

# Evolving Travel Behavior and Mobility Trends: Key Insights and Implications from Two Decades of National Surveys

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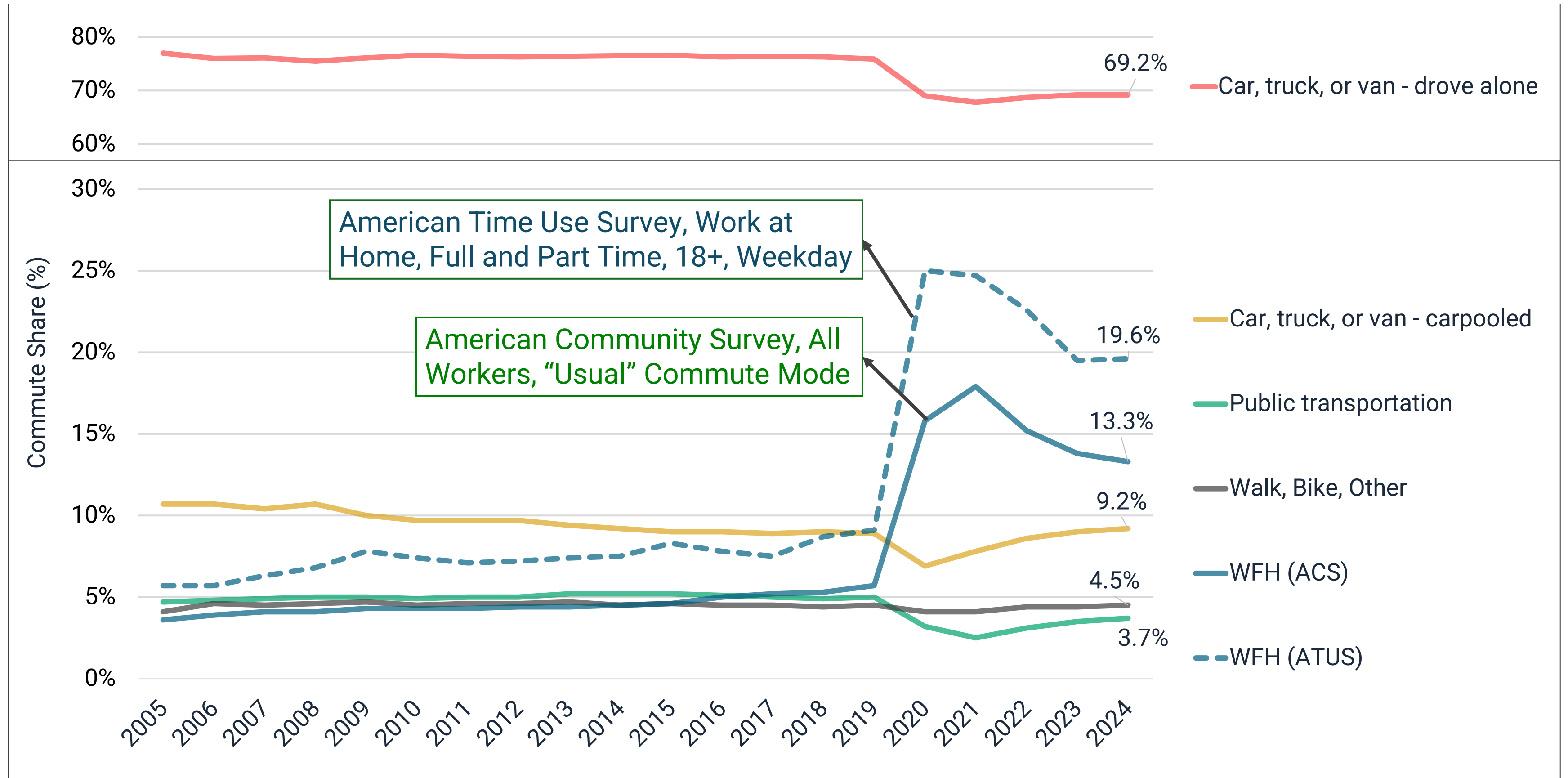


# A Review of National Data Trends

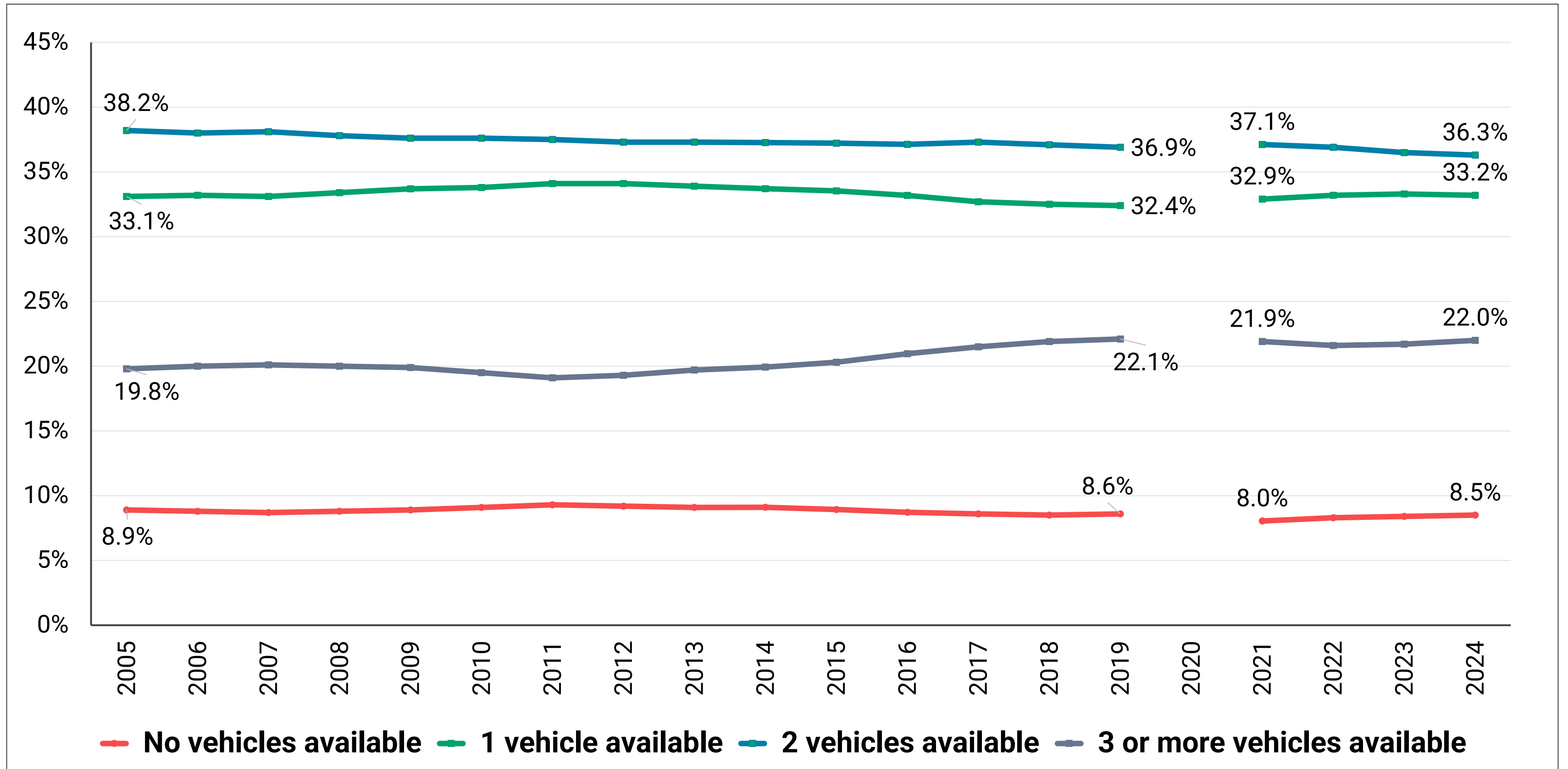
- Survey Data:
  - American Community Survey
  - American Time Use Survey
  - Consumer Expenditure Survey
  - National Household Travel Survey
  - Federal Reserve Data, Census Pulse Survey Data
- Travel Volume Trend Data from USDOT

