American Community Survey 5-Year Estimates

Pre-Release Webinar

March 10, 2022

Audio Conference Access Information

To ask a question, you must dial in:

Toll free number: 1-888-606-9802

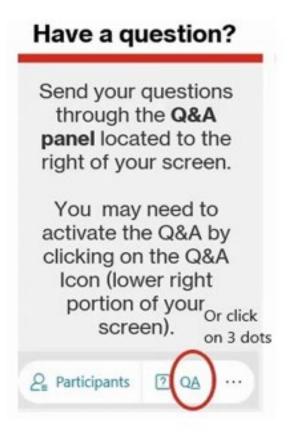
Passcode: 1803272

census.gov/newsroom/press-kits/2021/acs-5-year.html



The American Community Survey

Questions by Chat





The American Community Survey Speakers

Host Michael Cook Sr.

Chief

Public Information Office

Presenters |

Donna M. Daily

Chief

American Community Survey Office

Gretchen Gooding

Branch Chief

American Community Survey Office

Tyson Weister

Survey Statistician

Center for Enterprise Dissemination



The American Community Survey Introductory Remarks

Welcome from Donna M. Daily Chief, American Community Survey Office



The American Community Survey Overview

- Upcoming ACS Data Releases
- ACS Basics
- Changes for 2016-2020 ACS 5-Year Release
- How to Access ACS Data
- ACS Website
- Q&A
- Accessing ZIP Code Tabulation Area (ZCTA) Data Using data.census.gov
- Q&A



The American Community Survey ACS Data Releases

MEDIA EMBARGO: Tuesday, March 15, 2022

- Embargo at 10 a.m. (EDT), Includes 2016-2020 ACS 5-year estimates:
 - 5-Year data products
 - Press Kit: census.gov/newsroom/press-kits/2021/acs-5-year.html

PUBLIC RELEASE: Thursday, March 17, 2022

- Release at 12:01 a.m. (EDT), Includes 2016-2020 ACS 5-year estimates:
 - All 5-Year data products
 - Narrative Profiles
 - API, QuickFacts, My Tribal Area



The American Community Survey Upcoming ACS Releases

2016-2020 ACS 5-Year Release	CS 5-Year Release	
Data Products	Release	
5-Year Public Use Microdata Sample (PUMS)	March 31, 2022	
5-Year Variance Replicate Estimates	March 31, 2022	



The American Community Survey Overview

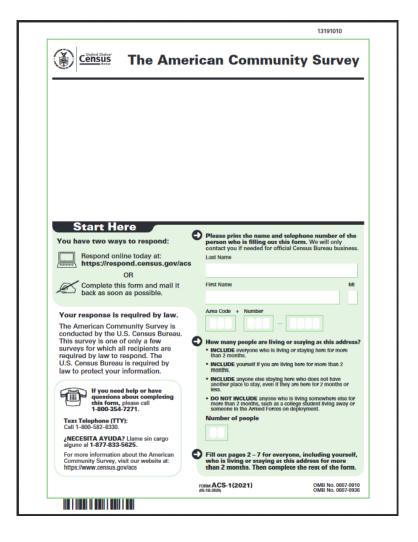
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The American Community Survey The Foundation

The American Community Survey is on the leading edge of survey design, continuous improvement, and data quality

- The nation's most current, reliable, and accessible data source for local statistics on critical planning topics such as age, children, veterans, commuting, education, income, and employment
- Surveys 3.5 million addresses and informs over \$675 billion of federal government spending each year
- Covers **40+ topics**, supports over **300** evidence-based Federal government uses, and produces **11 billion** estimates each year
- Typically provides three key annual data releases:
 - 1-year Estimates (for large populations, geographies of 65,000+ population)
 - 1-year Supplemental Estimates (for small populations, geographies of 20,000+ population)
 - 5-year Estimates (for very small populations, geographies down to Census Tracts and Block Groups)





