2020 Census Challenge Process

North Carolina League of Municipalities
September 21, 2021
## 2020 Census Demographic Data

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Release Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apportionment</td>
<td>April 26, 2021</td>
<td>Total and resident state populations</td>
</tr>
<tr>
<td>Redistricting</td>
<td>August 12, 2021</td>
<td>Total and voting age populations by race and Hispanic Origin, Group Quarters</td>
</tr>
<tr>
<td></td>
<td>September 16, 2021</td>
<td>population, and housing unit occupancy to the census block level</td>
</tr>
<tr>
<td>Demographic and Housing Characteristics</td>
<td>2022</td>
<td>Population by age, race, sex, and Hispanic Origin, household, and housing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>unit data to the census block level</td>
</tr>
</tbody>
</table>
• 2020 Census Redistricting release from August 12, 2021
  - delimited text files, visualizations, Data Mapper, press kit resources

• 2020 Census Redistricting release on September 16, 2021
  https://data.census.gov/

• NC Office of State Budget and Management LINC System
  Summary datasets for state, county, place, township, census tract, and block group
  https://www.osbm.nc.gov/facts-figures/linc
• Title 13 of the US Code requires the US Census Bureau to protect the confidentiality of Census responses. That task changes in response to changes in technology.

• DAS injects noise (privacy loss budget) into the data to protect privacy.

<table>
<thead>
<tr>
<th>PLB - 0</th>
<th>PLB - 19.61</th>
<th>PLB - Infinity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfect Privacy/No Data</td>
<td>2020 Census Redistricting</td>
<td>Complete Data/No Privacy</td>
</tr>
</tbody>
</table>

• Total state population, census block housing unit and GQ structures are invariant

• Census block data are very fuzzy. Use larger geographies or group smaller ones.

• See the Census Bureau DAS site for details
Disclosure Avoidance by George Seurat

Census Block

Parade de Cirque, 1887-1888

Census Tract

State
• The nation’s population grew by 22.7 million from 2010 to 2020, but the 7.4% growth rate was the lowest since the Great Depression.

• Population growth was mostly in Metropolitan areas
  - Metro area population grew by 8.7%
  - Micro area population grew by 0.8%
  - Non-Metro or Micro area populations decreased by 2.8%

• 52% of the nation’s counties lost population over the last decade

• Diversity is increasing
Share of U.S. Population by Core Based Statistical Area (CBSA) Type: 2000 and 2020

**2000**
- Metropolitan: 9.2%
- Micropolitan: 6.5%
- Outside CBSA: 84.3%

**2020**
- Metropolitan: 8.3%
- Micropolitan: 5.4%
- Outside CBSA: 86.3%

*50,000+ urban core population
10,000-49,999 urban core population
No urban core of 10,000+ population*
Percent Change in County Population: 2010 to 2020

Percent change
- 20.0 or more
- 10.0 to 19.9
- 5.0 to 9.9
- 0.0 to 4.9
- Less than 0.0
- Comparable data not available
Hispanic Origin of Any Race – 10.7%
2010 - 2020 Change in Housing Units

Source: US Census Public Law 94-171 (Redistricting) data, US Census Bureau

Numeric Change

-4,325 - -500
-499 - -1
0 - 999
1,000 - 9,999
10,000 - 100,000

Produced by NC Office of State Budget and Management
### 2020 Census Geospatial Data

- 2020 Census Redistricting - [https://www.census.gov/rdo](https://www.census.gov/rdo)

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shapefiles</td>
<td>GIS geometry files</td>
</tr>
<tr>
<td>Reference Maps (PDF)</td>
<td>County Block, State Legislative with Voting District, Census Tract, School District</td>
</tr>
<tr>
<td>Block Assignment Files</td>
<td>Tables identifying the blocks used to build geographic entities</td>
</tr>
<tr>
<td>Name Lookup Tables</td>
<td>Names and codes for geographic areas within a state</td>
</tr>
<tr>
<td>Block to Block Relationship Files</td>
<td>Crosswalk of 2010 blocks to 2020 blocks</td>
</tr>
</tbody>
</table>

- Coming soon to NC OneMap - [https://www.nconemap.gov/](https://www.nconemap.gov/)
2020 Census Challenges – Count Question Resolution (CQR) Program

• CQR program run January 2022 – June 2023

• Local governments may only challenge 2020 Census counts based on

<table>
<thead>
<tr>
<th>Boundary</th>
<th>Incorrect boundaries were used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geocoding</td>
<td>Housing units or GQs were counted in the wrong place (inside/outside town limits)</td>
</tr>
<tr>
<td>Coverage</td>
<td>Housing units or GQs in an area were not counted</td>
</tr>
</tbody>
</table>

• Local governments must present evidence to make their case. Documentation on occupied structures as of April 1, 2020

• Current CQR website
Boundary case correction example:
Living Quarter Count case, Geocoding correction example:
Living Quarter Count case, Coverage correction example:
Review and Challenge Strategy

• Focus on structure count, location, and occupancy

• Verify Census boundary with boundary in effect on January 1, 2020 and housing/Group Quarter structure count with local records.

• Census block level count of housing unit and group quarters structures

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NC Office of State Budget and Management</td>
<td><a href="https://linc.osbm.nc.gov/explore/dataset/nchu_gq_counts_9_20_21">https://linc.osbm.nc.gov/explore/dataset/nchu_gq_counts_9_20_21</a></td>
</tr>
</tbody>
</table>
Analysis Resources – NC OneMap Building Footprint Layer

NC Buildings Footprints
Private Member
NCEM - Risk Management

Summary
This data set is a collection of polygons representing the roof line of built structures wholly or partially within the State of North Carolina political boundary. The building footprints are closed polygons with a unique identifier.

Dataset
Feature Layer

January 5, 2021
Info Updated

January 5, 2021
Data Updated

December 5, 2019
Published Date

5,193,564 Records
View data table

Public
Anyone can see this content

Custom License
View license details

5,193,564 records

BLDG.ID: 3710522084

Lee County, NC, State of North Carolina DOT, FDMI, HERE, Geopx, INCREMENT CR USGS, FGDC State of North Carolina DOT

Powered by Esri
### Census 2020 Block Housing Unit & Group Quarters Facility Counts

**Active filters**
- Area: Lee

**Filters**
- Search records...

<table>
<thead>
<tr>
<th>Area</th>
<th>TRACT</th>
<th>BLOCK</th>
<th>BLOCK_GEOID</th>
<th>TOTAL HOUSING UNITS</th>
<th>TOTAL GROUP QUARTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee</td>
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</tbody>
</table>
Details Available in Recorded Webinars

• NC OSBM May Event with Census experts on Redistricting, DAS, and the Count Question Resolution program

• CBSAs can be either Metropolitan (50,000 + core) or Micropolitan (10,000 – 50,000 core) Statistical Areas.

• CBSAs are revised every 10 years after the release of the decennial census data and the conclusion of the CQR program.

• CBSAs are made up of the core area’s home county and neighboring counties with a high degree of integration with the core.

• Criteria are posted online and remain essentially the same as 2010.
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Bob.Coats@osbm.nc.gov

Governor’s Census Liaison,
North Carolina State Data Center
Demographic and Economic Analysis Section
NC Office of State Budget and Management