



Advancing Transportation Equity Through Inclusive Travel Survey Data Methods

Amy Lubitow, Ph.D., Julius McGee, Ph.D., Raoul Liévanos, Ph.D., Erika Carpenter

What is the quality of travel data for underrepresented, marginalized populations? The issues go deep: In a world with deep-rooted systemic inequity, transportation professionals must understand contextual factors and approach data collection with sensitivity.

Data from travel surveys are used to forecast demand, inform transportation investments, and craft urban policies. Because these data are so essential to shaping our transportation system, it is critical that hard-to-reach populations—such as low-income, minority, and transit-dependent people—have their travel behavior accurately reflected. The limited survey coverage may lead to inaccurate estimation of their transportation access and behavior, impede policy changes related to transportation equity, and ultimately contribute to a broader problem of racial misrepresentation in transportation data.

HOW ACCURATE ARE THE DATA?

The research team linked the 2010 Decennial Census population and housing data to an apparent stratified random sample of 6,107 household responses to the 2011 Oregon Household Activity Survey (OHAS) in the Portland metropolitan area. They found that the 2011 OHAS consistently over-represented White households and under-represented Nonwhite households in the greater Portland area. Researchers identified census tracts where OHAS household response rates were low and Nonwhite racial composition was high. Those tracts were selected for in-depth qualitative research.

BARRIERS TO DATA COLLECTION

Through local community organizations, the researchers recruited Portland-area residents with low incomes and/or

that identify as racial or ethnic minorities to participate in six focus groups, with 57 participants in all. They discussed the Oregon Household Activity Survey's travel diary, as well as their general interest or likelihood in participating in a household travel survey. Using this community input to critique existing survey methods, they also identified alternative approaches that are more relevant to community members. They found that marginalized groups face significant barriers to completing household travel surveys:

- Mistrust of the government
- Concerns about personal privacy
- Language difficulties
- Issues with the construction of the survey questions themselves
- Time constraints

Researchers also received some specific feedback from the community members in the focus groups.

"They ask for too many specific details (...) with everything that is going on with ICE and all of that, if someone asks you 'What time do you leave home?' 'Where do you go?' 'Where do you leave your children?' 'Where do you go to work?', I wouldn't feel comfortable writing that down (...) perhaps if it didn't ask with so much detail, instead of the exact time maybe just choose between 'Morning/Noon/Afternoon/Night' instead of being so specific."

"[It's] not even what's said, but how it's said. Feels like what I hear from officers, like "WHAT IS YOUR NAME?" "WHERE YOU GOING?" "WHO'S WITH YOU?" "WHERE DO YOU LIVE?" We've

heard those questions before, there's a way that you can frame that that makes us, or whoever is filling this out feel a little bit more respected and I feel like they missed that point. "

"They're only English and Spanish, so was this survey really only intended for just targeting two populations? They have to translate to Vietnamese, Chinese and(...) We also have people that speak Swahili, Somali, you name it."

RECOMMENDATIONS AND CONCLUSIONS

To improve the accessibility of household travel surveys to low-income communities, communities of color, and immigrant groups, the researchers came up with recommendations centered on five themes:

Increase Transparency : Increase opportunities for community members to ask questions about the survey; clarify the purpose of the data collection efforts and the intended use of the data.

Protect Data and Privacy: Communicate how collected data will be stored, who will have access to that data, and clarify how participants will be protected. Consider adopting more flexible approaches to data collection that might be of a highly personal or identifying nature.

Community Engagement: A lack of diverse participation in survey research can be partially remedied by collaborating directly with community organizations to reach the populations they serve. Consider how focus group or other communal settings may allow participants to more accurately complete surveys (as they would have opportunities to ask for help, ask questions, and otherwise feel more comfortable completing surveys). Contracting or otherwise directly compensating community organizations for their expertise will yield higher rates of survey completion amongst many groups, particularly those who are most vulnerable.

Language Use: Surveys must be translated into a variety of languages that reflect the city's population. However, translation is not enough; efforts must be made to engage immigrant communities and communities of color in order to ensure that the way that survey questions and procedures are written are culturally relevant. There may

not be direct translations that work for some populations, and this study also finds that the language used in the one-day travel survey may be problematic for some communities of color.

Seek Out Alternatives to One-Day Travel Diary: Participants in this study reported that a one-day snapshot of their travel behaviors would never fully capture the transportation behaviors of the populations included in this research. Thus, efforts should be made to consider multi-day studies while also considering how certain kinds of technology with higher rates of accuracy in measuring mobility might be used (e.g. GPS technologies). However, GPS technologies are not a perfect solution as many immigrants and people of color in this study reported that they would be unlikely to share their GPS data for the purposes of a research study.

The final report provides more detail and a clear set of strategies and interventions which can be beneficial to state and city agencies conducting future surveys.

ABOUT THE AUTHORS

The research team consisted of Amy Lubitow, Julius McGee and Erika Carpenter, Portland State University; and Raoul Liévanos, University of Oregon.


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THE FULL REPORT and ONLINE RESOURCES

For more details about the study, download the full report **Developing Data, Models, and Tools to Enhance Transportation Equity** at <https://nitc.trec.pdx.edu/research/project/1122>

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