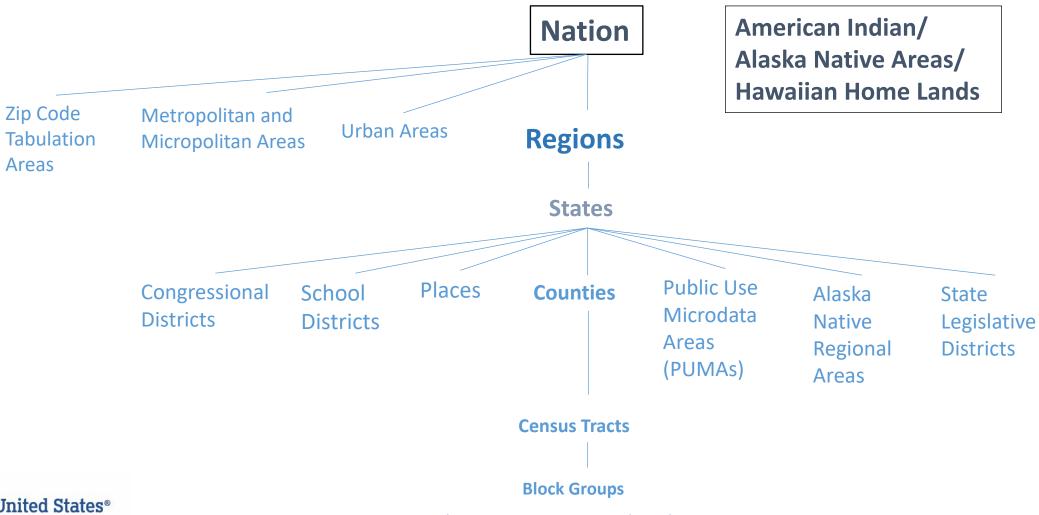
The American Community Survey Content Overview

POPULATION		HOUSING
SOCIAL Ancestry Citizenship Citizen Voting Age Population Disability Educational Attainment	DEMOGRAPHIC Age Hispanic Origin Race Relationship Sex	Computer & Internet Use Costs (Mortgage, Rent, Taxes, Insurance) Heating Fuel Home Value
Fertility Grandparents Language Marital Status Migration School Enrollment Veterans	ECONOMIC Class of Worker Commuting Employment Status Food Stamps (SNAP) Health Insurance Hours/Week, Weeks/Year Income Industry & Occupation	Occupancy Plumbing/Kitchen Facilities Structure Tenure (Own/Rent) Utilities Vehicles Year Built/ Year Moved In



The American Community Survey

5-Year Geography





The American Community Survey 5-Year Estimates

- Describe the characteristics over a specific period of time, not a single point in time
- Data are pooled across 60 months, weighted to produce estimates, and controlled for age, sex, race, and Hispanic origin
 - 5-year estimates are NOT an average of 1-year estimates
- Estimates are based on geographic boundaries ("vintages") as of the last year in the 5-year period
- Dollar-value estimates are inflation adjusted to the most recent year for the period



The American Community Survey When to Use 5-Year Estimates?

- No 1-year estimate is available
- Margins of error for 1-year estimates are larger than desired
- Analyzing data for small population groups
- Comparing various geographies when one or more of them do not receive 1-year estimates



The American Community Survey Comparing 5-Year Estimates

- Only compare non-overlapping time periods (e.g., 2016-2020 and 2011-2015)
- Only compare 1-year estimates to 1-year and 5-year estimates to 5-year
- Compare across geographies and subpopulations
- Compare percentages, means, medians and rates instead of totals whenever possible



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The American Community Survey Impact of Data Collection Challenges on ACS Data Quality

- The COVID-19 pandemic impacted the ACS data collection operations in 2020
- Given the limitations in our data collection for the 2020 ACS, we were unable to collect information from certain segments of the population
- As a result, significant nonresponse bias was present in the collected data
- While all surveys have nonresponse bias, our standard methods for mitigating the nonresponse bias were insufficient for the 2020 ACS
- A report, An Assessment of the COVID-19 Pandemic's Impact on the 2020 ACS 1-Year Data, with more information on the 2020 ACS 1-year data and related quality metrics was released on October 27



The American Community Survey Methodology Changes

- ACS 5-year housing unit weighting was modified to enhance our ability to mitigate the nonresponse bias present in the ACS data collected in 2020
- We incorporated entropy-balance weighting (EBW) into our standard production methodology
- The goal was to leverage the EBW to reduce the bias in the 2020 portion of the 5-year data but keep our standard methodology as intact as possible to support producing estimates for all our standard 5-year geographies
- We partially processed the data from 2016–2019 using our standard methodology before combining those data with the data processed using the EBW methodology
- Once the data from 2016–2020 were pooled together, we applied population and housing unit control totals



The American Community Survey Geography and Population Controls

Geography

- Most geographies reflect 2020 geographic boundaries
- The following geographies reflect 2010 geographic boundaries and will be updated later:
 - ZIP Code Tabulation Areas-2021 ACS release
 - Public Use Microdata Areas-2022 ACS release
 - Urban/Rural definitions-2022 ACS release

census.gov/programs-surveys/acs/geography-acs/geography-boundaries-by-year.html

Population Controls

• The 2016-2020 ACS 5-year estimates will use the Vintage 2020 postcensal estimates

census.gov/programs-surveys/acs/technical-documentation/user-notes/2021-01.html



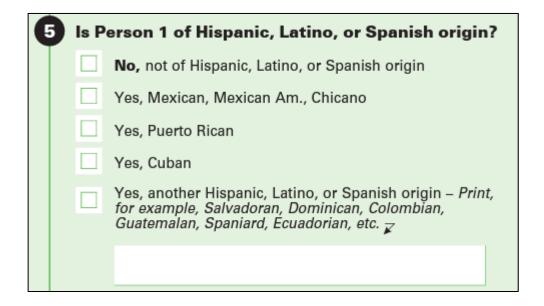
The American Community Survey Improvements to Hispanic Origin and Race Questions

