

# Comparing Federal Government Surveys that Count Uninsured People in America



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The number of uninsured Americans is large and growing over time, yet there continues to be debate about exactly how many Americans are uninsured. Researchers use data from several different national surveys to estimate the number of uninsured people in America and discrepancies in their estimates are common. This brief compares estimates of health insurance coverage from four national health surveys sponsored by the federal government, identifies the differences in their estimates of uninsurance, and identifies three common themes: (1) all the surveys report very large numbers of Americans living without health insurance; (2) all surveys show that these numbers have risen over the decade, particularly for adults; and (3) children's rates of uninsurance declined earlier in the decade, largely due to growth of public programs such as the State Children's Health Insurance Program (SCHIP), but in recent years has stayed steady or grown slightly (depending on the survey).

### *Federal Government Surveys Used to Measure the Uninsured*

The Annual Social and Economic Supplement (ASEC) to the U.S. Census Bureau's Current Population Survey (CPS) produces the most visible estimate of the number of uninsured in the United States. The CPS estimates of health insurance coverage are used to monitor state and national trends in health insurance coverage and to allocate federal funds to states to implement the State Children's Health Insurance Program. The CPS data tend to produce estimates of health insurance coverage that differ significantly from other major survey estimates of coverage.<sup>1</sup> These other federal government surveys include the National Health Interview Survey (NHIS), and the Medical Expenditure Panel Survey Household Component (MEPS). Detailed descriptions of these surveys are available elsewhere.<sup>2,3</sup> A new source of health insurance coverage estimates is being released this year, the American Community Survey (ACS). The ACS began collecting health insurance data in 2008 and is poised to become an important source of estimates in the future.

These four federal surveys, CPS, NHIS, MEPS, and ACS were each designed to collect specific information for different research and policy purposes. The CPS is a monthly labor force survey and the health insurance questions are added at the end of an annual supplement to the monthly CPS. Conversely, the NHIS and MEPS are designed specifically to collect health information from the U.S. population. Collecting information on health insurance coverage, the type of coverage, and lack of coverage are high priority questions in these surveys. The ACS is designed to provide communities throughout the U.S. with up-to-date information on key demographics and policy-relevant data. The ACS is an ongoing survey that the Census Bureau has used to replace the former "long form" decennial questionnaire.

### *Comparison of National Estimates from Different Federal Surveys*

Table 1 shows the differences between the national-level estimates from the three major federal surveys that measure health insurance coverage for 2007 (the most recent year available across all sources), for people under 65 years of age. The CPS provides the highest estimate of the number of people without health insurance coverage for the entire year at 45.0 million people and NHIS produces that the lowest at 30.4 million.

**TABLE 1: Trends among the Surveys in the Number of People under 65 Years of Age Who are Uninsured for Entire Year and Point in Time (in millions): 2007**

Survey	Uninsured for the Entire Year	Uninsured at a Specific Point-in-Time
CPS	45.0	N/A
CPS – Adjusted*	44.5	N/A
NHIS	30.4	43.3
MEPS	39.9	53.5

Source: Current Population Survey, 2008 with estimates tabulated by the State Health Access Data Assistance Center; Cohen et al., 2009, Health Insurance Coverage Trends, 1959-2007: Estimates from the National Health Interview Survey; Chu and Rhoades, 2009, The Uninsured in America, 1996-2008: Estimates for the U.S. Civilian Noninstitutionalized Population under Age 65, Statistical Brief #259, AHRQ.

\*These “adjusted” estimates have been developed by SHADAC to account for historical methodological changes. The CPS data are reweighted and adjusted to account for historical changes in the survey’s methodology. These estimates do not correspond completely to estimates published by the Census Bureau, however, they can provide a more accurate assessment of coverage estimates over time.

