

# DRISI

CALTRANS DIVISION OF RESEARCH,  
INNOVATION AND SYSTEM INFORMATION

# Research Notes

Planning, Policy  
and  
Programming

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Project Title:  
Exploring Microtransit Adoption and  
Impacts on Transportation Access  
of Underserved Populations

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## Exploring Microtransit Adoption and Impacts on Transportation Access of Underserved Populations

This research focuses on transportation for underserved people in the Sacramento area of California and aims to explore their barriers to and facilitators of adoption of a technology-enabled on-demand service—micro transit.

### WHAT IS THE NEED?

This research aims to address a specific Caltrans research need: Best Practices for Organizational Change in Multimodal Project Development and Delivery. Through this research, the team will focus on a new, technology-enabled, flexible-route ridesharing service that meets the needs of disadvantaged population living in underserved communities. This novelty also helps expand access and improve efficiency through an interconnected multi-modal system that supports fixed-route public by providing on-demand services and solving first- and last-mile problem. Therefore, it has the potential to address transportation equity and accessibility problems especially for underserved people. The researchers will conduct a quantitative study focusing on a microtransit pilot project, SmarT Ride (SR), which is operated by the Sacramento Regional Transit District (SacRT) in the Sacramento area of California. The findings will help policy makers and planners understand public acceptance of microtransit, facilitators of and barriers to its adoption, and modal shift due to microtransit use in transportation disadvantaged communities, and thereby proactively prepare for it and make long-range plans and future investment decisions.

### WHAT ARE WE DOING?

The research team will first build a database containing information of transportation underserved people including low income, people with disabilities, older adults, and minorities (consisting of people of color and people from non-English speaking households), based on certain criteria in the Sacramento area of California. The research team will develop a questionnaire consisting of questions about how underserved populations use and interact with microtransit, what are



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facilitators of and barriers to its adoption, and benefits of its availability in their communities. Then, the team will conduct phone and intercept surveys, and the resulting data will be used to explore barriers to and facilitators of adoption of microtransit, and how much it helps to improve service and job accessibility of transportation underserved populations.

The project will focus on a broad spectrum of underserved groups. First, four socio-demographic groups—low-income individuals, people with disabilities, older adults, and minorities—will be identified from existing survey data and categorized by certain criteria. Second, representatives from the four groups will be invited to participate in an online, phone, or intercept surveys will be conducted to expand the sample and ensure adequate representation across the four socio-demographic groups.

## WHAT IS OUR GOAL?

This study will help Caltrans understand transportation needs of low-income and minority populations, thereby helping to achieve the goal of transportation equity by seeking to ensure full and fair consideration of underserved populations in transportation planning, and helping to identify best practices for the implementation of microtransit projects.

## WHAT IS THE BENEFIT?

Underserved populations can potentially benefit from a new emerging technology-enabled on-demand business model, microtransit, which is operated by public agencies aiming to fill in the gaps in fixed-route transit services. Microtransit can help improve riders' experiences through its on-demand scheduling, flexible routes, and low-cost services, and ultimately provide better mobility for underserved people compared with traditional fixed route transit.

## WHAT IS THE PROGRESS TO DATE?

First quarter progress for this research task includes submitting to the IRB and made revisions several times, currently awaiting approval. They have also completed the draft of the questionnaire and have gathered contact information from the respondents of the existing survey.

## IMAGES



Image 1: SacRT SmaRT Ride vehicle – SmaRT Ride is a microtransit ride-share service where customers can use a smartphone app to request a ride that will pick up and drop off passengers within the service boundaries.