



U.S. Department of Transportation
Federal Transit Administration



Mobility on Demand (MOD) Sandbox Demonstration: Valley Metro Mobility Platform

Evaluation Report

Background

The Valley Metro Mobility Platform project is one of 11 Mobility on Demand (MOD) Sandbox Demonstrations funded by the Federal Transit Administration (FTA). Valley Metro partnered with RouteMatch, Lyft, GR:D BikeShare, West Group, and the City of Phoenix to implement a pilot smartphone application (app) aimed at improving trip planning and payments.

Valley Metro provides multimodal transit options, including the regional bus and light rail systems, to the 4.25 million residents of Maricopa County. The MOD Sandbox project developed and demonstrated the pilot Pass2Go mobile phone app, which aimed to update and replace Valley Metro's existing Ridekick™ app, a basic trip planner for light rail and buses. The Pass2Go Pilot was divided into two phases; Phase 1 included developing the app as a trip planner with real-time information and a single payment system for public transit, and Phase 2 focused on integrating bikeshare and on-demand ride sourcing services and payment into the Pass2Go app. However, due to contractual limitations and unforeseen technical challenges, Phase 2 was not fully implemented.

Objectives

Through the MOD Sandbox Program, FTA empowered Valley Metro to explore innovative business models and partnerships to deliver high-quality, seamless, and equitable mobility options. The project had multiple objectives: 1) reduce trip planning, wait, and travel times, 2) encourage the adoption of mobile-based technology for public transit, 3) improve first/last-mile connectivity, 4) improve accessibility and trip planning methods for travelers with disabilities, 5) enhance the traveler experience, 6) provide an open data platform that allows transit agencies to exchange travel information, and 7) produce lessons learned for future projects. An independent evaluation was conducted to assess the demonstration impacts and outcomes based on the Mobility Platform project's goals and objectives.

Findings and Conclusions

The project had positive impacts on trip planning and wait times, connectivity with public transportation, use of first/last-mile modes, trip planning for travelers with disabilities, and the traveler experience.

This report presents the results of an independent evaluation of the Valley Metro MOD Sandbox Demonstration, with lessons learned that potentially can help advance similar initiatives within other transit systems. The evaluation was guided by 12 hypotheses analyzed using survey data, app activity data, and expert (stakeholder/project partner)

interview data. Data were collected between March 2018 and November 2019, and the pilot ended shortly thereafter. The evaluation revealed that the project had positive impacts on trip planning and wait times, connectivity with public transportation, use of first/last-mile modes, trip planning for travelers with disabilities, and the traveler experience. Key findings are as follows:

- **The average planning and wait times of Pass2Go users declined.** Planning and wait time measurements showed significant decreases for bus and rail trips, and a sizable minority reported that use of the app had reduced their planning and wait times.
- **Users reported greater connectivity with public transportation using information augmented in Pass2Go.** Ratings of the app's ability to connect to/from public transportation increased, and a sizable majority reported improved access to public transportation due to the app.
- **User behavior showed greater use of connecting first/last-mile modes through measured activity.** The frequency of use of connecting modes to/from public transportation increased to a degree that was statistically significant.
- **Pass2Go users with disabilities found that trip planning methods were improved.** The majority of users with disabilities reported improvements in their trip planning capabilities due to the app, although the sample size of respondents with disabilities was not large.
- **Pass2Go users considered their travel experience to be enhanced with real-time travel information and routing.** Around 50% of users experienced improved access to real-time traveler information and improved trip planning methods.

Benefits

The Valley Metro Mobility Platform project was a learning experience for all stakeholders in areas of project operation and expansion, accessibility challenges, and other issues related to the continuation of the project. Stakeholder and project partner interviewees reported that participants were generally satisfied with the project and the lessons learned from it. Ultimately, use of the Pass2Go app reduced trip planning and wait times, provided real-time information for public transit, and improved trip planning and payment information accessibility for travelers with disabilities. It demonstrated the capabilities of a trip planning app to shift traveler behavior, streamline the payment process, and improve the traveler experience. Lessons learned from the pilot project should allow future projects to build on this experience and advance common objectives with similar initiatives within other transit systems.

Project Information

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