



MEMORANDUM

To: CMAP Freight Committee

From: CMAP Staff

Date: June 15, 2015

Re: Extent and Use of the Freight System

In FY2016, CMAP staff intends to update its [Freight Data and Resources webpage](#) to describe the extent and use of the region's freight system. This project will describe how freight moves through the region's transportation system across all freight modes, inventorying existing facilities and providing high-level descriptive statistics on their recent and current use. Descriptive statistics could include the following: traffic volumes, miles traveled, delay, reliability, safety, intermodal transfers, barge volumes, and air cargo volumes. This update is a key component of the [Existing Conditions Analysis](#) for the regional freight plan, setting the stage for more detailed analysis.

In recent weeks, CMAP staff has reviewed its available data resources to complete the Freight Data and Resources update. The remainder of this memo surveys recent efforts to collect additional data on the highway, rail, and air/water freight systems.

Trucking

CMAP has strong access to data on the performance of the regional highway system, in part through the federally required [Congestion Management Process](#). However, CMAP historically has not had access to detailed trucking datasets, including the origins and destinations of truck trips.

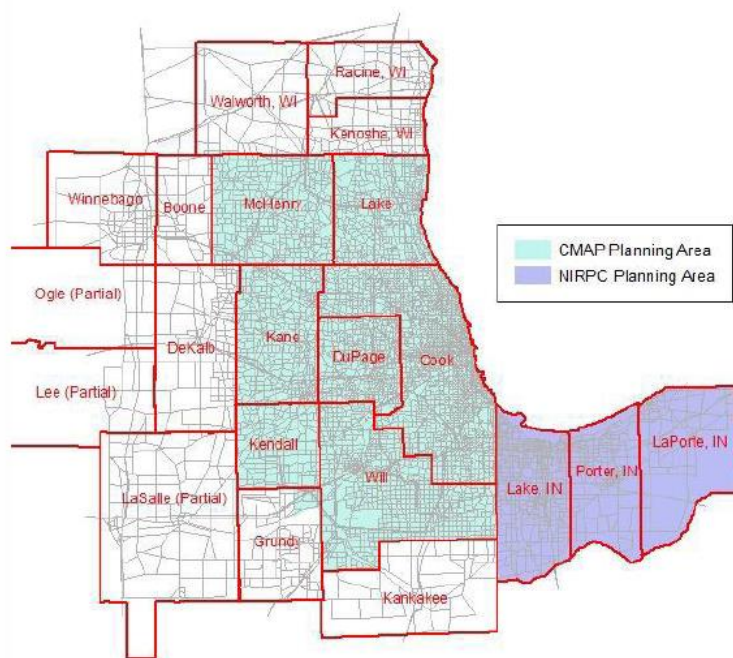
On May 13, 2015, the CMAP Board approved the purchase of a trucking dataset from the American Transportation Research Institute (ATRI), the research arm of the American Trucking Association. ATRI provides national trucking-related research and monitors real-time truck movements for a large sample of trucks; the extent of this dataset is unique and no other source is available for this type of information.

Agenda Item No. 4.0

More specifically, ATRI will provide CMAP four main information items – vehicle ID, time stamp, speed, and location – approximately once per minute for all ATRI-monitored trucks moving within or through the CMAP modeling area. The modeling area for this study consists of twelve full counties in Illinois (Boone, Cook, DeKalb, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, Will and Winnebago) and three partial counties (LaSalle, Lee and Ogle); three full counties in Indiana (Lake, LaPorte and Porter); and three full counties in Wisconsin (Kenosha, Racine, and Walworth). Trucks' location will be indicated by one of the 1,944 CMAP travel modeling zones.

The following map depicts the CMAP travel modeling area:

Figure 1. CMAP travel modeling area



Source: CMAP, [Congestion Management Process Documentation](#), June 2012.

This data on truck origins and destinations will assist the freight existing conditions analysis, providing a better understanding of overall truck flows and routing through the region. It will also allow for the calibration and validation of the truck tour component of the CMAP tour-based supply chain freight model. Finally, staff expects this new dataset to assist in freight operations studies, including work on truck routing, truck permitting, and overnight deliveries.

Rail

CMAP currently has some information on the performance of the freight rail system, drawing on publicly available datasets from the U.S. Department of Transportation and the Illinois Commerce Commission, along with personal communications with the railroads. The latter, for example, is one of the primary sources of data for intermodal lifts in the region. However,

CMAP does not have access to detailed data on the volume or fluidity of movements through the regional rail system.

National-level summary information on the performance of individual Class I railroads is readily available online ([basic performance measures since 1999](#); [more detailed data since 2014](#)). Regional-level information is collected by Railinc, the private research arm of the American Association of Railroads, through the [Clear Path System](#). Clear Path reports key performance indicators twice a day for the Chicago Terminal. However, Clear Path is limited in use to the private railroads and is not available for purchase.

CMAP staff is considering reaching out to the Chicago-area railroads to access some of the data included in the Clear Path System. If this data is ultimately unavailable for public use, CMAP will continue to improve its understanding of the regional rail system through the tracking of national datasets described in the previous paragraph, supplemented with passenger rail on-time performance data. The FRA [reports](#) on-time performance quarterly for Amtrak routes and Metra on-time performance [reports](#) are available monthly. Additionally, CMAP can pursue a variety of safety metrics publicly available from the [Federal Railroad Administration](#), [Illinois Commerce Commission](#), and [National Transportation Safety Board](#).

Air/Water

CMAP has relatively little information on air cargo and waterborne freight in the region; as a federally designated Metropolitan Planning Organization, CMAP has no direct jurisdiction over air or water modes of transportation. CMAP has some general information on waterborne commerce in the region, collected from various U.S. Army Corps of Engineers sources. CMAP is currently updating this data from the U.S. Army Corps and is collecting new data on air freight from the Federal Aviation Administration. Staff is also working to develop narrative descriptions of recent trends and initiatives in the region related to the air and water systems.

Discussion

Staff is interested in the Freight Committee's thoughts on data collection. Specifically, staff offers three specific questions to the Committee:

- Are you aware of other relevant publicly-available datasets?
- Do you have advice on cooperating with the private sectors to access data?
- Can you identify and provide information on relevant initiatives in the region (e.g., CREATE, CAWS, and OMP) that will affect the performance of the freight system?

Note that this project is focused on the direct performance of the transportation system, rather than an exploration of broader market forces, workforce trends, and economic assets. Other components of the Freight Existing Conditions Analysis (ECA), such as the freight-supportive land use analysis, will address a portion of these issues. In addition, final ECA products will leverage CMAP's related work in the regional economy area.