## Small Area Health Insurance Estimates

(SAHIE)

## 2011 Highlights



MAP: Uninsured at or below $138 \%$ of poverty, under age 65, (p. 19)

## U.S. Census Bureau

Social, Economic and Housing Statistics Division (SEHSD) Small Area Estimates Branch (SAEB)

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# Small Area Health Insurance Estimates (SAHIE): 2011 Highlights 

## Introduction

The U.S. Census Bureau's Small Area Health Insurance Estimates (SAHIE) program produces timely estimates for all counties and states by detailed demographic and income groups. The SAHIE program produces single-year estimates of health insurance coverage for every county in the U.S. The estimates are model-based and consistent with the American Community Survey (ACS). They are based on an "area-level" model that uses survey estimates for domains of interest, rather than individual responses. The estimates are "enhanced" with administrative data, within a Hierarchical Bayesian framework.

SAHIE data can be used to analyze geographic variation in health insurance coverage, as well as disparities in coverage by race/ethnicity, sex, age and income levels that reflect thresholds for state and federal assistance programs. Because consistent estimates are available from 2008 to 2011, SAHIE reflects annual changes over time.

## Highlights

In 2011,

- State-level uninsured rates for the population under age 65 ranged from $4.9 \%$ to $25.7 \%^{1}$.
- County-level uninsured rates for the population under age 65 ranged from $3.1 \%$ to $46.0 \%$.
- State-level uninsured rates for the population under age 65 declined in 19 states from 2010 to 2011, while they increased for only two. The other 29 states and the District of Columbia did not have a significant change.
- The county-level median uninsured rate for the population under age 19 was $7.7 \%$. This was lower than the working age (18-64) median uninsured rate, $21.5 \%$.


## Small Area Health Insurance Estimates (SAHIE) Program

The SAHIE program models health insurance coverage by combining survey data with population estimates and administrative records from the following sources: American Community Survey (ACS); demographic population estimates; aggregated federal tax returns; participation records for the Supplemental Nutrition Assistance Program (SNAP); County Business Patterns; Medicaid and the Children's Health Insurance Program (CHIP) participation records; and Census 2010.

Prior to 2008, SAHIE used the Annual Social and Economic Supplement to the Current Population Survey (CPS ASEC) to produce county and state estimates. In 2008, SAHIE switched to using survey estimates from the ACS. This methodological update has allowed the program to increase the precision of state and county level coverage for detailed demographic groups, and add additional income categories of relevance to the recent healthcare changes. More information on methodology and other documentation is accessible from the main SAHIE page, http://www.census.gov/did/www/sahie/index.html.

A related program to SAHIE is the Small Area Income and Poverty Estimates (SAIPE) program, which produces estimates of poverty for all school districts, counties, and states. Information about the SAIPE program is available at: http://www.census.gov/did/www/saipe/index.html.

[^0]
## Demographic and Economic Differences in Health Insurance Status Across States and Counties

SAHIE demographic and economic domains allow data users to analyze in detail the health insurance status of individuals living in counties and states. SAHIE has a total of 216,790 county and state-level estimates with corresponding margins of error. SAHIE cross-tabulates health insurance coverage with a selection of age, sex, income, and race and ethinicity groups. ${ }^{2}$ For example, in 2011, California's uninsured rate for Hispanic women, ages $50-64$, living at or under $200 \%$ of poverty, was $46.2 \%$. Also, in 2011 , Queens County, New York had an uninsured rate of $40.9 \%$ for males, ages 18 to 64 , living at or below $138 \%$ of poverty. The following sections will look at the demographic and economic composition of the insured and uninsured across the U.S.

## In all states, there are more uninsured working-age adults than uninsured children

Estimates of the uninsured population vary by age group across counties and states. The difference is clear when comparing children and working-age adults. Figure 1 (page 3), shows two maps comparing county-level uninsured rates for working-age adults, ages 18 to 64, and children, under age 19. In 2011, working age adults had a higher range of uninsured rates than children, $3.9 \%$ to $52.5 \%$ compared to $1.3 \%$ to $32.2 \%$, respectively. Children had uninsured rates less than $10 \%$ in 2,216 out of 3,143 counties ( $70.5 \%$ of counties). The working-age population had uninsured rates less than $10 \%$ in only 50 counties ( $1.6 \%$ of counties). This difference can be partially attributed to the Children's Health Insurance Program (CHIP), which provides health coverage to children whose families have income too high to qualify for Medicaid but are unable to afford private insurance.

