The information provided in presentation materials is for informational purposes only and may not represent the official position of the Census Bureau or the Department of Commerce. Statements made by individual presenters may not represent the agency’s final position on any matter.
Agenda

• Apportionment
• Current Census Bureau publications
• 2020 Census Operations – Data Quality Measures
• Disclosure avoidance
• Redistricting Data Program
  • P.L. 94-171 Geographic Support Products
  • P.L. 94-171 Redistricting Data
• CVAP
  • ACS based CVAP
  • 2020 Census based CVAP
Apportionment

- The Census Bureau has committed to delivering the apportionment data as close to the Dec. 31 deadline as possible.
- “It is our plan right now that if we need more time to fix a problem that comes up, that would impact the quality of the census, we’re taking it” – Al Fontenot, Associate Director for Decennial Operations
- Expedited process made possible by:
  - Elimination of a secondary check of the Master Address File
  - Faster computing power
  - Computing resources running 24/7
  - Staff working seven days a week
  - Focusing solely on apportionment and deferring some redistricting processing
Current Census Bureau Publications

Economic Data Releases:

• Business Size Tables – December 3

• 2019 Service Annual Survey (SAS) data – December 11

• Quarterly Summary of State and Local Government Tax Revenues: 3rd Qtr. 2020 – scheduled Dec. 17

• Nonemployer Business Demographics Statistics - scheduled Dec. 17

• Small Business Pulse Survey – weekly through Jan 14, 2021

2020CENSUS.GOV Pre-decisional - Internal Use Only - Not for Public Distribution
Current Census Bureau Publications

Census ACS and Demographic Data Releases:

• America’s Families and Living Arrangements table package – December 2, 2020

• International Population Estimates and Projections – December 3, 2020

• 2015-2019 American Community Survey 5-year estimates
  • 12/3/20 Webinar at 2pm EST on access, resources, and use tips
  • 12/10/20 release of this dataset on https://data.census.gov/cedsci/

• Small Area Income and Poverty Estimates – December 8, 2020
  • States, Counties, and School Districts

• Total and Voting-age Population Estimates for the United States and States – December 22, 2020

• 2020 Demographic Analysis Estimates – December 15, 2020
2020 Census Operations – Data Quality Measures

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%)
• 28 States met or exceeded their self response rates from 2010
  • 99 million self-responses
    – 79 million Internet
    – 18 million Paper
    – 1.83 million Phone
2020 Census Operations – Data Quality Measures

2020 Census Nonresponse Followup metrics
• Nonresponse follow-up rate accounted for 32.9% of total response
• 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
  – Evaluation of the process of conducting census work: Post-Enumeration Survey
    • November 2021 through February 2022
  – Comparing census results to others: Demographic Analysis
    • December 15, 2020
2020 Census Operations – Data Quality Measures

DEMOGRAPHIC ANALYSIS

Demographic Analysis is an independent program that builds estimates of the population using the nation’s “vital registration” system — birth records, death records — as well as estimates of international migration. Demographic Analysis leverages the strengths of the nation’s population records.

• Demographic Analysis news conference

• Tuesday, December 15, 2020 at 1 p.m. EST

• Toll-free number: 1-888-677-1834

• Passcode: 2680724#

• Link: https://uscensusevents.webex.com/uscensusevents/onstage/g.php?MTID=edde3b87104c54afef92c2d1e2ac7d50
2020 Census Operations – Data Quality Measures

DEMOGRAPHIC ANALYSIS

2010 Demographic Analysis Examples

• Total U.S. Resident Population by Age
• Black U.S. Resident Population by Age
• Non-black U.S. Resident Population by Age
• Total U.S. Population by Age and Sex
• Hispanic U.S. Resident Population by Age
• Non-Hispanic U.S. Resident Population by Age
• And others
2020 Census Operations – Data Quality Measures

DEMOGRAPHIC ANALYSIS

• 2010 Total U.S. Resident Population by Age

Table 3. Total U.S. Resident Population by Age: April 1, 2010
(In thousands)

