



# Interim Joint Committee on State Government

**11/17/2020**

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# Agenda

- 2020 Census Operations
- Redistricting Data Program
  - P.L. 94-171 Geographic Support Products
  - P.L. 94-171 Redistricting Data
- Disclosure avoidance
- CVAP
  - ACS based CVAP
  - 2020 Census based CVAP
- Count Question Resolution (CQR)

# 2020 Census Operations

Collection operations concluded 10/15/2020

## TOTAL RESPONSE

- Nationwide, 99.98% of all housing units and addresses were accounted for in the 2020 Census
- Resolved 152 million addresses (compared to 132 million in 2010 Census)
- All States, DC, and Puerto Rico reached at least a 99.0% total response rate
- All but one state (Louisiana) was at or above 99.9% total response rate

## SELF RESPONSE

- Final self-response rate for the 2020 Census was 67.0% (2010 rate was 66.5%)
  - 99 million self-responses
    - 79 million Internet
    - 18 million Paper
    - 1.83 million Phone

# 2020 Census Operations

## SELF RESPONSE (Continued)

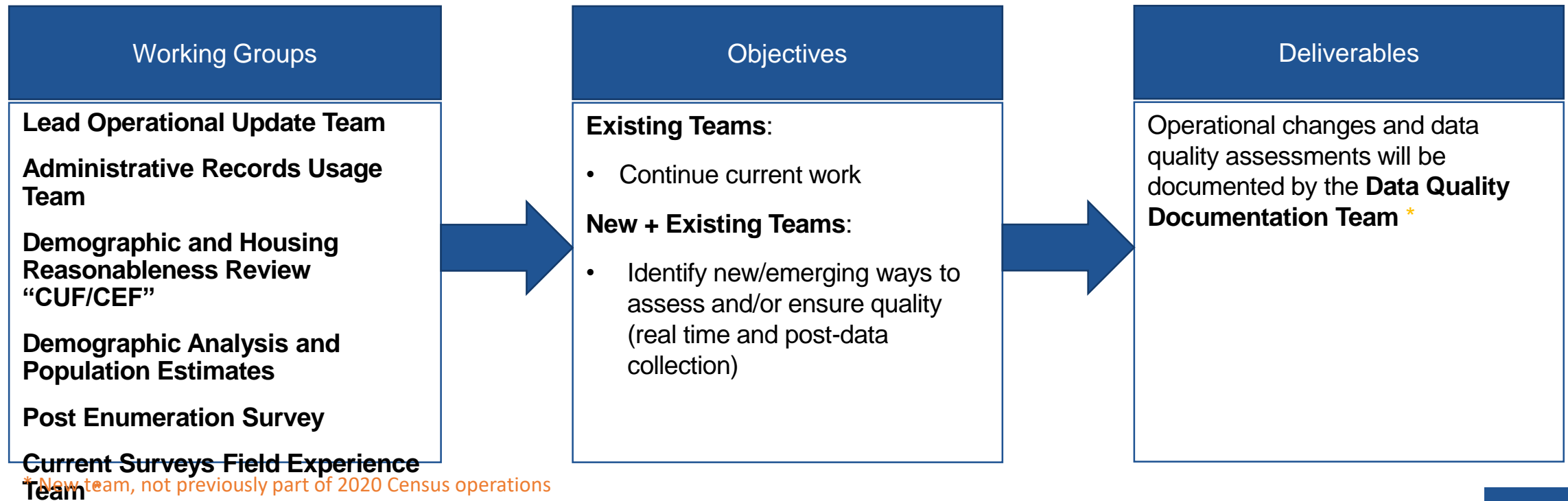
- 28 States met or exceeded their self response rates from 2010
  - Kentucky: **68.2%** Self-Response 22<sup>nd</sup> in the Country (2010 - 65.7%)
  - Oldham County, KY finished 10th in the country among all counties for self-response at 83.3%.
- Census Questionnaire Assistance Centers operated without interruption from March 12 through Oct. 15<sup>th</sup>
- Internet Self-Response operated with zero downtime from March 12<sup>th</sup> through October 15<sup>th</sup>

## NONRESPONSE FOLLOWUP

- Nonresponse follow-up rate accounted for 32.9% of total response
- Challenges: Repeated hurricanes for the Gulf Coast states; Global pandemic – 42 million pieces of PPE; Wildfires & air quality issues; civil unrest
- Enumerator productivity of 1.92 cases per hour (1.01 cases per hour in paper 2010 environment)
- 6 million addresses self-responded after enumerators leaving a notice of visit

# 2020 Census – Ensuring Data Quality

Special teams with expertise from within the entire Census Bureau in the fields of census operations, statistical methodology, acquisition and utilization of administrative records, and in the social, economic, and housing subject areas to supplement the existing expert teams and provide extra focus on data quality.



