Travel Behavior Inventory 2019
Household Travel Survey

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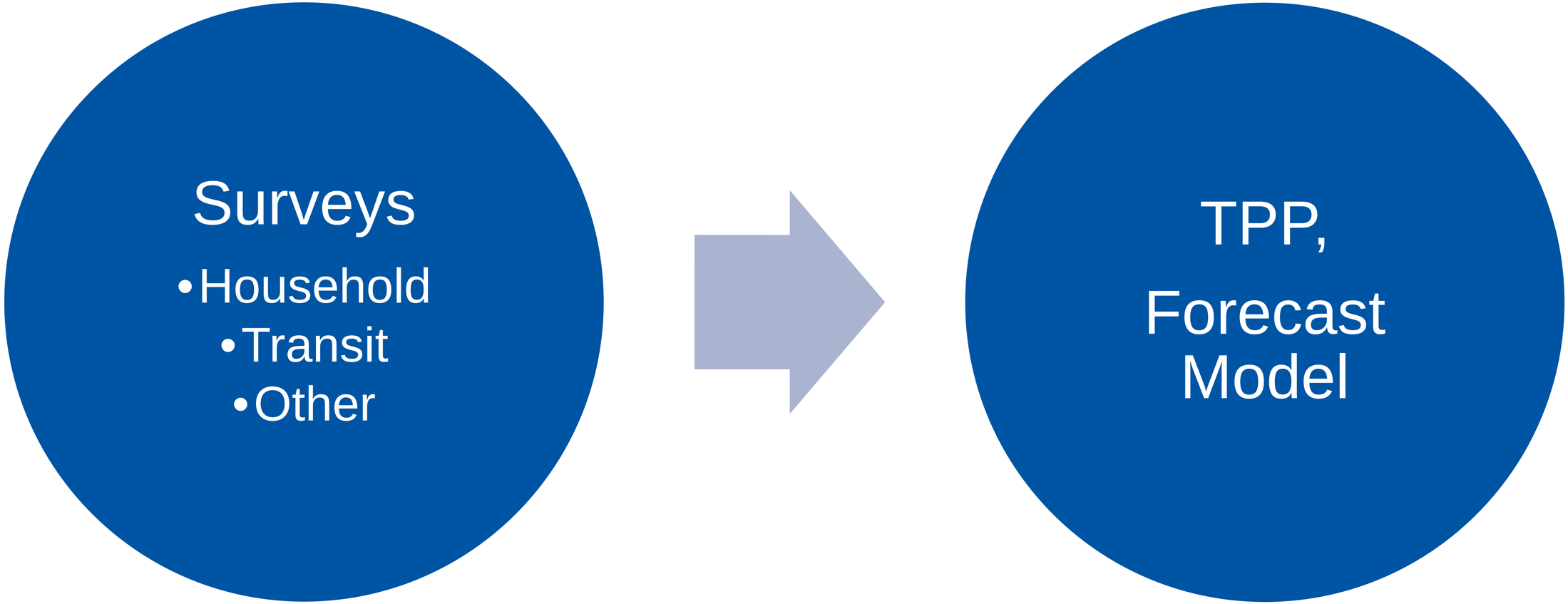
Travel Behavior Inventory



What determines how and how much we travel?

Household

- Size
- Structure
- Income
- Location

Work

- Number of workers/jobs per HH
- Location

School

- Number of students per HH
- Location

Personal

- Age
- Vehicle Availability
- Schedule

Location

- Land Use
- Transportation System

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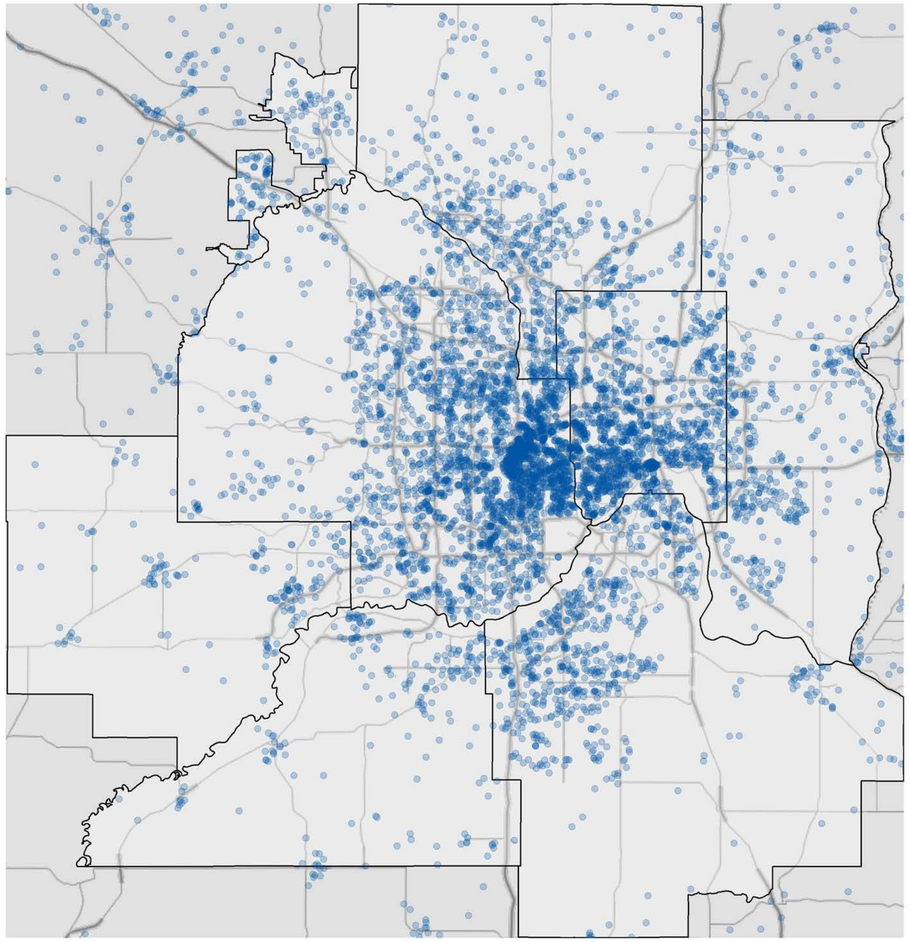
Households surveyed: 7,870



- October 2018-October 2019
- 7,870 households surveyed
- 5,366 responded using smartphone app (for one week)
- 2,504 used a one-day diary survey

- 58% Urban, 23% Rural or Rural-Ring
- 23% rent their home, 75% own
- 7% with no vehicle

- Total of 16,222 people (2.1 people per household)

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Trips taken: 350,638

- 81,468 trips to work
- 15,875 trips to the grocery store

- Three trips to play Bingo
- One trip to play organ at a wedding
- One hike up Machu Picchu
- One “errand” to the Cayman Islands

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Why we travel

- 40% Maintenance trips
  - Trips for healthcare
  - Shopping (grocery, pharmacy, household items)
  - Errands
  - Picking up & dropping off family members
- 29% Social/Recreational
- 24% Work
- 5% + for School

