

Comparing the American Community Survey (ACS) and Population Estimates Program (PEP)

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Slides available at:

census.gov/programs-surveys/acs/news/events/ACS-PEP-webinar.html

About the U.S. Census Bureau

- The U.S. Census Bureau is the federal government's largest statistical agency.
- We are home to more than 100 censuses, surveys, and programs, 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 Population Estimates Program** – area that produces the annual estimates of the population and housing units for the United States, states, counties, cities and towns, the Commonwealth of Puerto Rico and its municipios, and metropolitan/micropolitan statistical areas
- Our mission is to serve as the nation's leading provider of quality data about its people and economy.



Outline

- **American Community Survey (ACS) basics**
- Population Estimates Program (PEP) basics
- Similarities and differences
- When to use what?
- Resources for learning more
- Questions

The Foundation of the American Community Survey

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
- Along with other Census programs (including PEP), helps inform 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)

13191010

The American Community Survey

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

Start Here

You have two ways to respond:

Respond online today at: <https://respond.census.gov/acs>

OR

Complete this form and mail it back as soon as possible.

Your response is required by law.

The American Community Survey is conducted by the U.S. Census Bureau. This survey is one of only a few surveys for which all occupants are required by law to respond. The U.S. Census Bureau is required by law to protect your information.

If you need help or have questions about completing this form, please call 1-800-354-7271.

Text Telephone (TTY): Call 1-800-532-8330.

¿NECESITA AYUDA? Llame sin cargo al 1-877-532-8629.

For more information about the American Community Survey, visit our website at: <https://www.census.gov/acs>

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:

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 at school or in the Armed Forces on deployment.

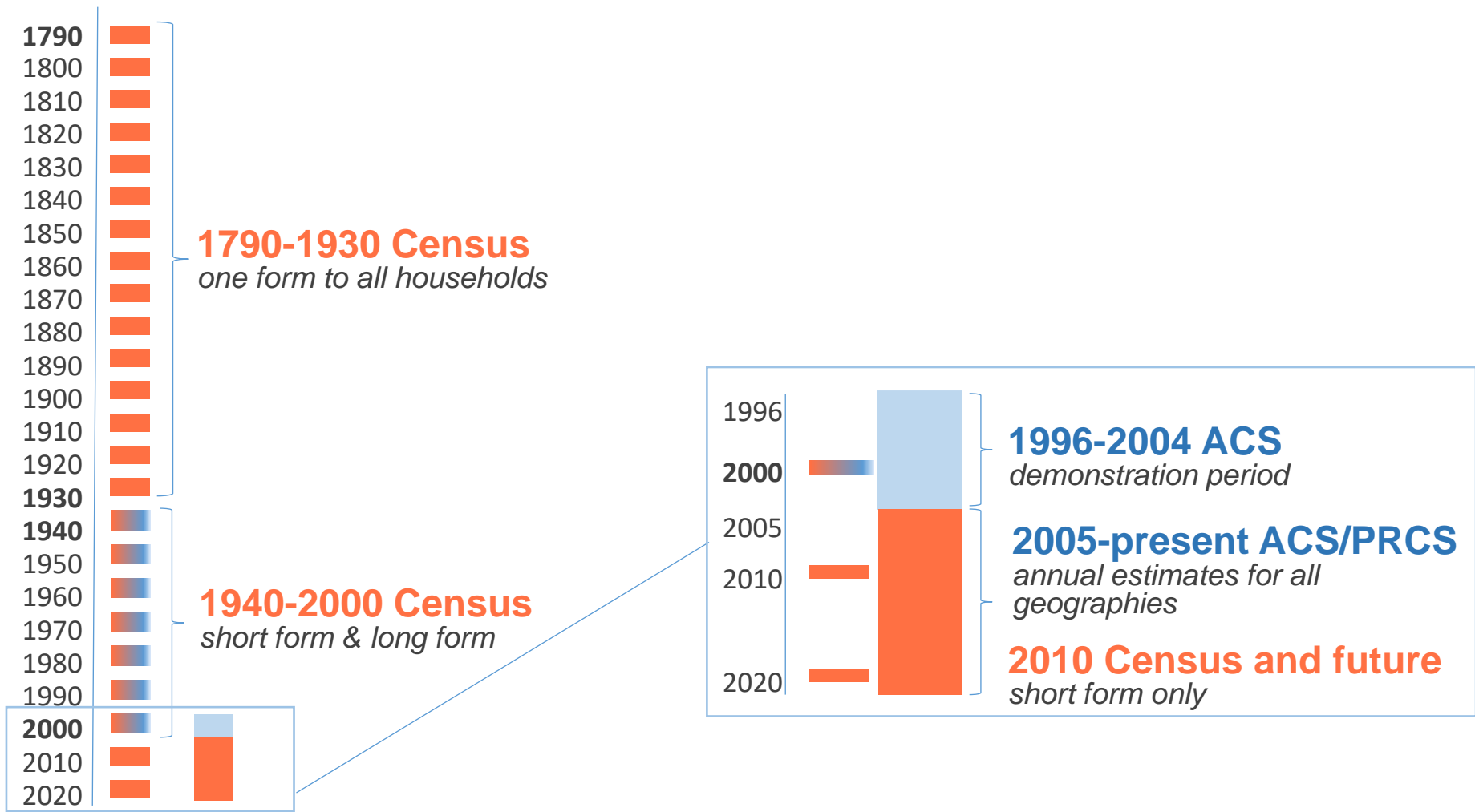
Number of people:

Fill out pages 2 - 7 for everyone, including yourself, who is living or staying at this address for more than 2 months. Then complete the rest of the form.

ACS-10INFO(2021)
05-19-2020

OMB No. 0607-0139
OMB No. 0607-0139

Census & ACS



ACS Data Collection Process

SELF-RESPONSE



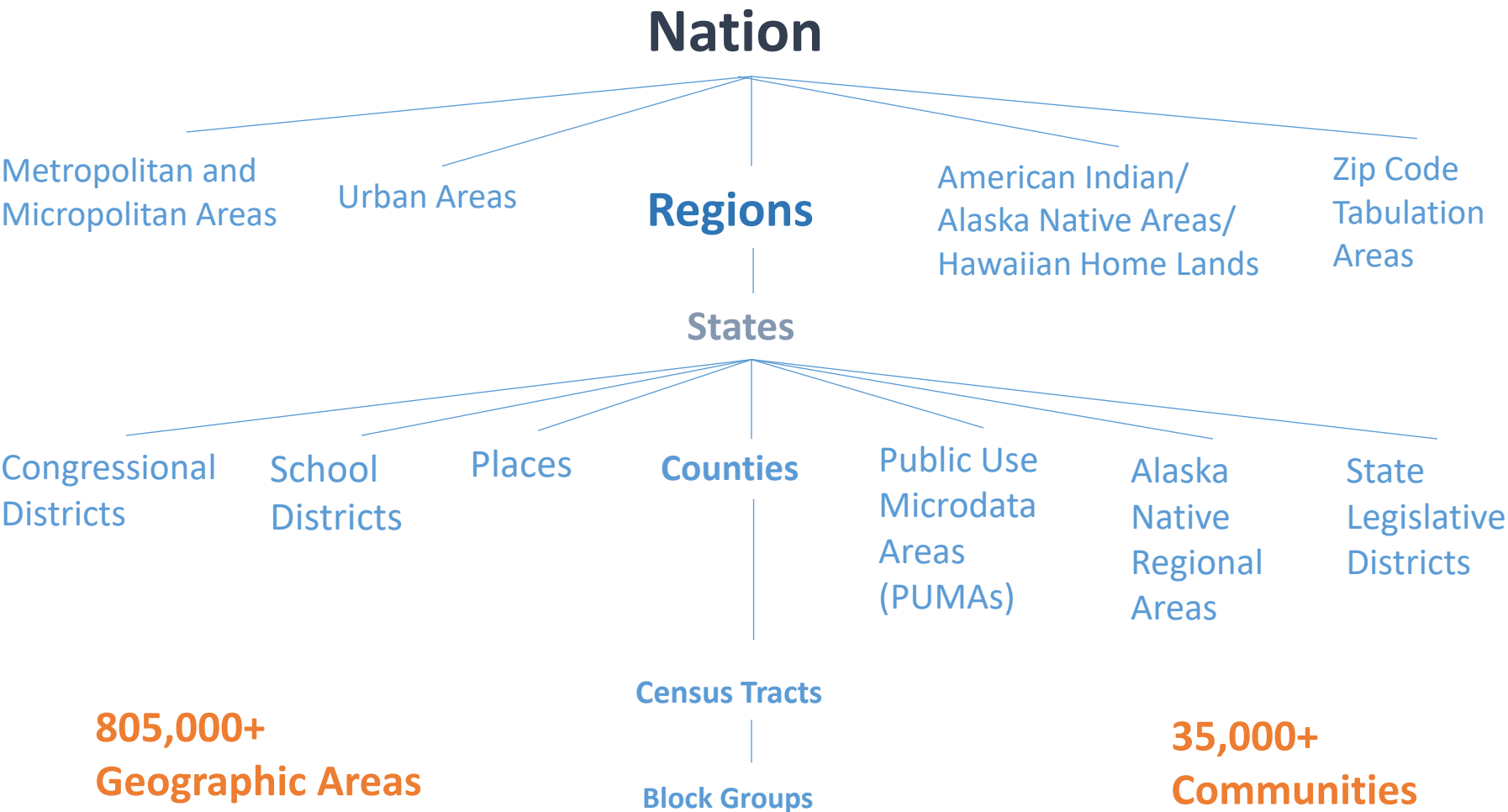
NONRESPONSE FOLLOWUP



ACS Content Overview

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

Selected Census Geographic Concepts



Availability of 2020 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 2021	October 2021	December 2021

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

- **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**
- Census COVID-19 Data Hub

United States[®]
Census
Bureau

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*.