## In almost all states, males had higher uninsured rates than females

In 48 states and the District of Columbia, males under age 65 had significantly higher uninsured rates than females under age 65 . Of the 3,143 U.S. counties, males had a significantly higher uninsured rate in 1,003 counties; however, there were no counties in which the uninsured rate for females was significantly higher.

## SAHIE Demographic and Economic Domains

For all states, estimates of people with and without health insurance coverage are provided by:

- ages 0-64, 18-64, 40-64 and 50-64;
- female, male, and both sexes;
- all races, White alone (non-Hispanic), Black alone (non- Hispanic), and Hispanic (any race);
- all incomes, less than or equal to $138,200,250$ and 400 percent of the poverty;
- a special estimate for the 0-18 age group for 'both sexes,' and 'all incomes,' less than or equal to 138,200, 250 and 400 percent of the poverty threshold; and
For all counties, estimates of people with and without health insurance coverage are provided by:
- ages 0-64, 18-64, 40-64 and 50-64;
- female, male, and both sexes;
- all incomes, less than or equal to $138,200,250$ and 400 percent of the poverty;
- a special estimate for the 0-18 age group for 'both sexes,' and 'all incomes,' less than or equal to 138,200, 250 and 400 percent of the poverty threshold

[^1]
## HEALTH INSURANCE COVERAGE ESTIMATES

 Percent Uninsured, 2011
U.3. Department of Commerce Economic and Statistica Administration U.B. CENBUS BUREAU

## In all states, minorities had higher uninsured rates compared to non-Hispanic whites

The state-level maps in Figure 2 (page 5) compare uninsured rates for the total population and for major racial and ethnic groups: non-Hispanic White, non-Hispanic Black, and Hispanic.

In every state, the uninsured rate was highest for Hispanics, followed by non-Hispanic Blacks, followed by nonHispanic Whites. County-level uninsured rates for Hispanics ranged from $10.7 \%$ to $43.6 \%$, non-Hispanic Blacks ranged from $6.6 \%$ to $29.1 \%$, and the rates for non-Hispanic Whites went from $3.8 \%$ to $19.6 \%$.

## Low-income groups had higher uninsured rates

Figure 3 (page 6) consists of four state-level maps which highlight insurance coverage by several key Income-to-Poverty Ratios (IPR) for the entire nation. IPR is the family income divided by the federal poverty threshold (see page 7). The maps provide an illustration of the entire U.S. population in states, under age 65, within IPR categories, and without health insurance. Alaska, Montana, and states in the southwest (excluding Arizona), south-central, and southeastern United States tend to have the highest uninsured rates across all IPR categories. States with the lowest uninsured rates tend to be located in the north-central and northeastern United States across all IPR categories.

The first map shows the SAHIE estimate for the population under age 65, at all income levels. The uninsured rates ranged from as low as $4.9 \%$ to as high as $25.7 \%$.

The second map shows the SAHIE estimate for the population under age 65 with family incomes less than or equal to $138 \%$ IPR. Uninsured rates ranged from $9.3 \%$ to $40.0 \%$.

The third map shows the SAHIE estimate for the population under age 65 with family incomes less than or equal to $250 \%$ IPR. The uninsured rates ranged from $9.4 \%$ to $38.0 \%$.

The fourth map shows the SAHIE estimate for the under age 65 population with a family income less than or equal to $400 \%$ IPR. The uninsured rates ranged from $7.9 \%$ to $33.3 \%$.

