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While most U.S. residents may be familiar with the national census that is done every ten years, fewer may know about the American Community Survey (ACS), its history, and how its data can be used to better understand the characteristics of the San Diego region. As the Regional Census Data Center for the San Diego region, SANDAG maintains ACS Data Profiles on Data Surfer, the region's go-to data warehouse. This report includes a history and overview of ACS data, key differences from the decennial census, what to know when using ACS data, and how it can be accessed.

Did you know?



Data collected by the ACS help determine how more than \$675 billion in federal and state funds are distributed each year



Each household in the U.S. has a 1 in 40 chance of being selected to complete the ACS each month



ACS data estimates are available at smaller levels of geography such as census tracts, community planning areas, and by ZIP code for San Diego County at datasurfer.sandag.org

TABLE 1
The Decennial Census vs. ACS: Key Differences

Decennial Census	ACS
Began in 1790	Full implementation began in January 2005
Conducted every ten years	Provides more recent data because it is administered monthly and compiled annually
Collects information on every household in the nation, making it better for counts	Uses random samples of households (about 1 in every 40)
Included 12 questions in 2020	Covers nearly 40 different topics (24 questions about the housing unit and 44 questions about each person in the household)
Used to weight other census bureau surveys and products	Five-year aggregate files provide data at smaller levels of geography

History of the ACS

Through the 2000 census, approximately five in every six households received a short-form census, but the sixth received a long-form, which included detailed questions about the housing unit and the members residing in the household.¹ In 2010, the long-form census was suspended and the ACS became the largest source generating detailed socioeconomic data for the United States. Approximately 3.5 million addresses are randomly surveyed each year using a complex rolling sample.²

¹ For more information on the long-form census please visit: [census.gov/dmd/www/pdf/d3239a.pdf](https://www.census.gov/dmd/www/pdf/d3239a.pdf)
² [census.gov/content/dam/Census/library/working-papers/1999/acs/1999_Alexander_01.pdf](https://www.census.gov/content/dam/Census/library/working-papers/1999/acs/1999_Alexander_01.pdf)

FIGURE 1
History of the ACS

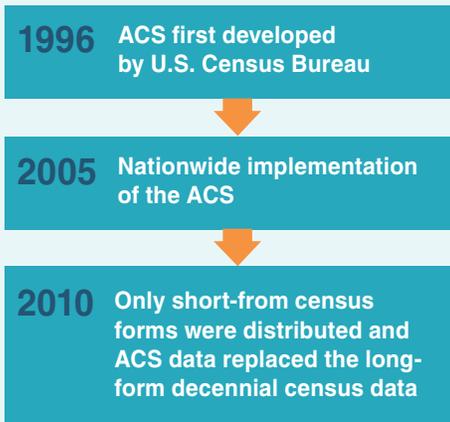


TABLE 2
Examples of Data Available in the ACS Not Included in the Census

Ancestry	Income and earnings
Citizen voting age population	Marital history and status
Computer and internet use	Place of birth
Disability status	Selected monthly owner costs
Educational attainment	Travel time to work
Employment status	Vehicles available
Food stamps	Veteran status and period of military service
Grandparents as caregivers	Work status last year
Health insurance coverage	

The ACS is administered monthly and compiled annually. At the time of this publication, the most recent census data available are from 2010, with 2020 census data expected to be released later this year. The decennial census is the best source of data for population counts, especially for small geographic areas, and the ACS provides the most up-to-date information, including data not available from the census.

