

Introduction to the American Community Survey (ACS)

September 11, 2019

Charles Gamble
Survey Statistician

The American Community Survey

About the U.S. Census Bureau

- The U.S. Census Bureau is the federal government’s largest statistical agency.
- We conduct more than 100 censuses and surveys each year, including
 - **The Decennial Census** – the once-a-decade population and housing count of all 50 states and U.S. territories
 - **The American Community Survey** – the ongoing, annual survey of the social, economic, housing, and demographic characteristics of the nation’s population
 - **The Economic Census** – the official five-year measure of American businesses
- Our mission is to serve as the nation’s leading provider of quality data about its people and economy.



The American Community Survey Outline

- **American Community Survey (ACS) basics**
- Accessing ACS data products
- Demonstration of ACS data tools
- Resources for learning more
- Questions

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
- Three key annual data releases:
 - 1-year Estimates (for large populations)
 - 1-year Supplemental Estimates (for small populations)
 - 5-year Estimates (for very small populations)

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U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU

 **THE American Community Survey**

This booklet shows the content of the American Community Survey questionnaire.

Start Here

Respond online today at:
<https://respond.census.gov/acs>
OR
Complete this form and mail it back as soon as possible.

Please print today's date.
Month Day Year

Please print the name and telephone number of the person who is filling out this form. We will only contact you if needed for official Census Bureau business.

Last Name

First Name MI

Area Code + Number -

How many people are living or staying at this address?

- **INCLUDE** everyone who is living or staying here for more than 2 months.
- **INCLUDE** yourself if you are living here for more than 2 months.
- **INCLUDE** anyone else staying here who does not have another place to stay, even if they are here for 2 months or less.
- **DO NOT INCLUDE** anyone who is living somewhere else for more than 2 months, such as a college student living away or someone in the Armed Forces on deployment.

Number of people

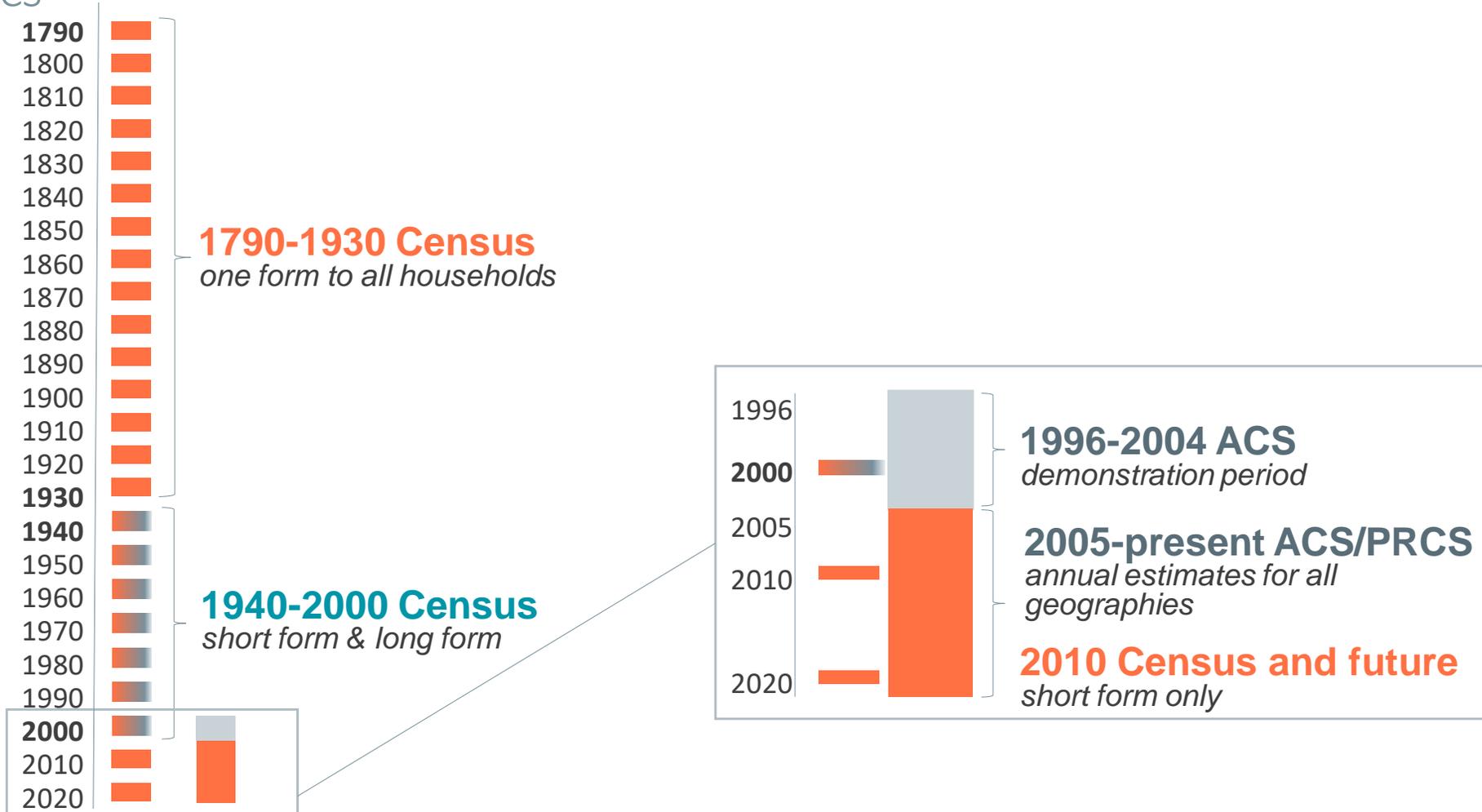
Fill out pages 2, 3, and 4 for everyone, including yourself, who is living or staying at this address for more than 2 months. Then complete the rest of the form.

FORM ACS-1(INFO)(2019)
OMB No. 0607-0810
OMB No. 0607-0936



The American Community Survey

Census & ACS



The American Community Survey

How is the American Community Survey Different from a Census?

	ACS	Census
<i>Purpose</i>	Sample estimates	Official counts
<i>Collects</i>	Detailed social, economic, housing, and demographic characteristics	Basic demographics
<i>Produces</i>	Population and housing characteristics	Population and housing totals
<i>New Data Every</i>	Year	10 years
<i>Data Reflect</i>	Period of time	Point in time

