

ACS Sidekick Technical Notes

About this document

The U.S. Census American Community Survey (ACS) is the source for detailed demographic, social, economic and housing data at the national, state, and local levels. The ACS provides one-year estimates for geographic areas with populations of 65,000 or more and five-year estimates for areas with populations less than 20,000. Results from the ACS are not exact because the Census only surveys part of the population and uses statistical models to approximate the real results. ACS gives an estimate and a margin of error (MOE).

The ACS Sidekick makes it easier and faster to process data. Developed by [Jef Waltman Technology Consulting](#), the tool calculates aggregate estimates and margins of error on the fly. In other words, a nonprofit with a 21-census tract service area can calculate indicators for that custom area – or custom age groups, income groups, zip code groups, etc – without tedious processing or complicated formulas. ACS Sidekick allows you to save custom groupings and queries and re-use them over and over again. These Technical Notes provide an overview of how to navigate the Sidekick data options.

ACS results

When you look up data on ACS, you will get two numbers:

- Estimate
- Margin of Error (see detailed notes below)

Using 2017 data from Table B21001, we know there are 144,839 ($\pm 2,712$) civilian veterans in Bexar County.

What do these numbers really mean?

According to the 2017 American Community Survey, you can be 90% confident that the number of civilian veterans in Bexar County is between 142,127 ($144,839 - 2,712$) and 147,551 ($144,839 + 2,712$). Ninety percent confidence is a formula set by the Census Bureau and means that the real value lies somewhere within the given range.

Margins of error

Analysis of data typically consists of calculating percentages with margins of error (MOEs). Sampling introduces error and uncertainty, and the margin of error – for example, “plus or minus three hundred” – is a measure of how much uncertainty there is. The smaller the sample in relation to the total population, generally, the larger the margin of error. Estimates with wide margins are less trustworthy than those with narrow margins. When you are combining multiple estimates, then you have to recalculate the margin of error. If the two zip codes in Table 1 were a service area for a nonprofit, and you wanted to determine the total population for the service area, then you would add all the populations and re-calculate the margin of error. The ACS Sidekick can aggregate the estimate and calculate the new margin of error for you (Table 1).

ACS Sidekick Technical Notes

Table 1. Total population of Non Profit Service Area, 2016

ZCTA	Total population	Margin of error (MOE)	Lower limit	Upper limit
78002	7,630	±1,154	6,476	8,784
78015	12,528	±784	11,744	13,312
Service area	20,158	±1,395	18,763	21,553

Source: US Census Bureau; ACS 5-Year Estimates, Table B01003, 2016.

Table IDs Explained

Each ACS table ID is numbered to describe its content and format. For example, the characters in B01001D shows that the table is a base table (B) of sex by age (01) for Asian (D) population. The ACS Sidekick includes B and C tables only. If you are familiar with S (subject) and DP (data profile) tables then you can find the corresponding B and C table to crosswalk those indicators (e.g. if you want to see health insurance like S2701 then you could search for the complimentary table of B27001). To learn more about the numbering system see online at: <https://www.census.gov/programs-surveys/acs/guidance/which-data-tool/table-ids-explained.html>

Table 2. Type of Table

Table ID	Type of Table	Contains	Sidekick
B	Base	Most detailed estimates on all topics for all geographies	✓
C	Collapsed	Similar information to B Table but at a lower level of detail because one or more lines have been grouped together	✓
S	Subject	A span of information on a particular ACS subject, such as veterans, presented in the format of both estimates and percentages	X
DP	Data Profile	Broad social, economic, housing, and demographic information in a total of four profiles	X

Table 3. Subject Numbers for B and C Tables

#	Subject Name	#	Subject Name
1	Age; Sex	16	Language Spoken at Home
2	Race	17	Poverty Status
3	Hispanic or Latino Origin	18	Disability Status
4	Ancestry	19	Income
5	Citizenship Status	20	Earnings
6	Place of Birth	21	Veteran Status; Period of Military Service
7	Migration/Residence 1 Year Ago	22	Food Stamps/ SNAP
8	Commuting (Journey to Work); Place of Work	23	Employment Status; Work Status Last Year
9	Relationship to Householder	24	Industry, Occupation, and Class of Worker
10	Grandparents and Grandchildren Characteristics	25	Housing Characteristics
11	Household Type; Family Type; Subfamilies	26	Group Quarters
12	Marital Status; Marital History	27	Health Insurance Coverage
13	Fertility	28	Computer and Internet Use
14	School Enrollment	29	Citizen Voting-Age Population
15	Educational Attainment		

Table 4. Race Iteration for Selected Tables

Letter	Subject Name	Letter	Subject Name
A	White Alone	F	Some Other Race Alone
B	Black or African American Alone	G	Two or More Races
C	American Indian and Alaska Native Alone	H	White Alone, Not Hispanic or Latino
D	Asian Alone	I	Hispanic or Latino
E	Native Hawaiian and Other Pacific Islander Alone		

Geographies

The Census Bureau organizes data by geographic areas and more information about how those are defined can be found by viewing the Introduction to Geographies tutorial at: https://factfinder.census.gov/help/en/tutorials/introduction_to_geographies_tutorial.htm. The ACS Sidekick can query based on the following list of geographies for five-year estimates:

- United States
- Region
- Division
- State
- County
- Census Tract
- Block Group
- State-place
- Metropolitan Statistical Area/Micropolitan Statistical Area
- Combined statistical area
- State combined statistical area
- State-State Legislative District (Upper Chamber)
- State-State Legislative District (Lower Chamber)
- 5-digit ZIP code tabulation area
- State-school district (unified)

ACS Sidekick Technical Notes

Query

The ACS Sidekick can calculate indicators for a custom area (e.g. 78202, 78203 and 78208 defined as one service area) and custom variable groups (e.g. 55 years old and over as one age group, income groups, etc). You can save your custom queries under your log-in and you can share your queries by copying and pasting the SQL code in the query box.

Quick guide to interpreting indicators

The American Community Survey covers demographics, economic and social questions and other questions about how and where people live. The Census Reporter (<https://censusreporter.org/>) has a good listing of concepts and tables covered by the Census and ACS (Table 5).

Table 5. Common tables by subject area

[Age and sex](#)
[Children](#)
[Families](#)
[Seniors](#)

[Veterans and military](#)
[Race and Hispanic origin](#)
[Commute](#)
[Health insurance](#)

[Income](#)
[Public Assistance](#)
[Employment](#)
[Poverty](#)