



# Exploring Shifts in Mobility in the U.S.: An Analysis of Travel Trends Using the NHTS

2024 FCSM Research and Policy Conference

Session H-6: The NHTS – Applications and Opportunities

Thursday, October 24, 2024

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# Presentation Overview

- 2022 NHTS Design Overview
- 2022 NHTS Data Collection Details
- 2022 NHTS Summary of Travel Trends Report
- Exploring Shifts in Mobility
- Key Themes

# 2022 NHTS Design Overview

## NextGen NHTS Overview

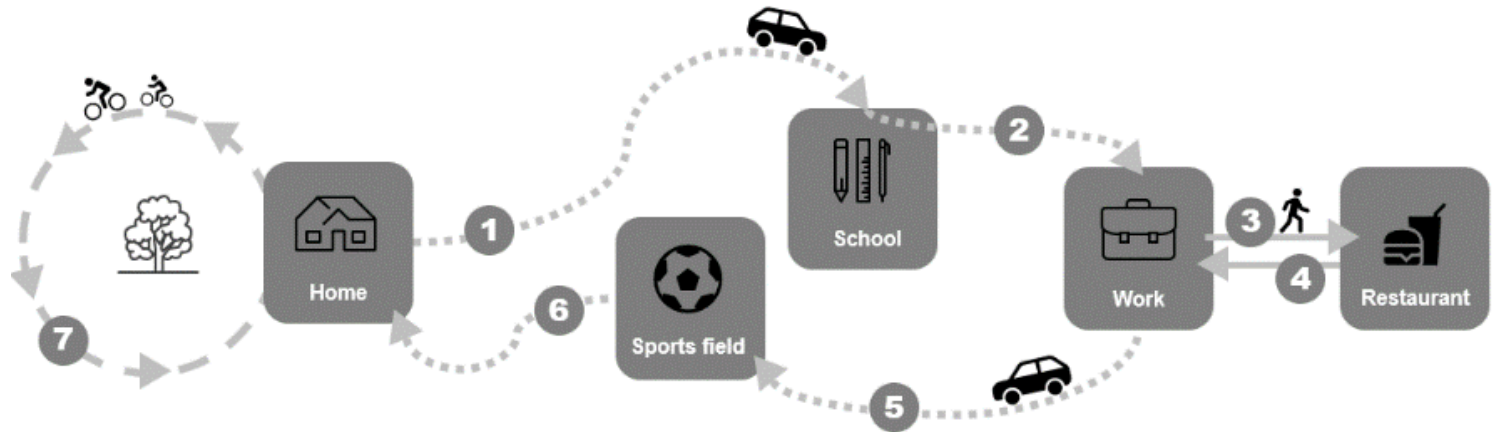
<b>Significance of 2022 NHTS</b>	<p><b>Launch:</b> First survey in the NextGen series (biennial cycle, smaller sample, more focused question set).</p> <p><b>Recovery Period Focus:</b> Conducted during the U.S. recovery of the pandemic. Captures adjustments in work and school locations, the rise of online activities, and the impact of increased online shopping as well as emerging travel modes.</p> <p><b>Transition Period Documentation:</b> Captures travel patterns during a time of transition before most “return to office” orders were issued. Vital resource for understanding the interim effects of pandemic recovery on travel behavior.</p>
<b>Sample Size</b>	Goal was 7,500 households with 7,893 completing surveys.
<b>Stratification and Frame</b>	Sample stratified by Census Division and Urban/Rural designation, using an Address-Based Sampling frame (ABS).
<b>Coverage</b>	<u>Includes</u> residential addresses but <u>excludes</u> institutionalized populations and those living in group quarters (military barracks, student dormitories, nursing homes, assisted living residences, etc.).
<b>Design Focus</b>	Designed to understand emerging trends and address priority policy questions in addition to documenting actual travel during a 24-hour period.

# 2022 NHTS Data Collection Details

## NextGen NHTS Overview

<b>Contractor</b>	Ipsos Public Affairs, Washington D.C.
<b>Schedule</b>	Data was collected from January 2022 to January 2023.
<b>Survey Mode</b>	Mail-push-to-web with option to request paper survey.
<b>Languages</b>	English and Spanish
<b>Response Rate</b>	11.8% (AAPOR RR3)

