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# Challenges Are Present, But California Transit Agencies Are Open to Open-loop

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## Issue

Open-loop fare payment systems are an emerging technology that allows customers to pay with credit cards, debit cards, smartphone applications, and digital wallets when boarding transit vehicles or entering platform areas. The California Integrated Travel Program (Cal-ITP) aims to foster the implementation of open-loop payments among California’s transit agencies. What do transit agencies have to say about this goal and the challenges it might pose for them and their travelers?

Researchers from the University of California, Davis gathered surveys from a small sample of transit agencies (N = 21) and found that agencies are interested in open-loop payments, agencies and passengers would likely support it, but that it also presents challenges for agencies and passengers.

## Key Research Findings

**The top challenges with open-loop payments are technology and costs.** These two challenges were selected as one of the top three challenges by approximately 40% of the agencies in the sample. Technological requirements were

reported as challenges by many medium-sized agencies and a higher proportion of medium-sized agencies identified staff or capacity as a challenge. Smaller agencies may be hit harder with costs and see equipment installation and lack of customer ability to adapt as top challenges (Figure 1).

### California’s transit agencies are interested in assistance with open-loop payments.

Participants were asked if they are familiar with Cal-ITP’s open-loop payment assistance programs, including automating discount eligibility verification, master service agreements, and procurement assistance. For each of these programs, no more than 21% of our participants were “not interested.” The remainder of the agencies “would like more information about,” “have not used but would like to,” or “have used” these Cal-ITP programs.

**Agencies expect some benefits associated with open-loop payments.** A total of 71% of survey participants “agree” or “strongly agree” that open-loop payments would improve operational efficiency and 50% “agree” or “strongly agree” that open-loop payments would help passengers transfer more easily between agencies. Participants were split when asked

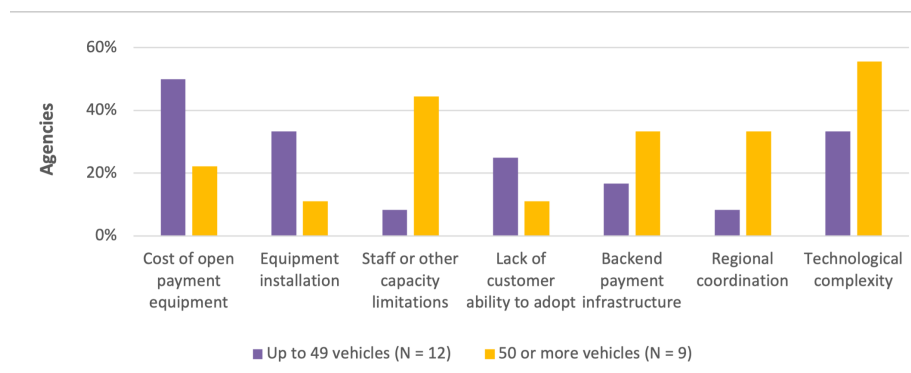


Figure 1. Top three challenges to open-loop payment implementation reported by small and medium-sized transit agencies and sorted by agency size.

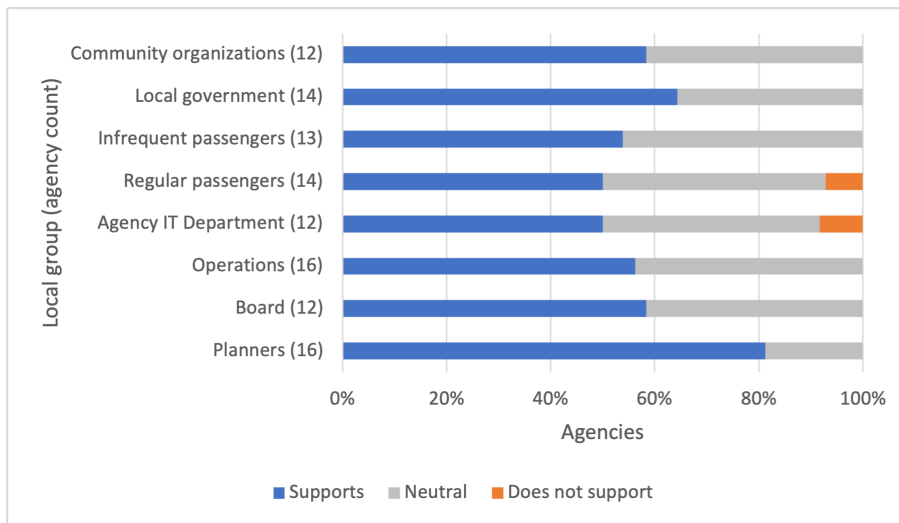


Figure 2. Support for open-loop Payments among groups connected to transit agencies. The agency count for each item indicates the number of agencies replying to that item. All agencies provided information about at least one category.

whether open-loop payments would not meet the needs of passengers (45% disagree vs. 35% agree).

**Transit agencies are generally open to open-loop payments.** The majority of the agencies reported that interested groups would be supportive of, or have neutral sentiments towards, open-loop payments, as shown in Figure 2. Similarly, only 4 of the agencies reported they had not considered open-loop payments; 14 had or are currently considering it; and the remaining 3 (or 15% of the sample) are implementing open-loop payments.

## Research Implications

California transit agencies are interested in open-loop payments, though they likely need assistance in overcoming the challenges associated with the adoption of new technology. Programs such as those offered through Cal-ITP may help agencies overcome technological challenges and reduce costs so that open-loop payments are viable.

Further research is needed to continue to track changes in payment technology and processing tools and to assess how these evolving tools may

be incorporated into transit payments. Additional research is also needed to better understand how peer-to-peer payment tools like Venmo and CashApp are used by un- and underbanked individuals. Finally, research on mobility wallets, and other forms of transportation benefits for disadvantaged and low-income groups should consider linkages between electronic benefit transfer (EBT) or reloadable cards and open-loop payments.

## More Information

This research brief is drawn from “All Aboard! Easier Transit Travel with Standardized Payments,” a report from the National Center for Sustainable Transportation, authored by Katherine Turner, Staly Chin, Andrea Nguyen, and Susan Pike of the University of California, Davis. The full report can be found on the NCST website at <https://ncst.ucdavis.edu/project/all-aboard-easier-transit-travel-standardized-payments>. Related work is published in *Findings* and can be accessed at <https://doi.org/10.32866/001c.115437>.

For more information about the findings presented in this brief, contact Susie Pike at [scpike@ucdavis.edu](mailto:scpike@ucdavis.edu).

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