

5. ACCESSING ACS DATA

Data.census.gov is the U.S. Census Bureau's primary tool for accessing population, housing, and economic data from the American Community Survey (ACS), the Puerto Rico Community Survey, the decennial census, and many other Census Bureau data sets.¹⁵

Data.census.gov provides access to ACS data for a wide range of geographic areas, including states, cities, counties, census tracts, and block groups. For more information about data.census.gov, view the Census Bureau's data.census.gov Resources page.¹⁶

More advanced users within federal agencies also have several options to access ACS data that are more detailed through the downloadable Summary File, the Public Use Microdata Sample (PUMS) files, the Census Bureau's Application Programming Interface, or through special tabulations of ACS data.¹⁷

Special Tabulations of ACS Data

Most of the data required by federal agencies are accessible through published tables available through data.census.gov.¹⁸ However, several federal agencies require special tabulations of ACS data to obtain the information they need. For example:

- The Census Transportation Planning Products (CTPP) program produces special tabulations of ACS data that have enhanced value for transportation planning, analysis, and strategic direction.¹⁹
- The Equal Employment Opportunity (EEO) Tabulation serves as the primary external benchmark for comparing the race, ethnicity, and sex composition of an organization's internal workforce and the analogous external labor market, within a specified geography and job category.²⁰
- The ACS Special Tabulation on Aging serves as a component in the allocation formulas for Older Americans Act funding and for planning programs and services for older adults.²¹

- U.S. Department of Housing and Urban Development's Special Tabulations of Households provide the most detailed data available for analysis of housing demand based on income and age of householder. These data are used in allocation formulas for rental assistance programs and evaluations of program applications and multifamily mortgage insurance applications submitted to the Federal Housing Administration.²²

The minimum cost of a custom tabulation by Census Bureau staff is \$3,000, and the minimum timeframe for compiling the data is 8 weeks. The Census Bureau's Disclosure Review Board must review and approve all requests before work is started. For more information, see the Census Bureau's Web page on Custom Tables.²³

Federal Statistical Research Data Centers

Federal agencies can also access ACS data through the Federal Statistical Research Data Centers (FSRDCs)—partnerships between federal statistical agencies and leading research institutions.²⁴ FSRDCs are secure facilities managed by the Census Bureau to provide secure access to a range of restricted-use microdata, including ACS microdata. Compared to the ACS PUMS, which includes a representative subset of records from the ACS sample, the restricted data files contain many additional sample records along with additional variables. Note that FSRDC projects must be designed to produce model-based output. Only tabular output supporting the model sample(s) may be released to researchers.

FSRDC researchers have access to computing capacity to handle large data sets and complex calculations. Standard statistical, econometric, and programming software, including R, Stata, SAS, MATLAB, and Gauss, are available in a Linux environment. FSRDC researchers can collaborate with other research data center researchers across the United States through the secure FSRDC computing environment.

Data access via an FSRDC requires a proposal and approval process including background checks on researchers. The approval process, while straightforward, can take several months. Inquiries about

¹⁵ U.S. Census Bureau, data.census.gov, <<https://data.census.gov>>.

¹⁶ U.S. Census Bureau, data.census.gov Resources, <www.census.gov/data/what-is-data-census-gov.html>.

¹⁷ U.S. Census Bureau, American Community Survey (ACS), Summary File Data, <www.census.gov/programs-surveys/acs/data/summary-file.html>; American Community Survey (ACS), PUMS Data, <www.census.gov/programs-surveys/acs/microdata.html>; Developers, <www.census.gov/developers/>.

¹⁸ U.S. Census Bureau, data.census.gov, <<https://data.census.gov>>.

¹⁹ AASHTO, CTPP Program, <<https://ctpp.transportation.org/>>.

²⁰ U.S. Census Bureau, EEO Tabulation, <www.census.gov/topics/employment/equal-employment-opportunity-tabulation/about.html>.

²¹ Administration for Community Living, Aging, Independence, and Disability (AGID) Program Data Portal, American Community Survey (ACS) Special Tabulations, <<https://agid.acl.gov/DataFiles/SpecialTabulations.aspx>>.