- Improvements made to the question designs, processing, and coding yield a more accurate portrait of how people self-identify their Hispanic origin and race within the context of a two-question format
- The changes implemented in the 2020 ACS are the same as those implemented in the 2020 Census



The American Community Survey Improvements to Hispanic Origin Question

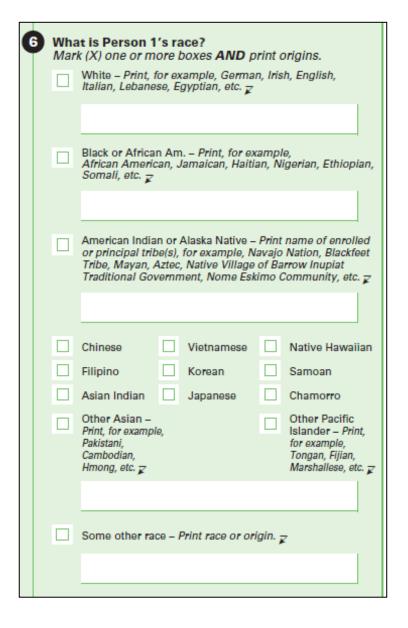
- The instruction to "Print origin, for example" was revised to "Print, for example."
- The example groups were revised from "Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on." to "Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc."





The American Community Survey Improvements to Race Question

- Write-in response areas were added for the White and Black or African American racial categories
- Six examples were provided for each of the write-in fields allocated to the "White," "Black or African American," and "American Indian or Alaska Native" groups.
- The examples provided for the "Other Asian" and "Other Pacific Islander" groups were updated
- The checkbox category "Guamanian or Chamorro" was changed to "Chamorro"
- The write-in instructions for the "Some Other Race" category were updated to better solicit detailed reporting. Whereas the 2019 ACS form included the instruction to "Print race," the instruction used in the 2020 ACS was updated to "Print race or origin





The American Community Survey Data User Guidance for the 2016-2020 ACS 5-Year Estimates

- Use caution when comparing the 2016-2020 ACS 5-year estimates with other ACS data or 2020 Census Data
- Due to data collection challenges in 2020 as a result of COVID, the ACS collected only two-thirds of the responses it usually collects
- This reduced number of interviews in the 2020 portion of the 2016-2020 5year estimates caused an increase in the margins of error by approximately 15-20% in relative terms
- Take the margins of error into account, especially when making comparisons for smaller geographies or populations
- Use caution when using estimates with high margins of error



The American Community Survey Data User Guidance for the 2016-2020 ACS 5-Year Estimates (Cont'd)

There are several challenges when making comparisons with the 2016-2020 ACS 5-year estimates, including:

- Changes to the weighting methodology implemented to address the nonresponse bias issues in the 2020 data
- Actual changes within the population and our ability to capture those changes
- Tendency of multiyear estimates to smooth out sudden changes
- The ACS population controls were not informed by the 2020 Census results



The American Community Survey New Tables

Industry

- **B24134:** Detailed Industry for the Civilian Employed Population 16 Years and Over
- B24135: Detailed Industry for the Civilian Employed Male Population 16 Years and Over
- **B24136:** Detailed Industry for the Civilian Employed Female Population 16 Years and Over

Computer and Internet

• B28012: Age and Enrollment Status by Computer Ownership and Internet Subscription Status



census.gov/programs-surveys/acs/technical-documentation/table-shells.html

The American Community Survey Modified Tables (Race and Hispanic Origin)

Race and Hispanic Origin

Race and Hispanic Origin tables beginning with the following IDs:

- B02
- CO2
- B03

Other Tables Updated:

- Detailed Tables iterated by Race and Hispanic Origin
- Comparison Profile (CP) 05
- Data Profile (DP) 05

*This is a partial list of modified tables. For the full list of modified tables, see the link below.