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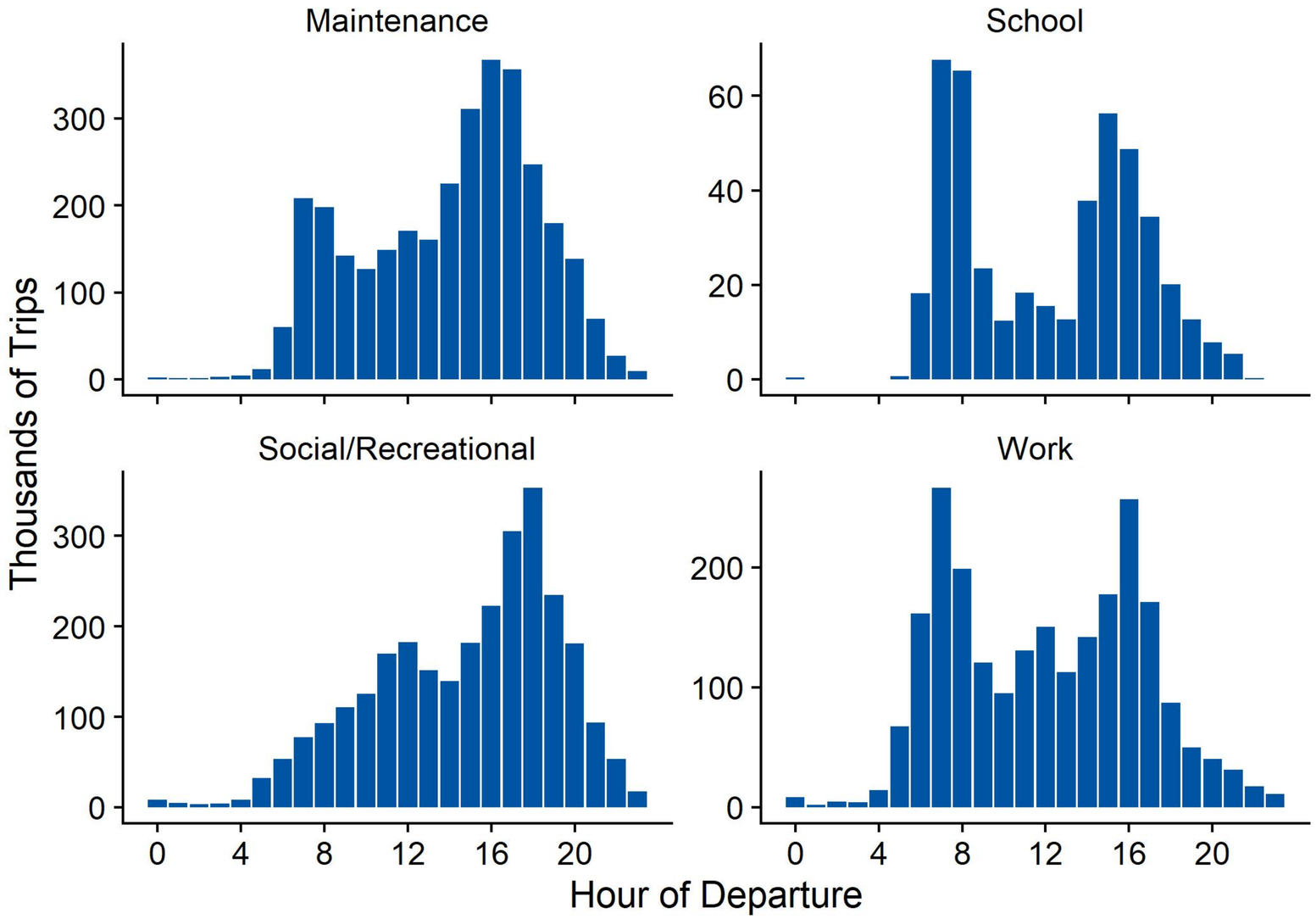
Travel behavior across the day



- Trip timing depends on the traveler and purpose
- Maintenance travel (e.g., errands, trips to grocery stores) peaks in morning and early evening
- Social travel peaks later than maintenance travel

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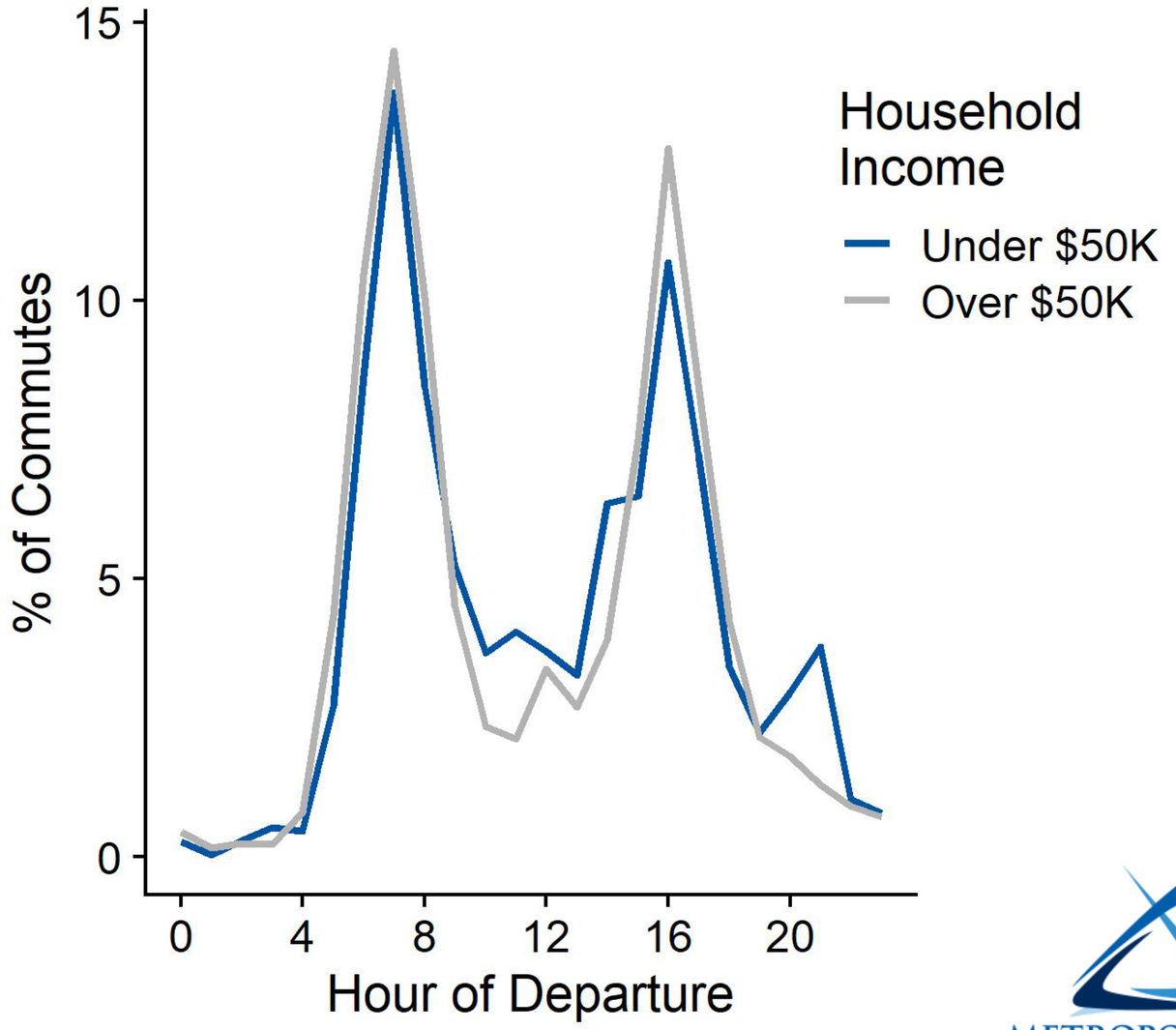
Income affects when people commute

