

The March CPS Health Insurance Verification Question And Its Effect On Estimates Of The Uninsured

THE MARCH CPS HEALTH INSURANCE VERIFICATION QUESTION AND ITS

EFFECT ON ESTIMATES OF THE UNINSURED

by Charles T. Nelson and Robert J. Mills, U.S. Bureau of the Census

Key Words: health insurance; Current Population Survey; verification

Abstract

In March 2000, the March Current Population Survey (CPS) added an experimental health insurance "verification" question. Anyone who did not report any type of health insurance coverage was asked an additional question about whether or not they were, in fact, uninsured. Those who reported that they were insured were then asked what type of insurance covered them. This paper takes an initial look at the characteristics of people who report coverage in these questions, assesses the quality of the information collected, and provides a preliminary estimate of the effect of this question on March CPS estimates of the number and percentage of Americans without health insurance coverage.

INTRODUCTION

The Census Bureau began asking questions about health insurance coverage in 1980 in the annual March Demographic Supplement to the Current Population Survey (CPS). The original impetus for asking these questions was the desire to supplement the March cash income questions with a set of questions on noncash benefits (food stamps, subsidized housing, medical assistance, etc.). Since most of the major types of health insurance (such as Medicare, Medicaid, and employer-provided coverage) are received in the form of noncash benefits, it soon became clear that this set of questions could easily be adapted to come up with a reasonable estimate of the number of people without health insurance.

Because relatively little household information about the uninsured was available in the early- to- mid-1980's and the March CPS was already one of the most widely used household economic surveys conducted by the federal government, the Census Bureau and others began using the March CPS as the basis for estimates of the uninsured population.

In 1983, the Census Bureau began another survey, the Survey of Income and Program Participation (SIPP), which also collected detailed information about health insurance coverage. Because the SIPP generated significantly lower estimates of the uninsured than the CPS, it was assumed that the CPS was missing some reports of coverage. Thus, the Census Bureau redesigned the March CPS health insurance questions significantly, for the March 1988 survey. The major change was the addition of separate questions on children's coverage (previously in the CPS, children's coverage was always assigned from adults in the household). While the modifications reduced the CPS estimate of the uninsured, the number of people reporting health insurance coverage remained lower on the March CPS relative to the SIPP (Bennefield 1996). Over the years, the CPS has modified its health insurance questions several times, most notably in 1995, when the questions were reordered, and additional questions were added on "other health insurance plans," designed mostly to pick up state-specific means-tested health plans. None of these modifications has had a serious effect on the CPS estimates of the uninsured, and concerns about CPS health insurance reporting of health insurance coverage, relative to the SIPP, remained. Research by Bennefield (1996) indicated that the major source of difference between the SIPP and CPS estimates of the uninsured is reports of private health insurance coverage (employer-provided and privately purchased coverage).

Other researchers, notably Paul Fronstin of the Employee Benefits Research Institute, have examined how Census Bureau and other surveys compare with regard to estimating the uninsured population (Fronstin 2000). Fronstin's work has shown that the CPS estimates of the uninsured, when compared with other surveys, are relatively high.

Estimates across surveys differ for many reasons (mode of interviewing, sample design, reference period covered by the questions, etc.) and Fronstin points out some of the possible reasons behind the differences between the CPS and other surveys, such as the National Survey of American Families (NSAF), the National Health Interview Survey (NHIS), and the Medical Expenditures Panel Survey (MEPS). Even so, it is hard to come away from the research that has compared CPS health insurance estimates with those from SIPP and other surveys with any set of conclusions other than 1) the CPS questions elicit less reporting of health insurance coverage by respondents (compared to other surveys), and 2) private coverage appears to be the type of coverage most affected by reporting differences between the CPS and other surveys.

Recently, surveys such as Urban Institute's NSAF have used health insurance verification questions in an attempt to derive more complete survey-based estimates of the uninsured population (Rajan et al. 2000). The concept behind these questions is quite simple: for most surveys, health insurance coverage is derived from a series of questions on different types of insurance (group health plans, Medicare, Medicaid, and so forth). People who say "no" to each of these questions are assumed to be uninsured. Verification questions essentially ask whether or not it is correct that all of the people who answered "no" to every question on specific types of health insurance are in fact uninsured. The basic finding of Rajan et al. was that the addition of these questions resulted in more complete reporting of health insurance coverage. Given the success of these questions on surveys like the NSAF (which uses questions quite similar to the March CPS), the Census Bureau examined these additional questions as a way to improve its coverage estimates.