# Commute Patterns and Access

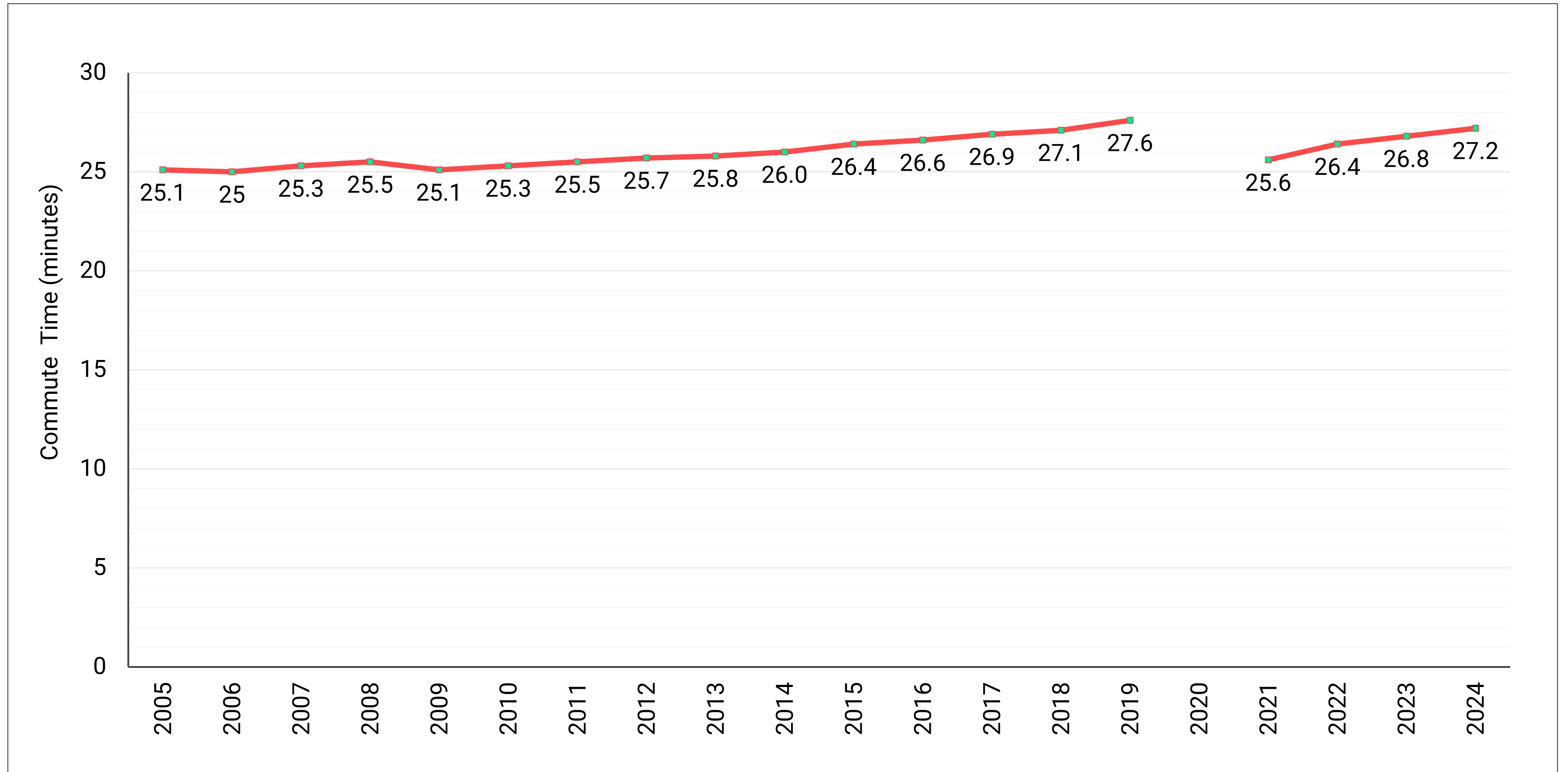
# Commute Mode



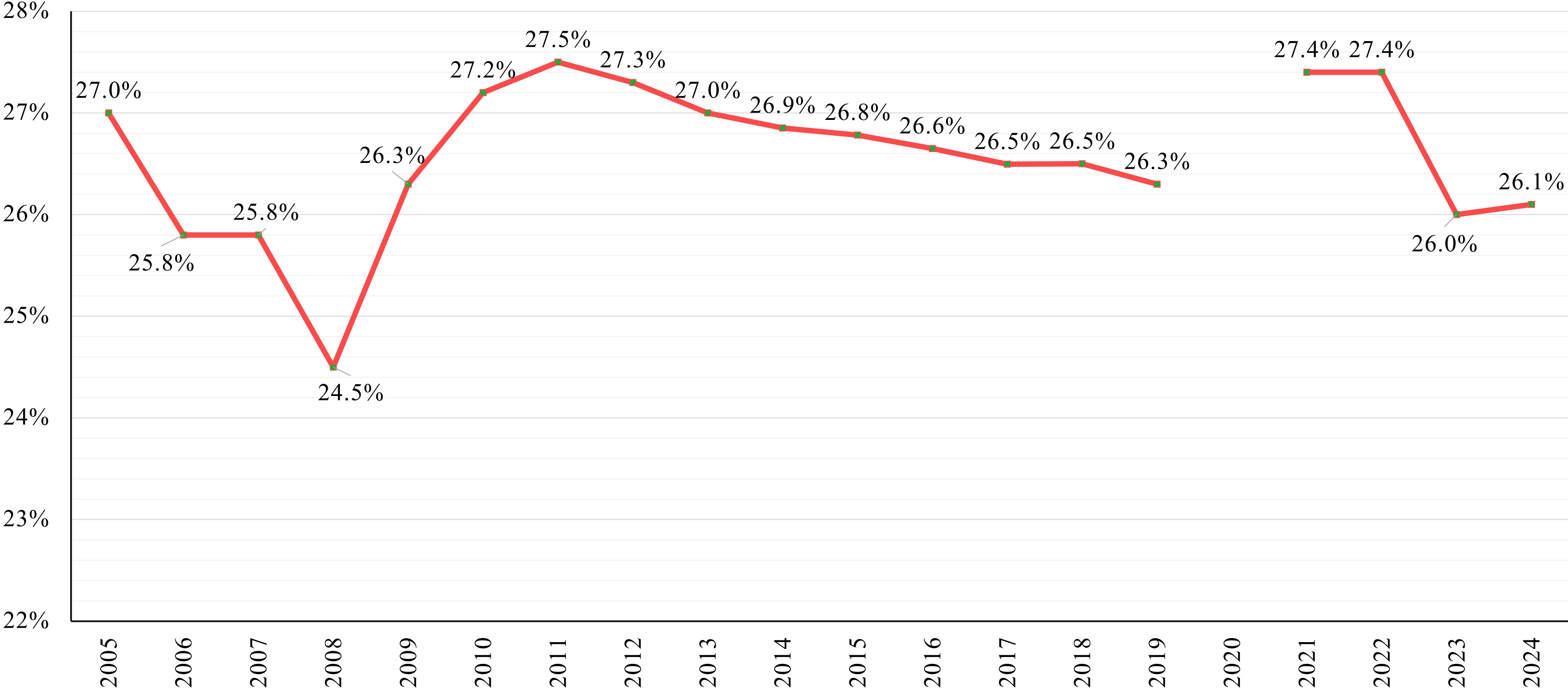
# Household Vehicle Availability



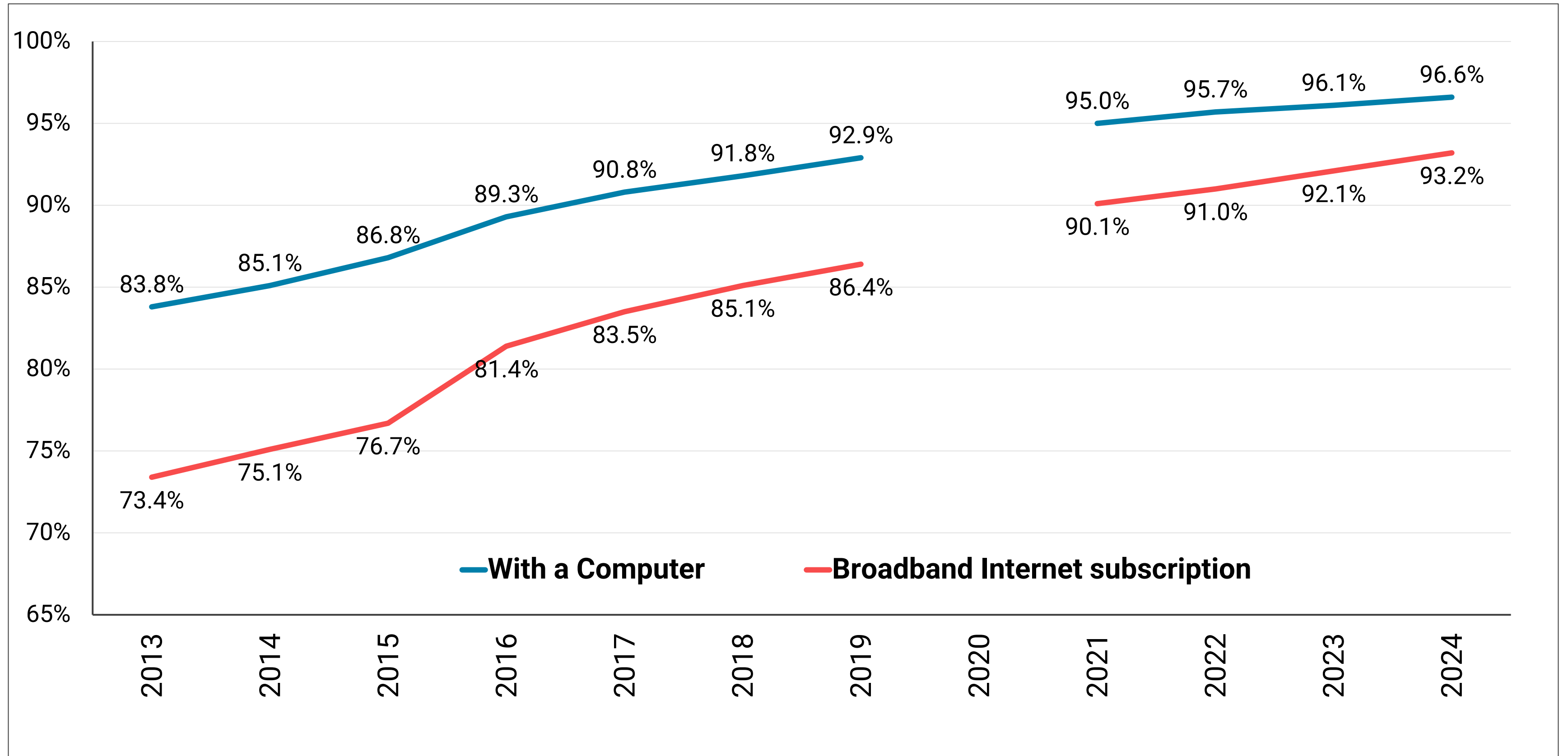
# Average Commute Time (2005-2024)