- Workers from **higher-income** households are more likely to commute during peak rush hours

- Workers from **lower-income** households have more commutes in the middle and end of day (shift work)



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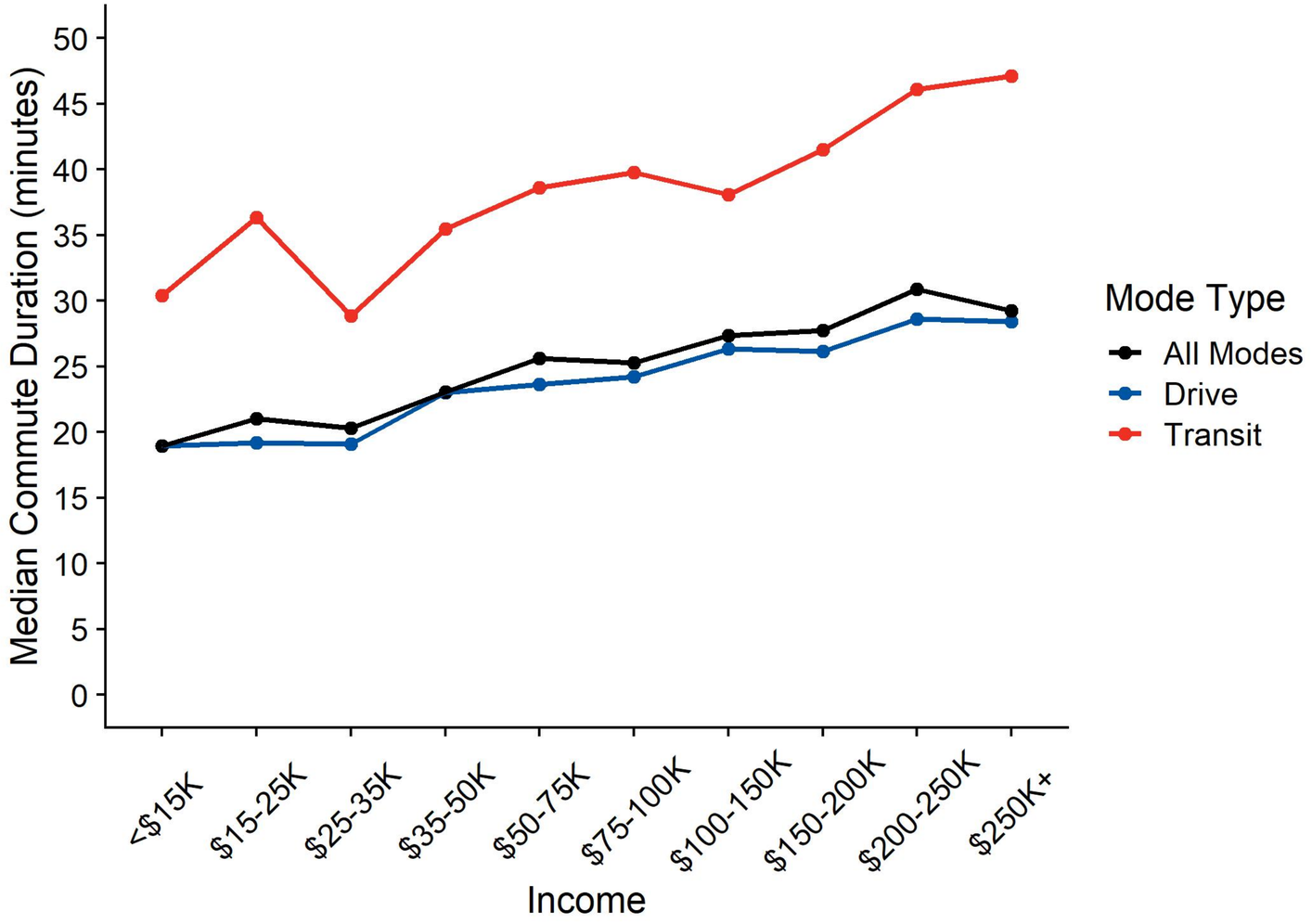
Work commutes vary with mode and income



- Median work commute time in the Metro: 9.2 miles, 26 minutes
- Median commute time for transit (39 min) is 56% longer than for driving (25 min)
- Median commute duration increases slightly as income increases for all modes (consistent with Census data)

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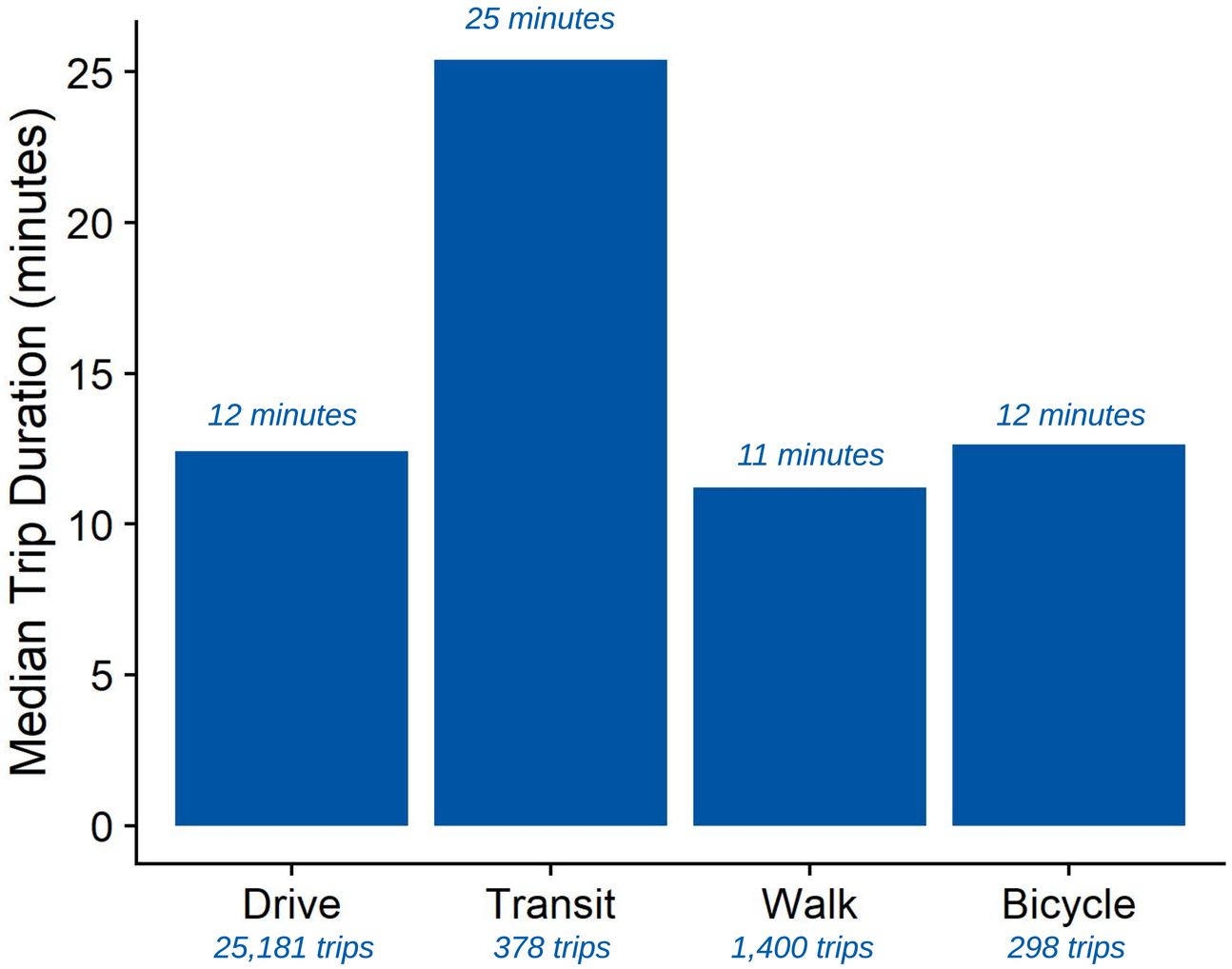
Getting to the grocery store



