

American Community Survey: What it is and How it's Used

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HCFO Webinar

Outline

- Federal surveys to monitor health insurance coverage and access
- Introduction to the ACS
 - Methodology
 - Type of data collected
 - Data products and release schedules
- Obtaining the data
 - Public Use Microdata Sample (PUMS) files
 - Integrated Public Use Microdata Series (IPUMS)
 - Tables of pre-tabulated estimates (multiple sources)

FEDERAL SURVEYS TO MONITOR HEALTH INSURANCE COVERAGE AND ACCESS

Research Needs for Monitoring Health Insurance Coverage

- Consistent estimates
- Trends over time
 - Monitor impacts of health reform
- Comparisons across states
- Subpopulation analysis
 - Race/ethnicity, poverty, age
 - Counties/sub-state areas
- Access to microdata

Key Federal Survey Data Sources

- General household survey
 - ACS: American Community Survey
- Employment/Income survey
 - CPS: Current Population Survey
- Health surveys
 - NHIS: National Health Interview Survey
 - MEPS-HC: Medical Expenditure Panel Survey-Household Component
 - BRFSS: Behavioral Risk Factor Surveillance System



Current Population Survey (CPS)

Good

- Historic trends
- State-level estimates
- Several control variables available
- State-specific public health insurance program names
- Timely data release

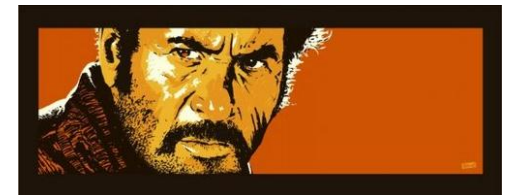


Bad

- Low sample in smaller states
- 10% of respondents have entire supplement imputed

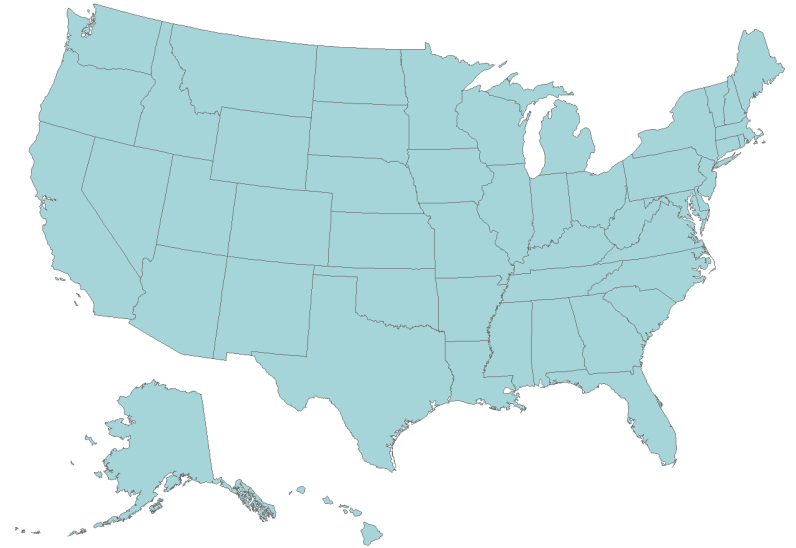
Ugly

- Concerns about the coverage questions



American Community Survey (ACS)

- **SAMPLE SIZE!**
- Sub-state estimates
- Robust subpopulation analysis
- Representativeness
- Current health insurance coverage measured



**The ACS Sample
is almost
15 TIMES LARGER
than the
CPS Sample**



Feasibility of State-Level Health Insurance Estimates from Federal Surveys

	ACS	SIPP	CPS	NHIS	MEPS HC	BRFSS
State-level estimates possible?						
All states	✓		✓*			✓
Some states		~20		~20	~35	
State identifiers available on public use files?	✓	✓	✓			✓
Sample size by state						
High	353K	9K	20K	13K	5K	20K
Median	44K	1K	3K	1K	400	7K
Low	6K	160	2K	110	<100	2K

* Two-year averages recommended.