# Percent of Zero-Worker Households (2005-2024)



# Household Connectivity

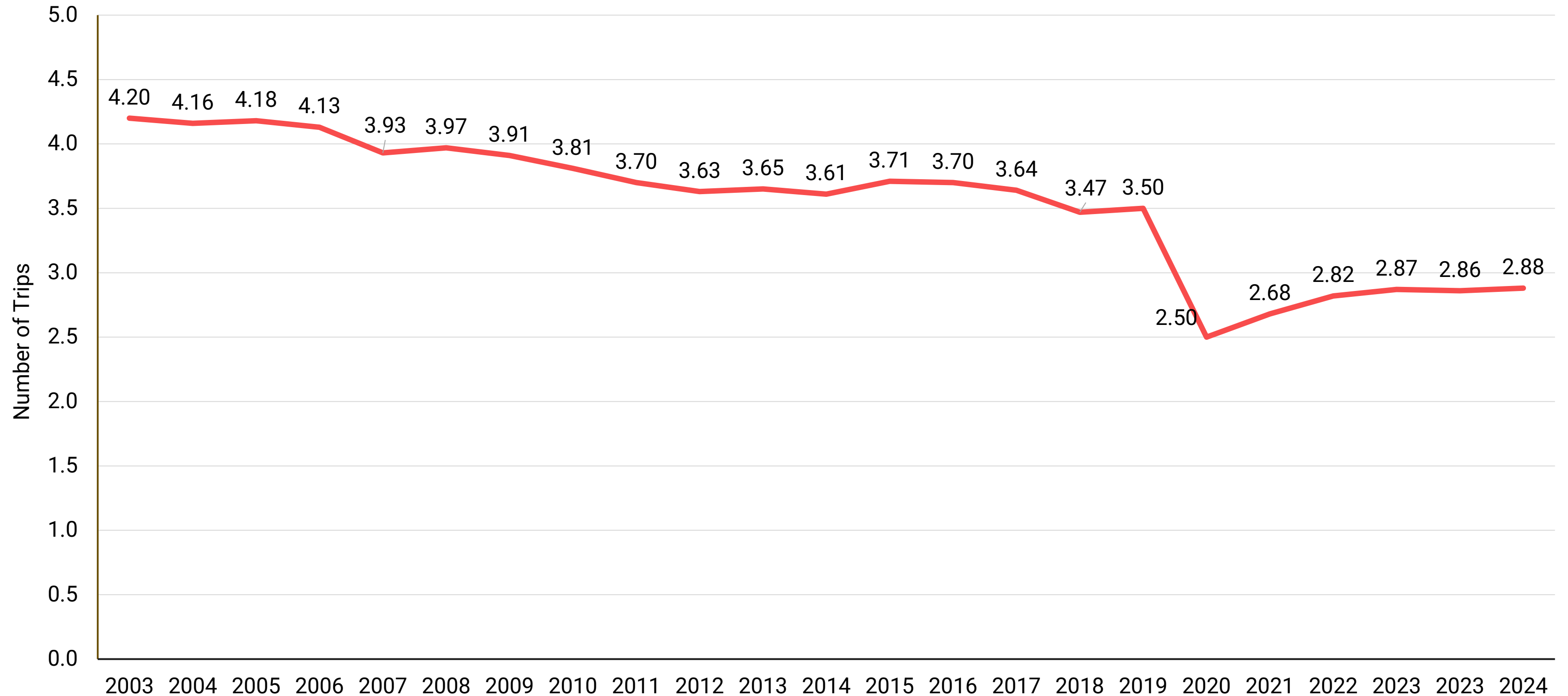




# Trip Rates and Travel Time

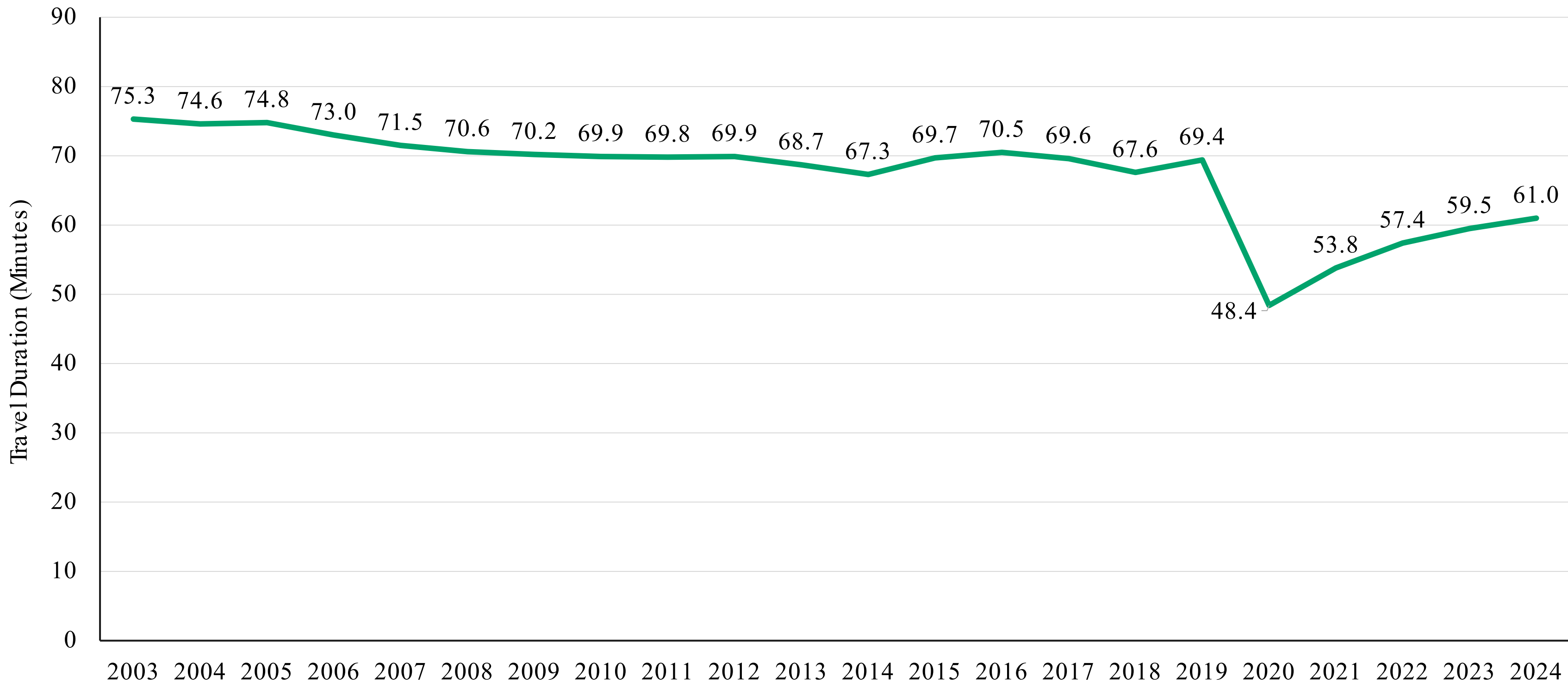
# Daily Trip Rates Per Person, ATUS, $\geq 15$

## T3 Dashboard | Travel



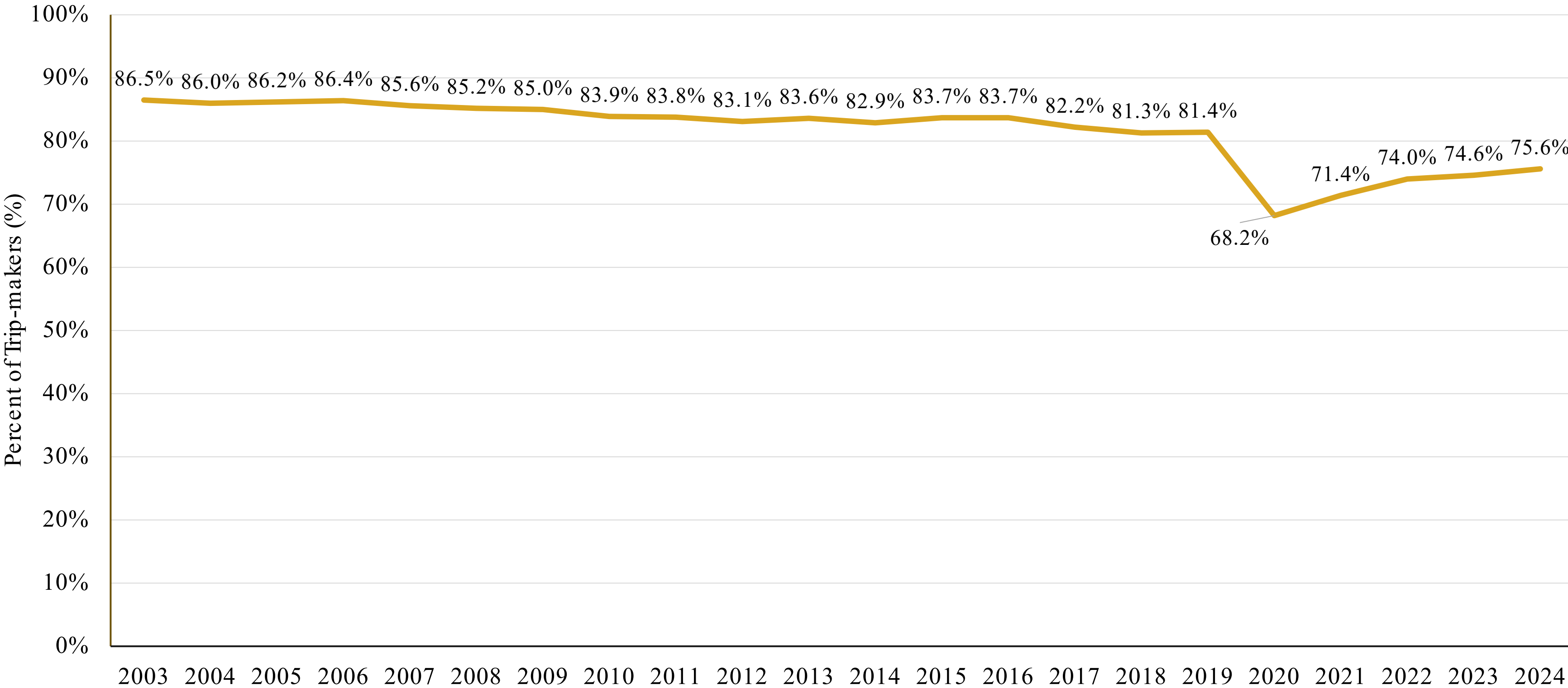
# Daily Travel Duration (Minutes), ATUS, $\geq 15$