The main purposes of this paper are to describe the verification questions, the methodology that was used to incorporate them into the CPS health insurance coverage definition, and their effect on estimates of the uninsured, both in terms of the total number of uninsured and of subgroups of the uninsured who are of key interest (for example, children, the poor, and other groups of people with historically high uninsured rates).

The Verification Questions

The universe for the March CPS verification questions consists of all households with at least one uninsured person. (The March CPS employs household-level screening questions, so the question universe has to be described in household terms.) The ultimate aim of the questions was to find out which of the 42.6 million people classified as uninsured from the sequence of questions that ask about specific insurance types are, in fact, uninsured. For all households that fall into this universe, a version of the question below is asked.¹

I have recorded that (read names) were not covered by a health plan at any time in 1999. Is that correct?

<1> Yes

< 2> No

If the answer is "NO", we ask: **Who should be marked as covered?**

For all those people, we then ask: **What type of insurance was (name) covered by in 1999?**

<1> Medicare

<2> Medicaid

<3> TRICARE or CHAMPUS

<4> CHAMPVA ("CHAMPVA" IS THE CIVILIAN HEALTH AND MEDICAL

PROGRAM OF THE DEPARTMENT OF VETERANS AFFAIRS

<5> VA health care

<6> Military health care

<7> Indian Health Service

<8> Other government health care

<9> Employer/union-provided (policyholder)

<10> Employer/union-provided (as dependent)

<11> Privately purchased (policyholder)

<12> Privately purchased (as dependent)

<13> Plan of someone outside the household

<14> Other (Specify type)_____

People are allowed to report up to six different types of insurance, and in March 2001, the list was expanded to include coverage under the State Children's Health Insurance Program (SCHIP).

The Results

Of people in the universe for these questions (the 42.6 million persons who did not report health insurance prior to the verification questions), 92 percent, or 39.3 million, reported that they were, in fact, uninsured for the entire calendar year. The other 8 percent (3.3 million people) reported that they did, in fact, have some type of health insurance in 1999.

Table 1 shows the effect of the questions, by age, sex, race, Hispanic origin and other characteristics. As the table indicates, the measured coverage of children appeared to be slightly more likely to be affected by the verification questions than adults. For children under 18, the post-verification estimate of uninsured people (9.1 million) was 9 percent lower than the pre-verification estimate. For those over the age of 18, the post-verification figure was about 7 percent lower.

Perhaps the single most striking finding here is the relationship between economic well-being and the likelihood of the verification questions having an effect on insurance status. For people living in households with annual incomes of \$75,000 or more, the post-verification figure was 16 percent lower than the pre-verification figure. In

contrast, for those in households with incomes under \$25,000, that figure was only 4 percent lower, rising to 6 percent lower in households with incomes between \$25,000 and \$49,999, and 13 percent lower in households with incomes between \$50,000 and \$74,999. So we see a strong direct correlation between level of household income and the likelihood of these questions changing a respondent's response about whether or not they were covered by health insurance.

Table 2 sheds light on the strong positive correlation between economic status and the effect of the verification questions on insurance coverage status. It should be no surprise to anyone who has examined health insurance statistics that by far the most common source of coverage in the United States is private coverage (either through an employer or privately purchased). It is also true that, on average, people with private health insurance coverage are better off economically than those without insurance or those with only government coverage. For example, in 1999, 84 percent of the people covered by health insurance were covered by private plans, and 29 percent were covered by government plans (those figures add to more than 100 percent because coverage can be reported from both sources). For those affected by the verification questions, 89 percent were covered by private coverage and 12 percent were covered by government plans. Thus, people with coverage reported through the verification questions were more likely than those with coverage reported in the questions prior to verification to be covered by private plans and less likely to be covered by government plans such as Medicare or Medicaid.

