COOPERATIVE FORECASTING GROUP
August 23, 2023
10:00 A.M. to 12:00 P.M.

MINUTES

Mr. Steve Cohoon, Queen Anne's County, called the meeting to order at 10:01 A.M.

1. APPROVAL OF MINUTES

Mr. Cohoon asked for approval of the minutes from the June 28, 2023 meeting of the Cooperative Forecasting Group (CFG). Ms. Kathleen Comber moved to approve the minutes, and the minutes were unanimously approved.

2. METHODS FOR CALCULATING HOLDING CAPACITY / LAND USE POTENTIAL: CARROLL COUNTY

A holding capacity analysis provides an estimate of the amount of development that can be accommodated in an area, with consideration given to applicable land-use policies and regulations and environmental constraints. While this type of analysis is performed in most long-range planning efforts, methods may vary by jurisdiction. Ms. Comber provided a presentation on the methods utilized in calculating holding capacity in Carroll County.

Carroll County develops estimates for residential and for commercial Buildable Land Inventory (BLI) based upon zoning and designated land use. Calculations are done separately for each of the municipalities and the unincorporated portions of the county, as each have their own zoning and land use designations. The residential BLI provides estimates in a range of high, medium, and low.

The county uses a GIS based approach, utilizing relevant data layers and tables to calculate residential BLI (measured in number of units) and commercial BLI (measured in acres). The initial step for both residential and commercial analyses is to identify and collect layers for analysis, which include:

- Absolute constraint layers (usually encompass the entire parcel of analysis and include government owned lands, agricultural and environmental easements, and roads / railroad right-of-ways etc);
- Partial constraint layers (generally impact a portion of a parcel and include exceptions such as stream buffers, steep slopes, and wetlands);
- Other relevant data layers (parcel boundaries and attributes, county zoning, municipal zoning, designated/future land use, address points etc).

Ms. Comber highlighted the general process for calculating Residential BLI, which includes the following steps:

- Update / assemble all needed data layers;
- Remove absolute constraints from BLI parcel layer;
- Union the parcel data layer with county and municipal zoning layers;
- Identify and keep in the working layer, all parcels having zoning that allows residential development;
- Set-up the parcel attribute table to include fields necessary for calculating BLI, including multipliers for specific zoning districts and fields for high, medium, and low lot yield estimates (based upon lot size and zoning);
- Populate / calculate the new fields in the attribute table to arrive at estimates for residential development potential (in units).

Ms. Comber also provided the steps utilized in the calculation of Commercial BLI:

- Update / assemble all needed data layers;
- Spatially join the parcel layer with the county and municipal zoning layers;
    - Delete parcels not having a commercial or industrial zoning designation;
- Identify improved / unimproved parcels using the county's address points layer;
- Identify absolute constraints and remove impacted parcels (or parcel portions) from the working BLI layer;
- Calculate commercial BLI acreages based upon remaining parcels in the layer that allow for new commercial development;
- Identify and delete developed parcels that are not further developable (based upon a manual parcel-by-parcel analysis);
- Clean the resulting final commercial BLI database layer and review for accuracy.

The results of both residential and commercial BLI analyses are prepared in two formats: 1) tables showing potential residential lots and potential commercial acreages by growth area; 2) maps highlighting the locations of potential residential (units) and potential commercial (acreage) BLI in Carroll County.

Mr. Cohoon asked how often Carroll County's BLI is updated with new data from building permit activity and demolitions. Ms. Sandy Baber, Carroll County, said that the analysis is updated annually as a part of the county's annual report provided to the state. Ms. Baber added that there is no single model used to run the analyses, and that currently much of the work is performed manually. While the entire analysis might not be completely re-run each year, the bottom line figures are updated annually to include the latest data. The county is working on adjusting the BLI process to make it more efficient, and are considering the use of models to automate some aspects of the process.

[PowerPoint: Carroll County 'Holding Capacity Methodology' – Buildable Land Inventory Method]

3. BRIEFING ON THE CENSUS BUREAU'S POPULATION ESTIMATES PROGRAM AND METHODOLOGY

Mr. Eric B. Jensen, Senior Advisor for Population Estimates and Coverage Measurement at the U.S. Census Bureau, provided a presentation on the Population Estimates Program (PEP) and its methodology.

The PEP produces and distributes official measures of population and housing units between decennial censuses. This is mandated by federal law for important use cases like the distribution of billions of dollars in federal funding, population controls for demographic surveys performed by the Census, academic and business research, and program planning in the public and private sectors.

Every year the entire PEP time series is re-estimated starting at the last Census date and adding an additional year to the time series. The data is released on a rolling basis throughout each year:

- December: National and state-level total population, components of change, and voting age population;
- March: Total population and components of change for counties (and metropolitan/micropolitan areas);
- April: National population by age and sex;
- May: City and town total population and nation/state/county-level housing units;
- June: Nation/state/county-level population by age, sex, race, and Hispanic origin.

The types of data products offered through the PEP program include:

- Postcensal estimates: Official estimates between census years; based on the most recent census, using administrative records to estimate current population;
- Intercensal estimates: Adjusted postcensal estimates to be consistent with decennial censuses; designed to be used as a time series with other decades of intercensal estimates;
- Evaluation estimates: Research series; created after a new census and used to investigate differences between the estimated population on April 1st, and the enumerated population;
- Demographic analysis estimates: An estimate of the latest census date based primarily on administrative records, which is independent of any census; one of the official benchmarks used by the census to measure coverage in the latest decennial census;
- Population Projections: Administrative data is used to project future trends of components of change, incorporating varying assumptions about growth expectations. The projections are developed for the nation only, and the horizon is typically 50+ years from the "current" year.

