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## American Community Survey

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### What is the American Community Survey?

- The American Community Survey (ACS) is a nationwide survey administered by the U.S. Census Bureau and designed to provide communities a fresh look at how they are changing. It replaced the decennial long form beginning with the 2010 Census and is a critical element in the Census Bureau's reengineered census.
- The decennial census previously contained two parts: 1) the short form, which counts the population; and 2) the long form, which obtained demographic, housing, social, and economic information from a 1-in-6 sample of households.
- With the decennial census occurring only once every 10 years, census information became out of date. Planners and other data users were reluctant to rely on it for decisions that are expensive and affect the quality of life of thousands of people. The American Community Survey is a way to provide the data communities need every year instead of once in ten years.
- Full implementation of the American Community Survey began in 2005 with data for all areas of the country becoming available in 2010 with the 2005-2009 5-year averages. The survey includes approximately three million households annually. Data are collected by mail and Census Bureau staff follows up with those who do not respond.
- The American Community Survey provides estimates of demographic, housing, social, and economic characteristics every year for all states, as well as for all cities, counties, metropolitan areas, and population groups of 65,000 people or more in the form of 1-year averages.
- For smaller areas, it takes three to five years to accumulate sufficient sample to produce reliable data. Areas with a population of 20,000 to 65,000 people are included in the ACS 3-year averages. For rural areas and city neighborhoods or population groups of less than 20,000 people the only ACS data are available in the 5-year averages. These averages are updated every year. SAVI publishes only the 5-year averages for data years 2009 and later. SAVI previously published 1-year estimates for data years 2005 to 2008.

Source: [US Census Bureau](#)

### What are things I need to think about when using ACS data?

- ACS includes characteristic estimates, not exact counts
- Characteristic estimates must be assessed in light of their margin of error
- 2005 ACS characteristic estimates are for household, not people living in group quarters. 2006 and later ACS estimates include population in group quarters.
- ACS characteristics depend on key controls produced by the Population Estimates Program

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- When choosing to cite a Census produced estimate of population, age, gender, and race and ethnicity, Population Estimate Program figures are preferred
- The ACS undercounts characteristics estimates since the Population Estimate Program produced controls will be revised up
- A Census 2000 and 2005 ACS characteristic estimate change is noteworthy when it is statistically significant that is, an arithmetical test must be applied to determine if the differences between estimates are large enough to be considered representative of real-world differences.

Source: [U.S. Census Bureau](http://www.census.gov)

### What topics are covered in the American Community Survey?

- Social Characteristics
  - School enrollment, educational attainment, marital status, fertility, grandparents caring for children, veteran status, disability status, residence one year ago, place of birth, U.S. citizenship status, year of entry, world region of birth of the foreign born, language spoken at home, relationship, households by type, and ancestry
- Economic Characteristics
  - Employment status, commuting to work, occupation, industry, class of worker, income and benefits, and poverty status
- Housing Characteristics
  - Housing occupancy, units in structure, year structure built, number of rooms, number of bedrooms, housing tenure, year householder moved into unit, vehicles available, house heating fuel, utility costs, occupants per room, housing value, mortgage status and costs, and gross rent
- Demographic Characteristics
  - Sex, age, race, and Hispanic origin

Source: [U.S. Census Bureau](http://www.census.gov)

### What is Margin of Error?

- The margin of error describes the precision of the estimate at a given level of confidence. The confidence level measures the likelihood that the true value is within a certain distance of the results of a sample estimate. The Census Bureau's statistical standard for published data is to use the 90 percent confidence level. However, practitioners can use other confidence levels, such as 95 or 99 percent. The confidence level chosen is usually a matter of preference, balancing risk for the specific application.
- The margin of error is an alternative measure of sampling error. Since the estimate is based on a sample and not the entire population, it is necessary to know how precisely the results of the sample reflect the characteristics of the entire population. The Census Bureau chose to use the margin of error to define the range of values that may contain the true population value. The margin of error is important because relying on statistical inference can save you from drawing incorrect conclusions from data based on a sample. It can help prevent you from interpreting small or nonexistent differences as important. The margin of error will help in drawing conclusions.
- The table below shows an example of an estimate with its margin of error. By adding and subtracting the margin of error from the point estimate, you produce the range around it called the confidence interval. With 90 percent confidence, the interval 6.9 7.1 contains the true percentage of the population under 5 years.



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Subject	Estimate (Percent of total)	Margin of Error (MOE)
Under 5 Years	7.0	+/- 0.1

- In general, larger samples are more likely to yield results closer to the target population quantity and therefore have smaller margins of error than smaller samples. Estimates for small population groups for which we would expect smaller sample sizes would have relatively large margins of error. Estimates for large population groups for which we would expect larger sample sizes would have relatively small margins of error. For example, estimates of the population 65 years and older who attend school will have larger margins of error than estimates of the population 18 to 29 years old who attend school.
- Most ACS products display a margin of error. Some ACS tables indicate the margin of error by the term MOE. Tables will show estimates plus or minus the margin of error. For example, 50 percent of the respondents in a survey say that they are employed in the labor force and the 90 percent confidence level is cited as plus or minus 2 percent. We interpret the confidence interval as follows; if we were to conduct the survey 100 times, then about 90 of the resulting confidence intervals would contain the true percentage of respondents who say they are in the labor force.

