

2020 Census Data Products and New Innovative Data Products

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ACS Data Users Conference

May 19, 2021

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Outline

2020 Data Products

Apportionment

Redistricting

Demographic and Housing Characteristics

Detailed Demographic and Housing Characteristics

Additional 2020 Data Products

New Innovative Data Products

Household Pulse Survey

Community Resilience Estimates

COVID-19 Data Hub

Apportionment Release: April 26, 2021!!



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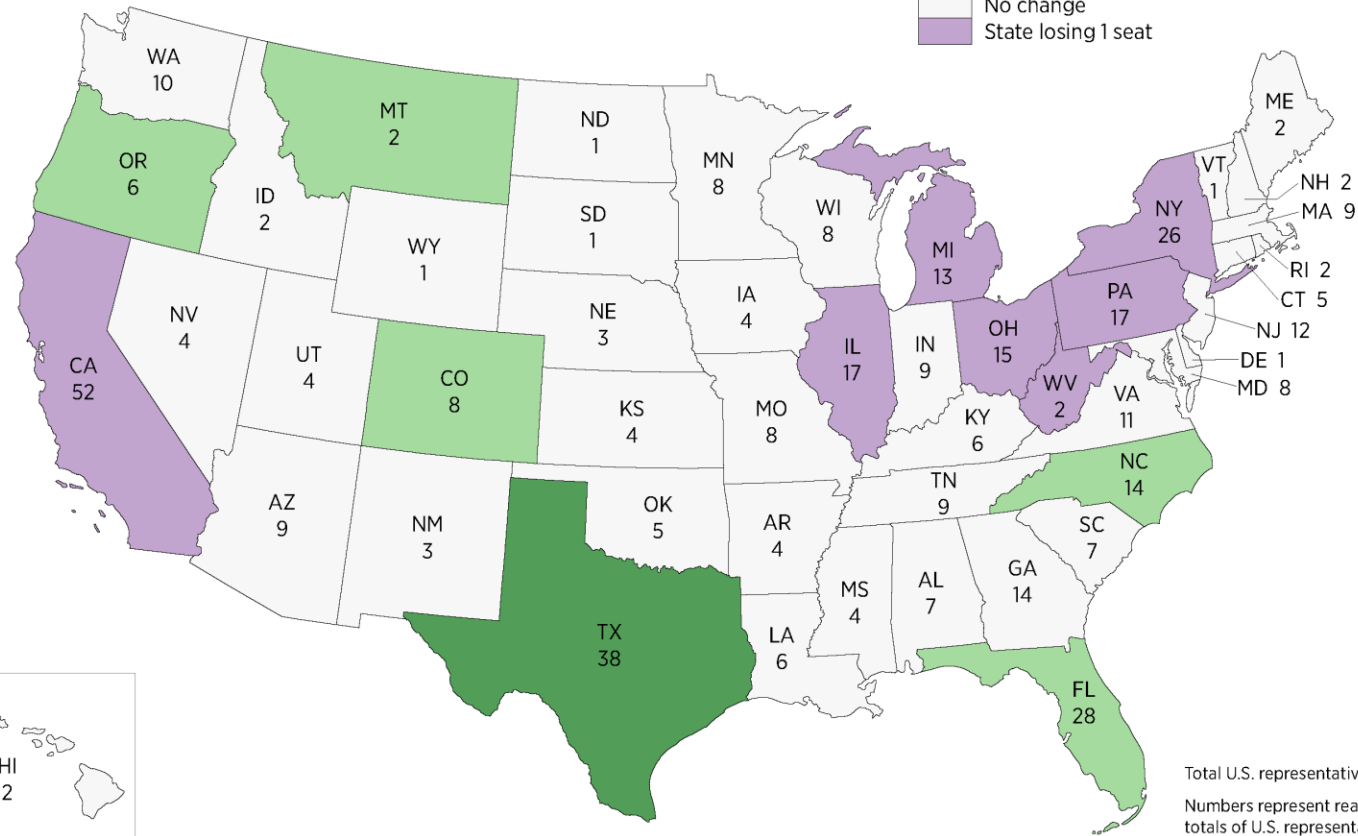
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Apportionment of the U.S. House of Representatives Based on the 2020 Census



