COOPERATIVE FORECASTING GROUP

October 28, 2020
Virtual Meeting
10:05 A.M. to 11:47 P.M.

MINUTES

Mr. Shawn Kimberly, BMC staff, called the meeting to order at 10:05 A.M.

1. APPROVAL OF MINUTES

Ms. Deborah Grant moved to approve the minutes from the August meeting of the Cooperative Forecasting Group (CFG) with Ms. Jamie Williams seconding the motion. The minutes were unanimously approved.

2. QUARTERLY CENSUS OF EMPLOYMENT AND WAGES (QCEW) FILE REVIEW: STATUS UPDATE

Before asking CFG membership if they had comments about progress on the QCEW file cleaning process, Mr. Kimberly clarified BMC's primary use of the file – and the purpose for having the 2Q 2019 file cleaned, rather than the 2Q 2020 file (the file from the base year for the Round 10 forecasts). He explained that local jurisdictions are responsible for the development of jurisdictional level and TAZ level population, group quarters population, households, and total employment data. When the total employment estimates and forecasts at the TAZ level are received, that data needs to be translated into travel demand model industry classifications. The data used to support TAZ level industry assignment to the locally produced total employment figures comes directly from the Master Establishment File – which utilizes the cleaned QCEW file as its base. One of the assumptions built into the process is that the employment by industry shares at the TAZ level remain intact through the forecast horizon. Because the industry assignments are held throughout the forecast, it is important to utilize a source year that does not contain a massive economic disruption (such as 2020).

Representatives from all jurisdictions present at the meeting reported that they had successfully downloaded the file from BMC's secured FTP site. Representatives from most jurisdictions had started the file review process. Membership that had started the review said that they had reached out to local government agencies to gather location information (in order to support a better spatial distribution of local government employment to worksite locations),

and some had contacted local economic development agencies to cross-check the presence and location of large employers in their jurisdictions. There were no reports of technical problems with the file, and no questions regarding file review. Mr. Kimberly reminded the group that the file review task was scheduled for completion by November 30.

3. BASE YEAR EMPLOYMENT METHODOLOGY AND EMPLOYMENT DATA DISCUSSION

Mr. Kimberly provided a presentation on the base year employment methodology topic. He explained that it is important to have a common base year employment methodology so that it is understood that everyone is using the same definition of employment – and everyone starts with a common understanding of what employment is. Because we are a regional planning agency, and an agency that has a bottom-up demographic and socioeconomic forecasting process, it is critical that the component jurisdictions are starting from the same place.

Mr. Kimberly then described the current base year employment methodology, developed by Mr. Mark Goldstein (former Manager of the State Data Center at the Maryland Department of Planning) and adopted for use by the CFG in 2012. Mr. Goldstein developed a method combining two different sources, one for wage and salary employment and one for self-employment.

Current Base Year Total Employment = Wage and Salary employment (BEA Table CA27N) + Self-employment (Census Bureau Nonemployer Statistics)

- Wage and Salary Employment
    - Mr. Goldstein suggested using Wage and Salary data from the Bureau of Economic Analysis (BEA) because it has good coverage of the economy, including sectors not covered by QCEW (including religious organizations, railroad workers, the military, and intelligence agencies).
- Self-employment
    - Mr. Goldstein advised not using BEA for the self-employed. He observed that the proprietor data in the BEA data series represented an increasingly high percentage of total employment - to the point where he could not endorse the use of the data for this purpose. Mr. Goldstein noted that the BEA proprietor share of total employment in the Baltimore region increased from 8% in 1969 to 19% in 2010. By 2018, the share had reached 21%.
    - Instead, he suggested using the Census Bureau's Nonemployer Statistics as an alternative to the BEA proprietor data. This data set includes the number of establishments without paid employees that are subject to federal income tax. Most nonemployers are self-employed individuals operating a very small unincorporated business.

Mr. Kimberly said that this method has been used since its adoption in 2012, and has served as the basis of Round 8 and Round 9 base year employment estimates. He added that with Round 10 we find ourselves in a situation where we may need to consider changing sources and/or methods. A series of factors including the timing and impact of the pandemic, a shift in the Long Range Transportation Plan update schedule, and the release schedule of data sources have forced a need to reevaluate and perhaps replace our current methodology.

Mr. Kimberly then provided an overview of several readily available data sources for wage and salary employment and self-employment. He focused the overview by highlighting only the most relevant strengths and weaknesses of each, with respect to their utility in the development of jurisdiction level base-year employment estimates.