The range of the point-in-time estimates is much smaller (from 43.3 to 53.5 people) relative to the full-year estimates. The fact that the CPS full-year uninsured estimate falls within the range of the other two surveys’ point-in-time estimates makes it tempting to interpret the CPS estimate as actually a “point-in-time” measure.<sup>4</sup> Treating the CPS as point-in-time measure or as a full-year uninsured measure can lead to vastly different estimates of the size of important policy-relevant groups such as the number uninsured people who are eligible for public health insurance coverage. This partially explains variations in estimates of the number of eligible but uninsured kids in the U.S.<sup>5</sup>

### *Reasons for the Discrepancies*

Researchers have suggested many explanations for why health insurance estimates differ across surveys. We explore several of the most important possible explanations below.<sup>6</sup>

#### REFERENCE PERIOD

CPS respondents are expected to remember coverage they had up to 15 months prior to the interview, whereas the ACS asks current (point-in-time) coverage. The NHIS and MEPS have a much shorter recall period as well as a point-in-time measure. As a result, CPS respondents tend to have more recall error (e.g., they forget about coverage they may have had and they may report coverage they have at the time of the interview rather than the prior calendar year).<sup>7</sup>

#### MISREPORTING BY RESPONDENTS AND THE MEDICAID UNDERCOUNT

Misreporting of uninsurance by Medicaid enrollees is a major concern for policy-makers. Misreporting can impact uninsurance estimates in two ways: those with insurance may falsely report they are uninsured and those without insurance may mistakenly report they have insurance.

In comparison to administrative data, most surveys undercount the number of people thought to be enrolled in Medicaid. Researchers speculate that this could be due to a variety of factors such as underreporting of Medicaid coverage due to social stigma, lack of awareness of enrollment, or confusion about the type of coverage respondents have (e.g., Medicare or Medicaid).<sup>8</sup> The extent to which uninsurance estimates are overestimated varies by the reference period – the longer the recall period, the more likely a known Medicaid enrollee will erroneously say they are uninsured. The CPS, with its long reference period, demonstrates the

most significant amount of recall error with Medicaid enrollees reporting as uninsured. Surveys using point-in-time measures of coverage result in modest upward bias to uninsurance estimates.<sup>8</sup>

Second, while some people with coverage may report that they are uninsured, it is also possible that some uninsured people report having coverage. There are two likely reasons for these false reports. First is the tendency of respondents to choose a socially acceptable response. Having health insurance is a socially acceptable answer, and uninsured people may feel pressure to answer “yes” to having coverage. Second, coding errors favor a report of coverage because it only takes one positive response to a type of health insurance for a respondent to be considered insured. It is possible that any errors due to underreporting are offset somewhat by the potential corresponding tendency to falsely report coverage.

### DIFFERENCES IN HANDLING MISSING DATA

Data processing conducted before the coverage rates are estimated accounts for some of the discrepancy between the CPS and the other surveys. Between 10 and 15 percent of the CPS sample are missing health insurance data and the Census Bureau imputes (or estimates) these missing values. Recent research shows that the Census Bureau’s method for imputing health insurance coverage may lead to an undercount of people with employer-sponsored coverage and result in an overestimate of the number of people who are uninsured.<sup>9</sup> By contrast, the other surveys have very little missing health insurance coverage data and, therefore, fewer cases to impute.

### DIFFERENCES IN DATA EDITING

The NHIS is the only survey that collects detailed verbatim responses on health insurance coverage and analysts use this information to help edit the reported health insurance data. They use verbatim reports of plan names and descriptions to determine if the reported health insurance is public or private insurance, or if the coverage reported is not actually comprehensive health insurance coverage (e.g., Indian Health Service, Veteran’s Administration or single service plan coverage, serious and dread disease, workers’ compensation, accident and disability policies).<sup>10</sup> This recoding of health insurance mainly affects estimates of private insurance coverage (which drop) and uninsurance (which increase), as many people who report private health insurance coverage are edited to be uninsured. For example, these data edits increased the NHIS uninsurance rate from 15.6 to 16.8 percent in 1998.<sup>11</sup>