What's New & FAQs

Enter state, county, city, town, or zip code

Select a fact

CLEAR

TABLE

MAP

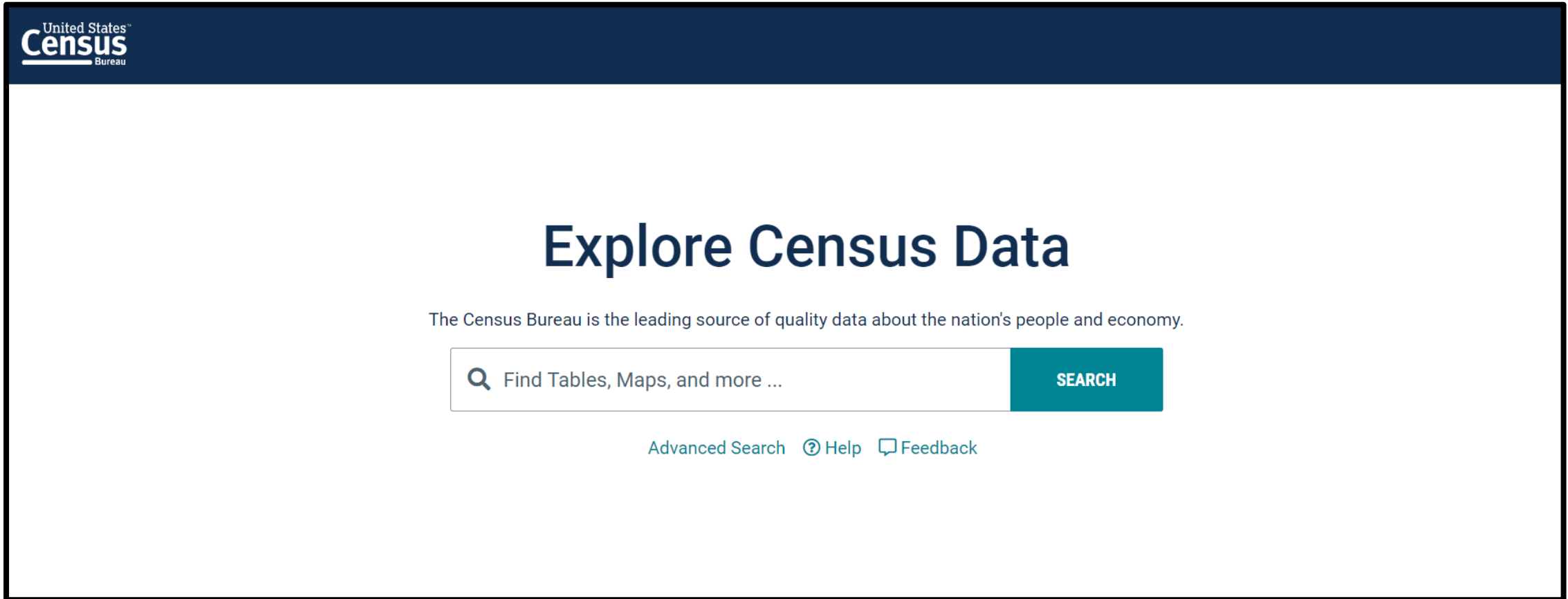
CHART

DASHBOARD

MORE

Table

All Topics	United States
Population estimates, July 1, 2019, (V2019)	328,239,523
PEOPLE	
Population	
Population estimates, July 1, 2019, (V2019)	328,239,523
Population estimates base, April 1, 2010, (V2019)	308,758,105
Population, percent change - April 1, 2010 (estimates base) to July 1, 2019, (V2019)	6.3%
Population, Census, April 1, 2010	308,745,538
Age and Sex	
Persons under 5 years, percent	6.0%
Persons under 18 years, percent	22.3%
Persons 65 years and over, percent	16.5%
Female persons, percent	50.6%
Race and Hispanic Origin	
White alone, percent	76.3%
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	2.6%
Hispanic or Latino, percent (b)	18.5%
White alone, not Hispanic or Latino, percent	60.1%
Population Characteristics	
Veterans, 2014-2018	18,611,432
Foreign born persons, percent, 2014-2018	13.5%
Housing	
Housing units, July 1, 2019, (V2019)	139,684,244



data.census.gov

census.gov/data/what-is-data-census-gov.html

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

