup>5</sup> Rothbaum, J. & Hokayem, C. (2021, September 14). *How Did the Pandemic Affect Survey Response: Using Administrative Data Evaluate Nonresponse in the 2021 Current Population Survey Annual Social and Economic Supplement*. [Blog post]. U.S. Census Bureau Research Matters. <https://www.census.gov/newsroom/blogs/research-matters/2021/09/pandemic-affect-survey-response.html>
- <sup>6</sup> Bramlett, M.D., Dahlhamer, J.M., & Bose, J. (September 2021). *Weighting Procedures and Bias Assessment for the 2020 National Health Interview Survey*. Division of Health Interview Statistics, National Center for Health Statistics. [https://ftp.cdc.gov/pub/Health\\_Statistics/NCHS/Dataset\\_Documentation/NHIS/2020/nonresponse-report-508.pdf](https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHIS/2020/nonresponse-report-508.pdf)
- <sup>7</sup> Boudreaux, M., Noon, J.M., Fried, B., & Pascale, J. (2019, October 10). Medicaid expansion and the Medicaid undercount in the American Community Survey. *Health Services Research*, 54(6), 1263-1272. doi: 10.1111/1475-6773.13213
- <sup>8</sup> Noon, J.M., Fernandez, L.E., & Porter, S.R. (2019). Response error and the Medicaid undercount in the Current Population Survey. *Health Services Research*, 54(1), 34-43. doi: 10.1111/1475-6773.13058
- <sup>9</sup> Pascale, J., Fertig, A., & Call, K. (2019). Validation of two federal health insurance survey modules after Affordable Care Act implementation. *Journal of Official Statistics*, 35(2), 409-460. doi: 10.2478/jos-2019-0019
- <sup>10</sup> Sudman, S., Bradburn, N. & Schwarz, S. (1996). *Thinking about answers: The application of cognitive processes to survey methodology*. San Francisco, C.A.: Jossey-Bass.
- <sup>11</sup> Bhandari, S. (2004). *People with health insurance: A comparison of estimates from two surveys* [SIPP-WP-243]. <https://www.census.gov/content/dam/Census/library/working-papers/2004/demo/SEHSD-2004-02.pdf>
- <sup>12</sup> Lewis, K., Elwood, M.R., & Czajka, J. (1998). *Counting the uninsured: A review of the literature* [Occasional Paper-8]. <https://www.urban.org/sites/default/files/publication/70636/308032-Counting-the-Uninsured.PDF>
- <sup>13</sup> Nelson, C.T. & Mills, R.J. (2001). *The March CPS health insurance verification question and its effect on estimates of the uninsured*. <https://www.census.gov/content/dam/Census/library/working-papers/2001/demo/cps-asec-health-insurance-verification-question.pdf>
- <sup>14</sup> U.S. Census Bureau. (2020). *Current Population Survey: 2020 Annual Social and Economic (ASEC) Supplement*. <https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar20.pdf>
- <sup>15</sup> U.S. Census Bureau. (2019). American Community Survey 1-Year Estimates, Table B992701: Allocation of Health Insurance Coverage [Data set]. Accessed September 29, 2020. Available at <https://data.census.gov/cedsci/table?q=ACSDT1Y2019.B992701&tid=ACSDT1Y2019.B992701>



## APPENDIX A

### Comparison of Federal Surveys Used to Estimate Uninsurance

	ACS	CPS	MEPS-HC	NHIS
Sponsor(s)	Census Bureau	Bureau of Labor Statistics, U.S. Dept. of Labor (conducted by Census Bureau)	Agency for Healthcare Research & Quality (conducted by Census Bureau)	National Center for Health Statistics, Centers for Disease Control and Prevention
Primary Focus	General household survey; replaced decennial census long form	Labor force participation and unemployment	Health care access, utilization, and cost	Population health
Target Population	Entire population	Civilian non-institutionalized population	Civilian non-institutionalized population	Civilian non-institutionalized population
Sample Frame	Address-based (National Master Address File)	Address-based (Census 2010 sampling frame updated with new construction)	NHIS respondents	Commercial address list
Data Collection Mode	Mail; in-person; phone; internet	In-person; phone	In-person	In-person, phone†
Type of Uninsurance Measures	Point-in-time	All of prior calendar year: point-in-time (added in 2014)	Point-in-time; all of prior year; if uninsured, length of time uninsured; uninsured at some point in past year	Point-in-time; all of prior year; if uninsured, length of time uninsured; uninsured at some point in past year
Coverage: Verification Question for Uninsured	No	Yes	Yes	Yes
State-Specific Names Included for Medicaid/CHIP	No	Yes	Yes	Yes
Response Rate	71.2% (2020)	65.0% (2020)	46.0% (2019)	50.7% (2020)
Survey Period	Monthly	February through April	Panel over two calendar years	Continuous
State Health Insurance Estimates	50 states and D.C.	50 states and D.C.	Not published	Not published
Years Available	2008 to 2020*	1987 to 2020 (plus limited point-in-time estimates for 2021)	1996 to 2019	1998 to 2020

