SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Transportation Demand Management Program

DEVELOPING STANDARDS FOR TDM DATA

BACKGROUND

In 2019, SCAG completed the Transportation Demand Management (TDM) Strategic Plan, which outlined strategies to expand the effectiveness and use of TDM to achieve regional goals. The TDM Strategic Plan included many resources for local agencies to help with TDM programming, including an overview of new mobility and technology advances as well as an updated TDM toolbox to support relieving congestion and commuting pain points. The TDM Strategic Plan also outlined recommendations that SCAG could implement.

To begin implementing the Plan, in 2021, SCAG staff initiated work on a subset of the recommended strategies, specifically TDM Trainings (completed in Spring 2022) and TDM Data Standards and Clearinghouse. The TDM Data Standards and Clearinghouse strategy was meant to address the lack of consistent and quality data to assess the current state of TDM programs and the impact of TDM strategies in the region. To accomplish the goal and fulfill this recommendation, SCAG sought to develop standards around data collection for the region and design a database, a TDM data clearinghouse, to capture and store this data.

STANDARDS FOR TDM DATA

Through the Regional TDM Data Standards project, SCAG aimed to develop TDM data standards and standard, unified practices around the collection and aggregation of TDM data in order to better measure the effectiveness of TDM programs over time. As one of the key recommendations from SCAG's TDM Strategic Plan, this project included:

- A review of the current TDM data collection efforts in Southern California;
- Outreach and engagement with TDM practitioners in the region;
- Research on peer agency practices and websites;
- An exploration of the principles of data sharing and potential incentives; and
- Recommendations for data standards and a TDM data clearinghouse website.

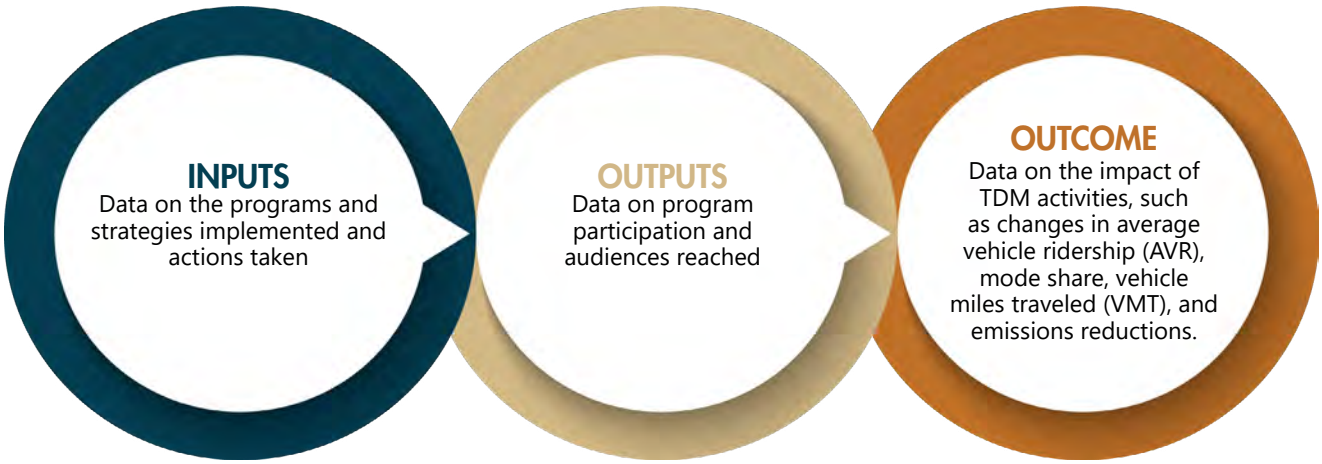
SUMMARY STATS

- > **22** stakeholder interviews and along with stakeholder survey
- > **10** MPO/DOT peer agency case studies developed
- > **7** academic and professional researchers interviewed
- > **6** website case studies produced
- > **5** meetings convened with the Technical Advisory Committee (TAC)

EXISTING DATA COLLECTION

TDM data collected in the SCAG region varies based on the implementing agency, the programs offered, and the regulatory framework. Across the six-county region, there are local and regional TDM ordinances, countywide TDM programs, and Transportation Management Associations/Organizations (TMAs/TMOs) that collect a wide variety of data.

Data collected across the region generally fall into three categories: Inputs, Outputs, and Outcomes.



Agencies that collect or aggregate TDM data in the SCAG region fall into two broad categories: TDM regulators and implementors.