The Rajan et al. paper on the effect of the verification questions on the NSAF examined the issue of whether there was any evidence that verification questions elicit false positive responses (perhaps because people are ashamed to admit that they or their family members lack health insurance), by examining whether the characteristics of people with coverage through the verification questions are closer to the characteristics of uninsured people or closer to the characteristics of insured people. They found that people with coverage through the verification questions "resembled" people with health insurance coverage, lending credence to the idea that these people are in fact covered.

Table 3 examines this issue in the context of the CPS questions by contrasting the distributions of three population groups: those covered through the questions prior to verification, those covered through the verification questions, and those still not covered after the verification questions were asked. Economic status is perhaps the most telling section of the table. It shows that the income distributions of covered and non-covered people differ widely, as do their poverty rates. And the table also clearly shows that people covered through the verification questions are much more similar to covered people in both of these key measures of economic well-being, giving us confidence that the questions are in fact working as intended. The differences are particularly striking at the extremes. For example, of the 3.3 million people covered through the verification questions, 31 percent lived in households with income of \$75,000 or more. This is quite similar to the percent of insured people in this income category (30 percent) and substantially different from the percentage of uninsured people in this income category (13 percent). And at the other end of the income spectrum (those in households with incomes under \$25,000), the same relationship holds true, as the percentage of uninsured people in this category (38 percent) is substantially higher than either the comparable percentages of pre-verification covered people (21 percent) or those covered through verification (18 percent). Clearly, in terms of economic status, people covered through the verification questions are more similar to those covered by insurance plans than those without coverage.

The other possible reason for "false positive" responses to the verification questions is that people may respond "yes" to these questions who do not in fact have plans that the CPS defines as insurance, which is a comprehensive health plan, as opposed to a disability insurance plan, or a non-comprehensive health plan (a dental plan, for example, or access to a health care professional while at work or school). While there is no way of knowing for certain whether, in fact, people are more likely to report these types of plans in response to these questions, it appears that people are reporting comprehensive plans here, for these reasons: 1) CPS interviewers are trained very completely on what constitutes a comprehensive health insurance plan, 2) everyone who reports coverage through the verification questions is asked to report their type of coverage-and in only 9 percent of cases were CPS interviewers not able to assign coverage into one of the preset comprehensive insurance types, and 3) for those unable to give us an insurance type, respondents are asked to provide their source of insurance, and the CPS interviewers typed in their verbatim responses. These responses were examined and in only 16 cases was it decided that the insurance did not meet the criteria of a comprehensive plan. Thus, we are very confident that the types of insurance reported in the verification questions fit the CPS criteria for comprehensive health insurance plans.

Comparisons with Other Surveys

In order to examine whether the effect of the verification questions on the CPS were reasonable, the results of the CPS verification questions were compared to two other surveys that recently added a verification element to their battery of health insurance questions: Urban Institute's NSAF and the Community Tracking Survey (CTS), sponsored by the Center for Studying Health Care System Change. Of the two, the CTS is more comparable to the CPS, since its battery of questions leading up to verification are quite similar to the CPS (Carlson 1998). The

verification questions on this survey resulted in a reduction in the number of around 7 percent in the number of uninsured, from 35.1 million to 32.8 million, very close to the CPS reduction of 8 percent. Carlson also points to several state surveys (in Maine and North Dakota) in which verification had a similar effect. Verification had a larger effect on the NSAF, reducing the number or uninsured by 13 percent in 1999 (Zuckerman 2001), but this is to be expected, given the questionnaire sequence employed by the NSAF. Both the CPS and CTS employ a "other health insurance plan" question, meaning that people who say "no" to all of the specific health insurance questions (group health care plans, Medicaid, etc.) are asked an additional question about other plans. The NSAF does not do this-so it would be expected that the effect of verification would be larger on the NSAF than either the CTS or CPS.

Conclusion

The March CPS has been a source of health insurance information for over 20 years. But it was not designed as a health insurance survey. Its major purpose is to be the official source of income and poverty statistics. While the CPS has been an important source for measuring health insurance trends, comparisons with other surveys have indicated that its estimates of the uninsured tend to be somewhat higher than other major surveys, indicating that underreporting may be a larger problem for the CPS than for some of the other major national surveys that ask questions about insurance coverage.