# 2020 Census Operations – Data Quality Measures

## 2020 Census Nonresponse Followup metrics

- 5.6% of addresses nationwide were resolved by high-quality administrative records
  - Equates to 13.9% of the Nonresponse Followup Universe
- 24.1% of occupied housing units in the Nonresponse Followup Universe were enumerated by proxy (23.8% in 2010 Census)
- 99.77% of the Nonresponse workload on American Indian Alaska Native lands completed

## Upcoming Data Quality Measures

- Two primary methods for evaluating quality
  - Comparing census results to others: Demographic Analysis
    - Results expected December 2020
  - Evaluation of the process of conducting census work: Post-Enumeration Survey
    - Results expected November 2021 through February 2022

# Redistricting Data Program

## Public Law 94-171

**Program Mission:** Provide states an opportunity to identify the geographic areas for which specific tabulations of population are needed for legislative redistricting and to deliver high quality data for those areas in a timely manner

Identified “geographic areas desired”:

- Census Tabulation Blocks
- Voting Districts (e.g. precincts, wards, etc.)
- Legislative and Congressional Districts

Requirements:

- Establish program criteria
- Identify required tabulations
- Conduct the program in a non-partisan manner
- Deliver the tabulations to the governor and the officers or public bodies having initial responsibility for the legislative apportionment or districting of each State no later than 1 year from Census Day (April 1, 2021)\*

\*request for statutory extension to July 31

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# 2020 Redistricting Data Program

## The Five Phases of the Program

- **Phase 1: Block Boundary Suggestion Project (BBSP) - Complete**
- **Phase 2: Voting District Project (VTD) - Complete**
- **Phase 3: Data Delivery**
  - P.L. 94-171 Redistricting Data Tabulations & Geographic Support Products
- **Phase 4: Collection of Post-2020 Census Redistricting Plans**
  - 118<sup>th</sup> Congressional District Plans
  - New State Legislative District Plans
- **Phase 5: Evaluation of the 2020 RDP ([View from the States](#))**
  - Recommendations from the States
  - Design for the 2030 Census Redistricting Data Program



# Redistricting Data Program

## Phase 3 – P.L. 94-171 Redistricting Data Products Delivery Timing

### Phase 3 – Prototype Data

Activity	Date
Prototype geographic support products	February 2019 (Complete)
Prototype P.L. 94-171 Redistricting Data	March 2019 (Complete)

<https://www.census.gov/programs-surveys/decennial-census/about/rdo/program-management.html#P3>

### Phase 3 – Official Data

Activity	Original Planned Dates	New Planned Date
Geographic support products	Nov. 20, 2020 – Feb. 1, 2021	Jan 22, 2021 – Feb 28, 2021
P.L. 94-171 Redistricting Data	Feb. 18, 2021 – March 31, 2021	TBD*

\* Statutory deadline April 1, 2021

# Redistricting Data Program

## Phase 3 – P.L. 94-171 Redistricting Data Geographic Products

### 2020 Census P.L. 94-171 Redistricting Data Geographic Products

Product Type	Census Web Address
Shapefiles	<a href="https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html">https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html</a>
Maps	<a href="https://www.census.gov/geographies/reference-maps.html">https://www.census.gov/geographies/reference-maps.html</a>
Block Assignment Files	<a href="https://www.census.gov/geographies/reference-files.html">https://www.census.gov/geographies/reference-files.html</a>
Block to Block Relationship Files	<a href="https://www.census.gov/geographies/reference-files/time-series/geo/relationship-files.html">https://www.census.gov/geographies/reference-files/time-series/geo/relationship-files.html</a>

- Shapefiles – geographic information system geometry files
- Maps (PDF only) – County Block; State Legislative with Voting District; Tract; School District
- Block Assignment Files – tables identifying the blocks used to build different geographic entities
- Block to Block Relationship Files – Crosswalk of 2010 blocks to 2020 blocks