The IPR levels in SAHIE were chosen because many state health programs for low-income individuals use eligibility cutoffs at $200 \%$ or $250 \%$ of the poverty threshold and because the Patient Protection and Affordable Care Act (ACA) has provisions to assist families with incomes less than or equal to $138 \%$ and $400 \%$ of the poverty threshold. The ACA allows states to expand Medicaid to cover families with incomes of $138 \%$ IPR or less, and authorizes tax credits to help pay for health coverage in the new health insurance exchanges for families with incomes between 138\% and 400\% IPR.
HEALTH INSURANCE COVERAGE ESTIMATES
Percent Uninsured, 2011
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Population Under Age 65,

HEALTH INSURANCE COVERAGE ESTIMATES
Percent Uninsured, 2011 All Income Levels,
Under Age 65


## What is an Income-to-Poverty Ratio?

Poverty status is determined by comparing total annual before tax income to a table of income thresholds that vary by family size, number of related children, and age of householder. If a family's income is less than the dollar value of the appropriate thresholds, then that family and every individual in it are considered to be in poverty.

To determine a family or individual's income-to-poverty (IPR) threshold, take their before-tax income and divide by the appropriate poverty threshold. Then multiply by 100 to determine how far the family or individual earner is below or above poverty (a family with an IPR of 1.0 is living at the poverty threshold).

For example, take a family of four, two parents and two children, with a total annual income of $\$ 45,500$. In 2011, a family of this size had a poverty threshold of $\$ 22,811$. Their income-to-poverty ratio is:

$$
\frac{\text { Total Annual Income }}{\text { Poverty Threshold }}=\frac{\$ 45,500}{\$ 22,811}=1.995=199.5 \% \text { of poverty }
$$

The family of four is living just below $200 \%$ of poverty. This means their income is just below twice their determined poverty threshold.
The poverty thresholds are updated annually to allow for changes in the cost of living using the Consumer Price Index (CPI-U). They do not vary geographically.

For more information, see "How Poverty is Calculated in the American Community Survey" at:
http://www.census.gov/hhes/www/poverty/about/overview/measure.html

Figure 4 (page 8) contains 2 county-level maps. The top panel shows the percentage of the under age 65 population insured, by quartiles, and the bottom panel shows median household income ( MHI ) by quartiles.

The county-level rate of under age 65 and insured ranged from $54 \%$ to $96.9 \%$. The map shows that those counties whose insured rates are in the top quartile ( $86 \%$ insured and higher) are located primarily in the north central US, northeast, and Hawaii. The counties with the lowest percentage of insured (or those within the bottom $25^{\text {th }}$ percentile, $78.5 \%$ insured and lower) are located primarily in the southeast, south-central, and western U.S., including Alaska.

The MHI quartiles were derived from dollar amounts. The county-level MHI ranged from a low of \$20,990 in Alabama to a high of $\$ 119,525$ in Virginia. The range of the MHIs in the top $25^{\text {th }}$ percentile was $\$ 48,954$ to $\$ 119,525$. The range in the $50^{\text {th }}$ and $75^{\text {th }}$ percentiles was $\$ 41,974.50$ to $\$ 48,945$, and the bottom $25^{\text {th }}$ percentile ranged from $\$ 20,990$ to $\$ 36,471$.

# HEALTH INSURANCE COVERAGE AND INCOME ESTIMATES Percent Insured and Median Household Income, 2011 



## U.S. Census Bureau Health Insurance, Income, and Poverty Data Sources

SAHIE is one of several sources of health insurance, income, and poverty data available from the Census Bureau. Each of these sources differs from the others in some ways, such as the length and detail of its questionnaire, the number of households included (sample size), and the methodology used to collect and process the data. It is important to understand that different surveys and methods are designed to meet different needs and produce different results. Other sources include: Annual Social and Economic Supplement to the Current Population Survey (CPS ASEC); American Community Survey (ACS); and Survey of Income and Program Participation (SIPP).

