Puget Sound Regional Household Travel Survey (HTS) Program

2022 January 20

Puget Sound Regional Council

Brian H. Y. Lee, Ph.D.
Program Manager

Susanne Childress
Data Scientist

Presentation Highlights

- **What is the Household Travel Survey (HTS) Program?**

- **Finishing the 2021 survey: Dataset publication in March**

- **Starting the 2023 survey: Call for "add-on" data samples**

Puget Sound Regional Travel Studies

More frequent snapshots allows for more timely analysis and monitoring of trends. Data can be combined.

| 1961 | 1971 | 1988 | 1989-2002 | 1999 | 2006 | 2014-2015 | **2017 2019 2021** |

Webpage: https://www.psrc.org/household-travel-survey-program

2017-2019-2021 HTS Program

Goal: The surveys seek to capture quality, regionally representative data for residents' activity and travel behavior on a typical weekday.

6-year program, 3 waves
- 2017 and 2019 completed
- 2021 data to be published in March

Motivations
- Frequent snapshots, ability to combine years
- "Smoother" budgets and labor roles
- Opportunities for "add-on" samples

Uses of the HTS Data

Analysis
- Most recent regional travel patterns
- Trends: comparisons with previous surveys

Model development
- SoundCast
  - Activity-based (travel) model system
  - Estimate activity/travel choice models
- UrbanSim
  - Parcel-based land use model system
  - Estimate residential location choice model

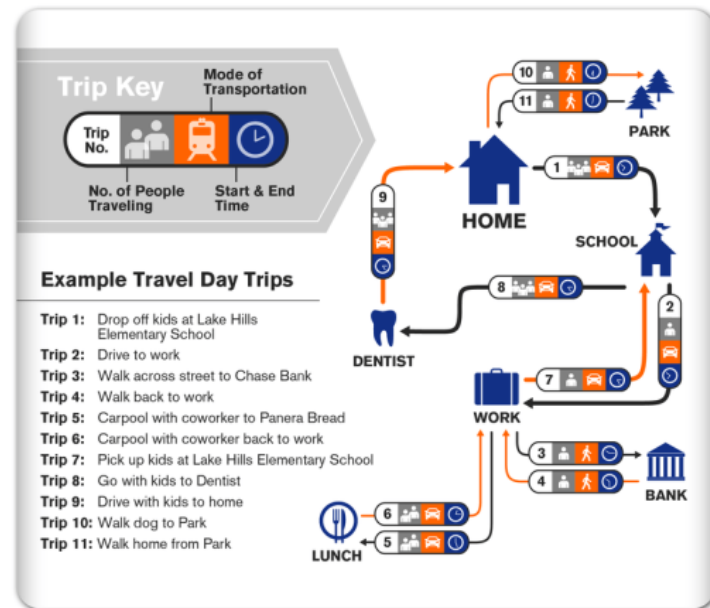# Information in the HTS Data

Who? Household, person socio-demographics

What? Vehicles; Homes; Work/school status

Where? Home/work/school locations; Activity/trips

When? Home relocations; Activity/trip times

Why? Home location factors; Trip purposes; Attitudes

How? Usual ways to commute; Modes; Deliveries

Common Metrics for HTS Data

Metrics:	Example:
Counts and distributions	**81%** of households own one or more cars.
Person/Vehicle trip rates	The average person makes **4.5 trips/day**.
Person-/Vehicle-miles traveled	The average person travels **29 miles/day**.
Vehicle occupancy factors	The average personal car on the road has **1.9 people** in it.
Person-/Vehicle-time use	The average personal car is used for **65 minutes/day**.
Top box or top two box	**28%** of people are very or somewhat interested in using an autonomous car in the future.
Elasticity or shares	On average, people value their time at **$25/hour** while traveling.

New Data in the 2021 HTS

- Work location and commuting mode

  before 2020 March 15 AND now

- Telecommuting before 2020 March 15 AND now

- Employment changes due to COVID-19

- Employment industry

- Home relocation because of COVID-19

2021 PUGET SOUND REGIONAL Travel Study

Help us improve transportation in the Puget Sound region!