The American Community Survey Modified Tables

Table ID	Title
Employment Status	
S2302	Employment Characteristics Of Families
Foreign-Born Population	
B05009	Age And Nativity Of Own Children Under 18 Years In Families And Subfamilies By Number And Nativity Of Parents
B05010	Ratio Of Income To Poverty Level In The Past 12 Months By Nativity Of Children Under 18 Years In Families And Subfamilies By Living Arrangements And Nativity Of Parents

census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2020/5-year.html



The American Community Survey Modified Tables

Table ID	Title
Journey to Work and Migration	
CP02	Comparative Social Characteristics in the United States
CP02PR	Comparative Social Characteristics in Puerto Rico
DP02	Selected Social Characteristics in the United States
DP02PR	Selected Social Characteristics in Puerto Rico
Mortgage Status	
B25081	Mortgage Status
S2506	Financial Characteristics For Housing Units With A Mortgage

census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2020/5-year.html



The American Community Survey Modified Tables

- Households and Families
- Foreign-Born Population (Place of Birth)
- Race
- Year Householder Moved Into Unit

census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2020/5-year.html



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The American Community Survey 5-Year Data Products

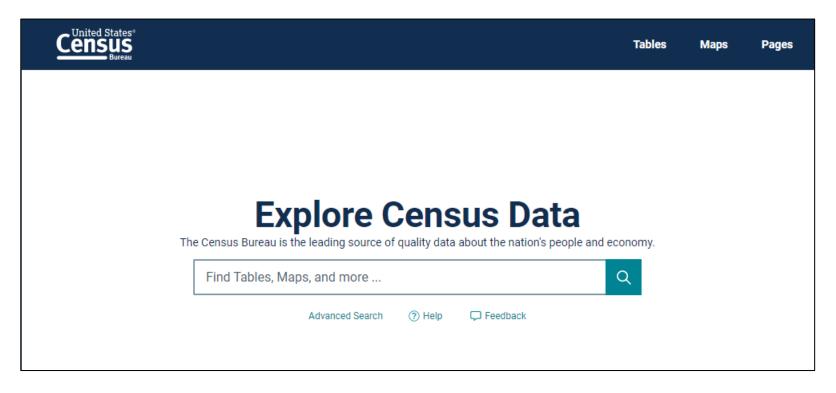
- Data Profiles (5)
 - Selected Social, Economic, Housing, Demographic
 - Selected Social Characteristics Puerto Rico
- Comparison Profiles (5)
 - 2016-2020 and 2011-2015
- Subject Tables (83)
- Detailed Tables (1,140)
- Narrative Profiles
- Data Tools
 - API, QuickFacts, My Tribal Area, Census Business Builder