## CPS ASEC

Because of its detailed questionnaire, the CPS ASEC is the source of official national estimates of poverty levels and rates, and the widely used estimates of household income and individual earnings, as well as the distribution of that income. It is also the recommended source of national estimates of health insurance coverage by income. The CPS ASEC provides a consistent historical time series beginning in 1987 for health insurance and 1959 for poverty and income at the national level. The data can also be used to look at state-level trends and differences (through multi-year averages) beginning in 1980.
ACS
Since 2006, the ACS releases annual subnational estimates of income and poverty for all places, counties, and metropolitan statistical areas with a population of at least 65,000 as well as for states and for the nation. It was not until 2008 that the ACS began releasing data on health insurance status. The sample size of the ACS is about 3.5 million addresses per year, making this survey exceptionally useful for subnational analyses. Three-year ACS estimates were made available starting in 2008 for poverty and income, and in 2010 for health insurance, for areas and subpopulations as small as 20,000. Five-year ACS estimates looking at poverty and income are available for census tracts/block groups and for small subgroups of the population starting in 2010. In December 2013, the 2008-2012 five-year data will be released and will include, for the first time, health insurance data. More information on the American Community Survey is located at: http://www.census.gov/acs/www/.

## SIPP

The SIPP is most useful for understanding the dynamics of health insurance, income, and poverty (changes in health insurance, income, and poverty rates for the same households over three or four years) and for examining the nature and frequency of poverty spells. The SIPP also permits researchers to look at monthly or quarterly changes in health insurance, income, and poverty.

## Geographic Variation in Health Insurance Coverage

Small Area Health Insurance Estimates allow data users to look at the insured and uninsured across states and counties. Having sub-state level estimates allows users to look at the distribution and concentration of the uninsured and insured within states, regions, and metropolitan areas. For example in Florida, around the Miami metropolitan area, there were higher uninsured rates than in central and northern Florida. The following sections will look at the geographic variation of the insured and uninsured.

## The lowest county-level uninsured rate is in Massachusetts and the highest is in Alaska

Figure 5 (page 10) shows SAHIE 2011 uninsured rates for the population under age 65 by state. Four states have an uninsured rate of less than $10 \%$. Thirty-five states have an uninsured rate between $10 \%$ to $20 \%$. Twelve states have an uninsured rate of greater than 20\%.

Table 1 (page 11) shows the county with the lowest uninsured rate for each state. In most cases, the county with the lowest rate in each state has a similar rank to the state's overall uninsured rate. However, there are a few exceptions: Los Alamos County has an uninsured rate of $4.7 \%$, while New Mexico overall has $23 \%$ uninsured. New Jersey has an uninsured rate of 14.9\%, but Hunterdon County has an uninsured rate of 7.3\%.

Figure 5. Percent Uninsured, Under Age 65, by State, 2011


Notes: The percentages shown are estimates containing uncertainty. Apparent differences may not be statistically significant.
Source: U.S. Census Bureau, 2011 Small Area Health Insurance Estimates, August 2013
Source: U.S. Census Bureau, 2011 Small Area Health Insurance Estimates, August 2013

Table 1. Lowest Uninsured County by State, 2011

| State | County | Percent Uninsured |
| :---: | :---: | :---: |
| Massachusetts | Norfolk County | 3.1 |
| New Mexico | Los Alamos County | 4.7 |
| Wisconsin | Waukesha County | 6.0 |
| Minnesota | Carver County | 6.5 |
| Vermont | Chittenden County | 7.0 |
| Hawaii | Honolulu County | 7.3 |
| New Jersey | Hunterdon County | 7.3 |
| Connecticut | Tolland County | 7.3 |
| Ohio | Delaware County | 7.5 |
| Virginia | Falls Church City | 7.5 |
| lowa | Bremer County | 7.6 |
| South Dakota | Union County | 7.7 |
| Colorado | Douglas County | 7.7 |
| Maryland | Calvert County | 7.8 |
| New York | Saratoga County | 8.0 |
| Illinois | Monroe County | 8.2 |
| District of Columbia | District of Columbia | 8.3 |
| Pennsylvania | Montgomery County | 8.4 |
| Rhode Island | Washington County | 8.6 |
| Nebraska | Washington County | 8.9 |
| Tennessee | Williamson County | 9.2 |
| Indiana | Hamilton County | 9.4 |
| North Dakota | Mercer County | 9.5 |
| Michigan | Washtenaw County | 9.8 |
| Kansas | Johnson County | 9.9 |
| Missouri | St Charles County | 9.9 |
| Delaware | New Castle County | 10.4 |
| New Hampshire | Rockingham County | 10.4 |
| Kentucky | Oldham County | 10.8 |
| Maine | Cumberland County | 11.4 |
| California | Marin County | 12.0 |
| Utah | Davis County | 12.0 |
| Alabama | Shelby County | 12.1 |
| Georgia | Fayette County | 13.1 |
| Washington | Kitsap County | 13.1 |
| Idaho | Ada County | 14.0 |
| Arizona | Greenlee County | 14.4 |
| West Virginia | Putnam County | 14.4 |
| Oregon | Clackamas County | 14.5 |
| Wyoming | Converse County | 14.7 |
| Mississippi | Madison County | 15.0 |
| Louisiana | St Charles Parish | 15.1 |
| North Carolina | Onslow County | 15.2 |
| Texas | Carson County | 15.4 |
| Florida | St. Johns County | 15.4 |
| Montana | Lewis and Clark County | 15.6 |
| Oklahoma | Canadian County | 15.7 |
| South Carolina | Richland County | 15.9 |
| Arkansas | Saline County | 16.1 |
| Alaska | Anchorage Borough | 18.3 |
| Nevada | Eureka County | 18.8 |

