



# 2020 Census: Overview

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Census  
2020

# Agenda

- Update on census operations
- Post processing and anomalies
- Focus on data quality
- When can I see the numbers?
- CVAP update
- Disclosure avoidance update
- Count Question Resolution
- Questions

# 2020 Census

## A Complete and Accurate Count of the Population and Housing



# 2020 Census

## External Factors Impacting the Census

COVID-19 – March 18

Significant Hurricane Season

- Tropical Storm Marco – landfall on August 24
- Hurricane Laura – landfall on August 26
- Hurricane Sally – landfall September 16
- Tropical Storm Beta – landfall on September 21

California, Oregon and Washington Fires and Air Quality – September 7 to October 15

Civil Unrest – May 25

Legal challenges

# 2020 Census

## Prior Operational Timelines

Activity / Operation	Original Dates	Operational Adjustments Due to COVID-19	Replan Dates
Self-Response Phase	March 12 – July 31	March 12 – October 31	March 12 – October 15
Update Leave (Stateside)	March 15 – April 17	June 13 – July 9	Phased re-opening occurred between May 4 and June 12
Service Based Enumeration	March 30 – April 1	Needed further review and coordination with outside partners and stakeholders	September 22 – 24
Targeted Non-Sheltered Outdoor Locations	March 31 – April 1	Needed further review and coordination with outside partners and stakeholders	September 23 – 24
Group Quarters Enumeration	April 2 – June 5	July 1 – September 3	April 2 – September 3
Enumeration of Transitory Locations	April 9 – May 4	Tentatively September 3 – September 28, but may need further review and coordination	September 3 – 28
Nonresponse Followup*	May 13 – July 31	August 11 – October 31	August 9 – October 15
Delivery of Apportionment Data**	By Statutory Deadline: December 31, 2020	Deliver by April 30, 2021	As close to statutory deadline as possible
Delivery Redistricting Data**	By Statutory Deadline: March 30, 2021	Deliver by July 31, 2021	As close to statutory deadline as possible

# 2020 Census

## Effects of COVID-19 on Communication Campaign

### **Impacts of COVID-19 on Communication Campaign:**

- Social distancing altered the nature of regional and local partnership support.
- Media focus on COVID-19 and related changes in news/talk program format made it difficult to secure earned media coverage.
- Loss of operational synchronization with the communications campaign, including capacity reductions for Census Questionnaire Assistance, delays in national questionnaire mail out (mailing #4), and suspension of Update Leave and Update Enumerate operations.
- Shifting programming and media consumption patterns necessitated rapid adjustment in media planning and tactics.

### **Actions Taken:**

- Expanded the paid campaign to engage more audiences and local media markets and expand number of languages supported (in market April-May 2020).
- Quickly launched updated creatives and messaging to reflect COVID-19 related realities across all audiences.
- Longer motivation phase, because of the Nonresponse Followup delay, required additional investment and planning to achieve target reach and frequency levels.

# 2020 Census

## Operational Adjustments due to COVID-19

### Overview

The COVID-19 outbreak required the U.S. Census Bureau to adjust 2020 Census operations in order to:

- Protect the health and safety of the American public and Census Bureau employees.
- Implement guidance from federal, state, and local authorities regarding COVID-19.
- Ensure a complete and accurate count of all communities.

The Census Bureau monitored the rapidly changing conditions at the state and local level, and in consultation with the appropriate officials, updated the planned start dates for selected operations in selected states.

### Initial Operations for Phased Restart

- Resuming Update Leave
- Resuming operations at Area Census Offices
- Resuming operations at Paper Data Capture Centers
- Resuming fingerprinting and staff onboarding for nonresponse follow-up

# 2020 Census

## Summary of Self-Response

Responding to the 2020 Census was easier than ever – online, by mail, or by phone. The Internet Self-Response (ISR) instrument allowed respondents to respond, anytime, from anywhere. The ISR was also optimized for responses from smartphones and mobile devices. The ISR **did not experience a single minute of downtime** or any cyber intrusions.

