



# 2018-19 Kansas City “How We Move” Travel Survey Project Summary

Mid-America Regional Council  
600 Broadway, Suite 200  
Kansas City, MO 64105-1554

## Outline

- Survey Overview
- Survey Results
  - Household-level Results
  - Person-level Results
  - Trip-level Results
  - New Modes
  - Attitudinal Questions

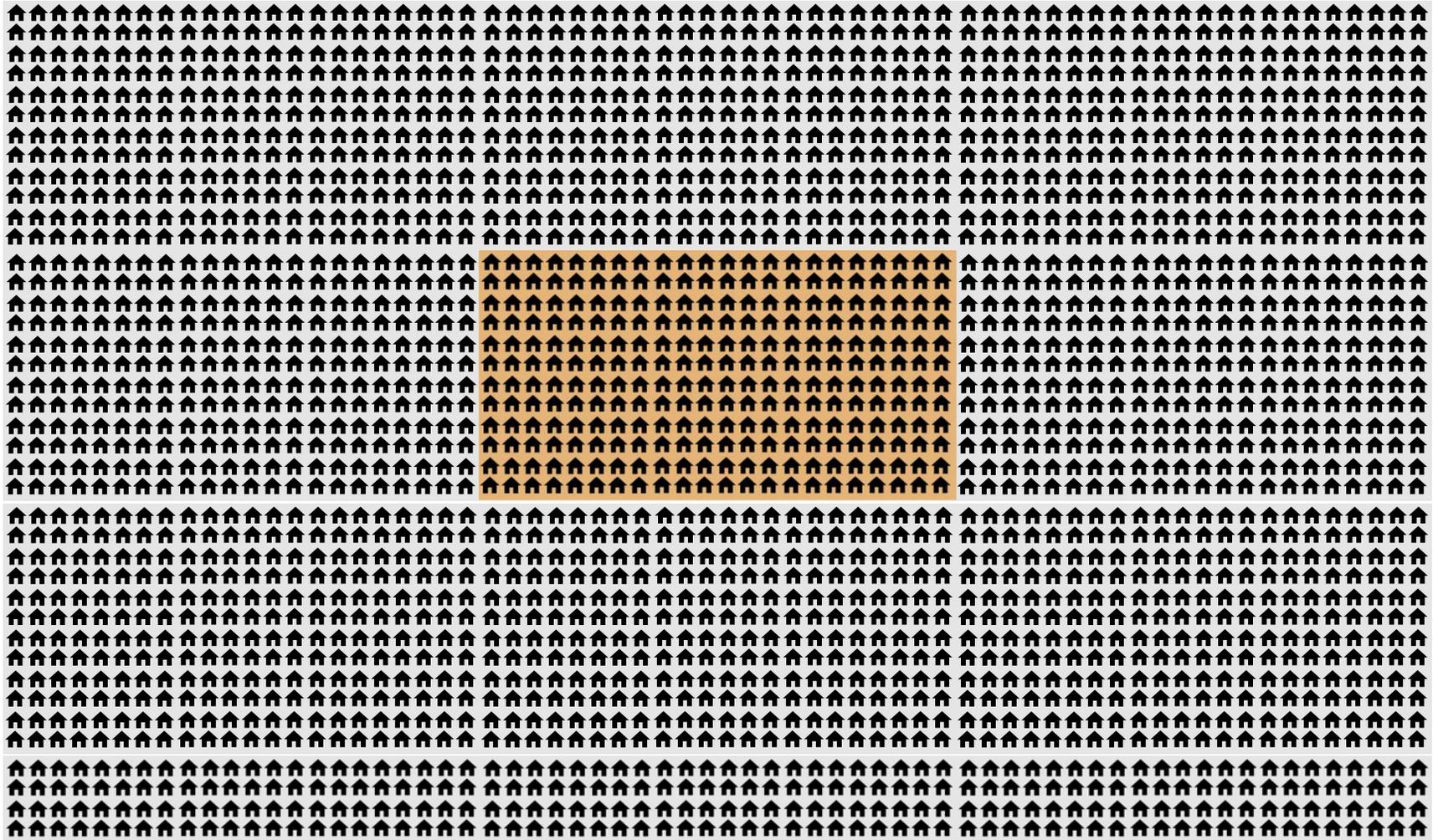


## Methods Comparison to 2004 Survey

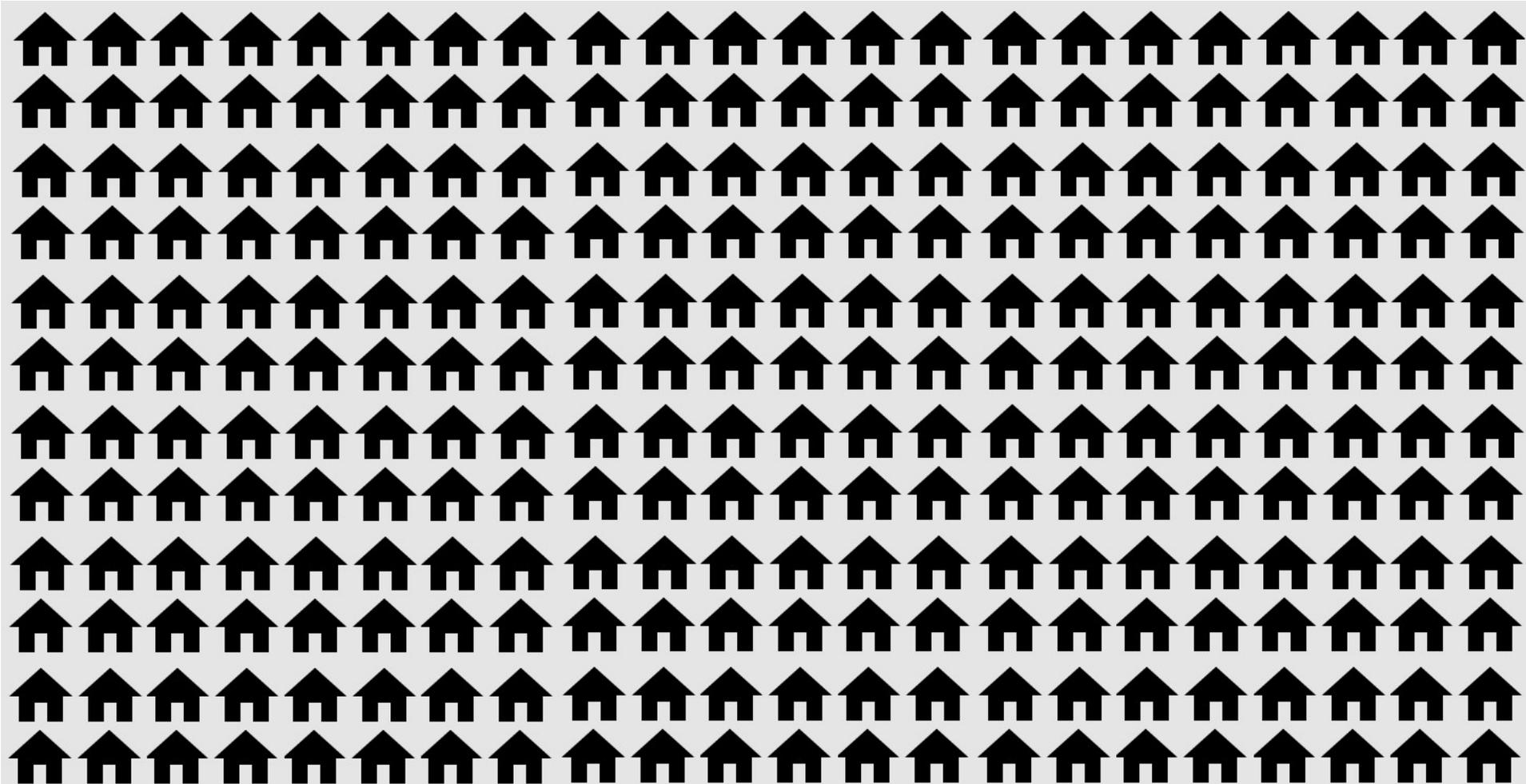
METHOD/DESIGN FEATURE	2004 Survey	2019 Survey
Study Area	<b>7 Counties:</b> All of Cass, Clay, Jackson, Johnson, Leavenworth, Platte, and Wyandotte counties	<b>8 Counties:</b> All of Cass, Clay, Jackson, Johnson, Leavenworth, <b>Miami</b> , Platte, and Wyandotte counties
Survey Method	<b>Random Digit Dial;</b> CATI Telephone Recruitment, CATI Telephone Retrieval, GPS	<b>Address Based Sample;</b> Mailed Invitation for web/CATI recruitment, web/CATI retrieval
