

NHTS Overview and Policy Applications

2024 Federal Committee on Statistical Methodology Research and Policy Conference

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Federal Highway Administration



What NHTS is and its history

- The National Household Travel Survey (NHTS) is a periodic national survey providing travel behavior (e.g., why, how, and when) data to support transportation policy and planning efforts.
- Data are available for the following years:
1969, 1977, 1983, 1990, 1995, 2001, 2009, 2017, and 2022
- 2018 FHWA launched the NextGen NHTS program
 - Provide more timely data regarding emerging trends - biennial survey design
 - Take advantage of new data sources (passive origin-destination (OD) data)
 - Continue to provide pooled fund agencies with shared research and data purchase opportunities



NHTS Data Collection History

Survey Year	National Surveys	Recruitment Method	Retrieval Method
1969	15,000	Panel 1	In Person
1977	18,000	Panel 2	In Person
1983	6,500	Panel 2	In Person
1990	18,000	Phone	Phone
1995	21,000	Phone	Phone
2001	26,000	Phone	Phone
2009	26,000	Phone	Phone
2017	26,000	Mail	Web/Phone
2022	7,500	Mail/Push to Web	Web/Mail
2024	7,500	Mail/Push to Web	Web/Phone/Mail/App

Panel 1- Census Quarterly Housing Panel; Panel 2- Census Current Population Survey Panel



NHTS Response Rates History

Survey Year	National Surveys	Pooled Fund Surveys (range)
1969	Not Available	Not Available
1977	85.3%	Not Available
1983	94.0%	Not Available
1990	73.1%	Not Available
1995	37.2%	Not Available
2001	41.0%	Not Available
2009	19.8%	17-44%
2017	15.6%	12-24%
2022	11.8%	15-16%



2022 Core Data Collection Overview

- Data Collection
- Select Metrics and Trending
- Special Topics
- Current Program Activities



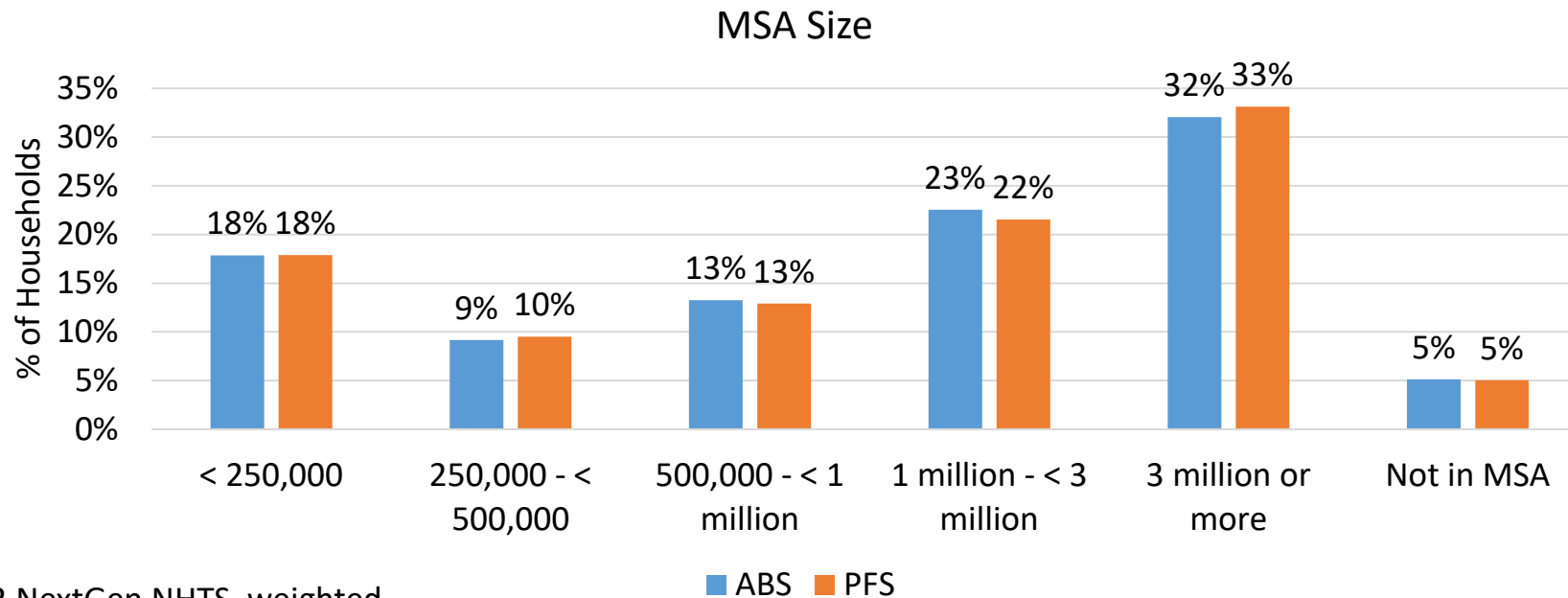
2022 Core Data Collection

- Two parallel collection efforts:
 - 7,500 households (HH) using address-based sample (ABS)
 - 7,500 households (HH) using panel-frame sample (PFS)
 - Both ABS and PFS are probability-based samples
 - Official statistics generated from ABS sample
 - PFS tests a more cost-effective approach for future consideration
 - Independent evaluation of ABS vs. PFS methods
- Same study design for both ABS and PFS
 - Data collection from January 2022 to January 2023
 - Samples stratified by Census Division and Urban/Rural
 - Weighted and expanded to US population (excluding group quarters)



