

# How Did the Questionnaire Change in the CPS ASEC Affect Health Insurance Estimates in 2017?

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**Background.** In 2018, the Census Bureau fielded a Split-Panel Test of the Current Population Survey Annual Social and Economic Supplement (CPS ASEC). One panel included the traditional health insurance questions (asked prior to the 2014 CPS ASEC), and the other panel included the redesigned questions (asked in the 2014 CPS ASEC and beyond).

**Objective.** To estimate differences in the uninsured rates due to previous changes in the health insurance questions for calendar year 2017.

**Data and Methods.** There were approximately 100,000 addresses in the 2018 CPS ASEC sample; a sub-sample of about 5,000 addresses were randomly assigned to be eligible to receive the traditional health insurance and income questions (i.e. pre-2014 CPS ASEC questionnaire). The remaining sample (about 95,000 addresses) were eligible to receive the set of the redesigned health insurance questions.

**Findings.** Overall, the uninsured rate of 10.4 percent from the traditional health insurance questions was statistically different from the uninsured rate of 8.8 percent from the redesigned questions.

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## **Background**

The Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) is used to produce official estimates of income and poverty, and it is a widely-cited source of estimates on health insurance coverage and the uninsured. Over more than a decade, research conducted both within and outside of the Census Bureau pointed to the CPS ASEC questionnaire capturing less health insurance coverage in comparison with other federal surveys, resulting in a consistently higher estimate of the uninsured than these other surveys (Hess, Moore, Pascale, Rothgeb, & Keeley, 2001; Pascale, 1999; Kenney & Lynch, 2010).

In 2014, after extensive methodological research and cognitive testing (U.S. Census Bureau, 2014), the Census Bureau introduced redesigned health insurance questions, which improved upon the traditional questionnaire. This questionnaire change allowed the Census Bureau to produce a strong baseline of health insurance estimates for the 2013 calendar year, the year before many provisions of the Patient Protection and Affordable Care Act (ACA) went into effect.

In 2015, the Census Bureau fielded the Parallel Survey to fulfill budgetary requirements for the 2015 fiscal year. According to Public Law 113-235, the Census Bureau was to "collect data for the Annual Social and Economic Supplement to the Current Population Survey using the same health insurance questions included in previous years, in addition to the revised questions implemented in the Current Population Survey beginning in February 2014 (P.L. No: 113-235, 2015)." The Parallel Survey, which was fielded in March and April 2015, used the same traditional health insurance and income questions that were used in the 2013 CPS ASEC and previous years. In addition, the Census Bureau used the same interviewers and the same processing system to ensure that the Parallel Survey resembled the traditional (pre-2014) CPS ASEC. Analysis of the two surveys revealed that the 2015 Parallel Survey uninsured rate for calendar year 2014, 10.6 percent, was not statistically different from the 2015 CPS ASEC uninsured rate of 10.4 percent (Medalia, O'Hara, & Smith, 2016).

The Census Bureau utilized a split-panel in the 2018 CPS (that refers to the data in calendar year 2017). The CPS ASEC addresses were split into two parts; the CPS Annual Social and Economic Supplement (CPS ASEC with fewer addresses than before) and the new Traditional Health Insurance Supplement. In this paper, we compare the uninsured estimates from this split-sample to examine the effect of changing the health insurance questions.

## **Data and Methods**

The core mission of the CPS is to provide estimates of employment, unemployment, and other aspects of the general labor force. This part of the survey, commonly referred to as the CPS Basic, is often followed by a supplement survey on topical issues. The data for this paper come from 2018 CPS ASEC addresses split into two panels. One of these panels included approximately 95,000 addresses and was fielded between February and April of 2018 with

redesigned health insurance questions.<sup>2</sup> The other panel included approximately 5,000 addresses and was fielded in March of 2018 with traditional health insurance questions (Table 1). The same definitions of health insurance coverage are used for both panels. Health insurance coverage refers to comprehensive health insurance plans held at any time in the previous calendar year. Individuals are considered “insured” if they were covered by any type of health insurance for part or all of 2017, and “uninsured” if they had no health insurance coverage for the entire 2017 calendar year.

Coverage rates for some types of health insurance coverage, such as private and public coverage, can be compared easily across the panels. However, the redesigned and the traditional questionnaires collect information on health insurance coverage in very different ways. The redesigned health insurance questions make it possible to distinguish precisely between the two subtypes of private coverage (employer-based and direct purchase coverage) for every household member, while the traditional health insurance questions do not have this level of detail available for respondents covered by someone outside the household. For this reason, this paper’s primary focus is on comparing the uninsured rates, as well as on comparing public and private health insurance coverage rates across panels. The paper also examines health insurance coverage by a variety of characteristics. All estimates have been weighted to the national level and replicate weights were used to calculate the variances (U.S. Census Bureau, 2018).

### **Findings<sup>3</sup>**

Overall, the redesigned questions captured higher levels of coverage relative to the traditional questions. The uninsured rate was 8.8 percent from the redesigned questions and 10.4 percent from the traditional questions (Table 2). The rates of private health insurance coverage (67.2 percent and 69.6 percent for the redesigned and traditional questions, respectively) had a statistically significant difference of 2.4 percentage points. The public coverage rate was 37.7 percent from the redesigned questions and 36.8 percent from the traditional questions, a non-statistically significant difference between the two panels.

The employer-based coverage rate in the redesigned questions was lower than in the traditional questionnaire (53.4 percent and 58.4 percent, respectively) and direct purchase coverage was higher (15.7 percent and 13.8 percent, respectively).<sup>4</sup> The rates for Medicare, Medicaid, and Military<sup>5</sup> coverage did not significantly differ between the redesigned and traditional questionnaires.

