Planning Lunches at Noon (PLAN) Monthly Webinar Series

Welcome to the PLAN Monthly Webinar Series!

The webinar will begin shortly. Please mute and turn off camera.

Check out our Planning and Zoning Training website page for:

- Slides and recording of all completed webinars in the PLAN series
- Schedule for upcoming webinars
- A short, anonymous online survey to gather feedback and topics for future webinars

www.nh.gov/osi/planning/planning-training.htm

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Webinar Logistics

- Presentation, then Question and Answer session
  - Please type questions into the Chat box

- We will be recording the presentation portions of the webinar.

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THE 2020 CENSUS: NEW DATA FOR NEW HAMPSHIRE COMMUNITIES

Agenda

- 2020 Census – process and timeline
  - Overview/Operations
  - Data releases and Census geography
  - Challenges and post-Census operations
  - *Ken Gallager, Office of Planning and Development / NH State Data Center*
- Results from 2020 for New Hampshire
  - Demographic change in the state
  - Diversity in the state
  - Comparisons to historical trends
  - *Ken Johnson, Senior Demographer, Carsey School of Public Policy*

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The NH State Data Center

- NH liaison to the Census Bureau
  - Previously within Office of Strategic Initiatives
  - Now Office of Planning and Development within BEA
- Distributes and interprets Census data
- Supplies state data to the Census
- Conducts annual population estimates
- Produces population projections twice per decade
- Supports the decennial Census follow-up operations
  - Count Question Resolution

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The 2020 Census

- Counted every person and housing unit in the United States
- Mandated by the U.S. Constitution: Article 1, Section 2
- To apportion each state's number of seats in the U.S. House of Representatives
- And to apportion "direct taxes": the Census is used widely for distribution of federal and other funds
  - In 2016, $3.7 billion distributed to NH ($675B nationwide)
- Baseline for population estimates throughout the decade

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Final Census Timeline

- Self-response: March 12 – October 15, 2020
- Group quarters enumeration: April 2 – September 3, 2020
- Counts of homeless and transitory – September 2020
- Non-response follow-up: August 11 – October 15, 2020
- Deliver apportionment counts: April 26, 2021
- Deliver redistricting data:
  - Legacy format: August 12, 2021
  - On data.census.gov: September 16, 2021
- Deliver Demographic and Housing Characteristics (DHC) files: *2022?*

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Apportionment Data

- The constitutional basis for conducting the census
- Used to distribute the 435 seats in the U.S. House of Representatives
- Consists of the population of each state:
  - Resident population
  - Overseas federal employees (military and civilian) and their dependents
- New Hampshire's 2020 **apportionment** population is 1,379,089
- New Hampshire's 2020 **resident** population is 1,377,529
  - The **resident** population will be used as the state's total population for all subsequent data releases

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Redistricting Data

- Data that states need to draw their new voting districts
- Six tables:
  - P1. Race
  - P2. Hispanic/Latino by Race
  - P3. Race for the Population 18 Years and Over
  - P4. Hispanic/Latino by Race for 18 Years and Over
  - Group Quarters Population by Type
  - H1. Occupancy Status

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Redistricting Data

- Available two ways:
- **Legacy Format**
  - Flat files that can be imported into MS Access or into standard statistical packages such as SAS or R
  - Decennial Census P.L. 94-171 Redistricting Data Summary Files contains the data, technical documentation, and table shells to facilitate imports
- **Data.census.gov**
  - Easier for general public to query and download custom results
- Both types available at all levels of census geography

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Future Data Releases

- **Demographic and Housing Characteristics (DHC)** files
  - 5-year age groups and sex
  - Household types, size, and relationships
  - Housing occupancy, tenure, types of vacancy
- **Detailed DHC** files
  - More detailed race and ethnicity combinations
  - Single-year age groups, and age in combination with race
  - Household types in combination with race
  - Group quarters by race
- No release dates available yet

