2020 Census Update

04/23/2021
James Whitehorne
Chief, Census Redistricting and Voting Rights Data Office
Apportionment
## Apportionment vs. Redistricting

<table>
<thead>
<tr>
<th></th>
<th>Appportionment</th>
<th>Redistricting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geography</strong></td>
<td>Largest State</td>
<td>State</td>
</tr>
<tr>
<td></td>
<td>Smallest State</td>
<td>Census Block</td>
</tr>
<tr>
<td><strong>Who is counted</strong></td>
<td>Resident Population + Federally Affiliated Count Overseas</td>
<td>Resident Population Only</td>
</tr>
<tr>
<td><strong>What is reported</strong></td>
<td>Total Population only</td>
<td>Race, ethnicity, and select housing characteristics</td>
</tr>
<tr>
<td><strong>Disclosure Avoidance</strong></td>
<td>None</td>
<td>Differentially Private (TopDown Algorithm)</td>
</tr>
<tr>
<td><strong>Current Timeline</strong></td>
<td>By April 30, 2021</td>
<td>Legacy Format – Mid-to-late August 2021</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DVDs/Flash Drives &amp; data.census.gov by September 30, 2021</td>
</tr>
</tbody>
</table>
Historical Apportionment Data Map

- Online Interactive Mapping Tool.
- Displays Apportionment Results & Population Data for each census from 1910 to 2010.
- 2020 Census apportionment results will be added to the map once they become available.

2020 Census
Quality Indicators: Operational Metrics

Already released

- Self response to the tract
  - Final self-response rate for the 2020 Census was 67.0% (2010 rate was 66.5%)
- Total completion rates at the state level
  - 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
- Nonresponse Followup workload completion by Area Census Office
- National administrative records enumeration rate
  - 5.6% of addresses nationwide were resolved by high-quality administrative records
- National proxy respondent rate
  - 24.1% of occupied housing units in the Nonresponse Followup Universe were enumerated by proxy (23.8% in 2010 Census)
2020 Census

Quality Indicators: Operational Metrics

April metrics

• Percentage of addresses determined to be occupied, vacant, or nonexistent by how that was determined
  • Self-response
  • Nonresponse Followup
  • Group Quarters Operation
  • Unresolved (Imputed)
• Percentage of Nonresponse Followup occupied addresses by resolution method
  • Household interview
  • Administrative records
  • Proxy interview
• Percentage of Nonresponse Followup vacant or deleted addresses
  • Resolved as vacant
    • By proxy interview
    • By administrative records
  • Resolved as deletes
    • By proxy interview
    • By administrative records
Redistricting
Ensure all records are coded to their most detailed level of geography.

Conduct characteristic editing and imputation that ensures each record has valid values for major characteristics.

Apply differential privacy to ensure confidentiality of responses.

Tabulate and review all redistricting data in multiple formats.

Create physical media, load and test web-based systems.

Deliver data to the states and public by September 30.
The user-friendly tools and materials we intend to deliver in September are the DVDs and Flash Drive and our Data.census.gov Data Explorer platform.

- **DVDs and Flash Drives** – These are what we deliver to the official recipients with an integrated software browsing tool that allows intuitive browsing of the data. They also contain a custom extraction menu that allows for the extraction of large datasets from the device. Those extractions can then be imported easily into a Geographic Information System or database.

- **Data Explorer web tool** – The data.census.gov Data Explorer is our online data browsing tool for both the official recipients and the public. Users of the Data Explorer platform can access many different census datasets, including the redistricting data. It has custom filters that allow the user to filter on those geographic and characteristic data for which they are interested. For example, a State could filter the data and easily identify the number of voting-age residents by race or ethnicity in each and every block within a census tract, county, or even for the entire state. They can then view, map, and download these datasets once they have set the filters with their choices.
Ensure all records are coded to their most detailed level of geography.

Conduct characteristic editing and imputation that ensures each record has valid values for major characteristics.

Apply differential privacy to ensure confidentiality of responses.

Tabulate and review all redistricting data in multiple formats.

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Deliver data to the states and public by September 30.
Redistricting Data Program

Public Law 94-171 Legacy Format Summary Files

Legacy Format Summary Files

• Product was always part of the 2020 Census product plan
• Format produced and provided to the states since at least Census 2000
• Requires additional handling to properly extract data from this format
• Fully reviewed and cleared for publication by mid-to-late August 2021
• The same data as what will be released in more user-friendly forms by September 30, 2021
  • Used as the source files for the DVD/Flash Drive creation
Redistricting Data Program
Public Law 94-171 Legacy Format Summary Files