Average number of trips between home and grocery/pharmacy:

- 1.4 per household on a typical weekday
- 0.5 per person on a typical weekday
- 7 per household per week (7-day survey)
- 4 per person per week (7-day survey)

Of those who took transit to the grocery store, **18%** were African-American, compared to **3%** of those who drove, **9%** of those who walked, and **3%** of those who biked.

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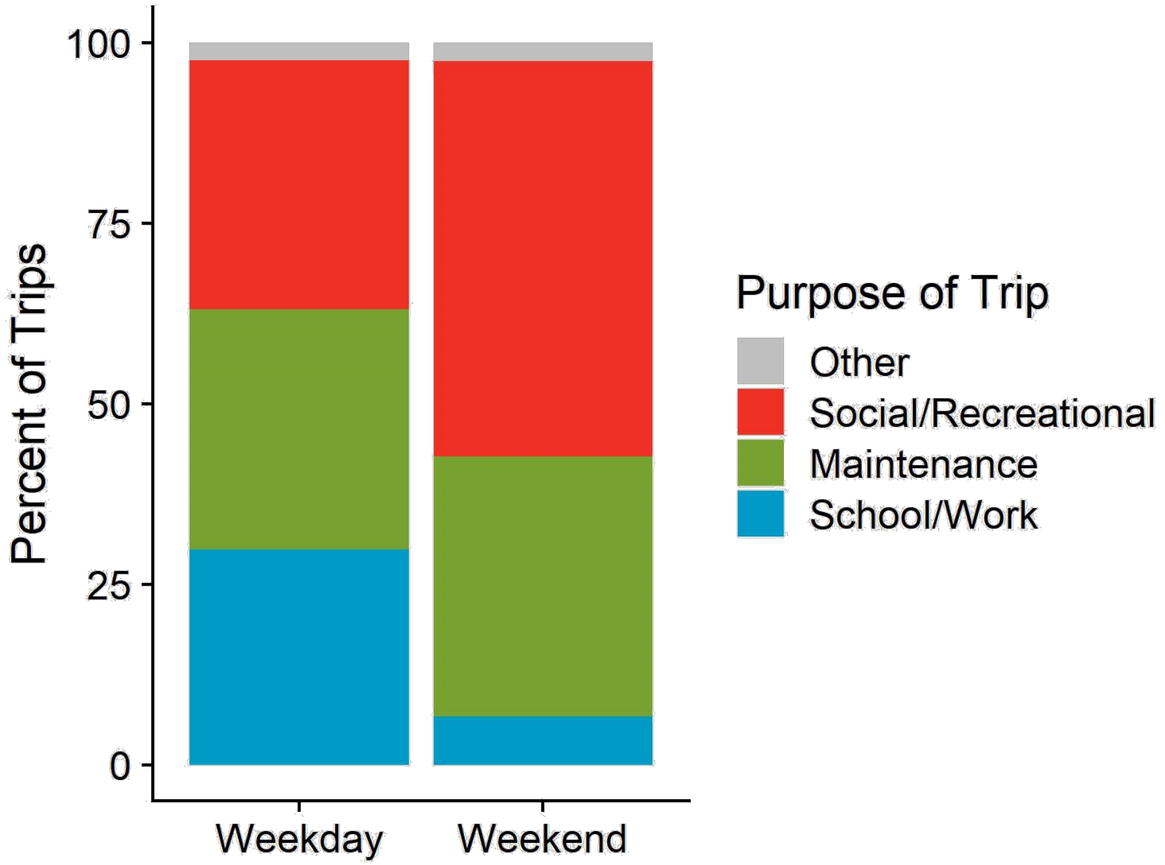
Weekend travel differs from weekday

47% of people, and 30% of households in the survey reported traveled for 7 consecutive days (average: 4.7 days per person, 4.1 days per household)

Relative to weekdays, weekend travel has:

- a greater share of trips for social/recreational purposes
- lower share of trips for school and work,
- similar share of trips for household maintenance