Availability of Health Outcome Measures in Federal Surveys

	ACS	CPS	SIPP	NHIS	MEPS HC	BRFSS
Health insurance coverage						
Point in time	✓		✓	✓	✓	✓
Prior calendar year		✓	✓	✓	✓	
Affordability of coverage/ comprehensiveness of coverage			✓	✓	✓	
Access to care/barriers to care			✓	✓	✓	✓
Health care use				✓	✓	✓
Affordability of care		✓		✓	✓	
Quality of care						

INTRODUCTION TO THE ACS


American Community Survey (ACS)

- General household survey conducted by the U.S. Census Bureau
 - Mandatory survey
- Replacement for the “long form” of the decennial census
 - Collects detailed economic, social, demographic, and housing information annually instead of once every ten years
 - Provides communities with up-to-date information on key demographics and policy relevant data



Decennial Census now limited to 10 questions

- # of people
- Home owned/rented
- Sex
- Age
- Race and Hispanic origin



This is the official form for all the people at this address.
It is quick and easy, and your answers are protected by law.

U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU

Use a blue or black pen.

Start here

The Census must count every person living in the United States on April 1, 2010.

Before you answer Question 1, count the people living in this house, apartment, or mobile home using our guidelines.

- Count all people, including babies, who live and sleep here most of the time.

The Census Bureau also conducts counts in institutions and other places, so:

- Do not count anyone living away either at college or in the Armed Forces.
- Do not count anyone in a nursing home, jail, prison, detention facility, etc., on April 1, 2010.
- Leave these people off your form, even if they will return to live here after they leave college, the nursing home, the military, jail, etc. Otherwise, they may be counted twice.

The Census must also include people without a permanent place to stay, so:

- If someone who has no permanent place to stay is staying here on April 1, 2010, count that person. Otherwise, he or she may be missed in the census.

- How many people were living or staying in this house, apartment, or mobile home on April 1, 2010?
Number of people =
- Were there any additional people staying here April 1, 2010 that you did not include in Question 1? Mark all that apply.
 - Children, such as newborn babies or foster children
 - Relatives, such as adult children, cousins, or in-laws
 - Nonrelatives, such as roommates or live-in baby sitters
 - People staying here temporarily
 - No additional people
- Is this house, apartment, or mobile home Mark ONE box.
 - Owned by you or someone in this household with a mortgage or loan? Include home equity loans.
 - Owned by you or someone in this household free and clear (without a mortgage or loan)?
 - Rented?
 - Occupied without payment of rent?
- What is your telephone number? We may call if we don't understand an answer.
Area Code + Number

OMB No. 0607-0919-C: Approval Expires 12/31/2011.

Form D-8 1 (2-25-2010)

- Please provide information for each person living here. Start with a person living here who owns or rents this house, apartment, or mobile home. If the owner or renter lives somewhere else, start with any adult living here. This will be Person 1.
What is Person 1's name? Print name below.
Last Name
First Name MI
- What is Person 1's sex? Mark ONE box.
 Male Female
- What is Person 1's age and what is Person 1's date of birth? Please report babies as age 0 when the child is less than 1 year old.
Print numbers in boxes.
Age on April 1, 2010
Month Day Year of birth

→ NOTE: Please answer BOTH Question 8 about Hispanic origin and Question 9 about race. For this census, Hispanic origins are not races.

- Is Person 1 of Hispanic, Latino, or Spanish origin?
 - No, not of Hispanic, Latino, or Spanish origin
 - Yes, Mexican, Mexican Am., Chicano
 - Yes, Puerto Rican
 - Yes, Cuban
 - Yes, another Hispanic, Latino, or Spanish origin Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.
- What is Person 1's race? Mark one or more boxes.
 - White
 - Black, African Am., or Negro
 - American Indian or Alaska Native Print name of enrolled or principal tribe.
 - Asian Indian Japanese Native Hawaiian
 - Chinese Korean Guamanian or Chamorro
 - Filipino Vietnamese Samoan
 - Other Asian Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. Other Pacific Islander Print race, for example, Fijian, Tongan, and so on.
 - Some other race Print race.
- Does Person 1 sometimes live or stay somewhere else?
 - No Yes Mark all that apply.
 - In college housing For child custody
 - In the military In jail or prison
 - At a seasonal or second residence In a nursing home
 - For another reason

→ If more people were counted in Question 1, continue with Person 2.