Eligible Participants	All household members regardless of age	All households members <b>age 5 and older</b>
Survey Administration	Spring 2004	Spring 2019
Travel Days	Monday through Friday	Monday through Friday
Sample Size	3,049 (.5%)	3,821 (.5%)
Data Collection Targets	Geography (density areas), Household Size by Household Vehicles	Geography (region), Distance to transit
Approach	Place-based Travel Log	Place-based Travel Log / Smartphone Application

## Survey Overview

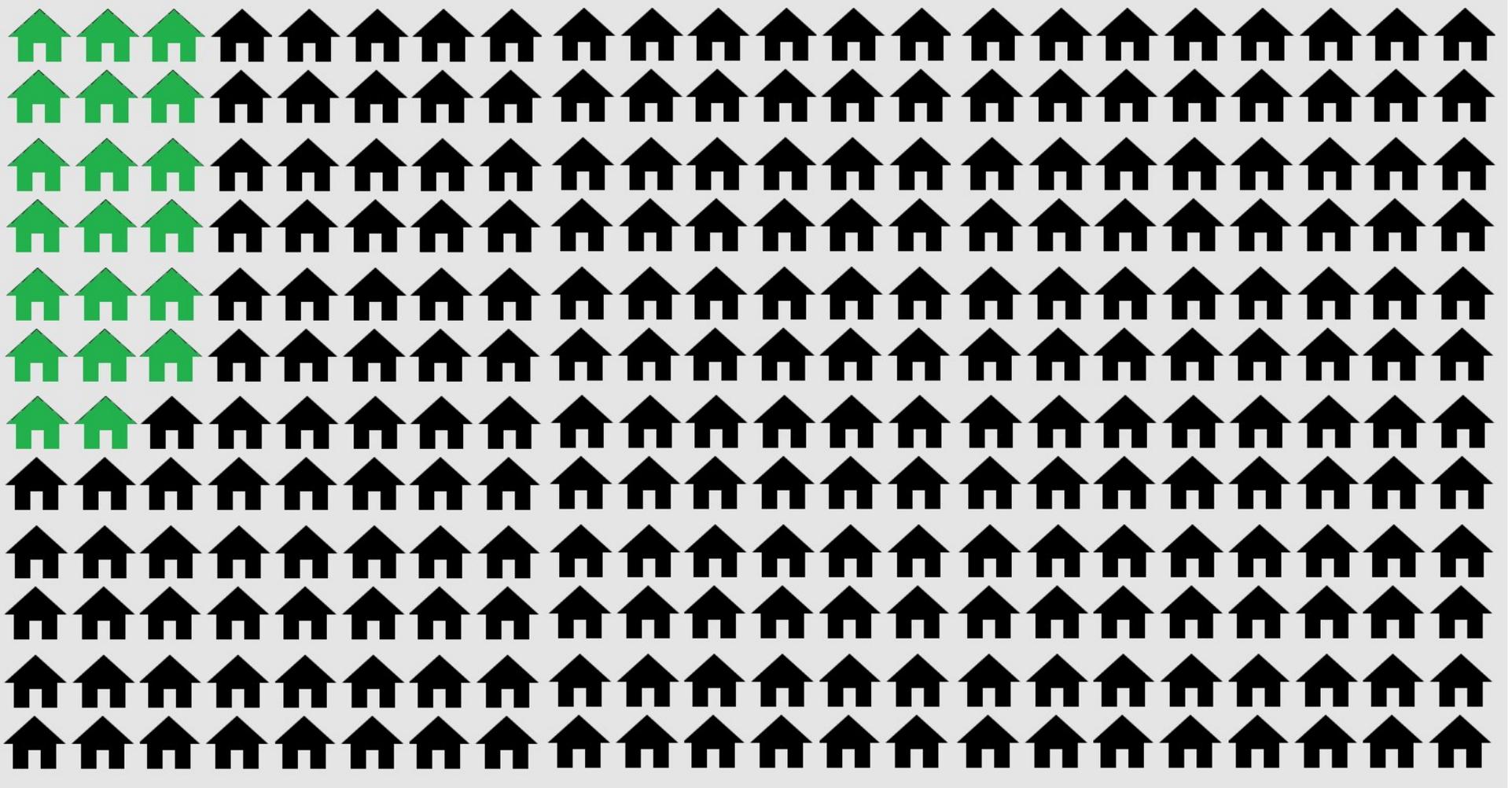
- Aim was to survey 0.5% of the population of interest (~4,000 households)
- Sampled area covered all eight counties with some oversampling
- Target areas for oversampling (Tract) based on:
  - Hard-to-reach populations
    - Large households
    - Low income
    - Zero vehicle
  - Transit users (based on proximity to transit corridors)