Change from 2010 to 2020

- State gaining 2 seats
- State gaining 1 seat
- No change
- State losing 1 seat



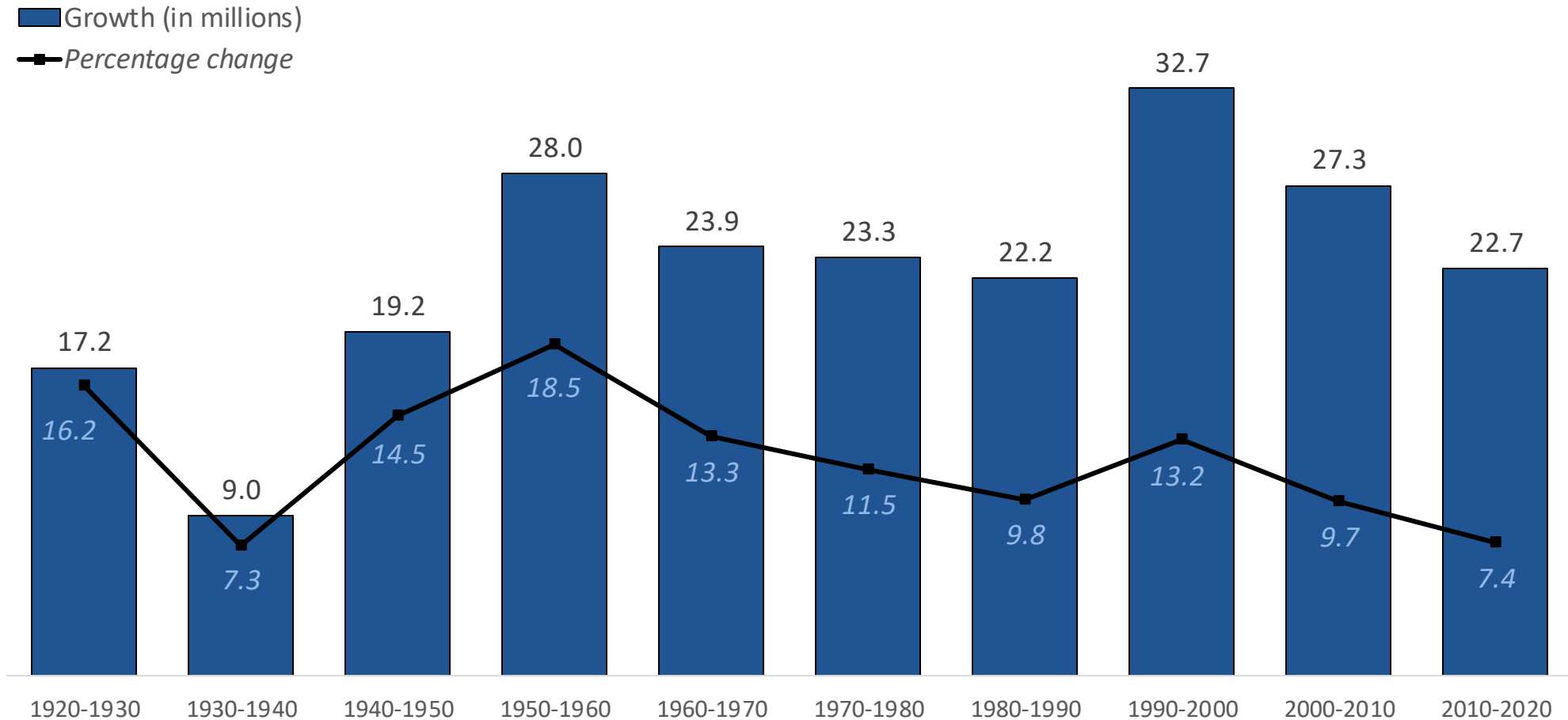
Total U.S. representatives: 435
Numbers represent reapportioned totals of U.S. representatives.

Resident Population

The Resident Population includes all people who were living in the United States (or Puerto Rico) as of Census Day.

