COMMUNITY BASED ASSESSMENT of TRANSPORTATION NEEDS to INFORM the CITY OF PORTAND'S SMART CITIES PLAN

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BACKGROUND & **CONTEXT:**

This project is motivated by a public effort to anticipate the burdens and benefits of smart mobility technologies, in order to guide public investments and regulations to improve outcomes for transportation disadvantaged communities. The City of Portland and other local leaders, neighborhoods, and community organizations have embarked on a process to intentionally design and implement a more socially just and sustainable approach to smart mobility. This project, funded by Forth and Portland State University's (PSU) National Institute for Transportation and Communities (NITC), was carried out through a collaboration between OPAL and PSU to assist in that process.

The Portland Smart Cities UB Mobile PDX proposal was developed in response to a major request for proposals from the United States Department of Transportation (USDOT). The City of Portland's original application was a national finalist, yet was not chosen by the USDOT. The city and community have resolved to continue exploring this topic and this project is part of that effort. The original proposal focused strongly on developing mobility solutions that would serve traditionally underserved populations (low-income, communities of color, and residents with mobility challenges). As the proposal now moves into a plan, this project continues with that proposed community engagement process to explore and assess the transportation challenges in traditionally underserved communities and explore how smart mobility solutions embedded in Mobile PDX can best be crafted to meet the needs of low-income and traditionally underserved residents in Portland, Oregon, focusing especially on East Portland.

RESEARCH **QUESTIONS:**

1 What are the barriers to using smart mobility technologies experienced by different communities?

2 What potential solutions show the most promise in overcoming these barriers?

3 How can smart mobility technologies address the current and future needs of transportation disadvantaged communities?

RESEARCH **PROCESS:**

TWO FOCUS GROUPS
Hosted in partnership with
Bus Riders Unite! & Latino Network

STAKEHOLDER INTERVIEWS
Portland African American Leadership Forum (PAALF)
Native American Youth and Family Cener (NAYA)

155 ONLINE SURVEYS
Distributed by OPAL and Portland State University during the summer and fall of 2017.

153 IN-PERSON SURVEYS
Collected though direct engagement at community events and on public transit in East PDX.

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KEY FINDINGS & **RECOMMENDATIONS:**

Transportation disadvantaged groups are less likely to own private automobiles and rely heavily on other ways of meeting their daily transportation needs. However, low-income respondents and respondents of color were greater users of smartphones than their counterparts.

These findings suggest a major opportunity for equity centered smart mobility technologies to address these mobility needs.

Higher income and white respondents reported a greater level of familiarity with electric and autonomous vehicles. They were also more likely to have access to charging stations at their homes and places of work. If electric and autonomous vehicles are to be more widely used then these barriers should be addressed. Policies that lowered the barriers to purchasing and using electric vehicles were popular amongst people engaged with during this study.

A common theme that emerged from focus group discussions and was a popular policy proposal recommended by survey participants was the need to translate smart mobility apps into multiple languages. This is an essential step in ensuring universal access and usability amongst residents with limited English proficiency.

15% of low-income study participants do not have access to a bank account

1 in 3 people of color do not have a driver's license.

Both groups reported less comfort with linking their financial information to smart transportation apps. They are more likely to rely on cash payments for transit services. These reflect larger institutional barriers that should be addressed to ensure equitable access to emerging smart mobility technologies.

The high cost of smartphone data plans place financial pressure on those with limited incomes, meaning disparities in access to data. Smart mobility technologies will rely on smartphones with cellular data for access. Public wi-fi was mentioned by survey and focus group participants as an important step the city could take to improve access.
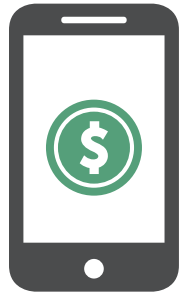
The highest ranked recommendation from survey respondents was to facilitate public transportation information, scheduling and route finding through real-time communication between transit vehicles and riders. This would include arrival information as well as information about crowding and space for those with assistive mobility devices such as wheelchairs.

Want to read the whole report? Find it online at:
nitc.trec.pdx.edu/research

Learn more about the City of Portland's Smart Cities Plan:
www.portlandoregon.gov/transportation/69999

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