

Summary of Travel Trends

Findings from the 2017 NHTS

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A **BIG** thank you to:

FHWA Team:

- Danny Jenkins, FHWA
- Stacey Bricka, Macrosys
- Tim Reusher, ORNL

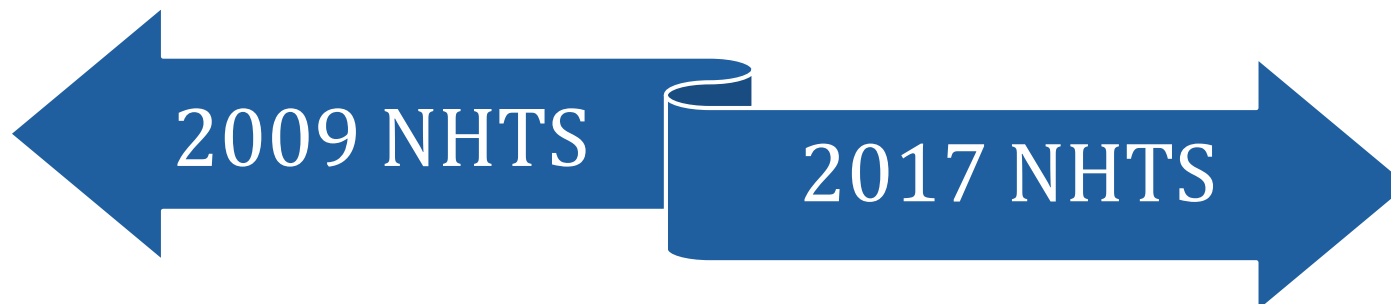
Westat Team:

- Janice Machado
- Shawn McCloskey
- Shelly Brock

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Critical Method Differences:



- RDD Landline Sample Frame
 - Mail-out/Telephone Recruit
 - 'Usable' household requires 50% of adults to complete
 - Self-reported trip distances
 - Computer Assisted Telephone Interviewing only (CATI)
- Address-based Sample Frame
 - Mail-out/Mail-back Recruit
 - 'Usable' household requires 100% of members 5+ to complete
 - Network-coded shortest path trip distances
 - Self-report on a Web-based Retrieval with CATI option

Short story on method effects (so far):

- Trip **rates** by age, sex, urban/rural, income, purpose, etc. all seem to track with previous trends--they continue to decline. There may be some effect here due to self-reporting—more research is needed.
- **Trip distance** was collected differently and may need an adjustment to be comparable. This effects VMT and PMT trends. More research is needed.
- **Transit** is a bit high while **vehicle trip** rates are a bit low—we don't know why yet. FHWA has funded research on this.
- **Walk and bike** may have a break in trends analysis due to a change in trip definition, and possibly under-reporting of short non-purposeful trips. More research is needed.

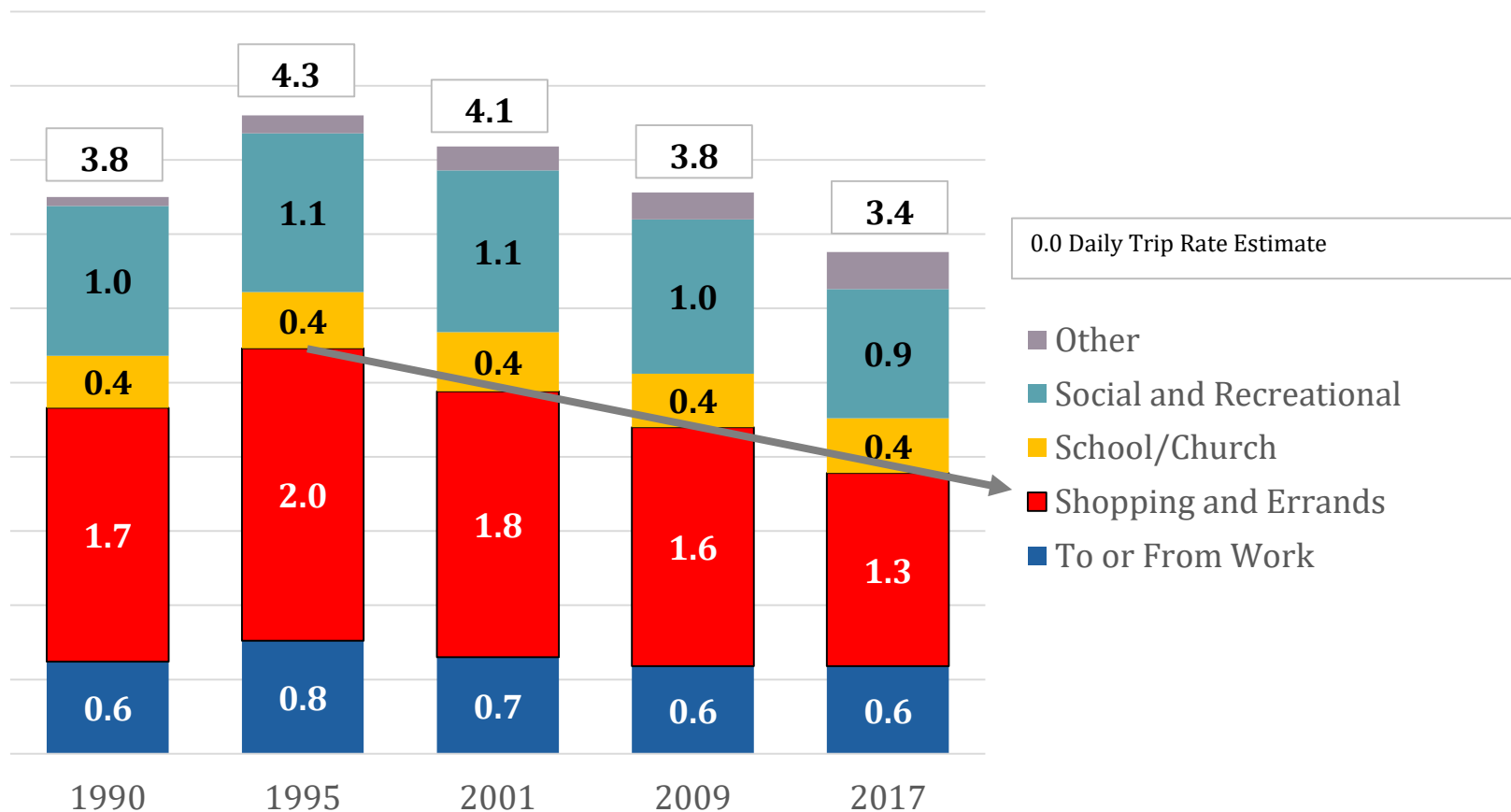


Overview of Possible Methods Effects

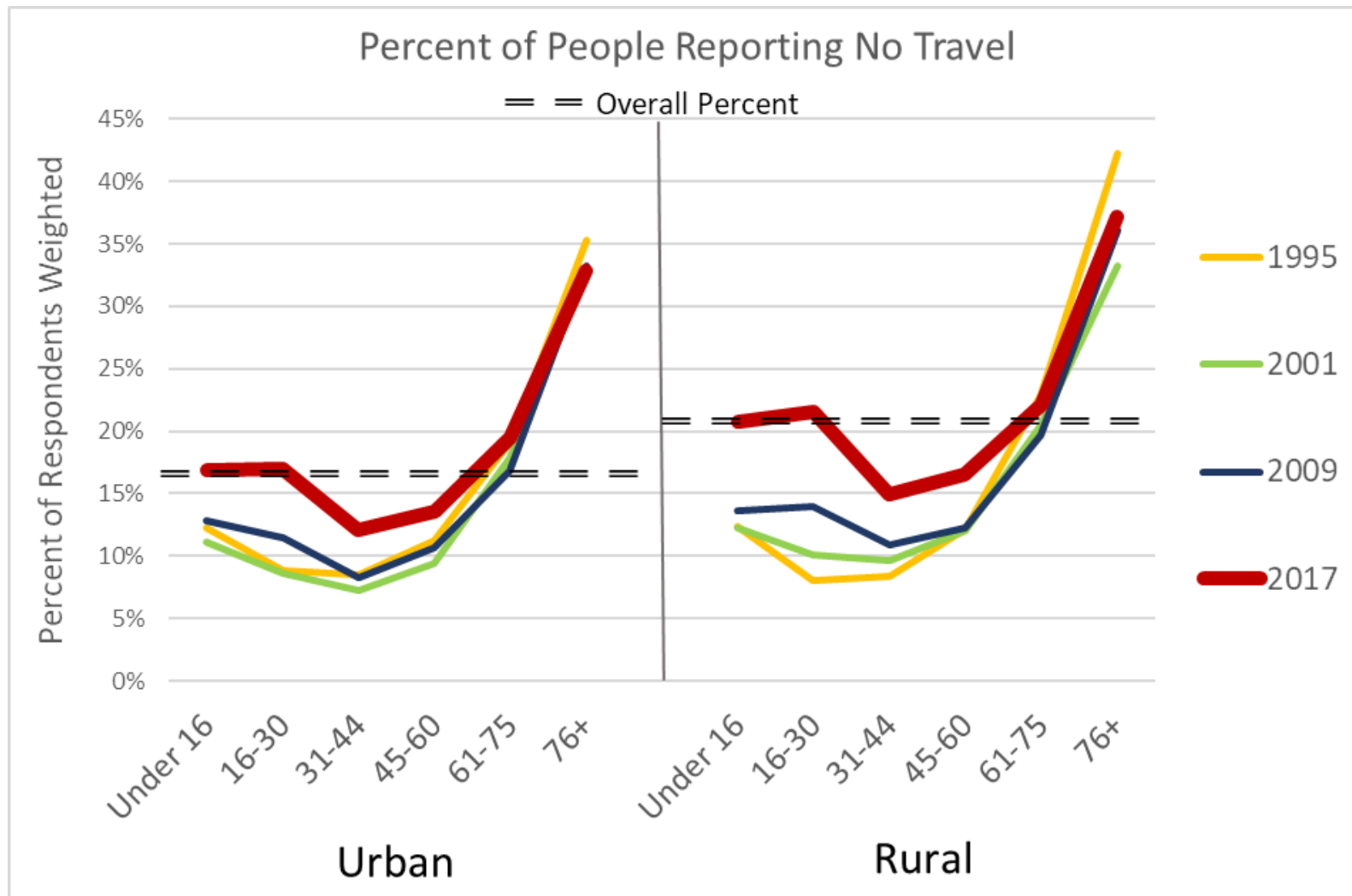
- Trip Rates
- Immobile Rates/Zero Trip Reports
- Trips per Traveling Person
- Trip Distance
- Transit & Walk

Trip rates by age, sex, urban/rural, income, purpose, etc. all seem to track with previous trends--they continue to decline. The declines are from trips for shopping and errands.

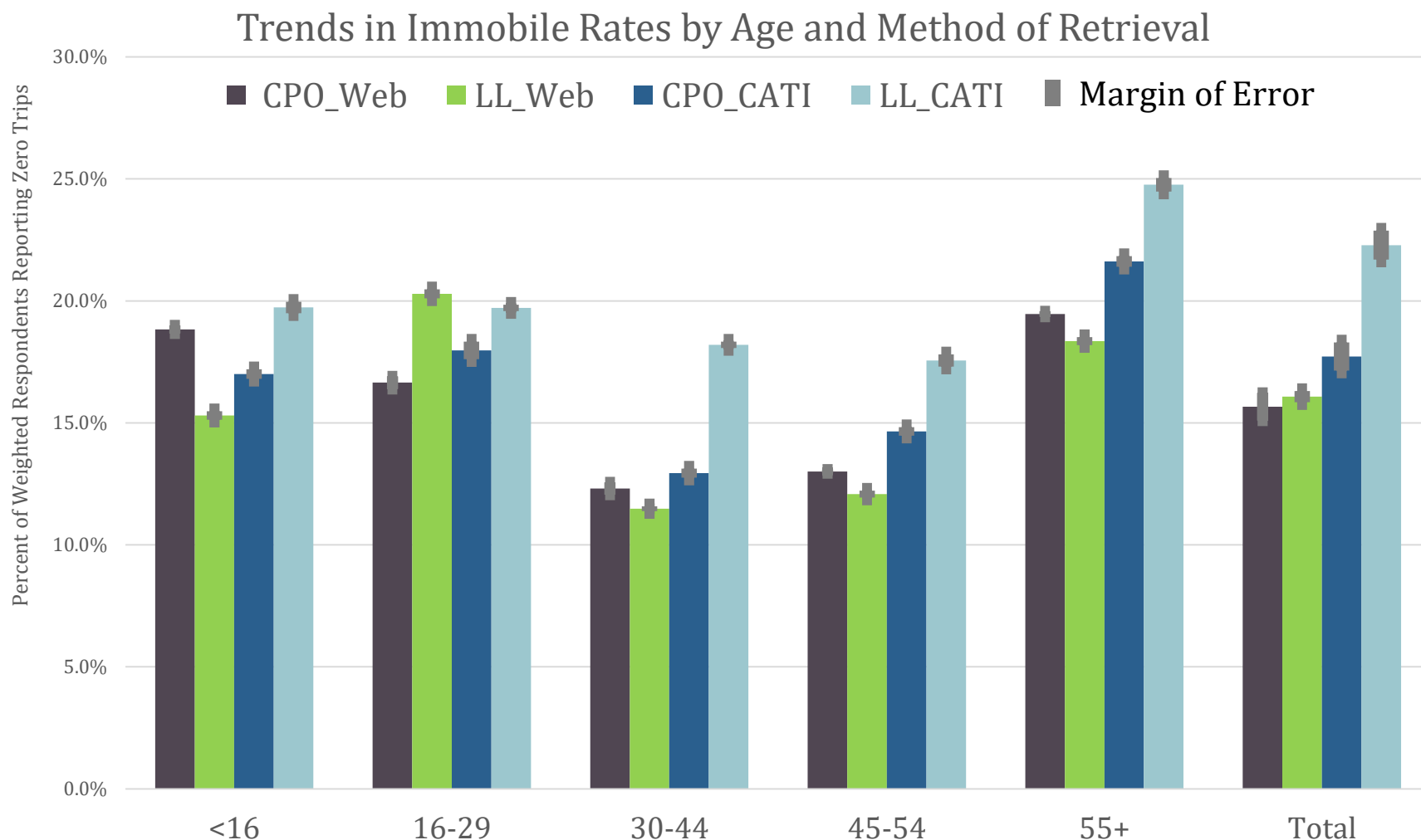
Trends in Person Trips by Purpose, 1990 to 2017



