How did the questionnaire change in the CPS ASEC affect health insurance estimates in 2015?

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Background. In 2016, 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.

Data and Methods. There were 99,000 addresses in the 2016 CPS ASEC sample; a subsample of 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 (94,000 addresses) were eligible to receive the set of the redesigned health insurance questions.

Findings. Overall, the uninsured rate of 9.6 percent from the traditional health insurance questions was not statistically different from the uninsured rate of 9.1 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 the last 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 (Pascale, 1999; Hess et.al, 2001; 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 2016 CPS. 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 (redesigned questionnaire and the traditional questionnaire) to examine the effect of changing the health insurance questions.

Data and Methods

The core mission of the Current Population Survey (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 2016 CPS ASEC addresses split into two panels. One of these panels included approximately 94,000 addresses and was fielded between February and April of 2016 with redesigned health insurance questions. The other panel included approximately 5,000 addresses and was fielded in March of 2016 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 2015, and "uninsured" if they had no health insurance coverage for the entire 2015 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 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 surveys. 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.

Findings

Overall, the uninsured rate of 9.1 percent from the redesigned questions was not statistically different from the traditional questions estimate (**Table 2**). The rates of public and private health insurance coverage were not statistically different between the two panels.

The employer-based coverage rate in the redesigned questionnaire was lower than in the traditional questionnaire (55.7 percent and 59.5 percent, respectively) and direct purchase coverage was higher (16.3 percent and 13.4 percent, respectively).[2] Finally, the Medicare rate in the redesigned questionnaire was lower than the traditional questionnaire (16.3 percent and 17.5 percent, respectively).

As shown in **Table 3**, there were no statistical differences in the two uninsured rates for any of the age groups (under age 19, aged 19 to 64, and over 65 years old). For the uninsured working-age adults (aged 19 to 64), the uninsured rates were also not statistically different between the panels for almost every category, with the exception of the highest income-to-poverty category, Hispanics, and non-workers.

Conclusion

In this paper, we compared the uninsured rates from the 2016 Split-Panel Test to examine the effect of changing the health insurance questions on the estimates. We found that the uninsured rate from the traditional questionnaire, 9.6 percent, was not statistically different from the uninsured rate of 9.1 percent from the redesigned questionnaire. There were no statistically

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

significant differences by age. Also, for working-age adults aged 19 to 64, the uninsured rates were not statistically different for most characteristics.

The findings in this paper are consistent with the findings from the 2015 Parallel Survey (Medalia, O'Hara, & Smith, 2016).

References

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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 2016	March 2016
Health insurance questions	Redesigned questions	Traditional questions
Income questions	Redesigned questions	Traditional questions
Sample (addresses)	94,000	5,000

Source: 2016 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

	Redesigned questions		Traditional questions		Difference (Traditional less Redesigned)
	Percent	SE	Percent	SE	Percentage Points
Any private	67.2	0.21	68.2	0.84	1.0
Employer based	55.7	0.24	59.5	0.96	3.8 ***
Direct purchase	16.3	0.17	13.4	0.66	-2.9 ***
Any government	37.1	0.20	36.7	0.67	-0.4
Medicare	16.3	0.06	17.5	0.38	1.2 ***
Medicaid	19.6	0.18	19.4	0.63	-0.1
Military	4.7	0.12	4.7	0.39	0.0
Uninsured	9.1	0.12	9.6	0.52	0.5

Source: 2016 Current Population Survey: Annual Social and Economic Supplement (CPS ASEC) and Traditional Health Insurance Supplement

Statistically significant at p<0.1 (*), p<.05 (**) and p<.01 (***)
Note: Differences are calculated with unrounded numbers.

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

	Redesigned questions		Traditional questions		Difference (Traditional less Redesigned
	Percent	SE	Percent	SE	Percentage Points
All people	9.1	0.12	9.6	0.52	0.5
Age					
Under 19	5.3	0.17	6.4	0.88	1.1
19 to 64	12.6	0.16	12.9	0.67	0.4
65 and over	1.1	0.08	1.6	0.38	0.5
Working-Age Adults (aged 19 to 64)					
Income-to-Poverty Ratio					
Below 100%	26.2	0.56	29.0	2.40	2.9
100 to 399%	15.6	0.24	16.8	1.27	1.2
400% and above	5.7	0.18	4.1	0.57	-1.7 ***
Sex					
Male	13.8	0.21	14.1	0.92	0.3
Female	11.4	0.16	11.8	0.72	0.4
Race and Ethinicity					
White, non-Hispanic	9.4	0.19	8.4	0.68	-0.9
Black, non-Hispanic	15.3	0.40	16.4	2.36	1.1
Asian, non-Hispanic	9.4	0.52	9.6	2.48	0.2
Hispanic	22.8	0.47	27.2	2.56	4.4 *
Nativity					
Native born	10.8	0.15	10.5	0.65	-0.3
Foreign born	28.9	0.68	33.9	3.33	5.0
Work Status					
All workers, 19 to 64 years	11.6	0.18	11.2	0.71	-0.4
Full time, full year	9.9	0.19	9.2	0.68	-0.7
Less than full time, full year	15.8	0.33	16.1	1.52	0.3
Nonworkers	15.8	0.28	18.4	1.56	2.6 *

Source: 2016 Current Population Survey: Annual Social and Economic Supplement (CPS ASEC) and Traditional Health Insurance Supplement

Statistically significant at p<0.1 (*), p<.05 (**) and p<.01 (***)

Note: Differences are calculated with unrounded numbers.