Future of Puget Sound Regional HTS

Current HTS Program

- Produces timely, relevant data to reveal trends and support long-range regional planning and policy needs
- Provides flexibility for member agencies to purchase "add-on" data samples in each survey year focused on their jurisdictions or areas of interest

Next HTS Program

- Developing second multi-year, multi-wave HTS Program
- Planning for a spring 2023 data collection period to help support the 2026 Regional Transportation Plan
- Considering 2025 and 2027 surveys (to be confirmed)
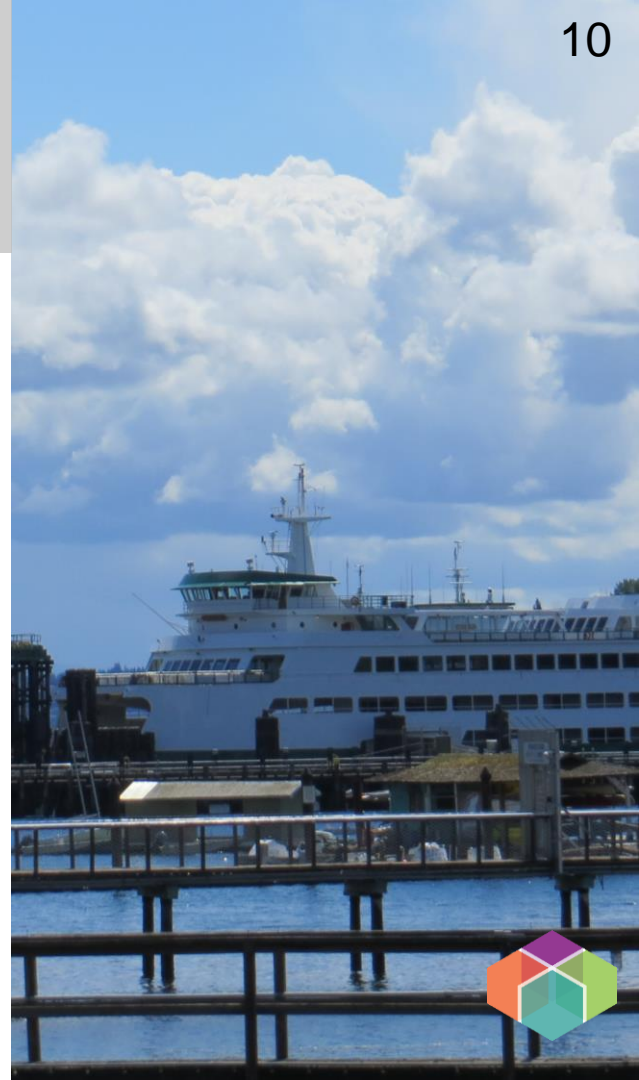
2023 "Add-on" Data Sample FAQ

What is an add-on data sample?

- Puget Sound Regional HTS data is primarily designed for use at regional/county levels – more survey responses are needed for use in smaller geographies
- Members can "add-on" to the regional HTS & buy more data in areas of interest
- Previous add-on partners include cities of Bellevue, Redmond, Seattle, & Tacoma

How much would an add-on data sample cost in the 2023 HTS?

- Costs can vary depending on questions posed & people/household qualities of interest
- Assume ~$200/household & at least ~500 households for rough budgeting purposes
- PSRC staff can help determine appropriate data sample sizes

What questions will be included in the 2023 HTS?

- 2023 survey questions will be very similar to ones asked in the current program
- See the 2019 questionnaire: https://www.psrc.org/sites/default/files/psrc2019-questionnaire-files.zip

2023 "Add-on" Data Sample FAQ

How will the 2023 HTS project be managed? How will add-on partners be involved?
- PSRC will manage the project & hire a consultant to collect/deliver the data
- Add-on partners will help define scope of work (e.g., sampling needs in areas of interest) & provide support for outreach (e.g., official mailings encouraging survey responses)

Can an add-on data sample emphasize some parts of a jurisdiction or certain communities?
- Yes, some places can be oversampled (e.g., Redmond focused on their downtown)
- Similar for different populations (e.g., PSRC aims for representation of People of Color, rural communities, transit users, & other relatively smaller groups)

How does HTS data compare to other data?
- Survey data can reveal patterns of behavior (plus sometimes the reasons behind them) AND relate them directly to characteristics of people & households
- Other observational data (e.g., counts, location-based service) are less expensive but usually cannot directly link to people/households & may have uncorrected biases

Proposed 2023 HTS Timeline

2022   Jan: RSC presentation & follow-up announcement

Mar: Seek contract authority for consultant services (PSRC portion only)

Apr: **Member commitments due for "add-on" data samples in the 2023 HTS**

May: Issue Request for Proposals

Jun: Seek contract authority for consultant services (PSRC & "add-on" portions)

Jul/Aug: Select consultant & negotiate scope of work;

Sign MOUs with "add-on" members; Sign consultant contract

Sep: Start 2023 HTS project with consultant

2023 Apr-Jun: Data collection

Jul: Start collaborative process with consultants to clean & weight data

2024   Mar: Final data delivery & publication

PSRC Household Travel Survey Program Webpage:
https://www.psrc.org/household-travel-survey-program

Brian H. Y. Lee   blee@psrc.org

Suzanne Childress   schildress@psrc.org

Thank you.