# Redistricting Data Program

## Phase 3 – P.L. 94-171 Redistricting Data Shapefiles

State-based Shapefile
American Indian/Alaska Native/Native Hawaiian Area
American Indian Tribal Subdivision
Alaska Native Regional Corporation
State and Equivalent
Block
Block Group
Census Tract
113th Congressional District
116th Congressional District
Consolidated City
County and Equivalent
County Subdivision
Place
Elementary School District
Secondary School District
Unified School District
State Legislative District Lower Chamber
State Legislative District Upper Chamber
Subbarrio (Subminor Civil Division)
Voting District
Urban Growth Area
Primary and Secondary Roads

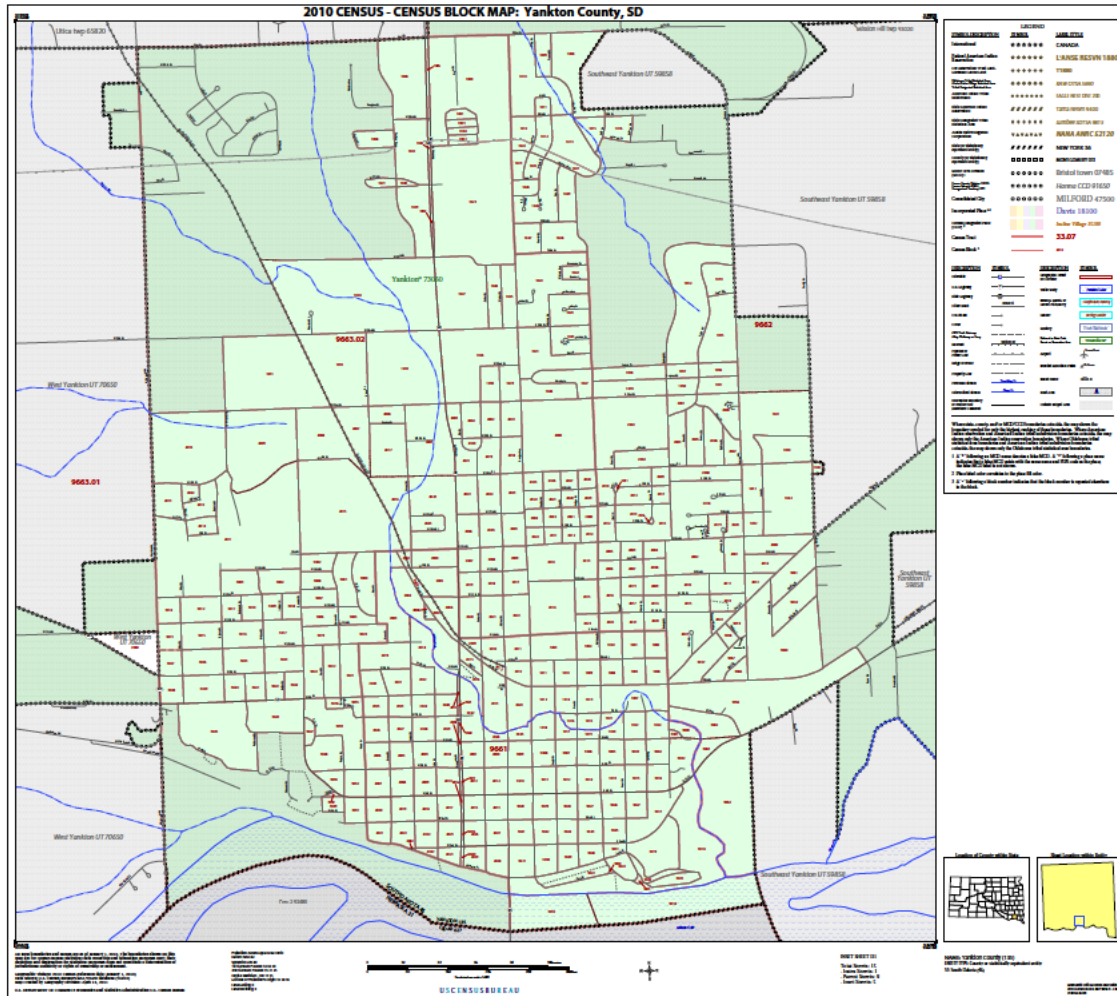
County-based Shapefile
Block
Block Group
Census Tract
County Subdivision
Voting District
All Lines
All Roads
Area Hydrography
Linear Water
Area Landmark
Point Landmark
Topological Faces (Polygons With All Geocodes)
County-based Relational Tables
County-based Relationship File
Address Range-Feature Name
Address Ranges
Feature Names
Topological Faces-Area Landmark
Topological Faces-Area Hydrography

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# Redistricting Data Program