Data Product Type: 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)

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

Outline

- American Community Survey (ACS) basics
- **Population Estimates Program (PEP) basics**
- Similarities and differences
- When to use what?
- Resources for learning more
- Questions

The Population Estimates Program

The Population Estimates Program disseminates official measures of population and housing units between decennial censuses.

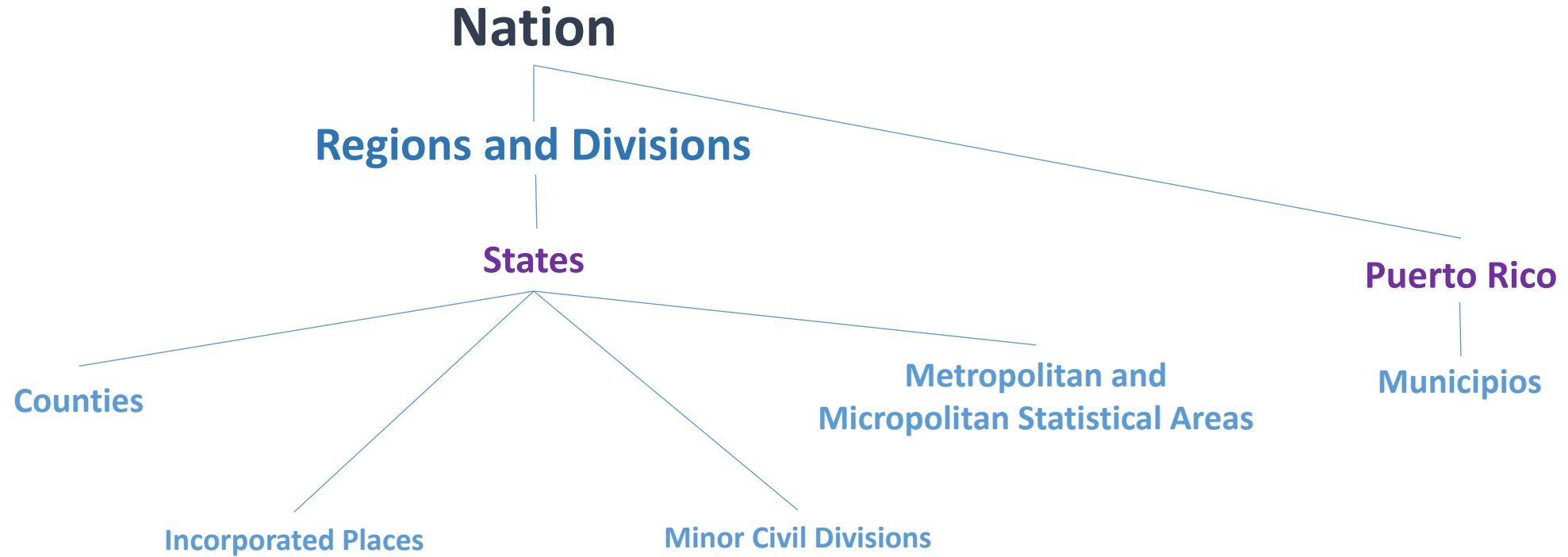
- Mandated by federal law, the estimates, along with other Census programs (such as the ACS), inform over **\$675 billion** of Federal government spending each year.
 - Recently, the estimates were used to distribute over \$100 billion to states and cities for the 2020 CARES Act.
- Cover **basic population and housing topics** supporting:
 - The ACS and other federal surveys (population controls and denominators)
 - Academic and business research
 - Program planning in the public and private sectors
- Current estimates for July 1, 2020
- Estimates extend back to 1900
- Released annually for over 80,000 areas in the United States and Puerto Rico

