

How did the questionnaire change in the CPS ASEC affect health insurance estimates in 2016?

Brett O'Hara¹ and Marina Vornovitsky

U.S. Census Bureau

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Background. In 2017, 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 2016.

Data and Methods. There were approximately 100,000 addresses in the 2017 CPS ASEC sample; a sub-sample of about 5,000 addresses were randomly assigned to be eligible to receive the traditional health insurance questions (i.e., pre-2014 CPS ASEC questions). 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 11.0 percent from the traditional health insurance questions was statistically different from the uninsured rate of 8.8 percent from the redesigned questions.

This paper is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views expressed on statistical, methodological, technical, or operational issues are those of the authors and not necessarily those of the U.S. Census Bureau.

¹ Brett O'Hara is the corresponding author. His e-mail is brian.j.ohara@census.gov.

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 2017 CPS (that refers to the data in calendar year 2016). 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 2017 CPS ASEC addresses split into two panels. One of these panels included approximately 95,000 addresses and was fielded between February and April of 2017 with redesigned health insurance questions. The other panel included approximately 5,000 addresses and was fielded in March of 2017 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 2016, and “uninsured” if they had no health insurance coverage for the entire 2016 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, 2017).

Findings²

Overall, the redesigned questions captured more coverage and more public coverage relative to the traditional questions. The uninsured rate was 8.8 percent from the redesigned questions and 11.0 percent from the traditional questions (**Table 2**). The rates of private health insurance coverage (67.5 percent and 68.2 percent for the redesigned and traditional questions, respectively) were not statistically different between the two panels. The public coverage rate was 37.3 percent from the redesigned questions and 35.8 percent from the traditional questions, a statistically significant difference of 1.5 percentage points.

The employer-based coverage rate in the redesigned questions was lower than in the traditional questionnaire (53.0 percent and 57.2 percent, respectively) and direct purchase coverage was higher (15.8 percent and 12.9 percent, respectively).³ The Medicare rate and Military⁴ rate in the redesigned questionnaire were lower than the traditional questionnaire, whereas Medicaid went in the opposite direction.

As shown in **Table 3**, the redesigned questions captured more 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)⁵. For working-age adults, the uninsured rates were also statistically different between the panels for almost every category,

² 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.

³ Coverage rates for employer-based and directly-purchased coverage are not strictly comparable across the two panels due to questionnaire differences.

⁴ Military coverage includes coverage through TRICARE, CHAMPVA, or the Department of Veterans Affairs.

⁵ 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.

with the exception of people with income-to-poverty ratios at or above 400 percent of poverty, non-Hispanic Blacks, naturalized citizens, and people working less than 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, 11.0 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 capture more coverage and bring the estimates of health insurance coverage more in line with other federal surveys.

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Table and Figures

Table 1. Survey Details of the CPS Split-Path Design

	Redesigned questions (CPS ASEC)	Traditional questions (CPS Traditional)
Data collection period	February-April 2017	March 2017
Health insurance questions	Redesigned questions	Traditional questions
Income questions	Redesigned questions	Traditional questions
Sample (addresses)	95,000	5,000

Source: 2017 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, 2016

	Redesigned questions		Traditional questions		Difference (Traditional less Redesigned)
	Percent	SE	Percent	SE	Percentage Points
Any private	67.5	0.22	68.2	0.85	0.7
Employer based	53.0	0.22	57.2	0.89	4.2 *
Direct purchase	15.8	0.17	12.9	0.56	-2.9 *
Any government	37.3	0.19	35.8	0.72	-1.5 *
Medicare	16.7	0.07	17.6	0.39	1.0 *
Medicaid	19.4	0.18	17.5	0.66	-2.0 *
Military	4.6	0.11	6.2	0.45	1.6 *
Uninsured	8.8	0.1	11.0	0.5	2.24 *

Source: 2017 Current Population Survey: Annual Social and Economic Supplement (CPS ASEC)

* 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, 2016

	Redesigned questions		Traditional questions		Difference (Traditional less Redesigned)
	Percent	SE	Percent	SE	Percentage Points
All people	8.8	0.10	11.0	0.50	2.2 *
Age					
Under 19	5.4	0.16	7.8	0.86	2.4 *
19 to 64	12.1	0.14	14.6	0.63	2.6 *
65 and over	1.2	0.08	1.9	0.43	0.7
Working-Age Adults (aged 19 to 64)					
Income-to-Poverty Ratio					
Below 100%	24.7	0.55	30.9	2.55	6.1 *
100 to 399%	15.4	0.24	19.5	1.16	4.1 *
400% and above	5.6	0.17	5.7	0.69	0.1
Sex					
Male	13.4	0.19	16.4	0.86	3.0 *
Female	10.7	0.15	12.8	0.67	2.1 *
Race and Ethnicity					
White, non-Hispanic	8.9	0.16	10.1	0.71	1.2 *
Black, non-Hispanic	14.4	0.45	16.9	2.27	2.5
Asian, non-Hispanic	9.1	0.52	15.0	2.79	5.9 *
Hispanic	22.0	0.45	27.5	2.15	5.5 *
Nativity					
Native born	10.2	0.14	12.3	0.70	2.1 *
Foreign born	20.8	0.45	25.8	2.29	5.0 *
Naturalized citizen	10.6	0.47	9.4	2.02	-1.3
Not a citizen	28.6	0.66	37.7	3.32	9.1 *
Work Status					
All workers, 19 to 64 years	11.2	0.15	13.2	0.69	2.0 *
Full time, full year	9.8	0.16	11.6	0.71	1.8 *
Less than full time, full year	14.8	0.31	17.5	1.71	2.7
Nonworkers	15.0	0.32	19.6	1.48	4.6 *

Source: 2017 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.