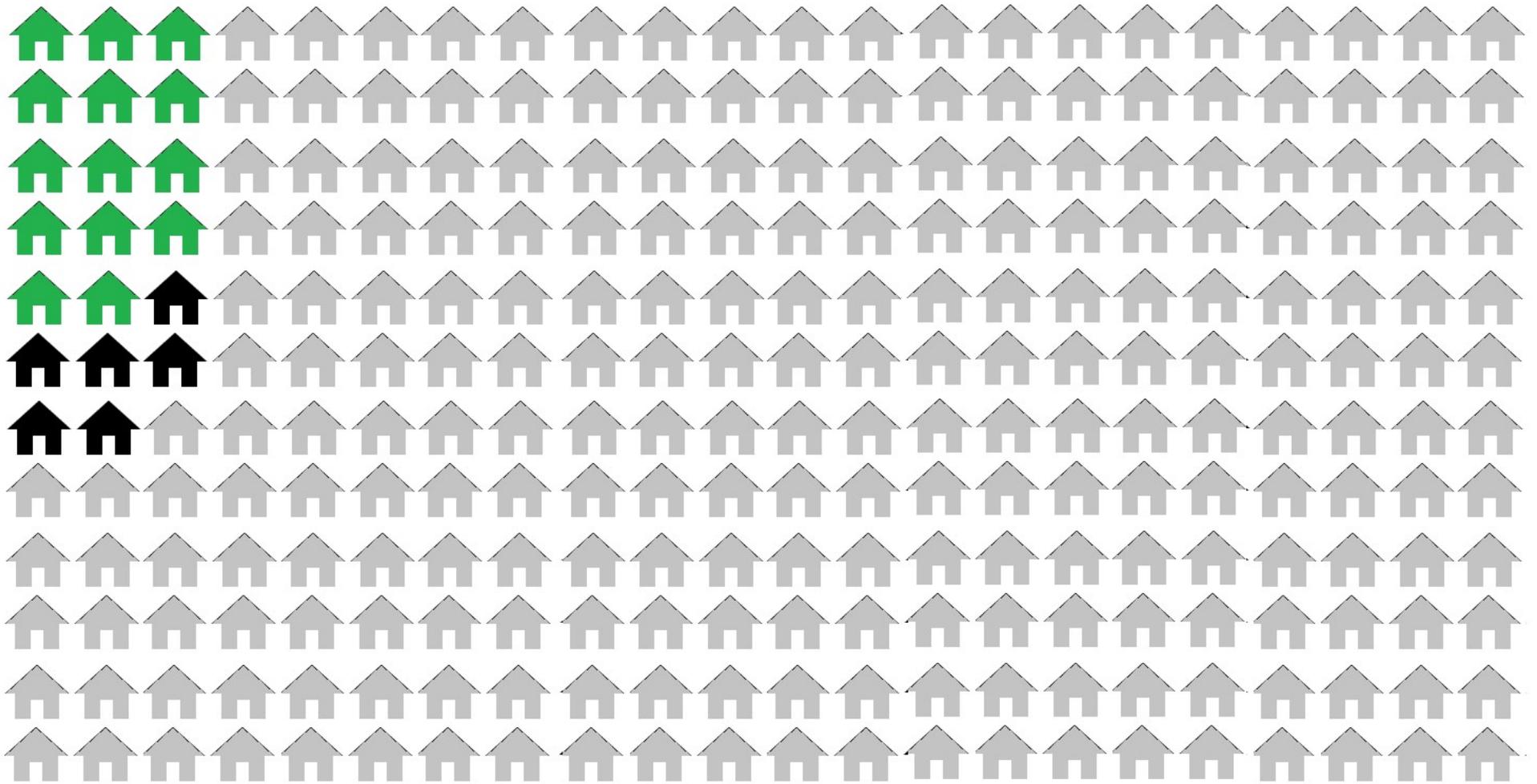
~750,000 Households in Model Area



We sent out 70,000 invitations

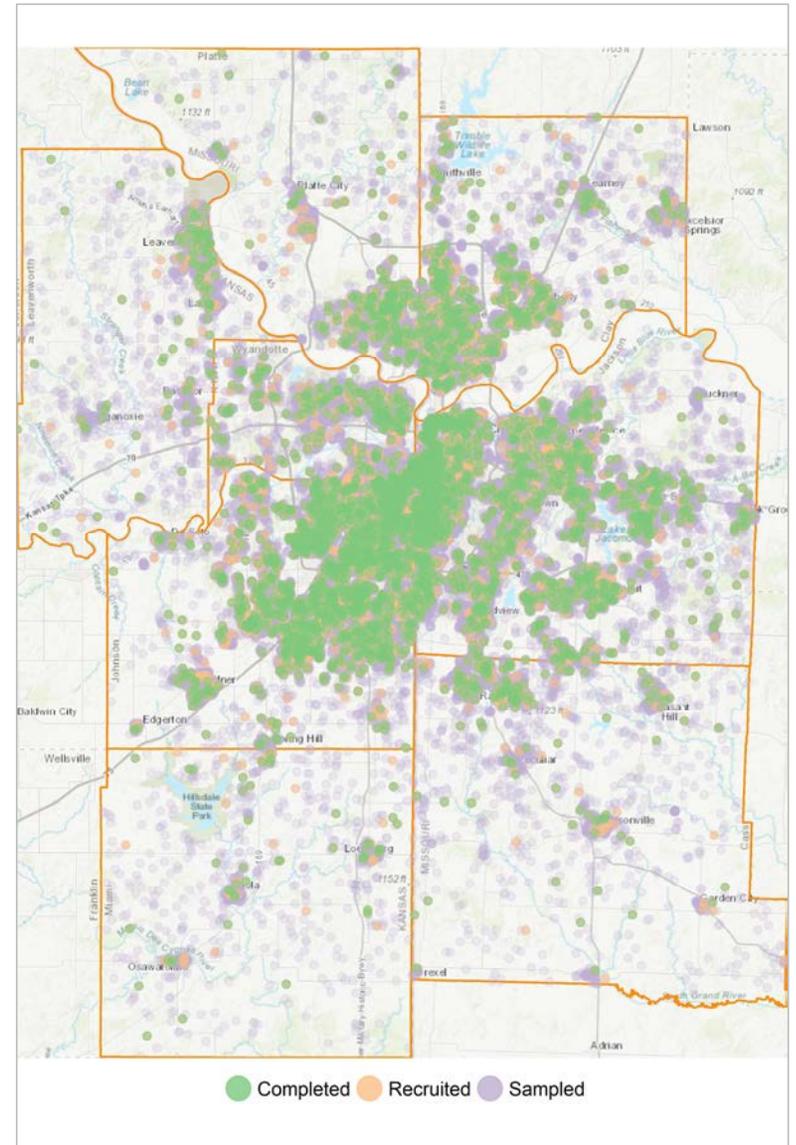


5,209 agreed to participate