## T3 Dashboard | Travel



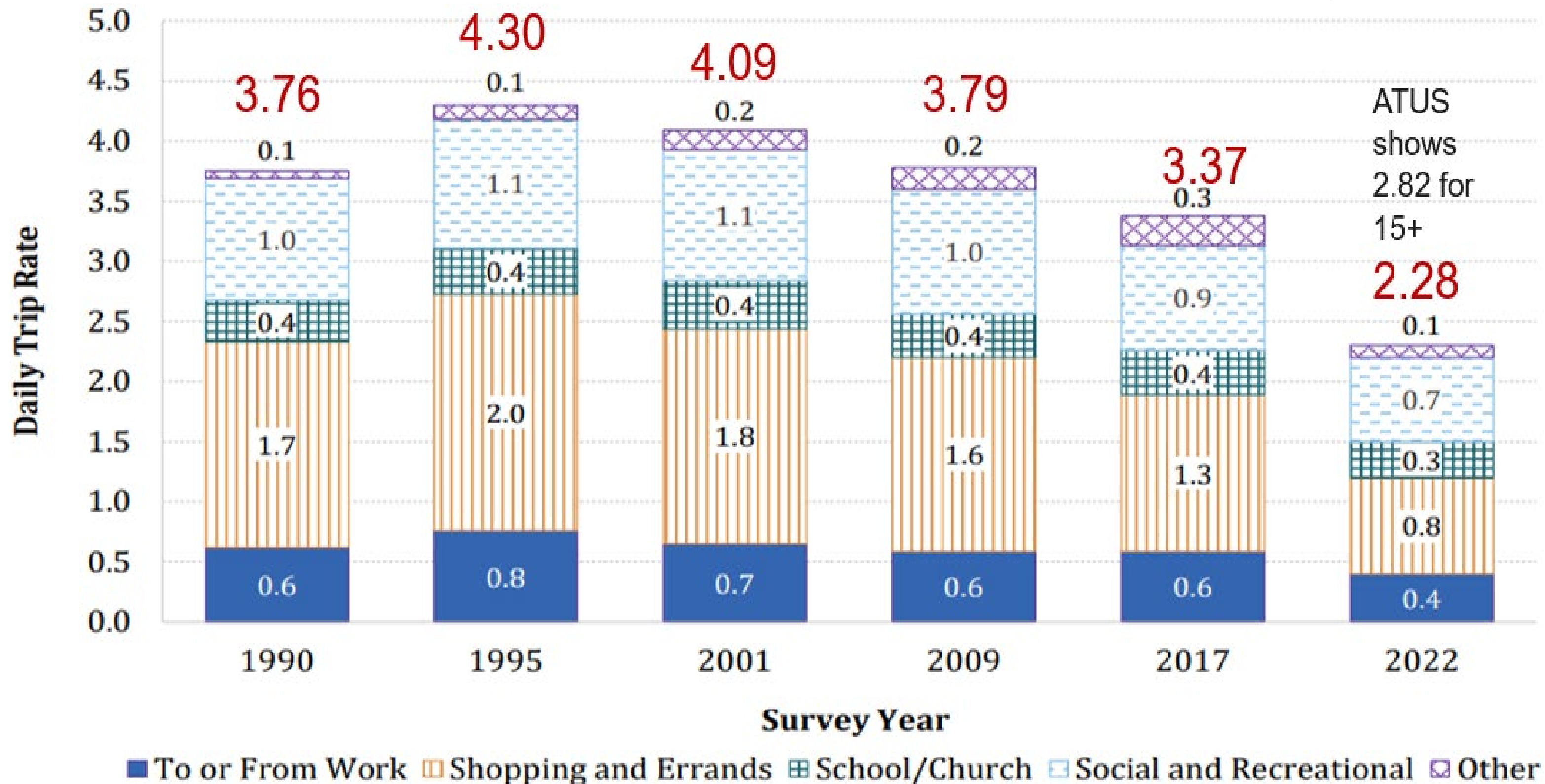
# Percent Mobile on Survey Day, ATUS, ≥15

T3 Dashboard | Travel



# Daily Trip Rates per Person by Trip Purpose

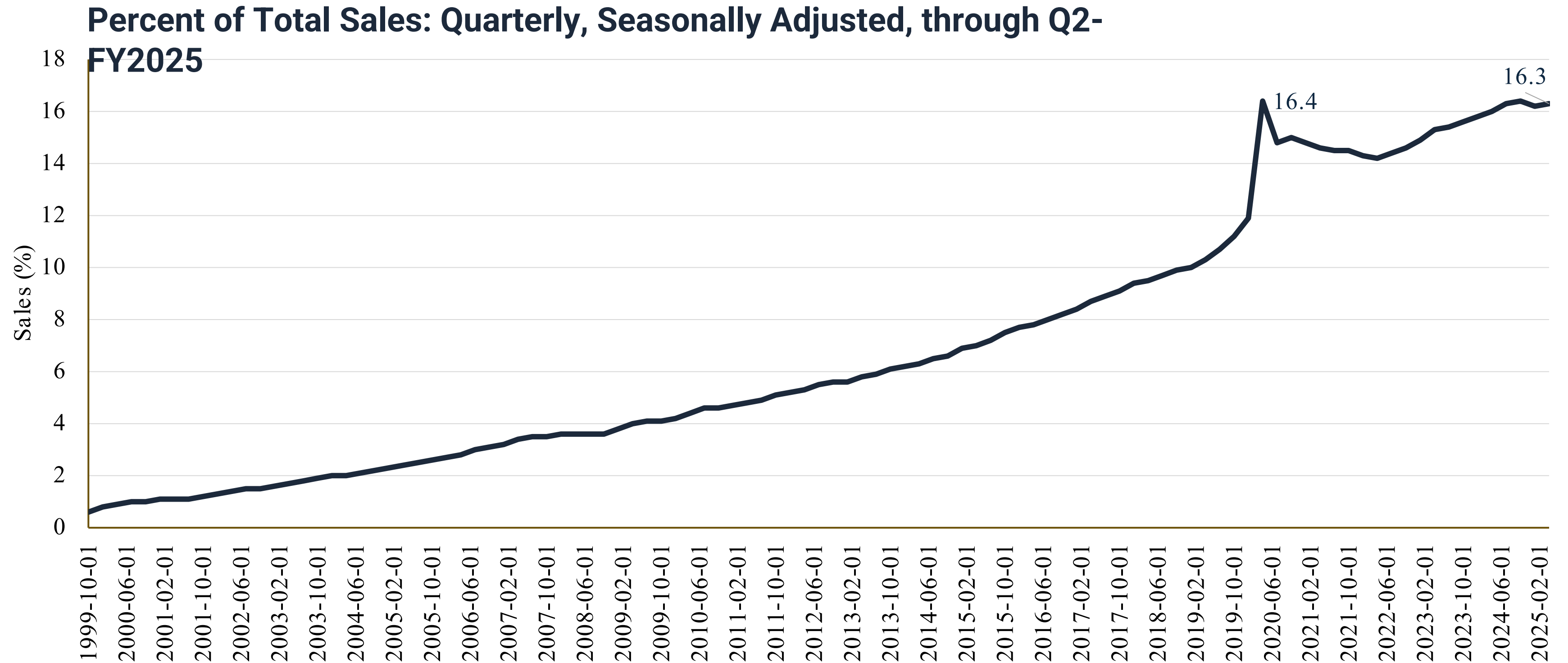
## US National Household Travel Survey



Note: The “Other” trip purpose category includes trips for work-related business and trips not categorized. For explanations of adjustments as well as specific differences in survey methods over time, please refer to Section 1.2.