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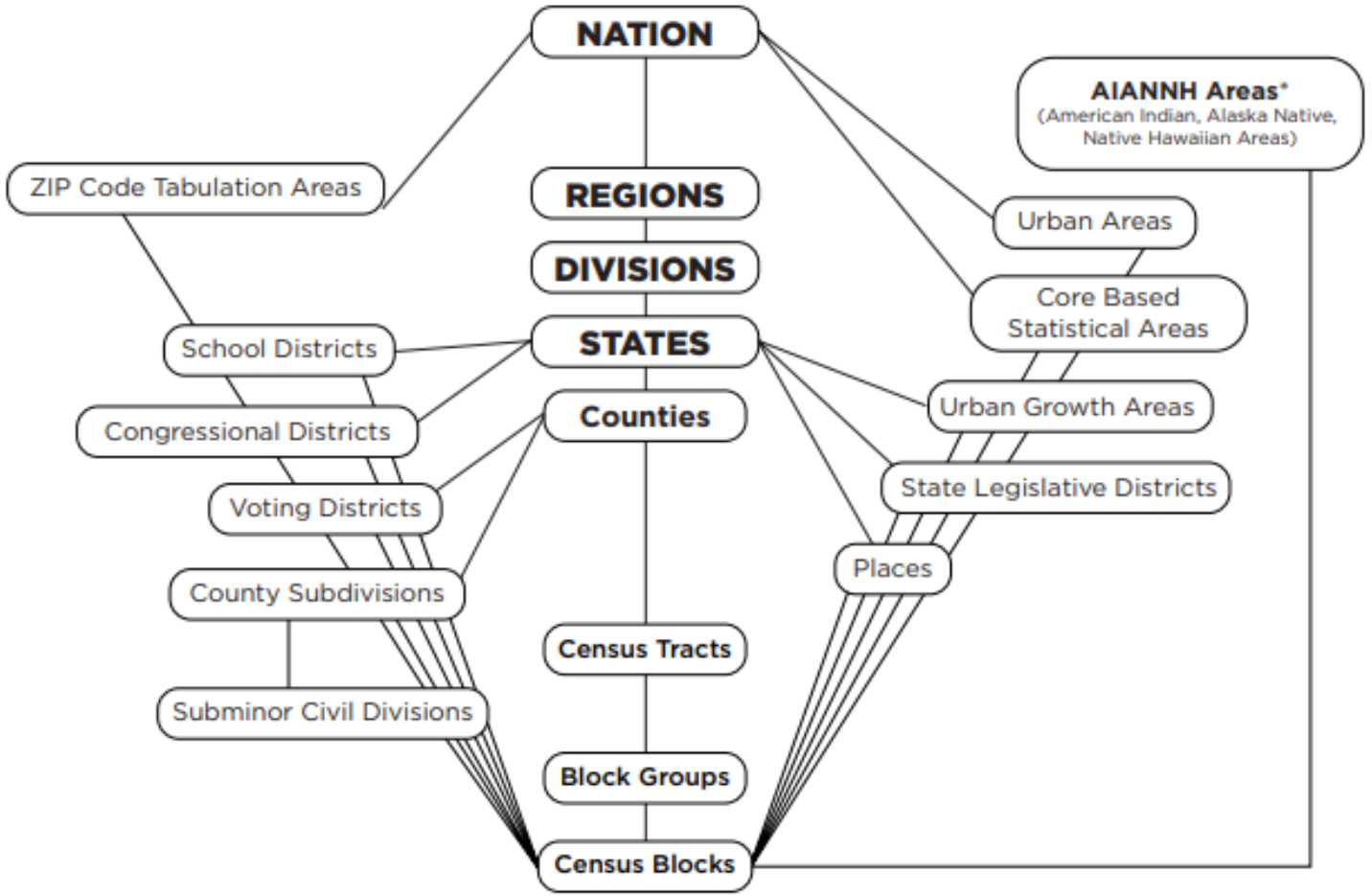
A Brief Digression: Geographic Data

Figure 2-1.
Standard Hierarchy of Census Geographic Entities



* Refer to the "Hierarchy of American Indian, Alaska Native, and Native Hawaiian Areas."

Geographic Data

- Entities with non-standard nesting:
  - Tracts
    - Do not nest inside county subdivisions
    - Instead are drawn to contain approx. 5,000 residents
    - There might be several tracts in a town or city, or several towns may comprise a single tract
  - Places
    - Cities are places, but towns are not
    - Census-designated places exist within towns, but can also cross town (and county) borders, as well as tract boundaries