### *Conclusion*

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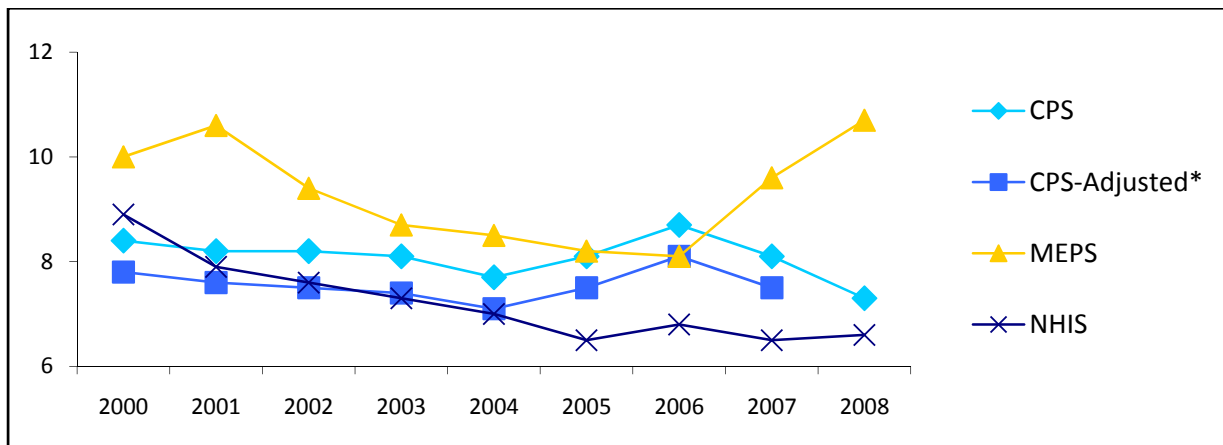
The number of uninsured in the U.S. will never be exactly determined. Surveys produce different estimates because they each handle complex survey and estimation issues in slightly different ways. While research can focus on improving surveys and estimation methodologies, we still are left with just that: estimates. Nonetheless, these surveys are the only tools available to estimate the number of uninsured. The bottom line is that there are tens of millions of uninsured people in this country. The number of uninsured children declined earlier in the decade in all of the surveys, but in recent years has stayed steady in NHIS, dropped in the CPS, and grown in the MEPS.

Graph 1 shows estimates of children under 18 years of age in America who are uninsured for an entire year from the CPS, CPS estimates adjusted to account for historical changes in the survey’s methodology, and the point-in-time estimates from MEPS and NHIS. The individual estimates vary for reasons discussed above, yet they all show similar trends. The number of uninsured children shows a drop in all the surveys from 2001-

2004 while the number of uninsured adults is increasing rapidly in all three surveys (see Graph 2). For children, the MEPS survey shows an increase in the number of uninsured through 2008, while the NHIS shows the number holding steady and the CPS shows a recent decline. We are conducting further analysis into why the three surveys are diverging for estimates of coverage among children.

As detailed analyses have demonstrated elsewhere, the decrease in coverage among adults is mainly due to dropping private health insurance coverage. For children over this time frame, there has been both an increase in the number enrolled in public programs and a decrease in the number enrolled in private coverage, so the overall number of uninsured has not changed significantly or dropped slightly.<sup>12</sup> Focusing on the differences and methods used to produce those numbers is important, but should not distract policy-makers from the need to address issues of cost and access for those without health insurance coverage in the United States.

**GRAPH 1: Trends among the Surveys in the Number of Children (under 18 years) who are Uninsured at All Year (CPS) and Point-in-Time (MEPS and NHIS) (in millions)**