Notes: The percentages shown are estimates containing uncertainty. Apparent differences may not be statistically significant.
Source: U.S. Census Bureau, 2011 Small Area Health Insurance Estimates, August 2013

## Uninsured rates are lowest in the Northeast and Midwest

Figure 6 is a distribution of county uninsured rates for the population under age 65 by region.
The Census Bureau defines four regions in the United States; the West (includes Alaska and Hawaii), the Midwest, the South, and the Northeast. The county-level uninsured rates ranged from a low of $3.1 \%$ in Norfolk County, Massachusetts to a high of $46 \%$ in Aleutians East Borough, Alaska.

The counties with the highest rates of uninsured were concentrated mostly in the Southern and Western regions, predominately in south Florida, southern Georgia, southwest Arkansas, Texas, northwest New Mexico, southern Colorado, Montana, Idaho, southwest Nevada, and Alaska. Refer to Figure 7 (page 13).

The counties with the lowest rates of uninsured were concentrated in the Midwestern and Northeastern regions, most notably in Iowa, Minnesota, Wisconsin, New York, Vermont, Massachusetts, Connecticut, and counties along the Pennsylvania/New Jersey border. Additionally, the extreme northeastern portion of the South, most notably the counties located within the Baltimore and District of Columbia metropolitan areas, had low rates of uninsured. Refer to Figure 7 (page 13).

Figure 6. Distribution of county uninsured rates for the population, under age 65, by region, 2011


Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, counties identified as minimum and maximum may have several other counties that are statistically indistinguishable. The box and whisker plot shows the distribution of uninsured by county. The whiskers indicate the minimum and maximum values, while the lower and upper borders of the box represent the interquartile range (25th and 75th percentile). The line inside the box indicates the location of the 50th percentile (median value).
Source: U.S. Census Bureau, 2011 Small Area Health Insurance Estimates, August 2013
Population Under Age 65


## Metropolitan counties tend to have lower uninsured rates

Counties located in metropolitan and micropolitan statistical areas tend to have lower median uninsured rates for the population under age 65 than counties outside of these areas. The estimates for the uninsured rates in metropolitan area counties ranged from $3.1 \%$ to $38.8 \%$, with a midpoint of $16.3 \%$. The estimates for the uninsured rates in micropolitan area counties ranged from $4.7 \%$ to $35.1 \%$ with a midpoint of $17.9 \%$. The estimates for the uninsured rates in counties outside of metropolitan and micropolitan areas ranged from $7.3 \%$ to $46 \%$, with a midpoint of $18.8 \%$.

Figure 8. Distribution of county uninsured rates for the population, under age 65, by metro status, 2011



#### Abstract

Area Notes: The data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant. In particular, counties identified as minimum and maximum may have several other counties that are statistically indistinguishable. The box and whisker plot shows the distribution of uninsured by county. The whiskers indicate the minimum and maximum values, while the lower and upper borders of the box represent the interquartile range (25th and 75th percentile). The line inside the box indicates the location of the 50th percentile (median value). Source: U.S. Census Bureau, 2011 Small Area Health Insurance Estimates, August 2013


## Metropolitan and Micropolitan Statistical Areas

Metropolitan and micropolitan statistical areas are geographical entities defined by the U.S. Office of Management and Budget (OMB) for use by federal statistical agencies in collecting, tabulating, and publishing federal statistics. They are the result of the application of published OMB standards to Census Bureau data. A metropolitan area contains an urban core population of 50,000 or more, and a micropolitan area contains an urban core population of at least 10,000 (but less than 50,000 ). Each metropolitan and micropolitan area consists of one or more counties and includes the counties containing the urban core area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core.

