American Community Survey (ACS) Concepts and Terms Quick Guide

This quick guide provides concise definitions of common ACS terms and concepts for beginners to advanced data users. Click to expand each section. Select hyperlinked terms and concepts to navigate to more information. Scroll to the end of this document to view a list of ACS acronyms.

The <u>American Community Survey (ACS)</u> is an ongoing survey conducted by the U.S. Census Bureau throughout the 50 states, the District of Columbia, and <u>Puerto Rico (PRCS)</u>. The ACS provides vital information about our nation and helps determine how trillions of dollars in federal funds are distributed each year.

If you're new to the ACS, refer to the ACS Information Guide to learn about ACS basics, how data are collected, and FAQs. For additional ACS support and learning opportunities, jump to the Where can I get help accessing and using ACS data? section.

When Should I Use ACS Data?

- You need up-to-date data on the **social**, **economic**, **demographic**, **or housing characteristics** of America's communities.
- You need information about U.S. social and economic trends, from 2005 to the present.
- You need data on the characteristics of the U.S. population by age, race, ethnicity, tribal affiliation, or other groups.
- You need data for different geographies, from **block groups to the nation** and/or everything in between.

What Topics Are Covered in the ACS?

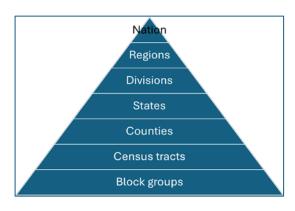
The subjects collected through the ACS can be grouped into four main characteristics:

- **Social** (e.g., educational attainment and marital status)
- **Economic** (e.g., employment and income)
- **Housing** (e.g., monthly owner costs and vehicles available)
- **Demographic** (e.g., age and race)

For a full list of ACS subjects, refer to Subjects Included in the ACS.

What Geographies Are Available in the ACS?

- ACS data are available for geographic areas ranging in size from the nation and broad geographic regions to cities, towns, county subdivisions, and block groups.
- Many geographies "nest" within each other. For example, counties are made up of census tracts, and census tracts can't cross county boundaries.



• Other geographies don't nest within larger areas. For example, New York City extends over five counties.

Refer to Geography & ACS for more guidance on the 160+ geographies available in the ACS.

What Are 1-year and 5-year ACS Estimates?

- ACS data are pooled across a calendar year and reflect a period of time—1 year or 5 years—rather than a single point in time.
- The longer the time period, the larger the sample and, therefore, the more reliable the estimates.

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Estimate	1-year estimates	5-year estimates
Time Period	12 months	60 months
Available	Areas with populations of	All areas
Geographies	65,000 + (or 20,000+ for	
	Supplemental Estimates)	
Currency	More current	Less current
Precision	Less precise	More precise

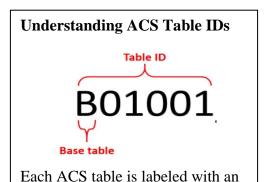
To learn more about ACS estimates and best practices, refer to When to Use 1-year or 5-year Estimates.

Which Tools Can I Use to Access ACS Data?

<u>Data.census.gov</u> is the best place for most data users to access ACS data. However, many other tools are available for more advanced users to access ACS data in multiple formats:

• <u>Tables</u>: ACS data are presented in tables for several topics. Each table is labeled with an ID. See Table Shells and Table List for a full list of ACS Detailed Tables.

- Application Programming Interface (API): A tool you can use to create simple queries to access ACS data through an internet browser.
- <u>Summary File</u>: A text file that contains all ACS Detailed Tables.
- <u>Public Use Microdata Sample (PUMS)</u>: A subsample of the ACS that contains individual records that you can analyze to create custom estimates and tables.
- Microdata Access Tool (MDAT): A website with dropdown menus and filters to create custom ACS estimates and tables, based on PUMS data.
- <u>File Transfer Protocol (FTP)</u>: A directory with downloadable ACS data files.



ID. This ID is made up of characters representing up to <u>five</u> <u>different elements</u>. For example, "B" tables are base tables that include the most detailed estimates on all topics for all geographies.

- Open-source Software packages: Open-source software such as Python and R. Libraries such as <u>tidycensus</u> are collections of pre-written code that you can use to access ACS data more efficiently. The Census Bureau developed a <u>Github</u> page to share repositories of code for working with ACS data developed by data users.
- <u>Tiger/Line</u>: Geographic shapefiles pre-joined with ACS estimates in a geodatabase format.