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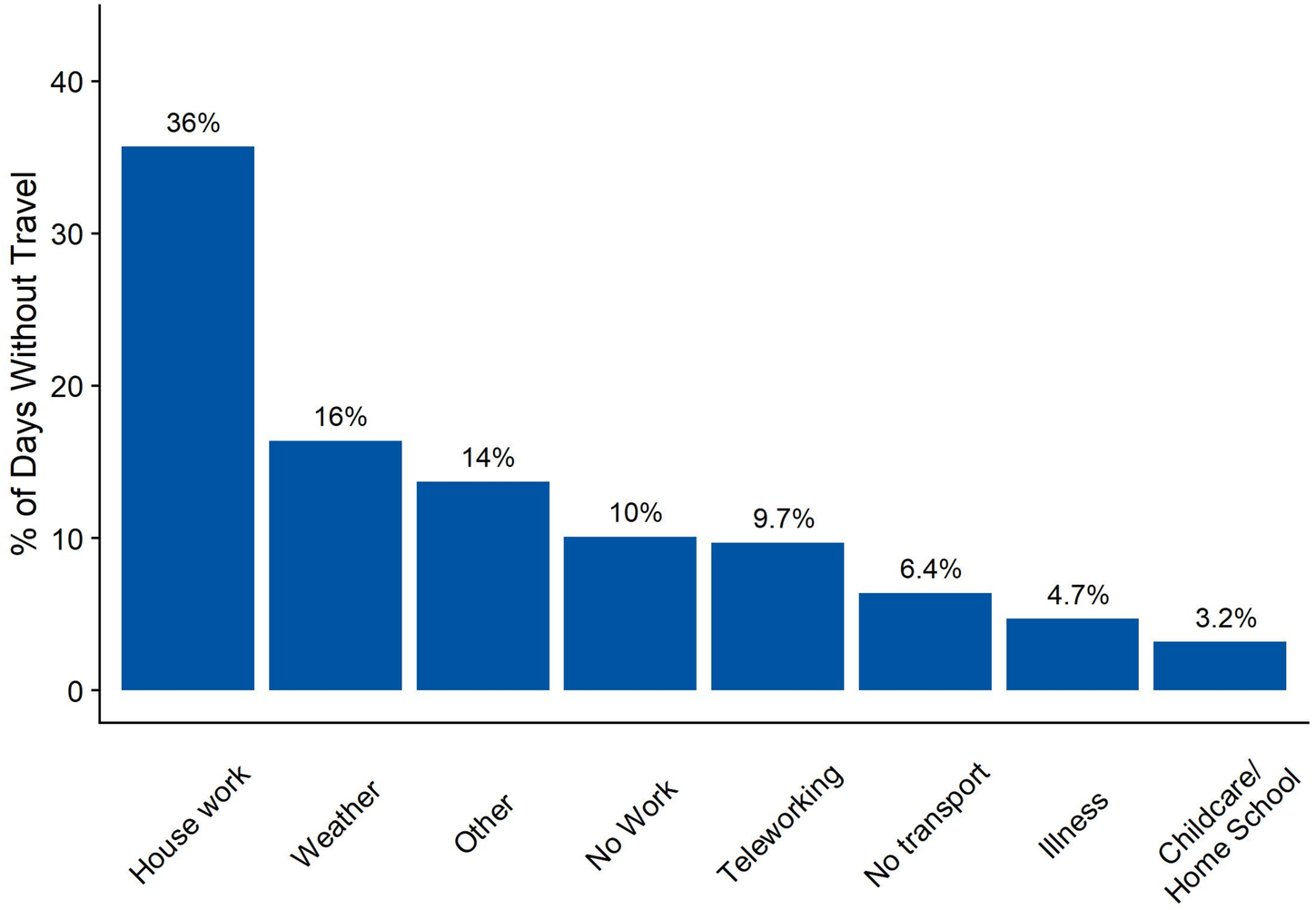
Trips not taken: days without travel



On a typical weekday in the Metro, **17%** of people do not travel. Why?

- **36%** were doing housework (48% female; 45% male)
- **3%** were taking care of children (52% female; 37% male)
- **16%** because of weather (78% in Jan/Feb 2019)
- **10%** were working remotely
- **6%** lacked transportation

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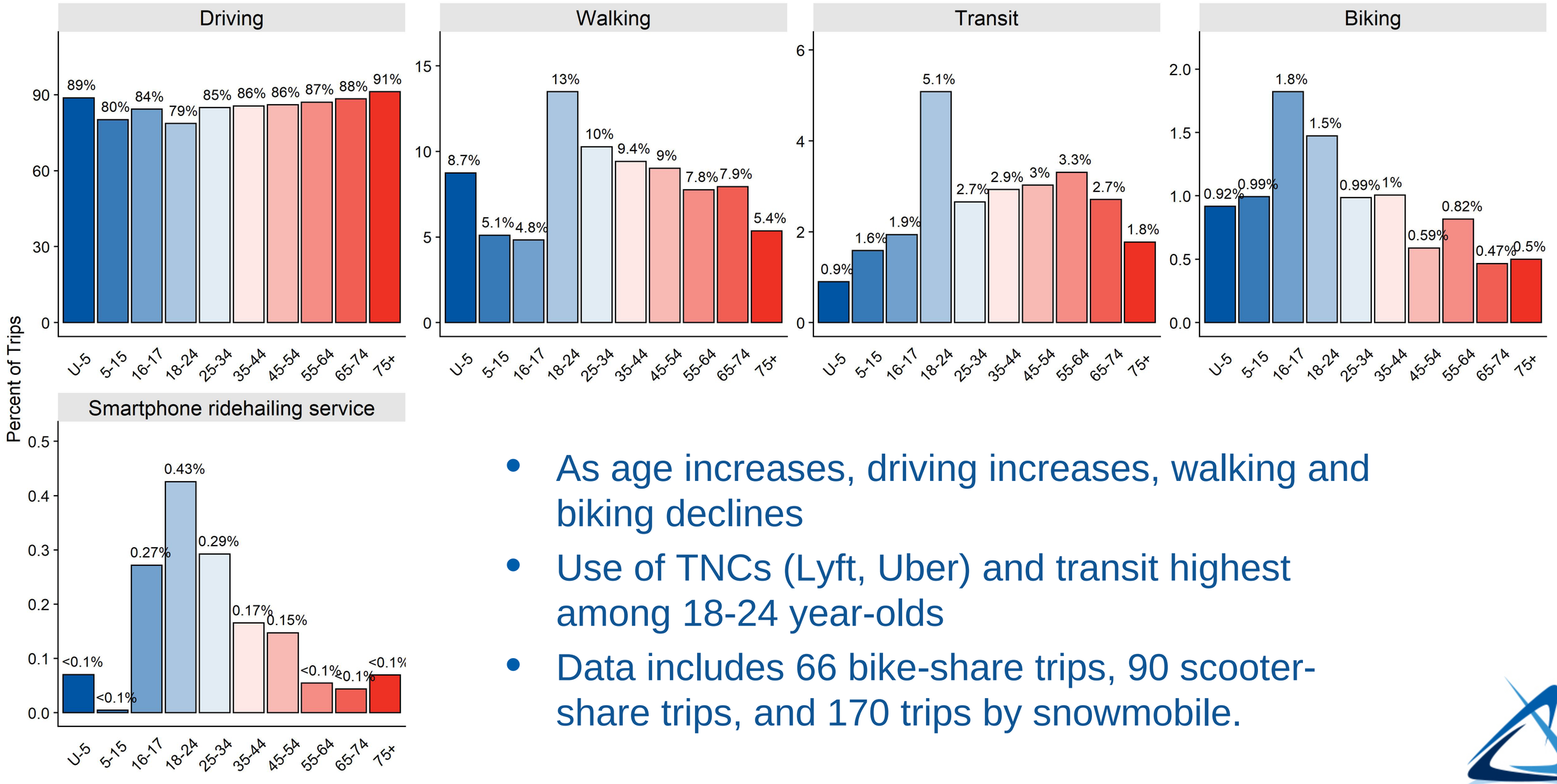
Age associated with mode choice



- As age increases, driving increases, walking and biking declines
- Use of TNCs (Lyft, Uber) and transit highest among 18-24 year-olds
- Data includes 66 bike-share trips, 90 scooter-share trips, and 170 trips by snowmobile.