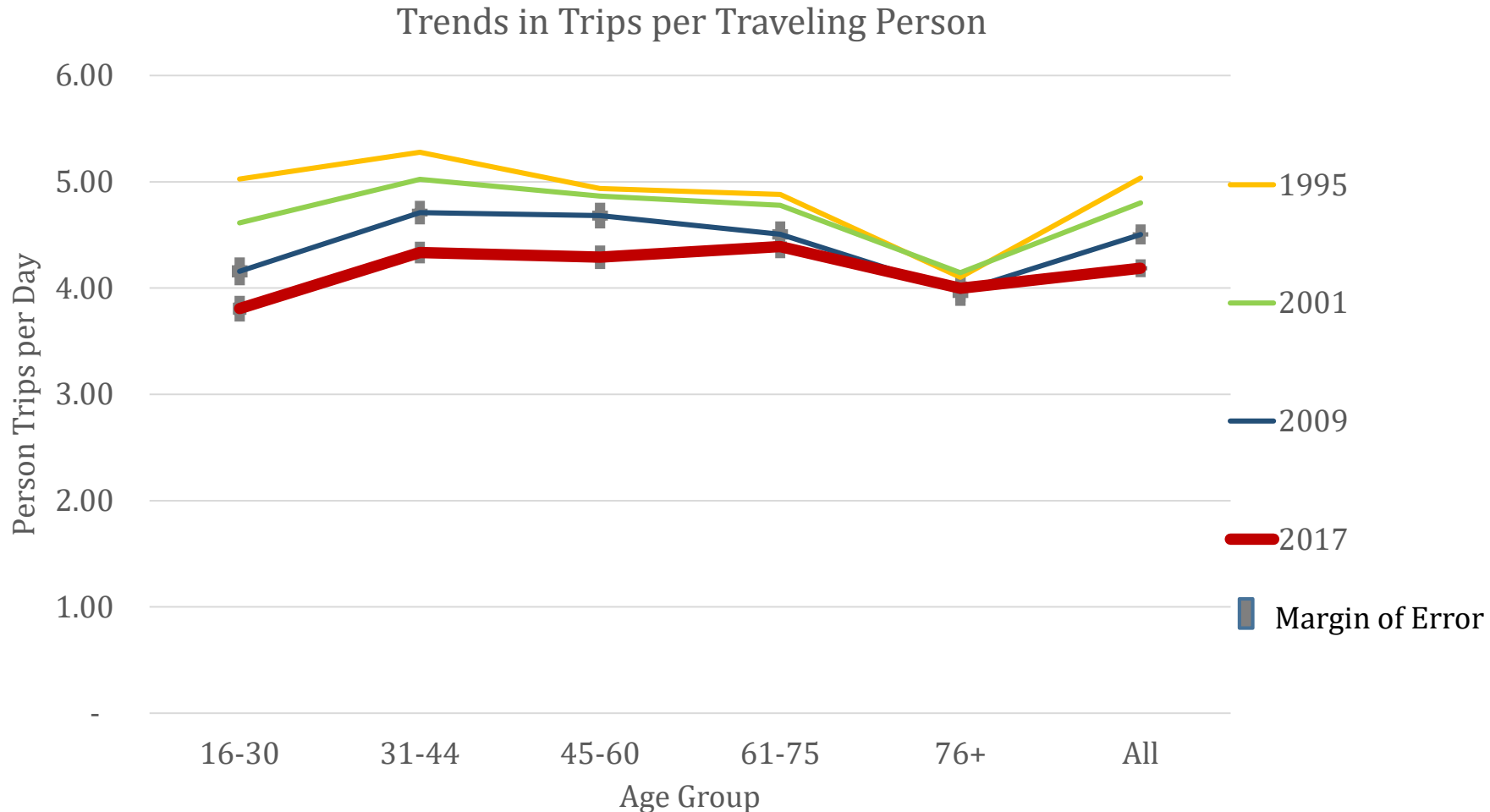
Immobile Rates are high: Many more people are reporting no travel on the travel day. There may be some effect here due to self-reporting—more research is needed.



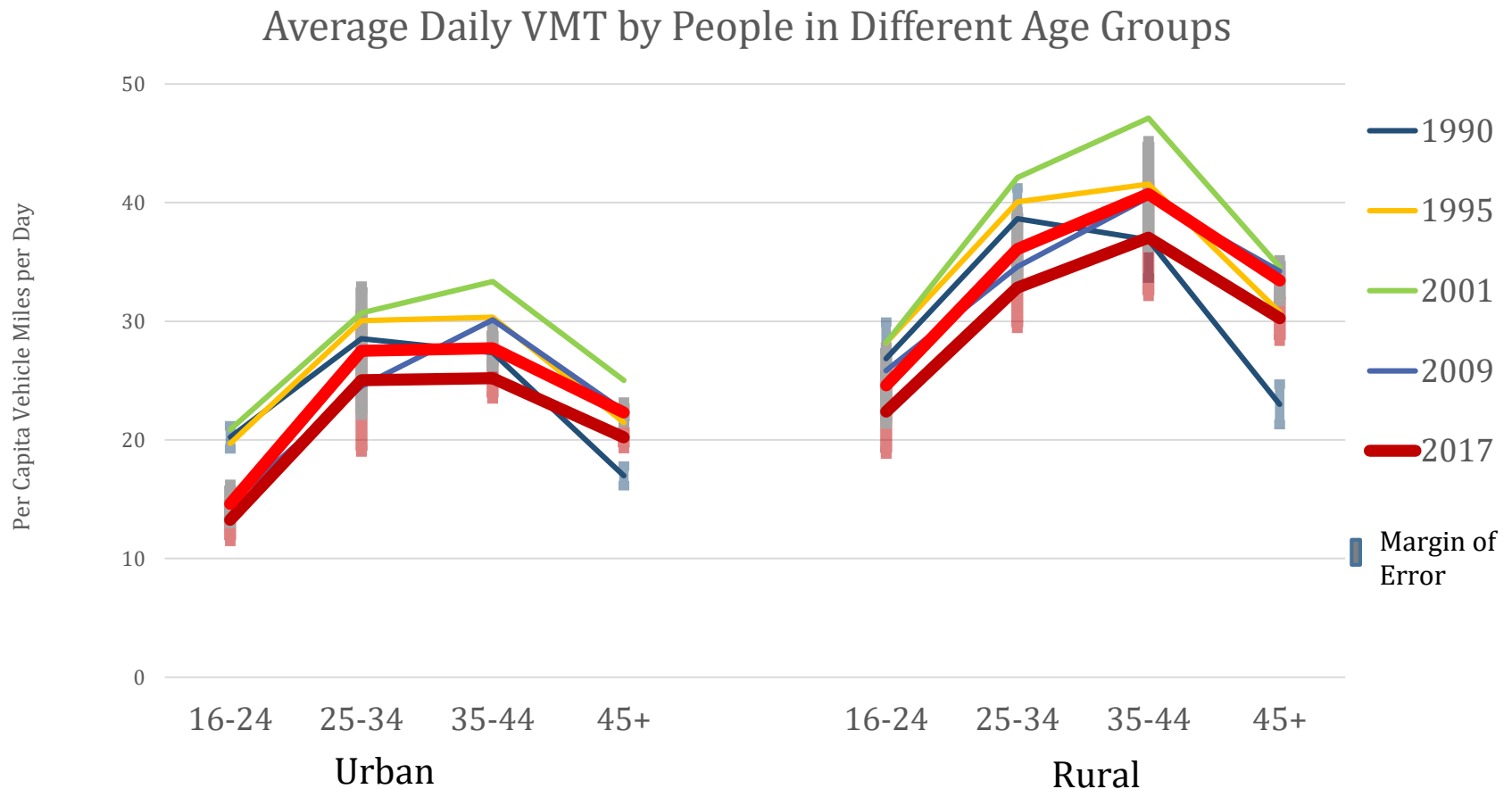
Zero Trip Reports are significantly different by method:



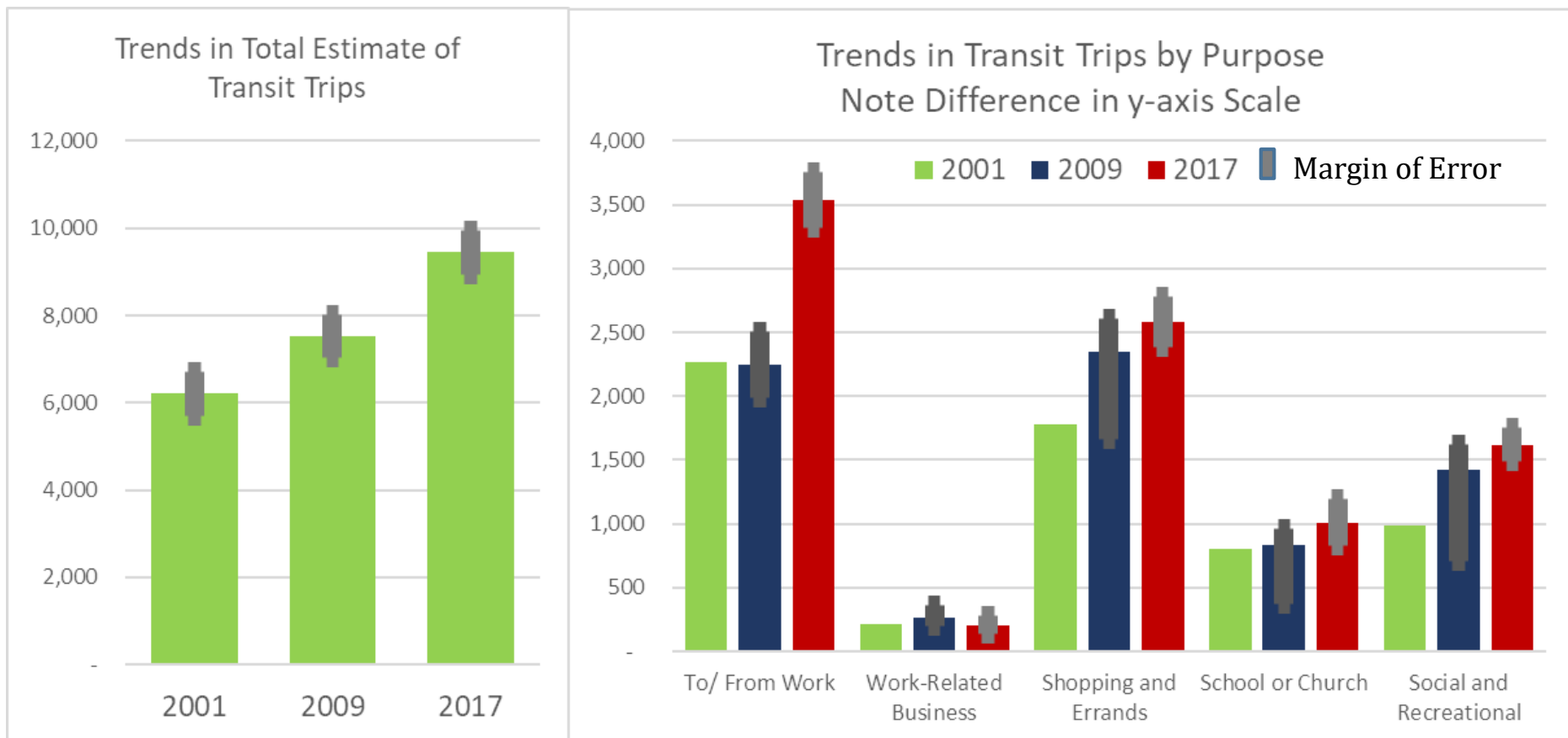
Trips per traveling person are significantly lower for all but older travelers:



