



U.S. Department of Transportation
Federal Transit Administration



Mobility on Demand (MOD) Sandbox Demonstration: BART Integrated Carpool to Transit Access Program

Final Report

Background

The Bay Area Rapid Transit District (BART), the Metropolitan Transportation Commission (MTC), and Scoop Technologies, Inc. (Scoop), partnered on a program to better integrate carpool access to public transit by matching transit passengers into carpools with a transit station as their destination, using the carpool matching app Scoop to provide a seamless way to reserve and pay for highly-coveted parking spaces at BART stations.

Objectives

Objectives of the project were to:

- 1) Increase the number of BART patrons able to access the station by drive and park mode and increase the efficiency of station parking resources in terms of the average number of patrons using each parking space per day by encouraging carpooling.
- 2) Improve the seamlessness of carpooling to transit by linking a flexible carpool matching app (Scoop) with incentives that guarantee parking at the station for carpools and allow users to pay for parking through the carpool matching app.
- 3) Reduce fraudulent use of carpool parking incentives and eliminate the need for live enforcement of carpools to ensure the effectiveness of the program and allow BART to expand carpool incentives to all stations with parking and the number of spaces at each station as demand increases.

Findings and Conclusions

The Scoop to BART program elevated carpooling as a key strategy to manage and improve access to stations using limited parking resources.

The project resulted in significantly increased carpool activity at about a third of the stations participating in the pilot, with remaining stations seeing little to no increase. Improved seamlessness of carpooling to transit was a key benefit of the program; although parking payment was never incorporated into the Scoop app, program users did not pay for parking.

The guaranteed parking incentive was the primary reason for participating in the program, as noted in the user survey. Scoop to BART carpools were enforced by comparing the license plate of vehicles parked at the station with those matched into carpools that day, thus eliminating the need for live observation. However, loopholes were discovered by users who matched into carpools with known carpoolers but drove to the station alone. This, combined with changes to contracts terms and improved capabilities within the agency to provide a feasible alternative, convinced BART that it would not be prudent to continue with the program in the long term.

The project succeeded through three innovations:

- Combining the flexible carpool-matching capabilities of Scoop with guaranteed parking incentives at the BART stations.
- Providing data for carpooling use at stations and enforcing carpools through program participation and license plate data rather than live observation of carpoolers exiting vehicles.
- Using carpooling as a key strategy to improve access to stations and increase the efficiency of valuable parking resources.

Benefits

This program elevated carpooling to BART as a key strategy to manage and improve access to stations using limited parking resources. Data showing daily carpool usage by station provided needed evidence that carpooling can be an effective access mode, especially where parking is limited, commute distances to stations are long, and alternatives are poor. The Scoop to BART program and the lessons learned from it directly resulted in the development of a new in-house program to validate carpools using carpool parking payment data combined with faregate entry data. This has eliminated the need for live enforcement of carpools and resulted in significant reductions in the fraudulent use rate. This new program will be expanded to all stations with parking by the end of 2020.

Project Information

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This research project was conducted by Jumana Nabti of BART. For more information, contact FTA Project Manager Danyell Diggs at (202) 366-1077 or Danyell.Diggs@dot.gov. All research reports can be found at <https://www.transit.dot.gov/about/research-innovation>.