Physical description

• 2020 formatting is four pipe delimited text files per state contained in a single .ZIP file
  • Geoheader – contains all the geographic codes for the geography included in the redistricting dataset
  • Data Segment 1 – Table P1: Race & Table P2: Hispanic or Latino, and not Hispanic or Latino by Race
  • Data Segment 2 – Table P3: Race for the Population 18 Years and Over & Table P4: Hispanic or Latino, and not Hispanic or Latino by Race for the Population 18 and Over & Table H1 – Housing Status (Occupancy)
  • Data Segment 3 – Table P5: Group Quarters Population by Group Quarters Type
  • The geoheader must be used together with the data segments in order to access the data

• 2010 formatting was different
  • 3 files in total: 1 geoheader and 2 data segments
  • Geoheader was a fixed width format
  • Data segments were comma delimited
  • No GEOCODE field
Redistricting Data Program

**Public Law 94-171 Legacy Format Summary Files**

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</table>

Linked tables on the common field.

Processing and Extracting Data

Screenshot of portion of geoheader

Screenshot of portion of data segment 1
Q: I want total population for my townships in RI.

Township identifier is in Summary Level field as 060

Total Population field is in data segment 1 as field P0010001
Q: I want total population for my townships in RI.

Query: From the GEOHEADER file give me records where SUMLEV = 060. Output the corresponding GEOCODE, NAME (not shown on slide) and P0010001
Redistricting Data Program
Public Law 94-171 Legacy Format Summary Files

Query Results: From the GEOHEADER file give me records where SUMLEV = 060 and output the corresponding GEOCODE, NAME and P0010001

<table>
<thead>
<tr>
<th>SUMLEV</th>
<th>GEOCODE</th>
<th>NAME</th>
<th>P0010001</th>
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<td>060</td>
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<td>Burrillville town</td>
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<td>4400714140</td>
<td>Central Falls city</td>
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<td>4400715180</td>
<td>Cranston city</td>
<td>82619</td>
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<td>4400741500</td>
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<tr>
<td>060</td>
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</tr>
</tbody>
</table>

Screenshot of results
Redistricting Data Program

Public Law 94-171 Legacy Format Summary Files

Support

• Consultations with major software vendors and individual states to ensure they understand the August format
• 2020 Census State Redistricting (P.L. 94-171) Summary File Technical Documentation
• Prototype P.L. 94-171 Redistricting Data Summary File
  • Content from the 2018 End-to-End Census Test in Providence County, RI
  • In the format planned for the 2020 Census Legacy Format Summary Files
• Header File – Excel Format
  • Tabs for the header of each file which can be imported into other software or used within Excel
  • Tabs with plain English definition for the headers
• Microsoft Access database shell
  • Tables shells for each file
  • Example queries to demonstrate query logic and provide practice
  • Illustrated step-by-step guide on how to use the Microsoft Access database shell
• Coming this Summer: SAS script for import of the Legacy Format Summary File
Redistricting Related Census Data

Official 2020 Census redistricting geographic support products
- Includes shapefiles, maps, and tabular data
- Geographic products available for all states, D.C., and Puerto Rico as of 2/12/2021
- [https://www.census.gov/programs-surveys/decennial-census/about/rdo/summary-files.html#P2](https://www.census.gov/programs-surveys/decennial-census/about/rdo/summary-files.html#P2)

Prototype redistricting data
- From the 2018 End-to-End Census Test in Providence Rhode Island
- Includes geography files and counts
- [https://www.census.gov/programs-surveys/decennial-census/about/rdo/program-management.html#P3](https://www.census.gov/programs-surveys/decennial-census/about/rdo/program-management.html#P3)

Census geocoding service
- Updated with 2020 Census geography and address ranges
- Available to the public for geocoding 10,000 or fewer addresses per submission
- Special provision for state redistricting officials to submit larger lists of addresses if needed
- [https://www.census.gov/programs-surveys/decennial-census/about/rdo/summary-files/2020/GQAssistance_CensusGeocoder.html](https://www.census.gov/programs-surveys/decennial-census/about/rdo/summary-files/2020/GQAssistance_CensusGeocoder.html)
Redistricting Data Program

P.L. 94-171 Redistricting Data Delivery

Legacy Format Summary Files
• Release files to states and public on Public File Transfer Protocol (Public FTP) site by August 16, 2021.

User-Friendly Format Summary Files
• Mail files to official state recipients on physical media (DVD/Flash Drive) by September 30, 2021 (Confirm Receipt).
• Release to states and public via the Data Explorer web tool <data.census.gov> by September 30, 2021.

Official State Recipients of the Data
• Governors
• Majority and Minority Legislative Leadership
• Redistricting Commissions (if established)
• Non-partisan State Liaisons
Decennial Census of Population and Housing

Redistricting Data Program
Where to get the data.

Prototype Data from March 2019
Official Data in 2021

Voting Rights Data
(Section 203 & CVAP)

WWW.CENSUS.GOV/RDO
Thank You

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