

Title

New Technology Improvements for Collecting Traveler Behavior

Scope

Household travel studies collecting traveler behavior and demand provide crucial information for transportation agencies (DOTs, MPOs, transit agencies, local governments) as they plan, prioritize, and design billions of dollars of transportation infrastructure investments annually. Survey results are critical inputs into forecast models and market analyses that determine facility requirements, scope, potential environmental impacts, and eligibility and benefit/cost analysis for federal funding programs such as INFRA and BUILD. The validity of survey data is essential to agencies making sound, data-driven decisions.

Traditionally, agencies perform surveys decennially in concert with the US Census, although some agencies are starting to conduct surveys more often. Over the last ten years, advances in technology and advances in survey research practice more broadly indicates that agencies conducting surveys need to have a better baseline understanding of current research results both in survey methods and technology. A synthesis report is needed this year to inform surveys that will be conducted alongside the 2020 Census and will provide agencies with timely and highly useful information to improve the data that will be provided to transportation investment decision-makers. The synthesis will accomplish this by answering the following questions:

- *What new methods are being used to collect household travel survey data. Are some of these methods more effective than others?*
- *What is the appropriate frequency and sample size for a statewide, large metropolitan, and small metropolitan survey effort?*
- *What are effective ways to capture the travel needs of unhoused or group quarters residents and regional workers who reside outside of the region?*
- *Do advances in passive data sources and other commercially available “big data” change survey method decisions? How can passive data augment traditional household travel surveys?*
- *What methods do transportation agencies use to safeguard privacy of survey respondents?*
- *What advances in survey methods, including technology, sampling, expansion and imputation, are occurring in the non-transportation survey research field that should see wider adoption in household travel surveys?*
- *What are best practices in ensuring that all travelers regardless of race, sex, income, language or ability, are fully represented in household travel surveys?*

A synthesis report would include:

- *An overview of methods that transportation agencies can use to conduct household travel surveys.*
- *What new technologies and methods are being used and their effectiveness and cost-effectiveness.*
- *Techniques for being able to effectively use and share travel survey data while protecting participant privacy.*
- *What passive data sources are being used for survey augmentation.*
- *What research methods are being overlooked by the transportation survey profession.*

Information will be gathered through a literature review, potentially a survey of transportation agencies and survey firms, and select interviews with transportation and non-transportation survey experts and practitioners. Needs for future research should be discussed.

Information Sources (1500 characters)

- *Many AAPOR sources*

Notes

Statement developed and supported by:

- *DOTs: Ohio (Rebekah Straub Anderson), Kentucky (Scott Thomson), Oregon (Becky Knudson)*
- *MPOs: Atlanta Regional Commission (Guy Rousseau), Denver Regional COG (Scott Ramming), Puget Sound Regional Council (Seattle, Suzanne Childress), Metropolitan Council (Minneapolis, Jonathan Ehrlich)*
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