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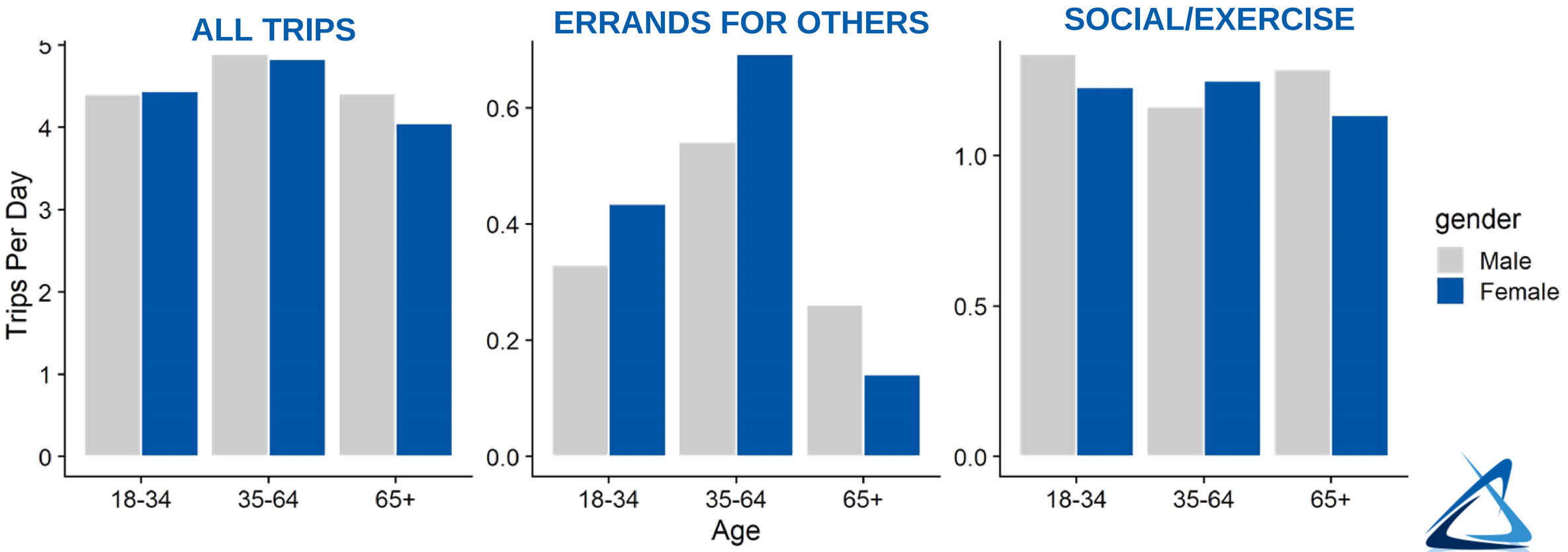
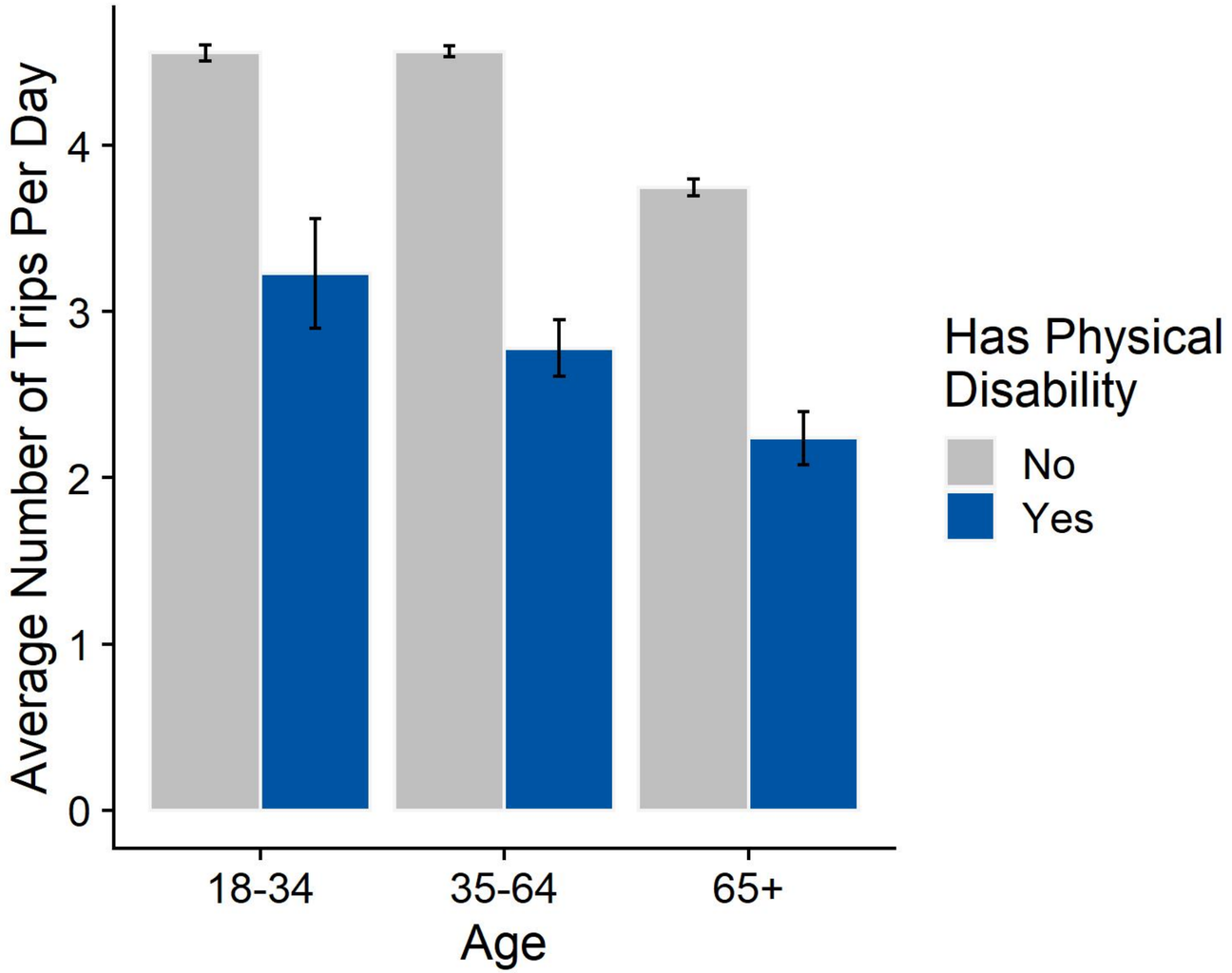
Travel behavior differs for men and women

Relative to men of the same age, women under 65 take more trips to serve their family or transport others to and from school/appointments, and fewer trips for work.

Women 65+ take fewer trips relative to men 65+.