Mr. Jensen explained that a modified race category is used in the production of the PEP estimates. This is because the decennial census race categories include "Some Other Race"

(SOR), while the administrative data used in the production of the estimates do not include the SOR category. As a result, for the purpose of the production of the estimates, the SOR responses from the decennial census must be imputed to single race categories. Census Bureau staff is working to improve the SOR imputation process for future vintages.

Each new series of estimates is called a "vintage." Each vintage (produced annually) begins with the most recent decennial census, and incorporates geographic updates, the latest administrative records, latest methods, and an additional year of time. The vintage year refers to the final year of the time series, and each new vintage supersedes all previous vintages.

Mr. Jensen said that the cohort component method is utilized in the development of population estimates and components of change for counties, states, and the nation. The distributive housing unit method is used to produce subcounty household population estimates. This approach multiplies the persons per household for a given area by the number of housing units (to arrive at household population), and then adds the group quarters population.

Prior to the 2020 Census, base year population for the population estimates consisted of the decennial census population with adjustments to include Count Question Resolution updates, retabulated to current geographic boundaries. Due to data limitations resulting from challenges in the reporting of 2020 decennial census products, the Census Bureau's PEP staff developed an alternate approach to calculating base year population called the "blended" base. The blended base combines population count data from the 2020 decennial census with data on age and sex distributions from the 2020 Demographic Analysis, and race and Hispanic origin characteristics from the vintage 2020 population estimates (which utilized the 2010 decennial census data as a base). The Base Evaluation and Research Team at the Census Bureau is working to make improvements to the methodology for base year estimation.

Mr. Jensen also provided details in the presentation on the inputs and methods to calculate each of the components of population change: natural change (births and deaths) and migration (both net international and net domestic migration).

Ms. Comber noted that she had seen issues in the decennial census data with the placement of group quarter populations at the block level. She asked about how much noise is introduced by differential privacy, and how it affects the estimates. Mr. Jenson replied that differential privacy is utilized for the purposes of disclosure avoidance, and injects noise without introducing systematic bias. Ms. Lauren Bowers, Chief of the Population Estimates Branch at the Census Bureau, provided a link to a brief on Differential Privacy.

Mr. Kimberly explained that the CFG compares their short-term population forecasts to PEP data each year, to help evaluate the need for updates to the forecasts. He added that sizable differences between the 2020 decennial census and the vintage 2020 population estimates were observed in a few counties in Maryland as well as in several states, and he wondered if the scale of disparity in 2020 was similar to those of previous decennial years.

Mr. Jensen replied that there are three primary reasons for differences between the decennial census and the last vintage year of population estimates for a given a decade: error in the decennial census from the base year (coverage or measurement error, for example); error in the population estimates through the decade (perhaps in how migration was calculated, for example); and error in the new decennial census (the 2020 decennial census faced a series of challenges due to the pandemic). Mr. Jensen said that the Census Bureau goes through a detailed Estimates Evaluation process, where they compare the last vintage PEP data with the decennial census data, in order to learn how and where they can make improvements to the PEP methodology. In the case of 2020, given the operational and reporting challenges, they are using this evaluation process not just to improve the PEP methodology, but also to evaluate the quality of the census.

[PowerPoint: Overview of the U.S. Census Bureau's Population Estimates Program]

4. UPWP TASK UPDATE

Mr. Kimberly updated the CFG on the status of the UPWP task "Post-pandemic Trends in Employment, Commercial Real Estate, Housing Location Choice, and Travel Demand."
- RFP released July 6, 2023
- Consultant questions were due August 8
  - BMC posted responses to eight questions on August 11
- Proposals due August 24 by 2:00 pm
- Proposal review team is assembled
  - Consists of two CFG members and two BMC staff members
- Next Steps are proposal review, consultant selection, and project kick-off

Another status update on this UPWP task will be provided at the next meeting.

[PowerPoint: UPWP task "Post-pandemic Trends in Employment, Commercial Real Estate, Housing Location Choice, and Travel Demand]

5. NEW BUSINESS

Mr. Kimberly asked for a volunteer to present on Holding Capacity Analysis at the next meeting. Mr. Rick Fisher, Anne Arundel County will look into it and get back to Mr. Kimberly.

The next CFG meeting will be on October 25, 2023 at 10am. The meeting adjourned at 11:45 A.M.

ATTENDANCE

Members
Jeff Bronow, Howard County Department of Planning and Zoning

Steve Cohoon, Queen Anne's County Department of Planning and Zoning
Kathleen Comber, Carroll County Department of Planning
Rick Fisher, Anne Arundel County Office of Planning and Zoning
Jenifer Meacham, Baltimore County Department of Planning
Kristopher Weaver, Baltimore County Department of Planning
James Wilkerson, Howard County Department of Planning and Zoning
Jamie Williams, Baltimore City Department of Planning

Staff and Guests
Charles Baber, BMC
Sandy Baber, Carroll County Department of Planning
Lauren Bowers, U.S. Census Bureau
Jennifer Duffy, Baltimore Development Corporation
Eric Jensen, U.S. Census Bureau
Shawn Kimberly, BMC
Crystal McDermott, BMC
Brian Ryder, BMC