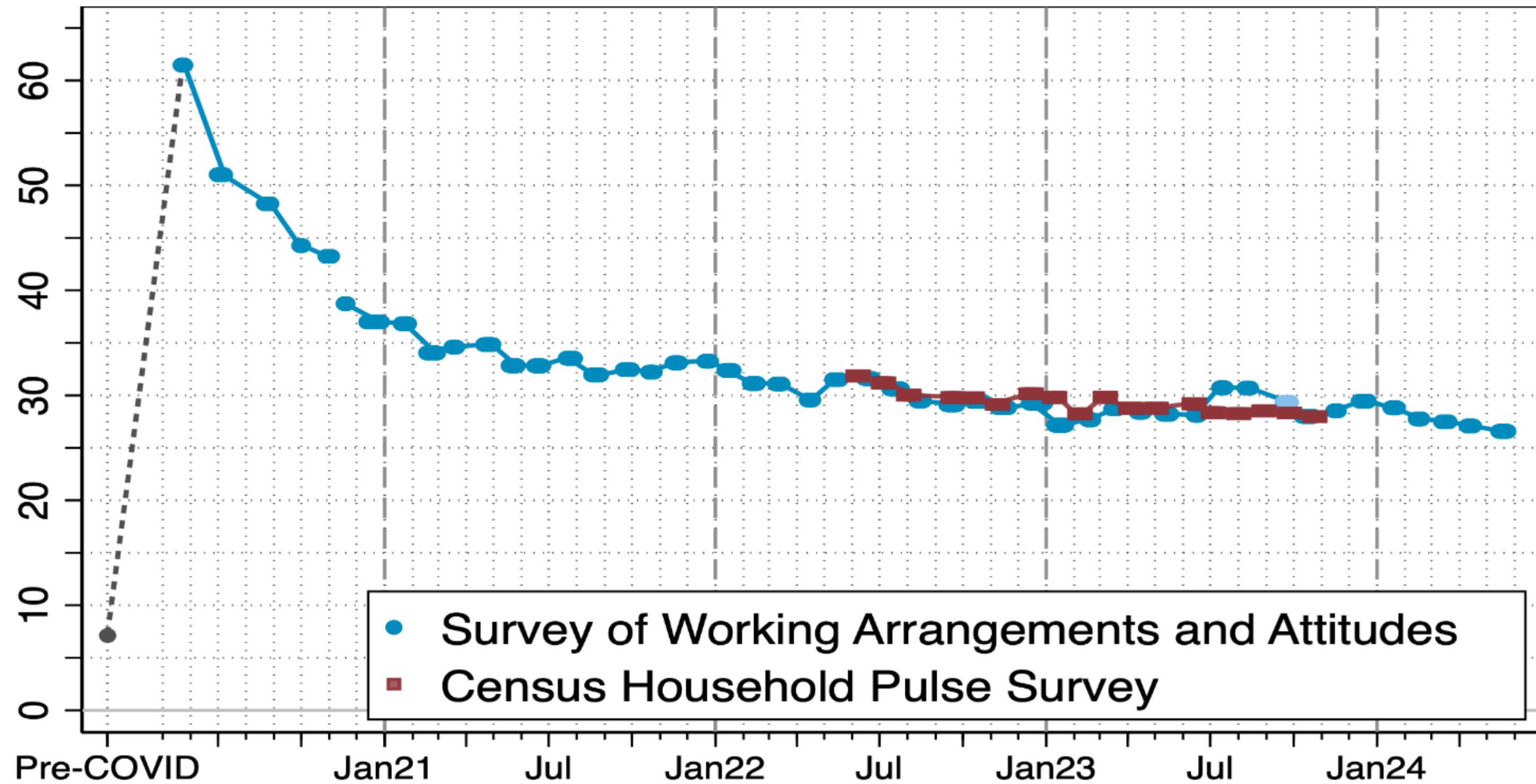
# ICT Substitution for Travel

# E-Commerce Retail Sales



Source: Federal Reserve Economic Data, Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org>

# Percentage of Full Days Worked from Home

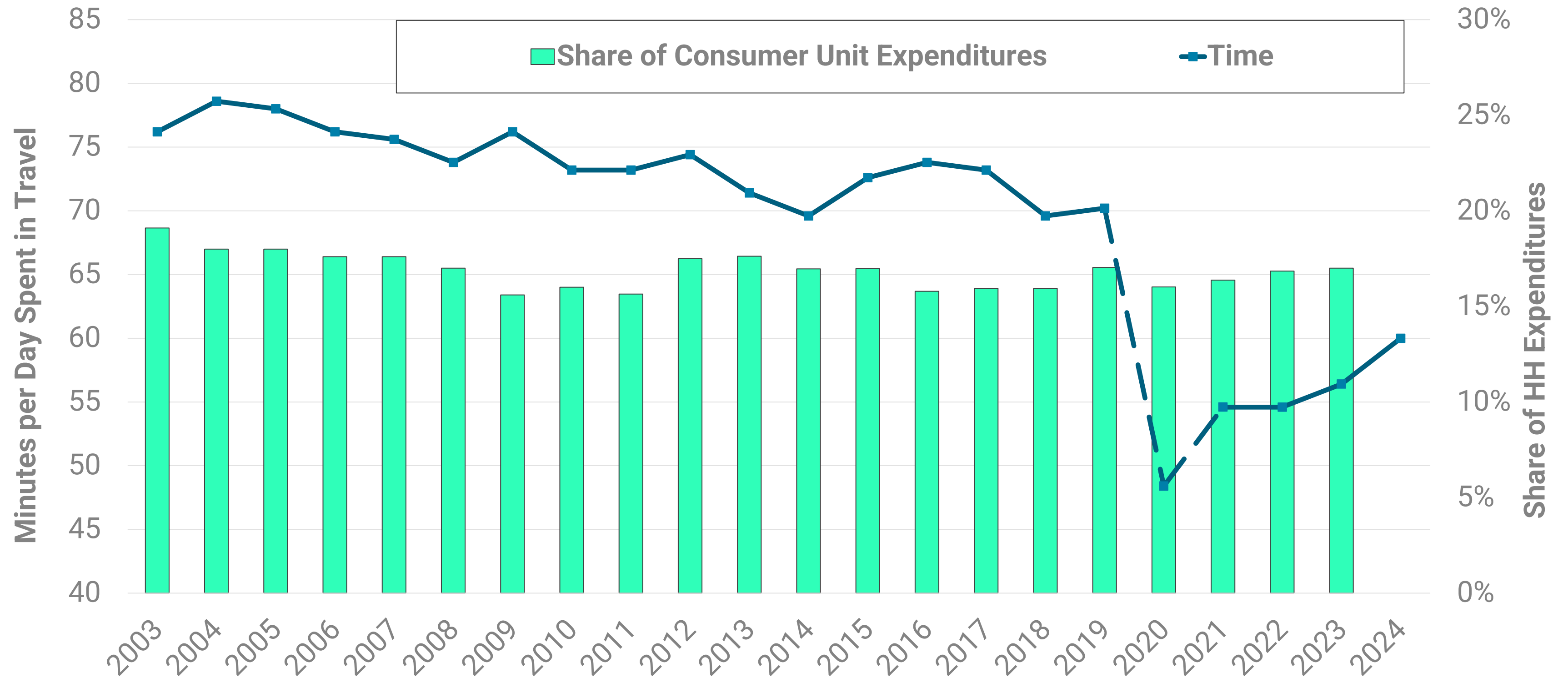


Source: Survey of Working Arrangements and Attitudes (SWAA), [www.wfhresearch.com](http://www.wfhresearch.com)



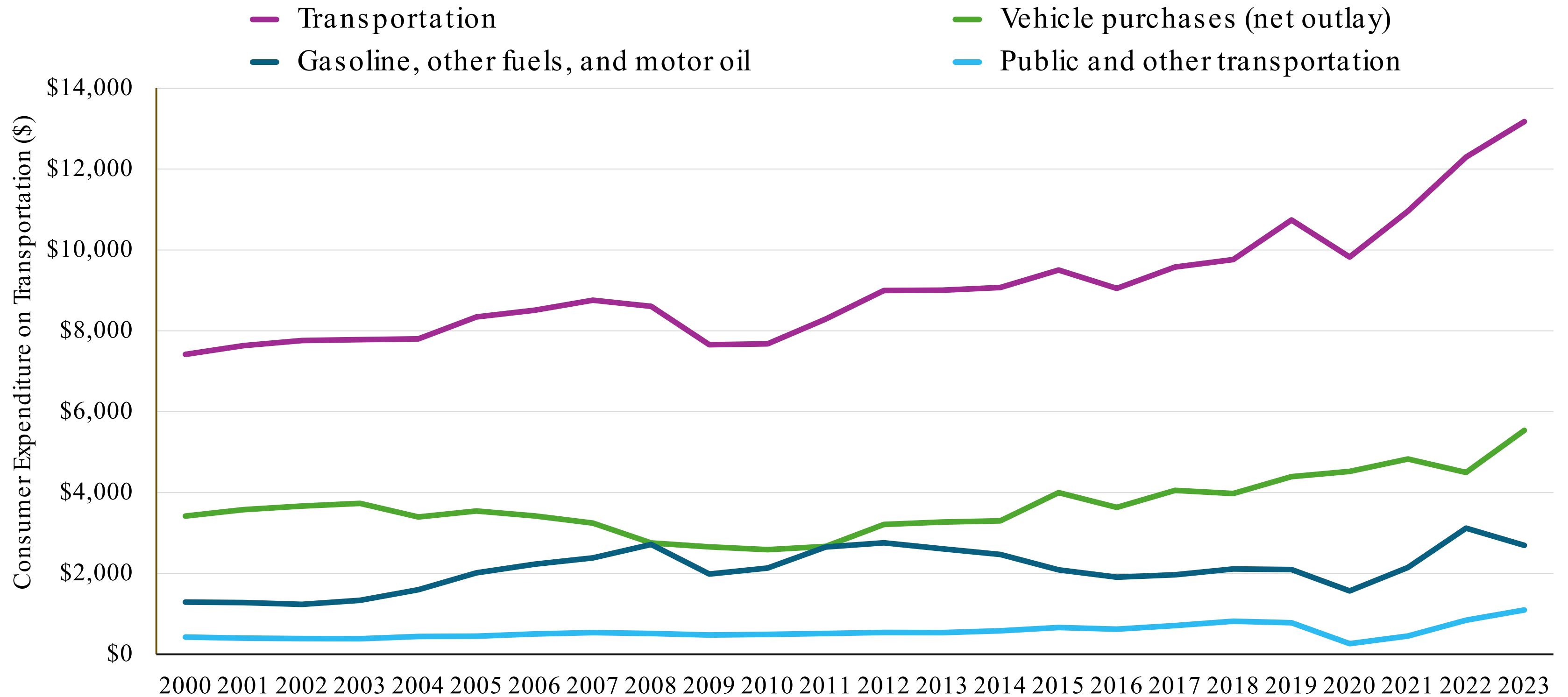
# Consumer Expenditure on Transportation