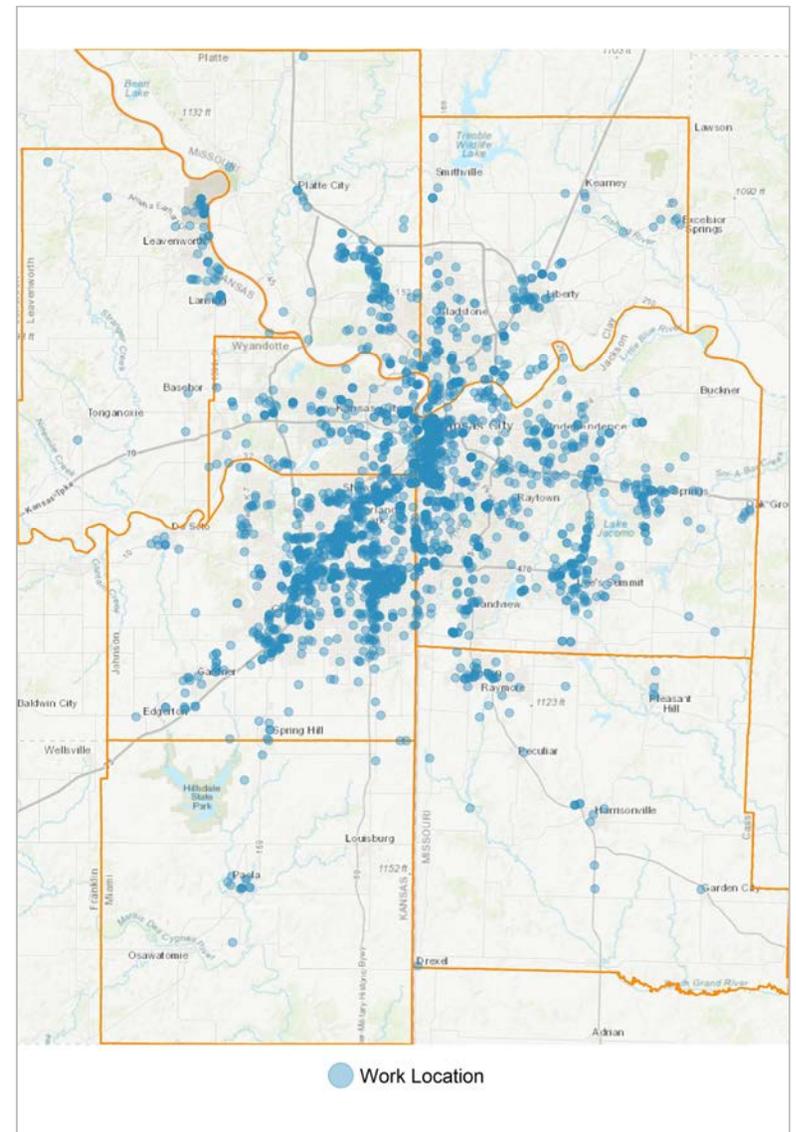


3,821 Completed the Survey

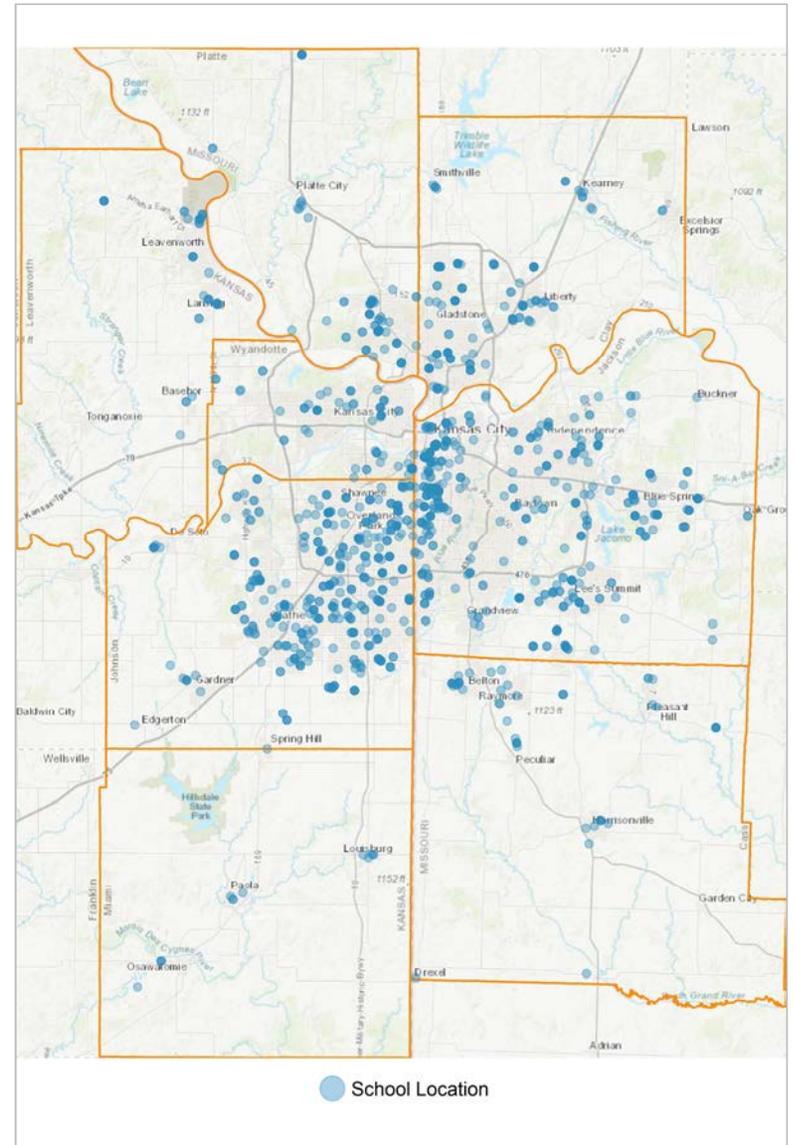
# All Sampled, Recruited, and Completed Household Locations