### Example Travel Day:



**Trip 1:**  
8:00 am – 8:25 am  
Left home to drop  
off child at school

**Trip 2:**  
8:30 am – 8:45 am  
Drove from school  
to work

**Trip 3:**  
11:45 am –  
11:55 am  
Walked from work  
to pick up lunch

**Trip 4:**  
12:10 pm –  
12:20 pm  
Returned to work

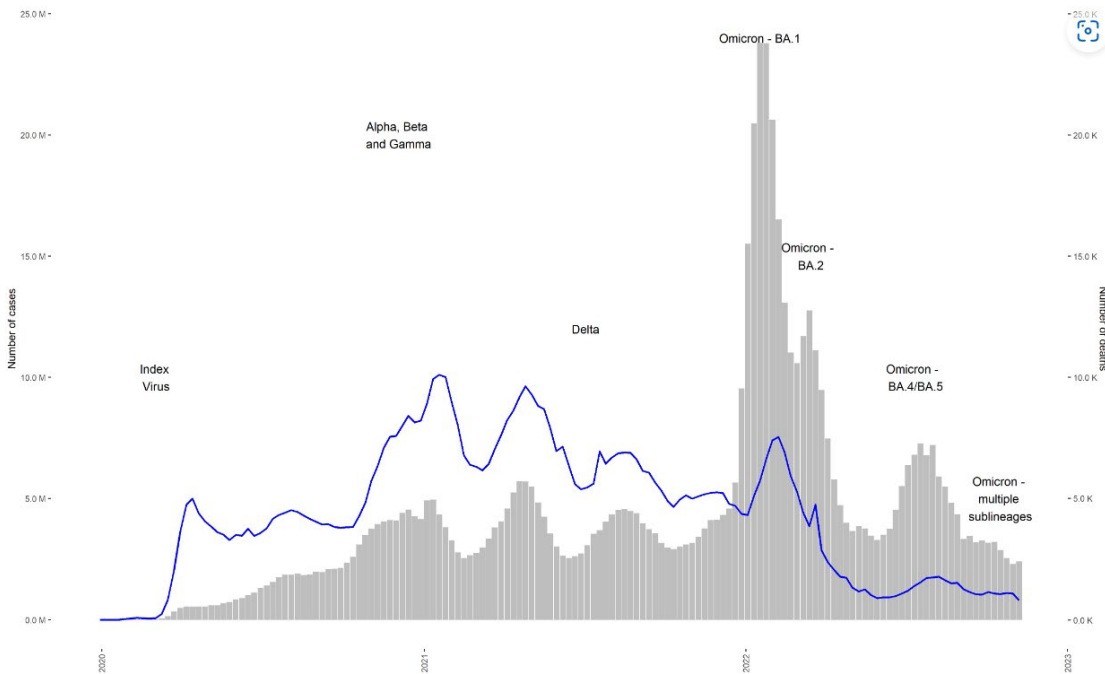
**Trip 5:**  
5:05 pm – 5:30 pm  
Drove to sports field  
to pick up child

**Trip 6:**  
5:55 pm – 6:15 pm  
Drove back home  
with child

**Trip 7:**  
7:00 pm – 7:30 pm  
Rode bikes around  
the neighborhood

# A Snippet of Life Back in 2022

## COVID-19 Cases 2020-2023<sup>1</sup>



<sup>1</sup> World Health Organization <https://www.who.int/news-room/feature-stories/detail/one-year-since-the-emergence-of-omicron>; Grey bars represent COVID-19 cases; blue line represents deaths.

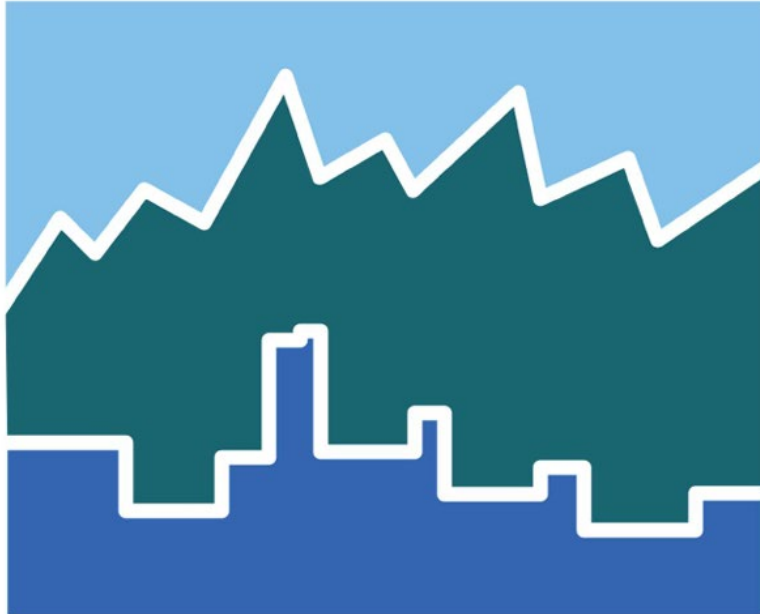
<sup>2</sup> <https://www.itilite.com/blog/revenge-travel/>