The American Community Survey

Data Collection Process

SELF-RESPONSE



NONRESPONSE FOLLOWUP



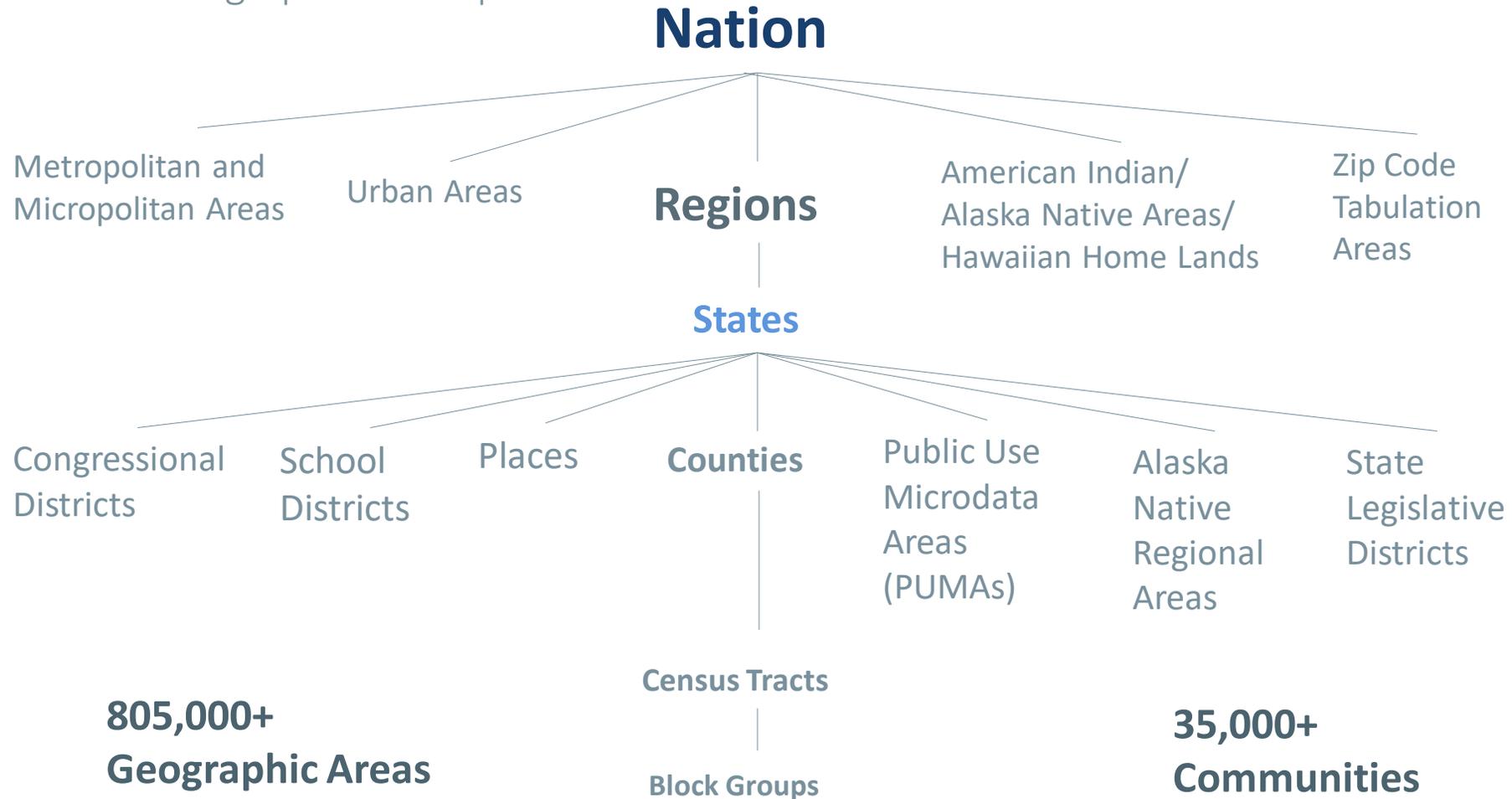
The American Community Survey

Content Overview

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

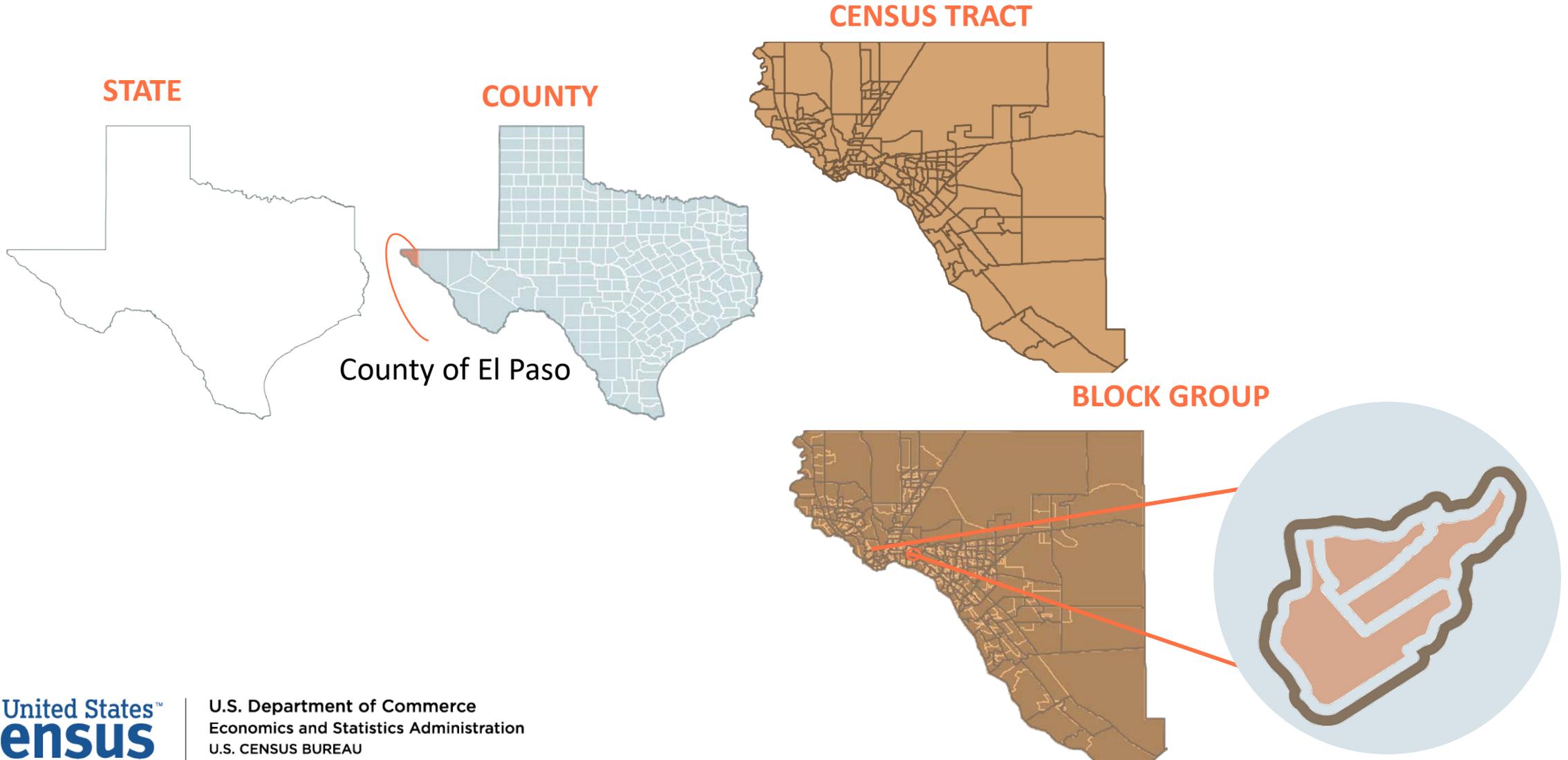
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Selected Census Geographic Concepts



The American Community Survey

Selected Census Geographic Concepts



The American Community Survey

Availability of 2018 Data Products

Estimated Population of Geographic Area	1-Year Estimates	1-Year Supplemental Estimates	5-Year Estimates
65,000 or more	X	X	X
20,000 to 64,999		X	X
Less than 20,000			X
Release Date	September 26, 2019	February 6, 2020	December 19, 2019

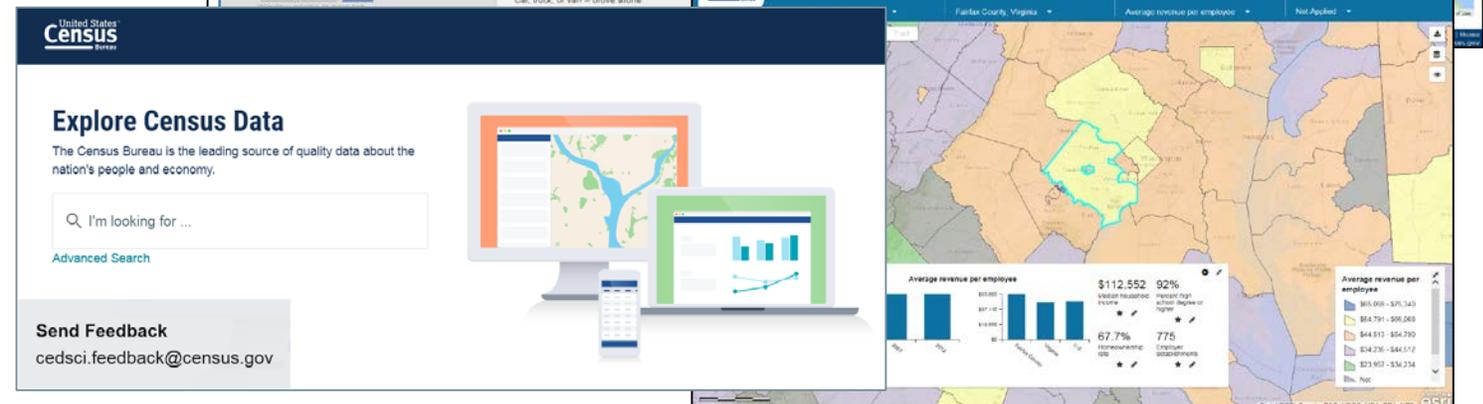
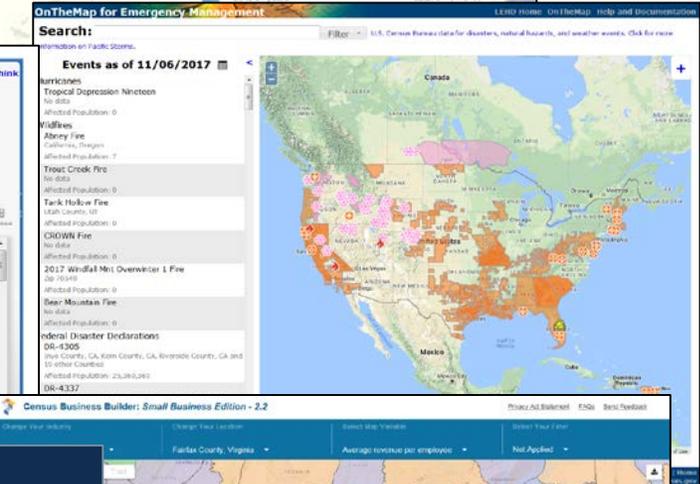
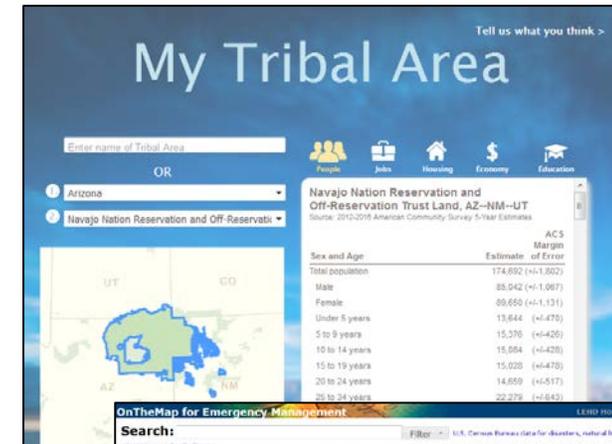
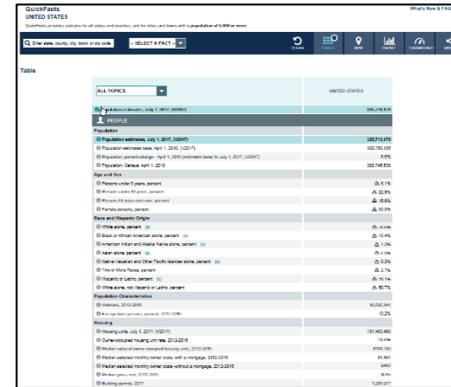
census.gov/programs-surveys/acs/news/data-releases.html

The American Community Survey Outline

- American Community Survey (ACS) basics
- **Accessing ACS data products**
- Demonstration of ACS data tools
- Resources for learning more
- Questions

The American Community Survey Selected Ways to Access Data

- QuickFacts
- My Congressional District
- My Tribal Area
- OnTheMap for Emergency Management
- Census Business Builder
- TIGER/Line Shapefiles w/ Selected Demographic Data
- Application Programming Interface (API)
- data.census.gov



The American Community Survey

QuickFacts

QuickFacts
UNITED STATES
 QuickFacts provides statistics for all states and counties, and for cities and towns with a population of 5,000 or more.