Key considerations for using ACS data

- » The ACS is a survey of households (and group quarters facilities such as college dorms, nursing homes, and military quarters) and not of people living in the U.S.³ The surveys are sent to housing units and not to individuals.⁴
- » Surveys are processed throughout the year and the data do not represent a specific point-in-time. If something changes in a calendar year, the final ACS data will represent an average of that entire calendar year.
- » It is a sample-based dataset and the data are “weighted” so that the survey represents the population in a given area. Once weighted, each estimate includes a margin of error which accounts for sampling and non-sampling error. Typically, this is used to provide a range of what the data may represent, rather than an actual specific point. The larger the range (or confidence interval), the less precise the estimate. Margins of error should not be ignored.⁵
- » Analyses of smaller geographical areas typically involve a greater margin of error, giving researchers the ability to make use of the largest geographical area possible.
- » When five-year aggregated datasets are used, the entire time period used for those estimates should be referenced for clarity (e.g., “The estimate of the population in poverty in San Diego County in 2015 to 2019 was 10.3%.”)⁶
- » ACS data are available as prepopulated tables, called summary files, which can be downloaded or viewed online at data.census.gov.⁷
- » Data can also be accessed using the Public Use Microdata Sample (PUMS) dataset. PUMS data can only be analyzed with a statistical package and are only available at the Public Use Microdata Area (PUMA) level, which includes population areas between 100,000 - 200,000 developed by the U.S. Census Bureau (there are seven PUMAs in San Diego County). SANDAG can provide additional information regarding PUMS data.⁸



³ For more information on data collection in group quarters facilities, please see: [census.gov/content/dam/Census/programs-surveys/acs/Library/OutreachMaterials/ACSFlyers/2017%20Group%20Quarters%20flyer_508.pdf](https://www.census.gov/content/dam/Census/programs-surveys/acs/Library/OutreachMaterials/ACSFlyers/2017%20Group%20Quarters%20flyer_508.pdf)
⁴ For more information on household-based surveys, please visit: [census.gov/programs-surveys/surveyhelp/about-household-surveys.html](https://www.census.gov/programs-surveys/surveyhelp/about-household-surveys.html)
⁵ For more information on ACS estimates and margins of error please see: [census.gov/programs-surveys/acs/guidance/training-presentations/acs-moe.html](https://www.census.gov/programs-surveys/acs/guidance/training-presentations/acs-moe.html)
⁶ U.S. Census Bureau QuickFacts: San Diego County, California; California
⁷ How to materials for accessing data on data.census.gov are available here: [census.gov/data/what-is-data-census-gov/guidance-for-data-users/how-to-materials-for-using-data-census-gov.html](https://www.census.gov/data/what-is-data-census-gov/guidance-for-data-users/how-to-materials-for-using-data-census-gov.html)
⁸ More information on downloading ACS summary files is available here: [census.gov/programs-surveys/acs/data/summary-file.html](https://www.census.gov/programs-surveys/acs/data/summary-file.html)
 For more information on the PUMS dataset please visit: [census.gov/content/dam/Census/library/publications/2020/acs/acs_pums_handbook_2020.pdf](https://www.census.gov/content/dam/Census/library/publications/2020/acs/acs_pums_handbook_2020.pdf)

How can ACS data be accessed?

While there are no simple answers to best data sources for every research project, Table 3 provides a broad overview based on research questions and the level of geography that is desired.

TABLE 3
Decennial Census, ACS data, U.S. Census Bureau Estimates, and SANDAG Products: Questions, Geographies, and Sources



U.S. Census Bureau products (data.census.gov)

Decennial Census Data	Population Estimates ⁹	ACS One-Year Dataset	ACS Five-Year Dataset
For geographies smaller than county-level or any areas outside San Diego County	Annual estimates at the county-level for the entire nation	Data for populations of 65,000 and greater	Data for populations smaller than 65,000

SANDAG data products (datasurfer.sandag.org)



Population and housing estimates	Decennial census and ACS data profiles
Yearly housing units and population created by SANDAG from a variety of sources	Data created by SANDAG using ACS data and annual estimates to create small area socioeconomic estimates. Allows users to view ACS data at San Diego-specific geographies such as community planning areas or transit districts.

For additional assistance with census and ACS data or the SANDAG estimates and forecasts, contact SANDAG at (619) 699-1900 or censusdata@sandag.org.

About infobits****

SANDAG serves as the region’s clearinghouse for information and data. InfoBits are short reports with relevant and timely information to provide context on complex issues facing the region.

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⁹ More information about the U.S. Census Bureau’s Population and Housing Estimates is available at: census.gov/programs-surveys/popest.html