# Completed Households Work Locations



# Completed Households School Locations

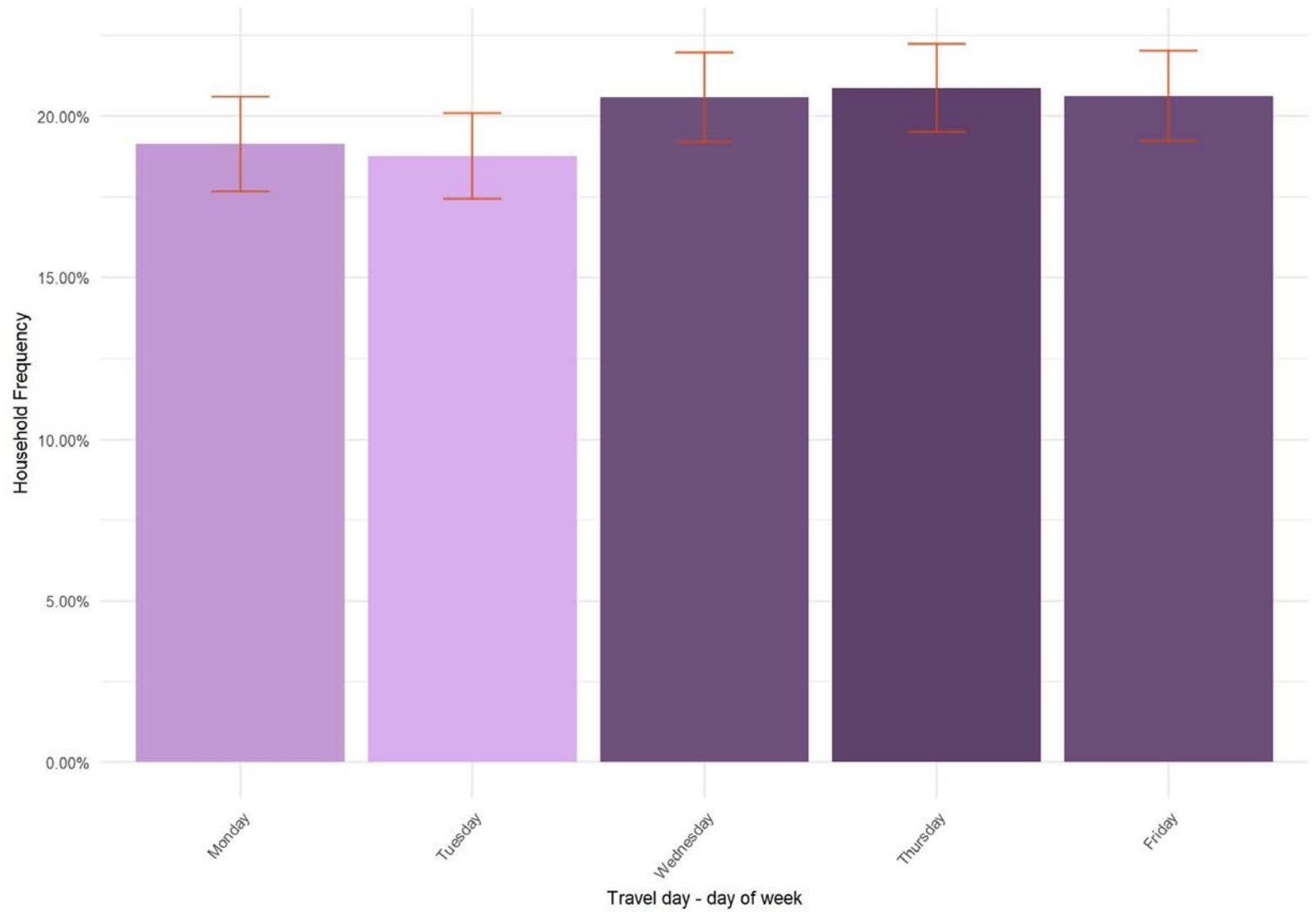




## 1990 vs 2004 vs 2019

Characteristics	1990 Survey	2004 Survey	2019 Survey
Households	1,221	3,049	3,821*
Persons	3,397	7,400	8,361*
Trips	14,610	31,779	28,845*
Avg HH Trips	12.0	10.4	<b>8.9</b>
Avg HH Size	2.8	2.4	2.4
% employed (aged 18+)	69%	74%	<b>67%</b>
0-trip HHs	2.3%	<b>0.9%</b>	4.4%
0-vehicle HHs	4.0%	5.3%	<b>5.8%</b>