Methodology

- Data collected continuously with monthly samples
- Collects sample in all counties or county equivalents in the U.S. every year
- About 3.5 million addresses sampled each year, collecting responses from over 2 million

Methodology (2)

- Surveys the entire population including:
 - Housing units
 - Institutional group quarters
 - For example nursing homes & prisons
 - Non-institutional group quarters
 - For example college dorms & military barracks

Methodology (3)

- 4 modes of data collection:
 - Mail
 - Internet option added in 2013
 - Phone for non-response follow-up
 - In-person sub-sample for non-response follow-up



Data Collected

- Age, sex, race, Hispanic origin
- Housing
- Ancestry, citizenship, language spoken at home
- Education, occupation, travel to work
- Marital status, fertility
- Income, poverty, food stamp participation
- Disability, health insurance coverage
- Veteran status

For a complete list of topics click [here](#)

DATA PRODUCTS AND RELEASE SCHEDULE

Data Products

- 1-year estimates (12 months)
- Multiple years pooled together to produce reliable estimates for areas and subgroups with smaller population
 - 3-year estimates (36 months)
 - 5-year estimates (60 months)

Years Available

- Testing began in 1999
- Fully operational in 2005
- Group quarters added in 2006
- Health insurance coverage added in 2008
 - First 5-year file (2008-2012) with health insurance coverage will be available in winter 2013

Annual Release Schedule

- 1-year estimates released in September
 - For example 2011 estimates were released September 2012
- 3-year estimates released in October
- 5-year estimates released in December

- The public use files are released about 1-2 months after the pre-tabulated estimates

Annual Release Webinar

- SHADAC hosts an annual data release webinar with Census Bureau experts in September
 - Discuss new ACS and CPS health insurance coverage estimates and any changes to the survey questions or methodology



For an archive of past webinars click [here](#)