The screenshot shows the official website for the Population and Housing Unit Estimates. The header includes the United States Census Bureau logo and a search bar. Navigation tabs include BROWSE BY TOPIC, EXPLORE DATA, LIBRARY, SURVEYS/ PROGRAMS, INFORMATION FOR..., FIND A CODE, and ABOUT US. The main content area is titled "Population and Housing Unit Estimates" and features a map of the United States. Below the title, there is a description of the program and a "Read More" link. Three icons represent "Vintage 2019 Tables", "Demographic Analysis", and "Release Schedule". A "News" section on the left lists recent press releases, including "July 1, 2020 Estimates of Population and Housing Units" and "Oficina del Censo publica estimaciones del Análisis Demográfico 2020". On the right, a sidebar shows a "U.S. Population" infographic with a bar chart and a "COMPONENTS OF POPULATION CHANGE" section with three horizontal bar charts: "One birth every 9 seconds", "One death every 10 seconds", and "One international migrant (net) every 47 seconds".

PEP Content Overview

POPULATION		HOUSING
SOCIAL <ul style="list-style-type: none">• None	DEMOGRAPHIC <ul style="list-style-type: none">• Total Population• Age• Hispanic Origin• Race• Sex• Components (Births, Deaths, Net Migration)• Group Quarters• Population Universes (U.S. only: Resident, Resident plus Armed Forces Overseas, Civilian, Civilian Noninstitutionalized, Household)	<ul style="list-style-type: none">• Total Housing Units
	ECONOMIC <ul style="list-style-type: none">• None	