TDM Regulators include South Coast Air Quality Management District (AQMD), Ventura Air Pollution Control District (APCD), and local cities. AQMD has Rule 2022, which requires employers with more than 250 employees to help reduce mobile-source emissions. One common way for employers to comply with the rule is to implement TDM strategies and conduct annual average vehicle ridership (AVR) surveys. Ventura APCD has Rule 211 with an employee threshold of 100 employees and requires a similar AVR survey, though strategies to achieve the AVR targets are optional. TDM regulations fall into two categories: employee-based ordinances and development-based ordinances. The employee-based ordinances, such as AQMD's rule 2202, require employers or work sites with a certain number of employees to follow specified rules. Development-based ordinances place the onus on a project's developer to commit to certain TDM measures in the project plan and commit to ongoing monitoring and TDM activities.

TDM Implementors include various agencies in the SCAG region which employ the TDM strategies, including the six County Transportation Commissions (CTCs) and Transportation Management Associations/ Organizations (TMAs/TMOs). The CTCs each offer TDM assistance to help local jurisdictions implement commute reduction strategies, including offering carpool, vanpool, and ride-matching services and helping with AVR surveying to comply with the AQMD rule. TMAs and TMOs offer TDM and commute services to employers and commuters within defined geographic areas, generally a specific area or district within a city. Across the SCAG region, hundreds of employers are required to implement TDM or trip reduction programs and participate in regular surveying and monitoring to comply with AQMD Rule 2202, Ventura County APCD Rule 211, and city TDM or trip reduction ordinances. TDM data collection typically centers around compliance efforts for AVR and vanpooling.

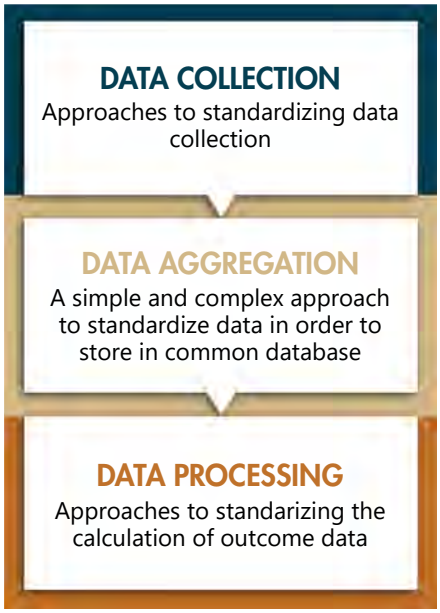
CHALLENGES

There are various challenges and gaps to the current data collection, aggregation, and utility of the data. These include:

- **Data accuracy**: Most TDM data is self-reported via surveys or trip logging and there is no way to ensure that the data is accurate.
- **Changes Over Time**: Seemingly small changes over time can have big implications for data analysis.
- **Non-Standard Definitions**: Variations in how different terms are defined can make it difficult to compare datasets
- **Level of effort**: It is time-consuming and expensive to collect accurate data and analyze the results
- **Privacy concerns**: Employers and commuters have been getting more sensitive to privacy concerns related to the collection of commute data.
- **Impacts of TDM programs**: Data collected is rarely sufficient to show impacts of specific TDM strategies, making it hard to evaluate specific programs and strategies and understanding which are most effective

DATA STANDARD OPTIONS

The project explored four options for standardizing TDM data based on different stages of the data lifecycle. Two of the options were approaches for aggregating TDM data into the data clearinghouse, one approach for standardizing the data collection and definition of TDM data, and one approach for standardizing the processing of TDM data in order to calculate derived outcomes for the SCAG region.



RECOMMENDATIONS

As the project concludes, there are various short and long-term recommendations for SCAG to employ as they help the region standardize TDM data. Some key near-term recommendations include:

1. **Develop a TDM Data Clearinghouse.** SCAG should develop a data clearinghouse in a phased approach, focusing first on the most important data that is currently being collected in the region. In future phases, SCAG can develop additional modules for collecting disaggregate data and calculating program outcomes.
2. **Encourage Data Sharing.** SCAG should explore ways to encourage data sharing by reducing data system complexity and increasing the value to participants. Strategies include offering tutorials and trainings, addressing privacy concerns, and producing best practices and case studies using the data.
3. **Promote Standardized Data Collection.** SCAG should continue to encourage consistent data collection. This can be achieved through the use of the data clearinghouse, continued collaboration with the TDM stakeholders, and working with AQMD as they make updates to their Rule 2202 employer survey.
4. **Establish Baseline Travel Data.** Understanding TDM data can be improved by having access to overall travel trend data as well as travel behavior data. SCAG can help benchmark the TDM data in the clearinghouse by collecting baseline data on travel modeshare as well as other data to help estimate the effectiveness of TDM strategies.

STAKEHOLDER INPUT: IDEAL CHARACTERISTICS FOR DATA STANDARDS

> Keep data collection clear and simple, with a well-defined terminology;

> Store data in a centralized platform in the same format;

> Have a centralized approach to program outcomes, with a clear methodology; and

> Make the process easy for TDM practitioners