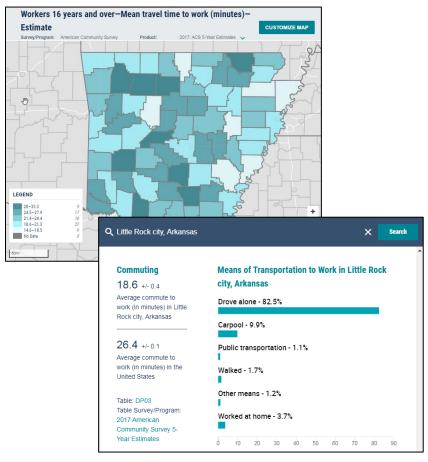




The American Community Survey

data.census.gov

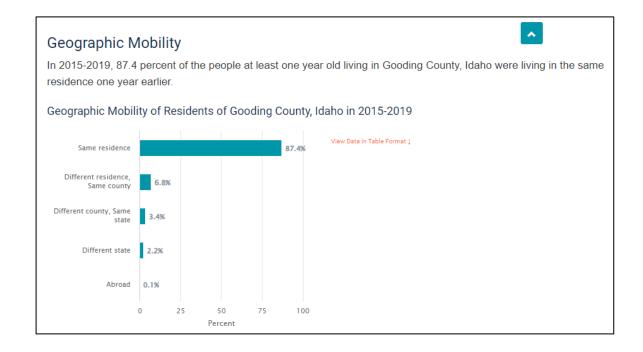


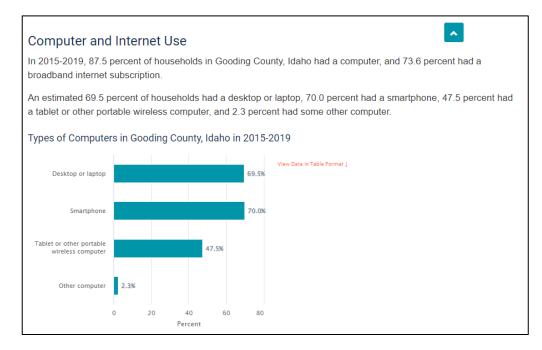




The American Community Survey

Narrative Profiles







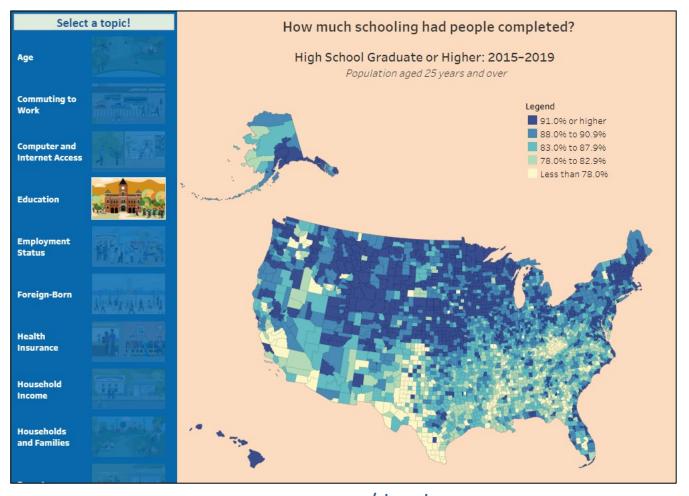
The American Community Survey Summary File

- Set of comma-delimited text files that contain all of the Detailed Tables
- Current Summary File contains estimates, margin of error, and geography files
- Detailed Tables stored in series of files called sequences
- This is the last release of the current Summary File format
- Starting with 2021 ACS, new format by table ID will be used



The American Community Survey

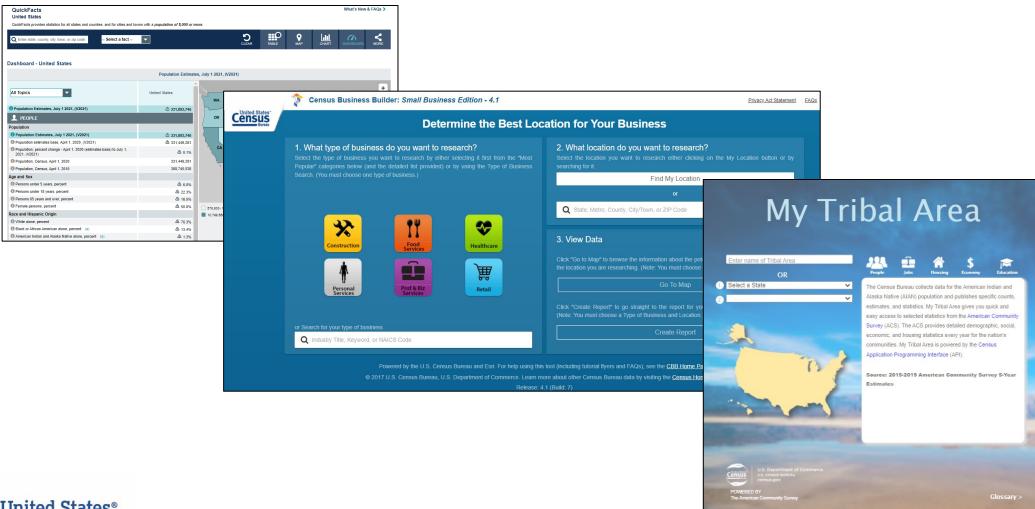
Application Programming Interface (API)





The American Community Survey

Data Tool Updates





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ACS Website

// Census.gov / Our Surveys & Programs / American Community Survey (ACS) WITHIN OUR SURVEYS &

population and housing information about our nation.

PROGRAMS

About the ACS

American Community Survey (ACS)

The American Community Survey (ACS) helps local officials, community leaders, and businesses

understand the changes taking place in their communities. It is the premier source for detailed

Data

Geography & ACS

Guidance for Data

Users

Information For...

Library

Methodology

Microdata

News & Updates

Operations and Administration

Respond to the ACS

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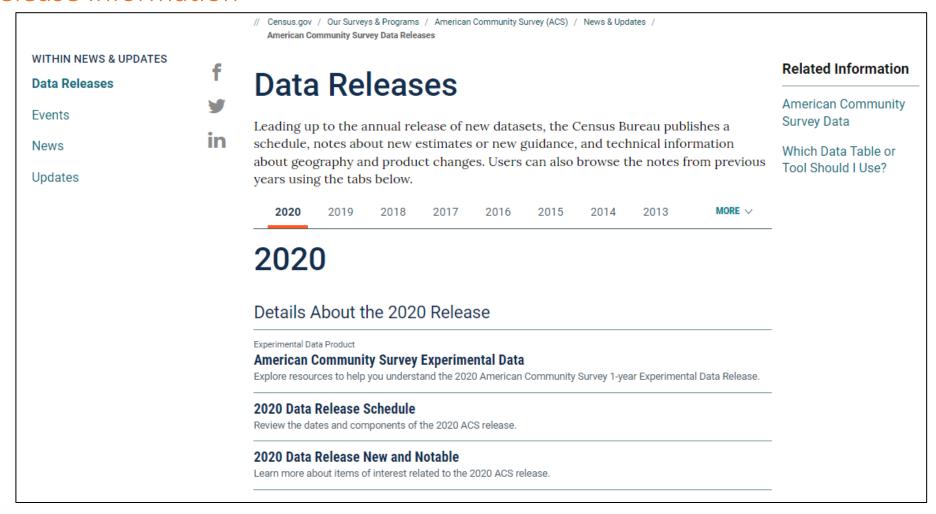
Subscribe





