

NextGen NHTS – National Survey Core Data

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NHTS Data for Transportation Applications Workshop
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NHTS in the Past 50 Years

- 1969 Nationwide Personal Transportation Survey (NPTS)
- 1977 NPTS
- 1983 NPTS
- 1990 NPTS
- 1995 NPTS
- 2001 National Household Travel Survey (NHTS)
- 2009 NHTS
- 2017 NHTS



Challenges and Opportunities

- Budget
- Timeliness
- Passive data



Components for Next Gen NHTS

1. Survey Core Data (National; Add-On)
2. Passive (OD) Data (National; Add-On)



Objective

- Obtain national survey core travel behavior data
 - FHWA – National survey data on an annual basis, 2019-2023
 - Add-on Partners – Sub-national level core data for specific year(s) between 2019-2023



National Survey Core Data

- Probability-based sampling approaches
- Independent surveys in each year
- The data collection effort in a year will be smaller than previous NHTS efforts
 - Fewer samples
 - Fewer, but more targeted questions
 - Long Distance Travel to be included
- Similar to existing NHTS, data products include both national summaries and disaggregated records



National Travel Behavior Summaries

- Average trip rate and trip length
 - Daily person/vehicle trip rate
 - Average person/vehicle trip length
 - By purpose, gender, income, age, time of day, urban or rural, respectively and collectively
- Modal share
 - Modes
 - By purpose
- Other summaries



Past NHTS Variables

For each Household	For each Person	For each Worker	For each Vehicle	For each Trip
HH Size	Age	Full or part-time	no core variables	Time trip stated
HH Vehicles	Sex	Workplace location		Time trip ended
HH Drivers*	Relation to Head of House	Usual mode to work		Distance traveled
HH Workers*	Driver status	Drive alone or carpool		Means of transportation
Income	Worker status	Usual distance to work		Auto trip: vehicle used
Race of reference person*	Primary activity			Trip Purpose
Hispanic status of ref person*	Education level			Travel Party Size
	Annual miles driven			

*Derived variables



Other Considerations

- Add-on participation
 - Purchase additional surveys as in past
- Validation against/use of other USDOT data
 - Air (DB1B, T-100)
 - Transit (NTD)
- Rural transportation not forgotten



NextGen NHTS - OD

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Objective

- Obtain national, regional, state, and local travel origin destination (OD) data
 - FHWA – National OD on an annual basis, 2019-2023
 - Add-on Partners – Sub-national level OD for specific year(s) between 2019-2023



Geographical Resolution

- National OD
 - State-specific MSA
 - Remainder of State (1 or more zones)
 - FHWA to provide the zonal system
- Add-On Partner OD
 - To be specified by add-on agencies, options may include TAZ, TAD, County, Block Group, Census Tract, etc.
 - Potential cost factors: population and/or area



Temporal Resolution

- National OD
 - Entire calendar year
 - Each month of the calendar year
 - Weekday and Weekend
- Add-On Partner OD
 - Entire calendar year
 - Each month of the calendar year (or other seasonal specifications)
 - Weekday and Weekend (or each day of the week)
 - Time of Day (e.g., AM Peak, Midday, PM Peak, Night)



Travel Mode

- Air
- Rail
- Vehicle (all-inclusive such as buses and passenger vehicles)
- Other (bike, pedestrian, etc.)



Trip Purpose

- Work
- Non-Work



Trip Distance

- A: ≤ 10 miles
- B: > 10 miles but ≤ 25 miles
- C: > 25 miles but ≤ 50 miles
- D: > 50 miles but ≤ 75 miles
- E: > 75 miles but ≤ 100 miles
- F: > 100 miles but ≤ 150 miles
- G: > 150 miles but ≤ 200 miles
- H: > 200 miles but ≤ 250 miles
- I: > 250 miles but ≤ 350 miles
- J: > 350 miles but ≤ 450 miles
- K: > 450 miles but ≤ 550 miles
- L: > 550 miles but ≤ 850 miles
- M: > 850 miles



Trip Duration (Travel Time)

- A: ≤ 15 minutes
- B: > 15 minutes but ≤ 30 minutes
- C: > 30 minutes but ≤ 45 minutes
- D: > 45 minutes but ≤ 60 minutes
- E: > 60 minutes but ≤ 90 minutes
- F: > 90 minutes but ≤ 2 hours
- G: > 2 hours but ≤ 3 hours
- H: > 3 hours but ≤ 5 hours
- I: > 5 hours but ≤ 10 hours
- J: > 10 hours



Quality Control

- NHTS
- ACS
- DB1B and T100
- National Transit Database (NTD)
- HPMS
- Other



Expected Products

- Data files
- Technical and supporting documents
- Interactive analytics & visualizations



Add-On Two Levels of Participation

1. Join without data purchase (\$5000 a year)

- Join the Working Group (annual in-person meeting)
- Access the latest national data and information
- Gain centralized technical and peer support in data applications

2. Join with data purchase (minimum \$25,000 a year)

- Purchase additional survey data AND/OR passive OD data for any data year(s) between 2019-2023
- Lower the data cost (economies of scale)
- Gain nationally consistent data so that data controls and comparisons can be efficiently enabled
- Having no or minimum contracting or oversight hassles



Add-On Participation Timeline

- Add-On partners can opt in/out at 1-year increment
 - Join with data purchase:
 - For survey data, 6+ months before data collection begins
 - For OD data, anytime
 - Join without data purchase – anytime
- Partners are encouraged to make a pledge NOW via the Transportation Pooled Fund weblink:
<http://www.pooledfund.org/Details/Solicitation/1466>
- After the weblink is closed, you can still join by emailing Wenjing.Pu@dot.gov or Daniel.Jenkins@dot.gov



FHWA Contacts for NextGen NHTS

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