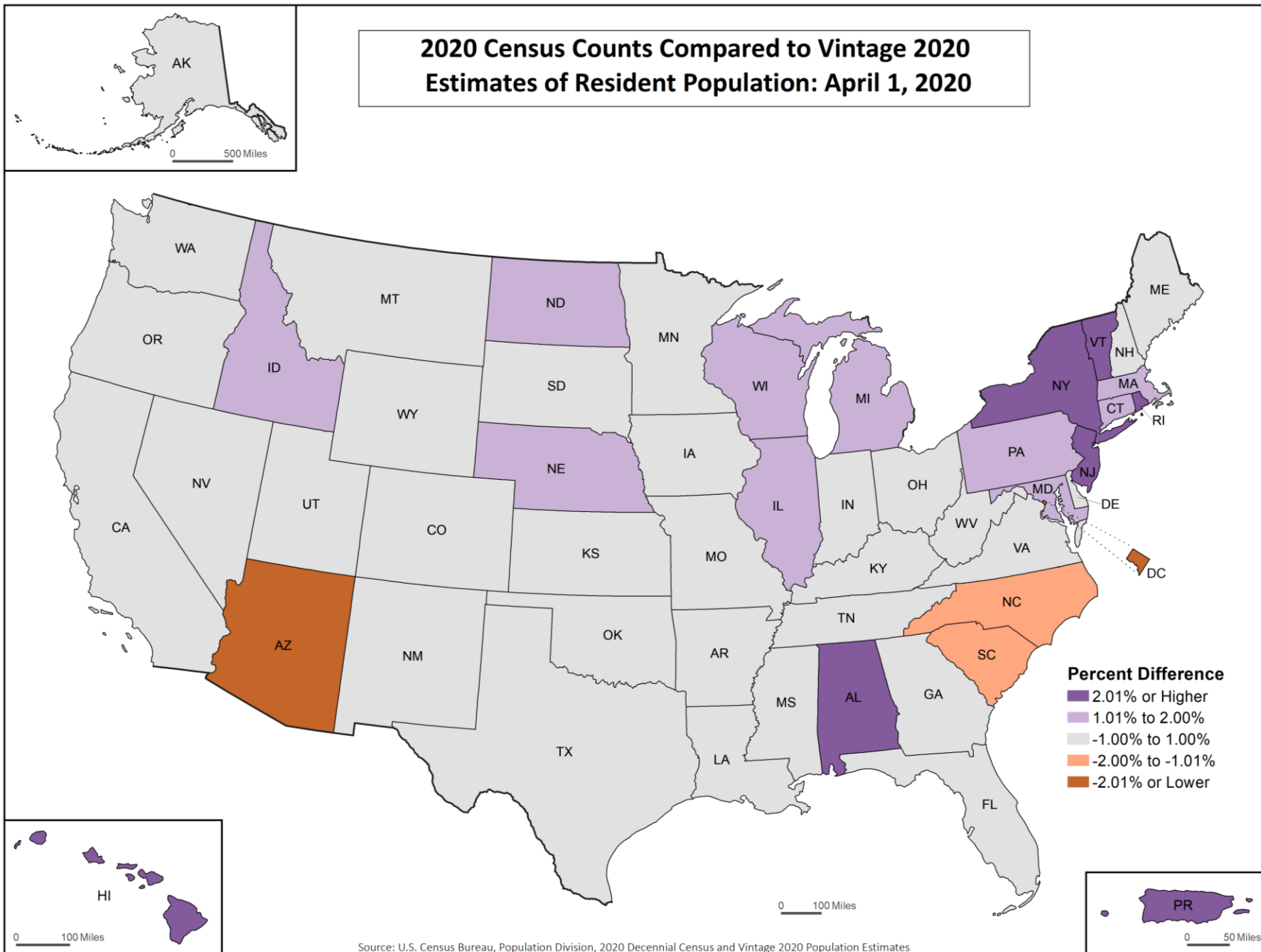
Area	2020 Census	2010 Census	Numeric Change	Percent Change
United States (includes DC)	331,449,281	308,745,538	22,703,743	7.4
Puerto Rico	3,285,874	3,725,789	-439,915	-11.8
United States and Puerto Rico	334,735,155	312,471,327	22,263,828	7.1