Enter state, county, city, town, or zip code -- SELECT A FACT -- CLEAR TABLE MAP CHART DASHBOARD MORE

Table

ALL TOPICS	UNITED STATES
Population estimates, July 1, 2017, (V2017)	325,719,178
PEOPLE	
Population	
Population estimates, July 1, 2017, (V2017)	325,719,178
Population estimates base, April 1, 2010, (V2017)	308,758,105
Population, percent change - April 1, 2010 (estimates base) to July 1, 2017, (V2017)	5.6%
Population, Census, April 1, 2010	308,745,538
Age and Sex	
Persons under 5 years, percent	6.1%
Persons under 18 years, percent	22.8%
Persons 65 years and over, percent	15.0%
Female persons, percent	50.8%
Race and Hispanic Origin	
White alone, percent (a)	76.0%
Black or African American alone, percent (a)	13.4%
American Indian and Alaska Native alone, percent (a)	1.3%
Asian alone, percent (a)	5.9%
Native Hawaiian and Other Pacific Islander alone, percent (a)	0.2%
Two or More Races, percent	2.7%
Hispanic or Latino, percent (b)	18.1%
White alone, not Hispanic or Latino, percent	60.7%
Population Characteristics	
Veterans, 2012-2016	19,535,341
Foreign born persons, percent, 2012-2016	13.2%
Housing	
Housing units, July 1, 2017, (V2017)	137,403,480
Owner-occupied housing unit rate, 2012-2016	63.8%
Median value of owner-occupied housing units, 2012-2016	\$184,700
Median selected monthly owner costs -with a mortgage, 2012-2016	\$1,491
Median selected monthly owner costs -without a mortgage, 2012-2016	\$482
Median gross rent, 2012-2016	\$949
Building permits, 2017	1,281,977

The American Community Survey

My Congressional District

115th Congress
My Congressional District

1 Select a State

2

People Workers Housing Socio-Economic Education Business

My Congressional District gives you quick and easy access to selected statistics collected by the U.S. Census Bureau through the [American Community Survey \(ACS\)](#) and [County Business Patterns \(CBP\)](#). The ACS provides detailed demographic, social, economic, and housing statistics every year for the nation's communities. CBP provides annual statistics for businesses with paid employees at a detailed geography and industry level. My Congressional District is powered by ACS and CBP data through the [Census Application Programming Interface \(API\)](#).

Sources: 2017 American Community Survey 1-Year Estimates and 2016 County Business Patterns

Need help finding your Congressional District?
Enter ZIP code

Window opens in new tab.

United States Census Bureau
U.S. Department of Commerce
Economic and Statistics Administration
U.S. CENSUS BUREAU
census.gov

POWERED BY
The American Community Survey and County Business Patterns

115th Congress
My Congressional District

1 Texas

2 Congressional District 16

People Workers Housing Socio-Economic Education Business

Congressional District 16, Texas
Source: 2017 American Community Survey 1-Year Estimates

Sex and Age	Estimate
Total population	742,384
Male	364,539
Female	377,845
Under 5 years	55,015
5 to 9 years	51,801
10 to 14 years	61,388
15 to 19 years	55,551
20 to 24 years	60,459
25 to 34 years	108,785
35 to 44 years	94,193
45 to 54 years	85,838
55 to 59 years	42,858
60 to 64 years	35,127
65 to 74 years	51,070

Need help finding your Congressional District?
Enter ZIP code

Window opens in new tab.

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The American Community Survey and County Business Patterns

Display ACS Margin of Error

Congressional District 16, Texas
Source: 2017 American Community Survey 1-Year Estimates

Sex and Age	Estimate
Total population	742,384
Male	364,539
Female	377,845
Under 5 years	55,015
5 to 9 years	51,801
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45 to 54 years	85,838
55 to 59 years	42,858
60 to 64 years	35,127
65 to 74 years	51,070
75 to 84 years	27,549

Display ACS Margin of Error

The American Community Survey

My Tribal Area

Tell us what you think >

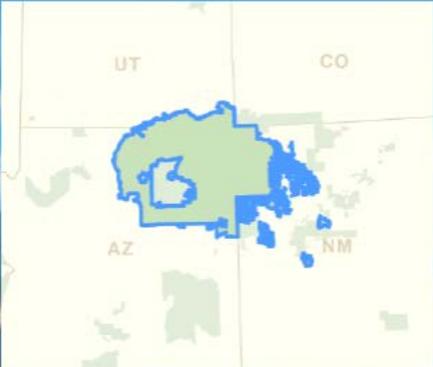
My Tribal Area

Enter name of Tribal Area

OR

1. Arizona

2. Navajo Nation Reservation and Off-Reservati



About the map


 People


 Jobs


 Housing


 Economy


 Education

Navajo Nation Reservation and Off-Reservation Trust Land, AZ--NM--UT

Source: 2012-2016 American Community Survey 5-Year Estimates

Sex and Age	Estimate	ACS Margin of Error
Total population	174,692	(+/-1,802)
Male	85,042	(+/-1,067)
Female	89,650	(+/-1,131)
Under 5 years	13,644	(+/-470)
5 to 9 years	15,376	(+/-426)
10 to 14 years	15,084	(+/-428)
15 to 19 years	15,028	(+/-478)
20 to 24 years	14,659	(+/-517)
25 to 34 years	22,279	(+/-643)
35 to 44 years	19,379	(+/-457)
45 to 54 years	21,609	(+/-457)
55 to 59 years	10,667	(+/-330)
60 to 64 years	8,176	(+/-331)

Display ACS Margin of Error
 [Download and Share](#)


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[census.gov](https://www.census.gov)

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[Glossary >](#)

The American Community Survey OnTheMap for Emergency Management



Hurricanes, Floods,
Winter Storms



Disaster Areas



Wildfires



Demographic &
Economic Data



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[census.gov](https://www.census.gov)

[LEHD Home](#) [OnTheMap](#) [Help and Documentation](#)

Search: Filter U.S. Census Bureau data for disasters, natural hazards, and weather events. [Click for more information on Pacific Storms.](#)

Events as of 11/06/2017

Hurricanes

Tropical Depression Nineteen
No data
Affected Population: 0

Wildfires

Abney Fire
California, Oregon
Affected Population: 7

Trout Creek Fire
No data
Affected Population: 0

Tank Hollow Fire
Utah County, UT
Affected Population: 0

CROWN Fire
No data
Affected Population: 0

2017 Windfall Mnt Overwinter 1 Fire
Zip 70549
Affected Population: 0

Bear Mountain Fire
No data
Affected Population: 0

Federal Disaster Declarations

DR-4305
Inyo County, CA, Kern County, CA, Riverside County, CA and 19 other Counties
Affected Population: 25,369,369

DR-4337
Monroe County, FL, Miami-Dade County, FL, Palm Beach County, FL and 64 other Counties
Affected Population: 18,801,310