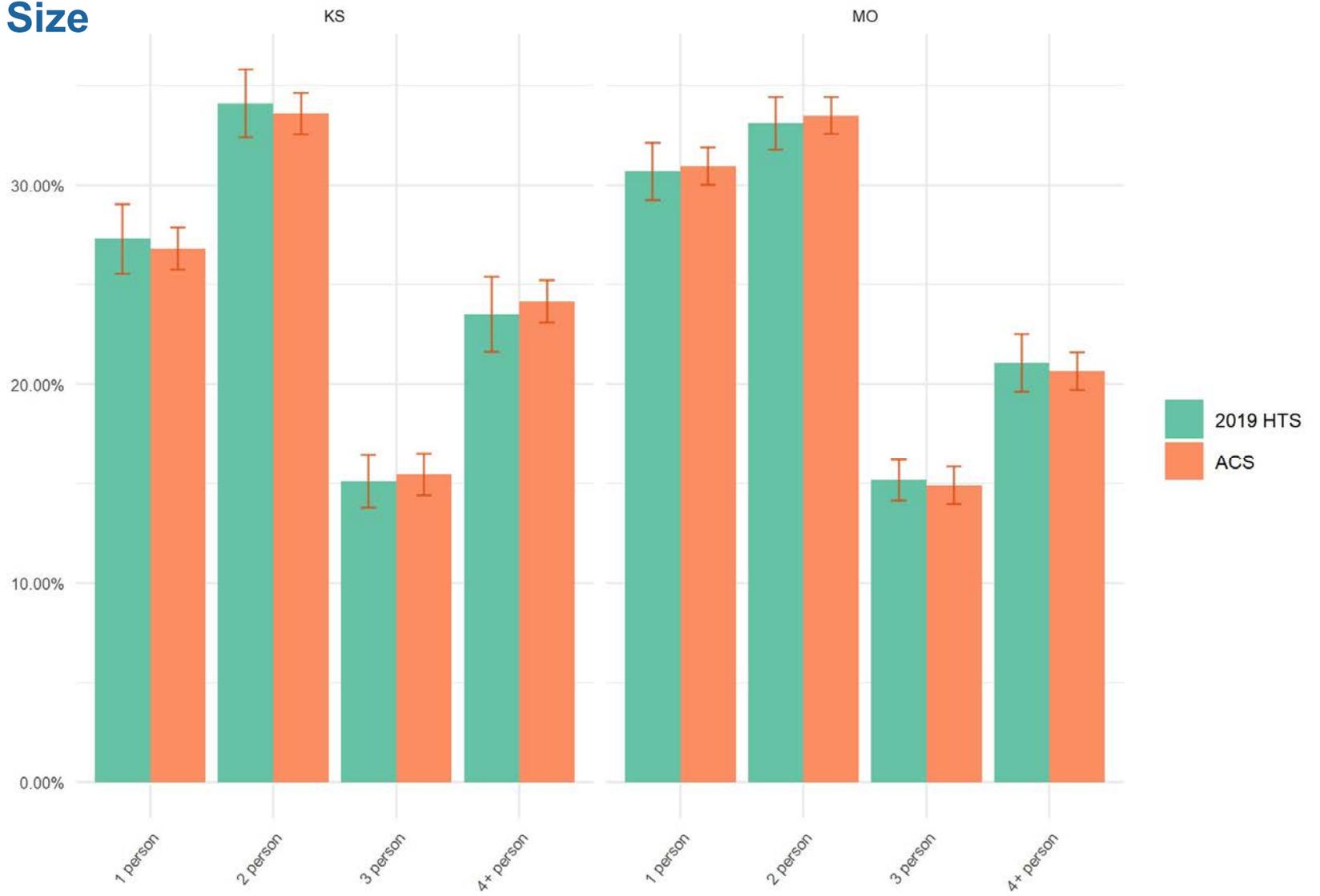
## Completes by Day of Week



