



JTC HOUSEHOLD TRAVEL SURVEY UTILITY ANALYSIS

Presentation to the JTC

Allegra Calder and Julia Tesch, BERK Consulting

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OUR TEAM



Julia Tesch
Project Manager
and Lead Analyst



Allegra Calder
Project Director



Kevin Ramsey, PhD.
Strategic Advisor



Ariel Hsieh
Analyst



Sabrina Santos
Analyst



Ben Silver, GISP
GIS Analyst

Staff Workgroup

- Paul Neal, JTC (JTC Project Lead)
- Alyson Cummings, JTC
- Hayley Gamble, STC
- Mark Matteson, HTC



PRESENTATION OBJECTIVES

- Share project background information:
 - Overview of the Statewide Household Travel Survey (HTS) Utility Project
 - Basic information about HTS
 - Overview of potential uses of HTS and other existing travel data available in Washington
- Gather member input on interest in a statewide HTS and questions to consider



PROJECT PROVISO

\$125,000 of the motor vehicle account–state appropriation and \$125,000 of the multimodal transportation account–state appropriation are for the Joint Transportation Committee to evaluate potential options and make recommendations for a statewide household travel survey and additional analytical capacity regarding transportation research.



CURRENT STUDY QUESTIONS

- What would be the utility of conducting a statewide HTS?
- What are the potential options for methods to conduct a statewide HTS?
- Could the uses of a statewide HTS be accomplished through existing resources?

APPROACH

- **Throughout: staff workgroup engagement**
- **Gather information**
 - Stakeholder interviews regarding potential uses of HTS
 - Analysis of existing HTS and other travel data collection in WA
 - Analysis of need for HTS data in recent studies by the JTC and others
 - Analysis of statewide HTS in other states
- **Develop options and cost estimates** for statewide household travel survey
- Final report due by June 2024



WHAT IS A HOUSEHOLD TRAVEL SURVEY?

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A household travel survey collects data on weekday travel and transportation patterns for **all members of a given household**.

- For each trip:
 - **Purpose**
 - **Means** of transportation
 - **Who** traveled
 - Travel **time**
- Information available at the household and individual level
- Gathers demographic information about respondents - enables crosstabulations if sample is large enough
- Typically does not include weekend travel or air, seasonal, or commercial travel

HTS OVERVIEW CONTINUED

How does an HTS collect information?



Data collection via multiple methods

- Online form
- Phone line
- Smartphone tracking (typically longer timespan)

How frequently does an HTS collect information?



Data typically collected every ~2 to 10 years depending on who's administering

REMINDER: POTENTIAL USES OF HTS DATA

Focusing our study here

Model Travel Demand

- Washington does not currently have a statewide travel demand model
 - 77.9% of the state covered by current models
- Regional models are developed by RTPOs/MPOs

Inform Policy Related to Travel Behavior

- **Quantify travel behavior** - *how many people travel to work using transit?*
- **Understand travel behaviors over time** - *how has transit use changed over time?*
- **Study the relationship of demographics and travel** - *who is riding transit to work?*

Support Third-Party Research

- Many institutions engage with travel data to conduct research

Additional investment is needed to analyze HTS data for these uses

PLANNING AND POLICY QUESTIONS THAT AN HTS CAN AND CANNOT ANSWER

HTS can help answer

- How many car trips does the average resident make on a typical weekday?
- How does transit use vary by income?
- What are the peak travel hours, by trip purpose, throughout the day?
- How often do employed persons typically telecommute (vs. commuting to work)?

Additional data is needed to fully answer

- Where do visitors go when they travel to the region?
- How many miles do ride-hail drivers (e.g., Uber, Lyft) travel without passengers in their vehicles?
- How many airplane trips does the average resident make each year?
- Where does freight travel around the region?

Source: Puget Sound Regional Council



HTS IN WASHINGTON

EXISTING HTS IN WASHINGTON

Washington currently does not conduct a statewide HTS, but there are HTS in the state

NextGen National Household Travel Survey (NHTS)

- Administered by the Federal Highway Administration
- Conducted every 2 years
- Sample size of 7,500 households nationally
 - We estimate ~175-185 WA households, too few for disaggregated state-level analysis

RTPO/MPO Regional HTS

6 of 19 RTPOs conduct an HTS, primarily for travel demand models

1. Puget Sound Regional Council
2. Skagit Council of Governments
3. Southwest Washington Regional Transportation Council
4. Spokane Regional Transportation Council
5. Thurston Regional Planning Council
6. Whatcom County of Governments

PRELIMINARY POTENTIAL OPTIONS FOR A STATEWIDE HTS: **NEXTGEN NHTS ADD-ON OR INDEPENDENT STATEWIDE HTS**

NextGen National Household Travel Survey (NHTS) Add-On Program

- Option to oversample within Washington
- Additional 6 personalized questions
- Delivers edited, weighted data with analysis conducted by data requestor
- Cost: ~\$270 per household

Independent statewide HTS

Potential implementation options:

- Statewide survey conducted by a State Agency
- Expansion of the existing PSRC survey to the entire state - but *no commitment yet from PSRC*
 - Many questions are similar to those in the NHTS, with some questions tailored to regional needs
 - Analysis via consultants and in-house staff capacity
 - Cost: ~\$250 per household

OTHER TRAVEL DATA IN WASHINGTON

Non-HTS Travel Data

- **ACS** - American Community Survey
- **AASHTO CTPP** - American Association of State Highway and Transportation Officials Census Transportation Planning Products
- **BLS** - Bureau of Labor Statistics
- **MRSC** - Municipal Research and Services Center
- **NHTS** - National Household Travel Survey
- **OFM** - Office of Financial Management
- **PSRC** - Puget Sound Regional Council
- **Sound Transit and other agencies**
- **WSDOT** - Washington Department of Transportation

Mobile Phone Data

- Various providers collect & aggregate data from mobile phones
 - Location, time of day, speed
 - Inferred information: trip details, demographics
- Advantages: large sample size, precision (not self-reported)
- Disadvantages: privacy concerns, not household-level, inferred information may be incorrect/incomplete
- Cost: varies by dataset



DISCUSSION

What is your interest in a statewide HTS?

What policy concerns or questions have you had about travel behavior that you felt have not been well-answered in recent years?

What would you like to know about a statewide HTS to decide whether it's worth investing in?

APPENDIX

STAKEHOLDER INTERVIEWS

Organization	Interviewee(s)	Interviewee Title	Status
Washington Traffic Safety Commission	Staci Hoff	Research Director	Complete
UW TRAC	Ryan Avery	Interim Director	Complete
Governor's Office	Debbie Driver	Senior Policy Advisor for Transportation	Complete
Association of Washington Cities	Brandy DeLange	Government Relations Advocate	Complete
Office of Financial Management	Erik Hansen	Senior Budget Advisor for Transportation	Complete
Puget Sound Regional Council	Brian Lee	Program Manager of Data Solutions and Research	Complete
Washington State Association of Counties	Axel Swanson	Managing Director, WA Association of County Engineers	Complete
WSDOT	Karena Houser	Director of Multimodal Planning & Development	Complete
	Natarajan Janarthanan	Manager of Travel, Data, Modeling, and Analysis	
Washington State Transportation Commission	Reema Griffith	Executive Director	Complete
	Carl See	Deputy Director	
Department of Commerce	N/A	N/A	Declined
Department of Licensing	N/A	N/A	Declined
Municipal Research and Services Center	N/A	N/A	Declined