U.S. Resident Population Change By Decade: 1920 to 2020

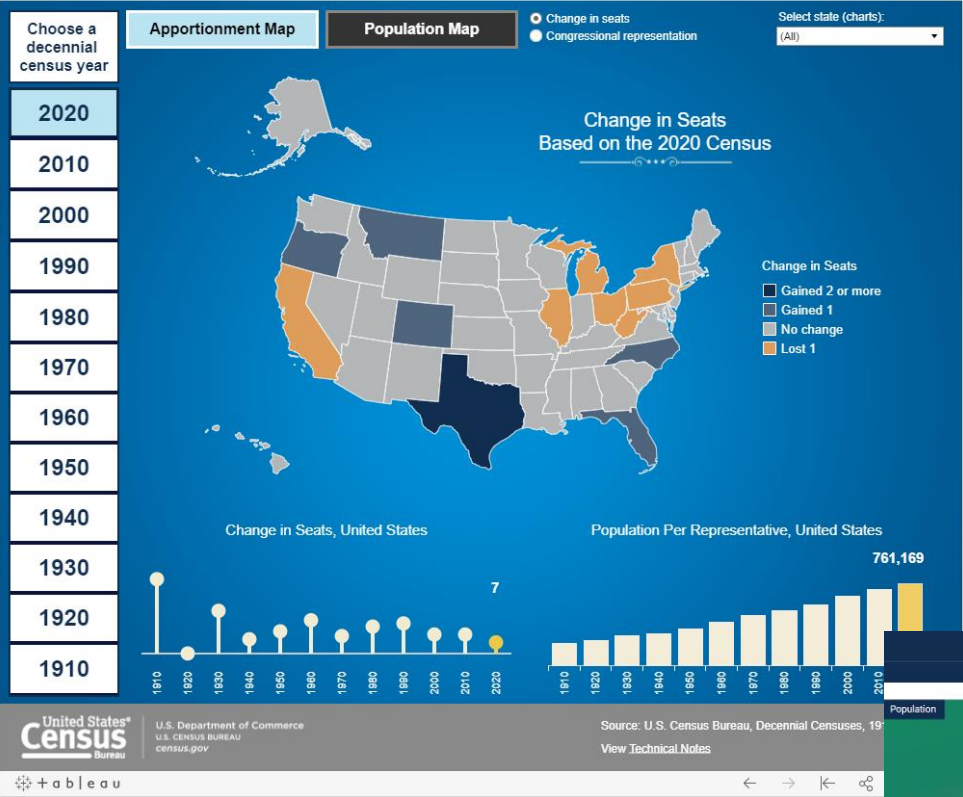


Note: The populations of Alaska and Hawaii are included in the U.S. total for all decades, even though they did not become states until 1959.

Comparisons to Vintage 2020 Population Estimates



2020 Census Apportionment Data on Census.gov



U.S. Department of Commerce
U.S. Census Bureau

Number of U.S. Military Personnel, Federal Civilian Personnel, and their Dependents in the Overseas Population for the 50 States and the District of Columbia: 2020 Census

State	Federally Affiliated Overseas ¹			Military Stationed Overseas ²			Fed. Civilian Personnel Overseas ³			Unmatched Deployed ⁴		
	Total	Employee	Dependent	Total	Employee	Dependent	Total	Employee	Dependent	Total	Military	Civilian
Alabama	5,774	3,544	2,230	4,851	3,046	1,805	877	452	425	46	45	1
Alaska	2,690	1,393	1,297	1,909	898	1,011	564	278	286	217	216	1
Arizona	7,421	4,520	2,901	6,295	3,961	2,334	1,051	484	567	75	74	1
Arkansas	2,232	1,391	841	2,059	1,295	764	148	71	77	25	25	0
California	38,534	23,883	14,651	32,252	20,589	11,663	5,575	2,587	2,988	707	704	3
Colorado	8,457	4,782	3,675	6,957	4,026	2,931	1,401	657	744	99	98	1
Connecticut	2,354	1,504	850	2,020	1,349	671	307	128	179	27	27	0
Delaware	889	586	303	747	489	258	110	65	45	32	32	0
District of Columbia	1,084	1,084	0	1,084	1,084	0	1,674	870	804	14	14	0
Florida	32	32	0	32	32	0	0	0	0	0	0	0
Georgia	12	12	0	12	12	0	0	0	0	0	0	0
Hawaii	4	4	0	4	4	0	0	0	0	0	0	0
Idaho	2	2	0	2	2	0	0	0	0	0	0	0
Illinois	10	10	0	10	10	0	0	0	0	0	0	0
Indiana	4	4	0	4	4	0	0	0	0	0	0	0
Iowa	2	2	0	2	2	0	0	0	0	0	0	0
Kansas	2	2	0	2	2	0	0	0	0	0	0	0
Kentucky	3	3	0	3	3	0	0	0	0	0	0	0



U.S. Census Bureau Today Delivers State Population Totals for Congressional Apportionment

BRYAN EPSTEIN AND DAPHNE LOFQUEST | APRIL 26, 2021

The U.S. Census Bureau today released the first population counts from the 2020 Census.

At the same time, Secretary of Commerce Gina Raimondo delivered to the President population counts used for apportionment, along with the number of seats in the U.S. House of Representatives that will be allocated to each state based on the 2020 Census.



2020 Census Data Products

Data products following Apportionment are grouped based on the disclosure avoidance approach they utilize. All approaches will use disclosure avoidance methods based on differential privacy.

- Redistricting File (P.L. 94-171)
- Demographic and Housing Characteristics File (DHC) Product
- Demographic Profile

Redistricting File (P.L. 94-171)

Public Law 94-171 directs the Census Bureau to provide data to the governors and legislative leadership in each of the 50 states for redistricting purposes. This product will be the first file released that will include demographic and housing characteristics about detailed geographic areas.