**Original Dates:** March 12 – July 31, 2020

**Adjusted Dates:** March 12 – October 15, 2020

- Final Self-Response Rate: 67.0% Exceeded Final 2010 Census Self-Response Rate of 66.5%
- Self-Response Volumes by Mode
  - Total: 99.02 million self-responses
  - Internet: 79.08 million (79.86%)
  - Paper: 18.11 million (18.29%)
  - Phone: 1.83 million (1.85%)
- 14 States with a Self-Response Rate at or above 70% vs 7 States in 2010
- 47 States with a Self-Response Rate at or above 60%, the same as 2010
- 28 States that met or exceeded their final 2010 Census Self-Response Rate



# 2020 Census

## Summary of Nonresponse Followup Metrics

### Data Collection

- Completed Housing Units (HUs): 60.8M
  - Completed via Self-Response: 6.3M (these are included in the total self-response rate of 67%)
  - Total Enumerated Occupied HUs: 30.7M
    - Enumerated via Householder: 17.1M (55.6%)
    - Enumerated via Proxy: 7.4M (24.1%)

This proxy response rate of 24.1% is similar to the 2010 proxy response rate of 23.8%.
    - Enumerated via Administrative Records: 6.3M (20.4%)\*
  - Vacant HUs: 13.5M
  - Deleted HUs: 10.3M
- Enumerator productivity: 1.92 cases completed per hour (cumulative) – exceeding plan of 1.55 cases completed per hour
  - Approximately 13.9% of the full NRFU workload (including vacant and deleted housing units) were completed using high-quality administrative records, lower than the expected rate of 22.5%.
  - *Note: All numbers are subject to change upon completion of post collection processing.*

# 2020 Census

## Summary of Other Operations

- **Remote Alaska:** Almost 34,000 enumerations completed
- **Update Leave:** Paper questionnaires and invitations to self-respond delivered to over 6.8 million addresses
- **Group Quarters Enumeration:** Over 215,000 Group Quarters enumerated
- **Service Based Enumeration:** Over 53,000 Service-based locations enumerated including almost 37,000 Targeted Non-sheltered Outdoor Locations
- **Recruiting:**
  - Over 3.9 million applicant profiles created in the Recruiting and Assessment System.
  - Almost 3.1 million applicants available for job selection
- **Partnership:**
  - 1,068 National Participating Organizations
  - Over 398,000 Community Partners
  - Over 8,600 Local Complete Count Committees
  - Over 486,000 completed partnership events

# 2020 Census

## A Complete and Accurate Count of the Population and Housing



# 2020 Census

## End of Operations

Post processing began once data collection was complete.

- Final scanning/keying of paper forms responses
- Update the MAF/TIGER database with addresses that were added during data collection operations
- Delivery of final responses to our Decennial Response Processing System (all modes, all operations)
- Create our Master Address File Extract to generate the final collection geography

# 2020 Census

## Produce the Decennial Response File 2 (DRF2)

- Remove responses that meet criteria for being born after Census Day
- Execute Primary Selection Algorithm (PSA) – This resolves situations where we have more than one response for a single address and two or more responses (possibly in different states) for the same household
- Process DRF2 at the national level

# 2020 Census

## Produce the Census Unedited File (CUF)

- Determine the final population count for each address:
  - Identifies the universe of data included in the census from the sample delivery file (geography) and the DRF2
  - Determines from response data the status of every address as occupied, vacant, non-existent, or unresolved
  - For unresolved addresses, applies count imputation to fill in the missing housing unit status and, if necessary, the missing household size.

# 2020 Census

## Subject Matter Expert Data Review

During each phase of data processing, subject matter experts (SMEs) review state/National data files:

1. To **identify data processing errors** and verify that edits and other processing steps have been properly applied.
2. To **assess indicators of data quality** by looking at item nonresponse/missing rates, population count only responses, proxy responses, and other early indicators of possible data quality issues.
3. To **evaluate demographic reasonableness** by looking at census responses and subsequent data files at multiple levels of geography compared to benchmarks, i.e. 2010 Census, American Community Survey data, and Population Estimates.

# 2020 Census

## Post Processing – Anomalies

Every Census has anomalies, and 2020 is no different

- Anomalies found in processing are not Census errors, but they can turn into errors if we don't resolve them.
- Finding anomalies is comforting evidence that the quality process is working.
- There are four different categories of anomalies:
  1. “Standard” problems that arise in processing any large survey
  2. Anomalies resulting from unanticipated respondent action, especially because of the pandemic
  3. Anomalies resulting from unanticipated enumerator action
  4. Initial anomaly fixes being incorrect and requiring re-work



# 2020 Census

## Post Processing – Addressing and Resolving Anomalies

### **All anomalies that impact the apportionment or redistricting data will be corrected.**

- Anomalies are tracked, assessed, and corrected if necessary.
- Anomaly corrective actions follow a rigorous development and testing process prior to implementation in production.
- SMEs validate all anomaly corrective actions in production.
- If subsequent anomalies are identified, they will be corrected.

# 2020 Census

## Ensuring Accurate Results

### **Our Focus Remains on Providing Accurate Data**

- We continue to prioritize providing apportionment and redistricting data and are working to resolve all that will impact this data.
- Accuracy is critical to our constitutionally mandated mission. For example, in the 2000 Census the last Congressional seat was decided by 857 persons, highlighting how important it is to ensure everyone is counted once, only once, and in the right place.
- We are committed to ensuring quality and accuracy of our count.