In summary, the results from the March 2000 CPS indicate that:

- use of the questions results in an 8-percent decline in the number of uninsured, from 42.6 million (15.5 percent of the population) to 39.3 million (14.3 percent), bringing the CPS estimate more in line with other surveys;
- by far the most common type of insurance reported in the verification questions was private coverage, corresponding to the research that has indicated that private health insurance appears to be the type of coverage most affected by CPS underreporting (relative to other surveys);
- in terms of their economic status, people covered through the verification questions resemble covered people and are quite different than those who lack insurance; and
- the results of the verification seem reasonable based on its effect in other surveys.

These results indicate that the CPS verification questions appear to work well, and that the use of the questions result in more complete estimates of the insured population in the U.S. The new verification questions will be incorporated in future estimates of health insurance coverage issued by the Census Bureau from the March CPS.

Over the longer run, the addition of verification questions should be viewed as just one step in a larger research effort aimed at ensuring that the CPS makes every reasonable effort to produce the best health insurance coverage estimates it can. Other changes, such as the addition of separate questions on the State Children's Health Insurance Program (SCHIP) in March 2001, and continued CPS health insurance question research, have that same goal in mind.

¹The example is the question that would have been asked in March 2000 of a multi-person household with more than one person not covered-the wording would be slightly different if only one person was not covered.

REFERENCES

- Bennefield, Robert L., "A Comparative Analysis of Health Insurance Coverage Estimates: Data from CPS and SIPP." Proceedings from the 1996 Joint Statistical Meetings, Social Statistics Section, 1996.
- Carlson, Barbara, "Improving Survey Estimates of the Uninsured Using Computer-Assisted Interviewing Logic." Proceedings from the 1998 Joint Statistical Meetings, 1998
- Fronstin, Paul, "Counting the Uninsured: A Comparison of National Surveys," Employee Benefit Research Institute, No. 225: September 2000
- Rajan, Shruti, Stephen Zuckerman and Niall Brennan, "Confirming Insurance Coverage in a Telephone Survey: Evidence from the National Survey of America's Families," Inquiry, Fall 2000 (Vol. 37, No. 3), 317-327.
- Zuckerman, Stephen, "The National Survey of American Families: Round II." Presentation handout, Academy for Health Services Research and Health Policy Annual Meeting, 2001

Table 1. Effect of Verification Questions by Selected Characteristics on Health Insurance Coverage: 1999 (Numbers in thousands.)

	Total	Not Covered, Pre- Verification	Not Covered, Post- Verification	Percent Reduction	Percent Not Covered, Pre- Verification	Percent Not Covered, Post Verification
Total	274,087	42,554	39,280	7.7	15.5	14.3

	Total	Not Covered, Pre- Verification	Not Covered, Post- Verification	Percent Reduction	Percent Not Covered, Pre- Verification	Percent Not Covered, Post Verification
Age						
Under 18	72,325	10,023	9,145	8.8	13.9	12.6
18-24	26,532	7,688	7,199	6.4	29.0	27.1
25-34	37,786	8,755	8,188	6.5	23.2	21.7
35-44	44,805	7,377	6,804	7.8	16.5	15.2
45-54	36,631	4,893	4,556	6.9	13.4	12.4
55-64	23,387	3,395	3,113	8.3	14.5	13.3
65+	32,621	422	276	34.6	1.3	0.8
SEX						
Male	133,933	22,073	20,402	7.6	16.5	15.2
Female	140,154	20,481	18,877	7.8	14.6	13.5
WORK EXPERIENCE ¹						
Worked	139,218	24,187	22,568	6.7	17.4	16.2
Full-time	115,973	18,984	17,660	7.0	16.4	15.2
Part-time	23,245	5,204	4,908	5.7	22.4	21.1
Did not work	29,923	7,921	7,292	7.9	26.5	24.4
RACE & HISPANIC ORIGIN ²						
White	224,806	31,863	29,385	7.8	14.2	13.1
Non-Hispanic	193,633	21,263	19,237	9.5	11.0	9.9
Black	35,509	7,536	6,963	7.6	21.2	19.6
Asian and Pacific Islander	10,925	2,272	2,080	8.5	20.8	19.0
Hispanic	32,804	10,951	10,566	3.5	33.4	32.2
POVERTY STATUS						
Poor	32,258	10,436	10,025	3.9	32.4	31.1
All others	241,829	32,118	29,255	8.9	13.3	12.1
HOUSEHOLD INCOME						
Under \$25,000	64,628	15,577	15,003	3.7	24.1	23.2
\$25,000-\$49,999	77,119	13,996	13,176	5.9	18.1	17.1
\$50,000-\$74,999	56,873	6,706	5,827	13.1	11.8	10.2
\$75,000+	75,467	6,275	5,273	16.0	8.3	7.0