PEP Estimate Geographies

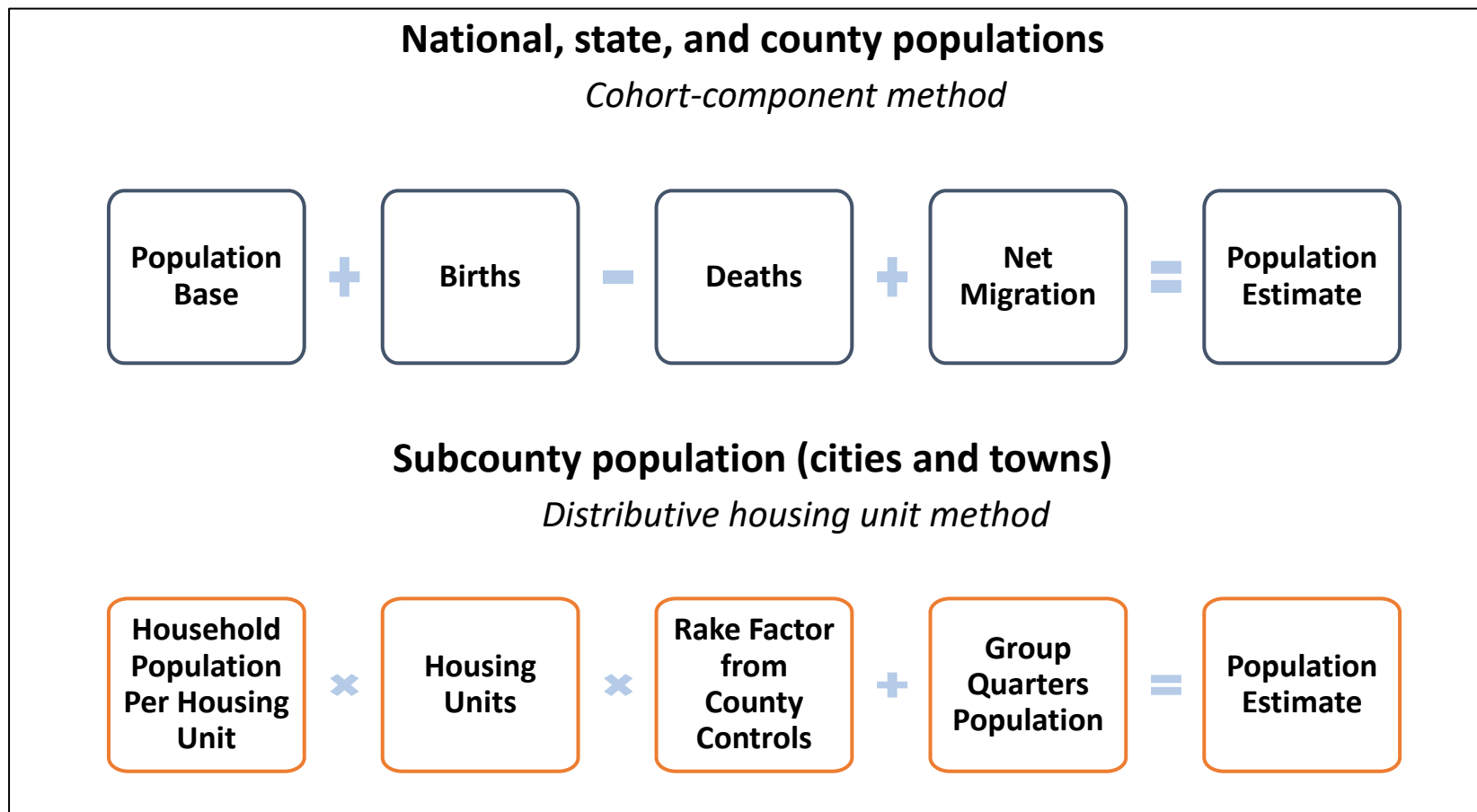


80,000+ Geographic Areas / 40,000+ Communities

Population and Housing Unit Estimates by Type and Geography

Estimate Type	U.S.	States	Metro/ Micro Statistical Areas	Counties	Places	Puerto Rico	Puerto Rico Municipios
Total Resident Population	X	X	X	X	X	X	X
Components of Change (Births, Deaths, Net Migration)	X	X	X	X		X	
Population Characteristics (Age, Sex, Race, Hispanic Origin)*	X	X		X		X	X
Monthly Population (Five Universes**)	X						
Housing Units	X	X		X			
<p>* Includes state civilian population by age and sex</p> <p>** Resident, resident plus Armed Forces overseas, civilian, civilian noninstitutionalized, household</p>							

Population and Housing Unit Estimates Methodology



Availability of Vintage 2020 Population and Housing Unit Data Products

Date of Release	Vintage 2020 Population and Housing Unit Estimates Data Products
December 22, 2020	<ul style="list-style-type: none">• Total population and Voting-age population—Nation and states
Early May 2021	<ul style="list-style-type: none">• Total population and components of change—Nation, states, counties, Puerto Rico Commonwealth and municipios, and metropolitan/micropolitan areas• Population by age and sex—Nation
Late May 2021	<ul style="list-style-type: none">• Total population—Cities and towns (incorporated places, minor civil divisions)• Total housing units—Nation, states, counties
June 2021	<ul style="list-style-type: none">• Population by age, sex, race, and Hispanic origin—Nation, states, counties• Population by age and sex—Puerto Rico Commonwealth and municipios

census.gov/programs-surveys/popest/about/schedule.html

Availability of Vintage 2020 Population and Housing Unit Data Products

The screenshot shows the United States Census Bureau website. The top navigation bar includes the Census Bureau logo, a search bar, and links for BROWSE BY TOPIC, EXPLORE DATA, LIBRARY, SURVEYS/ PROGRAMS, INFORMATION FOR..., FIND A CODE, and ABOUT US. The breadcrumb trail indicates the path: // Census.gov > Population and Housing Unit Estimates > Technical Documentation > Research > Evaluation Estimates.

POPULATION AND HOUSING UNIT ESTIMATES

- About this Section
- Data
- Geographies
- Guidance for Data Users
- Guidance for Geographies Users
- Library
- News
- File Layouts
- Methodology
- Technical Documentation
- < Back to Research

Evaluation Estimates

Each decade, the Population Estimates Program has the opportunity to make comparisons between the final series of estimates for the decade and the latest decennial census to assess the accuracy of the estimates. Differences between the estimates and Census counts are typically interpreted as error in the estimates and are used to inform research and methodological improvements over the decade.

2020 2010 2000

2020

Vintage 2020 Population Estimates for the United States and States

The release of Vintage 2020 estimates provides the opportunity to make comparisons with the 2020 Census to evaluate the accuracy of the estimates. The Vintage 2020 estimates are based on the 2010 Census and were created without incorporation or consideration of the 2020 Census results.