2022 Sample Characteristics

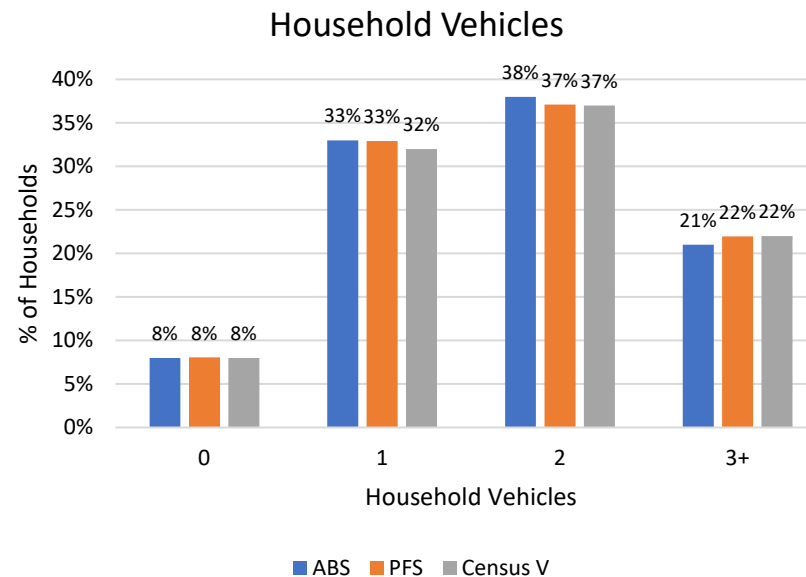
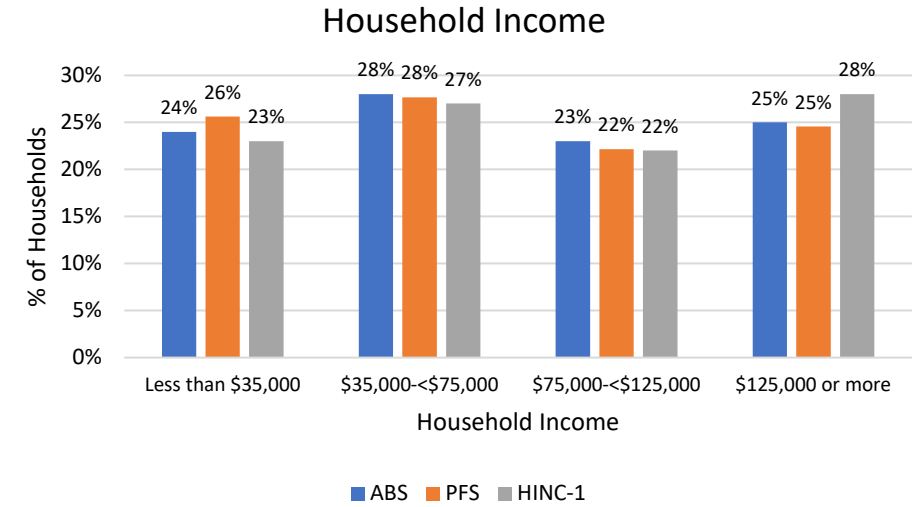
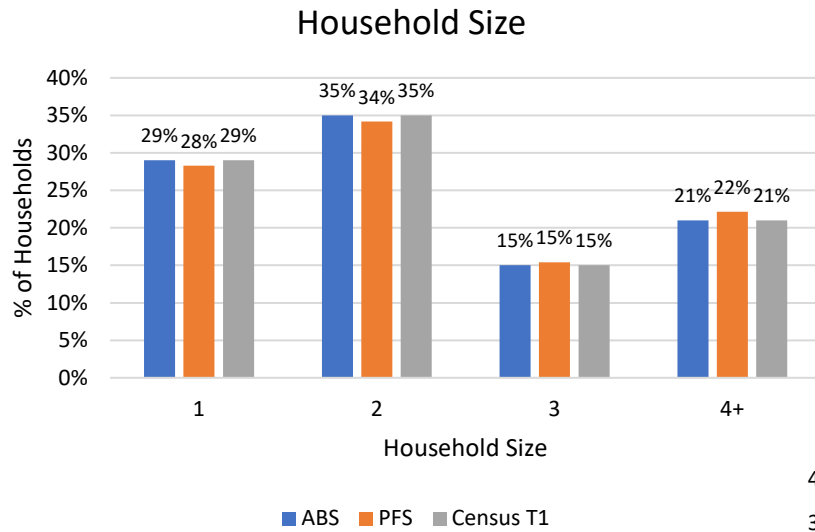
	National ABS	National PFS
Total Invitations Sent	72,822	17,624
Total Completed Households	7,893	7,468
Yield Rate	10.8%	42.4%