<table>
<thead>
<tr>
<th>Age on April 1, 2010</th>
<th>Year of birth</th>
<th>Low</th>
<th>Low middle</th>
<th>Middle</th>
<th>High middle</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td>365,644</td>
<td>367,415</td>
<td>368,475</td>
<td>310,038</td>
<td>312,713</td>
</tr>
<tr>
<td>0</td>
<td>2008-2010</td>
<td>4,119</td>
<td>4,119</td>
<td>4,120</td>
<td>4,121</td>
<td>4,122</td>
</tr>
<tr>
<td>1</td>
<td>2008-2008</td>
<td>4,208</td>
<td>4,208</td>
<td>4,211</td>
<td>4,214</td>
<td>4,217</td>
</tr>
<tr>
<td>2</td>
<td>2007-2007</td>
<td>4,331</td>
<td>4,331</td>
<td>4,335</td>
<td>4,341</td>
<td>4,346</td>
</tr>
<tr>
<td>3</td>
<td>2006-2006</td>
<td>4,183</td>
<td>4,183</td>
<td>4,225</td>
<td>4,323</td>
<td>4,342</td>
</tr>
<tr>
<td>4</td>
<td>2005-2005</td>
<td>4,205</td>
<td>4,205</td>
<td>4,214</td>
<td>4,225</td>
<td>4,238</td>
</tr>
<tr>
<td>5</td>
<td>2004-2004</td>
<td>4,162</td>
<td>4,162</td>
<td>4,174</td>
<td>4,187</td>
<td>4,203</td>
</tr>
<tr>
<td>6</td>
<td>2003-2003</td>
<td>4,177</td>
<td>4,177</td>
<td>4,192</td>
<td>4,207</td>
<td>4,228</td>
</tr>
<tr>
<td>8</td>
<td>2001-2001</td>
<td>4,109</td>
<td>4,109</td>
<td>4,131</td>
<td>4,152</td>
<td>4,181</td>
</tr>
<tr>
<td>9</td>
<td>2000-2000</td>
<td>4,159</td>
<td>4,159</td>
<td>4,184</td>
<td>4,207</td>
<td>4,241</td>
</tr>
<tr>
<td>10</td>
<td>1999-1999</td>
<td>4,170</td>
<td>4,179</td>
<td>4,206</td>
<td>4,230</td>
<td>4,266</td>
</tr>
<tr>
<td>12</td>
<td>1997-1996</td>
<td>4,080</td>
<td>4,082</td>
<td>4,120</td>
<td>4,141</td>
<td>4,170</td>
</tr>
<tr>
<td>13</td>
<td>1996-1997</td>
<td>4,072</td>
<td>4,084</td>
<td>4,111</td>
<td>4,132</td>
<td>4,169</td>
</tr>
<tr>
<td>14</td>
<td>1995-1996</td>
<td>4,100</td>
<td>4,114</td>
<td>4,141</td>
<td>4,162</td>
<td>4,180</td>
</tr>
<tr>
<td>15</td>
<td>1994-1995</td>
<td>4,128</td>
<td>4,143</td>
<td>4,168</td>
<td>4,189</td>
<td>4,226</td>
</tr>
<tr>
<td>19</td>
<td>1990-1991</td>
<td>4,411</td>
<td>4,430</td>
<td>4,453</td>
<td>4,480</td>
<td>4,527</td>
</tr>
<tr>
<td>20</td>
<td>1989-1990</td>
<td>4,359</td>
<td>4,379</td>
<td>4,400</td>
<td>4,431</td>
<td>4,461</td>
</tr>
<tr>
<td>21</td>
<td>1988-1988</td>
<td>4,236</td>
<td>4,250</td>
<td>4,279</td>
<td>4,313</td>
<td>4,366</td>
</tr>
<tr>
<td>22</td>
<td>1987-1987</td>
<td>4,169</td>
<td>4,189</td>
<td>4,210</td>
<td>4,247</td>
<td>4,303</td>
</tr>
<tr>
<td>24</td>
<td>1985-1985</td>
<td>4,153</td>
<td>4,183</td>
<td>4,206</td>
<td>4,241</td>
<td>4,297</td>
</tr>
<tr>
<td>25</td>
<td>1984-1984</td>
<td>4,125</td>
<td>4,148</td>
<td>4,170</td>
<td>4,219</td>
<td>4,272</td>
</tr>
<tr>
<td>26</td>
<td>1983-1983</td>
<td>4,107</td>
<td>4,137</td>
<td>4,160</td>
<td>4,204</td>
<td>4,256</td>
</tr>
</tbody>
</table>
2020 Census Operations – Data Quality Measures

• Analysis of how well the mobile devices worked for census takers, what percentage of households refused to participate in an interview with a census taker (refusal rates), a final proxy rate, etc.

• Additional information about responses by the different response modes, by demographic groups, by language, etc., once this information is available.

• Additional operational metrics related to data quality when we release data related to apportionment.

• We have also invited an independent group of scientists, collectively called JASON, to review our plans, processes, procedures, and proposed metrics around 2020 Census data quality.