Nation, States, Counties, and Puerto Rico Population

- Methodology [<1.0 MB]
- Release Notes [<1.0 MB]

Tables

Annual Estimates of the Resident Population for the Nation and States

- Annual Estimates of the Resident Population for the United States, Regions, States, and the District of Columbia: April 1, 2010 to July 1, 2020 (NST-EST2020) [<1.0 MB]

census.gov/programs-surveys/popest/technical-documentation/research/evaluation-estimates.html

Selected Ways to Access PEP Data

- PEP Webpage:
census.gov/programs-surveys/popest.html
- data.census.gov
- QuickFacts
- Application Programming Interface (API)

The collage displays four different interfaces for accessing PEP data:

- Explore Census Data:** The main landing page for the Census Bureau's data exploration tools, featuring a search bar and navigation links.
- Population Estimates APIs:** A page detailing the APIs available for programmatic access to population estimates, including a 'Request a KEY' button.
- QuickFacts UNITED STATES:** A page providing a snapshot of key statistics for the United States, such as population, population change, and age and sex distribution.
- Population and Housing Unit Estimates:** A page offering detailed estimates for the United States, states, metropolitan areas, counties, cities, towns, and municipalities, including a map of the United States.

PEP Data on data.census.gov

// Search / Tables / PEPANNRES

ANNUAL ESTIMATES OF THE RESIDENT POPULATION: APRIL 1, 2010 TO JULY 1, 2019 -
Survey/Program: Population Estimates TableID: PEPANNRES Product: 2019: PEP Population Estimates

Notes

Selections

1 Geo

Years

Topics

Surveys

123 Codes

Hide

Filter

Transpose

Margin of Error

Restore

Geographic Area Name	Date Description	Population
Truth or Consequences city, New Mexico	4/1/2010 Census population	6,475
Truth or Consequences city, New Mexico	4/1/2010 population estimates base	6,471
Truth or Consequences city, New Mexico	7/1/2010 population estimate	6,491
Truth or Consequences city, New Mexico	7/1/2011 population estimate	6,468
Truth or Consequences city, New Mexico	7/1/2012 population estimate	6,368
Truth or Consequences city, New Mexico	7/1/2013 population estimate	6,185
Truth or Consequences city, New Mexico	7/1/2014 population estimate	6,040
Truth or Consequences city, New Mexico	7/1/2015 population estimate	6,018
Truth or Consequences city, New Mexico	7/1/2016 population estimate	5,948
Truth or Consequences city, New Mexico	7/1/2017 population estimate	5,912
Truth or Consequences city, New Mexico	7/1/2018 population estimate	5,846
Truth or Consequences city, New Mexico	7/1/2019 population estimate	5,753

Outline

- American Community Survey (ACS) basics
- Population Estimates Program (PEP) basics
- **Similarities and differences**
- When to use what?
- Resources for learning more
- Questions

How are the ACS and PEP different?

	ACS	PEP
<i>Purpose</i>	<ul style="list-style-type: none"> • Sample estimates 	<ul style="list-style-type: none"> • Provide annual estimates of the current population and total housing units by calculating change since the last census
<i>Collects</i>	<ul style="list-style-type: none"> • Detailed social, economic, housing, and demographic characteristics 	<ul style="list-style-type: none"> • Not a survey • Uses administrative records and other data sources to calculate annual change in population and housing
<i>Content</i>	<ul style="list-style-type: none"> • Population and housing characteristics 	<ul style="list-style-type: none"> • No social and economic detail • Population characteristics by age, Hispanic origin, race, and sex only • Housing unit totals only
<i>New Data Every</i>	<ul style="list-style-type: none"> • Year 	<ul style="list-style-type: none"> • Year
<i>Time Represented</i>	<ul style="list-style-type: none"> • 1-year estimates: January 1-December 31 of data collection year • 5-year estimates: January 1 lower limit year to December 31 of upper limit year 	<ul style="list-style-type: none"> • Estimate dates – First of selected months • Estimate intervals – Monthly, Annual, and Decade

How are the ACS and PEP different (continued)

	ACS	PEP
Geography	<ul style="list-style-type: none">• 1-year ACS estimates contain geographies with populations of 65,000 or more• 5-year ACS estimates can be found down to the block group level for select tables	<ul style="list-style-type: none">• Nation, states, counties, cities, and towns• Puerto Rico Commonwealth and its municipios• Metropolitan and micropolitan statistical areas
Statistics	<ul style="list-style-type: none">• Margins of error calculated at the 90% confidence level	<ul style="list-style-type: none">• Not a product of sampling, so statistical confidence intervals are not needed.• Entire time series back to last census updated annually, so averages for time periods are not used

How are the ACS and PEP similar?