Source: FHWA 2022 NextGen NHTS, weighted



2022 Sample Characteristics



Sources: FHWA 2022 NextGen NHTS, weighted
US Census Bureau, ACS 2022

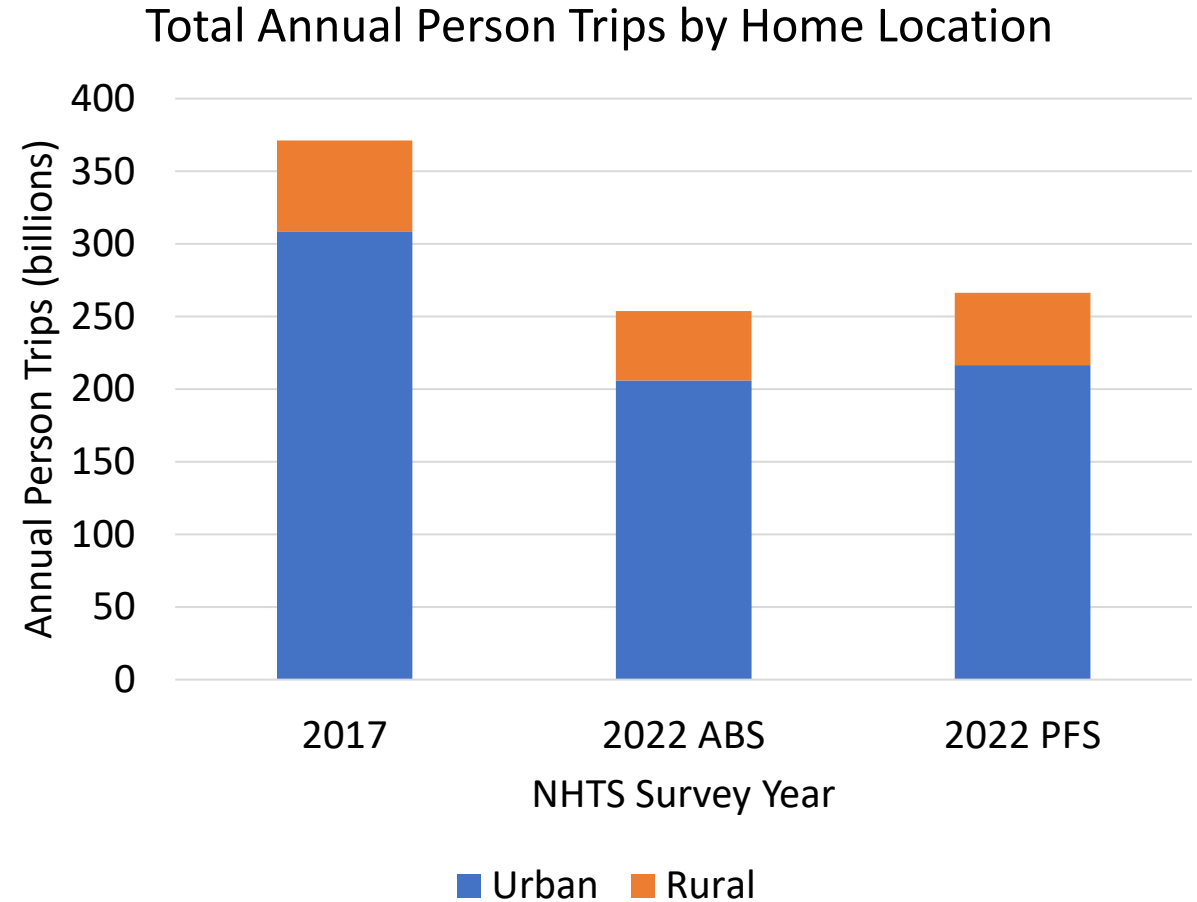


Select Metrics and Trending



Personal Travel

- 2022 Total Annual Person Trips exceeded 254 billion (ABS) and 266 billion (PFS).
- The number of total trips captured changed significantly but the proportions of travel by various characteristics remains relatively the same:
 - 2017: 83% urban
 - 2022 ABS and PFS: 81% urban