Source: U.S. Census Bureau, March 2000 Current Population Survey

¹ Based on people 18-64 years old.

² People of Hispanic origin may be of any race.

Table 2. Effect of Verification Questions, by Type of Health Insurance Coverage: 1999
(Numbers in thousands.)

	Covered, Pre-Verification		Covered Through Verification		Covered, Post-Verification	
	Number	Percent Distribution	Number	Percent Distribution	Number	Percent Distribution
INSURANCE TYPE						
Any Insurance	231,533	100.0	3,274	100.0	234,807	100.0
Private	194,599	84.0	2,924	89.3	197,523	84.1
Employment- based	172,023	74.3	2,070	63.2	174,093	74.1

	Covered, Pre-Verification		Covered Through Verification		Covered, Post-Verification	
	Number	Percent Distribution	Number	Percent Distribution	Number	Percent Distribution
Own Employment	89,327	38.6	1,169	35.7	90,496	38.5
Government plan	66,176	28.6	406	12.4	66,582	28.4
Medicaid	27,890	12.0	331	10.1	28,221	12.0
Medicare	36,066	15.6	43	1.3	36,109	15.4
Military care	8,530	3.7	34	1.0	8,564	3.6

Source: U.S. Census Bureau, March 2000 Current Population Survey

Table 3. Distribution of People by Health Insurance Status: 1999
(Numbers in thousands.)

	Covered, Pre-Verification		Covered Through Verification		Covered, Post-Verification	
	Number	Percent Distribution	Number	Percent Distribution	Number	Percent Distribution
TOTAL	231,533	100.0	3,274	100.0	39,280	100.0
POVERTY STATUS						
In Poverty	21,822	9.4	411	12.6	10,025	25.5
All others	209,711	90.6	2,863	87.4	29,255	74.5
HOUSEHOLD INCOME						
Under \$25,000	49,051	21.2	574	17.5	15,003	38.2
\$25,000-\$49,999	63,123	27.3	820	25.0	13,176	33.5
\$50,000-\$74,999	50,166	21.7	879	26.8	5,827	14.8
\$75,000+	69,193	29.9	1,001	30.6	5,273	13.4
AGE						
Under 18	62,302	26.9	878	26.8	9,145	23.3
18-24	18,844	8.1	490	15.0	7,199	18.3
25-34	29,031	12.5	567	17.3	8,188	20.8
35-44	37,428	16.2	573	17.5	6,804	17.3
45-54	31,737	13.7	338	10.3	4,556	11.6
55-64	19,992	8.6	282	8.6	3,113	7.9
65+	32,199	13.9	147	4.5	276	0.7
SEX						
Male	111,860	48.3	1,670	51.0	20,402	51.9
Female	119,674	51.7	1,603	49.0	18,877	48.1
WORK EXPERIENCE						
Full-time	96,990	70.8	1,324	58.9	17,660	59.1
Part-time	18,041	13.2	296	13.2	4,908	16.4
Did not work	22,002	16.1	629	28.0	7,292	24.4
RACE & HISPANIC ORIGIN						
White	192,943	83.3	2,478	75.7	29,385	74.8
Non-Hispanic	172,271	74.4	2,125	64.9	19,237	49.0
Black	27,973	12.1	573	17.5	6,963	17.7
Asian and Pacific Islander	8,653	3.7	192	5.9	2,080	5.3
Hispanic	21,853	9.4	385	11.8	10,566	26.9

Source: U.S. Census Bureau, March 2000 Current Population Survey