## Phase 3 – P.L. 94-171 Maps & Tabular Data



STATEFP	COUNTYFP	COUSUBFP	NAME	NAMELSAD
44	007	11800	Burrillville	Burrillville town
44	007	14140	Central Falls	Central Falls city
44	007	19180	Cranston	Cranston city
44	007	20080	Cumberland	Cumberland town
44	007	22960	East Providence	East Providence city
44	007	27460	Foster	Foster town
44	007	30340	Glocester	Glocester town
44	007	37720	Johnston	Johnston town
44	007	41500	Lincoln	Lincoln town
44	007	51760	North Providence	North Providence town
44	007	52480	North Smithfield	North Smithfield town
44	007	54640	Pawtucket	Pawtucket city
44	007	59000	Providence	Providence city
44	007	64220	Scituate	Scituate town
44	007	66200	Smithfield	Smithfield town
44	007	80780	Woonsocket	Woonsocket city

BLOCKID	COUNTYFP	COUSUBFP
440070001011000	007	59000
440070001011001	007	59000
440070001011002	007	59000
440070001011003	007	59000
440070001011004	007	59000
440070001011005	007	59000
440070001011006	007	59000
440070001011007	007	59000
440070001011008	007	59000
440070001011009	007	59000
440070001011010	007	59000
440070001011011	007	59000
440070001011012	007	59000
440070001011013	007	59000
440070001011014	007	59000

## Name Lookup Table

## Block Assignment File

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# Redistricting Data Program

## Phase 3 – P.L. 94-171 Redistricting Data Tabulation Product

### 2020 Census P.L. 94-171 Redistricting Data Tabulations

Table P1 – Race

Table P2 – Race for the Population 18 Years and Over

Table P3 – Hispanic or Latino, and not Hispanic or Latino by Race

Table P4 – Hispanic or Latino, and not Hispanic or Latino by Race for the Population 18 and Over

Table H1 – Occupancy Status (Housing)

### New Table

Table P5 – Group Quarters Population by Group Quarters Type

- All tables produced at multiple geographies including census block
- Group Quarter types: Correctional Institutions for Adults, Juvenile Facilities, Nursing Facilities/Skilled Nursing, Other Institutional, College/University Student Housing, Military quarters, and other non-institutional
- Group quarters is total population only, no demographic breakdown

# Redistricting Data Program

## Citizen Voting Age Population by Race and Ethnicity (CVAP)

- Annual Tabulation using the American Community Survey 5-year estimates for 2011 through 2020 publications
  - Typically released in the 1<sup>st</sup> week of February each year
- 2020 Census CVAP Special Tabulation
  - Calculated using administrative records and the 2020 Census

Content
Total:
Hispanic or Latino
Not Hispanic or Latino:
White alone
Black or African American alone
American Indian and Alaska Native alone
Asian alone
Native Hawaiian and Other Pacific Islander alone
<b>Some Other Race alone*</b>
Black or African American and White
American Indian and Alaska Native and White
Asian and White
American Indian and Alaska Native and Black or African American
Remainder of Two or More Race Responses

Geography
Nation
State
Congressional District
State Legislative District, Upper Chamber
State Legislative District, Lower Chamber
County
Minor Civil Division (for CT, MA, ME, MI, MN, NH, NJ, NY, PA, RI, VT, and WI)
Tract
Block Group
<b>Block*</b>

**\* only for the 2020 Census Special Tabulation**

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# Redistricting Data Program

## Citizen Voting Age Population by Race and Ethnicity (CVAP)

- Internal Expert Panel published their final methodology report on October 30, 2020
  - <https://www2.census.gov/ces/wp/2020/CES-WP-20-33.pdf>
- The report was previewed at the Census Scientific Advisory Committee (CSAC) meeting on 9/18/2020, which was recorded and posted online.
  - CSAC main page: <https://www.census.gov/about/cac/sac.html>
  - CSAC specific meetings page: <https://www.census.gov/about/cac/sac/meetings.html>
- There are essentially four different methods being considered
  - 3 techniques rely on a combination of business rules and modeling
    - Business Rules plus Nearest Neighbor Imputation
    - Business Rules plus Householder Logistic Regression
    - **Business Rules plus ACS Logistic Regression**
  - 1 technique relies on a latent class model for the full population