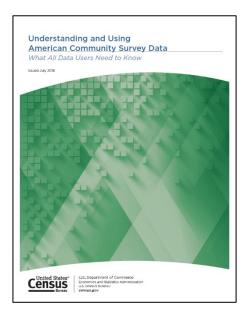
census.gov/acs

Data Release Information





Data User Handbooks and Training Presentations





// Census.gov / Our Surveys & Programs / American Community Survey (ACS) / Library /
American Community Survey Training Presentations

Training Presentations

Want to learn more about American Community Survey (ACS) data and data products? Need to train others how to understand the data? These training presentations can help.

Training | January 26, 2022

Geography Areas and Concepts for the American Community Survey

This webinar explains how the popular geographic types, such as block groups, census tracts, and ZIP Code Tabulation Areas are used to present ACS data.

Training | November 30, 2021

2020 American Community Survey 1-Year Experimental Data Release

This webinar examines all 2020 American Community Survey 1-year experimental data products.

Training | July 29, 2021

Impact of Pandemic on the American Community Survey

This webinar explains and answers questions related to the impact of the pandemic on the American Community Survey (ACS).

Training | May 13, 2021

Data Summit: Census Bureau Data About Housing Characteristics

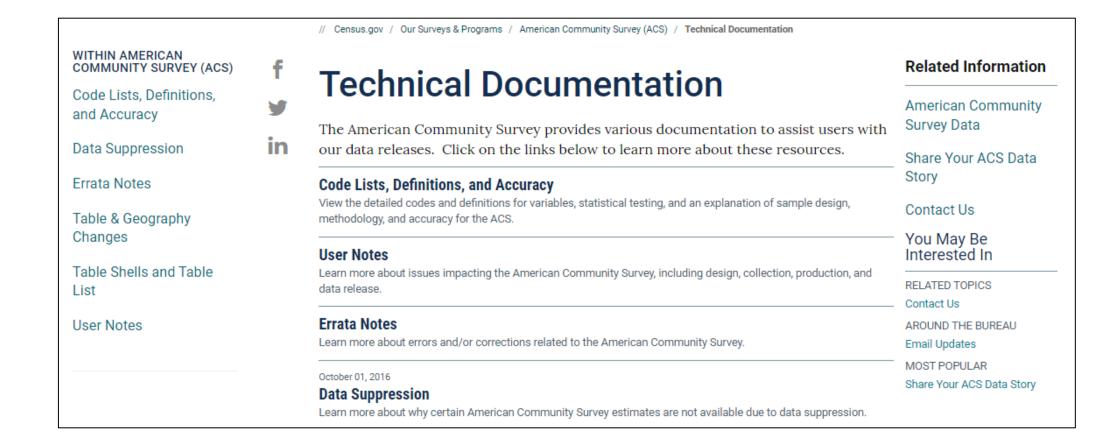
This webinar will teach data users about housing and household data available from various surveys and indicators.

census.gov/programs-surveys/acs/guidance/handbooks.html

census.gov/programs-surveys/acs/guidance/training-presentations.html

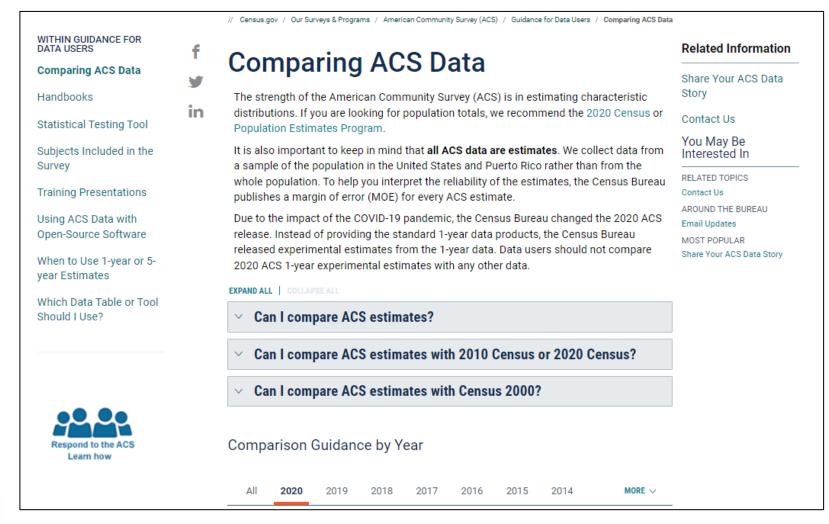


Technical Documentation





Comparison Guidance





Statistical Testing Tool

WITHIN GUIDANCE FOR DATA USERS

Comparing ACS Data

Handbooks

Statistical Testing Tool

Subjects Included in the Survey

Training Presentations

Using ACS Data with Open-Source Software

When to Use 1-year or 5year Estimates

Which Data Table or Tool Should I Use?