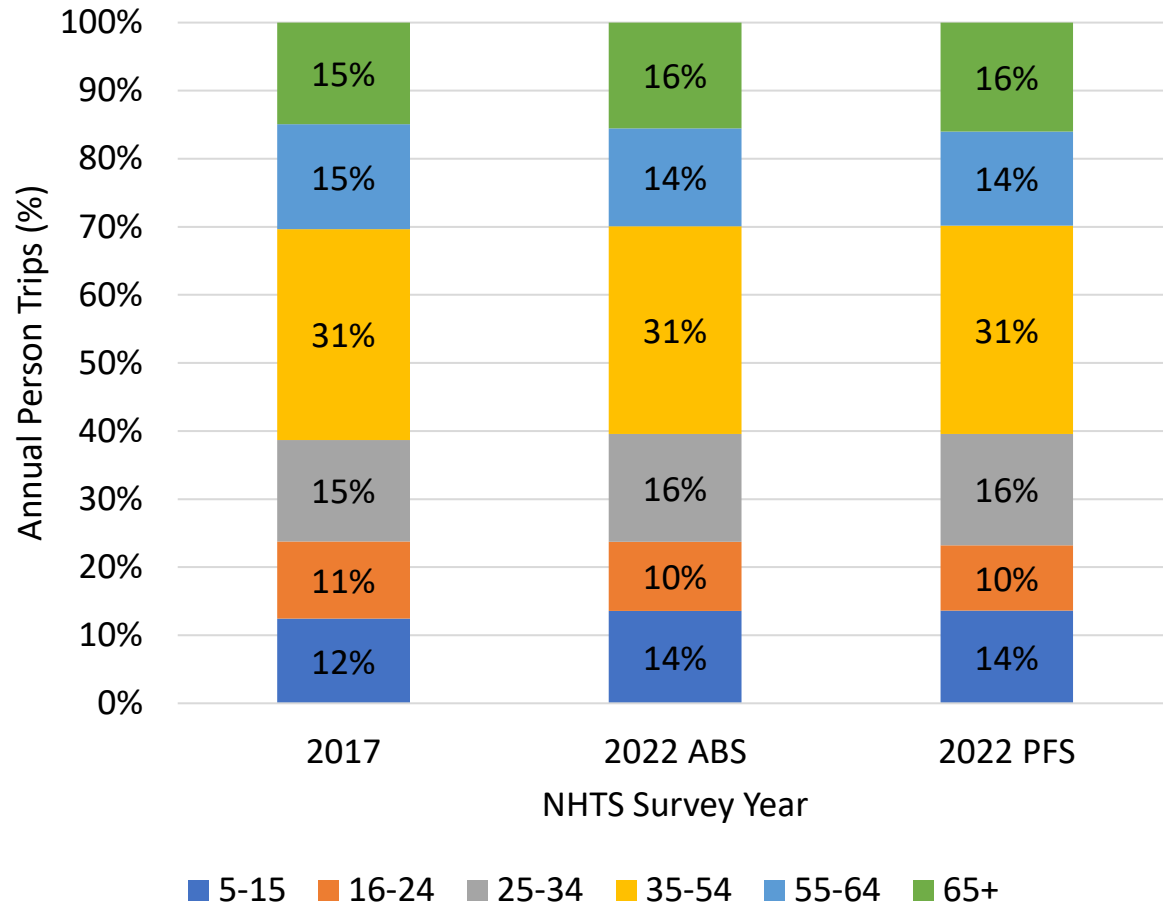


Source: FHWA 2017 NHTS and 2022 NextGen NHTS, weighted

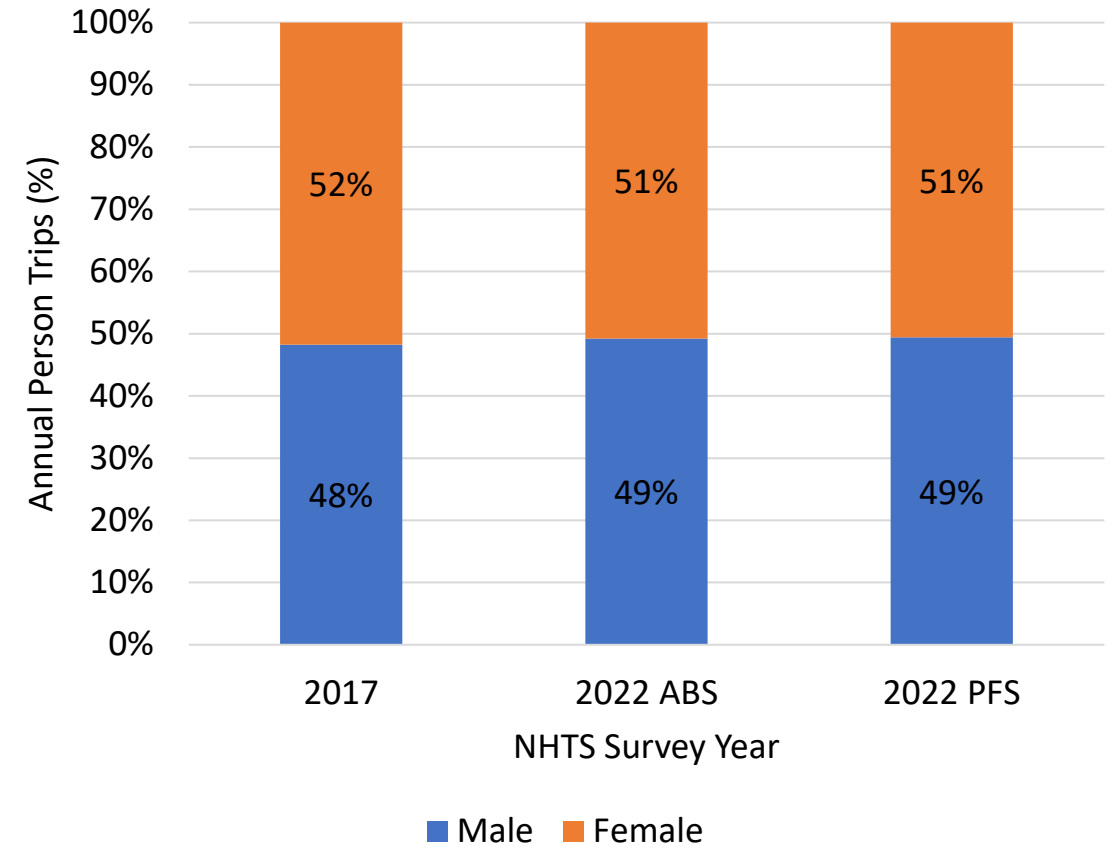


Personal Travel

Annual Person Trips by Age



Total Annual Person Trips by Sex

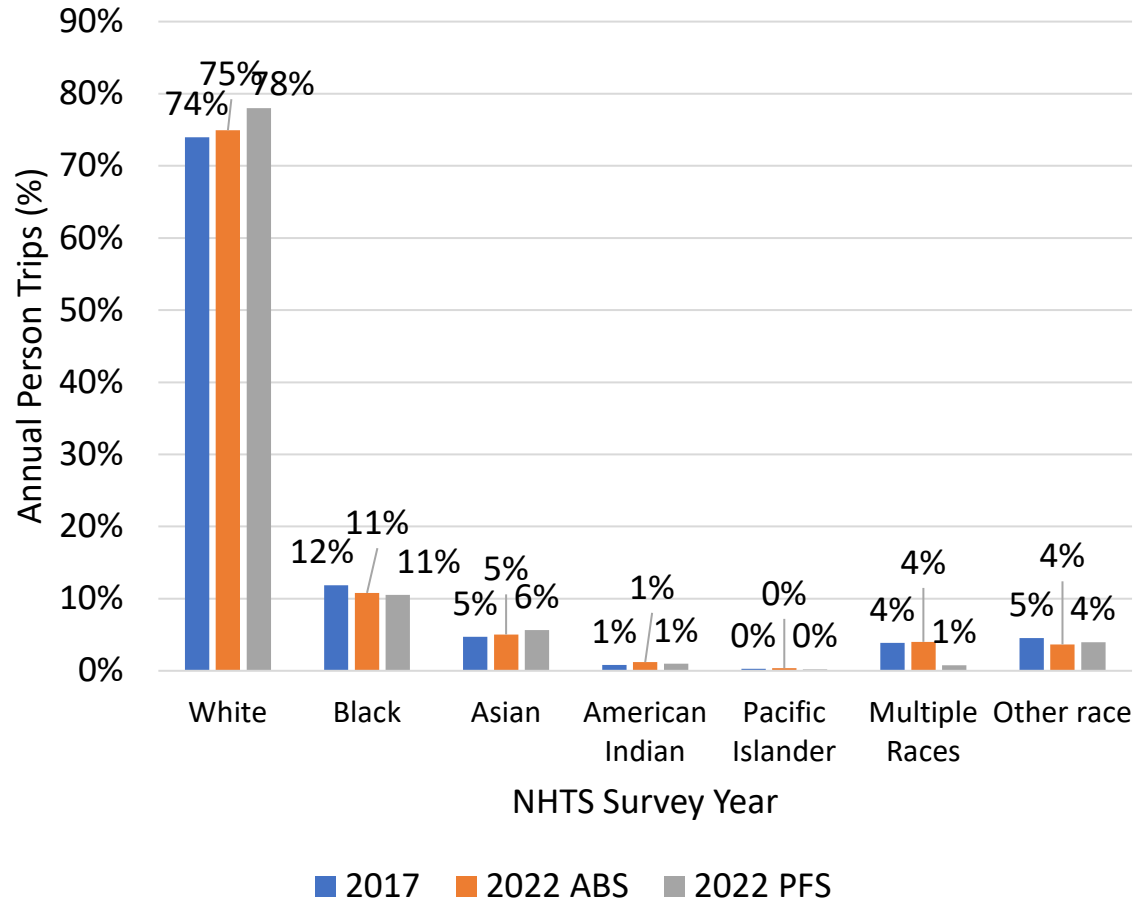