# Time and Money Expenditures for Travel



Source: Consumer Expenditure Survey (CE) and American Time Use Survey (ATUS)

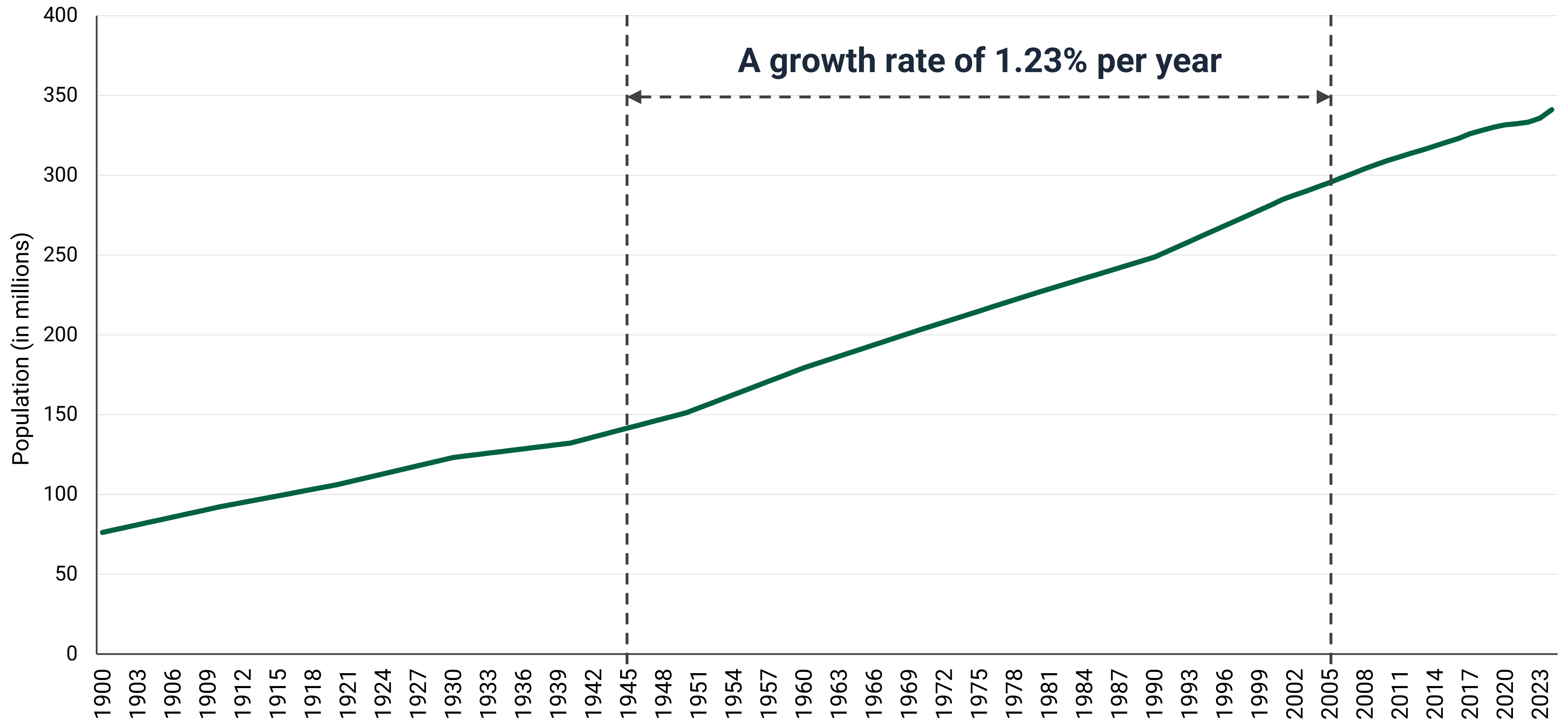
# Consumer Expenditures on Transportation



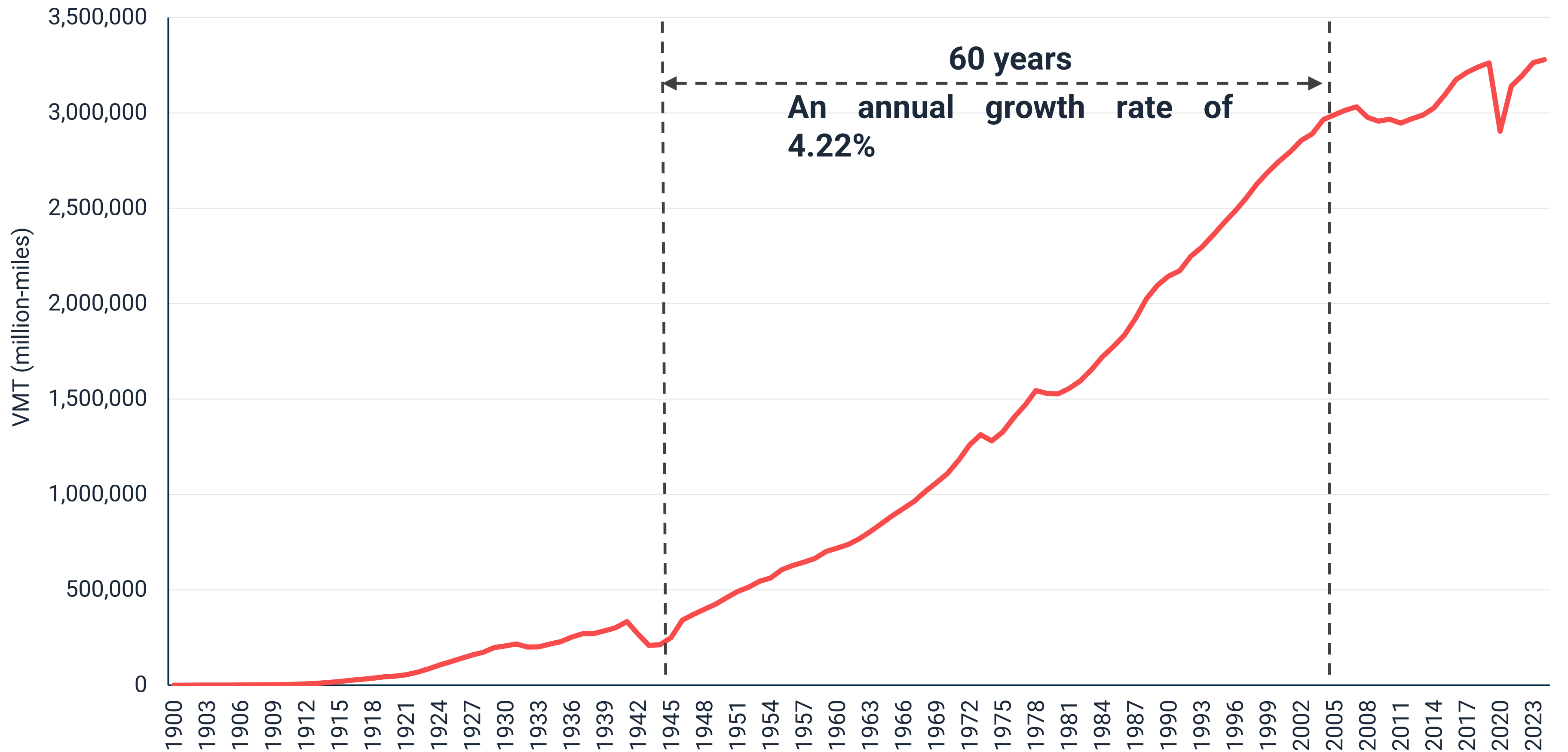
Source: Consumer Expenditure Survey (CE)

