

7-2018

## Smart Tech, Smart Cities: Achieving Mobility for All

Aaron Golub  
*Portland State University, agolub@pdx.edu*

Michael Serritella  
*Portland State University*

Vivian Satterfield  
*OPAL Environmental Justice Oregon*

Jai Singh  
*OPAL Environmental Justice Oregon*

Follow this and additional works at: [https://pdxscholar.library.pdx.edu/trec\\_briefs](https://pdxscholar.library.pdx.edu/trec_briefs)



Part of the [Transportation Commons](#), and the [Urban Studies Commons](#)

Let us know how access to this document benefits you.

---

### Recommended Citation

Golub, Aaron, Serritella, Michael, Satterfield, Vivian and Singh, Jai. Smart Tech, Smart Cities: Achieving Mobility for All Project Brief NITC-RR1163. Portland, OR: Transportation Research and Education Center (TREC), 2018.

This Report is brought to you for free and open access. It has been accepted for inclusion in TREC Project Briefs by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible: [pdxscholar@pdx.edu](mailto:pdxscholar@pdx.edu).



## SMART TECH, SMART CITIES: ACHIEVING MOBILITY FOR ALL

Portland, Oregon’s proposal for the U.S. Department of Transportation’s Smart City Challenge, “Ubiquitous Mobility for Portland,” focuses on developing mobility solutions that would serve traditionally underserved populations (low-income, communities of color, and residents with mobility challenges). This project assists in that effort by developing a community-based needs assessment involving an analysis of existing data sets, along with original survey work and focus group discussions with community members. Specifically, this project explores the following research questions:

1. How can smart mobility technologies address the current and future needs of transportation disadvantaged communities?
2. What barriers to using these technologies do different communities experience?
3. What potential solutions show the most promise in overcoming these barriers?

By lowering costs and improving service for public transit, ridesharing and active transportation, smart mobility technologies could potentially address many of the transportation needs of transportation disadvantaged communities. Significant barriers exist, however, which prevent smart mobility technologies from benefiting all communities. Popular recommendations from the surveys and focus groups to address disparities included the following:

1. Improve public transportation information, scheduling and route finding through smartphone applications.
2. Improve public data access (such as through public Wi-Fi).
3. Implement policies to lower barriers to purchasing or using electric vehicles.
4. Expand translation for important smart mobility applications into languages other than English.

Researchers work to help Portland achieve ubiquitous mobility for all, by conducting surveys and focus groups to identify barriers and needs in the use of smart technology among members of underserved communities.

### Community-based Assessment of Transportation Needs to Inform City of Portland Smart Cities Plan (#2018-1163)

Aaron Golub, PhD, Portland State University

Download Final Report: <http://nitc.trec.pdx.edu/research/project/1163>



This study was funded by the National Institute for Transportation and Communities (NITC). NITC is one of five U.S. Department of Transportation national university transportation centers. Housed at Portland State University, NITC is a program of the Transportation Research and Education Center (TREC). This Portland State-led research partnership includes the University of Oregon, Oregon Institute of Technology, University of Utah and new partners University of Arizona and University of Texas at Arlington.