OBTAINING THE DATA

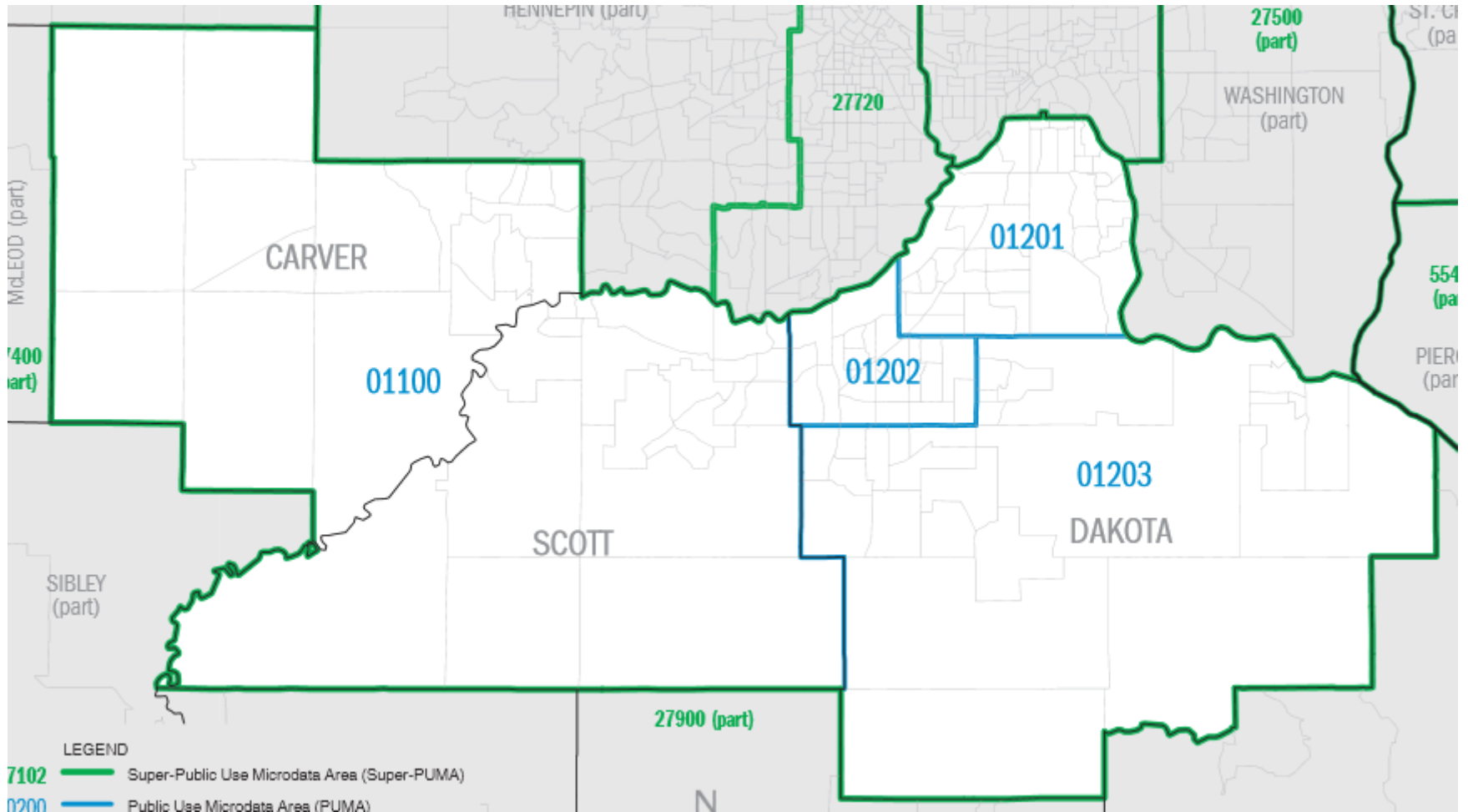
Obtaining the Data

- Data access point will have implications for analytic options
- Three common ways to get data
 1. Public Use Microdata Sample (PUMS) files
 2. Census Bureau pre-tabulated estimates (from full sample)
 3. Other pre-tabulated estimates (from PUMS)

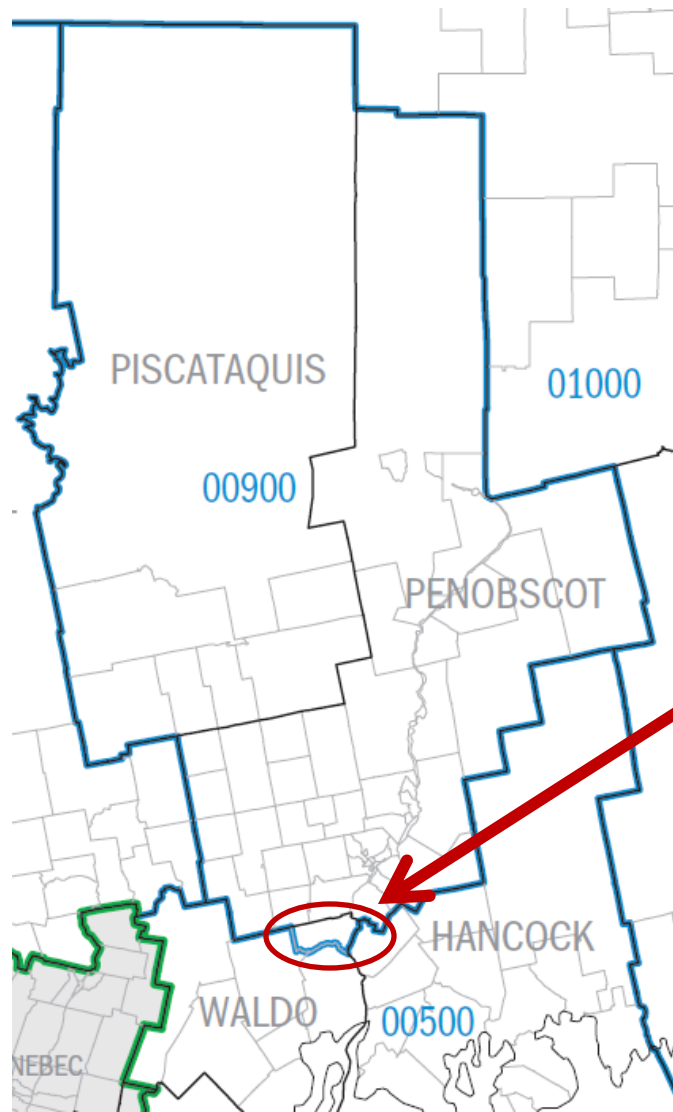
Public Use Microdata Sample (PUMS) Files

- Subset of full file (1-year file is about 1% of the U.S. population)
- Smallest geography available is the Public Use Microdata Area (PUMA) for 1-, 3- and 5- year files
 - Contains about 100,000 people and nest within states
 - Counties with larger populations are subdivided into multiple PUMAs
 - In more rural areas PUMAs are made up of groups of adjacent counties
 - PUMAs can be made up parts of several different counties