- **Subjects will include:**

- Voting age
- Race
- Hispanic or Latino origin
- Occupancy status
- Group quarters population by major GQ types

- **Geography:** Census Block

- **Release Dates:**

- August 16, 2021 (Legacy format)
- By September 30, 2021 (Easy to use format)

Demographic and Housing Characteristics Product (DHC)

The DHC will include many of the demographic and housing tables previously included in Summary File 1 in prior decades.

- **Subjects will include:**

- Age
- Sex
- Race
- Hispanic or Latino origin
- Household type
- Family type
- Relationship to householder
- Some subjects provided for major OMB race/ethnicity groups
- Group quarters population
- Housing occupancy
- Housing tenure

- **Geography:** Various; with many subjects available at the Census Block level.
- The DHC will not include tables that provide counts by detailed race, Hispanic origin, tribes, and population counts by household/family types. These tables will be included in Detailed-DHC.

Demographic Profile

This product will provide critical demographic and housing characteristics about local communities from selected DHC tables in a streamlined, easy to use format.

- **Subjects will include:**

- 5-year age groups
- Sex
- Race
- Hispanic or Latino origin
- Household type
- Relationship to householder
- Group quarters population
- Housing occupancy
- Housing tenure

- **Geography:** Place/Minor Civil Division

2020 Census Data Products

- Detailed Demographic and Housing Characteristics (Detailed-DHC) Product
 - Statistics for detailed race and ethnicity groups, and American Indian and Alaska Native tribe and village populations
 - Complex person/household join tables not included in DHC

Additional 2020 Census Data Products

- Public Use Microdata Sample (PUMS) File
- Congressional District Demographic and Housing Characteristics Product
- Special Tabulations

Key Developments with Differential Privacy

- Substantial progress on development of disclosure avoidance system to support 2020 Census Redistricting product
- Released multiple Privacy-Protected Microdata Files (PPMFs) and Detailed Summary Metrics for the Redistricting product for public review and comment (most recently April 28, 2021)
- Increased and reallocated the Privacy-Loss Budget for the latest PPMF to improve accuracy for a specific set of redistricting and Voting Rights Act metrics
- Census Bureau requests feedback based on the new PPMFs by May 28, 2021 to help inform the Data Stewardship Executive Policy Committee (DSEP) decision on final Privacy-Loss Budget in early June

Key Developments (cont.)

- Development of disclosure avoidance system split into two stages:
 - Redistricting product
 - Demographic and Housing Characteristics File (DHC) and the Demographic Profile
- Developing timeline and plans for work on DHC disclosure avoidance system
- Also making progress on a disclosure avoidance system to support the Detailed-DHC products
- Outreach with stakeholders and advisory groups has continued and helped inform decisions along the way

Planning for Disclosure Avoidance Work on Demographic and Housing Characteristics File (DHC)

- We are refining accuracy targets for DHC disclosure avoidance system
- We will release Privacy-Protected Microdata Files (PPMFs) using 2010 Census data run through the new disclosure avoidance system to enable the public to assess accuracy and privacy protection of DHC tables
- We are determining timeline for DHC PPMF review and how many PPMFs to be released
- DHC PPMFs release and feedback loop will follow a similar cadence to our engagements with PPMFs for Redistricting product
- Decisions about number of PPMFs will be informed by results of public assessments of initial PPMFs

RESPONDING TO THE PANDEMIC: New Data Collections and Estimates

New Products for New Needs

Recognition of the need for real-time, frequently released data products that inform us about the rapid changes in the economy and society

- Launch of two **Pulse Surveys** to produce rapid-response data on the impacts of COVID on households and small businesses
- Expanding existing modeling capabilities in small area estimation to produce new **Community Resilience Estimates (CRE)**
- **COVID-19 Data Hub**
- Census Bureau **EHealth initiative** - Strategically re-use administrative records, including electronic health records, in order to improve measurement and understanding of population health
 - We do this through research and development of applications for use in production and linking of multiple data sources to create new statistical products
 - Coming soon at <https://www.census.gov/programs-surveys/ehealth.html>

Household Pulse Survey

Development of Household Pulse Survey

- Coordinated at the Census Bureau
- Designed to deploy quickly and efficiently
- Collecting data on ways in which people's lives have been impacted by the pandemic
- Since the environment and circumstances rapidly changing, the design meant to be able to quickly assess and report on critical issues, as fast as possible

Experimental Rapid Response Survey

- Proof of Concept

Platform: Qualtrics

- Census Bureau Authority to Operate
- Could be programmed in-house
- Facilitates multiple distribution modes

Email and Text Invitations to Take an Online Survey

- National Processing Center was shut down due to COVID19
- We could not mail an invitation
- Used a new resource that includes email addresses and cell-phone numbers associated with addresses