### **Establishment of Data Quality Executive Guidance Group (EGG)**

- Chartered by the Deputy Director in May 2020 to oversee and verify the quality of the resulting data products.
- Rigorous process for review
- Unprecedented transparency
- Operational data collection metrics
- Post Enumeration Survey (PES)
- Demographic Analysis

# 2020 Census

## Data Quality Measures

### Two primary methods for evaluating quality

- The Post-Enumeration Survey will produce estimates for over and under counts
  - November 2021 through February 2022
- Comparing census results to other estimates: Demographic Analysis was released December 15, 2020

# 2020 Census

## Demographic Analysis Results Released 12/15/2020

### 2020 Demographic Analysis Estimates of the U.S. Population as of April 1, 2020

Low  
330,730,000

Medium  
332,601,000

High  
335,514,000

# 2020 Census Post Processing Timeline Comparison

Processing Step	Original Plan		COVID Plan		Current Official Schedule	
	Start	Finish	Start	Finish	Start	Finish
DRF1	9/15/2020	10/15/2020	12/18/2020	1/19/2021	10/29/2020	12/29/2020
DRF2	10/16/2020	11/7/2020	1/20/2021	2/9/2021	12/26/2020	2/21/2021
CUF or CUF1	11/8/2020	12/5/2020	2/10/2021	3/5/2021	2/22/2021	3/26/2021
Apportionment	12/6/2020	12/27/2020	3/6/2021	4/30/2021	3/27/2021	4/30/2021
Deliver Redistricting	2/18/2021	3/31/2021	6/18/2021	7/30/2021	TBD	TBD

# 2020 Census

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

Annual Tabulation using the American Community Survey 5-year estimates for 2011 through 2020 publications

- **Release planned for February 1, 2021**

The Census Bureau has suspended production of the Post-2020 Census CVAP Special Tabulation following the “Executive Order on Ensuring a Lawful and Accurate Enumeration and Apportionment Pursuant to the Decennial Census.”

The Census Bureau will review with the Voting Section of the Department of Justice whether the current format and granularity of the CVAP tabulation based on the ACS continues to meet its requirements.

The January 20, 2021 E.O. also stresses accuracy, requiring the Secretary to “take all necessary steps, consistent with law, to ensure that the total population information presented to the President and to the States is accurate and complies with all applicable laws.”

# 2020 Census

## Disclosure Avoidance Update

December 2020 – present. DAS team is continuing experimental runs to evaluate and tune the system.

- We will release a new set of Detailed Summary Metrics to allow our data users to assess the improvements made through this empirical tuning of the system.
- In the interest of time, we do not plan to issue another set of demonstration data for those experiments.

Early 2021 – the Census Bureau’s Data Stewardship Executive Policy committee (DSEP) will determine the final privacy-loss budget for the redistricting (P.L. 94-171) data product as well as the amount to be reserved for future 2020 Census publications.

- Census Bureau will release a final set of demonstration data and Detailed Summary Metrics that reflect the final privacy-loss budget and exact parameter settings of the DAS as it will be used to produce the 2020 Census redistricting data.
- As soon as practical thereafter, the production code base will be released for the P.L. 94-171 data product.

# 2020 Census

## Count Question Resolution Program Overview

- The Count Question Resolution program will review requests for corrections to the 2020 Census counts based on two types of cases: boundary and count.
- Count corrections will be issued to the tribal chairperson or highest elected official of affected governmental units.
- 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. However, corrections will apply to the basis of intercensal population estimates starting in 2022
- CQR does not collect any new data in the field and is not the same as a special census.
- Inquiries may be submitted to the Census from 10/1/21 through 6/30/23. Census will respond within 90 days.



# 2020 Census

## Count Question Resolution Workflow

- Tribal, state, and local governments review published 2020 Census results. If they suspect errors with their boundaries or their counts, they may file a CQR case.
- DCMD CQRB receives cases, reviews the case materials for correctness and completeness, and determines whether the case is in or out of scope.
- In-scope cases are sent to GEO for research and resolution. Research may or may not find processing errors in the 2020 Census data. If no processing errors are found, no changes are made and the case is closed.
- If processing errors are found, they are resolved. Once resolved, the Census Bureau re-tabulates the 2020 Census counts for all governments impacted by the CQR case.
- The Census Bureau provides the updated 2020 Census counts to the highest elected official of all impacted tribal, state, and local governments, and posts the errata on the 2020 CQR website.

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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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