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# UNDERSTANDING AND USING AMERICAN COMMUNITY SURVEY DATA: WHAT RESEARCHERS NEED TO KNOW

The American Community Survey (ACS) is the nation's premier source of detailed social, economic, housing, and demographic characteristics for local communities.

This handbook describes how researchers can use ACS data to make comparisons, create custom tables, and combine ACS data with other data sources. It is aimed at researchers who are familiar with using data—summary tabulations and microdata records—from complex sample surveys.

## What Is the ACS?

The ACS is a nationwide survey designed to provide communities with reliable and timely social, economic, housing, and demographic data every year. A separate annual survey, called the Puerto Rico Community Survey (PRCS), collects similar data about the population and housing units in Puerto Rico. The U.S. Census Bureau uses data collected in the ACS and the PRCS to provide estimates on a broad range of population, housing unit, and household characteristics for states, counties, cities, school districts, congressional districts, census tracts, block groups, and many other geographic areas.

The ACS has an annual sample size of about 3.5 million addresses, with survey information collected nearly every day of the year. Data are pooled across a calendar year to produce estimates for that year. As a result, ACS estimates reflect data that have been collected

over a period of time rather than for a single point in time as in the decennial census, which is conducted every 10 years and provides population counts as of April 1 of the census year.

ACS 1-year estimates are data that have been collected over a 12-month period and are available for geographic areas with at least 65,000 people. Starting with the 2014 ACS, the Census Bureau is also producing “1-year Supplemental Estimates”—simplified versions of popular ACS tables—for geographic areas with at least 20,000 people. The Census Bureau combines 5 consecutive years of ACS data to produce multiyear estimates for geographic areas with fewer than 65,000 residents. These 5-year estimates represent data collected over a period of 60 months.<sup>1</sup>

For more detailed information about the ACS—how to judge the accuracy of ACS estimates, understanding multiyear estimates, knowing which geographic areas are covered in the ACS, and how to access ACS data on the Census Bureau's Web site—see the Census Bureau's handbook on *Understanding and Using American Community Survey Data: What All Data Users Need to Know*.<sup>2</sup>

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<sup>1</sup> The Census Bureau previously released 3-year estimates based on 36 months of data collection. In 2015, the 3-year products were discontinued. The 2011–2013 ACS 3-year estimates, released in 2014, are the last release of this product.

<sup>2</sup> U.S. Census Bureau, *Understanding and Using American Community Survey Data: What All Data Users Need to Know*, <[www.census.gov/programs-surveys/acs/guidance/handbooks/general.html](http://www.census.gov/programs-surveys/acs/guidance/handbooks/general.html)>.

## 1. TOPICS COVERED IN THE ACS

The primary purpose of the American Community Survey (ACS) is to help Congress determine funding and policies for a wide variety of federal programs. Because of this, the topics covered by the ACS are diverse (see Table 1.1).

- Examples of social characteristics include disability, educational attainment, language spoken at home, and veteran status.
- Economic characteristics include employment status, health insurance, income, and earnings.
- Examples of housing characteristics include computer and Internet use, selected monthly owner costs, rent, and the year the structure was built.
- Demographic characteristics include age, sex, race, Hispanic origin, and relationship to householder.

Table 1.1. **Population and Housing Data Included in the American Community Survey Data Products**

<b>Social Characteristics</b>	<b>Economic Characteristics</b>	<b>Plumbing Facilities<sup>6</sup></b>
Ancestry	Class of Worker	Rent
Citizenship Status	Commuting (Journey to Work)	Rooms/Bedrooms
Disability Status <sup>1</sup>	Employment Status	Selected Monthly Owner Costs
Educational Attainment	Food Stamps/Supplemental Nutrition Assistance Program (SNAP) <sup>4</sup>	Telephone Service Available
Fertility	Health Insurance Coverage <sup>2</sup>	Tenure (Owner/Renter)
Grandparents as Caregivers	Income and Earnings	Units in Structure
Language Spoken at Home	Industry and Occupation	Value of Home
Marital History <sup>2</sup>	Place of Work	Vehicles Available
Marital Status	Poverty Status	Year Householder Moved Into Unit
Migration/Residence 1 Year Ago	Work Status Last Year	Year Structure Built
Period of Military Service		
Place of Birth		
School Enrollment		
Undergraduate Field of Degree <sup>3</sup>	<b>Housing Characteristics</b>	<b>Demographics Characteristics</b>
Veteran Status <sup>2</sup>	Computer and Internet Use <sup>5</sup>	Age and Sex
Year of Entry	House Heating Fuel	Group Quarters Population
	Kitchen Facilities	Hispanic or Latino Origin
	Occupancy/Vacancy Status	Race
	Occupants Per Room	Relationship to Householder
		Total Population

<sup>1</sup> Questions on Disability Status were significantly revised in the 2008 survey to cause a break in series.

<sup>2</sup> Marital History, Veterans' Service-Connected Disability Status and Ratings, and Health Insurance Coverage were added in the 2008 survey.

<sup>3</sup> Undergraduate Field of Degree was added in the 2009 survey.

<sup>4</sup> Food Stamp Benefit amount was removed in 2008.

<sup>5</sup> Computer and Internet Use was added to the 2013 survey.

<sup>6</sup> One of the components of Plumbing Facilities, flush toilet, and Business or Medical Office on Property questions were removed in 2016.

Source: U.S. Census Bureau.

*TIP: The ACS was designed to provide estimates of the **characteristics** of the population, not to provide counts of the population in different geographic areas or population subgroups. For basic counts of the U.S. population by age, sex, race, and Hispanic origin, visit the Census Bureau's Population and Housing Unit Estimates Web page.<sup>3</sup>*

A good way to learn about all of the topics covered in the ACS is to explore the information available through the U.S. Census Bureau's data dissemination platform on [data.census.gov](https://data.census.gov).<sup>4</sup> The Data Profiles in [data.census.gov](https://data.census.gov), which include the most frequently requested social, economic, housing, and demographic data, are

<sup>3</sup> U.S. Census Bureau, Population and Housing Unit Estimates, <[www.census.gov/popest/](https://www.census.gov/popest/)>.

<sup>4</sup> U.S. Census Bureau, [data.census.gov](https://data.census.gov), <<https://data.census.gov>>.

useful for novice users who want to explore the range of topics that are available.<sup>5</sup> Copies of ACS questionnaires for different years are also available on the Census Bureau's Web site.<sup>6</sup>

For more detailed information about the topics in the ACS, see the section on "Understanding the ACS: The Basics" in the Census Bureau's handbook on *Understanding and Using American Community Survey Data: What All Data Users Need to Know*.<sup>7</sup>

<sup>5</sup> U.S. Census Bureau, [data.census.gov](https://data.census.gov), Data Profiles, <<https://data.census.gov/cedsci/all?q=dp>>.

<sup>6</sup> U.S. Census Bureau, American Community Survey (ACS), Questionnaire Archive, <[www.census.gov/programs-surveys/acs/methodology/questionnaire-archive.html](https://www.census.gov/programs-surveys/acs/methodology/questionnaire-archive.html)>.

<sup>7</sup> U.S. Census Bureau, *Understanding and Using American Community Survey Data: What All Data Users Need to Know*, <[www.census.gov/programs-surveys/acs/guidance/handbooks/general.html](https://www.census.gov/programs-surveys/acs/guidance/handbooks/general.html)>.