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New Mobility For All: Bringing Emerging Transportation Options to Underserved Communities

Nathan McNeil, MURP; John MacArthur, MS

Low-income residents, immigrants, seniors, and people with disabilities – these are people who stand to gain the most from new tools and services that reduce transportation costs and travel time. However, issues of affordability, technology adoption, banking access or other barriers can limit access to these new mobility opportunities. In the latest project funded by the National Institute for Transportation and Communities (NITC), *New Mobility For All*, Portland State University researchers Nathan McNeil, John MacArthur and Huijun Tan worked with the City of Portland’s Bureau of Transportation (PBOT) to evaluate a local pilot program: the Transportation Wallet for Residents of Affordable Housing. This program provides a set of transportation incentives for low-income participants, including: a \$308 pre-paid US Bank Visa card which could be applied to public transit or other transportation services, a free BIKETOWN bike share membership, and access to discounted rates on several services.

Researchers surveyed the program’s participants to understand how they used the Transportation Wallet and how it helped them use different modes to get around Portland, OR. The goal was to identify which aspects of “new mobility” services (e.g. Uber/Lyft, bike share and e-scooters) appeal to different underserved groups. Drawing on the survey results, the researchers developed potential strategies to expand the reach and value of these transportation services, and consider how to implement more programs to realize these benefits.

The research team shared insights from the findings in a February 2021 paper in *Transportation Research Record*: [“Evaluation of a Transportation Incentive Program for Affordable Housing Residents.”](#)

HOW DID PEOPLE USE THE WALLET?

“The Transportation Wallet provided funds for participants to use on transportation, but it didn’t prescribe specifically how they should use it. We ended up seeing a real variety. Some used it exclusively for public transit for daily needs, others for the occasional Uber or Lyft trip, and some people explored new services like our shared e-bike system or e-scooters. We also heard from a lot of participants that the program made them feel more independent in terms of being able to get around the city, as well as having less stress about if they or their children would be able to get home in the event of a missed bus or ride,” McNeil said.

The research team found some key findings on how the Transportation Wallet was used:

- A majority of the low-income participants were already users of TriMet –Portland’s public transit agency. Nearly half of the respondents indicated that they **tried new modes that they never used before** with the Transportation Wallet, which was correlated with increased sign-ups and usage of ride-hail, e-scooter and bike share services.
- Participants appeared to use each mode **more than they would have otherwise**.
- The flexibility and convenience of the program were highlighted in survey comments by participants. Responses also indicate that **the program reduced stress related to how people might meet their basic travel needs** or get around in the case of unexpected or emergency travel needs, all while reducing financial stress as well.
- Although TriMet and ride-hail were the most used among

“The research highlights a specific group of individuals and families who are historically underserved, who often have limited access to services and jobs, and lack mobility options. The Transportation Wallet program is an innovative approach to address their mobility needs. This research focuses on evaluating the pilot program, but there is still so much to learn and understand how cities, transit agencies and mobility providers can assist the people living in affordable housing communities,” MacArthur said.

the available services, it is still notable that 28% to 29% of participants signed up for e-scooter and bike share services, even if many did not proceed to use them. This highlights the potential of such a program, but also speaks to the need for programs to engage further in helping **transition people from signing up for a service to actually using that service.**

IMPLEMENTING A SIMILAR PROGRAM

RECRUITING PARTICIPANTS AT TRANSPORTATION FAIRS

“For anyone providing this type of service, keep in mind the value of Transportation Fairs. Attendees at these in-person events were much more likely to sign up for services, including discounted TriMet fares. **Hosting the fairs near people’s homes** was seen as very important by both the people we surveyed and the partner housing agencies,” McNeil said.

To the extent possible, researchers recommend that participants should leave the Transportation Fairs “ready to walk out the door and start using the Wallet.” Having activated cards to distribute at the fair (or providing credit to participants through a mobile app) could help to encourage program participation generally, and help in further promoting some of the services that participants may not have previously tried.

OPPORTUNITIES TO IMPROVE

Input from participants suggests that several aspects of the Transportation Wallet can be improved:

- **Improve the way information about the program and new mobility usage is conveyed**, specifically for those who never use phone apps to travel around.
- **Explore participants’ experiences when using different services.** For instance, safety concerns about bike share and e-scooter share services and age-related barriers (e.g., physical ability) was a challenge. This is consistent with previous studies about safety concerns as a barrier for using new mobility. Transportation agencies may be limited in their promotion of these modes without further strategies to address the different perceptual and objective barriers.
- **Address problems through an enhanced level of on-going assistance.** This could include help with activating

their Transportation Wallet cards, transferring funds into their service accounts, and navigating the challenge of prepaid cards which were sometimes not an acceptable form of payment. This type of further assistance could also help to address the gap between the number of people who sign up for various services and those who actually use those services.

- **Increased opportunities to actually test out services** (use the apps, ride the e-scooters and bike share bikes). Some participants could benefit from lessons and practice in using e-scooters, bikes, ride-hail, and transit. Having tried it once in a supportive environment could be all it takes to give someone the confidence to use a new mode going forward.

Cities interested in implementing similar transportation programs can use the insights from this report on the Portland pilot study. Overall, the message from the Transportation Wallet program is one of empowerment: it did make it easier for many transportation-disadvantaged participants to get around, and gave them a new freedom of choice between different modes they hadn’t explored before. For those who want to replicate this experiment, this report offers detailed guidance and a positive model to build upon.

ABOUT THE AUTHORS

The research team consisted of Nathan McNeil, John MacArthur and Huijun Tan of Portland State University.

ABOUT THE FUNDERS

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THE REPORT and RESOURCES

For more details about the study, download the full report *New Mobility For All: Evaluation of a Transportation Incentive Program for Residents of Affordable Housing in Portland, OR* at nita.trec.pdx.edu/research/project/1318

Photo by Cait McCusker

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