# VMT and Transit Ridership

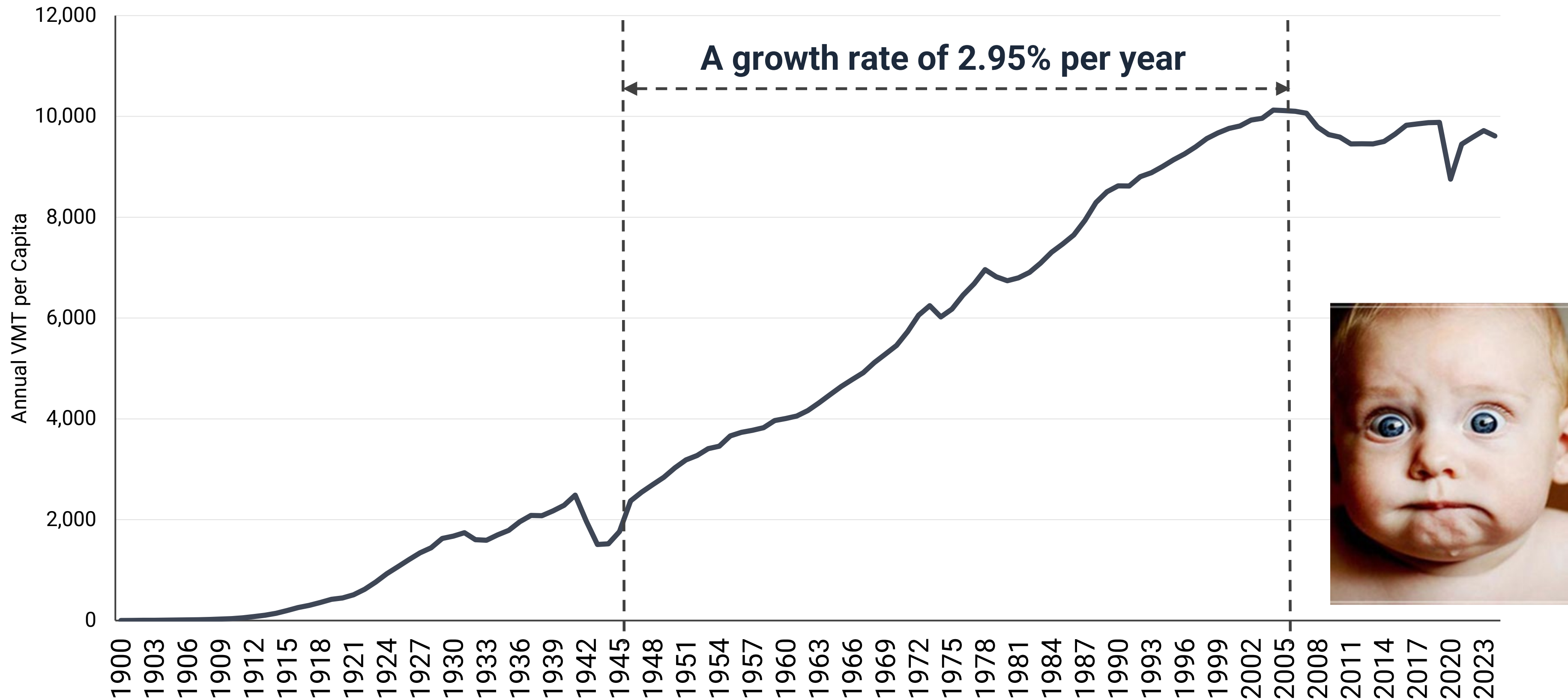
# U.S. Population (1900-2024)



# VMT in the United States (1900 – 2024)

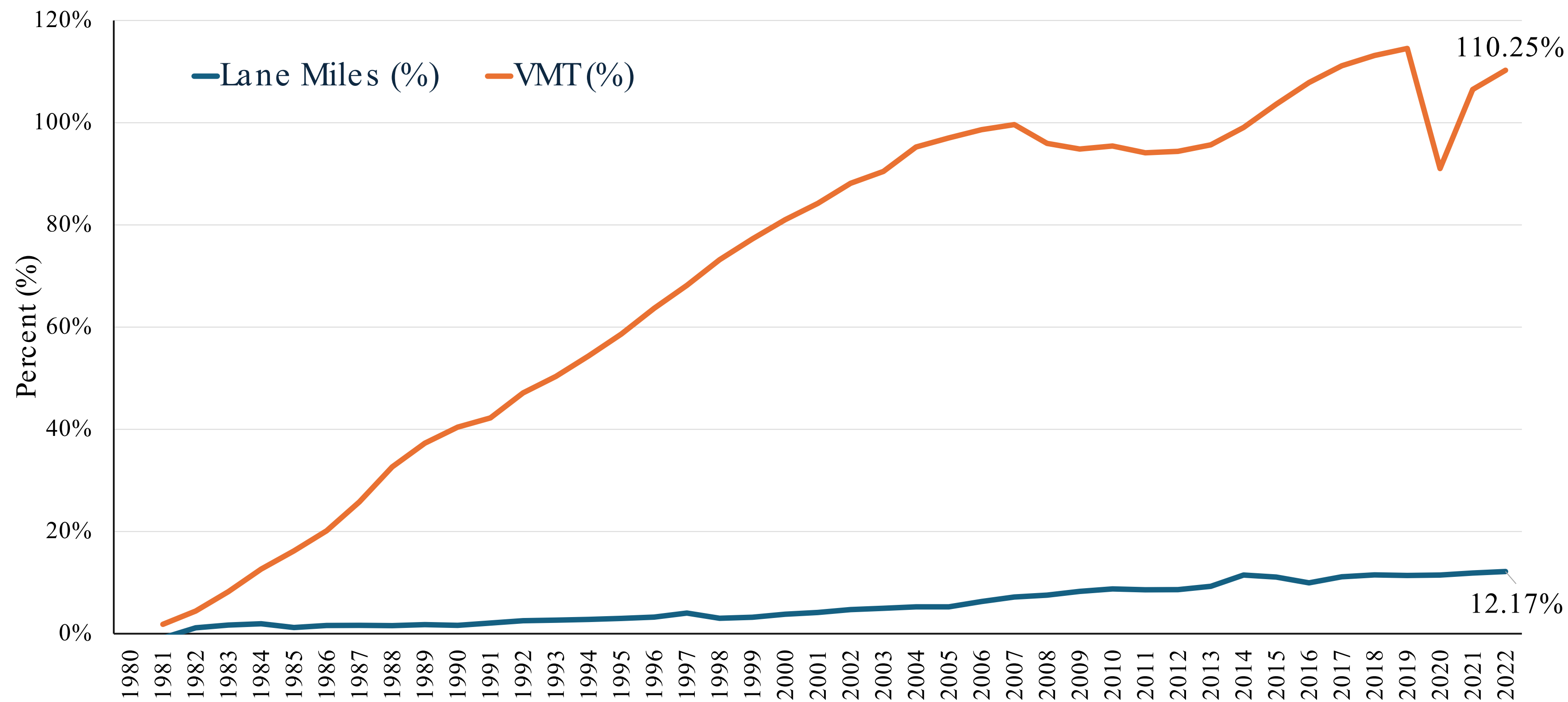


# VMT per Capita in the U.S. (1900-2024)



# Comparative Growth in VMT and Lane Miles

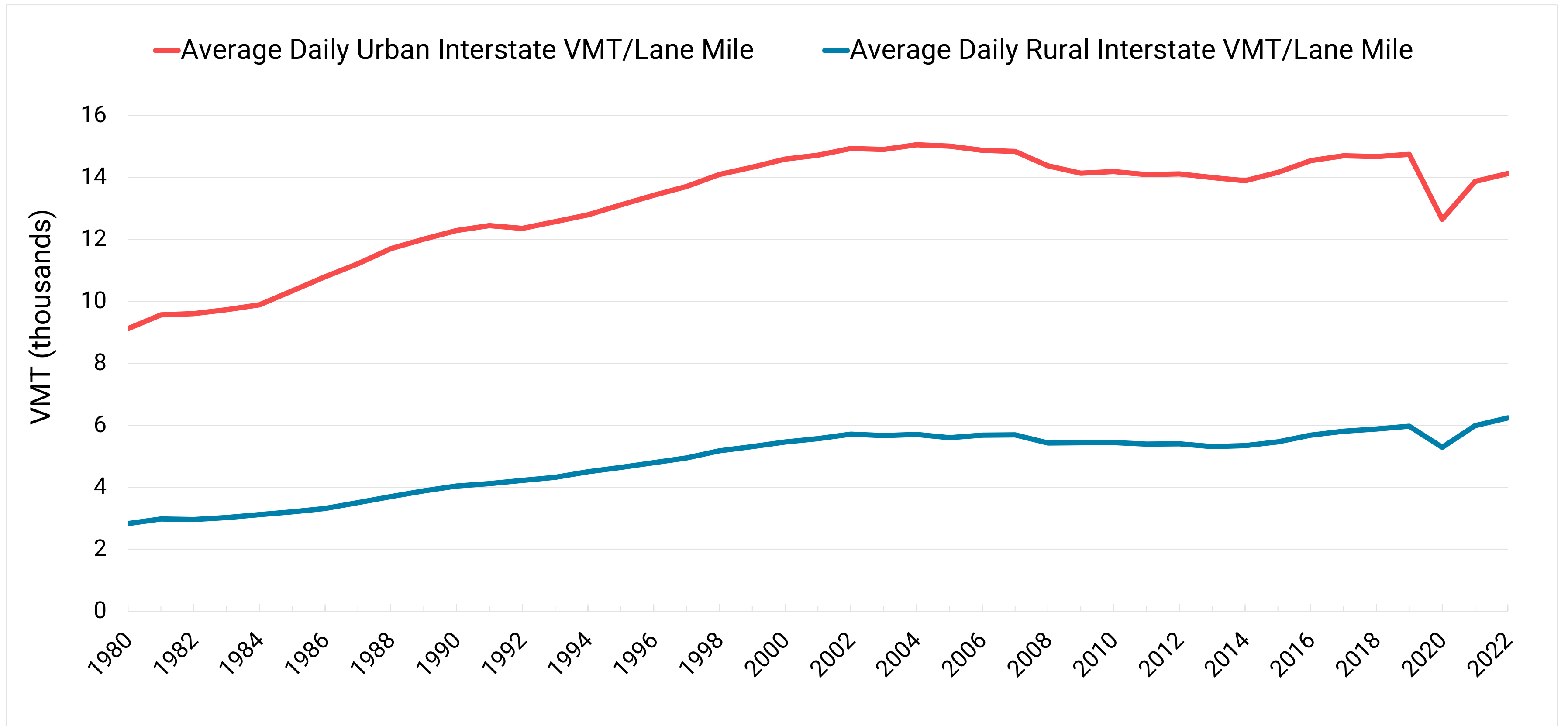
Change Since 1980 (U.S. Totals)





