Chicago Metropolitan Agency for Planning

August 31, 2020

My Daily Travel Data Users,

This document describes additional processing of the survey data by CMAP staff following receipt of the final data files and report from the survey consultant. The major components are discussed below.

Collapsed trips

The use of a smartphone app to record daily travel was offered as a way to reduce the reporting burden of the survey to the respondents. The app allowed for the collection of detailed information about locations where individuals stopped; one consequence of this was that some respondents reported transient points on their trip (especially parking locations, transit stops and transit stations) as actual trip destinations. This level of reporting was inconsistent with how most survey respondents reported their travel. For example, most respondents reported a trip between home and work as Place 1 (Home) to Place 2 (Work). In the explicit reporting by some respondents this same trip may be represented as Place 1 (Home) to Place 2 (train station), and Place 2 to Place 3 (Work). Reporting travel in this way makes it appear that two trips were made, when in fact the ultimate destination for this trip from home was to go to work.

CMAP staff developed logic to identify these situations and link the separate segments together into a single trip. For transparency all of the places reported by survey respondents remain in the Place file so that the individual trip details are not lost. CMAP has added an additional field ("placeGroup") to the file to indicate instances where these intermediate points can be grouped to form a single trip. These can be identified by using the unique combinations of "sampno" (the household identifier), "perno" (the person identifier) and "placeGroup".

Recommended Usage: When analyzing trip attributes (distance, duration, mode share, etc.) CMAP recommends using "placeGroup" to define trips.

Itinerary processing

Technical Memo 7.3 describes the process used by the survey consultant to develop transit itinerary information using the Google Directions API. There were instances where the API was not able to find transit itineraries for specific trips. In addition, the development of "placeGroup" required some transit trips to be reprocessed in order to capture the entire itinerary as a single trip, not as separate consecutive trips as they were originally processed. CMAP staff developed an alternative process to create these transit itineraries that used travel demand modeling software to determine routes that likely would have been selected. This information was compared to General Transit Feed Specification files (files that transit agencies provide to Google for the Directions API) to determine which routes would actually be feasible based on when the trip occurred. The "imputed" variable in place_transit identifies the method used to derive the transit itineraries.

Re-weighted data

Following completion of the updated transit itineraries, the survey data were re-weighted using the multi-dimensional list balancing procedure described in Technical Memo 6.1. A new set of summary tables based on the final weights are included in **MyDailyTravel_Addendum_Updated_Tables.pdf**;

these supersede the tables included in the Final Report. Note that the updated tables do not include a Margin of Error for the survey data, as new replicate weights were not created.

The document **MyDailyTravel_RelatesDiagram.pdf** is included to show the data mapping used to link the survey data files together.