PUMAs Consistent with County Boundaries: Minnesota



PUMA's Crossing County Boundaries: Maine



Accessing PUMS Files

- Download through [Census Bureau](#)
 - Available as CSV or SAS files
 - Need statistical software
- Access through [DataFerrett](#)
 - A menu-driven system; no statistical software needed
 - Free, but need to register and download tool
- Download through the [University of Minnesota's Integrated Public Use Microdata Series \(IPUMS\)](#)

http://www.ipums.org/

MPC Minnesota Population Center

Home of the IPUMS and other data projects

The MPC is one of the world's leading developers of demographic data resources. We provide population data to thousands of researchers, policymakers, teachers, and students. All MPC data are available free over the internet.

Integrated Public Use Microdata Series



[IPUMS-International](#)

Harmonized data for 1960 forward, covering 480 million people in 211 censuses from around the world



[IPUMS-USA](#)

Harmonized data on people in the U.S. census and American Community Survey, from 1850 to the present



[IPUMS-CPS](#)

Harmonized data on people in the Current Population Survey, every March from 1962 to the present

Other MPC Projects



[North Atlantic Population Project](#)

Complete-count data from 1800s censuses of Canada, Great Britain, Norway, Sweden, and the U.S.



[National Historical Geographic Information System](#)

Tabular U.S. census data and GIS boundary files from 1790 to 2010



[Integrated Health Interview Series](#)

Annual harmonized data on people in the U.S. National Health Interview Survey from the 1960s to the present



[American Time Use Survey-X](#)

Annual harmonized data from 2003 forward on how U.S. adults divide their time among activities

IPUMS

- Take the PUMS files from the Census Bureau and harmonize variable names, coding schemes, and documentation
 - Great for studying changes over time
- Create a consistent set of constructed variables on family interrelationships
 - Easier analysis of family structures and characteristics

IPUMS (2)

- Easy to use and free
- Download only what you need
 - SPSS, SAS, STATA
- Contains SHADACs added policy relevant variables
 - Health Insurance Unit (HIU)
 - Federal Poverty Guidelines (FPG)

IPUMS Analyze Data Online

SDA Frequencies/Crosstabulation Program

Help: [General](#) / [Recoding Variables](#)

REQUIRED Variable names to specify

Row:

OPTIONAL Variable names to specify

Column:

Control:

Selection Filter(s): Example: age(18-50)

Weight:

TABLE OPTIONS	CHART OPTIONS
Percentaging: <input checked="" type="checkbox"/> Column <input type="checkbox"/> Row <input type="checkbox"/> Total <input type="checkbox"/> Confidence intervals Level: <input type="text" value="95 percent"/> <input type="checkbox"/> Standard error of each percent	Type of chart: <input type="text" value="(No Chart)"/> Bar chart options: Orientation: <input checked="" type="radio"/> Vertical <input type="radio"/> Horizontal Visual Effects: <input checked="" type="radio"/> 2-D <input type="radio"/> 3-D
N of cases to display: <input type="checkbox"/> Unweighted <input checked="" type="checkbox"/> Weighted	Show percents: <input type="checkbox"/> Yes
<input type="checkbox"/> Summary statistics	Palette: <input checked="" type="radio"/> Color <input type="radio"/> Grayscale
<input type="checkbox"/> Question text <input type="checkbox"/> Suppress table	Size - width: <input type="text" value="600"/> height: <input type="text" value="400"/>
<input checked="" type="checkbox"/> Color coding <input type="checkbox"/> Show Z-statistic	
<input type="checkbox"/> Include missing-data values	

Title:

<https://usa.ipums.org/usa/sda>

Pre-tabulated Estimates from Census Bureau's American FactFinder (AFF)

Health Insurance Coverage: 2011

Subject	Scott County, Minnesota			
	Estimate	Margin of Error	Percent	Percent Margin of Error
HEALTH INSURANCE COVERAGE				
Civilian noninstitutionalized population	131,248	+/-426	131,248	(X)
With health insurance coverage	123,189	+/-1,680	93.9%	+/-1.3
With private health insurance	111,655	+/-3,095	85.1%	+/-2.4
With public coverage	21,225	+/-1,993	16.2%	+/-1.5
No health insurance coverage	8,059	+/-1,705	6.1%	+/-1.3
Civilian noninstitutionalized population under 18 years	39,360	+/-35	39,360	(X)
No health insurance coverage	1,681	+/-832	4.3%	+/-2.1