Sources: U.S. Census Bureau. (2020). American Community Survey: Response Rates [Data set]. Available at <https://www.census.gov/acs/www/methodology/>; U.S. Census Bureau. (2020). *Current Population Survey: 2020 Annual Social and Economic (ASEC) Supplement*. Retrieved from <https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar21.pdf>; Agency for Healthcare Research and Quality (AHRQ). (2020). MEPS-HC Response Rates by Panel [Data set]. Available at [https://meps.ahrq.gov/survey\\_comp/hc\\_response\\_rate.jsp](https://meps.ahrq.gov/survey_comp/hc_response_rate.jsp); National Center for Health Statistics (NCHS). (2020). *National Health Interview Survey: 2019 Survey Description*. Retrieved from [ftp.cdc.gov/pub/Health\\_Statistics/NCHS/Dataset\\_Documentation/NHIS/2019/Notes](ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHIS/2019/Notes); \*2020 1-Year ACS data are considered “experimental” data and should not be compared with other ACS data. The Census Bureau urges caution when using the 2020 experimental data. † The 2020 NHIS added phone data collection due to the COVID-19 pandemic.

### Within-survey Changes over Time: Questions & Methodology

In the same way that estimates *across* different surveys may not be comparable, estimates within the same survey may not always be comparable over time. This incomparability can be due to changes in survey questions and/or changes in survey methodology. In addition to the changes described below, beginning in 2020, the ACS, CPS and NHIS all underwent substantial methodological and content changes in response to the pandemic that may present problems for comparability. See SHADAC brief, “[Changes in Federal Surveys Due to and During COVID-19](#)” for a more thorough discussion of these changes.

#### Changes in the CPS

In 2014, the CPS incorporated a revised set of survey questions designed to improve the accuracy of its uninsurance estimates, which researchers have suggested more closely resembled a point-in-time measure than a measure of insurance coverage during the previous year (as was intended).<sup>i,iii</sup> Because of these revisions, CPS data from 2013 onward are not comparable to data from 2012 and earlier.

Data year 2018 represents another break in series for the CPS, as the CPS file for 2018 is the first official file to feature a new processing system that fully incorporates the information contained in the 2014 survey redesign.<sup>iv</sup> The updated data processing system uses a new method of estimating health insurance coverage and refines the ways in which respondents’ demographic, income, and health insurance data are cleaned, imputed, and weighted. With these new processing mechanisms in place, CPS data from 2018 and onward are not comparable to previous data years.

#### Changes in the NHIS

In 2019, the content and structure of the NHIS were updated in order to improve the measurement of health topics, reduce respondent burden by shortening the questionnaire, harmonize overlapping content with other federal health surveys, establish a long-term structure of ongoing and periodic topics, and incorporate advances in survey methodology and measurement.<sup>vi</sup> Although the 2019 changes do not constitute an official break in series, the National Center for Health Statistics (NCHS) notes that any differences observed between estimates for 2018 and 2019 may be due either to real change in the population or partly attributable to the 2019 NHIS questionnaire redesign and/or the updated weighting approach.<sup>vii</sup>

APPENDIX B

**Table B1. National Uninsurance Estimates from Four Federal Surveys: Nonelderly Adults (Age 18-64)**

Survey	Time Period	Uninsured for the Entire Year		Uninsured at a Specific Point in Time	
		Number (millions)	Percent of Population	Number (millions)	Percent of Population
<b>ACS (ages 19-64)</b>	2019	N/A	N/A	24.9	12.9
<b>CPS</b>	2019	21.5	11.1	N/A	N/A
<b>MEPS</b>	2018	19.1	9.7	N/A	N/A
<b>NHIS</b>	2018	18.1	9.3	26.3	13.3

Note: CPS estimates for civilian noninstitutionalized population from SHADAC analysis of 2021 CPS ASEC microdata via U.S. Census Bureau Microdata Analysis Tool (MDAT); ACS estimates for civilian noninstitutionalized population from SHADAC analysis of 2020 ACS 1-Year Experimental Data Tables, "Table XK202701. Age by Health Insurance Coverage Status"; NHIS estimates from Cohen, Terlizzi, Cha & Martinez, 2021, "Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey, 2020" and from SHADAC analysis of the 2020 NHIS Public Use Files; MEPS estimates from <https://datatools.ahrq.gov/meps-hc>.