Other Census Bureau websites provide access to ACS data for specialized uses: My Congressional District, My Tribal Area, Census Business Builder, OnTheMap for Emergency Management, Community Resilience Estimates, and QuickFacts.

Other ways to access ACS data: <u>Federal Statistical Research Data Centers</u> (FSRDC) and Custom Tables.

Refer to <u>Table Shells and Table List</u> for ACS table shells without the estimates or margins of error filled in.

How Can I Assess the Accuracy of ACS Data?

All ACS data are estimates and subject to error. Here are some common terms that describe how the Census Bureau protects respondent confidentiality while ensuring the accuracy of the data:

- <u>Measures of statistical reliability</u>: Statistical measures such as margins of error (MOE) and confidence intervals (CI) assess the likelihood that ACS estimates differ from the actual population.
- <u>Item allocation</u>: A statistical method for replacing missing survey responses using answers from similar housing units or respondents.

• <u>Population controls</u>: The number of housing units and select populations in the ACS are from the Population Estimates Program's official population estimates.

<u>Calculating Custom ACS Estimates and Margins of Error (MOEs)</u>: ACS data users can calculate estimates and their associated margins of error for multiple geographies or population subgroups. For step-by-step instructions, navigate to section 8 of the <u>Understanding and Using</u> American Community Survey Data: What All Data Users Need to Know.

Why Are Some ACS Data Unavailable?

Data users may sometimes encounter tables or estimates that are not available due to the ACS's data release rules, which ensure published data are high quality and safeguard respondents. For more information about data release rules, refer to the Census Bureau's ACS Publishing Rules.

Commonly Misunderstood Concepts and Terms

Ancestry: Ethnic origin or descent, "roots," or heritage. This question is answered regardless of a respondent's race, country of origin, or Hispanic origin.

Citizenship: The ACS includes questions about citizenship, place of birth, and year of entry into the United States; it does not ask about unauthorized immigration or immigrants' legal status.

Family vs. Subfamily: Both families and subfamilies must include two or more people living together, related by birth, marriage, or adoption. A family must include a householder, while subfamilies do not.

Group Quarters: Group Quarters (GQs) include places like college dorms, treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and facilities for people experiencing homelessness. People living in GQs usually are not related to each other.

Home Value: Home values in the ACS are self-reported based on the owners' understanding of the value rather than a professional assessment or sale price.

Household vs. Family Household: A household includes all the people who occupy a housing unit. A family household must include a family, but this could include a subfamily and/or unrelated persons. The number of family households is equal to the number of families in the ACS, but family households may also include unrelated people living with them.

Householder: One person in each household is designated as the householder—typically the person in whose name the home is owned, being bought, or rented and who is listed on Line 1 of the survey questionnaire.

Own vs. Related Children: An own child is a never-married child under age 18 who is a son or daughter by birth, a stepchild, or an adopted child of the householder; a related child is any child

under 18 years old who is related to the householder by birth, marriage, or adoption (including both ever- and never-married children. Children, by definition, exclude people under age 18 who maintain households or are spouses or unmarried partners of householders.

Poverty: The Current Population Survey is the official source of national poverty estimates and is preferred for national analysis; the ACS may be useful for subnational analyses.

Race and Hispanic Origin: Though many respondents expect to see a Hispanic origin category on the race question, this question is currently asked separately. People of Hispanic origin may be of any race(s). However, the Census Bureau is working on a plan to add a new, <u>combined</u> race/ethnicity question to future censuses and surveys.

Rooms: Rooms must be separated by built-in archways or walls extending at least 6 inches and going from floor to ceiling. They are not bathrooms, porches, balconies, foyers, halls, or unfinished basements.

Sex: The 2024 ACS questionnaire includes categories for "male" and "female" but the Census Bureau is testing a new ACS question on <u>Sexual Orientation and Gender Identity</u> (SOGI).

Telephone Service Available: In the 2019 ACS and later questionnaires, telephone service includes "cell phones, land lines, or other phone devices."

Tenure: Owner/renter status of occupied housing units.

Type of Internet Access: Service as "dial-up," "DSL," cable modem," fiber-optic," or other categories. This question does not ask about the companies that provide internet access.