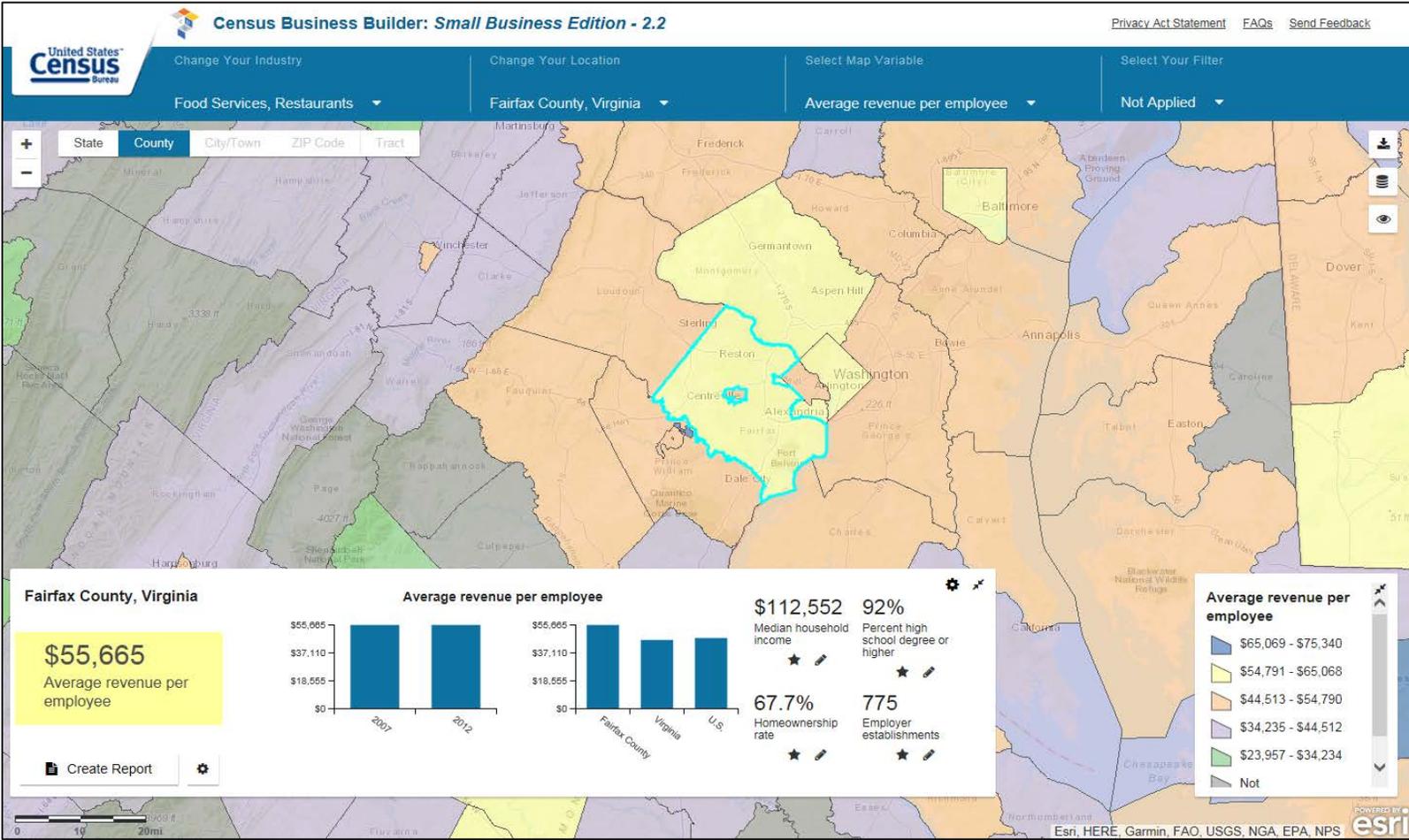
DR-4223
Edwards County, TX, Duval County, TX, Harris County, TX and 110 other Counties
Affected Population: 17,594,564

[Privacy Policy](#) | [2010 Census](#) | [Data Tools](#) | [Information Quality](#) | [Product Catalog](#) | [Contact Us](#) | [Home](#)
 Source: U.S. Census Bureau, Center for Economic Studies, LEHD | e-mail: CES.OnTheMap.Feedback@census.gov

onthemap.ces.census.gov/em/

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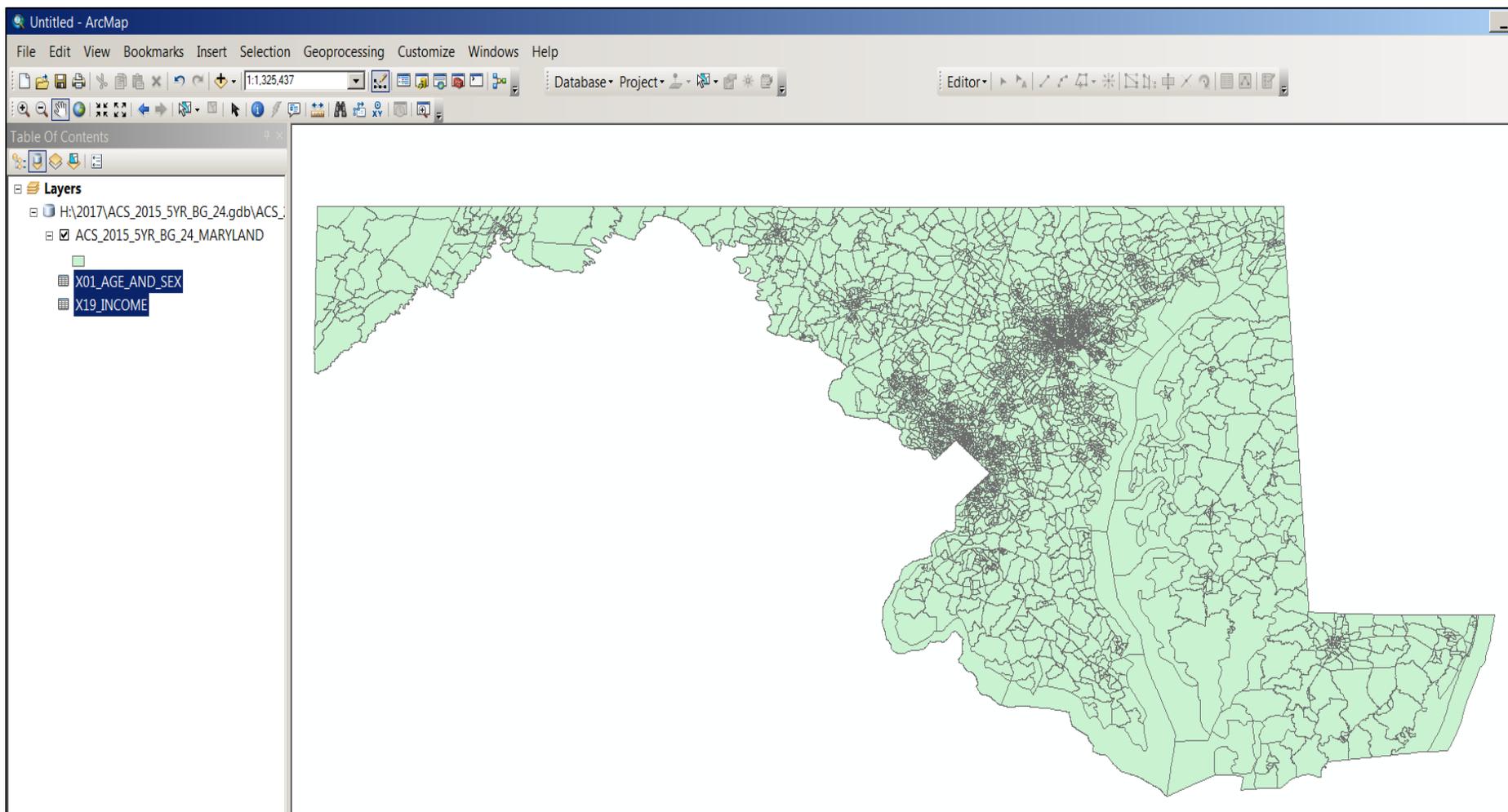
Census Business Builder



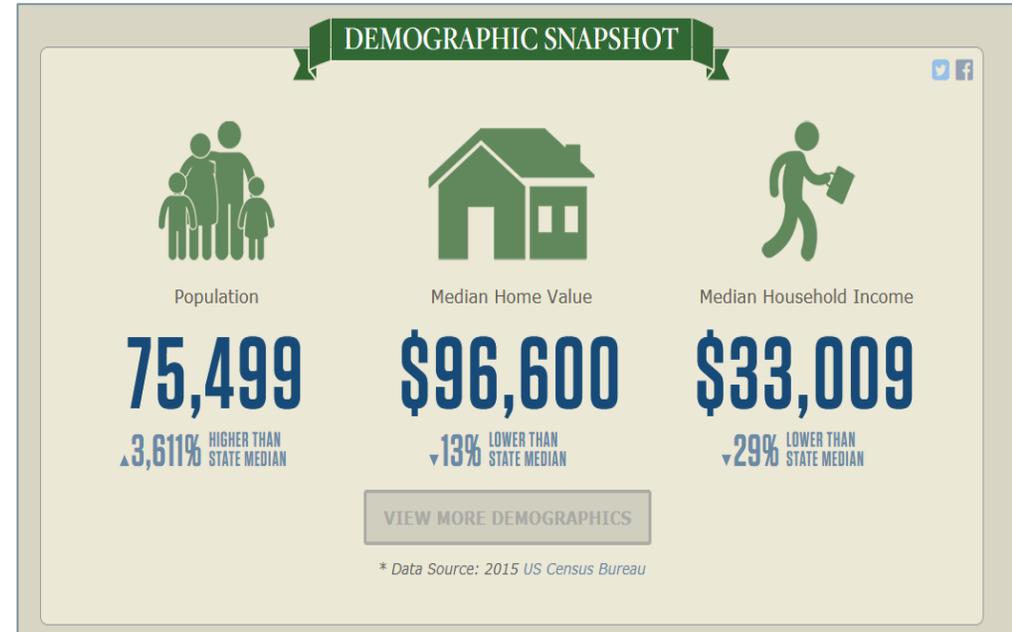
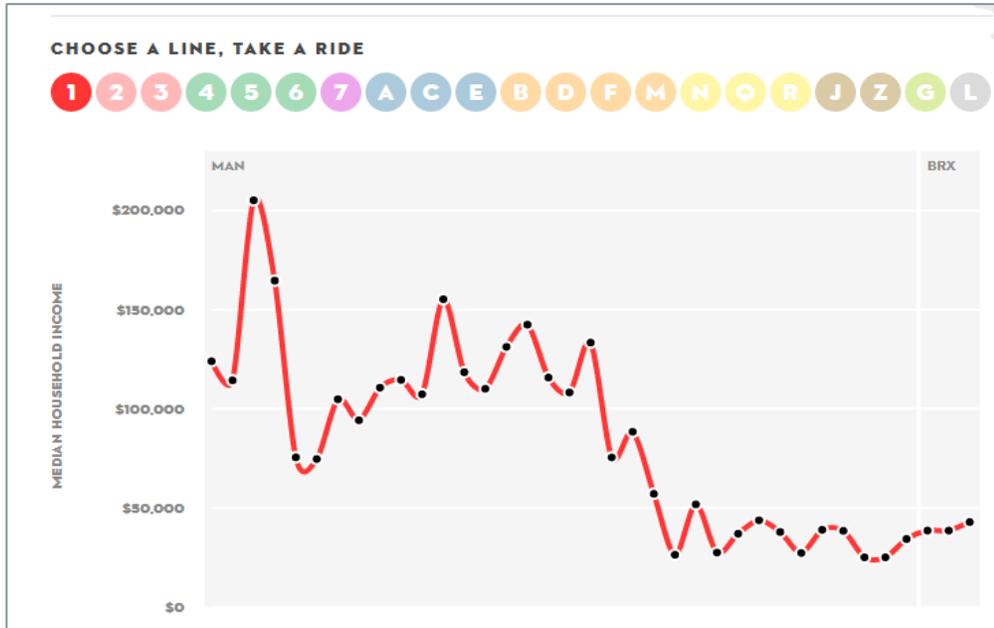
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Economics and Statistics Administration
U.S. CENSUS BUREAU
[census.gov](https://www.census.gov)