**Table B2. 2020 State-Level Uninsured Rates from Two Federal Surveys: Nonelderly Adults**

	ACS: Age 19-64 (Point-in-Time)	CPS: Age 18-64 (Full Year)		ACS: Age 19-64 (Point-in-Time)	CPS: Age 18-64 (Full Year)
<b>United States</b>	<b>12.4</b>	<b>11.9</b>	Missouri	14.3	13.7
Alabama	15.0	12.8	Montana	12.2	11.5
Alaska	15.4	15.1	Nebraska	11.5	10.8
Arizona	15.3	15.3	Nevada	16.4	13.9
Arkansas	12.7	12.1	New Hampshire	8.9	6.3
California	10.0	10.0	New Jersey	10.7	8.3
Colorado	11.5	13.5	New Mexico	14.3	16.8
Connecticut	6.4	6.9	New York	7.4	6.6
Delaware	9.4	11.3	North Carolina	15.6	14.1
Dist. of Columbia	4.6	4.0	North Dakota	9.3	8.4
Florida	18.4	17.2	Ohio	9.4	8.7
Georgia	18.4	19.8	Oklahoma	22.0	21.4
Hawaii	5.5	5.5	Oregon	9.5	6.9
Idaho	13.8	17.0	Pennsylvania	8.2	7.1
Illinois	10.4	9.2	Rhode Island	4.9	4.7
Indiana	10.0	8.0	South Carolina	15.6	12.3
Iowa	7.1	8.1	South Dakota	14.3	10.9
Kansas	12.7	12.9	Tennessee	14.6	15.7
Kentucky	8.0	9.0	Texas	23.7	24.0
Louisiana	12.0	11.3	Utah	10.8	12.5
Maine	10.7	7.7	Vermont	6.6	4.2
Maryland	7.9	6.0	Virginia	10.1	7.9
Massachusetts	3.6	3.5	Washington	9.0	10.6
Michigan	7.8	5.2	West Virginia	10.4	7.8
Minnesota	6.8	7.2	Wisconsin	7.6	5.9
Mississippi	17.7	16.9	Wyoming	16.2	13.6

Sources: ACS estimates for civilian noninstitutionalized population from SHADAC analysis of 2020 ACS 1-Year Experimental Data Tables, "Table XK202701. Age by Health Insurance Coverage Status"; CPS estimates for civilian noninstitutionalized population from SHADAC analysis of 2021 CPS ASEC microdata via U.S. Census Bureau Microdata Analysis Tool.



- i Turner, J., & Boudreaux, M. (2014). *An introduction to redesigned health insurance coverage questions in the 2014 CPS* [Issue brief #39; PDF file]. Retrieved from <http://www.shadac.org/publications/cpsbrief>
- ii Planalp, C., Sonier, J., & Turner, J. (2014). Using recent revisions to federal surveys for measuring the effects of the Affordable Care Act [Issue brief #41; PDF file]. Retrieved from <https://www.shadac.org/publications/using-recent-revisions-federal-surveys-measuring-effects-affordable-care-act>
- iii Davern, M., Davidson, G., Ziegenfuss, J., et al. (2007). A comparison of the health insurance coverage estimates from four national surveys and six state surveys: A discussion of measurement issues and policy implications [Final report, Task 7.2]. Retrieved from [https://www.shadac.org/sites/default/files/Old\\_files/shadac/publications/ASPE\\_FinalRpt\\_Dec2007\\_Task7\\_2\\_rev.pdf](https://www.shadac.org/sites/default/files/Old_files/shadac/publications/ASPE_FinalRpt_Dec2007_Task7_2_rev.pdf)
- iv Berchick, E.R., & Jackson, H.M. (2019). Health insurance coverage in the 2017 CPS ASEC research file [SEHSD Working Paper 2019-01]. Retrieved from <https://www.census.gov/content/dam/Census/library/working-papers/2019/demo/sehds-wp2019-01.pdf>
- v Berchick, E.R., & Jackson, H.M. (2019). Health insurance coverage in the Current Population Survey: Estimates from the 2017 research file [SEHSD Working Paper 2019-2]. Retrieved from <https://www.census.gov/content/dam/Census/library/working-papers/2019/demo/sehds-wp2019-02.pdf>
- vi Cohen, R.A., Cha, A.E., Martinez, M., & Terlizzi, E.P. (2020). Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey, 2019. National Center for Health Statistics National Health Interview Survey Early Release Program. Retrieved from <https://www.cdc.gov/nchs/data/nhis/earlyrelease/insur202009-508.pdf>
- vii National Center for Health Statistics (NCHS). (2020). Preliminary Evaluation of the Impact of the 2019 NHIS Questionnaire Redesign and Weighting Adjustments on Early Release Program Estimates. Retrieved from <https://www.cdc.gov/nchs/data/nhis/earlyrelease/EReval202009-508.pdf>



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