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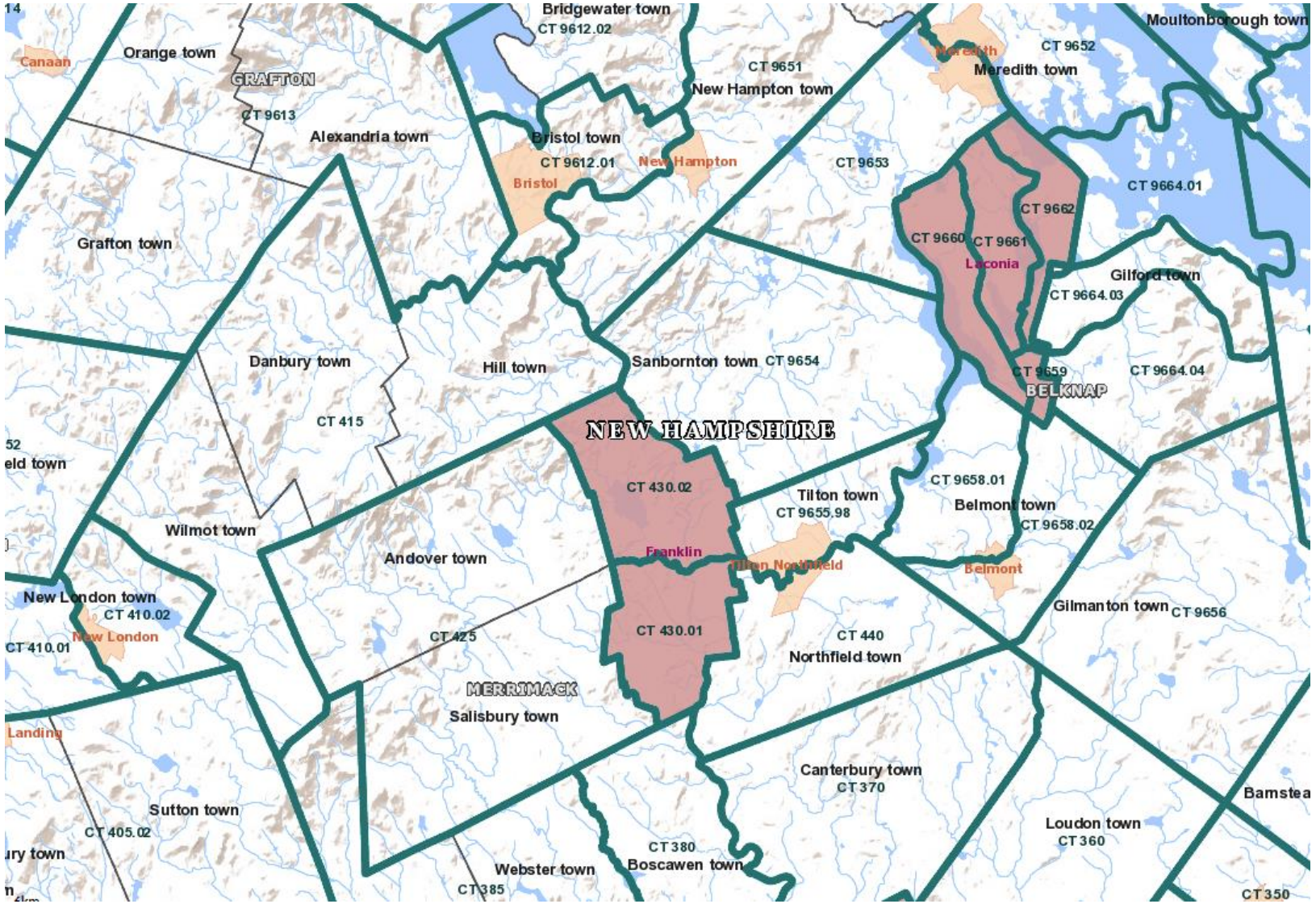
Geographic Data – Tracts and Places



Challenges - COVID

- Delays in operations
- Changes in peoples' locations
  - Movements to second homes?
    - Found some increases compared to annual estimates
  - Movements of college students?
    - One college town had abnormally large increase
  - Anomalies may not be due only to COVID, however

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Differences between Census 2020 and OPD population estimates

The three largest:

- Manchester 4,030
- Nashua 1,750
- Henniker 1,232

The highest percentages:

- Waterville Valley 103.2%
- Henniker 25.4%
- Jackson 19.3%
- Moultonborough 17.5%

- Waterville Valley, Jackson, and a few others may be due to people moving
- The other cases probably have different reasons.

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Challenges – Disclosure Avoidance

- Census is required under Title 13 of the U.S. Code to fully protect privacy of personal data
- As computing power and number of administrative databases have increased, there is a greater danger that personal data can be reconstructed by outside actors
- Until recently, personal data was protected through the use of data swapping when necessary
- But analysis this past decade showed that up to 57% of the population had a unique combination of demographic traits at block level, and were thus vulnerable to disclosure through algorithmic methods
- Solution (Differential Privacy) requires sophisticated calculations that appear to be increasing the amount of time needed to release the data

Solution – Differential Privacy

- Injects randomly generated noise into the Census results, using an adjustable privacy loss budget
- Uses a **Top Down Algorithm**, which allocates precise amounts of statistical noise at different levels of geography while maintaining the overall accuracy of the data at the aggregate level

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Solution – Differential Privacy

- Invariants (numbers not subject to Disclosure Avoidance)
  - Total population at state level
  - Number and type of group quarters facilities at block level
  - Number of housing units (occupied and vacant) at block level
- Practical effects
  - Block-level data will have the highest amount of noise. Examples:
    - Household population with no housing units
    - Occupied housing units and no population
    - Children living without parents
  - Accuracy improves with higher levels of geography
    - Recommended minimum aggregated population is about 450 for reliability

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More information about Disclosure Avoidance and Differential Privacy:

- Disclosure Avoidance Modernization (census.gov)

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Post-Census Operations

Count Question Resolution (CQR)

- Town or city may challenge the count if they believe populations were placed in the wrong geographic area
- Does **not** include simply saying the population is incorrect
- Usually used by a community saying their population was undercounted
- Detailed rules published in Federal Register this fall
- Announcement in December
- Challenges accepted January 2022 through June 30, 2023
- More information: 2020 Census Count Question Resolution

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Post-Census Operations

PUMA Delineation

- Public Use Microdata Areas
- For dissemination of Public Use Microdata Sample (PUMS) data associated with the American Community Survey (ACS)
- Allows for more detail than available in published ACS tabulations: e.g. more countries of origin, more occupations, etc.
- Drawn following decennial census; valid for the following decade
- Will be delineated at OPD with input from regional planning commissions

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QUESTIONS?

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