census.gov/data/data-tools/cbb.html

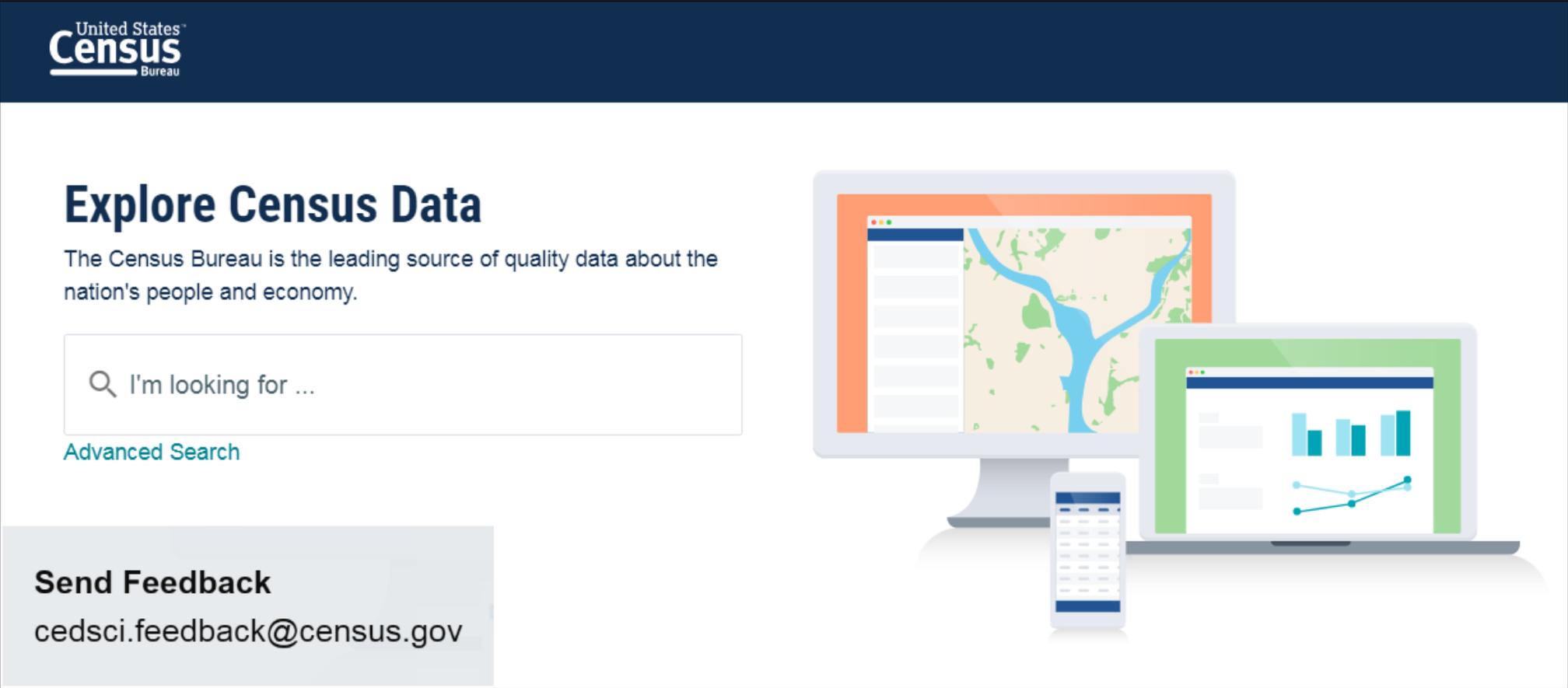
The American Community Survey TIGER/Line Shapefiles w/ Selected Demographic Data



The American Community Survey Application Programming Interface (API)



census.gov/developers



The screenshot shows the top of the United States Census Bureau website. At the top left is the logo: "United States Census Bureau". Below it is the heading "Explore Census Data" in a large, bold, dark blue font. Underneath the heading is a paragraph: "The Census Bureau is the leading source of quality data about the nation's people and economy." Below this is a search bar with a magnifying glass icon and the placeholder text "I'm looking for ...". Under the search bar is a link for "Advanced Search" in blue text. At the bottom left of the screenshot is a grey button that says "Send Feedback" in bold, with the email address "cedsci.feedback@census.gov" below it. To the right of the text is an illustration of a desktop monitor, a laptop, and a smartphone. The monitor shows a map of a river system, the laptop shows a bar chart and a line graph, and the smartphone shows a list of data.

census.gov/data/academy/webinars/2019/transition-data-census.html
data.census.gov/assets/faqs-release-notes.pdf

The American Community Survey

Data Product Type: Profiles

Description

- Offer a broad look at a community's social, economic, housing, and demographic characteristics
- Generally include many different variables
- Geography or population group is at the center

Types

- Data Profiles (DP)
- Comparison Profiles (CP)
- Selected Population Profiles (S0201)

census.gov/programs-surveys/acs/guidance/which-data-tool/table-ids-explained.html

The American Community Survey

Data Product Types: Tables

Description

- A precise or detailed view of a subject
- Subject matter is at the center of the table

Types

- Detailed Tables (B or C)
- Supplemental Table (K20)
- Subject Tables (S)
- Ranking Tables (R)
- Geographic Comparison Tables (GCT)

[census.gov/programs-surveys/acs/guidance/which-data-tool/table-ids-explained.html](https://www.census.gov/programs-surveys/acs/guidance/which-data-tool/table-ids-explained.html)

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Table/Profile Numbering

B06004APR

- B=Data Product Type (Base Table)
- 06=Subject (Place of Birth)
- 004=Sequential Number (2 or 3 digits)
- A=Race/Hispanic Origin (White Alone)
- PR=For Puerto Rico Geographies Only

[census.gov/programs-surveys/acs/guidance/which-data-tool/table-ids-explained.html](https://www.census.gov/programs-surveys/acs/guidance/which-data-tool/table-ids-explained.html)

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- American Community Survey (ACS) basics
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Finding Data Examples

- **Commuting times by place within a state**
- Income data for a congressional district
- Median housing value for all counties in California

The American Community Survey

Example 1: Finding Commuting Times by Place Within a State

The screenshot shows the QuickFacts interface for Denver, Colorado, United States. The search bar contains "Denver city, Colorado; United States". The "SELECT A FACT" dropdown is set to "Mean travel time to work (minutes), workers age 16 years+, 2013-2017". The table shows a value of 25.3 for Denver and 26.4 for the United States.

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United States Census Bureau

TOPICS: Population, Economy | GEOGRAPHY: Maps, Products | LIBRARY: Infographics, Publications | DATA: Tools, Developers | SURVEYS/PROGRAMS: Respond, Survey Data | NEWSROOM: News, Blogs | ABOUT US: Our Research

Search

QuickFacts

Denver city, Colorado; United States

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.