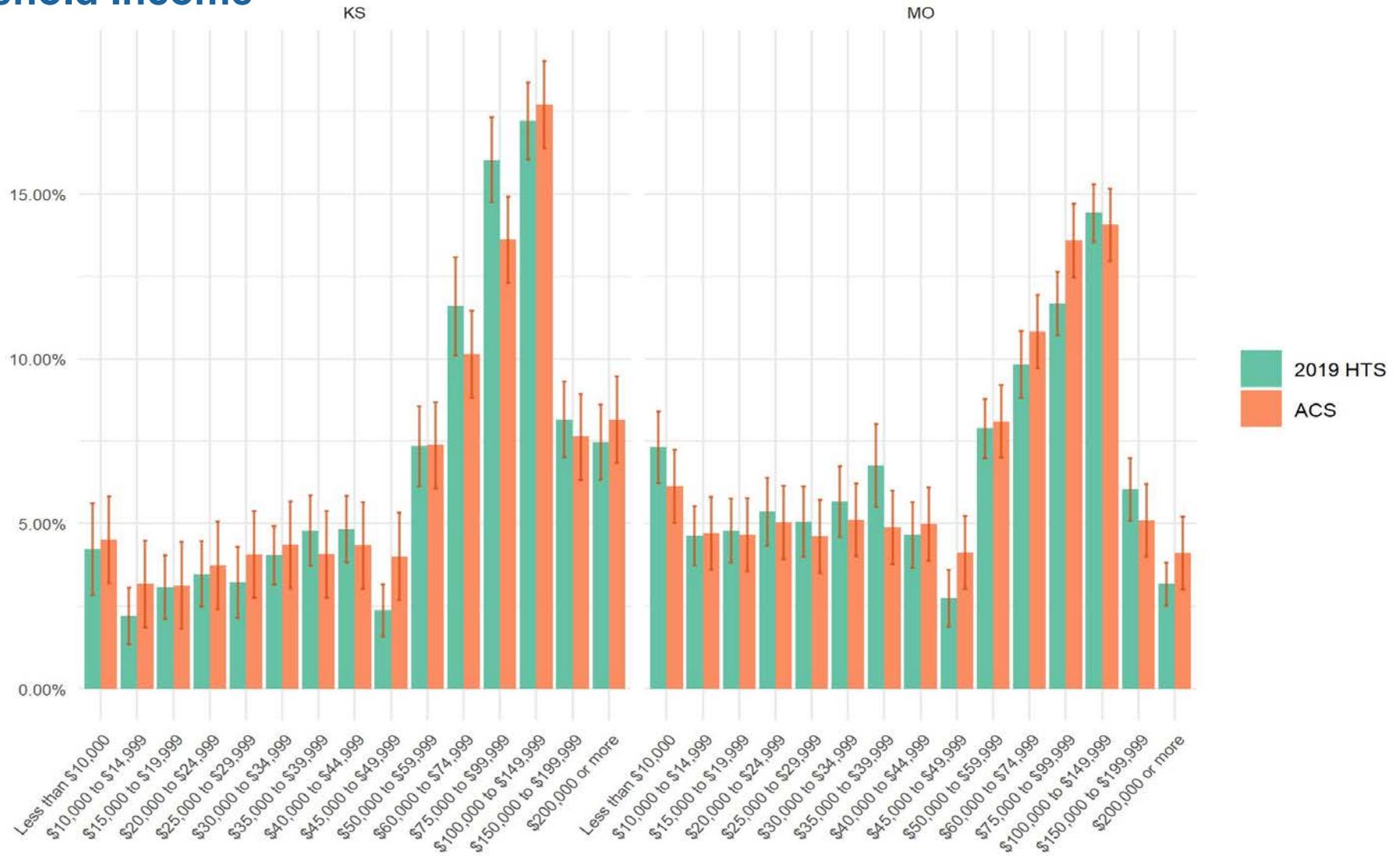


## Demographics

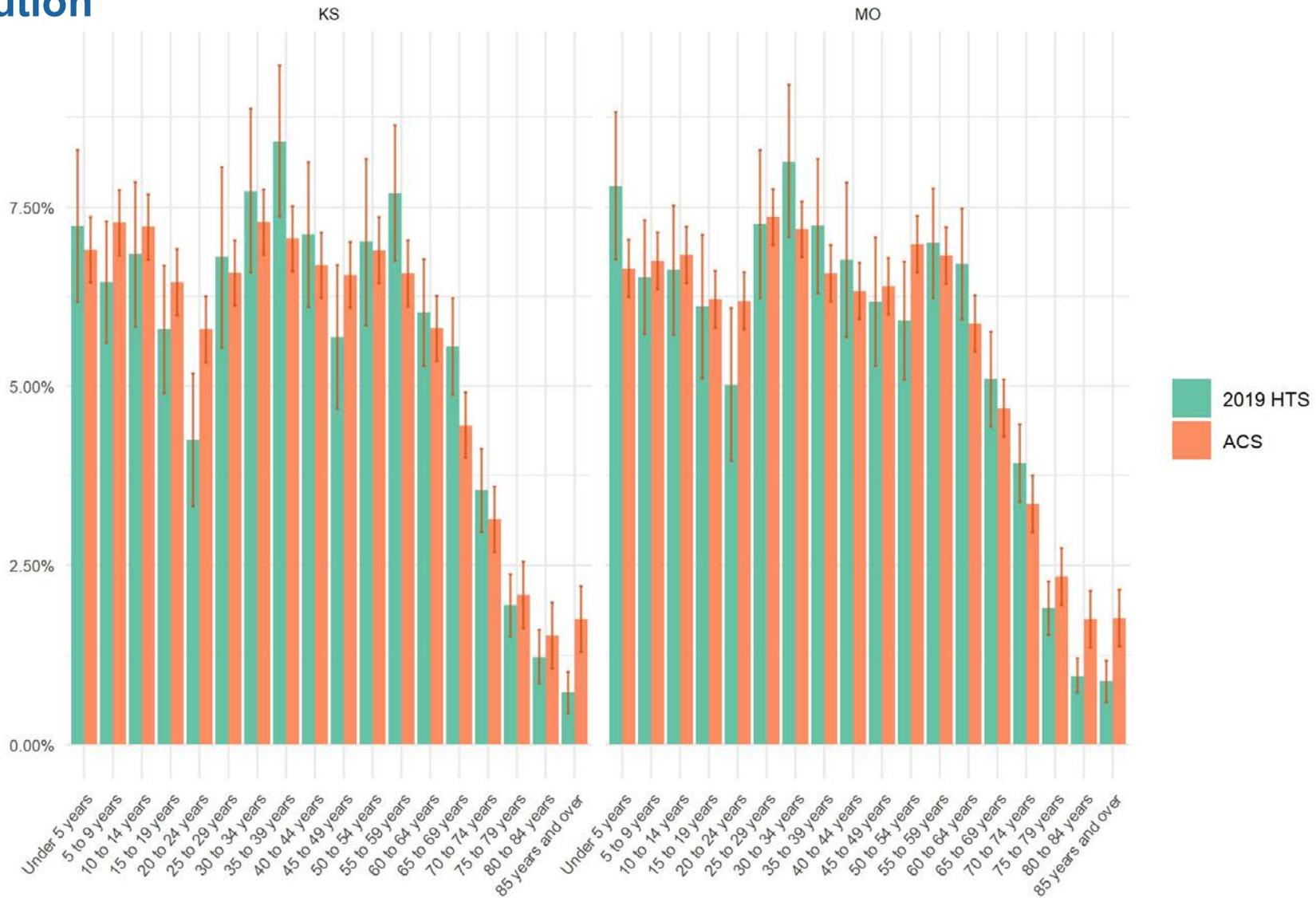