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Timeline

- Development: March 23 – April 23, 2020
- Phase 1: April 23 – July 21, 2020
- Phase 2: August 19 – October 2020
- Phase 3: October – December 2020 (shift from OMB emergency clearance to regular clearance)
- Phase 3 Update: January 6 – March 1, 2021
- Phase 3.1: April 14, 2021 – July 14, 2021

Partners

Phase 1

- *Bureau of Labor Statistics
- *National Center for Health Statistics
- *Housing and Urban Development
- *National Center for Education Statistics
- *USDA Economic Research Service
- *Office of Management and Budget

Phase 2/3 Additional Agencies

- *Bureau of Transportation Statistics
- *Social Security Administration

January 2021 Update Phase 3

- *Centers for Disease Control

Phase 3.1 Additional Agencies

- *National Institute of Occupational Health and Safety
- *Maternal and Child Health Bureau
- *Department of Defense
- *Energy Information Administration

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Content: Phase 1, Phase 2/3, Phase 3.1

Basic demographics

Age, sex, race, Hispanic origin, marital status, educational attainment

Disability status (NCHS/CDC)

Armed forces status (DOD)

Employment questions

Employment and employment income (BLS/Census)

Spending source of funds (BLS)

Series on expenditures (BLS)

Commuting and Telework series (BTS)

Transportation Questions (BTS)

Essential worker occupations (NIOSH)

Food security questions

Past and current food sufficiency (USDA-ERS)

Free meals (USDA-ERS)

Money spent on groceries and prepared foods (USDA-ERS)

SNAP receipt (USDA-ERS)

Program use

Social Security programs (SSA)

Unemployment Insurance (BLS)

Health questions

Overall health (NCHS)

Mental health and mental health services use (NCHS)

Health insurance (NCHS/Census)

Access and delays in health care (NCHS)

Vaccination receipt, intentions, and COVID diagnosis (CDC: January 2021)

Telehealth (NCHS/MCHB)

Children's preventive health care (MCHB)

Housing questions

Tenure (HUD)

Living quarters (HUD) and bedrooms (dropped in January 2021)

Rent and mortgage current payment status (HUD) Confidence about paying rent/mortgage next month (HUD)

Eviction and foreclosure expectations (HUD)

Education questions

Effects of COVID on how K-12 children received education (NCES)

Access to computer/digital device and internet availability (NCES)

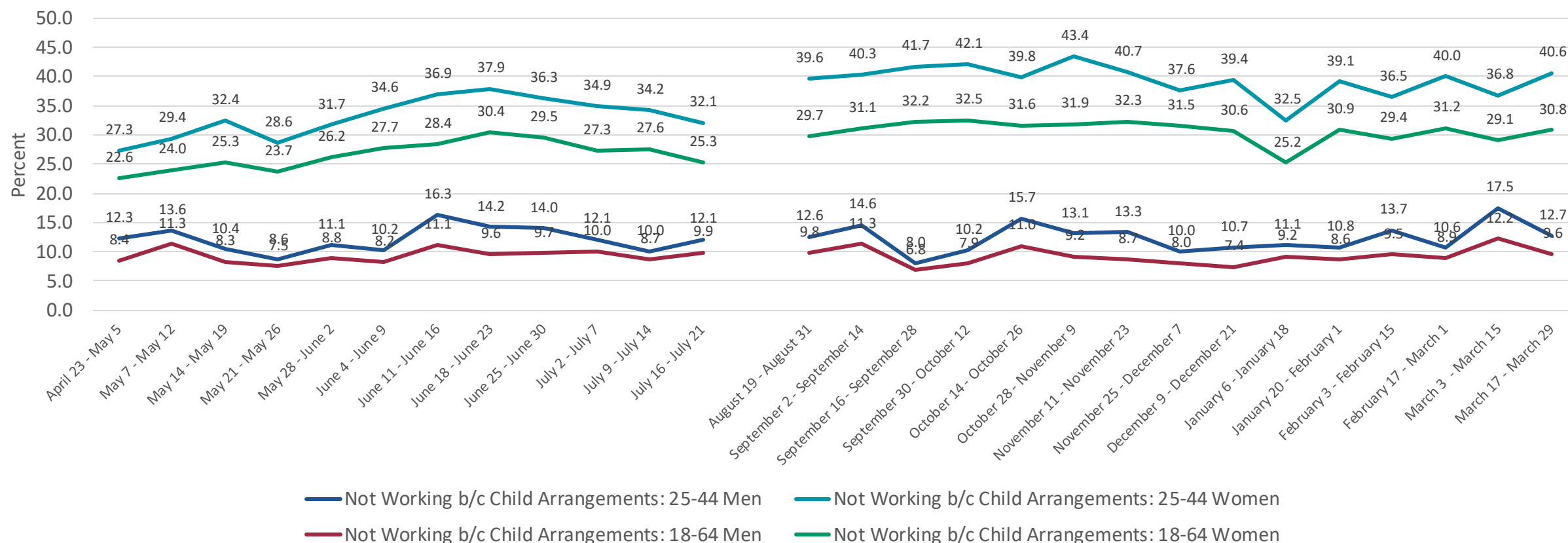
Time spent with teachers, spent on educational activities, and studying (NCES)

