

COOPERATIVE FORECASTING GROUP

December 15, 2021

Virtual Meeting

10:05 A.M. to 12:20 P.M.

MINUTES

Mr. Jeff Bronow, Howard County, called the meeting to order at 10:05 A.M.

1. APPROVAL OF MINUTES

Ms. Deborah Grant moved to approve the minutes from the September meeting of the CFG, with Ms. Kathleen Comber seconding the motion. The minutes were unanimously approved.

2. MEASURING RACIAL AND ETHNIC DIVERSITY WITH CENSUS DATA

Mr. Nicholas A. Jones and Mr. Eric Jensen of the U.S. Census Bureau presented on metrics of racial and ethnic diversity from the 2020 Census redistricting data, and demonstrated how to access the data and develop the measures. The 2020 Census redistricting data provides a new snapshot of the racial and ethnic composition of the country, as a result of improvements in the design of the questions, the data processing methods, and the coding of the responses. The 2020 Census is a more accurate portrait of how people self-identify in response to two separate questions on Hispanic origin and race, revealing that the U.S. population is more diverse than previous measures had indicated. This is also true for the state of Maryland and the Baltimore Metropolitan Region.

The Census provides multiple tables for race and for Hispanic origin by race. This allows for multiple approaches to presenting and understanding data on racial and ethnic diversity. The same concepts and definitions of race and ethnicity have been in place in the decennial census since 2000, and these updated and standardized definitions helped researchers to understand our country's changing demographics with new perspective. For details on the results of the 2020 Census redistricting tables (related to race and ethnicity), Mr. Jones recommends reviewing the Census Bureau's publications "[Improved Race and Ethnicity Measures Reveal U.S. Population is more Multiracial](#)" and "[Measuring Racial and Ethnic Diversity for the 2020 Census.](#)"

Mr. Jensen and Mr. Jones described the “Race and Ethnicity Diversity Index”, and explained that it measures the probability that two people chosen at random would be from different race and ethnicity groups. He then provided instruction and examples for creating the index, and reviewed the 2020 Census results at the state, county and tract levels. Maryland has the 4th highest diversity index in the country (at 67.3%).

Mr. Jones showed where to find the [interactive data visualizations for race and ethnicity data available on census.gov](#). He used this tool to create the visualizations contained in the presentation.

Mr. Jensen provided a detailed demonstration of how to access the data from the 2020 Census files and how to produce diversity measures customized to an area of interest.

[PowerPoint: Racial and Ethnic Diversity: 2020 Census Results; Dec 15, 2021]

3. COOPERATIVE FORECASTING GROUP DATA AND TRAVEL DEMAND MODELING

Mr. Charles Baber, Baltimore Metropolitan Council (BMC), described the agency’s Travel Demand Model, and explained how the data developed by the CFG membership is utilized in modeling efforts.

The Model is called *Initiative to Simulate Individual Travel Events (InSITE)*. It is an activity based model designed to produce travel simulations in the Baltimore modeling region, and forecasts average weekday travel (among other metrics) at the person level out to the horizon year of the socioeconomic forecasts.

- The information gained from the model is used in Long Range Planning, Project Planning, Corridor Evaluation, Mobile Source Emission Analysis, Mode Alternative Analysis and trend investigation.
- The travel model contains three central components: a series of equations estimating the number of trips; the transportation networks, containing roads and transit routes providing the connections between households and activities; and the demographic and socioeconomic data (in 5-year increments, at the TAZ level) for total population, households, group quarters populations, and total employment - developed by the CFG.
- The model looks at where activity is generated (home) and then where that activity takes place (the activity center). Model output examples include how many Vehicle Miles Travelled (VMT) expected in the future, how many people projected to ride transit, and where the workers come from that work in a particular activity center.

Mr. Baber said that BMC also uses the CFG’s demographic data (in combination with vital statistics information and Census data on net migration) in a spreadsheet based cohort-component model called pOPTICS. Disaggregate TAZ level data is synthesized using the program PopGen, which generates a database containing a record for each household and household person roster. Through pOPTICS Mr. Baber observed that the region’s population

is getting older and birth rates are declining as we look toward 2050. The region's remaining source of population growth is migration.

Mr. Baber then demonstrated how the pOPTICS spreadsheet model works, providing examples of how to create and test different demographic scenarios by adjusting the assumptions within the model. Mr. Baber stated that he would be happy to share the model and work with anyone in the group to discuss its operation and potential applications.

[PowerPoint: Cooperative Forecasting Group Data and Travel Demand Modeling; Dec, 15 2021]

4. ROUND 10 UPDATE

Mr. Kimberly, BMC, provided an update on the Round 10 timeline and described the review process performed by BMC staff on CFG Round 10 submissions.