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Rural, urban, metropolitan, and micropolitan are terms that represent different geographic designations:

Rural/urban	Metropolitan/micropolitan
Defined by Census Bureau	Defined by Office of Management and Budget (OMB)
Rural areas include all people,	Areas outside of metropolitan and micropolitan areas are
housing, and territory that are	not synonymous with rural areas
not within urban areas.	
Updated every decennial	Updated with Census Bureau's latest population
census	estimates
Delineated primarily by	A collection of counties with a core urbanized area and
population density	adjacent counties according to commuting patterns.

<u>Zip Code Tabulation Areas (ZCTA) vs. Zip Codes</u>: ZCTAs are areal representations of the point-based ZIP Codes built using 2020 Census tabulation blocks.

For a full list of subject definitions, refer to <u>Code Lists</u>, <u>Definitions</u>, <u>and Accuracy</u>. Another resource describes <u>Why We Ask Each Question</u> in the ACS.

Making Comparisons With ACS Data

Data users may want to compare ACS estimates to analyze patterns or trends. Here are some dos and don'ts:

- **Do** compare 1-year estimates with 1-year estimates, and 5-year estimates with 5-year estimates. **Don't** compare 1-year estimates with 5-year estimates.
- **Do** compare non-overlapping datasets (for example, compare 2005-2009 ACS 5-year estimates to 2010-2014 ACS 5-year estimates). **Don't** compare overlapping estimates.
- **Do** compare ACS and Decennial Census data on basic characteristics (sex, age, race, Hispanic origin, and homeowner status).
- **Do** be aware of changes in question wording, coding, and geographic boundaries that may affect the comparability of data over time.

Find more comparison guidance here: Comparing ACS Data.

Where Can I Get Help Accessing and Using ACS Data?

For questions about using ACS data, please contact the ACS data user support team at acso.users.support@census.gov or 1-866-805-5993.

The Census Bureau's ACS Office offers extensive documentation, forums, training opportunities, and partnerships to help data users with ACS data:

User Guides and Training Materials:

- ACS Information Guide: This is a comprehensive beginner's guide to the ACS. If you are new to using ACS data, start here.
- <u>Handbooks</u>: Downloadable PDF handbooks with specific how-to instructions and/or case studies, including a glossary of terms.
- <u>Discovering the ACS</u>: A comprehensive course with 4 video modules and Census Academy course completion certificate
- Data Gems: A series of "how-to" videos for data users.
- <u>Census Academy</u>: Courses, webinars, and tutorials for all U.S. Census Bureau data products.
- Ask Census: Up-to-date FAQs about the ACS program, data collection, and research with messaging from Census Bureau support representatives.

Opportunities to Connect with Other Data Users:

- <u>ACS Online Community</u>: Forum for data users to share messages, materials, and announcements related to ACS data, methods, and events.
- ACS Data User Conferences: A biannual conference that shares information among data users about key ACS data issues and applications and provides networking opportunities.
- <u>ACS Data User GitHub</u>: Repositories of code developed by data users who use statistical software.
- Slack Census developer's forum: Messaging app for software developer data users.

Ask the Experts:

• Data Dissemination Specialists:

A team of trainers from all six regional offices that work directly with individuals, organizations, government officials, and others to help them understand Census Bureau data.

- State Data Centers (SDC): Partnership between the Census Bureau and all 50 states, D.C., Puerto Rico, and Island areas to make data available through state agencies, universities, libraries, and regional and local governments.
- <u>Census Information Centers (CICs)</u>: A network of nonprofit groups and national and community-based organizations that provide Census Bureau data in accessible formats to underserved populations.

For more information, refer to Guidance for Data Users.

ACS Acronyms

Acronym	Meaning
ACS	American Community Survey
ACSO	American Community Survey Office
AIAN	American Indian Alaskan Native
API	Application Programming Interface
BG	Block Group
CDP	Census Designated Place
CI	Confidence Interval
CIC	Census Information Centers
СР	Comparison Profiles
CV	Coefficient of Variation
DAS	Disclosure Avoidance System
DP	Data Profiles
FSRDC	Federal Statistical Research Data Centers

FTP	File Transfer Protocol
GCT	Geographic Comparison Tables
GEOID	Geographic Identifier
GQ	Group Quarters
MDAT	Microdata Access Tool
MOE	Margin of Error
OMB	Office of Management and Budget
PEP	Population Estimates Program
PRCS	Puerto Rico Community Survey
PUMA	Public Use Microdata Areas
PUMS	Public Use Microdata Sample
SDC	State Data Centers
TIGER	Topologically Integrated Geographic Encoding and Referencing
ZCTA	Zip Code Tabulation Areas (pronounced zik-tahs)