Enter state, county, city, town, or zip code | -- SELECT A FACT --

CLEAR | TABLE | MAP | CHART | DASHBOARD | MORE

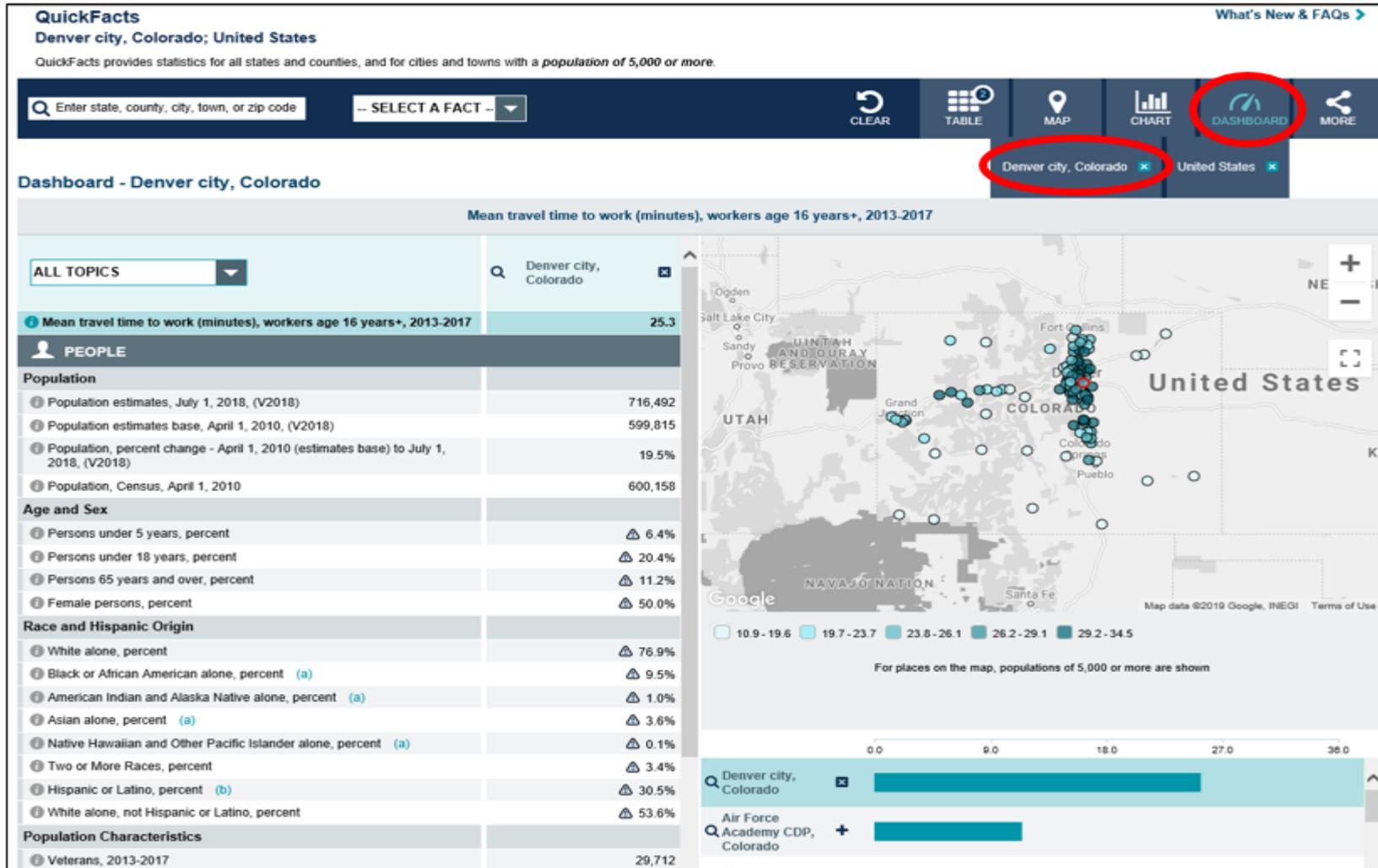
Table

ALL TOPICS	Denver city, Colorado	United States
Mean travel time to work (minutes), workers age 16 years+, 2013-2017	25.3	26.4
PEOPLE		
Population		

census.gov/quickfacts

The American Community Survey

Example 1: Finding Commuting Times by Place Within a State



The American Community Survey

Example 2: Finding Income Data for a Congressional District

115th Congress

My Congressional District

1 Georgia

2 Congressional District 4

People Workers Housing Socio-Economic Education Business

Congressional District 4, Georgia

Source: 2017 American Community Survey 1-Year Estimates

Sex and Age	Estimate
Total population	765,854
Male	359,766
Female	406,088
Under 5 years	51,573
5 to 9 years	53,204
10 to 14 years	56,095
15 to 19 years	53,401
20 to 24 years	48,740
25 to 34 years	103,914
35 to 44 years	106,510
45 to 54 years	104,896
55 to 59 years	53,856
60 to 64 years	45,740
65 to 74 years	56,820
75 to 84 years	22,554

Need help finding your Congressional District?
Enter ZIP code
Window opens in new tab.

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Display ACS Margin of Error

census.gov/mycd

The American Community Survey

Example 2: Finding Income Data for a Congressional District

115th Congress
My Congressional District

1 Georgia
2 Congressional District 4

People Workers Housing Socio-Economic Education Business

Congressional District 4, Georgia
Source: 2017 American Community Survey 1-Year Estimates

Income and Benefits (In 2017 inflation-adjusted dollars)	Estimate
Total households	262,056
Less than \$10,000	14,026
\$10,000 to \$14,999	9,208
\$15,000 to \$24,999	24,490
\$25,000 to \$34,999	26,938
\$35,000 to \$49,999	36,904
\$50,000 to \$74,999	52,905
\$75,000 to \$99,999	38,141
\$100,000 to \$149,999	37,115
\$150,000 to \$199,999	11,962
\$200,000 or more	10,367
Median household income (dollars)	\$57,349
Mean household income (dollars)	\$73,219

Health Insurance Coverage Estimate

Display ACS Margin of Error

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The American Community Survey

Example 3: Median Housing Value for All Counties in California

United States Census Bureau

Search

// Search / Advanced Search

Advanced Search

Narrow search with filters

FIND A FILTER

e.g. 336111 - Automobile Manufacturing

BROWSE FILTERS

- Topics
- Geography
- Years
- Surveys
- Codes

TOPICS

- Business and Economy
- Education
- Employment
- Families and Living Arrangements
- Government
- Health
- Housing**
- Income and Poverty
- Populations and People
- Race and Ethnicity

HOUSING

- Housing
- Absorption Rate
- Financial Characteristics**
- Health and Safety Characteristics
- Homeownership Rate
- Housing Units
- New and Existing Units
- Occupancy Characteristics
- Owner/Renter (Householder) Characteristics
- Physical Characteristics
- Vacancy

FINANCIAL CHARACTERISTICS

- Financial Characteristics
- Delinquent Payments, Foreclosures, and Evictions
- Government Subsidies and Tax Credit
- Home Improvement and Repairs
- Housing Value and Purchase Price
- Insurance, Utilities, and Other Fees
- Mortgage Costs
- Real Estate Taxes
- Rental Property Ownership
- Renter Costs

Selected Filters: Housing Value and Purchase Price

CLEAR FILTERS SEARCH

- Visit data.census.gov, and click on “Advanced Search” under the search bar
- Under “Browse Filters,” click on “Topics”
- Click on “Housing” → “Financial Characteristics” → “Housing Value and Purchase Price”

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Example 3: Median Housing Value for All Counties in California

The screenshot shows the 'Advanced Search' interface on the U.S. Census Bureau website. The search criteria are 'Housing Value and Purchase Price' and 'All counties in California'. The 'GEOGRAPHY' filter is selected, and 'County' is chosen. Under 'COUNTY', 'California' is selected. Under 'CALIFORNIA', 'All counties in California' is selected. The 'SEARCH' button is highlighted with a red circle, and a red arrow points to the 'All counties in California' filter.

- Next, click on “Geography” under “Browse Filters”
- Click on “County” → “California” → “All counties in California”
- Click “Search” button

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Example 3: Median Housing Value for All Counties in California

The screenshot shows the U.S. Census Bureau website interface. At the top, there is a search bar and navigation tabs for ALL, TABLES, MAPS, and PAGES. Below the navigation, it indicates 'About 37,037 results | Filter'. The main content area is titled 'Tables' and lists two table entries. The first entry is 'FINANCIAL CHARACTERISTICS FOR HOUSING UNITS WITH A MORTGAGE' (Table: S2506) for Alameda County, California. This table shows the median value (dollars) for Alameda County as 781,000 with a margin of error of +/-11,652. The second entry is 'FINANCIAL CHARACTERISTICS FOR HOUSING UNITS WITHOUT A MORTGAGE' (Table: S2507) for Butte County, California, showing a median value of 268,900 with a margin of error of +/-14,193. A third entry, 'VALUE' (Table: B25075) for Contra Costa County, California, shows a median value of 642,300. At the bottom right of the page, a button labeled 'VIEW ALL TABLES (34)' is circled in red.

	Alameda County, California		Butte County, California		Contra Costa County, California
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate
Median value (dollars)	781,000	+/-11,652	268,900	+/-14,193	642,300

- Click “View All Tables” button

The American Community Survey

Example 3: Median Housing Value for All Counties in California

The screenshot shows the American Community Survey data table for Median Value (Dollars) in California counties. The table is titled "MEDIAN VALUE (DOLLARS)" and is part of the "Product: 2017: ACS 1-Year Estimates Detailed Tables" dataset. The data source is "Owner-occupied housing units". The table is organized by county: Alameda County, California; Butte County, California; and Contra Costa County, California. The table includes columns for "Estimate" and "Margin of Error" for each county. The "CUSTOMIZE TABLE" button is circled in red.