## 2020 Census

### Disclosure Avoidance

- All 2020 Census data products released after apportionment will have formal privacy protections applied through the use of differential privacy.
  - For the P.L. 94-171 Redistricting Data this will be through the use of the Top Down Algorithm (TDA)
    - The TDA is being streamlined to focus solely on the P.L. 94-171 Redistricting Data and the characteristics reported in that file. (Race, Age of 18+, Ethnicity, etc.)
- The Census Bureau, using the 2010 Census as the data source, has been releasing interim output from the TDA as demonstration products
- <https://www.census.gov/programs-surveys/decennial-census/2020-census/planning-management/2020-census-data-products/2020-das-metrics.html>



## 2020 Census

### Disclosure Avoidance

- October 29, 2019 – 2010 Demonstration Data Product Baseline
  - Test running system at scale and progress to date
- July 14, 2020 – Release interim output showing improvements (metrics released earlier on 5/27/2020)
  - Released as Privacy Protected Microdata File (PPMF)
  - Tables created by IPUMS/NHGIS
    - <https://www.nhgis.org/privacy-protected-demonstration-data>
  - Series of metrics added for review and comparison
- September 17, 2020 – Release interim output showing improvements (PPMF)
  - Tables were created and published by the IPUMS/NHGIS
  - Tailored specifically and only to the P.L. 94-171 Redistricting Data characteristics
  - Revised series of metrics also published
  - Error found and a user note was added for data users
- November 16, 2020 - Release interim output showing improvements (PPMF)
  - Error corrected from 9/17/20 version with other enhancements

# Count Question Resolution - Overview

- The CQR operation accepts requests for review of the 2020 Census housing & associated population counts based on two types of geographic cases: boundary and/or living quarter count.
- Count corrections will be issued, when necessary, to the tribal chairperson or highest elected official of affected governmental units and be uploaded to the CQR website as errata.
- CQR will not revise the population data sent to the office of the President, any redistricting data sent to the states, or the Demographic and Housing Characteristics file.
- CQR does not collect any new data in the field, and is not the same as a special census.
- Differential Privacy will be applied to CQR count corrections.
- *While CQR may revise counts based on specific geographic criteria, it is not a mechanism to address overall data concerns due to disclosure avoidance methods applied by the Census Bureau.*

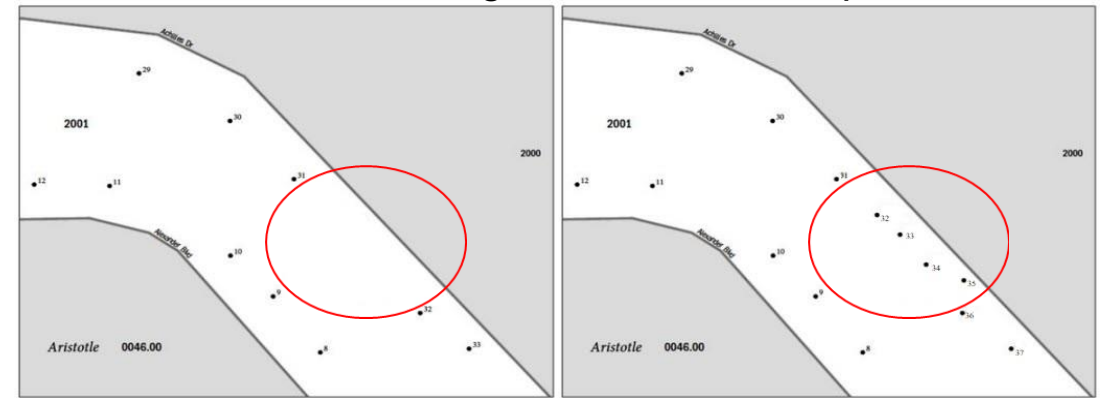
# Count Question Resolution - Outcomes

Before and After – Examples of Corrections (examples show fictitious information)

LQ Count case, Geocoding correction example:



LQ Count case, Coverage correction example:



Boundary case correction example:



# Count Question Resolution – Key Dates

- September 1, 2021: The Census Bureau sends a message to the tribal chairpersons and highest elected officials at tribal, state, and local governments who are eligible to file a CQR case.
- October 1, 2021: The Census Bureau begins processing CQR cases from eligible tribal, state, and local governments, researching the census enumeration records from each GU.
- June 30, 2023: The Census Bureau stops accepting CQR cases.
- September 30, 2023: Deadline for the Census Bureau to provide results to impacted GUs.

# Thank You

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More information on the 2020 Census:  
<http://www.census.gov/2020Census>



More information on the 2020 Census Self-Response Rates:  
<https://www.2020census.gov/en/response-rates/self-response.html>



More information on the 2020 Census Nonresponse Followup Completion Rates:  
<https://www.2020census.gov/response-rates/nrfu-completion.html>



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