



# Transit Performance Measures in California

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MTI Project I208

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This research is the result of a California Department of Transportation (Caltrans) request to assess the most commonly available transit performance measures in California. Caltrans wanted

to understand performance measures and data used by Metropolitan Planning Organizations (MPOs) and transit agencies to help it develop statewide measures. This report serves as a summary reference guide to help Caltrans understand the numerous and diverse performance measures used by MPOs and transit agencies in California.

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## Study Methods

Investigators began by reviewing the available literature to identify a complete transit performance framework for the purposes of organizing agency measures, metrics, and data sources. Next, they review the latest transit performance measures documented in planning reports for the four largest MPOs in California (San Francisco Bay Area, Los Angeles, San Diego, and Sacramento). Researchers place special attention to the transit performance measures used by these MPOs, because these measures are available for the majority of California's population. Finally, they summarize 231 performance measures used by a total 26 local transit agencies in the State of California, based on transit planning documents available on the internet.

## Findings

Researchers identified a number of key transit performance measures for use in this report: service availability, service delivery, safety and security, community impact, financial performance, and agency administration. Major sources of data for these performance measures include in-house, the National Transit Database, local, state, and federal agencies, and automated systems.

The performance measures provided by MPOs provide the most comprehensive and consistent source of transit performance measure data in California. The MPOs studied in this report together evaluate 40 different measures. Nearly half of the performance measures collected by the MPOs measure financial performance. MPOs also evaluated service availability, service delivery, community impact, and maintenance.

Investigators reviewed documents from 26 transit agencies – which included 231 performance measures. Researchers discovered that the most frequently measured category was financial and, within that category, the top three measures were farebox recovery, passenger trips per vehicle revenue or service hours, and cost per vehicle revenue or service hour. Delivery

was the next most frequent performance measure category, and its top measures were on-time performance, responsiveness to calls, number of complaints, and missed trips. Safety measures, such as accidents, crime, and injuries, were also evaluated by some agencies. Less frequently evaluated measures included availability, maintenance, and administrative measures.

Not surprisingly, it appears that when agencies have data they use that data to measure transit performance. The data mandated for National Transit Data, especially financial data, are commonly used to evaluate transit performance by both MPOs and transit agencies. Performance measures also seem to align with agency goals. Transit agency measures tend to focus more on issues related to customer service, whereas MPO measures focus more on overall scope, location, quality, and equitability of transit service.



### Policy Recommendations

This report serves as a baseline resource for Caltrans as they design a transit performance measurement system suitable for the State of California.

### About the Authors

Caroline Rodier, Ph.D. is a Research Associate at the Mineta Transportation Institute and the Associate Director of the Urban Land Use and Transportation Center at the Institute of Transportation Studies, University of California, Davis. Dr. Rodier's major areas of research include transport, land use, and environmental planning and policy analysis.

### To Learn More

For more details about the study, download the full report at [transweb.sjsu.edu/project/1208.html](https://transweb.sjsu.edu/project/1208.html)

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