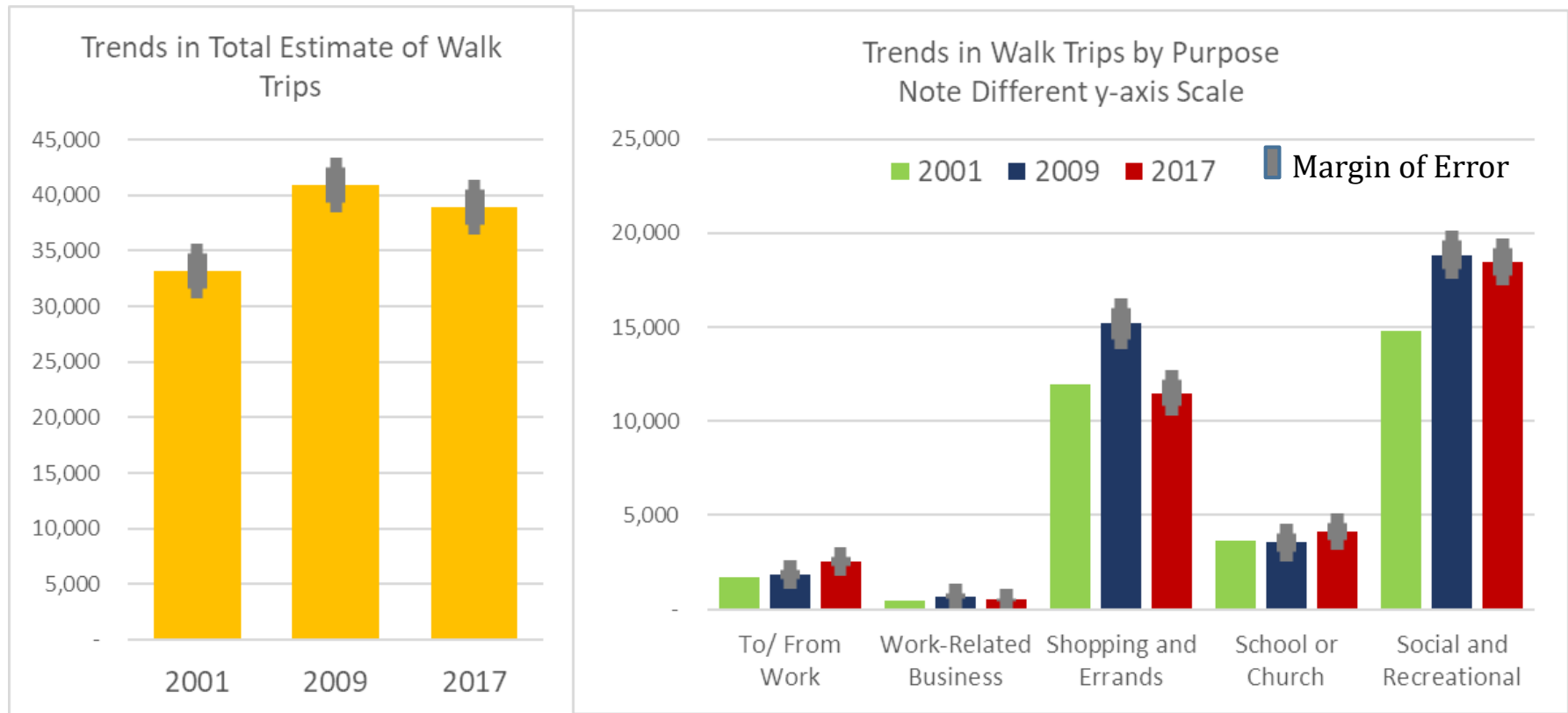
Trip distance was collected differently and may need an adjustment to be comparable. This effects VMT and PMT trends. A suggested adjustment was part of STT, but does not make a significant difference.



Transit trips are unaccountably high—Primarily because of higher estimate of subway use and transit commutes. FHWA has funded research on this.



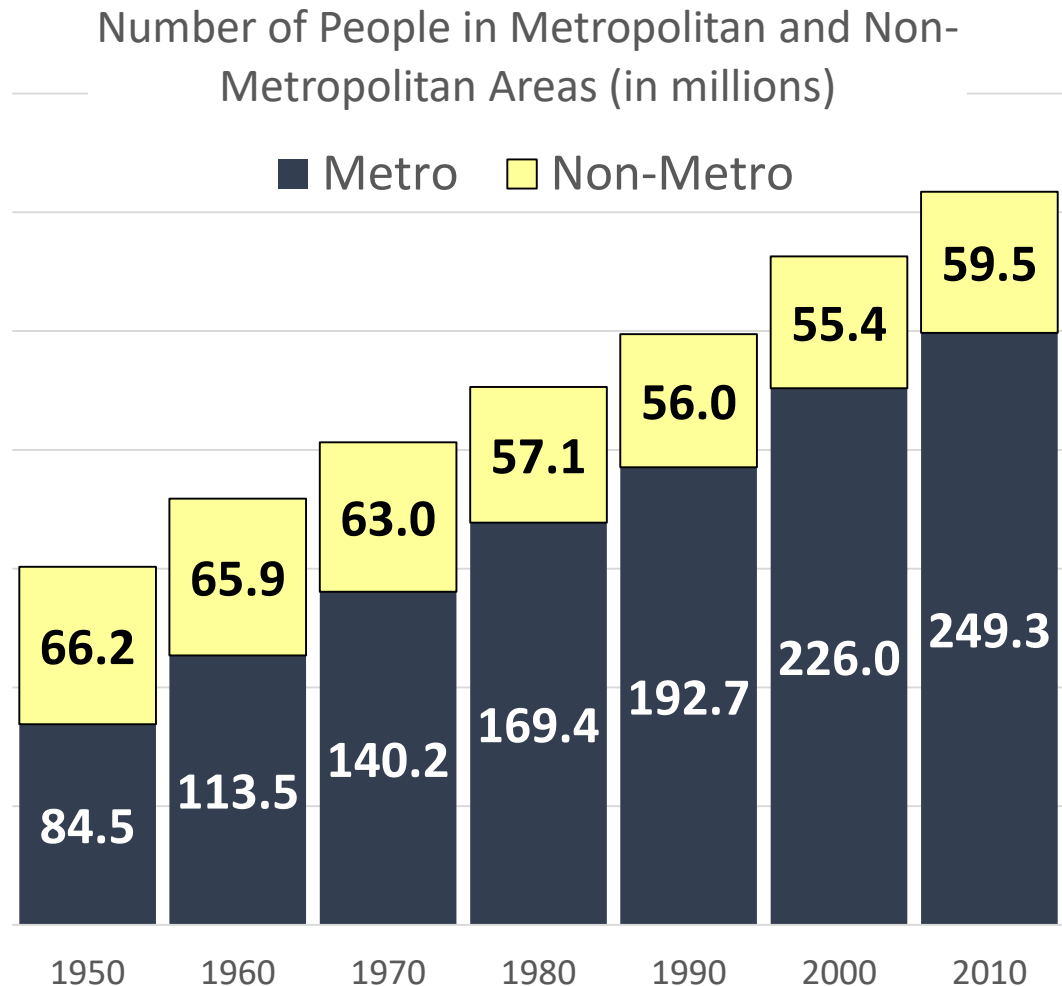
Walk and bike trips may also not be comparable due to a change in trip definition, and possibly under-reporting of short non-purposeful trips. More research is needed.



Some Long-Term Demographic Trends for Context



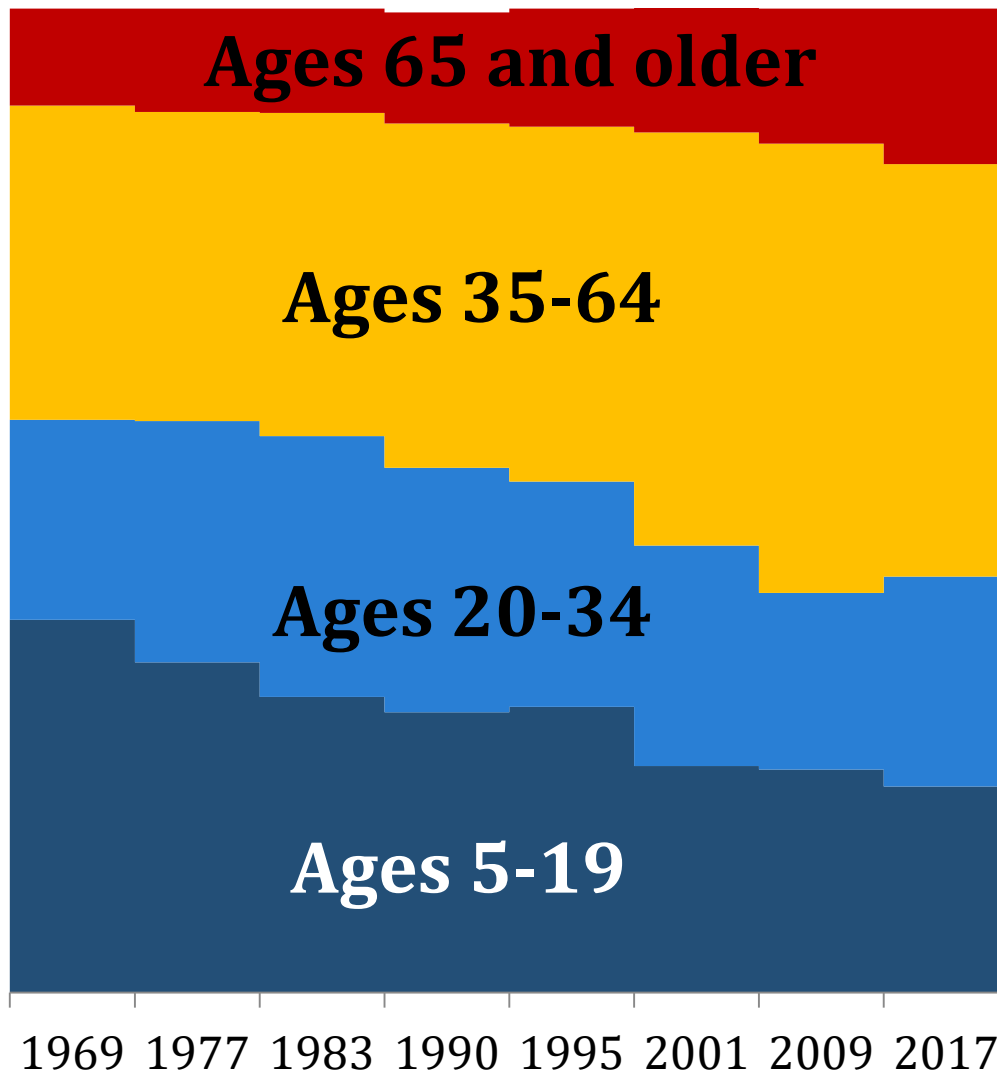
The number of people in non-metro areas has remained about the same since 1980—population growth has gone to metro areas



Source: 1950 through 2000, "Demographic Trends in the 20th Century", Census Special Reports, by Frank Hobbs and Nicole Stoops, 11/1/2002, 2010 added by author from American Factfinder

The population is aging:

Percent of the US Population by Age Group



“The aging of baby boomers means that within just a couple decades, older people are projected to outnumber children for the first time in U.S. history.

By 2035, there will be 78.0 million people 65 years and older compared to 76.4 million under the age of 18.”