Disabilities affect travel



- 487 Metro residents (3.6%) surveyed have a disability that affects travel outside the home
- Relative to people without a disability, people who have a disability take fewer trips

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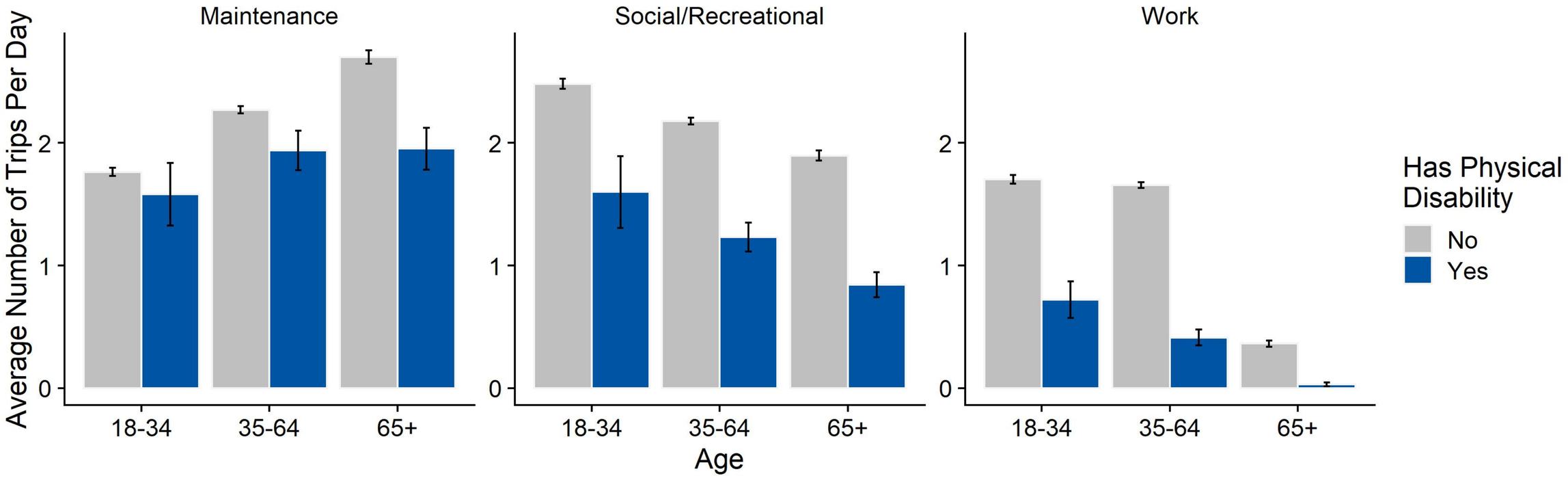
Disabilities affect travel

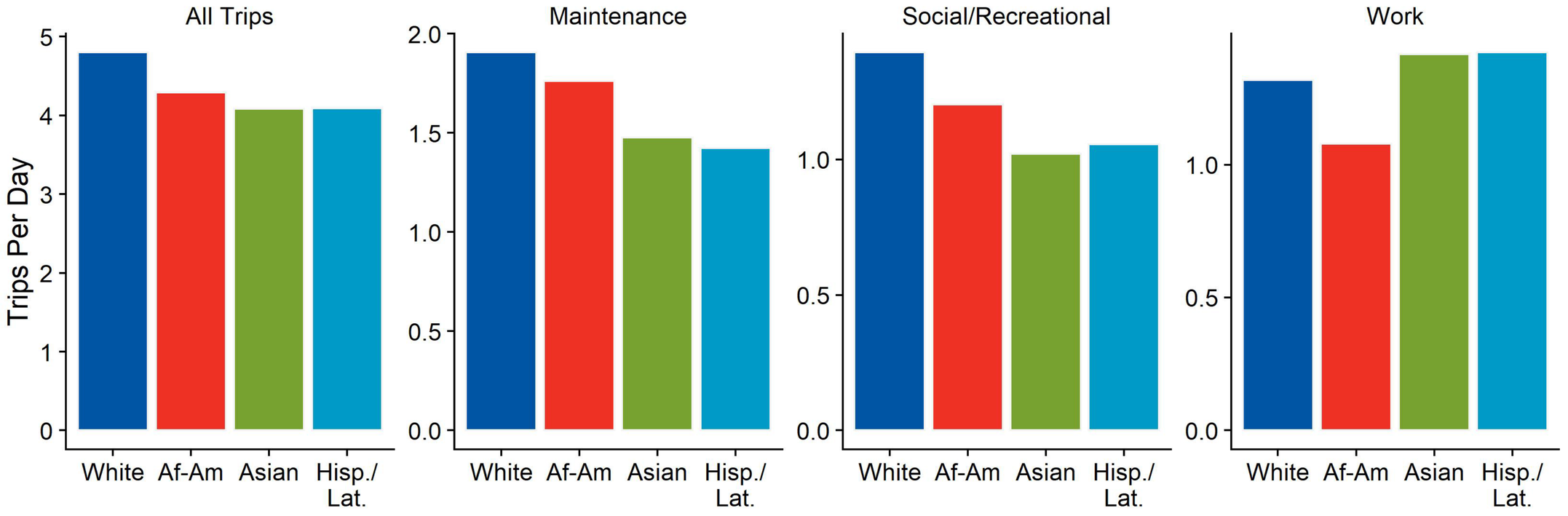
Disability-related disparities in travel are greatest for work and social travel, and for older adults



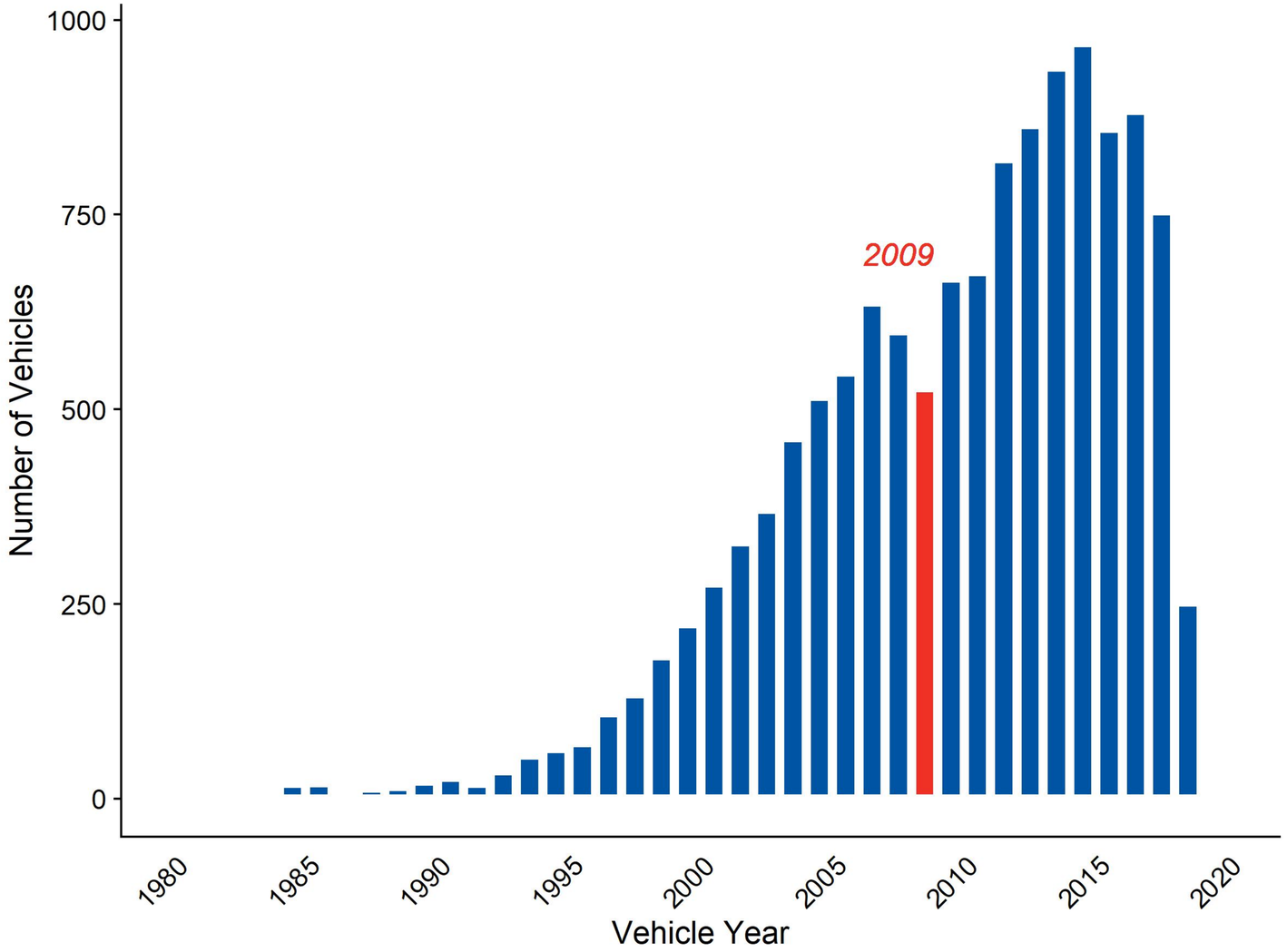
Race and ethnicity associated with travel