• We also plan to work with the American Statistical Association and the National Academies of Sciences, Engineering, and Medicine on assessing data quality.
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

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 4, 2020 – Variability Assessment of Data Treated by the TopDown Algorithm for Redistricting
- 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
2020 Census

Disclosure Avoidance

• November 16, 2020 - Release interim output showing improvements (PPMF)
  • Error corrected from 9/17/20 version with other enhancements

• November 24, 2020 – Invariants set for the 2020 Census Group 1 Data products
  • Group 1 Data Products
    • P.L. 94-171 Redistricting Data
    • Demographic Profiles
    • Demographic Housing and Characteristic File
    • Congressional District Summary Files
  • Invariants
    • Total Population (at the State and State-equivalents level)
    • Total Housing Units (at the census block level)
    • Number of Group Quarters facilities by type (at the census block level)
2020 Census
Disclosure Avoidance

• Next Steps
  • December 2020 - DAS team conducts 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 will not be issuing another set of PPMFs 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 PPMFs and Detailed Summary Metrics that reflect the final privacy-loss budget and exact parameter settings of the DAS as it will be used for the production of 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.
### Redistricting Data Program

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

**Phase 3 – Prototype Data**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prototype geographic support products</td>
<td>February 2019 (Complete)</td>
</tr>
<tr>
<td>Prototype P.L. 94-171 Redistricting Data</td>
<td>March 2019 (Complete)</td>
</tr>
</tbody>
</table>

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

**Phase 3 – Official Data**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Original Planned Dates</th>
<th>New Planned Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic support products</td>
<td>Nov. 20, 2020 – Feb. 1, 2021</td>
<td>1/22/2021 through 2/28/2021</td>
</tr>
<tr>
<td>P.L. 94-171 Redistricting Data</td>
<td>Feb. 18, 2021 – March 31, 2021</td>
<td>TBD*</td>
</tr>
</tbody>
</table>

* Statutory deadline April 1, 2021
Redistricting Data Program

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

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Census Web Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block Assignment Files</td>
<td><a href="https://www.census.gov/geographies/reference-files.html">https://www.census.gov/geographies/reference-files.html</a></td>
</tr>
<tr>
<td>Block to Block Relationship Files</td>
<td><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></td>
</tr>
</tbody>
</table>

- 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 Tabulation Product

<table>
<thead>
<tr>
<th>2020 Census P.L. 94-171 Redistricting Data Tabulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table P1 – Race</td>
</tr>
<tr>
<td>Table P2 – Race for the Population 18 Years and Over</td>
</tr>
<tr>
<td>Table P3 – Hispanic or Latino, and not Hispanic or Latino by Race</td>
</tr>
<tr>
<td>Table P4 – Hispanic or Latino, and not Hispanic or Latino by Race for the Population 18 and Over</td>
</tr>
<tr>
<td>Table H1 – Occupancy Status (Housing)</td>
</tr>
<tr>
<td><strong>New Table</strong></td>
</tr>
<tr>
<td>Table P5 – Group Quarters Population by Group Quarters Type</td>
</tr>
</tbody>
</table>

- 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
  - Release planned in the 1st week of February each year
- 2020 Census CVAP Special Tabulation
  - Calculated using administrative records and the 2020 Census

<table>
<thead>
<tr>
<th>Content</th>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total:</td>
<td>Nation</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>State</td>
</tr>
<tr>
<td>Not Hispanic or Latino:</td>
<td>Congressional District</td>
</tr>
<tr>
<td>White alone</td>
<td>State Legislative District, Upper Chamber</td>
</tr>
<tr>
<td>Black or African American alone</td>
<td>State Legislative District, Lower Chamber</td>
</tr>
<tr>
<td>American Indian and Alaska Native alone</td>
<td>County</td>
</tr>
<tr>
<td>Asian alone</td>
<td>Minor Civil Division (for CT, MA, ME, MI, MN, NH, NJ, NY, PA, RI, VT, and WI)</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander alone</td>
<td>Tract</td>
</tr>
<tr>
<td><strong>Some Other Race alone</strong>*</td>
<td>Block Group</td>
</tr>
<tr>
<td>Black or African American and White</td>
<td>Block*</td>
</tr>
<tr>
<td>American Indian and Alaska Native and White</td>
<td>*only for the 2020 Census Special Tabulation</td>
</tr>
<tr>
<td>Asian and White</td>
<td></td>
</tr>
<tr>
<td>American Indian and Alaska Native and Black or African American</td>
<td></td>
</tr>
<tr>
<td>Remainder of Two or More Race Responses</td>
<td></td>
</tr>
</tbody>
</table>
Thank You

James Whitehorne
Chief – Census Redistricting & Voting Rights Data Office

U.S. Department of Commerce
U.S. Census Bureau
4600 Silver Hill Rd.
Washington, DC 20233

Office: 301-763-4039
rdo@census.gov
Connect with Us

Sign up for and manage alerts at https://public.govdelivery.com/accounts/USCENSUS/subscriber/new

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


facebook.com/uscensusbureau
twitter.com/uscensusbureau
youtube.com/user/uscensusbureau
instagram.com/uscensusbureau