In the Appendix (page 20), there is a map depicting metropolitan and micropolitan area status by county. Information about metropolitan and micropolitan areas, which are also known as "Core Based Statistical Areas," is available at: http://www.census.gov/population/www/metroareas/metroarea.html.

## Time Trends in Health Insurance Status

## The majority of significant annual changes in uninsured rates were found in counties with a population size less than 65,000

Table 2 displays the number of counties with significant annual changes in the uninsured rate by population size. The majority of counties with significant annual changes in uninsured rates were found in counties with an under age 65 population size less than 65,000 . SAHIE is the only data source that provides annual estimates of health insurance coverage for all counties in the United States.

## From 2010 to 2011, 19 states saw a significant decline in uninsured rates

Figure 9 (page 16) shows the annual state-level change in uninsured rates for the population under age 65 from 2008 to 2011. Of the 50 states and the District of Columbia, from 2008 to 2009, 32 states saw a significant change in their uninsured rate. Of the states with statistically significant changes, 29 states had an increase in uninsured rate, while only 3 states had a decrease in uninsured rates. This pattern changes from 2010 to 2011, when 21 states saw a significant change in uninsured rates. There were only 2 states with a significant increase in uninsured rates, while 19 states had a significant decrease in their uninsured rate.

## Twenty-four percent of counties saw a significant change in their uninsured rate from 2008 to 2011

Figure 10 (page 17) shows the county-level changes in uninsured rates for the population under age 65 from 2008 to 2011. Of the 3,143 counties in the U.S., 759 counties had a statistically significant difference in uninsured rate after the 4 year period. Of the counties with statistically significant changes, 432 counties had a significant increase in the uninsured rate; while 327 counties had a significant decrease in uninsured rate. Areas with significant increases in uninsured rates include south Florida, northwest Washington, east Pennsylvania, and central Massachusetts. Areas with significant declines in uninsured rates include west Texas, east Arizona, northeast New York, Vermont, and northwest North Dakota.

Table 2. Number of Counties with Annual Changes in the Uninsured Rate by Population Size, 2008 to 2011

| Annual Change | County Population Under Age 65 | Number of Counties with a Significant Change | Number of Counties with a Significant Increase | Number of Counties with a Significant Decrease |
| :---: | :---: | :---: | :---: | :---: |
| 2008 to 2009 | Total | 479 | 356 | 123 |
|  | Above 65,000 | 150 | 131 | 19 |
|  | Under 65 ,000 | 329 | 225 | 104 |
|  |  |  |  |  |
| 2009 to 2010 | Total | 371 | 265 | 106 |
|  | Above 65,000 | 110 | 97 | 31 |
|  | Under 65 ,000 | 261 | 168 | 93 |
|  |  |  |  |  |
| 2010 to 2011 | Total | 270 | 28 | 242 |
|  | Above 65,000 | 71 | 11 | 60 |
|  | Under 65 ,000 | 199 | 17 | 182 |

Note: A significant change in uninsured rate indicates that the county rate was statistically different from its prior year's rate assuming a 90 percent confidence level. Source: U.S. Census Bureau, 2011 Small Area Health Insurance Estimates, August 2013



## Health Care Changes

## Using SAHIE to evaluate health care changes

Small Area Health Insurance Estimates can be a useful tool when evaluating the impacts of health care policy changes at the state and county-level. By providing estimates at IPRs $0-400 \%$ and $0-138 \%$, SAHIE provides state and county-level estimates for uninsured populations that may be eligible to participate in the Health Insurance Exchanges or Medicaid. The 0-400\% IPR group provides estimates of the uninsured population that may qualify for the Health Insurance Exchanges or for Medicaid. The 0-138\% IPR group provides estimates of the uninsured population that may qualify, in participating states, for Medicaid. Refer to Figure 11 (page 19).