- Both disseminate total population and housing unit estimates.
- Both disseminate population characteristics estimates by age, Hispanic origin, race, and sex.
- PEP estimates are used as controls for ACS population and housing unit data, so 1-year estimates for larger areas are consistent.

TOTAL POPULATION

Survey/Program: American Community Survey

TableID: B01003

Product: 2019: ACS 1-Year Estimates Detailed Tables

Universe: Total population

	United States		
Label	Estimate	Margin of Error	
Total	328,239,523	*****	

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- American Community Survey (ACS) basics
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- Similarities and differences
- **When to use what?**
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When to use what: ACS or PEP? (general)

Interest	Product
Population and housing unit totals and demographic characteristics (age, Hispanic origin, sex, race)	PEP
Social and economic characteristics	ACS
Estimate percents, means, medians, rates	ACS or PEP depending on the subject
Conducting statistical testing to compare	ACS
Mixture of population, housing, social or economic estimates	All ACS or all PEP (if only using population or housing)

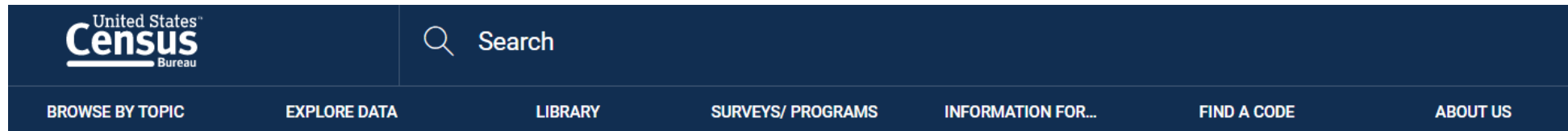
When to use what: ACS or PEP? (examples)

Example	Product
Population total	PEP
Population by age & sex (including percents) for a state at a point in time	PEP
Population by age & sex (including percents) by educational attainment for a state	ACS 1-year estimates (if being current is priority) ACS 5-year estimates (if precision is priority)
Mean household income for a small geography (population less than 65,000)	ACS 5-year estimates
Comparing mean household income for a small place to its county	ACS 5-year estimates
Comparing difference in married-couple families in the same county between two time periods	ACS (compare 1-year with 1-year or 5-year with 5-year)

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- American Community Survey (ACS) basics
- Population Estimates Program (PEP) basics
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- When to use what?
- **Resources for learning more**
- Questions

ACS Main Page



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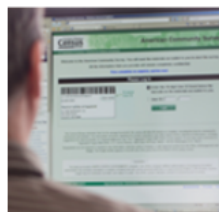
[Library](#)

[Operations and Administration](#)

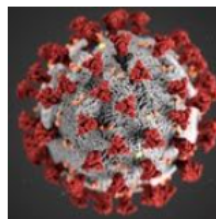
[Contact Us](#)

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 population and housing information about our nation.



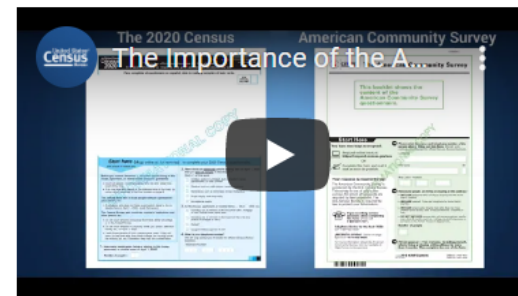
How do I respond to the ACS?




ACS data help with COVID-19 response efforts




Should I respond to both the ACS and 2020 Census?



PEP Main Page





Search

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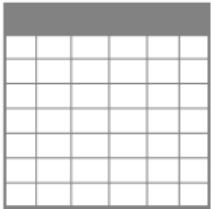
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Population and Housing Unit Estimates

The Census Bureau's Population Estimates Program (PEP) produces estimates of the population for the United States, states, metropolitan and micropolitan statistical areas, counties, cities, towns, as well as for Puerto Rico and its municipios.

[Read More](#)



Vintage 2019 Tables



Demographic Analysis



Release Schedule

census.gov/programs-surveys/popest.html

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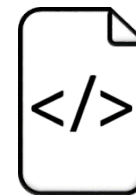
More information online:
census.gov/acs
census.gov/popest



acso.users.support@census.gov
pop.cdob@census.gov



Census Customer Service Center
800-923-8282



Source Us:

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

Source: Vintage XXXX Population Estimates
<www.census.gov/programs-surveys/popest.html>

Questions