// Census.gov / Our Surveys & Programs / American Community Survey (ACS) / Guidance for Data Users / Statistical Testing Tool

Statistical Testing Tool

Comparing American Community Survey (ACS) estimates involves more than determining which statistic is higher or lower. Users should also conduct statistical testing to make sure differences are statistically significant and are unlikely to have occurred by chance. This testing takes into account the margin of error (MOE) associated with survey estimates, which are based on responses from only a sample of the full population.

Looking for an easy way to conduct statistical testing? Try the Census Bureau's new Statistical Testing Tool. Simply copy or download ACS estimates and their MOEs into the spreadsheet to get instant results of statistical tests.



Download Statistical Testing Tool [XLSX - 3.5 MB]

Related Information

VIDEO

Population Reference Bureau: Assessing ACS Reliability

RANDOM SAMPLINGS BLOG
Using Census Bureau
Data Made Easier: New
Statistical Testing Tool
Answers the Question
"Is This Comparison
Statistically
Significant?"

You May Be Interested In

RELATED TOPICS
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Email Updates

MOST POPULAR

Share Your ACS Data Story

Tool Features:

- · Compares up to 3,230 pairs of estimates at once
- Compares multiple estimates simultaneously (up to 150 estimates)
- Displays statistical testing results ("Yes", "No") automatically
- Handles special formatting and characters, such as the '+/-' in front of the MOE.





Audio Conference Access Information

You must call by phone to ask questions
Toll-free number: 1-888-606-9802
Participant passcode: 1803272
Dial *1 for the operator

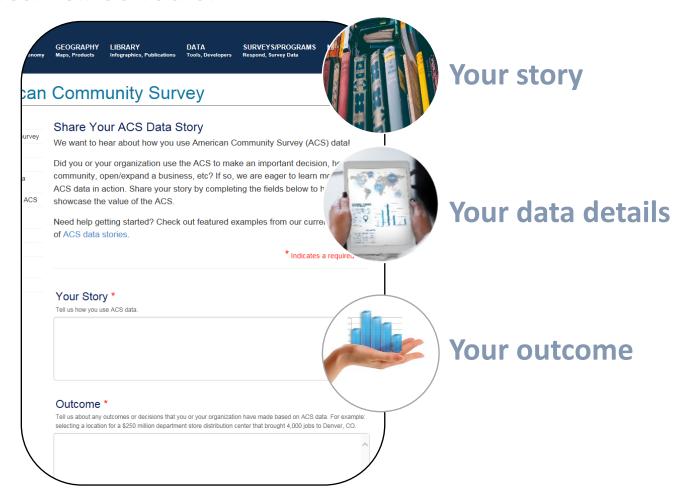
- Recording of today's webinar will be available in press kit and posted on Census Academy at: census.gov/data/academy/webinars.html
- Press kit available at: census.gov/newsroom/press-kits/2021/acs-5-year.html

After Questions Stay for a Demo:

Accessing 5-Year ZCTA Data in data.census.gov



Data Tells Stories. Tell Us Yours!







• Purpose:

- Improve understanding of the value and utility of ACS data.
- Promote information sharing among data users about key ACS data issues and applications
- Membership is free and open to all interested ACS data users
- Webinars and special sessions at professional meetings planned
- Users group website and online community



acsdatacommunity.prb.org

The American Community Survey Subject Matter Experts

Name	Title
Michael Cook Sr.	Chief, Public Information Office
Donna M. Daily	Chief, American Community Survey Office
David Waddington	Chief, Social, Economic, and Housing Statistics Division
Mark Asiala	Assistant Division Chief, Decennial Statistical Studies Division
David Raglin	Special Assistant, American Community Survey Office
Nicole Scanniello	Assistant Division Chief, American Community Survey Office
Hyon B. Shin	Assistant Division Chief, Social, Economic, and Housing Statistics Division
Nathan Walters	Assistant Division Chief, American Community Survey Office
Jonathan Rothbaum	Research Economist, Social, Economic, and Housing Statistics Division