Post-Secondary questions (NCES)

Childcare (MCHB)

Not Working Because of Children's Care Arrangements

Percent of Men and Women Not Working Because of Children's Arrangements among Adults who are Not Retired or Out of the Labor Force



Source: Data from the Household Pulse Survey (April 23, 2020 – March 29, 2021)
Universe: 18+ Population

Household Pulse Survey Website

The screenshot shows the United States Census Bureau website for the Household Pulse Survey. The header includes the Census Bureau logo, a search bar, and navigation links: BROWSE BY TOPIC, EXPLORE DATA, LIBRARY, SURVEYS/ PROGRAMS, INFORMATION FOR..., FIND A CODE, and ABOUT US. The breadcrumb trail reads: // Census.gov > Data > Experimental Data Products > Household Pulse Survey. The main heading is "Measuring Household Experiences during the Coronavirus Pandemic", accompanied by social media icons for Facebook, Twitter, and LinkedIn. A paragraph states: "Data collection for Phase 3 of the Household Pulse Survey ran from October, 28, 2020 – March 29, 2021 and is now closed. Data collection for Phase 3.1 of the survey is scheduled to begin on April 14, 2021, with the next data release on May 5, 2021." To the right of this text is a logo for "EXPERIMENTAL DATA" featuring a stylized 'd' and a bar chart. Below the paragraph is the section "What is the Household Pulse Survey?" followed by a description of the survey's purpose. At the bottom, there are four orange buttons: "DATA TABLES", "PUBLIC USE FILES", "INTERACTIVE TOOL", and "COVID-19 VACCINATION TRACKER". Each button is circled with a black hand-drawn line. A note above the buttons states: "The Interactive Tool Application is not supported in Internet Explorer 11 and older versions."

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

// Census.gov > Data > Experimental Data Products > Household Pulse Survey

Measuring Household Experiences during the Coronavirus Pandemic

Data collection for Phase 3 of the Household Pulse Survey ran from October, 28, 2020 – March 29, 2021 and is now closed. Data collection for Phase 3.1 of the survey is scheduled to begin on April 14, 2021, with the next data release on May 5, 2021.

What is the Household Pulse Survey?

The U.S. Census Bureau, in collaboration with multiple federal agencies, is in a unique position to produce data on the social and economic effects of coronavirus on American households. The Household Pulse Survey is designed to deploy quickly and efficiently, collecting data to measure household experiences during the coronavirus pandemic. Data will be disseminated in near real-time to inform federal and state response and recovery planning.

The Interactive Tool Application is not supported in Internet Explorer 11 and older versions.

DATA TABLES

PUBLIC USE FILES

INTERACTIVE TOOL

COVID-19 VACCINATION TRACKER

<https://www.census.gov/data/experimental-data-products/household-pulse-survey.html>

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Community Resilience Estimates (CRE)

- Community resilience is a measure of the capacity of individuals and households within a community to absorb the external stresses of the impacts of a disaster.
- We modeled data from the American Community Survey, Population Estimates Program, and the National Health Interview Survey to create a small area risk index of the vulnerability of the population during the pandemic.

Individual Risk Flags

ACS Risk Flags:

- Aged 65 and above.
- In households with an Income-to-Poverty Ratio less than 130.
- Living in single, or zero, caregiver households.
- Living in households with a communication barrier (education and language).
- No employed persons in households with a greater number of individuals aged 0-64 than 65+.
- With either physical or mental disability or serious constraint to significant life activity.
- Living in a household with more than 0.75 persons per room.
 - Or who live in a tract where more than 75% of the population reside in a block denser than 4,000 people per square mile.

NHIS Risk Flags:

- Respiratory Disease
- Heart Disease
- Diabetes

Community Resilience Estimates

- The result is a tract-level estimate of the number of individuals by the number of risk factors
- They are categorized into three groups:
 - Zero flagged risk factors (low risk)
 - One to two flagged risk factors (medium risk)
 - Three or more risk factors (high risk)
 - The most vulnerable of the vulnerable



Community resilience is the capacity of individuals and households to absorb, endure, and recover from the health, social, and economic impacts of a disaster such as a hurricane or pandemic.