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<sup>2</sup> This paper uses data from the 2018 Current Population Survey Annual Social and Economic Supplement processed through the legacy processing system. The CPS ASEC bridge file which incorporates an updated processing system was released in April 2019. This new system introduces changes in how the Census Bureau processes family relationships, including those for same sex couples, revised procedures for editing income and health insurance variables, including new procedures for estimating annual health insurance coverage from sub-annual data, and several new income and health insurance variables.

<sup>3</sup> The estimates by type of coverage are not mutually exclusive; people can be covered by more than one type of health insurance during the year.

<sup>4</sup> Coverage rates for employer-based and directly-purchased coverage are not strictly comparable across the two panels due to questionnaire differences.

<sup>5</sup> Military coverage includes coverage through TRICARE, CHAMPVA, or the Department of Veterans Affairs.

As shown in Table 3, the redesigned questions estimate higher levels of coverage for nearly all demographic groups. There were statistical differences between the uninsured rates for children under age 19 and working-age adults (people aged 19 to 64)<sup>6</sup>. For working-age adults, the uninsured rates were also statistically different between the panels for most categories, with the exception of people with income-to-poverty ratios below 100 percent of poverty or at least 400 percent of poverty, non-Hispanic persons, naturalized citizens, and people working full-time, year-round.

## **Conclusion**

In this paper, we compared the uninsured rates from the 2017 Split-Panel Test to examine the effect of changing the health insurance questions on estimates. We found that the uninsured rate from the traditional questionnaire, 10.4 percent, was statistically different from the uninsured rate of 8.8 percent from the redesigned questionnaire. This finding is consistent with the goals of the CPS ASEC redesign, which sought to improve estimates of coverage and bring those estimates more in line with other federal surveys.

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<sup>6</sup> For adults aged 65 and over, the uninsured rate from the redesigned questions was not statistically different from the uninsured rate from the traditional questions.

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## Table and Figures

**Table 1. Survey details of the CPS Split-Path Design**

	<b>Redesigned questions (CPS ASEC)</b>	<b>Traditional questions (CPS Traditional)</b>
Data collection period	February-April 2018	March 2018
Health insurance questions	Redesigned questions	Traditional questions
Income questions	Redesigned questions	Traditional questions
Sample (addresses)	95,000	5,000

Source: 2018 Current Population Survey: Annual Social and Economic Supplement (CPS ASEC) and Traditional Health Insurance Supplement

**Table 2: Health insurance coverage types in the CPS Split-Path Design, 2017**

	<b>Redesigned questions</b>		<b>Traditional questions</b>		<b>Difference (Traditional less Redesigned)</b>
	Percent	SE	Percent	SE	Percentage Points
<b>Any private</b>	67.2	0.22	69.6	0.82	2.4 *
Employer based	53.4	0.25	58.4	0.86	5.0 *
Direct purchase	15.7	0.19	13.8	0.57	-1.9 *
<b>Any government</b>	37.7	0.20	36.8	0.75	-0.9
Medicare	17.2	0.07	17.6	0.35	0.4
Medicaid	19.3	0.19	19.4	0.73	0.0
Military	4.8	0.14	4.3	0.40	-0.5
<b>Uninsured</b>	8.8	0.12	10.4	0.53	1.6 *

Source: 2018 Current Population Survey: Annual Social and Economic Supplement (CPS ASEC) and Traditional Health Insurance Supplement

\* Estimates are statistically different at the 90 percent confidence level.

Note: Differences are calculated with unrounded numbers.

**Table 3. Uninsured rate by demographic characteristic in the CPS Split-Path Design, 2017**

	Redesigned questions		Traditional questions		Difference (Traditional less Redesigned)
	Percent	SE	Percent	SE	Percentage
<b>All people</b>	8.8	0.12	10.4	0.53	1.6 *
<b>Age</b>					
Under 19	5.4	0.20	7.0	0.82	1.6 *
19 to 64	12.2	0.15	14.2	0.75	2.0 *
65 and over	1.3	0.08	0.9	0.31	-0.4
<b>Working-Age Adults (aged 19 to 64)</b>					
<b>Income-to-Poverty Ratio</b>					
Below 100%	25.7	0.56	29.0	2.93	3.2
100 to 399%	15.7	0.25	18.4	1.20	2.7 *
400% and above	5.5	0.15	6.5	0.76	0.9
<b>Sex</b>					
Male	13.2	0.20	15.9	0.97	2.6 *
Female	11.2	0.17	12.6	0.84	1.4 *
<b>Race and Ethnicity</b>					
White, non-Hispanic	8.8	0.17	9.3	0.81	0.4
Black, non-Hispanic	14.7	0.45	18.2	2.39	3.4
Asian, non-Hispanic	9.0	0.52	13.4	3.45	4.4
Hispanic	22.2	0.48	27.7	2.29	5.5 *
<b>Nativity</b>					
Native born	10.5	0.16	11.8	0.75	1.3 *
Foreign born	19.7	0.45	25.0	2.13	5.3 *
Naturalized citizen	11.1	0.39	13.8	2.24	2.6
Not a citizen	26.8	0.65	34.1	3.20	7.3 *
<b>Work Status</b>					
All workers, 19 to 64 years	11.3	0.16	12.8	0.78	1.5 *
Full time, full year	9.8	0.16	10.2	0.76	0.3
Less than full time, full year	15.4	0.34	19.9	1.43	4.4 *
Nonworkers	15.1	0.32	19.1	1.51	3.9 *

Source: 2018 Current Population Survey: Annual Social and Economic Supplement (CPS ASEC) and Traditional Health Insurance Supplement

\* Estimates are statistically different at the 90 percent confidence level.

Note: Differences are calculated with unrounded numbers.