²² U.S. Department of Housing and Urban Development, Office of Policy Development and Research, Special Tabulations of Households, <www.huduser.gov/portal/datasets/spectabs.html>.

²³ U.S. Census Bureau, American Community Survey (ACS), Custom Tables, <www.census.gov/programs-surveys/acs/data/custom-tables.html>.

²⁴ U.S. Census Bureau, Federal Statistical Research Data Centers, <www.census.gov/fsrdc>.

accessing ACS or other restricted-use data can be made through the ResearchDataGov application portal.²⁵

The Census Bureau's Center for Enterprise Dissemination and the FSRDCs consider proposals from qualified researchers in social science disciplines consistent with the subject matter of the surveys and censuses collected by the Census Bureau.²⁶ Proposals may be submitted at any time and must:

- Provide benefit to Census Bureau programs.
- Demonstrate scientific merit.
- Require nonpublic data.
- Be feasible given the data.
- Pose no risk of disclosure.

All FSRDC researchers must obtain Census Bureau Special Sworn Status—passing a moderate-risk background check and swearing to protect respondent confidentiality for life, facing significant financial and legal penalties under Title 13 and Title 26 of the U.S. Code for failure to do so.²⁷

When researchers need to remove aggregated output, tables, or model coefficients from the secure environment, the output must be reviewed to ensure the confidentiality of survey respondents and that the output is consistent with the original proposal. Once the results pass disclosure review, the approved aggregated data are provided to the researcher or team outside of the secure computing environment, usually via e-mail. The researcher(s) can then produce reports, presentations, and other products outside of the secure environment.

²⁵ The ResearchDataGov portal is a joint project between the Census Bureau and the University of Michigan, <www.icpsr.umich.edu/web/pages/appfed/index.html>.

²⁶ U.S. Census Bureau, Federal Statistical Research Data Centers, Apply for Access, <www.census.gov/programs-surveys/ces/data/restricted-use-data/apply-for-access.html>.

²⁷ U.S. Census Bureau, Privacy & Confidentiality, <www.census.gov/history/www/reference/privacy_confidentiality/>.

Information about how to apply for FSRDC access is available on the Census Bureau's Web site.²⁸

Combining ACS Data With Administrative Data

Researchers at federal agencies with approved FSRDC projects can link individual or housing unit records from the ACS with administrative records based on personal identifiers. For example, Census Bureau staff linked the records of children in the ACS with records from the Internal Revenue Service, Department of Housing and Urban Development, Centers for Medicare and Medicaid Services, Department of Health and Human Services, and other sources to investigate the undercount of young children in the decennial census.²⁹ ACS records were linked to administrative data using protected identification keys—anonymous identifiers that can be used to link records across different data sets.

The Census Bureau conducts a variety of research projects that combine administrative records and survey data to lower costs, increase efficiency, reduce respondent burden, and improve data quality. Some of these projects generate new social and economic statistics—such as the Small Area Income and Poverty Estimates Program.³⁰ Other projects investigate ways to use linked data to better measure family relationships, evaluate program participation, and improve coverage of hard-to-reach populations.³¹

More information is available through the FSRDC Web site.³²

²⁸ U.S. Census Bureau, Federal Statistical Research Data Centers, Apply for Access, <www.census.gov/programs-surveys/ces/data/restricted-use-data/apply-for-access.html>.

²⁹ Leticia Fernandez, Rachel Shattuck, and James Noon, "The Use of Administrative Records and the American Community Survey to Study the Characteristics of Undercounted Young Children in the 2010 Census," CARRA Working Paper Series, CARRA-WP-2018-05, 2018.

³⁰ U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE) Program, <www.census.gov/programs-surveys/saipe.html>.

³¹ Amy O'Hara, Rachel M. Shattuck, and Robert M. Goerge, "Linking Federal Surveys with Administrative Data to Improve Research on Families," *The ANNALS of the American Academy of Political and Social Science*, Volume 669, Issue 1, 2016, pp. 63–74.

³² U.S. Census Bureau, Federal Statistical Research Data Centers, <www.census.gov/fsrdc>.