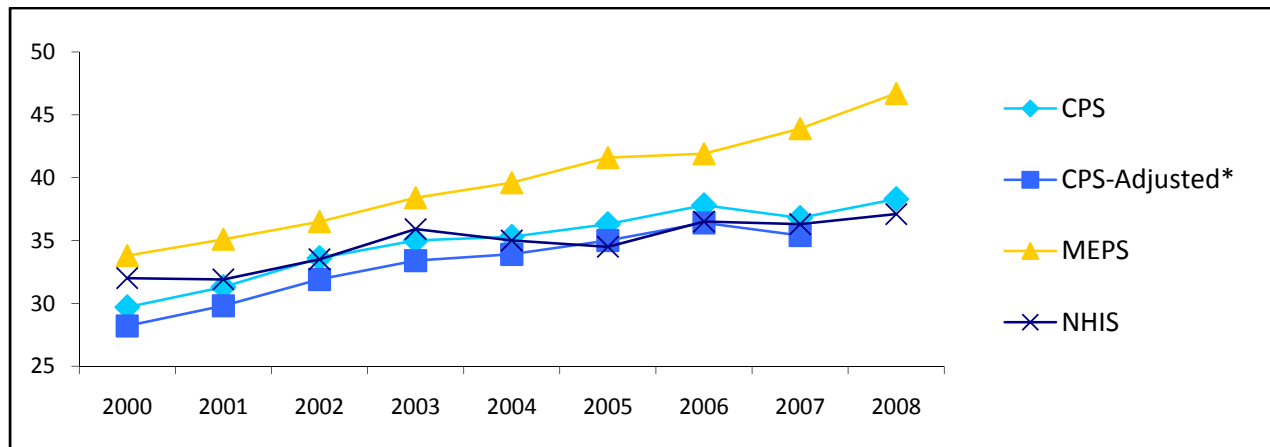


Note: Slightly new methods were imposed in the NHIS and CPS 2005 uninsured estimates, resulting in fewer uninsured.

Source: Current Population Survey, 2001-2009 with estimates tabulated by the State Health Access Data Assistance Center; Cohen et al., Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey, 2008; and MEPS-HC on-line tables, Table 5 (multiple years), [http://www.meps.ahrq.gov/mepsweb/data\\_stats/quick\\_tables\\_results.jsp?component=1&subcomponent=0&year=-1&tableSeries=4&searchText=&searchMethod=1&Action=Search](http://www.meps.ahrq.gov/mepsweb/data_stats/quick_tables_results.jsp?component=1&subcomponent=0&year=-1&tableSeries=4&searchText=&searchMethod=1&Action=Search)

\* These "adjusted" estimates have been developed by SHADAC to account for historical methodological changes. The CPS data are reweighted and adjusted to account for historical changes in the survey's methodology. These estimates do not correspond completely to estimates published by the Census Bureau; however, they can provide a more accurate assessment of coverage estimates over time. 2008 adjusted estimates are not yet available.

**GRAPH 2: Trends among the Surveys in the Number of Adults (18-64 years of age) who are Uninsured at all Year (CPS) and Point-in-Time (MEPS and NHIS) (in millions)**



Note: Slightly new methods were imposed in the NHIS and CPS 2005 uninsured estimates, resulting in fewer uninsured.

Source: Current Population Survey, 2001-2009 with estimates tabulated by the State Health Access Data Assistance Center; Cohen et al., Health Insurance Coverage: Early Release of Estimates from the National Health Interview Survey, 2008; and MEPS-HC on-line tables, Table 5 (multiple years), [http://www.meps.ahrq.gov/mepsweb/data\\_stats/quick\\_tables\\_results.jsp?component=1&subcomponent=0&year=-1&tableSeries=4&searchText=&searchMethod=1&Action=Search](http://www.meps.ahrq.gov/mepsweb/data_stats/quick_tables_results.jsp?component=1&subcomponent=0&year=-1&tableSeries=4&searchText=&searchMethod=1&Action=Search)

\* These "adjusted" estimates have been developed by SHADAC to account for historical methodological changes. The CPS data are reweighted and adjusted to account for historical changes in the survey's methodology. These estimates do not correspond completely to estimates published by the Census Bureau; however, they can provide a more accurate assessment of coverage estimates over time. 2008 adjusted estimates are not yet available.

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## About SHADAC

The University of Minnesota's State Health Access Data Assistance Center (SHADAC) helps states monitor rates of health insurance coverage and understand factors associated with uninsurance. SHADAC provides targeted policy analysis and technical assistance to states that are conducting their own health insurance surveys and/or using data from national surveys. SHADAC's work is funded by the Robert Wood Johnson Foundation. Information is available at [www.shadac.org](http://www.shadac.org).

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- <sup>3</sup> Other surveys also provide national estimates but are not conducted by the federal government such as the Community Tracking Survey and the National Survey of America's Families. The Behavioral Risk Factor Surveillance System is conducted by the federal government and contains health insurance coverage estimates however in many states children are excluded.
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- <sup>6</sup> Because the first release of ACS health insurance estimates will happen in late September, 2009, this analysis does not include any reference to the ACS.
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