## Health Insurance Estimates From the Census Bureau

Chuck Nelson U.S. Census Bureau NCVHS Health Insurance Hearing November 19, 2008

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Summary: What are the Census Bureau's Strengths with regard to Health Coverage issues?

- Extent of Coverage
  - Under-Insurance
- Length of Time Uninsured
- Characteristics of the Uninsured
- ✓ Health Insurance Coverage
  - **Characteristics of Insurance Policies**
- Impact of Economic Change on Health Insurance/Systems Change
- Availability of Insurance Data to Support State-Level Policy Estimates

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# Census Bureau Sources of Health Insurance Data

- CPS Annual Social and Economic Supplement (ASEC)
- Survey of Income and Program Participation (SIPP)
- American Community Survey (ACS)
- Small Area Health Insurance Estimates (SAHIE) Program

# Current Population Survey (CPS ASEC)

Background:

- Congress directed the Census Bureau to ask questions to gauge the impact of noncash benefits; questions about health benefits added in 1980
- Census Bureau first published estimates on the uninsured included in 1991 income report

## **CPS ASEC: Characteristics**

- Based on approx. 78,000 households interviewed in Feb.-April, either in person or over the phone
- Sample is state-representative, and multiyear state averages are published annually
- Questions ask about any coverage in previous calendar year
- Initial screening questions are householdbased

# CPS ASEC: Latest Estimates (Released in August 2008)

- 15.3 percent of persons lacked insurance in 2007, down from 15.8 percent in 2006
- 11.0 percent of children lacked insurance, down from 11.7 percent in 2006
- The percentage of persons covered by private insurance was 67.5 percent, down from 67.9 percent in 2006

# CPS ASEC: Latest Estimates (Released in August 2008) cont.

- The percentage of persons with public coverage was 27.8 percent, up from 27.0 percent in 2006
- Based on 3-year 2005-2007 averages, state uninsured rates ranged from 8.3 percent (HI, MA) to 24.4 percent (TX)
- 7 out of the 10 states with increases in uninsured rates between 2004-2005 and 2006-2007 were in the South or Midwest

## **CPS ASEC: Strengths**

- Long time series
- Data, reports, and tabulations are released quickly
- Large, state-representative sample
- High quality data on economic well-being, income and benefits received, work experience, and labor force status
- Data file is popular and easy to use
- High response rate

#### **CPS ASEC: Limitations**

- Health insurance is not a survey focus
- Long (14-16 month) recall period
- Compared to other estimates based on shorter recall periods (SIPP, MEPS), CPS annual estimates of the uninsured are generally higher
- Limited flexibility for adding new content

# Survey of Income and Program Participation (SIPP)

- Panel Survey
- Sample size has varied by panel (2004 panel was about 42,000 interviewed households, for example)
- 4-month reference period; person-based questions

# **SIPP Strengths**

- Ability to examine a variety of longitudinal measures (duration of coverage, exits out of and entrances into coverage, characteristics of those who are chronically uninsured) that can't be measured in cross-sectional surveys like the CPS
- Shorter reference period than CPS; higher (and in all likelihood, more accurate) estimates of annual coverage
- A wealth of topical module topics, including medical expenditures and detailed questions about health and disability

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#### **SIPP Limitations**

- Microdata file is more difficult to use than CPS
- Complicated survey results in longer processing time and slower releases
- Limited ability to examine state-specific estimates

# American Community Survey (ACS)

- Replacement for Census Long Form
- About 3 million addresses annually
- Mailout survey with CATI/CAPI follow-up for nonrespondents
- Health insurance questions added in 2008
- First estimates will be released in 2009 for nation, states, and all geographic areas of 65,000 or more
- Person-based questions that cover current coverage status
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## **ACS Strengths**

- Huge sample size, allowing the eventual publication of estimates for all geographic areas and small population subgroups
- Quick publication turnaround time
- Relatively rich dataset in terms of other content (income, poverty, industry, occupation, educational attainment, work status, disability status, etc.)
- Questions ask about current health coverage status and are close to the beginning of the survey

#### **ACS** Limitations

- Extremely limited flexibility for content additions or changes
- Paper questionnaire allows no ability to fashion probes that ask about specific state programs or ask questions of specific universes (children, for example)
- Health insurance is not a survey focus

# Small Area Health Insurance Estimates (SAHIE) Program

- Model-Based Estimates
- Recently released estimates for 2005 for every county in the U.S. by age, sex, and income/poverty ratio
- Combines the CPS ASEC with other sources
- Funding Provided by CDC