<sup>3</sup> Kaiser Family Foundation (March 2022) - <https://www.kff.org/coronavirus-covid-19/poll-finding/kff-covid-19-vaccine-monitor-economic-impact/>

<sup>4</sup> Shi and Goulias (analyzing American Time Use Survey) <https://www.sciencedirect.com/science/article/pii/S2214140523001664>

- COVID became less of a disruption.<sup>1</sup>
  - We resume travel, attending large events, and going to school in person and unmasked.<sup>1</sup>
  - “Revenge travel” surges.<sup>2</sup>
- But things are not quite the same.
  - Lower-income and minorities report a disproportionate impact on their finances during the omicron wave.<sup>3</sup>
  - Behaviorally, outdoor activities were lower than pre-COVID-19, particularly for eating/drinking outside of the home, outdoor recreation, working in person, and relevant trips.<sup>4</sup>

# 2022 NHTS Summary of Travel Trends Report



## Summary of Travel Trends

2022 National Household Travel Survey

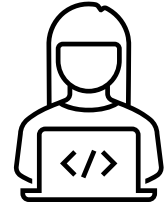


U.S. Department of Transportation  
Federal Highway Administration

- Household Travel
- Person Travel
- Private Vehicle Travel
- Vehicle Use and Availability
- Commute Travel Patterns
- Temporal Distributions
- Special Topics
  - Special Populations
  - Emerging Travel Trends
- Report trends data across NHTS series (1969, 1977, 1983, 1990, 1995, 2001, 2009, 2017, and 2022)

# Exploring Shifts in Mobility - Overall

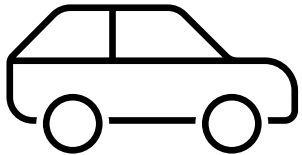
Americans traveled less in 2022 compared to 2017 but with trends more in line with 2009.



Factors include changes in daily life due to the pandemic, subsequent recovery, and the rise of remote work and online activities.

New opportunities for online errands like shopping, banking, telemedicine, and grocery shopping reduced travel.

Survey included detailed questions to understand factors influencing recent travel changes.





# Exploring Shifts in Mobility – Pandemic Impact

## Work and School Travel

- Comprehensive assessment of the pandemic's influence on travel patterns related to work and school.

## Worker's Perspective

- 38% of workers reported changes in their daily commute.
- Within this group, 30% reported a reduction in the frequency of traveling to work compared to pre-pandemic levels with the majority indicating this is a permanent change.
- Implies a substantial shift in work dynamics, likely influenced by remote work trends, altered office policies, or changes in commuting preferences.
- Across the US, return to office orders began at the end of 2022 with enforcement increasing throughout 2023 (and 2024).

## Students' Experience

- 26% of students reported they altered their school trips in response to the pandemic.
- Within this group, 15% reported a decrease in the frequency of traveling to school with about half indicating this is a permanent change.
- Highlights the impact of the pandemic on educational practices, with potential implications for school attendance policies, transportation planning, and online learning strategies.

# Exploring Shifts in Mobility – Pandemic Impact

## Post-Pandemic Changes in Transit Usage and Online Shopping

- Respondents were asked about pandemic-induced changes in travel and online shopping behavior.
- Insights were gathered to understand shifts in two key areas: public transit usage and online shopping habits.

## Public Transit

- 38% of respondents reported a decrease in use of public transit compared to pre-pandemic levels.
- Indicates a significant reduction in reliance on public transportation services, with nearly half (48%) indicating this is a permanent change.

## Online Shopping

- 36% of respondents reported increased online shopping frequency compared to pre-pandemic levels.
- Reflects a notable surge in e-commerce activity, likely driven by convenience, safety concerns, and evolving consumer preferences, with 83% nationally indicating this is a permanent change.
- However, only 73% of lower income households indicate this is a permanent change.
- Highlights the transformative impact of the pandemic on retail dynamics, with implications for traditional brick-and-mortar businesses, logistics, and digital commerce platforms, but also requires consideration and more study of equity impacts.

