

A Guide to Navigating Existing and Emerging Sources of Local VMT and Travel Data

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Introduction

The recent policy context in California has emphasized sustainable land use and transportation decisions. The state government mandates the California Air Resources Board (CARB) to establish greenhouse gas (GHG) emissions targets for each region, require metropolitan planning organizations (MPOs) to develop the regional sustainable land use vision (Senate Bill, SB 375), and replace level of service (LOS) with vehicle miles traveled (VMT) as the basis for mitigating transportation impacts (Senate Bill 743). The context urged local governments to have a clear understanding of the transportation impacts of their land-use decisions and conduct VMT/GHG emission reduction analyses by employing transportation data. However, these tasks are not in the local governments' conventional domain, and local governments' experience with transportation data is limited. How they react to this paradigm shift remains unanswered. This paper attempts to answer this question by conducting surveys and interviews that target local governments and MPOs in California.

Study Methods

Our study population consists of all 539 city and county governments and 18 MPOs in the State of California. We reached out to them via emails and phone calls for recruitment. We first administered two separate online surveys to local governments and to MPOs, respectively. Both surveys were targeted at planning staff who have knowledge of their jurisdiction's land-use and transportation planning or work on travel modeling. The local-government survey asks staff's experiences on the implementation of SB 375 and SB 743, and their use of VMT/transportation data. The MPO survey asks MPO staff about their view on their member jurisdictions' participation and interest level in regional GHG reduction efforts, and their support.

The responses obtained from the surveys helped us identify a few best practices where the formal adoption of VMT thresholds was set and new data/collaborations have been introduced. The best practices were included in the interviewee pool with a few potential interviewees we found from online research.

Common interview questions include follow-up question on a specific data/tool mentioned in the survey, any potential limitations and concerns they have had with the tool/dataset, and their interaction with MPO for VMT reduction efforts. The interviews were conducted online via Zoom for an hour.

Then, the surveys and interviews allowed us to identify not only the current transportation data/tools utilized by local governments but also the best practices of transportation data utilization. We designed the Transportation Data Guide that catalogues transportation data sources that could support local governments' SB 375 and SB 743 implementation.

Findings

A total of 110 municipalities participated in the survey, with 17 individuals from 16 different agencies participating in the interviews. Findings indicate many local governments integrated VMT/GHG reduction strategies but were somewhat skeptical about the effectiveness of the implementations yet. Local governments utilize automobile data more frequently than alternative modes and do not heavily rely on MPOs for obtaining transportation data. Local governments recognized the need for more transportation data and were particularly interested in publicly available sources. Half of the respondents reported that the data they needed were unavailable. On the other hand, the MPOs positively assessed their data provision upon request and reported that VMT/annual average daily traffic data and origin-destination matrix were most frequently requested. The socio-economic characteristics, travel-time matrix, and mode-share scheme were considered useful by the MPOs, while requests by localities were very low. There is a learning curve with understanding regional travel models among local planning staff, which are a typical go-to source of VMT data. Many local government planners are not modelers by training and these models are not easy to understand. We found that VMT is still a novel measure, not well received, especially in rural areas compared to level of service (LOS). Big data use through vendors was found as a dominant trend. Some best practices of MPOs that developed data share and assistance programs were summarized.

Based on these findings, we developed a transportation data guide for local government that includes several different approaches that can be chosen by local governments depending on their resource level.

Policy Recommendations

Three main recommendations could be considered to address some of the data-related challenges identified earlier: more support for intergovernmental collaboration for SB 375 and 743; centralized leadership in cumulating evidence, creating a transportation data repository, and examining results from VMT banking and exchange pilot studies; and timely coordination across state departments to reduce confusion at the local level due to discrepancies, contradictions, or overlaps between some mandates. In the long run, given slow or no population growth forecasted in California, new methods or measurements will be needed to effectively reduce VMT.

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To Learn More

For more details about the study, download the full report at transweb.sjsu.edu/research/2232



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