Source: FHWA 2017 NHTS and 2022 NextGen NHTS, weighted

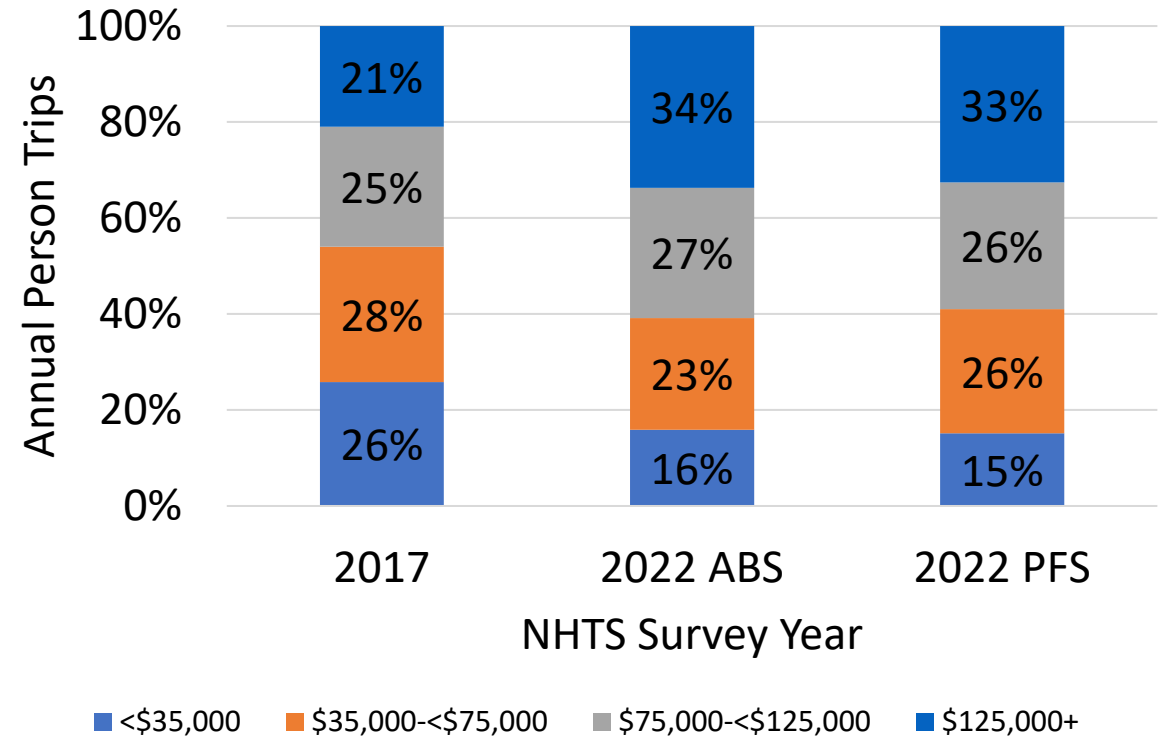


Personal Travel

Total Annual Trips by Race



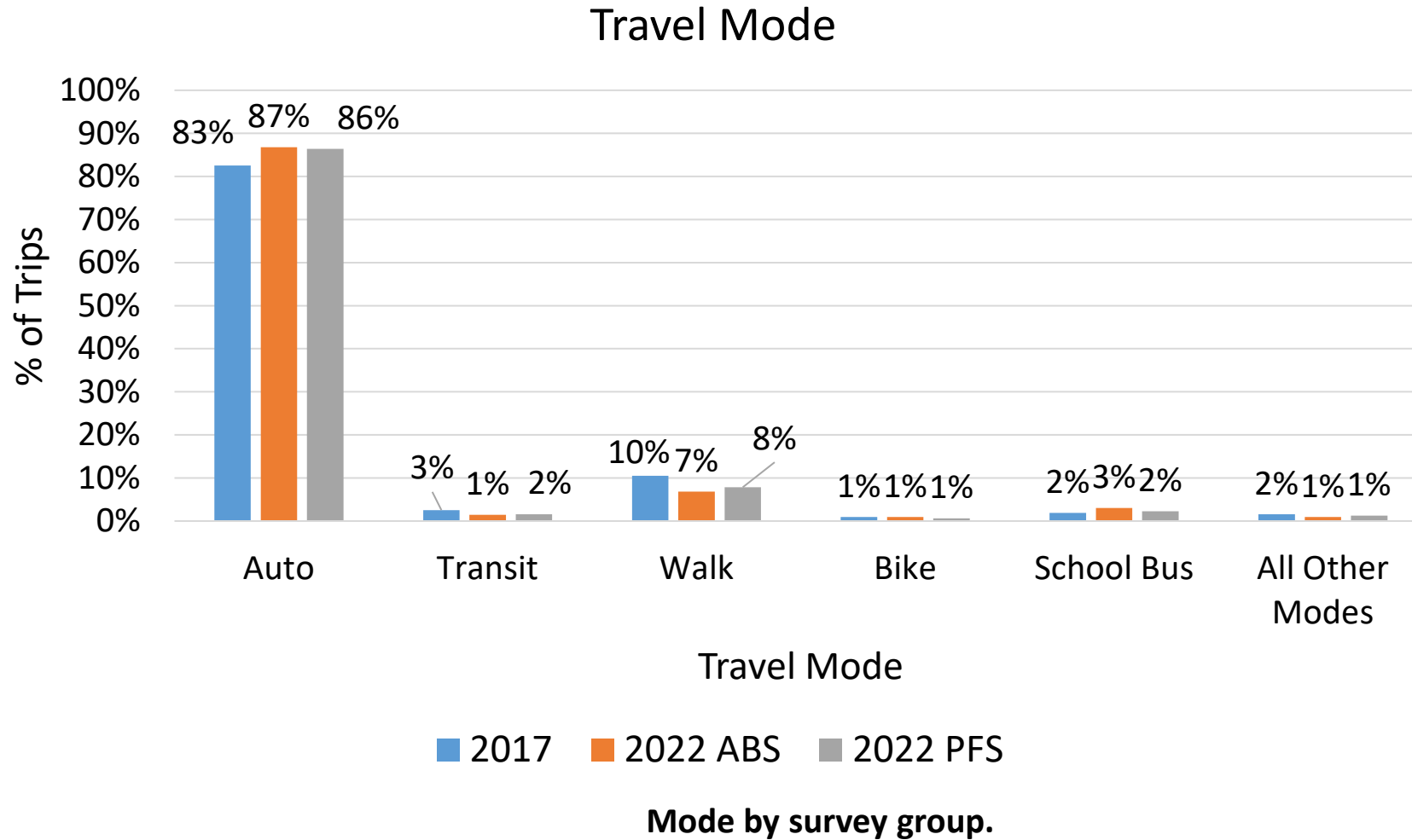
Total Annual Person Trips by Household Income