Wage and Salary Employment

- QCEW (Bureau of Labor Statistics)
    - Strengths: Data is released frequently (quarterly, approximately six months following the end of the quarter); covers a large proportion of (approximately 95 percent) of wage and salary employment; contains employment data for detailed industry levels; and is available down to the county level.
    - Weaknesses: Excludes employment that is not covered by unemployment insurance (military, some federal workers (for national security reasons), religious organization workers, railroad workers, insurance and real estate agents paid solely by commission, elected officials etc).
    - Access to the unsuppressed data requires a data sharing agreement with the Maryland Department of Labor.
- Current Employment Statistics (Bureau of Labor Statistics)
    - Strengths: Provides monthly employment data by industry; includes many wage and salary jobs that are not covered by unemployment insurance.
    - Weaknesses: Does not include military employment; geographical coverage is limited to the nation, states, and about 450 metropolitan areas and divisions (not available at the county level).
- Total Full-Time and Part-Time Employment by NAICS Industry – Table CAEMP27N (Bureau of Economic Analysis)
    - Strengths: Data is augmented to account for employment not covered by unemployment insurance (including military); detailed industry data is available; coverage includes county level data.
    - Weaknesses: Data is released on an annual basis, and the release date is late in the year (mid-November).

  - This data source requires written permission from the Maryland Department of Labor to be released by the BEA.

- Private Labor Market Data Sources

  - Strengths: While private sources often base their estimates and projections upon the aforementioned federal data sources, they often supplement them to account for excluded jobs and may make the data available at finer levels of geography.

  - Weaknesses: Private labor market data can be expensive to purchase; the methods behind the enhanced detail are not always clearly stated.

Self-Employment

- Nonemployer Statistics (Census Bureau)

  - Strengths: Great industry detail; includes jobs that may be considered secondary employment (jobs held by multiple-jobholders, for example).

  - Weaknesses: Significant lag in data release (2018 data was released in May 2020); includes jobs that may be considered secondary (this may not be what some users are looking to count).

- American Community Survey (ACS - Census Bureau)

  - Strengths: While this is a household survey, data is available at workplace geography that contains employment by class of worker (including self-employment and unpaid family worker categories); ACS 1-year data for the previous calendar year is available each September; includes only primary employment.

  - Weaknesses: Data is released annually; includes only primary employment.

- Total Full-Time and Part-Time Employment by NAICS Industry – Table CAEMP25N (BEA)

  - Strengths: Includes proprietor data; data is available at the county level.

  - Weaknesses: Total proprietor employment is provided separate from total wage and salary employment – but the industry level data does not break-out the share that each class represents; the reported proprietor shares of total employment are significantly higher than other sources (leading to some questions about its comparability and utility for this purpose).

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account for excluded jobs and may make the data available at finer levels of geography.

- Weaknesses: Private labor market data can be expensive to purchase; the methods behind the enhanced detail are not always clearly stated.

Mr. Kimberly then displayed the draft Round 10 schedule, and highlighted the points when the various data sources are scheduled for release and noted when submissions were due. He emphasized that it will be important for the Round 10 dataset to capture the 2020 base-year employment as it was – COVID-19 impacts included. He added that the current BMC methodology for wage and salary employment can technically be maintained in the current draft schedule, with 2020 BEA wage and salary data to be released in November 2021. Unfortunately, adhering to this source this would allow CFG membership only 2.5 months to complete all jurisdictional and TAZ level employment estimates and forecasts. The source or methods behind the self-employment component of total employment will require revision, as the current data source will not be available in time to support Round 10.

Mr. Kimberly stated that the QCEW data (which includes the vast majority of wage and salary employment) will be available for all of 2020 in June of 2021, allowing ample time for CFG incorporation into estimates and forecasts. He added that there are methods that can be utilized to account for the employment not covered by the QCEW. He described two examples.

- CES ratio: A ratio can be developed by dividing CES employment / QCEW employment. This method (utilized by the Metropolitan Washington Council of Governments in their base-year employment estimates) accounts for some of the employment excluded by QCEW employment, but does not include military employment. One shortcoming of this method is that the data is only available down to the MSA level (and is not available at the county level). Therefore, the ratio cannot be customized to each individual jurisdiction, and the MSA level ratio must be applied to each county.

- BEA ratio: In this method a ratio is developed by dividing BEA wage and salary employment / QCEW employment. This method (suggested by the CFG Chair) incorporates the benefits of utilizing the BEA wage and salary data (enhanced to include employment excluded by QCEW, including military), while still allowing for customization down to the county level. The inherent assumption in utilizing this method for 2020 would be that the relationship between BEA and QCEW wage and salary employment was unaffected by the pandemic.

Mr. Kimberly also described a few self-employment sources and options for utilization in Round 10. He displayed a slide presenting the self-employment component of total employment, by jurisdiction, as derived via the current CFG methodology (using Census Bureau Nonemployer Statistics) and as derived via MWCoG methodology (using an ACS self-employment ratio). The CFG method produces an estimate of self-employment that is more than three times the ACS ratio derived estimate.