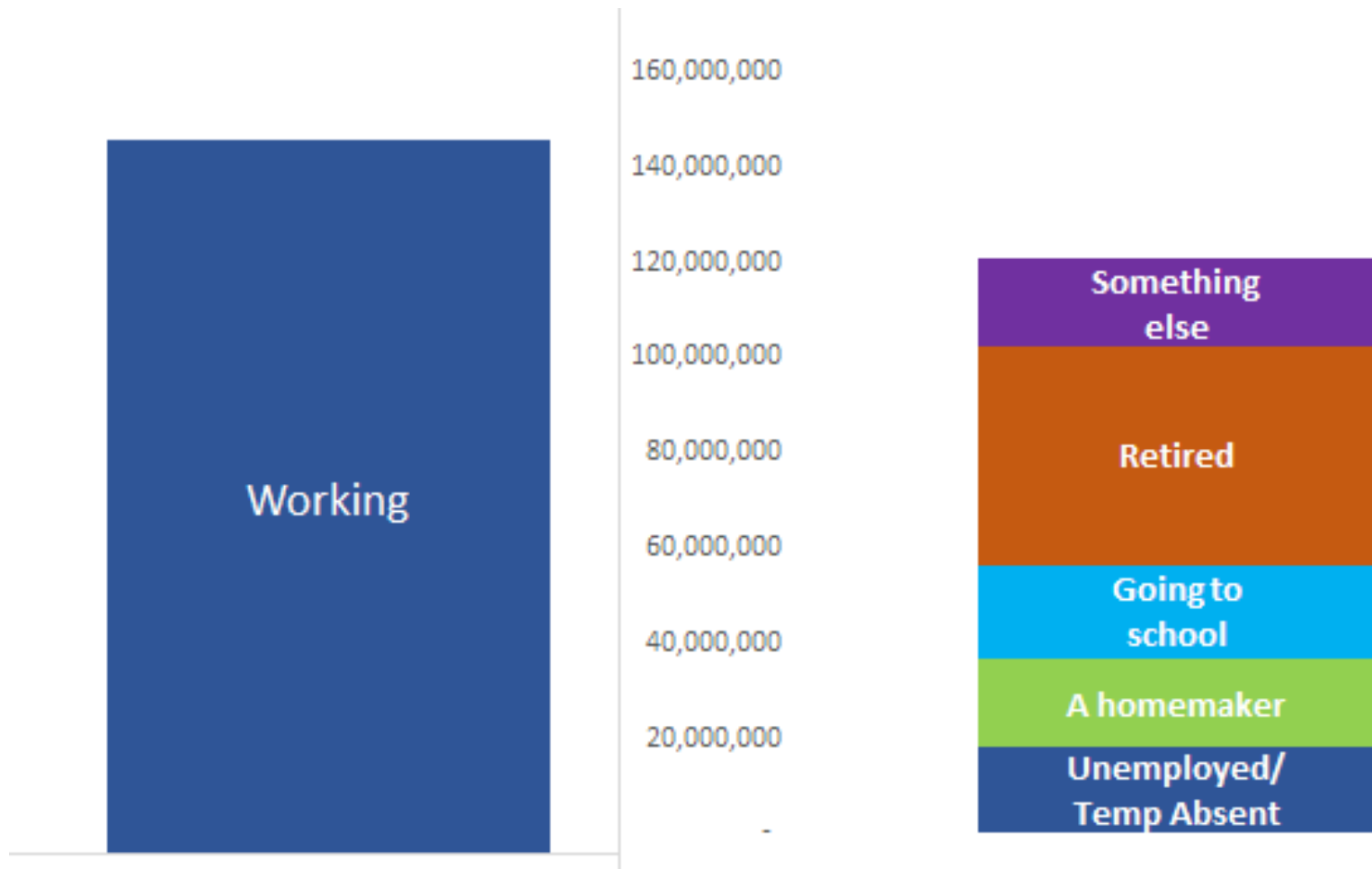
US Census Bureau, March 13, 2018

Jonathon Vespa, Release Number:

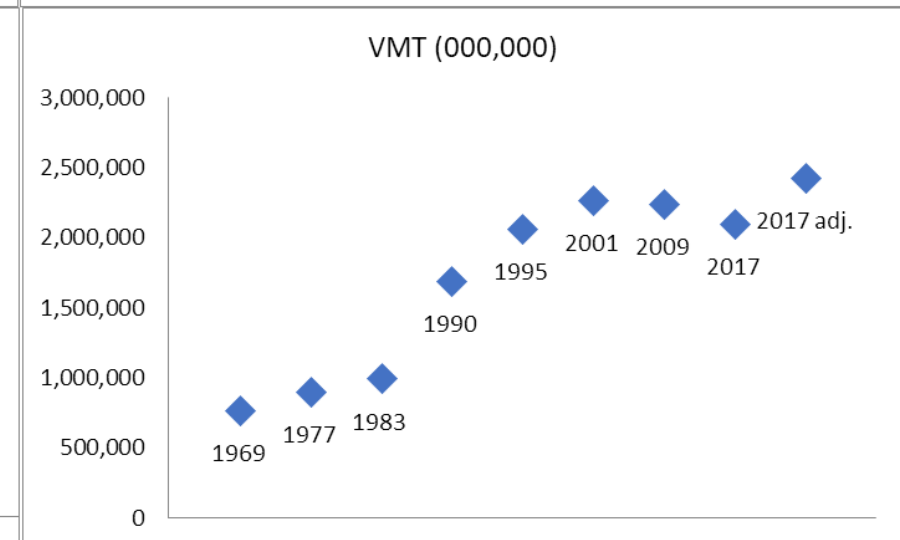
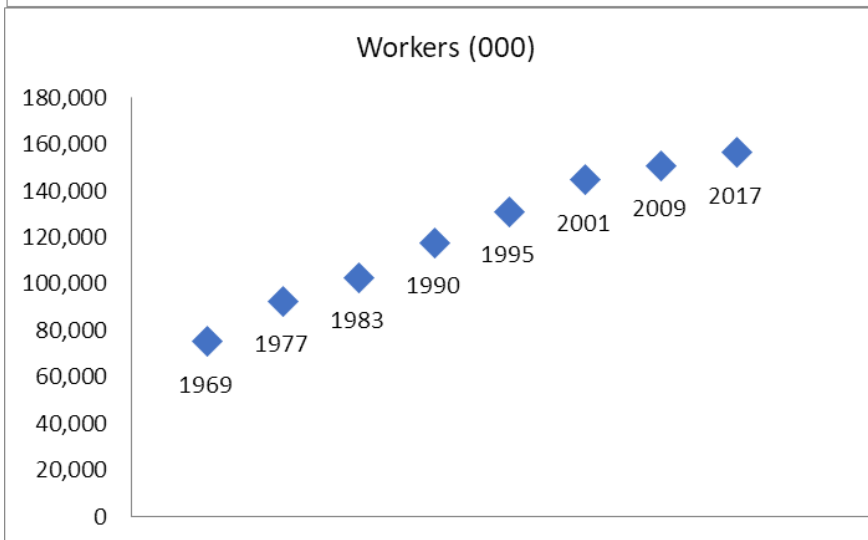
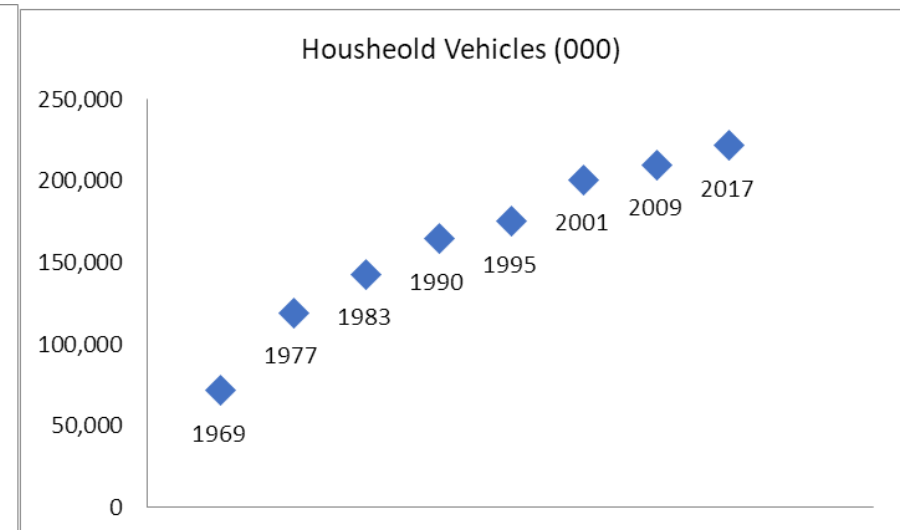
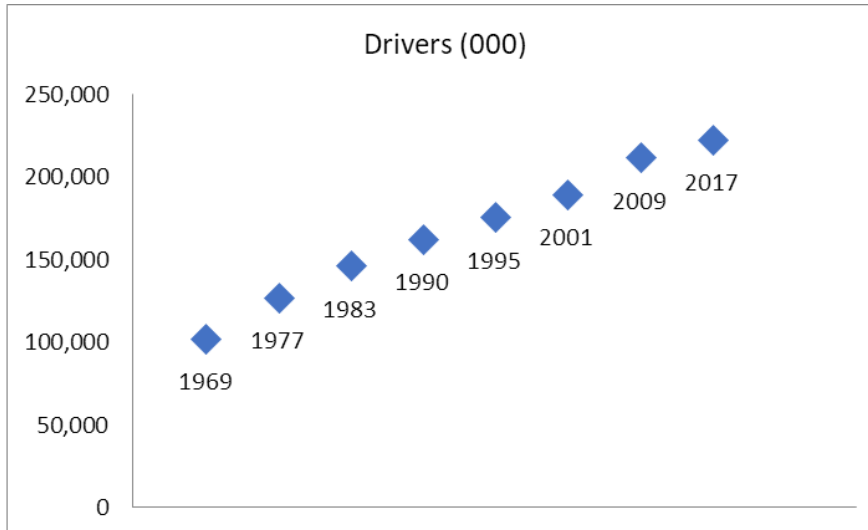
CB18-41

About 61.3 percent of the 2017 NHTS Sample Were Workers (BLS estimate is 60.4 in 2017)

Number of People aged 16+



Long term trends in other travel-related factors:

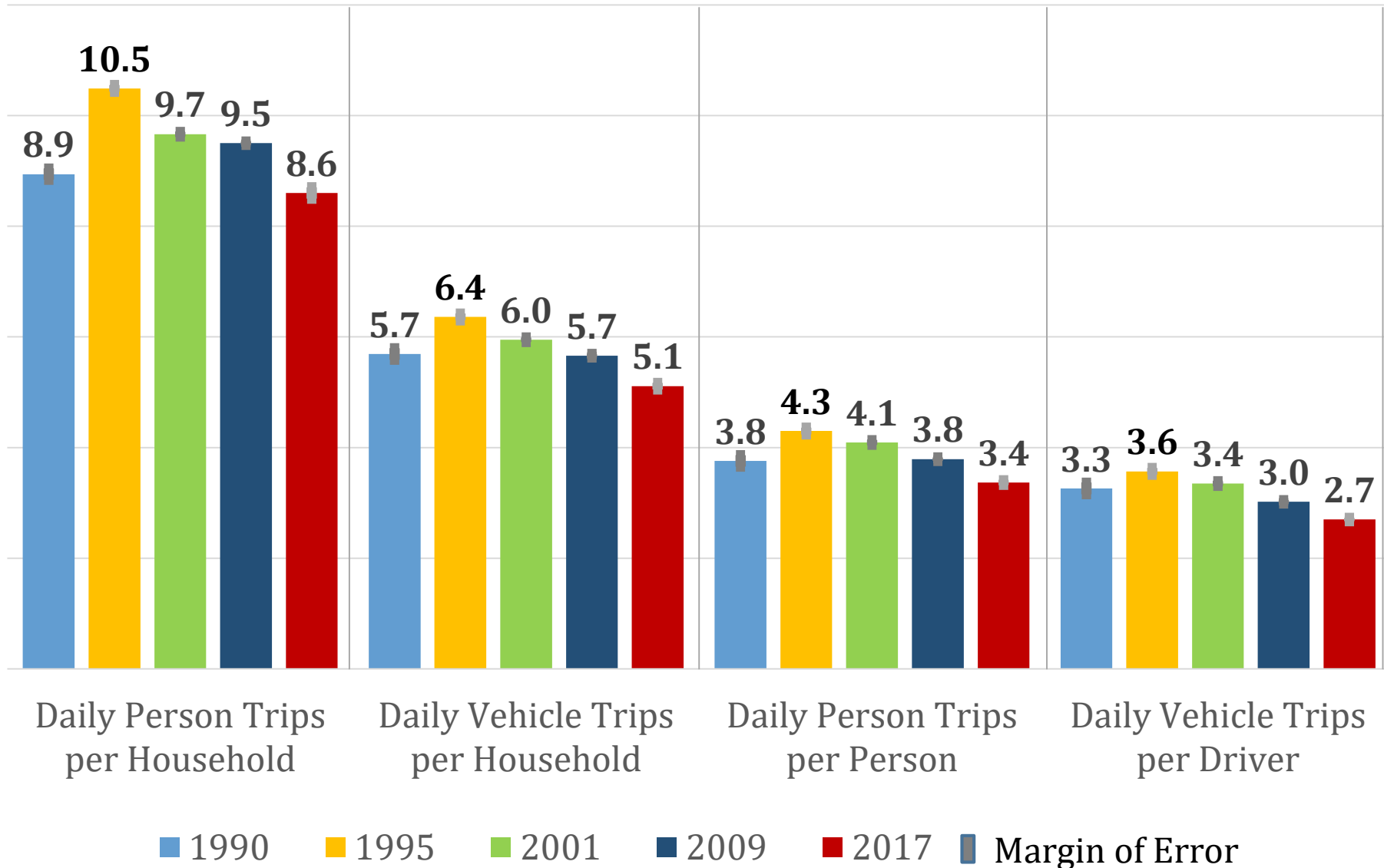


Measures of Travel

- Household Travel
- Person Travel
- Special Topics

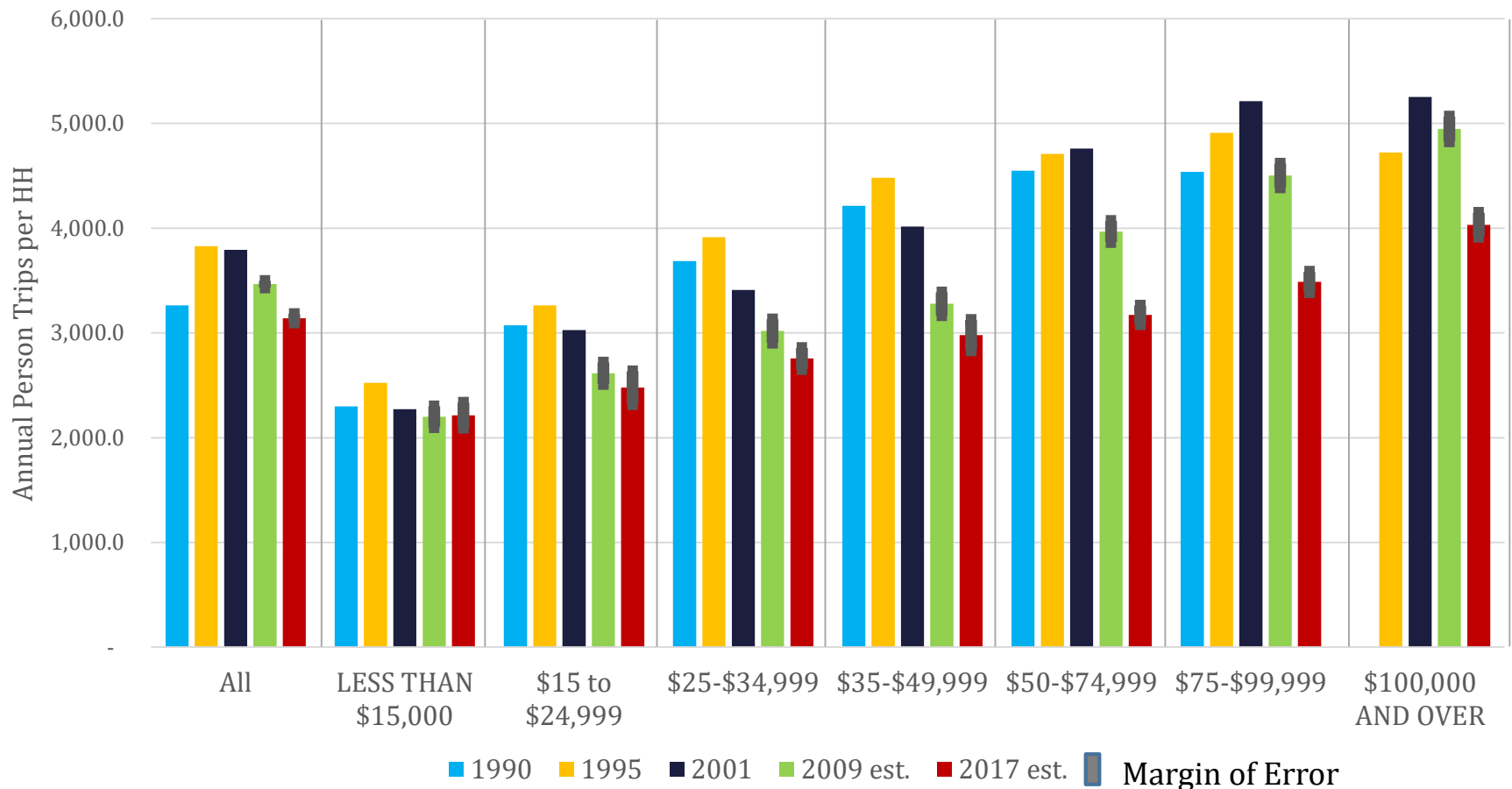


Trends in Household-Based Travel

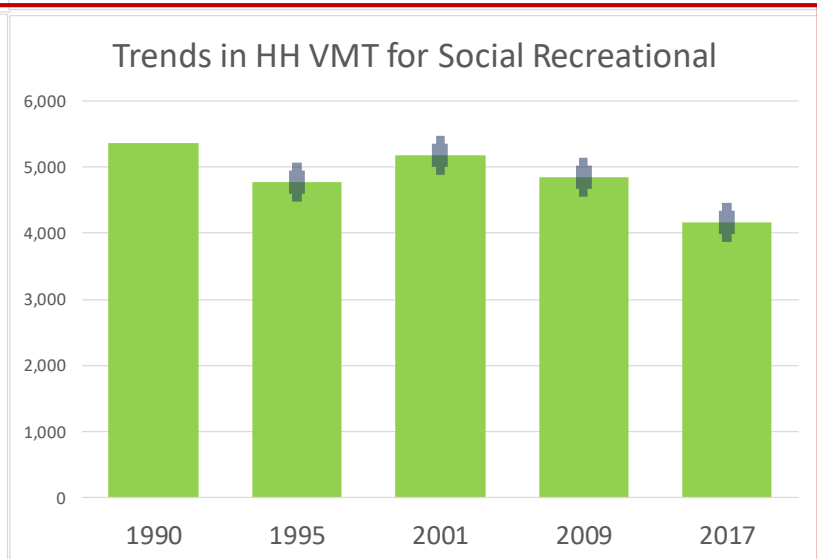
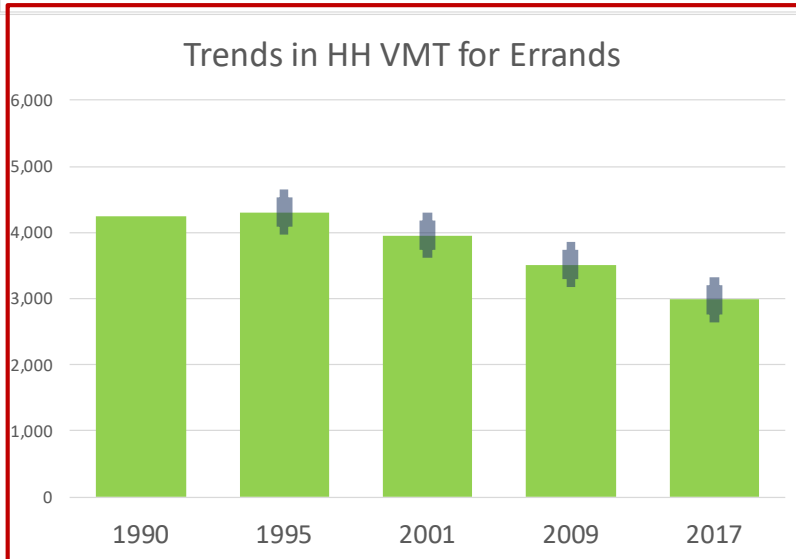
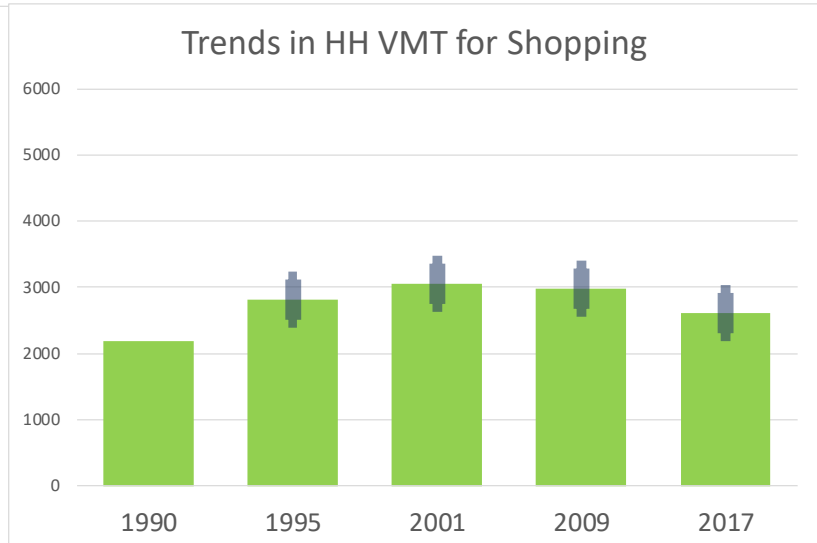
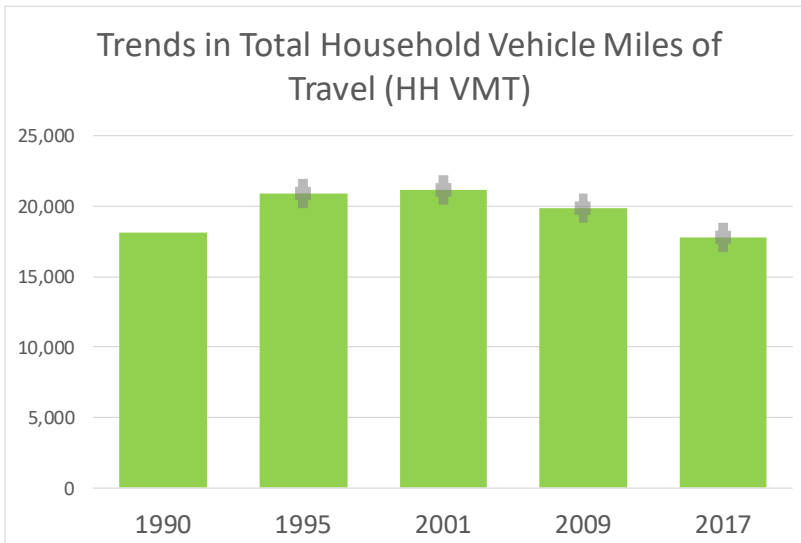


Middle- and higher-income households report lower trip making:

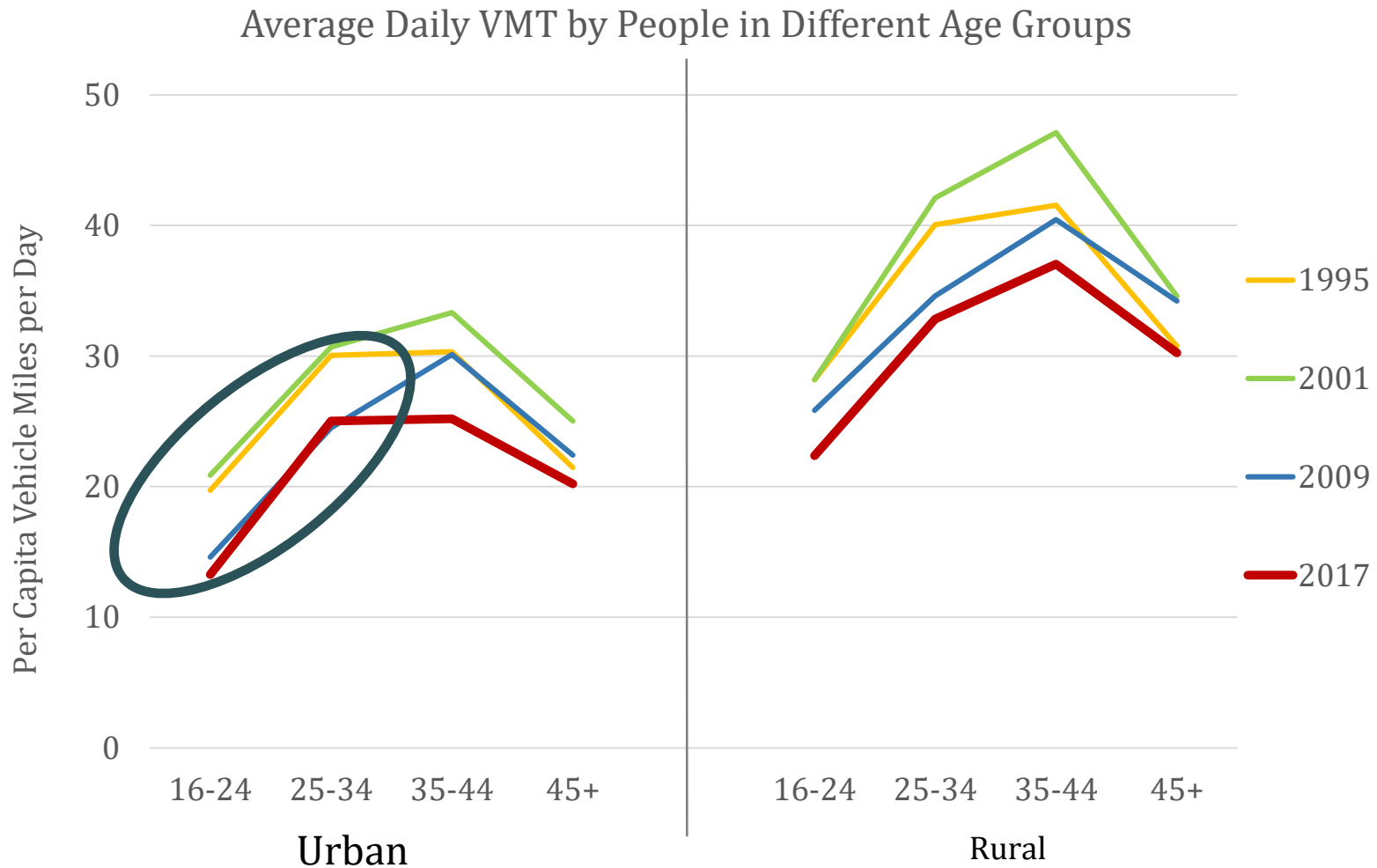
Trips per HH by HH Income



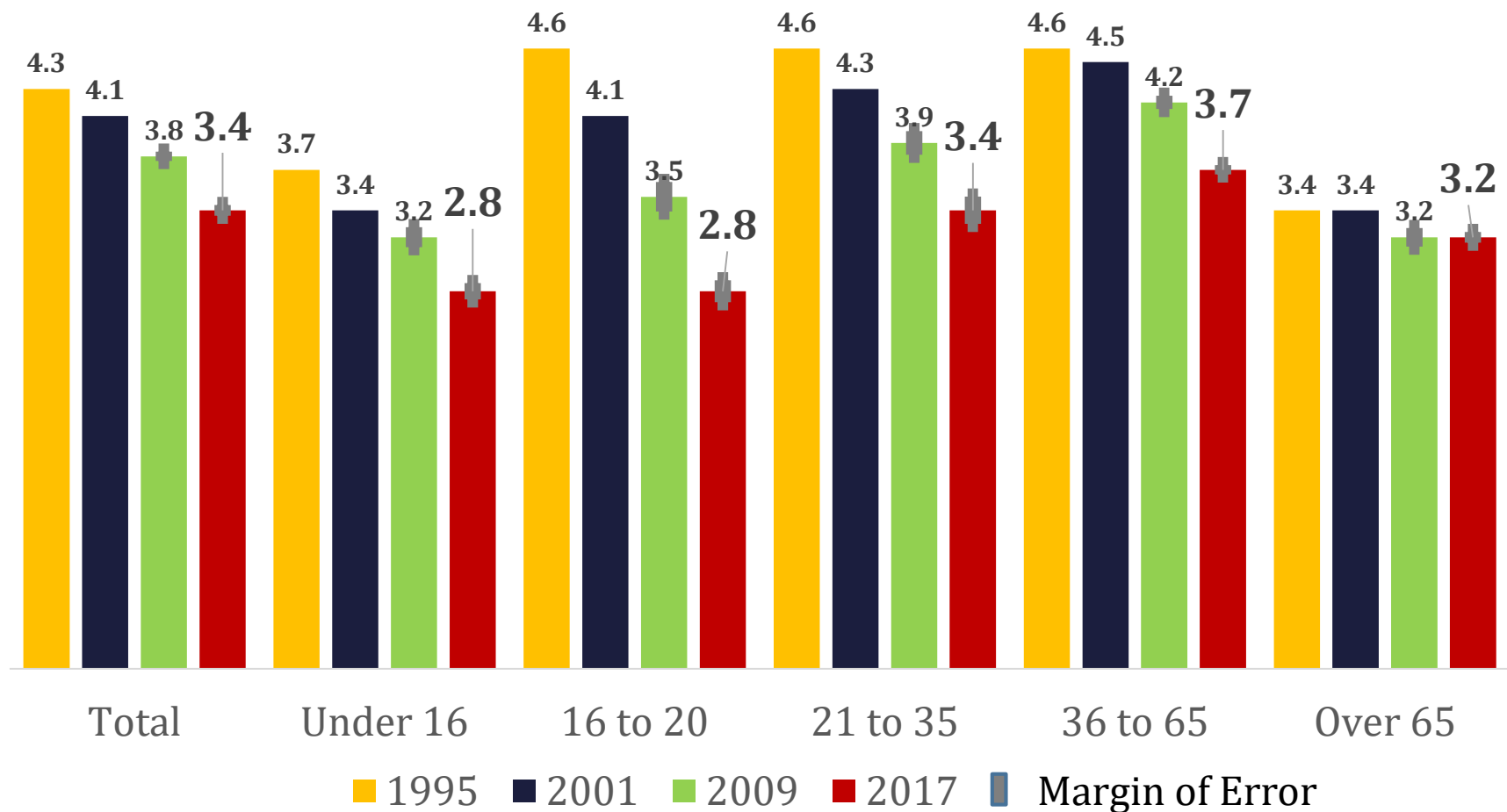
Household VMT trends show significant declines in errands and social/rec between 2001 and 2017:



VMT for the younger people (16-34) in urban areas was the same as 2009:



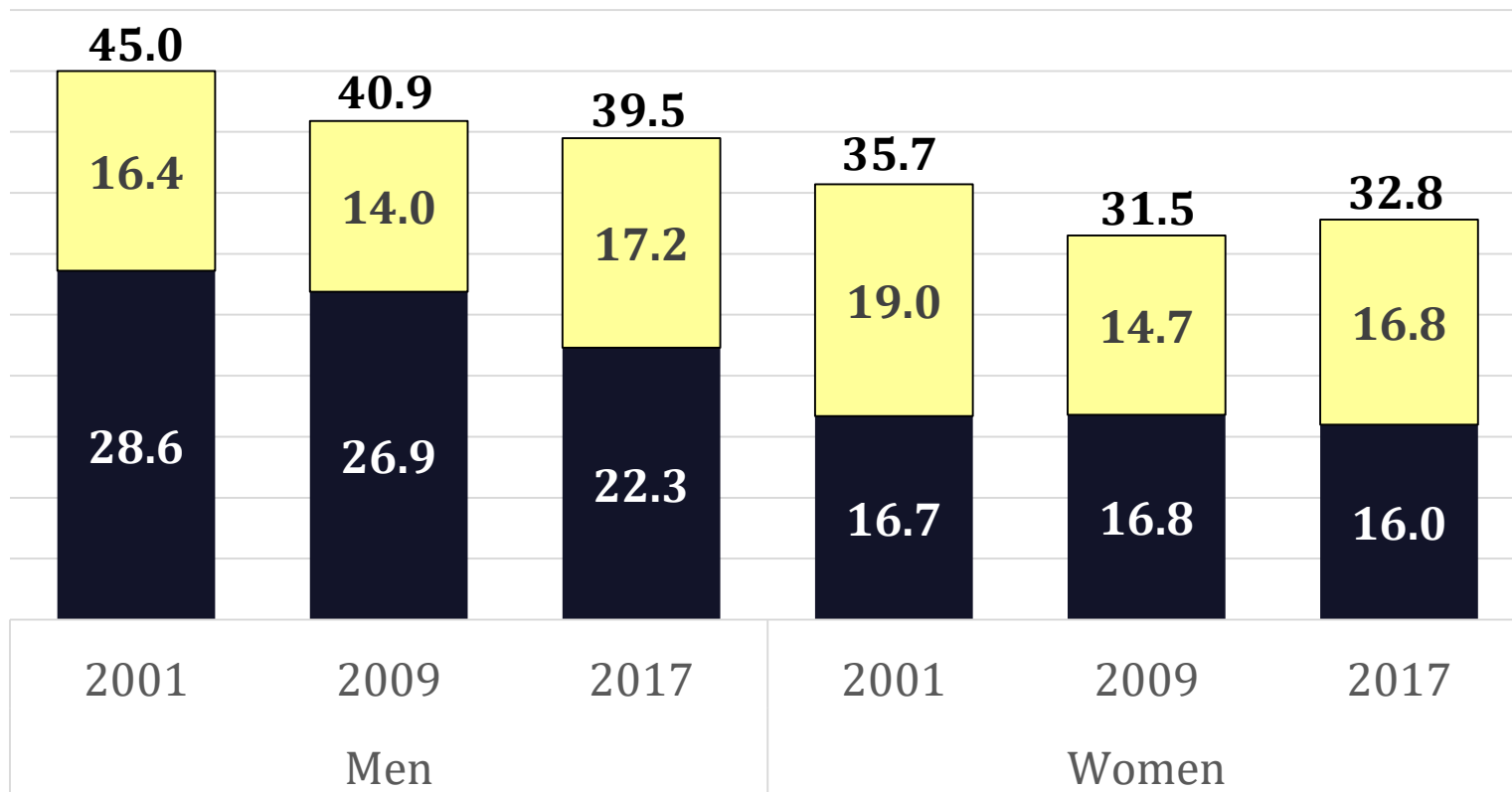
Since 1995, trip-making has declined significantly for all ages except over 65...