Source: FHWA 2017 NHTS and 2022 NextGen NHTS, weighted



Travel Mode



Source: FHWA 2017 NHTS and 2022 NextGen NHTS, weighted



Special Focus Topics



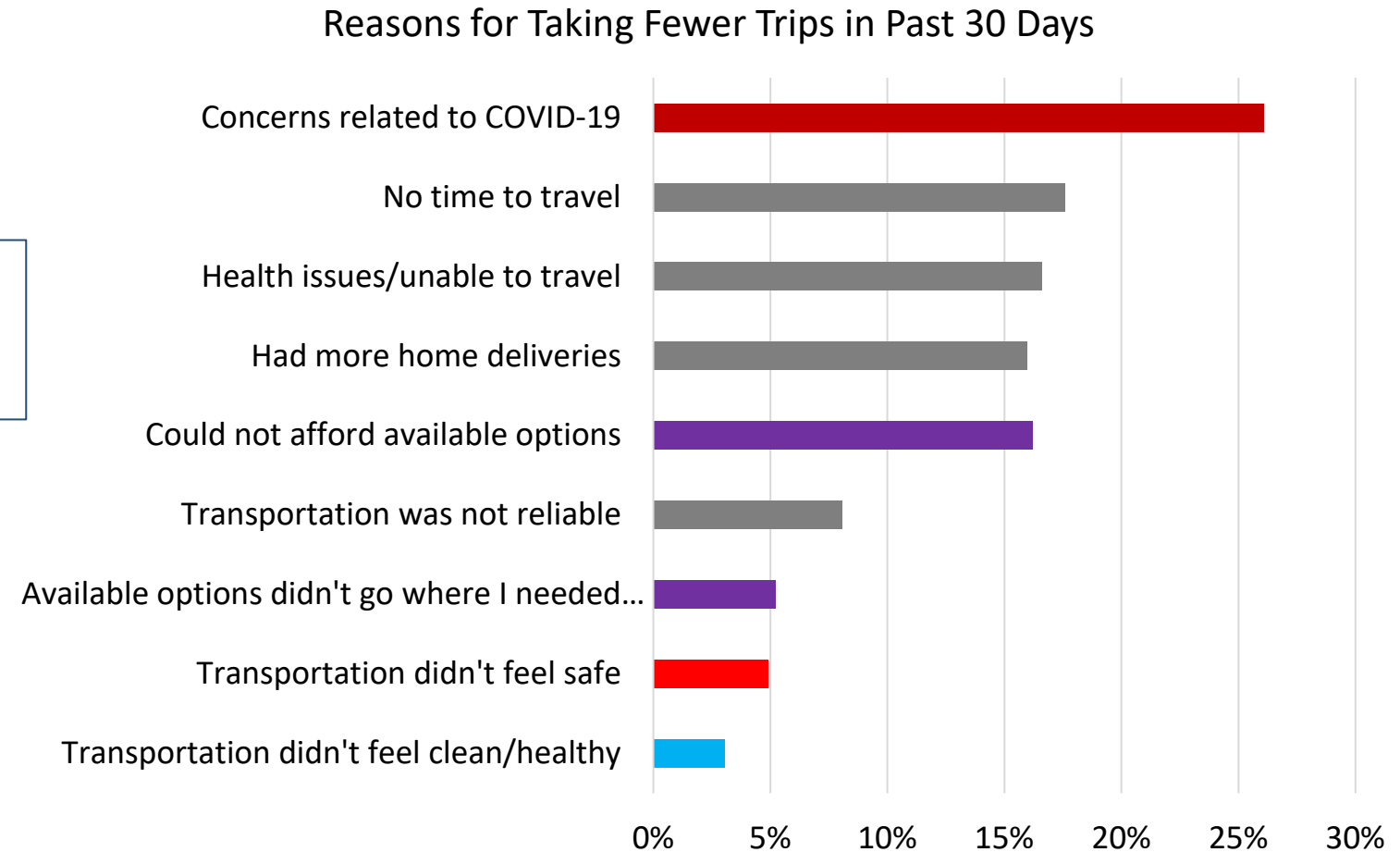
Special Focus Topics- 2022 NextGen NHTS

- **Equity:** reasons why unable to travel.
- **COVID-19:** continuing impact of COVID-19 on travel and insights into whether these changes were considered temporary or permanent.
- **Home-based work and education:** details about how often workers telework and where education takes place (home or physical school location).
- **Online shopping:** online purchases by goods, food or grocery delivery, or services and how returns are made.
- **Use of household vehicles for commercial purposes:** vehicle details and its use for rideshare, delivery service, or other business purposes.
- **Emerging travel modes:** use of emerging travel modes in the past 30 days
- **Long-distance travel:** most recent long-distance trip made (defined as a trip 50+ miles from home)