- Timeline: Round 10 forecast submissions are due by Jan 15, 2022. This includes TAZ level base year 2020 estimates, and forecasts in five-year increments through 2050 for the following data points: total population, group quarters population (split between institutional and non-institutional group quarters), households, and total employment.
 - Mr. Kimberly shared an example of an excel workbook format that works well to submit this data. There are four worksheets in the workbook, each containing one of the data points.
 - BMC staff will review the submissions in February 2022 and provide feedback to the jurisdictions. Jurisdictions will have the opportunity to make adjustments based on the feedback.
 - In April 2022, jurisdictional methodology statements are due to BMC. The statement should outline the sources and methods used to develop the Round 10 estimates and forecasts.
 - Model input development will begin when final edits to Round 10 submissions are complete.
 - It is planned for Round 10 to be endorsed by the BRTB in June or July, 2022.
- The review process starts with a jurisdiction and region level comparison of draft Round 10 and Round 9A datasets to get a sense of how different or similar the two distinct products are from/to one another. Mr. Kimberly noted that CFG membership could perform similar analyses on their own, and the comparison might provide a sense of how the two datasets compare across data points. The comparison might help to highlight an irregularity in the data that could benefit from a second look. Mr. Kimberly outlined what he saw when making this comparison for the region.

- The draft Round 9A forecast population for the year 2020 regional total came in very close to the base year 2020 regional total for Round 10. The regional population totals become increasingly disparate in the later years of the forecast horizon. The gap grows from 0.3% in 2020 to approximately 2.2% in 2045.
- The draft Round 10 base year 2020 regional total for households starts slightly below the Round 9A figure (a difference of approximately 0.7%) and the gap between the datasets remains relatively consistent through 2030. The Round 9A households begin to taper at a greater rate than Round 10 in the later years of the forecast horizon, with Round 10 overtaking Round 9A by year 2045.
- Change in employment forecast methodology affects the Round 9A and Round 10 comparison. While the wage and salary method remained very similar to the previous round, the self-employment figures changed significantly as the group changed sources from the Census Bureau's non employer statistics to the American Community Survey. The new method results in lower self-employment (approximately 70% lower), and thus lower total employment.
- Mr. Kimberly then provided a list of suggested data checks for CFG members to consider as they complete their draft Round 10 datasets:
 - Verify that jurisdictional and TAZ level estimates for 2020 are reflective of decennial census data and the provided CFG base-year employment levels.
 - Compare Round 10 datapoints with historical trend information.
 - Compare each datapoint to recent forecast rounds.
 - Analyze growth rates between 5-year increments.
 - Compare average household size in forecast years to historical decennial census trend data.

[PowerPoint: Round 10 Updates: Draft Regional Totals, Schedule, and Pre-submission Data Review]

5. NEW BUSINESS

Mr. Kimberly provided an update on the PUMA delineation process. There are no suggested changes for Carroll County, Harford County, and Queen Anne's County. For Baltimore City the number of PUMAs will remain at five, but BMC staff recommended some changes to boundary delineations. Baltimore County has the population to support an additional PUMA, but BMC staff recommends keeping the current number of PUMAs (seven), as an additional PUMA would make the population threshold margins very thin. Staff also recommended a few minor adjustments to the PUMA delineation, in an effort to improve the alignment around

the Urban Rural Demarcation Line. For Howard County, and Anne Arundel County BMC staff recommends an increase of one PUMA each.

- BMC staff will send each CFG member a PUMA data package for their review and consideration. The package will include Excel tables, PDF maps, and shapefiles illustrating the adjustments that have been suggested.
- Mr. Kimberly also explained the need for a time-sensitive MOU to be signed in order for the state data center to accept the recommendations made by BMC staff on behalf of local jurisdictions.
- Jurisdictions can also choose to submit their PUMA delineations directly to the state.

The next CFG meeting will be held Wednesday, February 23rd. It will be a virtual meeting. The meeting adjourned at 12:20 P.M.

ATTENDANCE

Members

Krishna Akundi, Maryland Department of Planning
Jeff Bronow, Howard County Department of Planning and Zoning
Steve Cohoon, Queen Anne's County Department of Public Works
Kathleen Comber, Carroll County Department of Planning
Rick Fisher, Anne Arundel County Office of Planning and Zoning
Deborah Grant, Harford County Department of Planning
Jennifer Meacham, Baltimore County Department of Planning
Sara Paraniyam, Baltimore City Department of Planning
Alfred Sundara, Maryland 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
Blake Fisher, BMC
Greg Goodwin, Metropolitan Washington Council of Governments
Eric Jensen, US Census – Population Division
Nicholas A Jones, US Census - Population Division
Shawn Kimberly, BMC
Crystal McDermott, BMC
Brian Ryder, BMC