	Alameda County, California		Butte County, California		Contra Costa County, California	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Median value (dollars)	781,000	+/-11,652	268,900	+/-14,193	642,300	+/-10,632

- Select “Median Value (Dollars)” from left side
- From this page, you can customize the table
- Click on “Customize Table” to change the geography, year, or dataset, show and hide margins of error, transpose the table, download the table, and view more information about the data

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The American Community Survey

Main Page

The screenshot shows the top navigation bar of the ACS website with the United States Census Bureau logo and a search bar. Below the navigation bar are links for BROWSE BY TOPIC, EXPLORE DATA, LIBRARY, SURVEYS/ PROGRAMS, INFORMATION FOR..., FIND A CODE, and ABOUT US. The breadcrumb trail reads: // Census.gov / Our Surveys & Programs / American Community Survey (ACS). The main heading is "American Community Survey (ACS)". On the left is a vertical menu with links: About the Survey, Respond to the Survey, News & Updates, Data, Guidance for Data Users, Geography & ACS, Technical Documentation, Methodology, Library, Operations and Administration, and Contact Us. Below the menu is a "Respond to the ACS Learn how" button with an icon of three people. The main content area features a paragraph: "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 population and housing information about our nation." To the right of this text is a video player showing a classroom scene with the title "American Community...". Below the paragraph are three columns, each with an image and a question: 1. A hand holding a tablet with the ACS website on it, with the question "How do I respond to the ACS?"; 2. The American flag, with the question "Why do you ask each question?"; 3. A map of the United States, with the question "Where can I get ACS data?". Below these columns is a "Data" section with a "2017 Data Release" sub-section and a link to learn more about 2017 ACS data releases.

The American Community Survey

Why We Ask

American Community Survey (ACS)

About the Survey

Respond to the Survey

News & Updates

Data

Guidance for Data Users

Geography & ACS

Technical Documentation

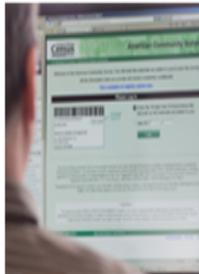
Methodology

Library

Operations and Administration

Contact Us

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 population and housing information about our nation.



How do I respond to the ACS?



Why do you ask each question?



Where can I get ACS data?

American Community Survey

[← Back to Topics Page](#)

Why We Ask Questions About...

Commuting / Journey to Work

We ask questions about where people work, how they get there, when they leave home, and how long it takes, to create statistics about commuting, or a person's journey to work.

Commuting patterns and characteristics are crucial to planning for improvements to road and highway infrastructure, developing transportation plans and services, and understanding where people are traveling in the course of a normal day.



Your privacy concerns

"I Don't Want Everyone to Know What Time I Leave"

We use your confidential survey answers to create statistics like those in the results below and in the full tables that contain all the data—no one is able to figure out your survey answers from the statistics we produce. The Census Bureau is legally bound to strict confidentiality requirements. Individual records are not shared with anyone, including federal agencies and law enforcement entities. By law, the Census Bureau cannot share respondents' answers with anyone—not the IRS, not the FBI, not the CIA, and not with any other government agency.

Questions as they appear on the form

We ask five questions about a person's journey to work to create a profile of a community's commuting patterns.

[View Questions](#)

The American Community Survey Data Tables and Tools

The screenshot shows the 'American Community Survey Data Tables & Tools' page on the U.S. Census Bureau website. The page features a dark blue header with navigation links for TOPICS, GEOGRAPHY, LIBRARY, DATA, SURVEYS/PROGRAMS, NEWSROOM, and ABOUT US. A search bar is located in the top right corner. The main content area is divided into several sections:

- Left Sidebar:** A vertical menu with links to 'Data Tables & Tools', 'Data Profiles', 'Narrative Profiles', 'Subject Tables', 'Ranking Tables', 'Supplemental Tables', 'American FactFinder', 'More ACS Tools & Apps', 'Data via FTP', 'Summary File Data', 'PUMS Data', 'Variance Replicate Tables', 'Race/Ethnicity & American Indian & Alaska Native Data', 'Custom Tables', 'Guidance for Data Users', 'Geography & the ACS', 'Technical Documentation', and 'Methodology'.
- Main Content:**
 - Data Tables & Tools:** A section with a sub-header 'Data Profiles Selector' and a paragraph explaining that Data Profiles consist of four tables (Social, Economic, Housing, Demographic) and provide a broad statistical view of a particular geography. It mentions the 'Data Profiles geography selector' and 'American FactFinder'.
 - Narrative Profiles:** A section stating that Narrative Profiles are found on the American Community Survey website and contain much of the same information as Data Profiles, but in a text-based report with colorful graphs and charts.
 - Subject Tables:** A section for users interested in a particular topic, offering a listing of ACS Subject Tables with numbers and percentages, and a link to search/filter the listing.
 - Supplemental Tables:** A section for users looking for statistics about people and households in mid-sized populations, offering simplified tables for geographies with populations of 20,000 to 64,999.
- Right Column:**
 - Share Your ACS Data Story!**: A link to share data.
 - Data by Topic:** A section with a 'People' sub-header and a list of topics: Age and Sex / Aging, Ancestry, Disability, Commuting to Work, Education, Employment, Family/Relationships, Health Insurance, Income and Earnings, Language, Migration / Mobility, Place of Birth, Poverty, Race and Ethnicity, and Veterans. A 'Housing' sub-header is also present with links to Financial Characteristics and Physical Characteristics.

The American Community Survey

Comparison Guidance

United States
Census
Bureau

Search

BROWSE BY TOPIC EXPLORE DATA LIBRARY SURVEYS/ PROGRAMS INFORMATION FOR... FIND A CODE ABOUT US

// Census.gov > Our Surveys & Programs > American Community Survey (ACS) > Guidance for Data Users > Comparing ACS Data

American Community Survey (ACS)

2017
2016
2015
2014
2013
2012
2011
2010
2009
2008
2007
2006

Back to Guidance for Data Users

Respond to the ACS
Learn how

Comparing ACS Data

The strength of the American Community Survey (ACS) is in estimating characteristic distributions. If you are looking for population totals, we recommend the 2010 Census or Population Estimates Program.

It is also important to keep in mind that **all ACS data are estimates**. We collect data from a sample of the population in the United States and Puerto Rico rather than from the whole population. To help you interpret the reliability of the estimates, the Census Bureau publishes a margin of error (MOE) for every ACS estimate.

Can I compare ACS estimates?

Yes	Compare non-overlapping datasets (example: compare 2005-2009 ACS 5-year estimates to 2010-2014 ACS 5-year estimates).
No	Do not compare overlapping datasets (example: do not compare 2005-2009 ACS 5-year estimates to 2006-2010 ACS 5-year estimates).

Because ACS variables change over time, some areas and subjects must be **compared with caution**, or **not compared at all**. Use the years in the **left navigation** to get yearly guidance on specific topics/subjects.

Related Information

[Share Your ACS Data Story](#)

[Contact Us](#)

You May Be Interested In

RELATED TOPICS
[Contact Us](#)

AROUND THE BUREAU
[Email Updates](#)

MOST POPULAR
[Share Your ACS Data Story](#)

census.gov/programs-surveys/acs/guidance/comparing-acs-data.html

The American Community Survey

Comparison Guidance

Do	Do Not
Use ACS for population characteristics (i.e., percents, means, medians, rates)	Use ACS for population totals (instead use decennial census or the Population Estimates Program)
Compare non-overlapping datasets (i.e., 2008-2012 to 2013-2017)	Compare overlapping datasets (i.e., 2012-2016 to 2013-2017)
Compare similar period lengths (i.e., 1-year to 1-year)	Compare estimates from different period lengths (i.e., 1-year to 5-year)
Conduct statistical testing when making comparisons between estimates	Look at estimates alone to decide if they are higher or lower than one another

The American Community Survey

What is the Margin of Error (MOE)?

Definition: An MOE is a measure of the possible variation of the estimate around the population value

- At a given confidence level, the estimate and actual population value will differ by no more than the MOE
- 90% confidence level is the Census standard and ACS MOEs are provided in the same unit as the estimate

Example: How many males under age 5 live in WY?

Lower bound = $19,174 - 346 = 18,828$

Upper bound = $19,174 + 346 = 19,520$

We are 90% confident the true number of males under age 5 in Wyoming falls **between 18,828 and 19,520**

	Wyoming	
	Estimate	Margin of Error
∨ Total:	583,200	*****
∨ Male:	298,301	+/-673
Under 5 years	19,174	+/-346
5 to 9 years	20,796	+/-771
10 to 14 years	20,227	+/-740
15 to 17 years	11,677	+/-367
18 and 19 years	7,605	+/-364

The American Community Survey

What is Statistical Testing?

