



## Next-Generation National Household Travel Survey (NextGen NHTS) Info Sharing Event - OD Data: Overview, Products, and Use Case March 2023

Thanks to those who participated in the Coalition's NextGen NHTS Info Sharing Event on January 26, 2023. Please click on the links below for more information about the event or visit the TSMO section of the Coalition website, under the TSMO Webinars tab (<https://tetcoalition.org/projects/tsmo-events-webinars/>). The event and related documents listed below serve as a rich resource for our members to understand and assess the NextGen NHTS program:

- [Presentation with Audio](#)
- [Slides Only](#)
- [Question & Answer Summary](#)

This NextGen NHTS Info Sharing Event complements the third generation of the Coalition's Transportation Data Marketplace (TDM) which includes OD data as an available data set. This event exemplifies our commitment to inform and promote informational resources that will be of value to our members. It was motivated by several of our members inquiring how the NextGEN NHTS compares or complements the vendor offerings in Transportation Data Marketplace.

We would like to thank the presenters for excellent and engaging presentations. Attendees are encouraged to take a deep dive into their respective data sets with the [NextGen NHTS tool](#).

## Overview of NextGen NHTS Objectives

**Patrick Zhang of the Federal Highway Administration** provided an introduction of the NextGen NHTS program launched in 2018. The program has several goals, including providing insights into long-distance travel and supporting pooled fund agencies with shared research and data purchase opportunities. Data can be integrated with visualization and analysis tools such as RITIS.

The NextGen NHTS Program offers three data products: national truck data, national passenger data, and additional passenger data, as an add-on product. Specifics for each product can be found in the graphic below.

The national data covers 583 “zones” of origin-destination data. More information on the zones can be found [here](#).

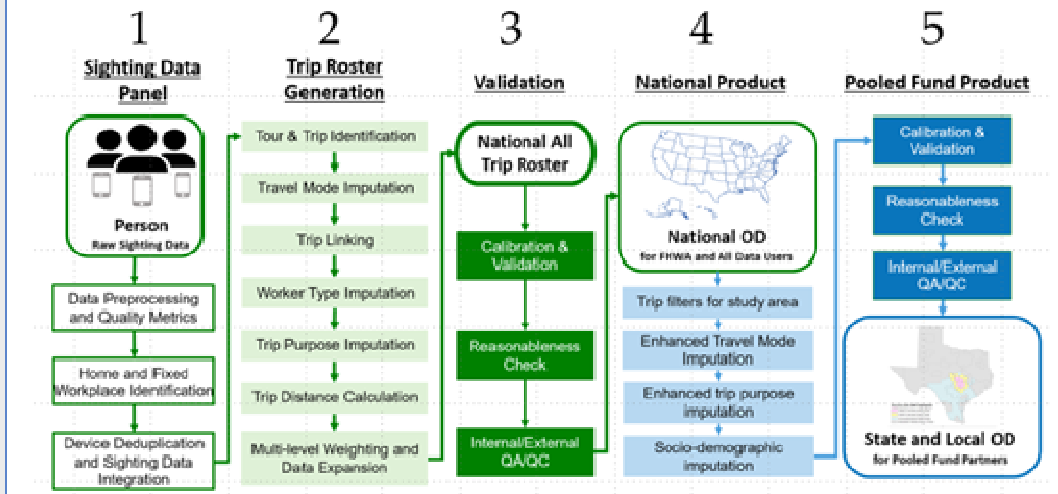
| Specification          | National Truck   | National Passenger        | Add-on Passenger   |
|------------------------|------------------|---------------------------|--|
| Trip Count             | Annual           | Annual                    | Annual, monthly, weekday/ weekend, and hour of day             |
| Coverage               | 50 States + DC   | 50 States + DC            | Agency-specified   |
| Zone                   | FHWA's 583 Zones | FHWA's 583 Zones          | Agency-specified   |
| Distance               | 8 categories     | 8 categories              | 8 categories   |
| Travel Mode (imputed)  | N/A              | Air, rail, vehicle, other | Air, rail, car, bus, walk, bike, other                         |
| Trip Purpose (imputed) | N/A              | Work, non-work            | Home-based work, home-based other, work-based other, and other |
| Demographics (imputed) | N/A              | N/A                       | Age, gender, and income  |

## How It's Made: Behind the Scenes of the NextGen Data Product and Supporting Tools

**Michael Pack of the University of Maryland CATT Lab** described how the CATT Lab integrates and fuses data from multiple sources to provide data for NextGen NHTS. Overall, the effective penetration rate in the US is 16.1% while penetration rates range from 10% - 25% depending on the state.