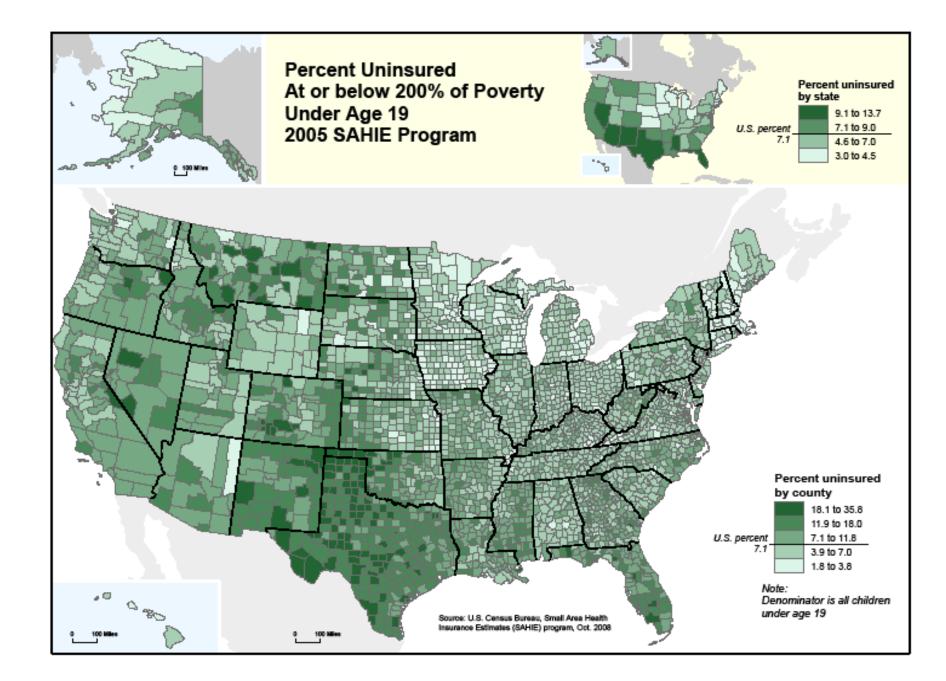
#### **Data Sources**

- CPS ASEC
- Census 2000
- Population Estimates
- County Business Patterns
- SCHIP Participation
- Food Stamps administrative data
- IRS data
- Medicaid administrative data

#### 2005 SAHIE Release

- Estimates for all counties:
  - o Uninsured persons by income/poverty ratio (200 or 250 percent), sex, and age
- Estimates for all states:
  - Uninsured persons by income/poverty ratio (200 and 250 percent), sex, age, and race/ethnicity

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Notes from Table 1. A margin of error (MOE) is the difference between an estimate and its upper or lower confidence bounds. Confidence bounds can be created by adding the margin of error to the estimate (for an upper bound) and subtracting the margin of error from the estimate (for a lower bound). All published margins of error for the Small Area Health Insurance Estimates program	County \$	Number Insured \$	MOE <sup>1</sup> for Number Insured	Number Uninsured \$	MOE <sup>1</sup> for Number Uninsured	Number in Demographic Group <sup>2</sup> \$	Percent Uninsured <sup>3</sup> \$	MOE <sup>1</sup> for Percent Uninsured	
	Autauga County, Alabama	38,492	1,244	6,289	1,070	44,780	14.0	2.4	
	Baldwin County, Alabama	111,255	3,911	29,342	3,595	140,597	20.9	2.6	
	Barbour County, Alabama	18,623	674	3,307	598	21,930	15.1	2.7	
	Bibb County, Alabama	14,598	602	3,133	527	17,731	17.7	3.0	
	Blount County, Alabama	38,637	1,585	10,139	1,448	48,775	20.8	3.0	•
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#### **Future Plans for SAHIE**

- Release 2006 Estimates in 2009
- Pending Future Funding Support:
  - o Add more categories (age groups, income/poverty groups, etc.)
  - o Incorporate the ACS
  - o Research into improvements to model

### CPS ASEC: Medicaid Underreporting Research

- Survey estimates of Medicaid enrollment are well below administrative data enrollment figures
- In the "SNACC" Project the Medicaid Statistical Information System (MSIS) was compared via exact match to the Current Population Survey (CPS)

#### "SNACC" Project

- SNACC is a collaboration between
  - State Health Access Data Assistance Center (SHADAC)
  - National Center for Health Statistics (NCHS)
  - Assistant Secretary of Policy Evaluation (ASPE)
  - Census Bureau
  - Centers for Medicare & Medicaid Services (CMS)
- SNACC was funded by the Robert Wood Johnson Foundation through SHADAC
- Additional funding was also provided by ASPE

Medicaid Underreporting Questions Addressed by SNACC Project

- Questions of interest are:
  - How often do Medicaid enrollees report being on Medicaid on the CPS?
  - How often do Medicaid enrollees report being uninsured on the CPS?
  - What are the covariates of incorrectly reporting of Medicaid and being uninsured in the CPS

#### How Well is the CPS ASEC Classifying Medicaid Enrollees?

- Focusing on only those with MSIS-indicated Medicaid Enrollment\*
  - 58.7% Reported on Medicaid
  - 24.6% Reported on coverage other than Medicaid
  - 16.6% Reported uninsured
  - 99.9%
- 41% of the linked respondents shown enrolled on MSIS report something other than Medicaid
- 16.6% reported uninsured biases CPS uninsured estimates upward.

\*Year 2000 enrollment status, adjusted weight counts for actual (un-edited) responses

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What Factors are Associated with Measurement Accuracy/Error?

- Length of time enrolled in Medicaid
- Recency of enrollment in Medicaid
- Poverty status impacts Medicaid reporting but does not impact the percent reporting they are uninsured
- Adults 18-44 are less likely to report Medicaid enrollment

# CPS ASEC Questionnaire Design Work

- Conduct cognitive testing of "intertwined" set of questions to derive both current and calendar year estimates
- Conduct split-ballot field study (linked to records) with four panels:
  - CPS production instrument
  - CPS with health questions at front of questionnaire
  - Experimental series (from cognitive testing)
    ACS

#### U S C E N S U S B U R E A U

### For Further Information:

- Census Bureau Health Insurance Webpage:
  - http://www.census.gov/hhes/www/hlthins/hlthins.html
- American Community Survey: http://www.census.gov/acs/www/
- Latest CPS Health Insurance Estimates:
  - http://www.census.gov/hhes/www/income/income07.html
- SNACC Phase II Report: http://www.census.gov/did/www/snacc/
- SIPP: <u>http://www.census.gov/sipp/</u>
- SAHIE Webpage:
  - http://www.census.gov/hhes/www/sahie/index.html
- Or contact me at <a href="mailto:charles.t.nelson@census.gov">census.gov</a>

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