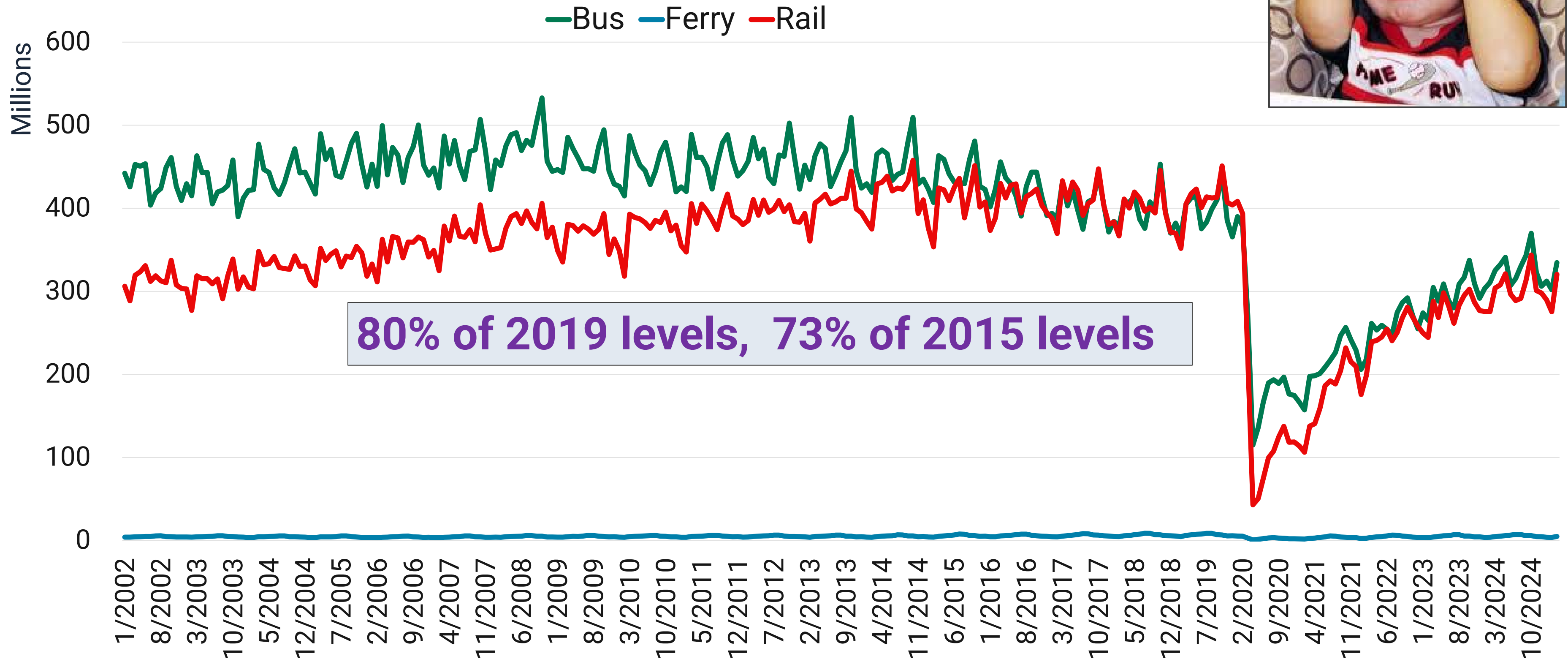
# Average Daily Freeway VMT per Freeway Lane Mile

## Change Since 1980 (U.S. Totals)



# U.S. Public Transit Ridership

## Monthly, FTA National Transit Database (NTD)

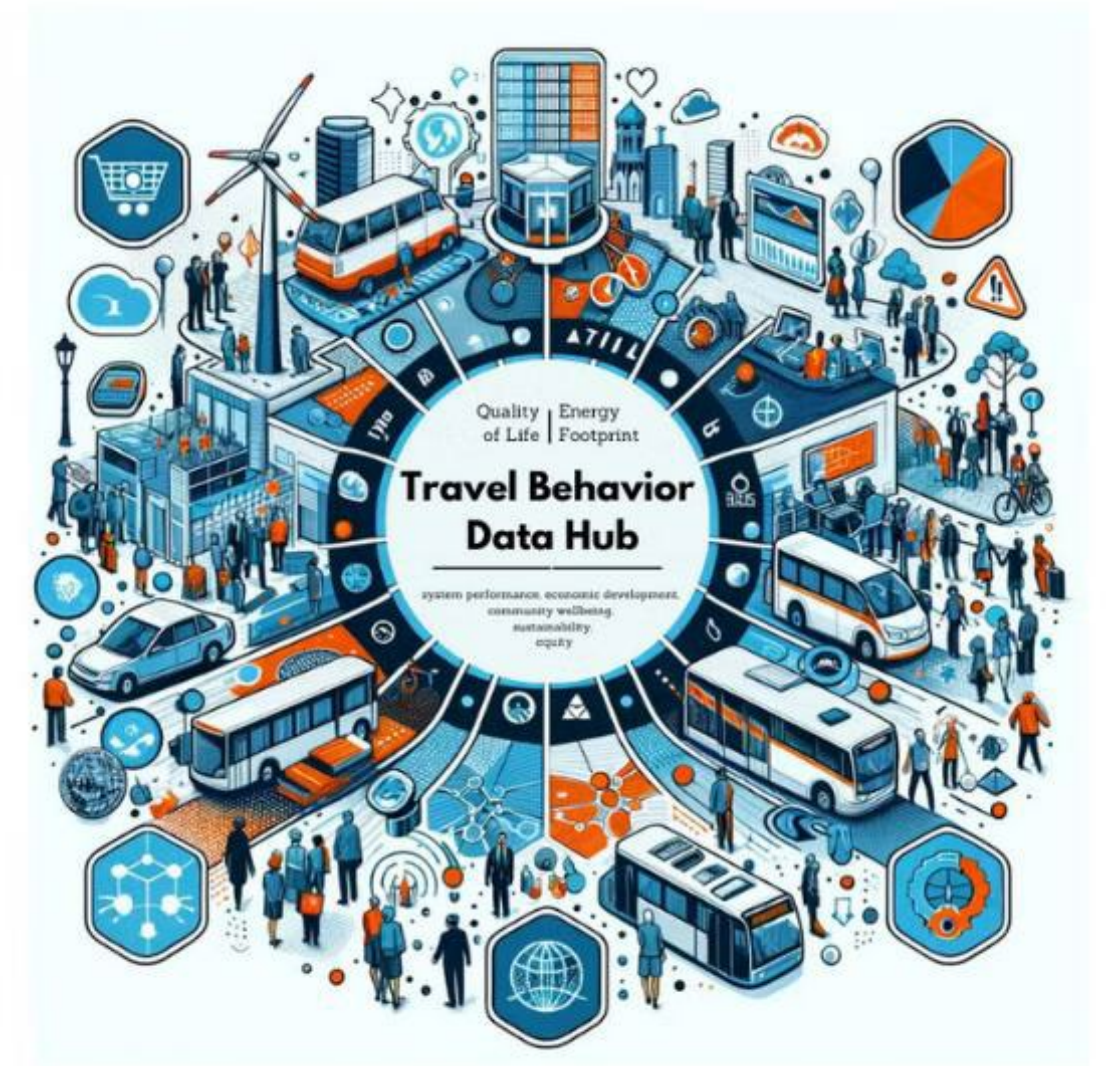


# Take Aways

- ▶ **Travel has changed markedly** with a dramatic decline in the rate of VMT growth
- ▶ Understanding **ICT substitution effect is critical** to understanding travel trends
- ▶ **Trip making has declined** significantly impacting local travel and transit
- ▶ Trends are still stabilizing but **no return to pre-COVID conditions**
- ▶ **Uncertainties remain** due to the impacts of **automation**, enhanced **communications**, **AI**, onshoring of manufacturing, **supply chain changes**, **economic trends**, and unknown changes
- ▶ Using **multiple survey and count data sets** enhances the ability to **interpret emerging trends**

# Travel Behavior Data (TBD) Hub

- A one-stop shop for travel behavior insights, empowering planners & policymakers & the public
- **Integrates key datasets** (ACS, NHTS, ATUS, CES, CFS, VIUS, NHANES, RECS, CBECS) + StreetLight Data for O-D flows
- **Leverages advanced methods** in aggregation, fusion, imputation, and prediction
- Features **well-being**, **energy footprint**, and **mobility poverty** calculators



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