Equity: Reasons for Taking Fewer Trips in Past 30 Days

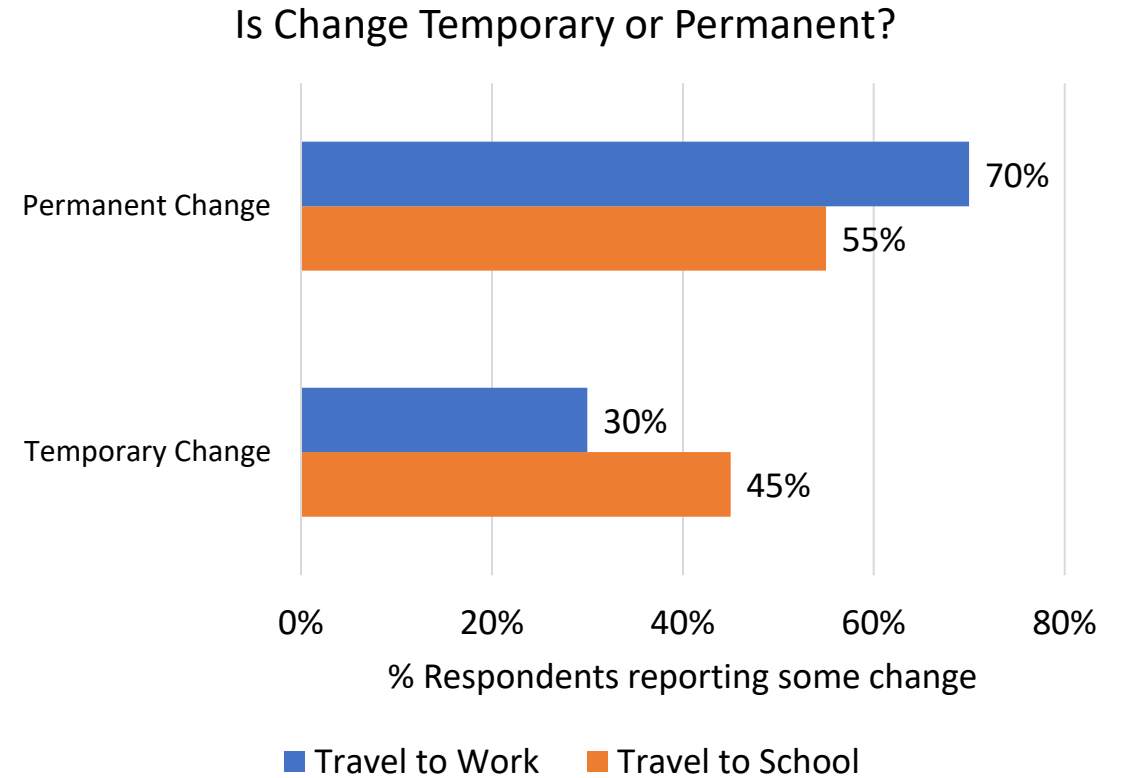
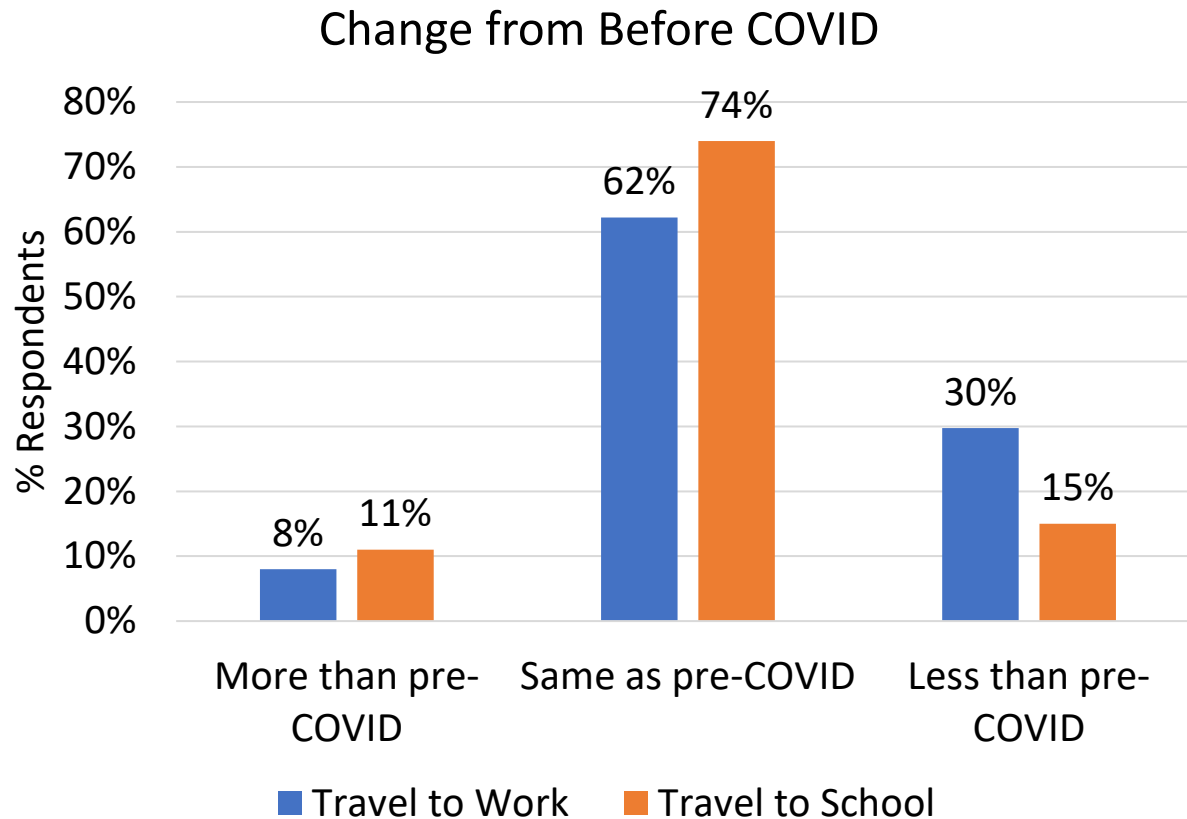
28% of respondents reported taking fewer trips than planned in the past 30 days.



Source: FHWA 2022 NextGen NHTS, weighted. Asked of respondents ages 16+.