African-American, Asian and Hispanic/Latino residents take fewer trips than Whites

Disparities greatest for social/recreational travel and maintenance travel



Vehicles in the Metro



- 13,487 vehicles in the survey (average: 1.8 vehicles per household)
  - 21 Kia Rios
  - 267 Toyota Priuses
  - 77 all-electric vehicles
  - 1 Tesla Model X
  - 1 vintage Chevy Biscayne
- MnPASS
- Cost of parking

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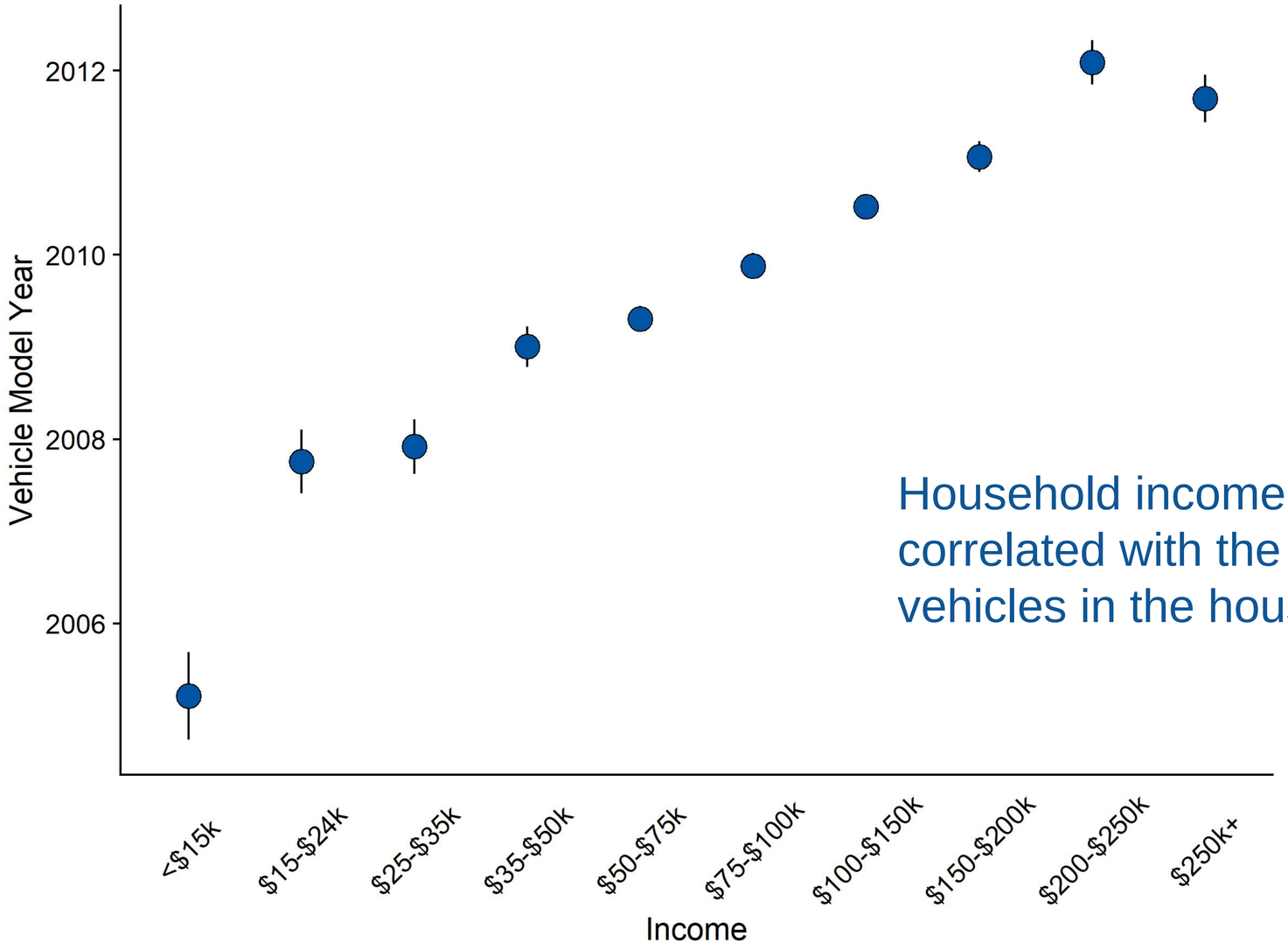
Higher income, newer vehicle



Household income is strongly correlated with the age of the vehicles in the household.

Planned research topics

- Comparisons to previous years
- Regional disparities by race, income, gender, disability status
- Identifying opportunities for more sustainable mode choices
- Emerging transportation modes
- Vehicle emissions, gas efficiency and age

- COVID-19 Impacts

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Race/ethnicity of survey participants

RACE	SAMPLE COUNT	SAMPLE PERCENT	ACS PERCENT
White alone	13,312	89.9%	80.2%
Black or African-American alone	375	2.5%	7.8%
Asian alone	484	3.3%	6.2%
Other	241	1.6%	2.7%
Two or more races	397	2.7%	3.2%
Total	*14,809*	*100%*	*100%*

ETHNICITY	SAMPLE COUNT	SAMPLE PERCENT	ACS PERCENT
Hispanic/Latino	377	2.5%	6.0%
Non-Hispanic/Latino	14,824	97.5%	94%
Total	*15,201*	*100%*	*100%*

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Geographic composition of survey

SAMPLE SEGMENT	SAMPLED HOUSEHOLDS	SAMPLE PERCENT	ACS PERCENT
Core urban	4,551	58.5%	61.4%
Core rural	559	7.2%	7.9%
Rural ring	1,217	15.6%	16.7%
Hard to Reach	1,452	18.7%	13.9%

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