Source: 2011 American Community Survey downloaded from AFF at <http://factfinder2.census.gov>

Geography Available through AFF

	1-year	3-year	5-year
Published Geography	Population > 65,000	Population > 20,000	All areas
Nation, States, & DC	All	All	All
Congressional Districts	All	All	All
Counties	About 25%	About 59%	All
School Districts	About 7%	About 24%	All
Metro & Micro Statistical Areas	About 54%	About 97%	All
Zip Codes	None	None	All
Census Tracts	None	None	All

SHADAC's Data Center

Choose Your Data & Filters

Edit 

Choose Your Tables

Edit 

Your Results

Export Tables:  [Excel \(.csv file\)](#)  [PDF](#) Save:  [Search Settings \(Login Required\)](#)

Health Insurance Coverage Estimates, ACS, 0-18 Years, All Poverty Levels, Maryland: Calendar Year 2011

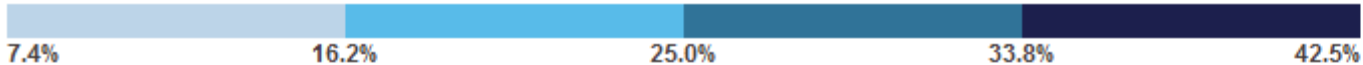
	Population	Uninsured			Insured			Private Coverage						Public Coverage											
	Total	Total			Total			Employer			Individual			Total			Medicaid			Medicare					
		Count	%	SE	Count	%	SE	Count	%	SE	Count	%	SE	Count	%	SE	Count	%	SE	Count	%	SE	Count	%	SE
Poverty Level (detailed)																									
0-138% FPG	338	32	9.3	1.34	307	90.7	1.34	75	22.1	1.52	63	18.6	1.44	16	4.8	0.67	247	73.0	1.72	245	72.5	1.73	6	1.6	0.52
139-200% FPG	146	10	6.6	1.10	136	93.4	1.10	68	46.3	2.90	61	41.7	2.98	8	5.5	0.94	75	51.7	2.86	75	51.6	2.86	0	0.2	0.14
201-400% FPG	356	16	4.6	0.62	339	95.4	0.62	269	75.7	1.40	244	68.7	1.49	34	9.4	0.82	80	22.5	1.35	79	22.3	1.35	1	0.3	0.14
401%+ FPG	567	10	1.7	0.32	557	98.3	0.32	546	96.4	0.42	514	90.8	0.65	51	9.0	0.65	17	3.0	0.34	16	2.8	0.33	1	0.1	0.06
Total	1,406	67	4.8	0.41	1,339	95.2	0.41	958	68.1	0.81	883	62.8	0.82	109	7.7	0.39	419	29.8	0.78	416	29.6	0.78	8	0.5	0.13
Filtered Total	1,428	68	4.8	0.40	1,360	95.2	0.40	974	68.2	0.80	896	62.8	0.81	112	7.8	0.38	425	29.8	0.77	422	29.5	0.77	8	0.5	0.13

