



Caltrans Division of Research,  
Innovation and System Information

# Research

# Notes

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Project Title:  
Developing Metrics to Measure  
Equity in Transit or Rail Projects

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## Developing Metrics to Measure Equity in Transit or Rail Projects

Developing measurable equity metrics in transit and rail projects allowing Caltrans to better expand mobility and job opportunities to disadvantaged communities.

### WHAT IS THE NEED?

Transportation policy is tied to social policy, with transit investment decisions playing an important role in determining equity outcomes. Projects that benefit high-income, single-occupancy automobile drivers may harm lower-income transit riders as well as pedestrians and bicyclists. Transit planning, policy, and operational decisions can also affect an array of equity outcomes, each of which may be useful to measure.

### WHAT ARE WE DOING?

This study provides California Department of Transportation (Caltrans) with a clear definition of equity in transportation planning, and more specifically, in transit planning and operations, including developing a set of equity measures. Metrics for consideration include (but not limited to) Capital and Programmatic Investment Equity, Transit Supply Equity, Transit Accessibility for Disadvantaged Groups, Transportation Health Environmental and Health Impacts Equity, Transit System Performance for Disadvantaged Groups, Transit Connectivity for Disadvantaged Groups, Transit Affordability for Disadvantaged Groups, Demographics, and Public Participation in Transit Decision-Making.

Furthermore, the research team assesses the current state of transportation and transit equity measurement in California. They will perform analysis of case studies using selected metrics. Case studies and metrics will be selected in consultation with Caltrans to test the potential usefulness of the metrics for real-world applications. For example, case study testing could be done using existing Regional Transportation Plan / Transportation Improvement Plans data to evaluate their equity impacts.



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## WHAT IS OUR GOAL?

The research team will recommend changes to policy, such as how capital and operating funds are allocated. They will also recommend process changes, such as how decision makers at transit agencies, metropolitan planning organizations, cities and counties, and the State of California should consider equity in management and operations decisions, or how to ensure full public input is part of the decision process for funding capital and operations.

## WHAT IS THE BENEFIT?

This research study can develop metrics that inform transportation decision makers about the impacts of transit and rail infrastructure investments. This research would therefore help make transit and rail improvements in communities that need it the most.

## WHAT IS THE PROGRESS TO DATE?

Efforts in the project have been focused on the evaluation of metrics identified in a memo dated June 13th, 2022, comparing these metrics of disadvantaged communities and transit service availability to the "traditional" metrics commonly used in Title VI analysis by U.S. transit agencies and finalizing a draft final report for the project. The final draft report is expected to be delivered to Caltrans by mid-January.