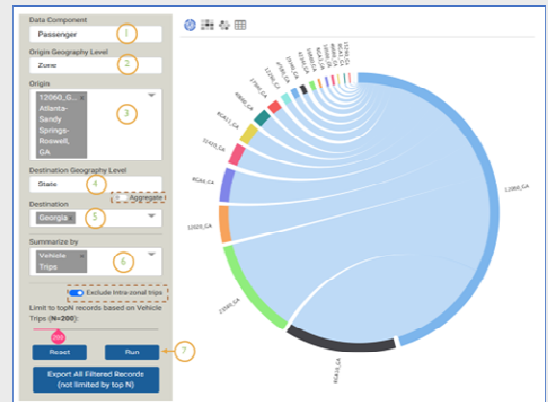
The CATT Lab uses a four-step process (shown below) to process national data (a five-step process is used for local data). A full explanation of these steps can be found in the slides and recording.

# Passenger File Creation Methodology



## Demonstration of Origin-Destination Data Visualization Tool

Ross Wang of the Oak Ridge National Lab (ORNL) provided a tour of the OD Data Visualization tool to attendees. The tour included examples and step-by-step instructions on how to visualize data using chord diagrams and other chart types.



Ross informed attendees that the development of the 2021 National OD data products is complete and will be uploaded to the online tool soon.

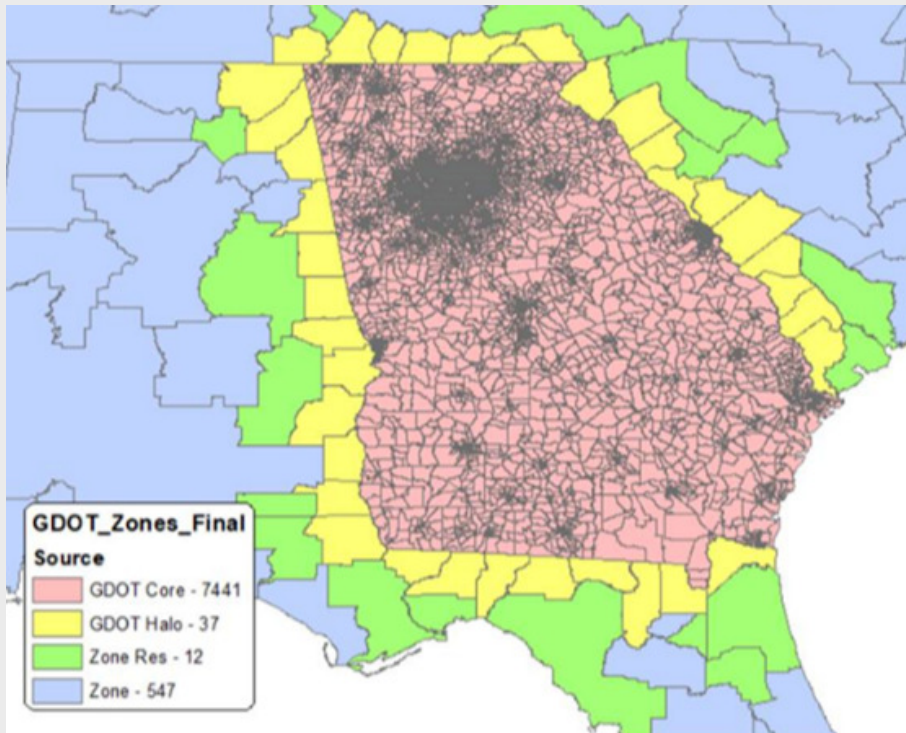
Additional documentation is available at <https://nhts.ornl.gov/od/documentation> including: a Quick Start Guide, Passenger and Truck OD Technical release notes, Passenger and Truck OD Data Methodology, and Frequently Asked Questions.

## Purchase and Use of Origin-Destination Data: Add-On Product

Habte Kassa of Georgia DOT and Guy Rousseau of the Atlanta Regional Commission (ARC) presented how these agencies pooled funds to obtain NextGen NHTS zone data. This includes almost 7,500 of Georgia's census blocks (159 counties).

The purchased data is used for three programs: Statewide Travel Demand Model Development and Updates, MPO Modes, and ARC Activity-Based Travel Demand Model Development and Updates. Guy and Habte's presentation included descriptions and visuals of the data's journey for each project. Additionally, the NextGen NHTS data was analyzed and visualized in the RITIS platform. These include metrics such as trip frequency, trip purpose percent share, mode share percentage development, and much more.

In 2024, the ARC and Georgia DOT will add data from traditional household surveys to supplement the NextGen NHTS data.



### **Upcoming Coalition Events – stay tuned for more information!**

- Travel Information Web Summit - March 16, 2023, 9:00am-12:15pm, ET  
(Coalition members only)
- Waypoint/Trip Data for Ops and Planning - RITIS Workshop #4 - April 20, 2023, 1:00pm-2:15pm, ET – more information soon!
- RITIS User Group Meeting - May 4, 2023– more information soon!

### **Follow the Coalition on YouTube and subscribe to be informed!**

The Coalition has a YouTube channel. Recordings from many of the Coalition's webinars are available [here - take a look!](#)

### **Questions or Comments:**

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