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data.census.gov Demo

View and Download ZCTA Data Using data.census.gov

• Example: Detailed household income for all ZIP Code Tabulation Areas in Michigan using ACS 5-Year Estimates



data.census.gov

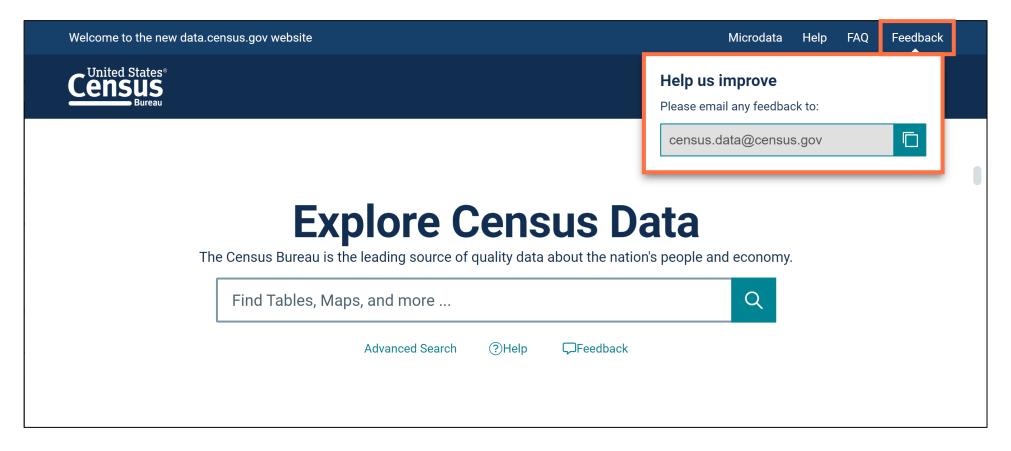
Major Improvements Since 2019 ACS 5-Year Release (Dec 2020)

- New and improved navigation
- Option to view large tables
- 40+ new check boxes to select collections of geographies in a single click (example: all census tracts in U.S.)
- Expanded Geography Profiles
- Enhanced Excel export
- Improved search



data.census.gov

Our Development Depends on Your Feedback



Check out data.census.gov and provide comments at census.data@census.gov



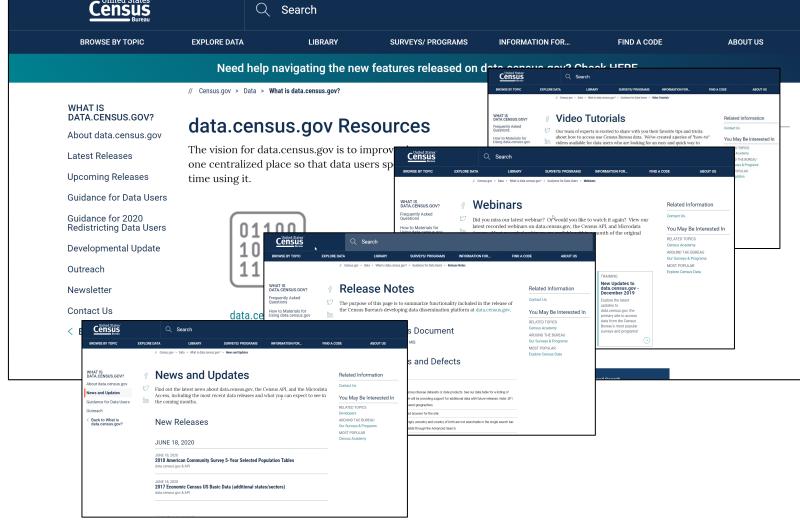
data.census.gov Stay in Touch

data.census.gov Resources page:

<u>census.gov/data/what-is-data-</u> census-gov.html

Feedback: Email comments to

census.data@census.gov







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on-free fruitiber. 1-888-600-98

Passcode: 1803272

Dial *1 for the operator

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- Press kit available at: census.gov/newsroom/press-kits/2021/acs-5-year.html



The American Community Survey Need Local Stats or Training?

We Can Help!

- Regional Data Staff
 - 1-844-275-3282
 - census.askdata@census.gov
 - census.gov/data/academy/request.html
- State Data Centers
 - & Census Information Centers
 - census.gov/sdc





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The American Community Survey For Further Information

Media

Public Information Office pio@census.gov 301-763-3030

Non-Media

Customer Service Center 1-800-923-8282 or 301-763-INFO (4636)

Press Kit

census.gov/newsroom/press-kits/2021/acs-5-year.html

Email Alerts

https://public.govdelivery.com/accounts/USCENS US/signup/12426

Website

census.gov/acs

Source Us

U.S. Census Bureau, 2016-2020 American Community Survey, 5-year estimates