He added that should the group decide to use Nonemployer statistics (which will not have 2020 data available for Round 10), or if the group decides to use ACS data, but does not want

to wait until September 2021 to start work on their employment forecasts and allocations – one can consult data from the BLS Current Population Survey to get an up-to-date sense of how the pandemic has impacted self-employment – albeit at the national level. The Current Population Survey has national level data available on employment by class of worker on a monthly basis. While not available at the desired geographical detail, it provides an indication of how self-employment has been impacted by the pandemic – and it can be compared to total employment over time. Mr. Kimberly shared two charts based upon CPS data illustrating national self-employment levels and self-employment shares of total employment, by month from January 2019 through September 2020. The charts showed that while wage and salary and self-employment both suffered dramatic job loss from March to April 2020, the drop in self-employment was slightly less severe, and the subsequent growth (after the low of April 2020) was more pronounced, resulting in a slight increase in the self-employment share of total employment (which has flattened but has not receded).

Mr. Kimberly then shared a series of slides displaying examples of four different base year employment estimates based upon a variety of methods and sources for a base year of 2015. He explained the derivation of each:

- CFG: Estimates are based upon the CFG's current base year employment methodology
- MWCoG: Estimates are based upon the MWCoG current base year employment methodology
- Hybrid A:
    - Wage and salary employment derived via the BEA / QCEW ratio (described earlier in the presentation), AND
    - Self-employment derived through the use of ACS data and ratios (described earlier in the presentation).
- Emsi: Wage and salary and self-employment data were pulled directly from this private labor market data provider's application (BMC is an Emsi customer)
    - Emsi wage and salary employment utilizes QCEW data as a base, and has a "Class of Worker" selection allowing the user to include Emsi derived non-QCEW employment (this is what was utilized in the example).
    - Emsi also provides estimates for the self-employed Class of Worker. The source data states that Emsi's self-employment estimates are based upon the Census Bureau's ACS, combined with other sources and modified using Emsi's proprietary methods.

He explained that the examples are meant to serve illustrative purposes, and are neither intended as an exhaustive list, nor as a menu from which members must make a selection. He added that any comments or edits to the presented methods and / or suggested additional alternatives are encouraged.

Upon completion of the presentation Mr. Kimberly asked if there were questions or comments. Hearing none, he noted that there was a lot of information to absorb, and suggested that the discussion portion of the agenda item be continued at the December 16 CFG meeting. He said he would distribute copies of the presentation prior to the December meeting, to allow membership the opportunity to review and consider the base year employment methodology topic before the discussion at the meeting.

Mr. Kimberly added that the Chair of the CFG had suggested that the group be prepared to adopt a base year employment method for use in Round 10 at the February 2021 meeting of the group. To meet that timeline, Mr. Kimberly recommended that the group be prepared to discuss methodology options, consider additional alternatives, and come to a general consensus regarding the creation or identification of a base year employment methodology for use in Round 10 at the December meeting. BMC staff would then draft a brief base year employment methodology document for the group to formally adopt at the February 2021 CFG meeting.

[PowerPoint: CFG_BaseYearEmployment]

4. ACCESSING CENSUS DATA

Before speaking about accessing Census data, Mr. Al Sundara provided an update on the population projection activities at the Maryland Department of Planning (MDP). He said that they had recently updated their county level population projections. Typically, MDP will utilize the figures generated through the forecasting process of the CFG for the Baltimore region jurisdictions. However, in this case the update cycles of the CFG and MDP did not match, and MDP staff had to adjust some of the CFG forecast numbers for use in the statewide projection update. Mr. Sundara added that he is available to review these adjustments with interested CFG members.

Mr. Sundara explained that while the agenda item mentioned two methods of accessing Census data, he would be focusing today on retrieving data via Application Programming Interface (API), leaving the Census Microdata Analysis Tool for a future meeting. Rather than providing a formal presentation, Mr. Sundara provided a detailed and interactive demonstration of how to access Census data via API, allowing CFG membership to follow the instructions in real time on their own machines.

5. NEW BUSINESS

Mr. Kimberly shared with the group that Mr. Sundara had received a citation from Governor Hogan for recognition of excellent customer service. Mr. Kimberly displayed an image of the virtual presentation of the citation from Governor Hogan, with Secretary of Planning McCord and others in attendance. Mr. Kimberly reminded the group that their work on QCEW file review is scheduled for completion on November 30.

The meeting adjourned at 11:47 A.M.

ATTENDANCE

Members

Rick Fisher, Anne Arundel County Office of Planning and Zoning
Deborah Grant, Harford County Department of Planning and Zoning
Sara Paranilam, Baltimore City Department of Planning
Cody Spaid, Carroll County Department of Planning
Al Sundara, Maryland Department of Planning
James Wilkerson, Howard County Department of Planning and Zoning
Jamie Williams, Baltimore City Department of Planning

Staff and Guests

Lynda Eisenberg, Carroll County Department of Planning
Blake Fisher, BMC
Greg Goodwin, Metropolitan Washington Council of Governments
Crystal McDermott, BMC
Shawn Kimberly, BMC