Source: [U.S. Census Bureau](http://www.census.gov)

### What is Sampling Error?

- Sampling error occurs when a survey produces estimates of the whole population using only a portion of the population instead of gathering information from every member of that population. Since the ACS is a survey based only on a sample of the population, the estimates will contain sampling error. This means that the estimates derived from the sample will differ from the values that would have been obtained if the entire population were included in the survey. The estimates would also be different if the survey had selected a different sample from the same population.
- The sampling error is reduced as the sample size increases, so that, if a census or a 100 percent sample is performed there will be no sampling error. There is still error in census data, but it is referred to as nonsampling error as the error is not related to sampling. All of the decennial long form estimates had a smaller amount of sampling error than the ACS because the census long form sample was much larger than the ACS sample. The Census 2000 long form sample data included sampling error, but the data tables did not display it so many users were unaware of this important information. Two related measures of sampling error are the standard error and the margin of error.

Source: [U.S. Census Bureau](http://www.census.gov)

### What geographical areas are covered in the ACS data?

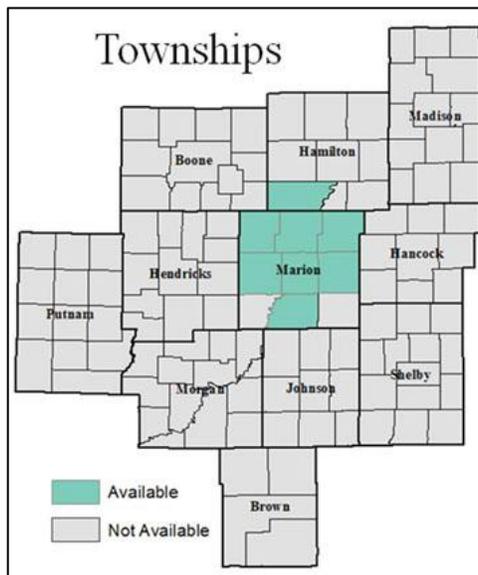
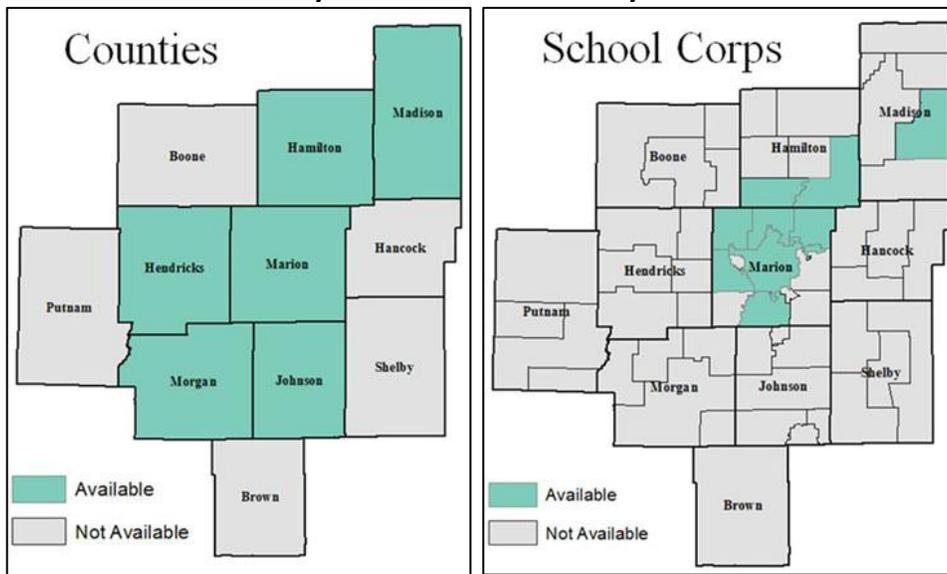
- The following is geographical areas covered in ACS data.
  - The Census Bureau releases single-year ACS data for legal, administrative, or statistical areas with estimated populations of 65,000 or more. The estimated populations used are the most recent estimates from the Census Bureau's Population Estimates Program. The thresholds for the ACS data products are based on the estimated total populations as of July 1, of a given year.

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- In each single-year ACS release, just over 7,000 geographic areas receive data. These areas are large enough to meet the 65,000 population threshold for 1-year period estimates.
- In SAVI, ACS 1 year estimates data is available for counties, townships, and school corporations with a population of 65,000 people or greater for data years 2005 to 2008. Areas meeting that population threshold are indicated in the maps below . SAVI also has the ACS 5 year estimates available for all counties, townships, school corporations, census tracts and blockgroups for data years 2009 and later .

Source: [U.S. Census Bureau](http://www.census.gov)

**Areas with ACS 1 year estimates for data years 2005 to 2008.**





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**How do I find out more information about the American Community Survey?**

- [US Census Bureau: ACS](#)
  - [About the American Community Survey](#)
  - [How to Use the American Community Survey Data](#)
  - [About the Data \(Methodology\)](#)
- [Changes and Challenges: Understanding American Community Survey Data](#)
- [Population Reference Bureau: The American Community Survey](#)