The estimates can be helpful when locating where potential program participants live. For example, in 2011, Illinois, a state that has chosen to expand their Medicaid program and create a state-federal partnership health exchange marketplace, had $1,423,796$, or $20.9 \%$, uninsured individuals under age 65 living at or below $400 \%$ poverty. However, when you examine data at the county-level, users can observe that eligible program participants are not evenly distributed across the state. For example, Cook County, the county containing Chicago, had 748,431 , or $25.3 \%$, uninsured individuals under age 65 living at or below $400 \%$ poverty. Overall, Cook County had $52.5 \%$ of the state's non-elderly uninsured that are eligible for the Health Exchange Marketplace or Medicaid. (Note that Cook County has $43.4 \%$ of the state's population under age 65 living at or below 400\% poverty both insured and uninsured).

SAHIE's demographic domains allow for a comprehensive evaluation of other potential program participants. For example, in 2011, Arizona (a state that decided to expand their Medicaid program) had an estimated 371,974 , or $39.1 \%$, non-elderly adults, ages $18-64$, living at or under $138 \%$ poverty that were uninsured. However, when looking at the number of uninsured Hispanic males ages 18 to 64 that may be eligible for Medicaid subsidies, Arizona had 101,071 or $57.1 \%$ in this group. In 2011, Hispanic males made up $27.2 \%$ of the total number of uninsured that may qualify for Medicaid subsides when health care laws go into effect. (Note, in Arizona, Hispanic males only make up $18 \%$ of the total population ages 18 to 64 living at or below 138\% poverty).

To make quick evaluations of your state's potential program participants, visit the SAHIE interactive data and mapping tool. The tool allows users to download custom tables, create and download thematic maps of insured and uninsured rates, and state health insurance coverage trends. The SAHIE website is located at: http://www.census.gov/did/www/sahie/.

## When to use SAHIE while analyzing health insurance coverage

Small Area Health Insurance Estimates (SAHIE) uses American Community Survey (ACS) estimates to model state and county health insurance estimates. The ACS is an ongoing survey that provides annual demographic, social, and economic data. It samples 3.5 million Americans per year. In 2008, the ACS started collecting data on health insurance. Prior to 2008, SAHIE used the Current Population Survey's Annual Social and Economic Supplement to develop state and county-level estimates. SAHIE switched to the ACS due its larger sample size and coverage area.

SAHIE is the only source of health insurance estimates for counties with small populations within a single year. Because ACS five-year estimates aggregate data over a five-year period, they may mask year-to-year variation. SAHIE estimates improve upon ACS estimates by borrowing strength from administrative records and Census data. SAHIE estimates are broadly consistent with the direct survey estimates, but with the help of other timely information, SAHIE estimates are more precise than the one-year survey estimates for most counties.

The ACS releases multiyear data for all counties with 5 -year estimates. The 2008-2012 ACS, to be released in December 2013, will have estimates of health insurance coverage for every county.

U.S. Department of Commerce Economic and Statistics Administration U.S. CENSUS BUREAU

## APPENDIX

## Census Regions and Divisions of the U.S. map



Counties by Metro/Micro Area Status Map


Counties Published in the 2011 ACS 1-Year Estimates map


## Disclaimer

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

## Acknowledgements

The Small Area Estimates Branch of the United States Census Bureau prepared this document.

## Contact

For questions related to the contents of this document, including the SAIHE program's estimates and methodology, contact the Small Area Estimates Branch at: (301) 763-3193 or sehsd.sahie@census.gov.
For questions related to health insurance, income and poverty definitions, the American Community Survey, or other Census Bureau surveys, contact the U.S. Census Bureau call center at 1-800-923-8282 (toll free) or visit ask.census.gov for further information.


[^0]:    ${ }^{1}$ All data shown are estimates containing uncertainty. Apparent differences among the estimates may not be statistically significant, unless specifically noted. All direct comparisons cited in the text have been statistically tested at the $90 \%$ significance level.

[^1]:    ${ }^{2}$ Race and ethnicity are available only at the state level.