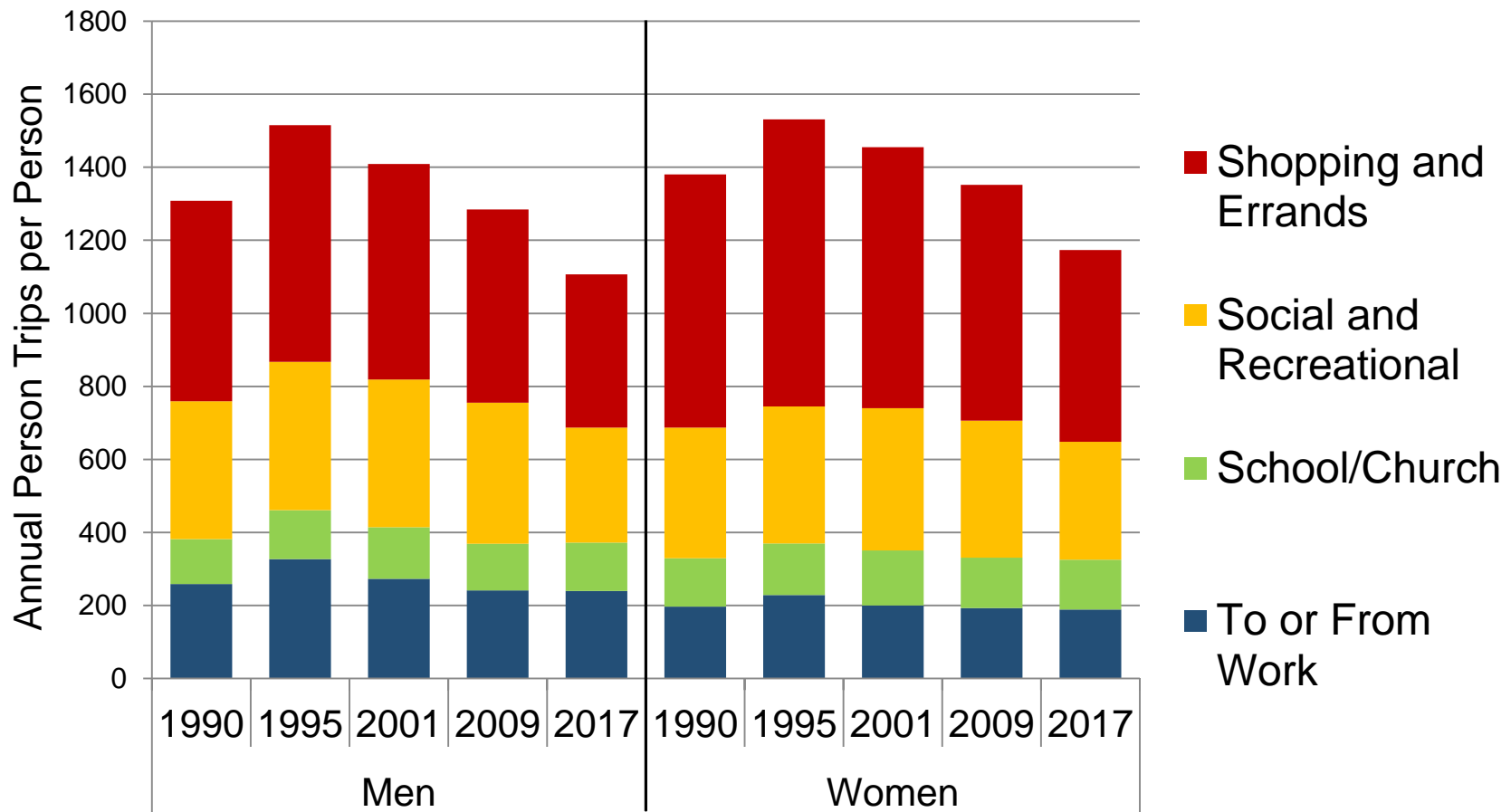
Trends in VMT and PMT by Gender

Trends in Vehicle and Non-Vehicle Miles of Travel per Day by Gender

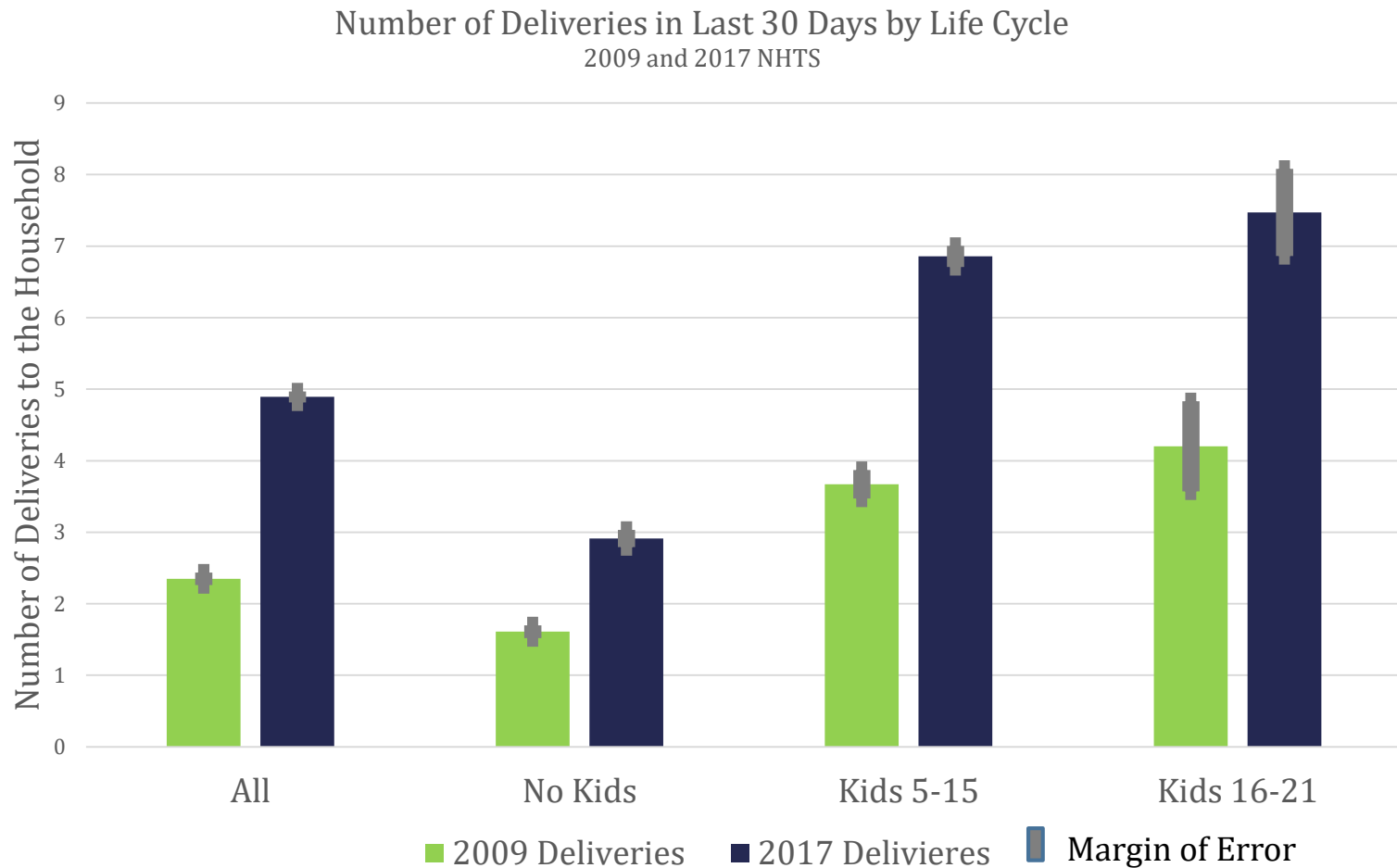
■ Vehicle Miles □ Non-Vehicle Miles x.x Total PMT/Day



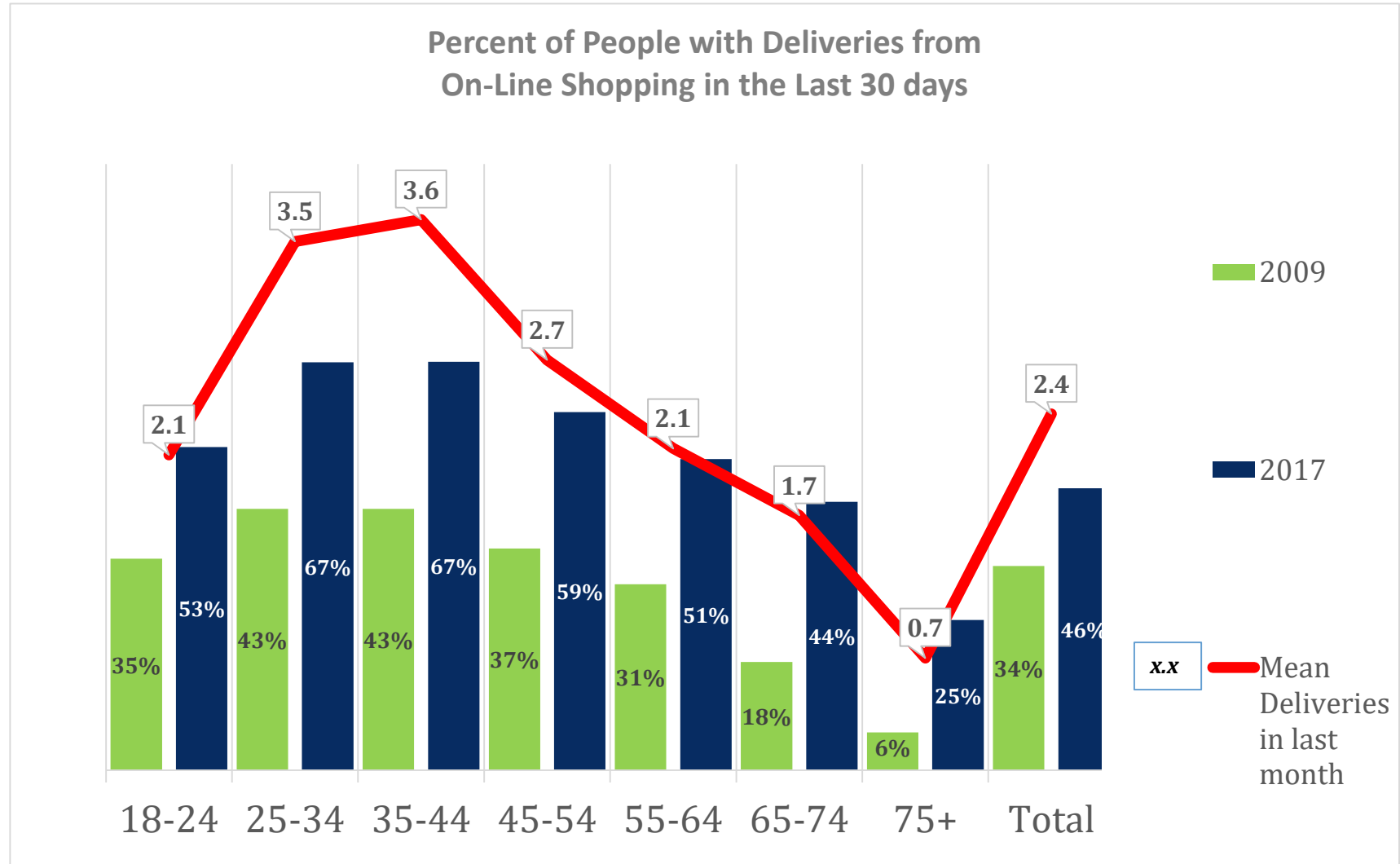
Men and women's travel rates have declined about the same amount:



The number of home deliveries to US households from on-line shopping doubled:

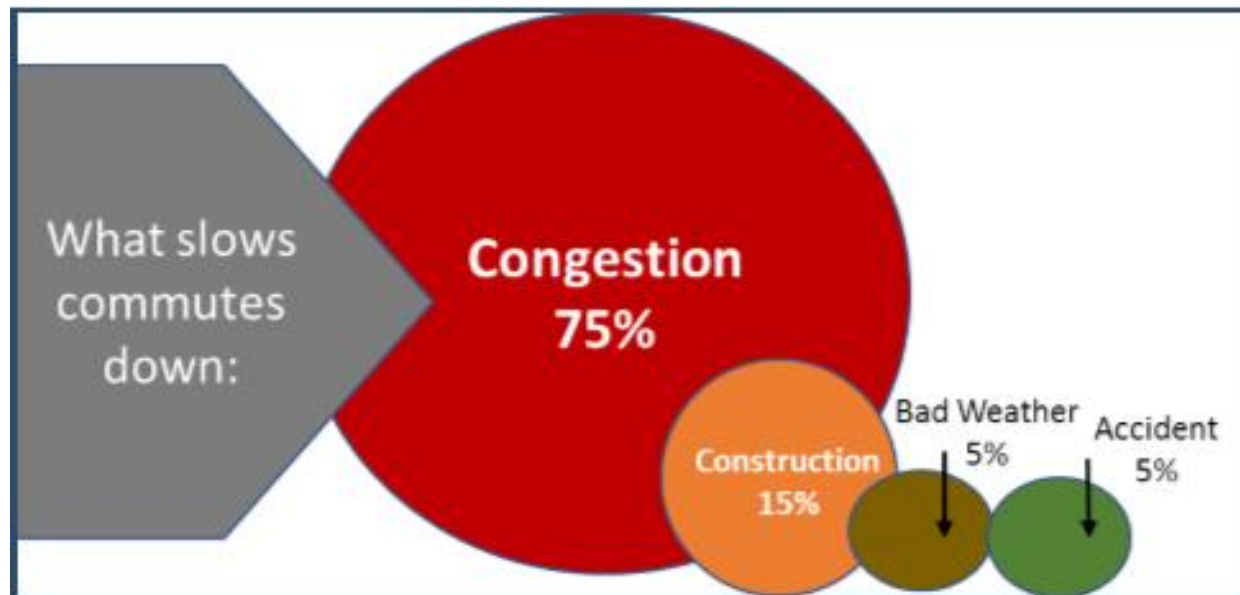


Everyone is shopping on-line more, and growth is notable in 65 and older:



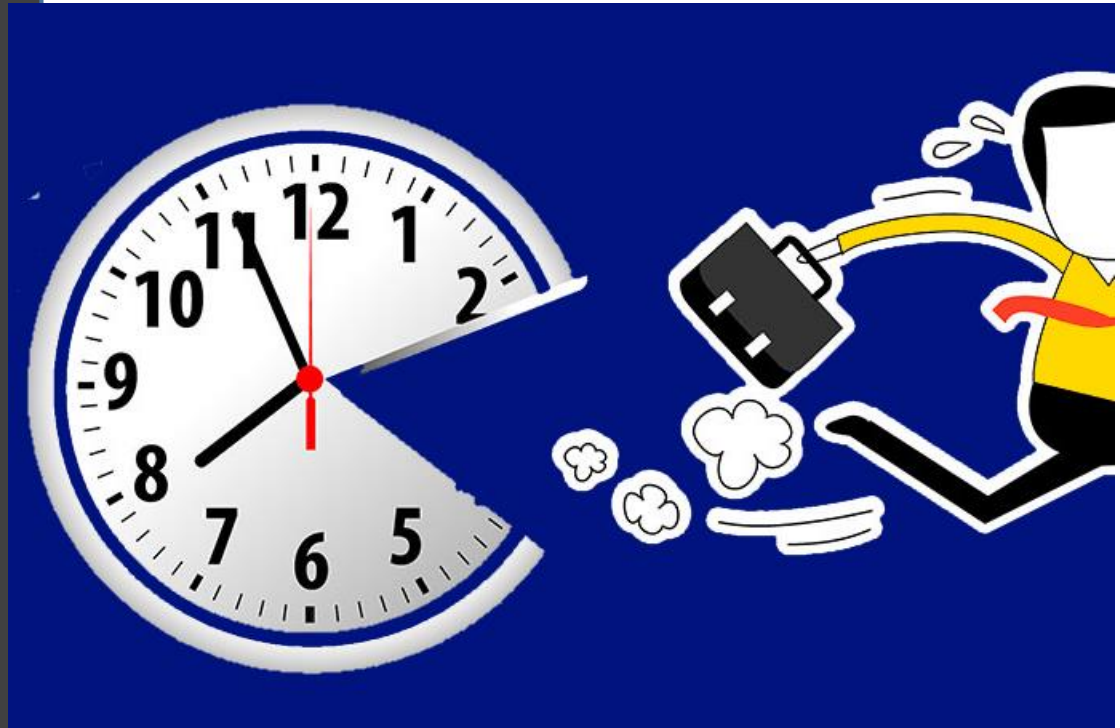
Other Topics

- Commute Travel
- Temporal Distribution
- Vehicle Use and Availability



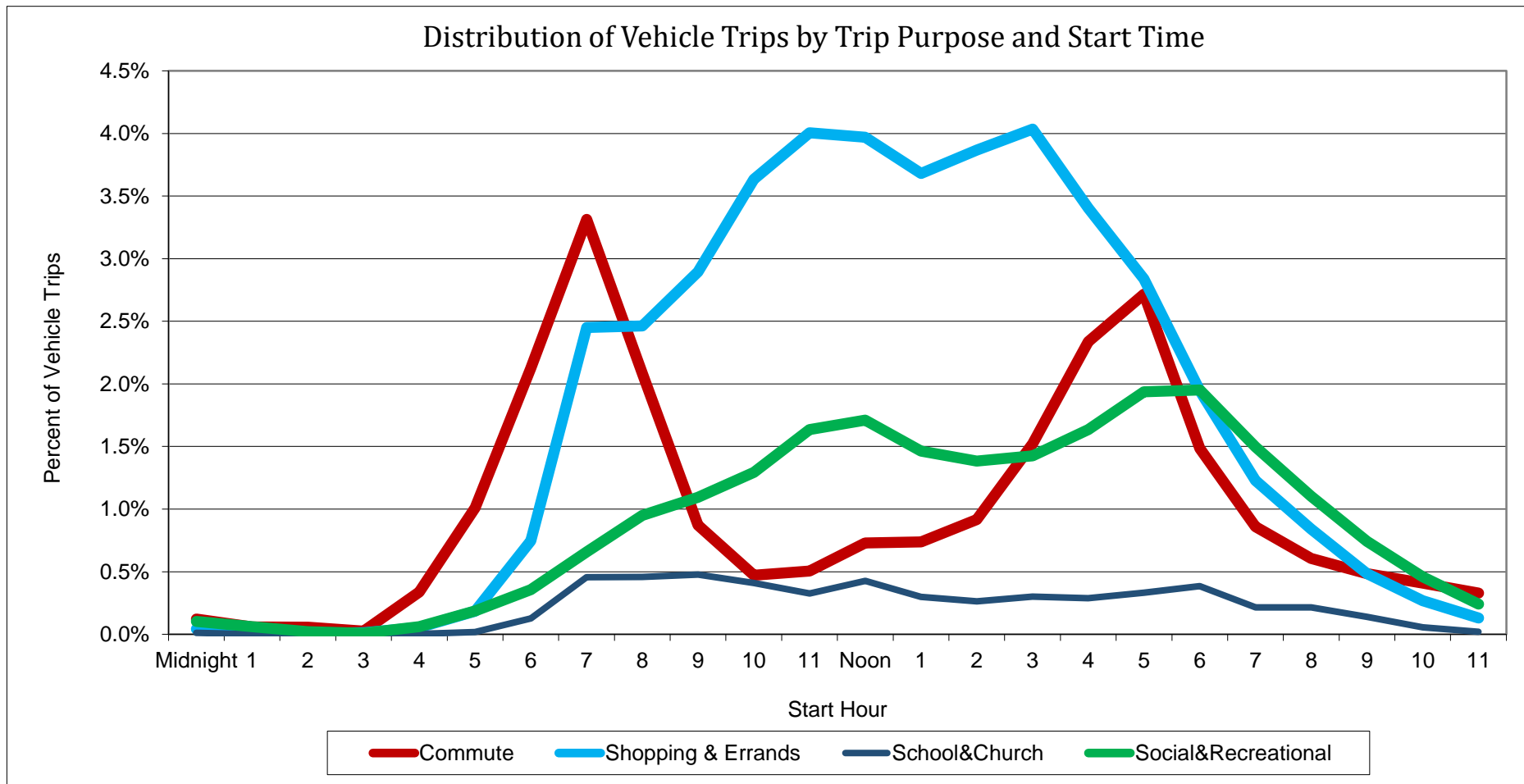
The average commute in 2017 took 27.5 minutes (one-way) compared to 24.2 minutes in 2009.

An average worker who travels to and from work five days a week spent 33 more minutes a week commuting in 2017 compared to 2009.



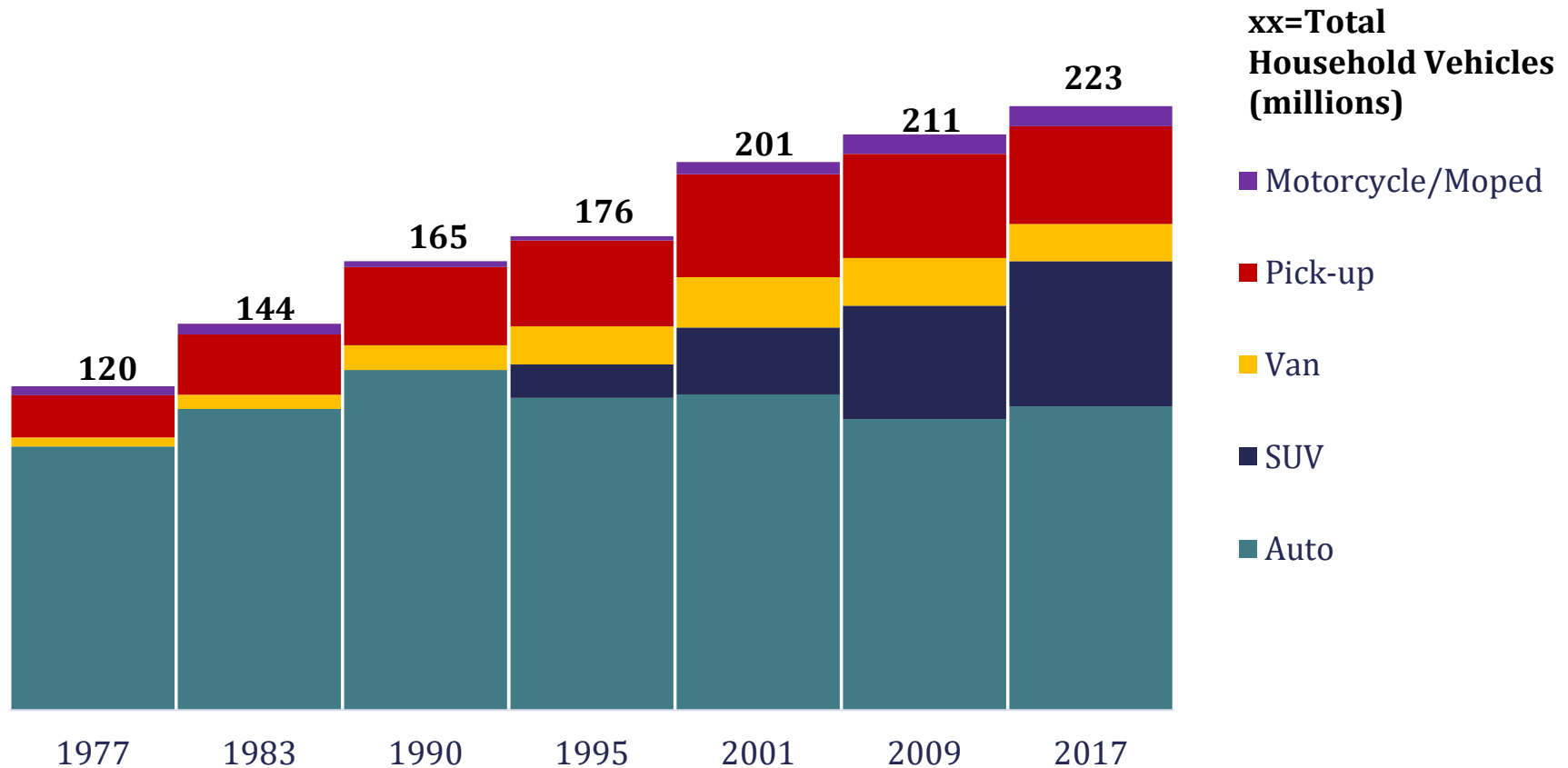
U.S. Department of Transportation, Federal Highway Administration, 2017 National Household Travel Survey. URL: <http://nhts.ornl.gov>.

No real signs of peak-spreading...the 2017 commutes are more peaked than previous



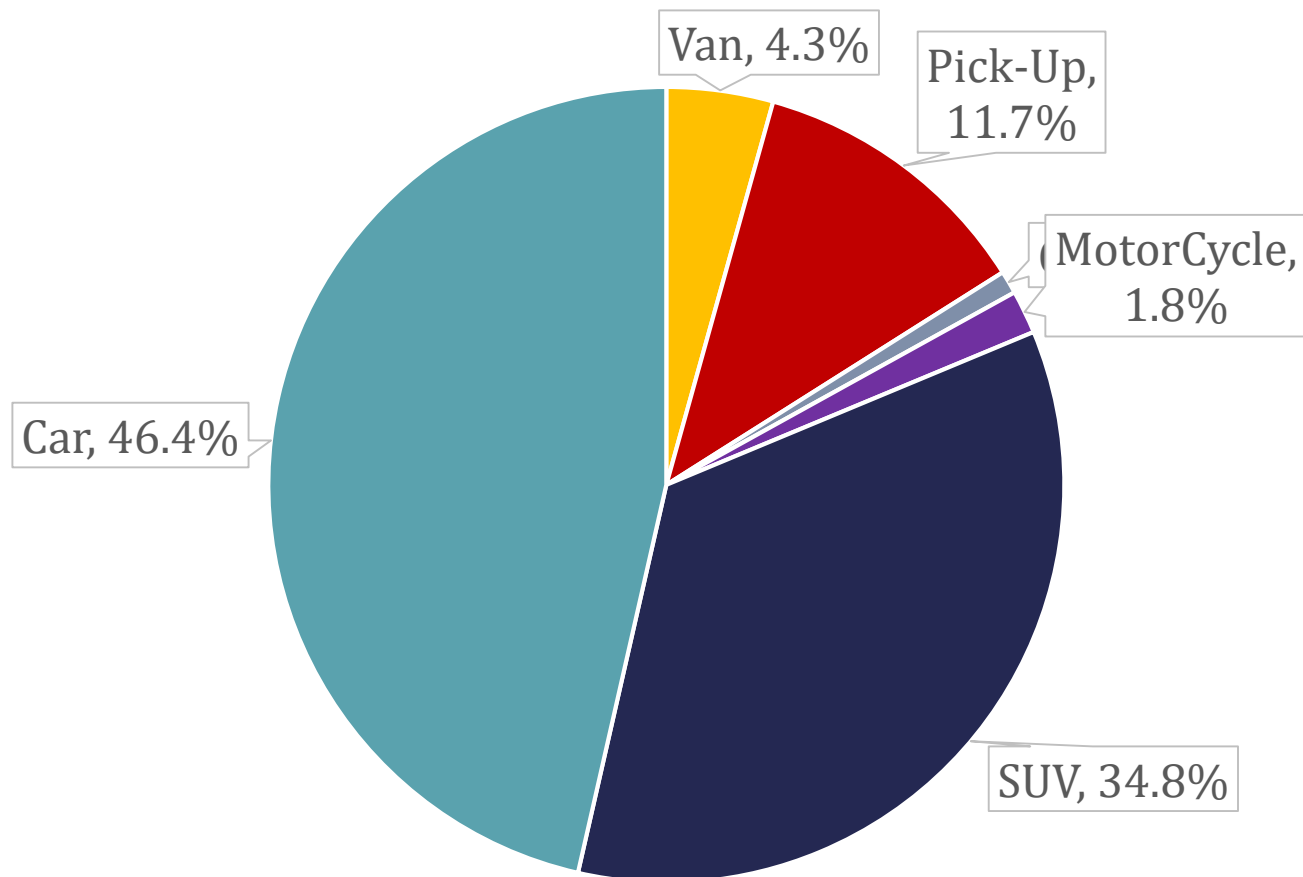
Autos are currently half the fleet, SUVs a growing share:

Number of Vehicles by Type, in millions



Newer vehicles are less likely to be autos:

Distribution of Newer Vehicles by Vehicle Type
Vehicles 2 Years Old or Newer



Thank you!

Questions? Comments?