# Reports of Foregone Travel – 28% nationally reported taking fewer trips than planned in the past month.

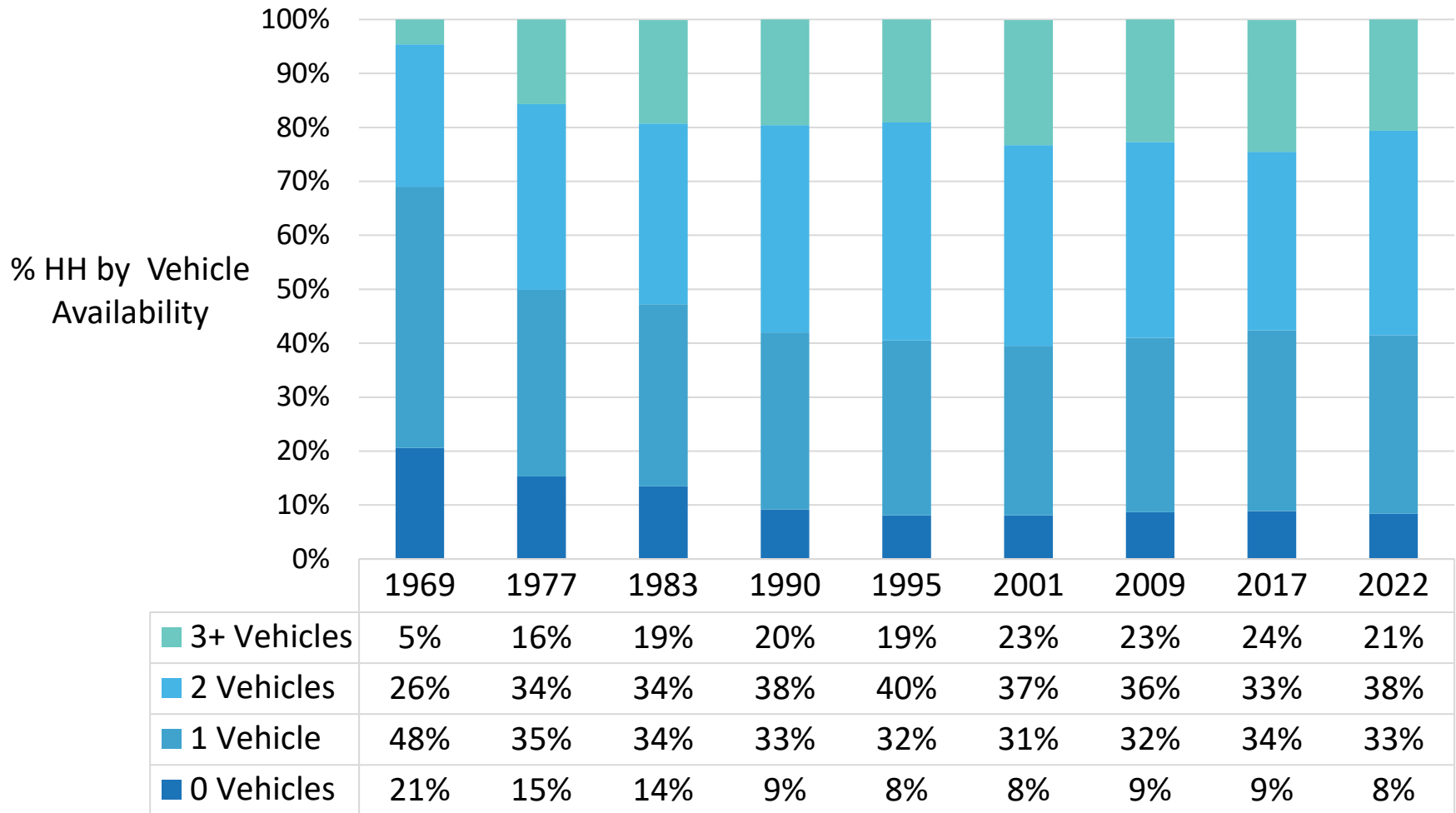
26% Concerns related to  
COVID-19

25% Convenience/Choice  
More home deliveries, no time to travel

30% Health/Cleanliness  
Personal health reasons; transportation did  
not feel clean, healthy, or safe

34% Cost/Reliability/  
Coverage  
Unaffordable, unreliable,  
did not go where needed

# Exploring Shifts in Mobility – Vehicle Ownership Trends



2022: Shedding of extra HH vehicle (shift from 3 to 2 vehicles)