- **Definition:** A test to determine if a difference is unlikely to occur by chance
- To be “statistically different”, there must be statistical evidence that there is a difference between two estimates
- Testing should be conducted for all comparisons

The American Community Survey Statistical Testing Tool

Algebraically, the significance test can be expressed as follows:

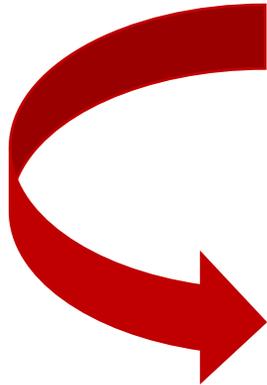
$$\text{If } \left| \frac{\hat{X}_1 - \hat{X}_2}{\sqrt{SE_1^2 + SE_2^2}} \right| > Z_{CL}, \text{ then the difference}$$

between estimates \hat{X}_1 and \hat{X}_2 is statistically significant at the specified confidence level, CL

where \hat{X}_i is estimate i ($i=1,2$)

SE_i is the SE for the estimate i ($i=1,2$)

Z_{CL} is the critical value for the desired confidence level (=1.645 for 90 percent, 1.960 for 95 percent, 2.576 for 99 percent).



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

American Community Survey (ACS)

Subjects Included in the Survey



Statistical Testing Tool

Which Data Table or Tool Should I Use?



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.

When to Use 1-year, 3-year, or 5-year Estimates

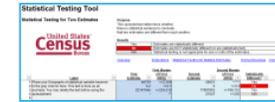


Handbooks

Comparing ACS Data

Statistical Testing Tool

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]

Training Presentations

[Back to Guidance for Data Users](#)



Respond to the ACS
[Learn how](#)

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, without additional editing by the data user
- Uses the Census Bureau’s standard 90% confidence level, but can also process statistical testing at 95% or 99% confidence levels
- May be used to conduct statistical testing for other Census Bureau surveys

Related Information

[Share Your ACS Data Story](#)

[Contact Us](#)

You May Be Interested In

RELATED TOPICS

[Contact Us](#)

AROUND THE BUREAU

[Email Updates](#)

MOST POPULAR

[Share Your ACS Data Story](#)

The American Community Survey Technical Documentation Page

The screenshot shows the top navigation bar of the U.S. Census Bureau website. The header includes the 'United States Census Bureau' logo and a search bar. Below the header is a horizontal menu with links: 'BROWSE BY TOPIC', 'EXPLORE DATA', 'LIBRARY', 'SURVEYS/ PROGRAMS', 'INFORMATION FOR...', 'FIND A CODE', and 'ABOUT US'. The main content area has a breadcrumb trail: '// Census.gov > Our Surveys & Programs > American Community Survey (ACS) > Technical Documentation'. The title 'American Community Survey (ACS)' is prominently displayed. On the left, a vertical list of links includes 'Code Lists, Definitions, and Accuracy', 'User Notes', 'Errata Notes', 'Data Suppression', 'Table & Geography Changes', 'Table Shells', 'Summary File Documentation', 'PUMS Documentation', 'Variance Replicate Tables Documentation', and 'Race/Ethnicity and American Indian & Alaska Native Documentation'. The main content area features a Facebook icon, the title 'Technical Documentation', and a paragraph: 'The American Community Survey provides various documentation to assist users with our data releases. Click on the links below to learn more about these resources.' Below this are three sections: 'Code Lists, Definitions, and Accuracy' (with a brief description), 'User Notes' (with a brief description), and 'Errata Notes' (with a brief description). On the right side, there are three sections: 'Related Information' with links to 'American Community Survey Data', 'Share Your ACS Data Story', and 'Contact Us'; 'You May Be Interested In' with a 'RELATED TOPICS' section containing 'Contact Us', 'AROUND THE BUREAU' with 'Email Updates', and 'MOST POPULAR' with 'Share Your ACS Data Story'.

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

The American Community Survey Glossary

U.S. Department of Commerce | Blogs | Index A-Z | Glossary | FAQs

United States
Census
Bureau

TOPICS
Population, Economy

GEOGRAPHY
Maps, Products

LIBRARY
Infographics, Publications

DATA
Tools, Developers

SURVEYS/PROGRAMS
Respond, Survey Data

NEWSROOM
News, Blogs

ABOUT US
Our Research

How do you like our Glossary? [Send Feedback](#)

Census.gov > Glossary

Glossary

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

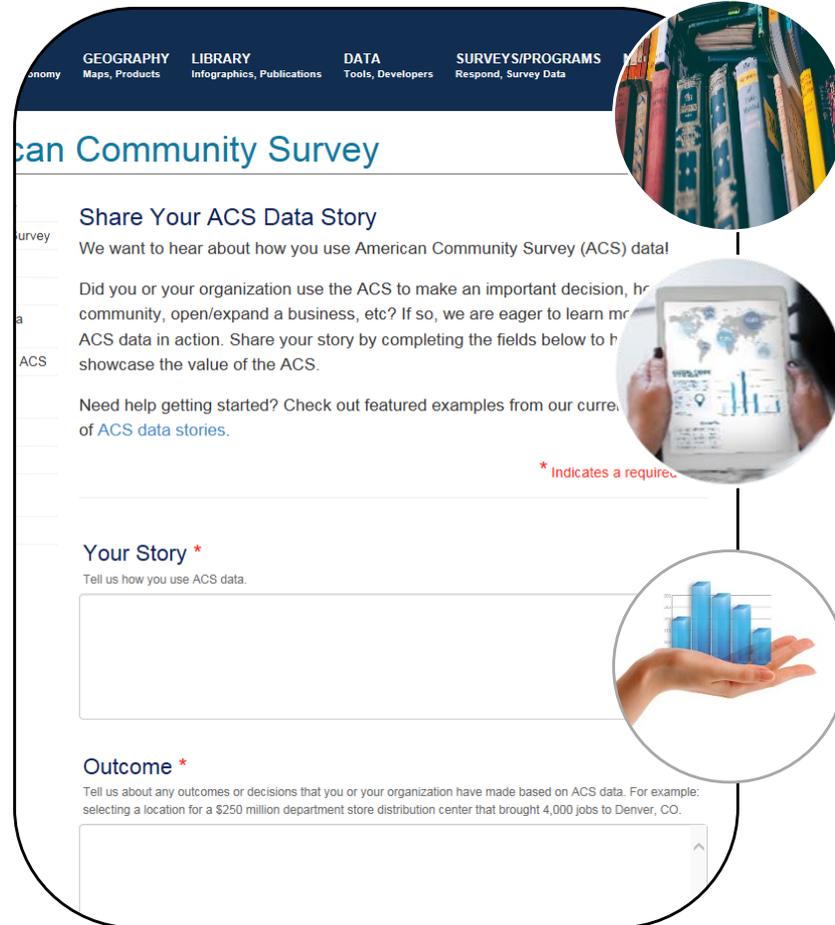
Select All 111 Terms Returned

- Ability to speak English [View](#)
- Accessibility [View](#)
- Accommodation and Food Services [View](#)
- Accounts Receivable [View](#)
- Accuracy [View](#)
- Accuracy and Coverage Evaluation (A.C.E.) [View](#)
- Acquisition [View](#)
- Acreage [View](#)
- Active members (of retirement systems) [View](#)
- Actual Production [View](#)
- Adjustments [View](#)
- Administrative and Support and Waste Management and Remediation Services [View](#)
- Administrative costs (of retirement systems) [View](#)
- Administrative data [View](#)
- Administrative Entities [View](#)

Selected Terms

The American Community Survey

Data Tell Stories. Tell us Yours!



The screenshot shows the 'Share Your ACS Data Story' form on the American Community Survey website. The form is titled 'Share Your ACS Data Story' and includes the following text: 'We want to hear about how you use American Community Survey (ACS) data to make an important decision, hire new employees, open/expand a business, etc? If so, we are eager to learn more about how you use ACS data in action. Share your story by completing the fields below to help us showcase the value of the ACS.' Below this is a link to 'Need help getting started? Check out featured examples from our current collection of ACS data stories.' A red asterisk indicates a required field. The form has three main sections: 'Your Story *' with the instruction 'Tell us how you use ACS data.' and a text input field; 'Outcome *' with the instruction 'Tell us about any outcomes or decisions that you or your organization have made based on ACS data. For example: selecting a location for a \$250 million department store distribution center that brought 4,000 jobs to Denver, CO.' and a text input field. The website navigation bar at the top includes 'GEOGRAPHY Maps, Products', 'LIBRARY Infographics, Publications', 'DATA Tools, Developers', and 'SURVEYS/PROGRAMS Respond, Survey Data'.



Your story



Your data details



Your outcome



AMERICAN COMMUNITY SURVEY DATA USERS GROUP

- Purpose:
 - Improve understanding of the value and utility of ACS data.
 - Promote information sharing among data users about key ACS data issues and applications.
- Includes users group website and online community
- ACS Data Users Conference
- Membership is free and open to all interested ACS data users

The American Community Survey

Need Local Stats?

- **FREE Assistance Near You!**
Our regional data staff can help you access local statistics from the ACS or offer training to help build your skills.
- **Contact us at:**
1-844-ASK-DATA
(1-844-275-2382)
census.askdata@census.gov



The American Community Survey

Continue the Conversation



Sign up for and manage alerts at
<https://public.govdelivery.com/accounts/USCENSUS/subscriber/new>



Social media: @uscensusbureau
#ACSdata



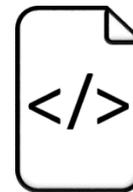
More information online:
census.gov/acs



acso.users.support@census.gov



Census Customer Service Center
800-923-8282



Source Us:
*U.S. Census Bureau's [YYYY – YYYY] American
Community Survey
[1/3/5]-year [estimates/statistics/data release]*

The American Community Survey Questions?