When disasters occur, recovery depends on the community's ability to withstand the effects of the event. In order to facilitate disaster preparedness, the Census Bureau has developed new small area estimates, identifying communities where resources and information may effectively mitigate the impact of disasters.

Variation in individual and household characteristics are determining factors in the differential impact of a disaster. Some groups are less likely to have the capacity and resources to overcome the obstacles presented during a hazardous event. Resilience estimates can aid stakeholders and public health officials in modeling these differential impacts and developing plans to reduce a disaster's potential effects.

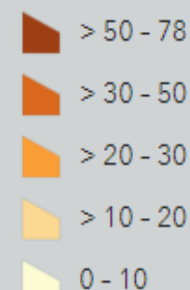
Individual and household characteristics from the 2018 American Community Survey (ACS) were modeled, in combination with publicly-available data from the 2018 National Health Interview Survey (NHIS), to provide tract and county level estimates.

More information on Census Bureau

Thematic Risk Factor (RF) based on the risk factor selected above

Thematic Risk Factor
(Counties)

Percentage of Residents



Esri, FAO, NOAA

Thematic Risk map

Predominant Risk map

Thematic Risk w/Pop map

COVID-19 Impact Report

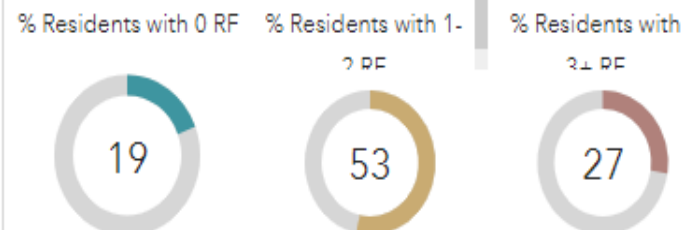
State Profile (based on county average)



Percentage of Residents

Number of Residents

County Profile (based on tract average)



Percentage of Residents

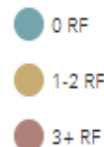
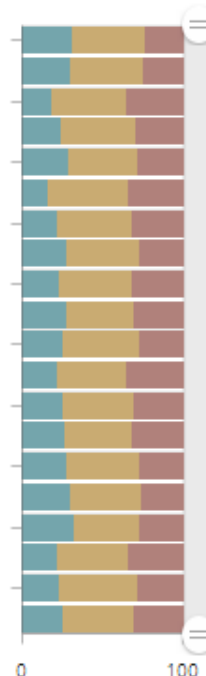
Number of Residents

County Comparison

Top 20 sorted by percentage of residents with 3+

*click on a bar to see the location on the map, click again to turn off the selection

Autauga County, Alabama
Barbour County, Alabama
Blount County, Alabama
Butler County, Alabama
Chambers County, Alabama
Chilton County, Alabama
Clarke County, Alabama
Cleburne County, Alabama
Colbert County, Alabama
Coosa County, Alabama



County Comparison

Tract Comparison

The American Community Survey

COVID-19 Demographic and Economic Resources

US Census Bureau COVID-19 Site

Census Programs

What's New

FAQs

COVID-19 Demographic and Economic Resources

United States Census Bureau

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Data Equity Tools

Additional Federal Datasets

Covid-19 Surveys and Estimates

Demographic and Economic Analysis

Highlighted Datasets

Categorical Datasets Search

V2.2 - 4/13/2021 Release.

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US Demographic and Economic Data At A Glance

Population Aged 65 Years and Older

50,783,796

American Community Survey (ACS) 2019-2019

Total Uninsured Population

28,248,613

American Community Survey (ACS) 2019-2019

Total Employer Establishments

7,912,405

County Business Patterns (CBP) 2018

Total Non-Employer Establishments

26,485,532

Nonemployer Statistics (NETS) 2018

Census COVID-19 Impact Report

Select State: New York

Select County: Back to State

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STATE COVID-19 IMPACT PLANNING REPORT

New York (FIPS 36)

United States Census Bureau

POPULATION 65 AND OLDER

KEY FACTS

BUSINESSES

POVERTY

AT-RISK POPULATION

OCCUPATION BY SEX

esri

Source: Census Programs

Click here to open the dashboard in a new tab.

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Census COVID-19 Impact Report

Select State: New York

Select County: Back to State

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Fit page

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STATE COVID-19 IMPACT PLANNING REPORT

New York (FIPS 36)

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Questions?

Contact Information

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