# Exploring Shifts in Mobility – Commuting Trends

## Commute Trips

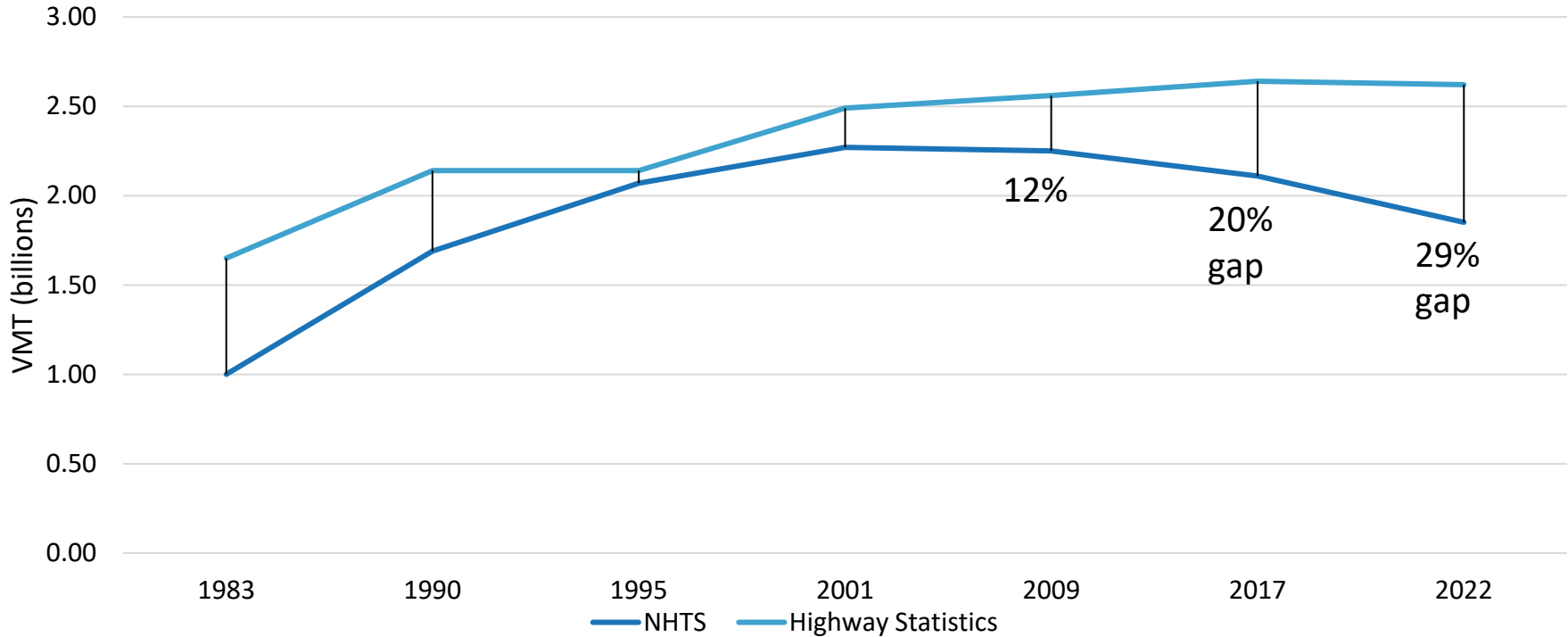
- Commute trips have been the cornerstone of transportation planning for over 50 years.
- Permanent changes in work-from-home could impact retail offerings in business districts, leading to longer term land use changes.

## Pandemic Response

- Vehicle trips to and from work decreased from 53.1 million (2017) to 41.3 million (2022), a 28% reduction.
  - Work-from-home became a common response, but essential workers continued commuting, often off-peak and on weekends.
  - Employers began recalling workers back to the office in late 2022, 2023, into 2024.
- Despite the decrease in the number of commute trips, the proportion of commute VMT remained consistent at around 30% of total VMT in both 2017 and 2022

# Exploring Shifts in Mobility – Impact on Vehicle Miles Traveled (VMT)

## Household VMT as compared to Total US VMT



- Is 2022 VMT gap also correlated with higher rates of online activities?
  - Continued decline in bank closures
  - Steady decline in USPS in-branch visitations
  - Increase in USPS and Amazon package volume (commercial travel)

# Key Themes

- NHTS provides rich source of travel behavior details to inform policy and planning decisions.
- Move to more frequent (biennial) data collection cycle required changes in design (reduced sample size, removing questions).
  - Established core set of questions aids in trending.
  - Design includes set of questions on emerging trends that can be refreshed with each data collection cycle.
- Timing of survey provides rich insights into impact of pandemic recovery on travel behavior and correlates with secondary data with respect to trends in key metrics.
- 2024 NHTS data collection launches this fall.
  - Similar design to 2022 NHTS
  - Similar content to 2022 NHTS
  - Anticipate fresh insights into “new normal”

# Questions?

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Acknowledgements:

Daniel Jenkins, PE

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