www.shadac.org/datacenter

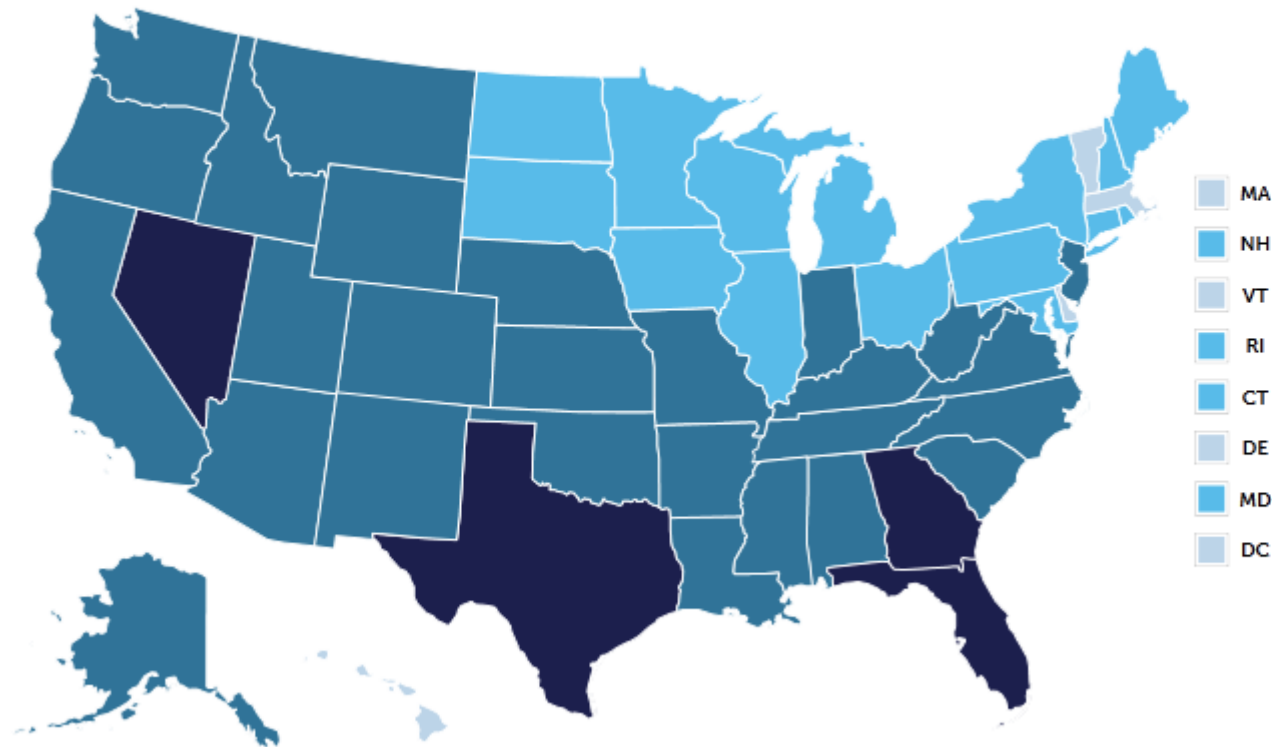
Robert Wood Johnson Foundation (RWJF) Data Hub

Percent Uninsured, 2011

By Income Relative to Federal Poverty Guidelines: 0-138% FPG (Percent)



*Hover a State for details.



United States
Income Relative to Federal Poverty Guidelines

Rank	Percent
	27.0% 0-138% FPG
	22.1% 139-200% FPG
	12.2% 201-400% FPG
	3.7% More than 400% FPG

<http://www.rwjf.org/en/research-publications/research-features/rwjf-datahub.html>

Choosing an Access Point

Example Analytic Need	PUMS	IPUMS Microdata	AFF
Define children 0 to 18	✓	✓	
Lowest SE possible			✓
Detailed family relationship		✓	
County, Census tract, zip code			✓
“Universe” e.g. limiting to the non-institutionalized population	✓	✓	
Health Insurance Unit (HIU)		✓	
Customized income range (e.g. FPG vs FPL)	✓	✓	
No access to statistical software			✓

ACS AND HEALTH REFORM

Example Questions

- How will the impacts of the ACA differ by state?
- Will a states' approach to implementation impact the effect of the ACA on coverage?
- How many uninsured are in a state and where do they live? What is their demographic profile?
- How many kids in each county are eligible for CHIP or Medicaid but not enrolled?
- How many people in my state will be eligible for Medicaid under ACA?
- How will the impacts of the ACA differ by race, age, etc.?

Possible Additional Question in 2014

- The Census Bureau is proposing the addition of an exchange or premium subsidy question in 2014
- This question would follow the current health insurance coverage question



SHADAC ACS Resources

- “Understanding 1-, 3-, and 5-year ACS”
 - <http://www.shadac.org/publications/understanding-1-3-and-5-year-acs-estimates-summary-tabulations-and-public-use-files>
- “Defining Family for Studies of Health Insurance Coverage”
 - <http://www.shadac.org/publications/defining-family-studies-health-insurance-coverage>
- “Monitoring the Impacts of Health Reform at the State Level: Using Federal Survey Data”
 - <http://www.shadac.org/publications/monitoring-impacts-health-reform-state-level-using-federal-survey-data>
- “Number of Children with Health Coverage Increases During Economic Downturn”
 - <http://www.shadac.org/publications/keeping-kids-covered-number-children-health-coverage-increases-during-economic-downturn>

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