Changes in Travel Behavior Pre to Post COVID

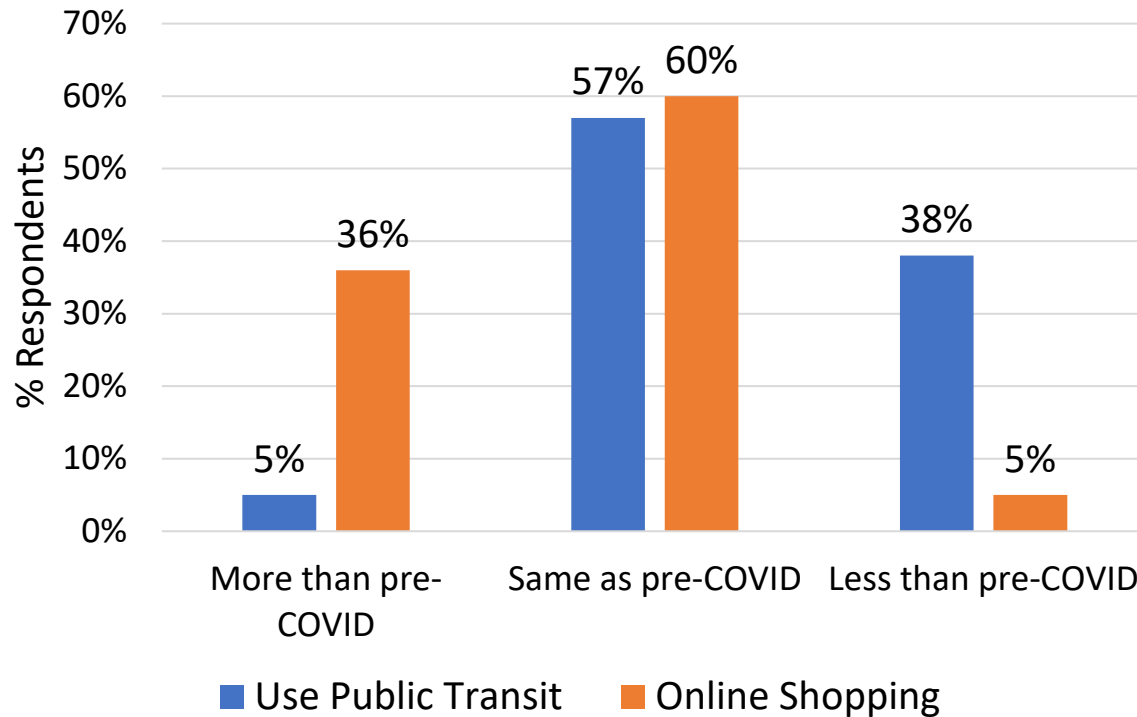


Source: FHWA 2022 NextGen NHTS, weighted; responses exclude those that did not answer the question or for whom the question was not applicable (i.e., did not work or go to school pre-COVID).

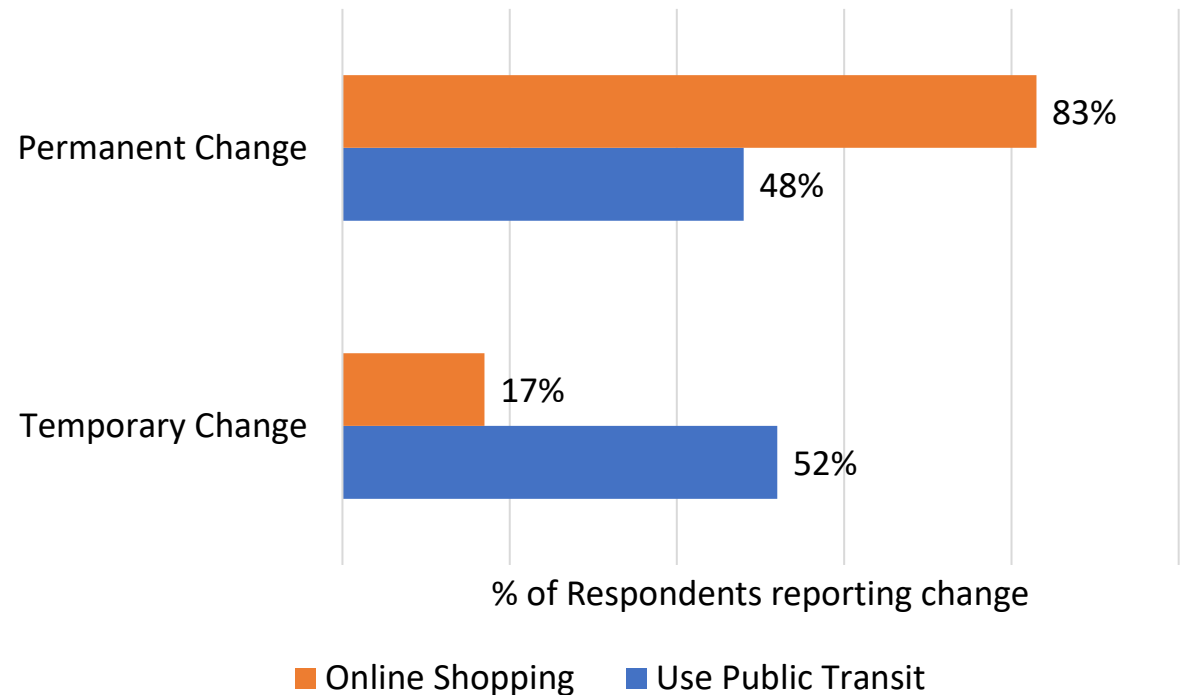


COVID-19: Changes in Travel Behavior

Now as Compared to Before COVID



Is Change Temporary or Permanent?



Source: FHWA 2022 NextGen NHTS, weighted (ABS only); responses exclude those that did not answer the question or for whom the question was not applicable (i.e., did not use transit or did not online shop).



Micromobility Usage in Past 30 Days

Travel Mode	Persons age 16+ who used mode in past 30 days			Avg. days used		
	Total	Urban	Rural	Total	Urban	Rural
E-Scooters	1.9%	2.3%	0.5%	3.7	3.6	5.2
Bike	10.5%	11.6%	5.7%	6.0	6.2	4.2
Bikeshare*	6.4%	6.8%	2.6%	3.6	3.5	5.2
Walk	42.7%	45.8%	30.1%	9.5	9.8	7.6

Urban/Rural indicates home location. Micromobility usage did not always occur at home location.

2022 NextGen NHTS, weighted. *Bikeshare usage is a subset of bike. Note 2022 question wording was the number of days each mode was used over the past 30 days.



Current Activities

- 2022 ABS public data and web based analytical tools are publicly available via <https://nhts.ornl.gov/>
- Continued technical support to State and local agencies and the transportation community
- ABS vs. PFS method evaluation complete- potential technical brief to OMB on findings
- 2024 NHTS data collection contract awarded 9/2023
 - OMB approved collection in August 2024
 - Pilot testing underway with full collection starting November 2024



Contact

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