# Household Size



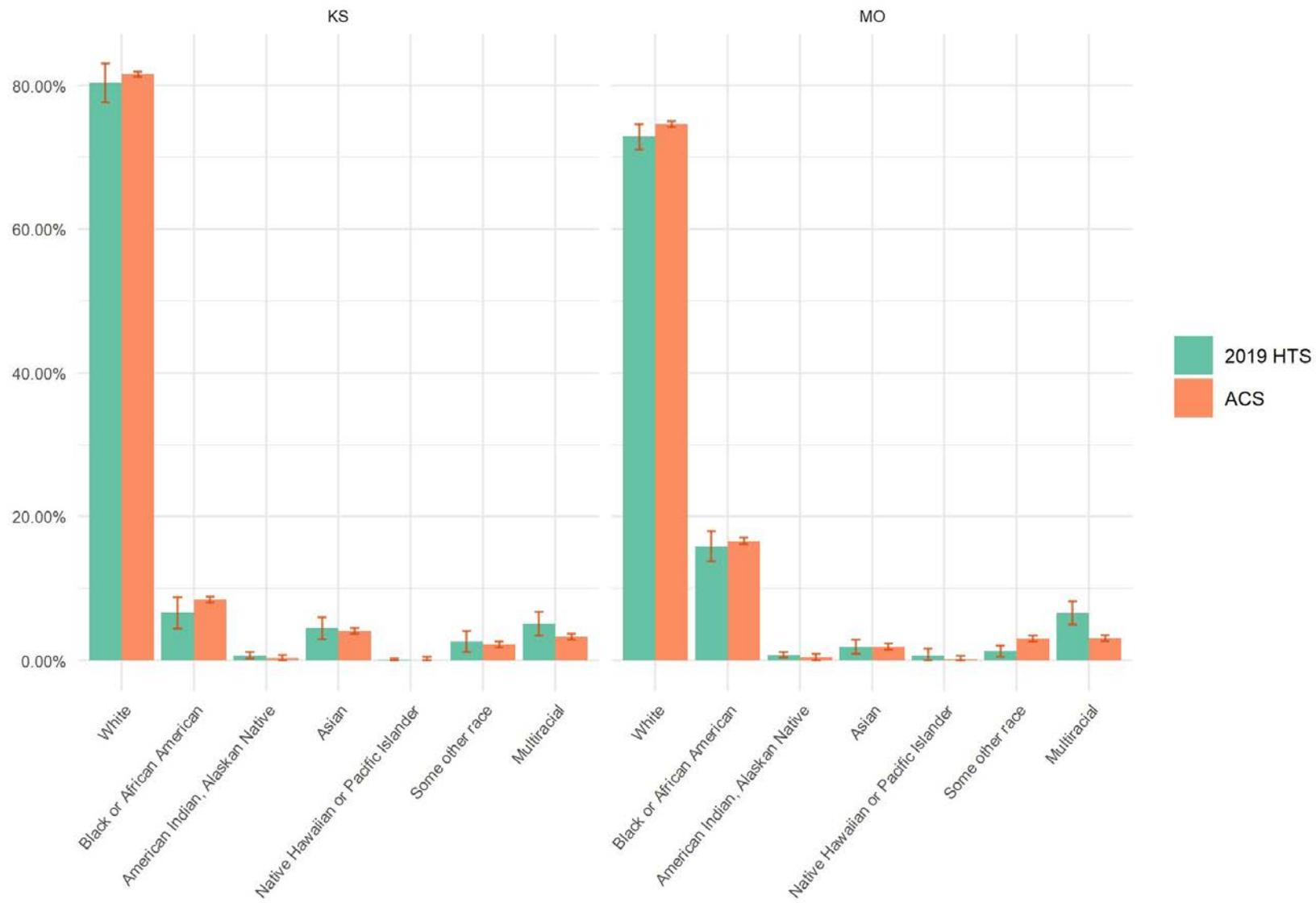
# Household Income



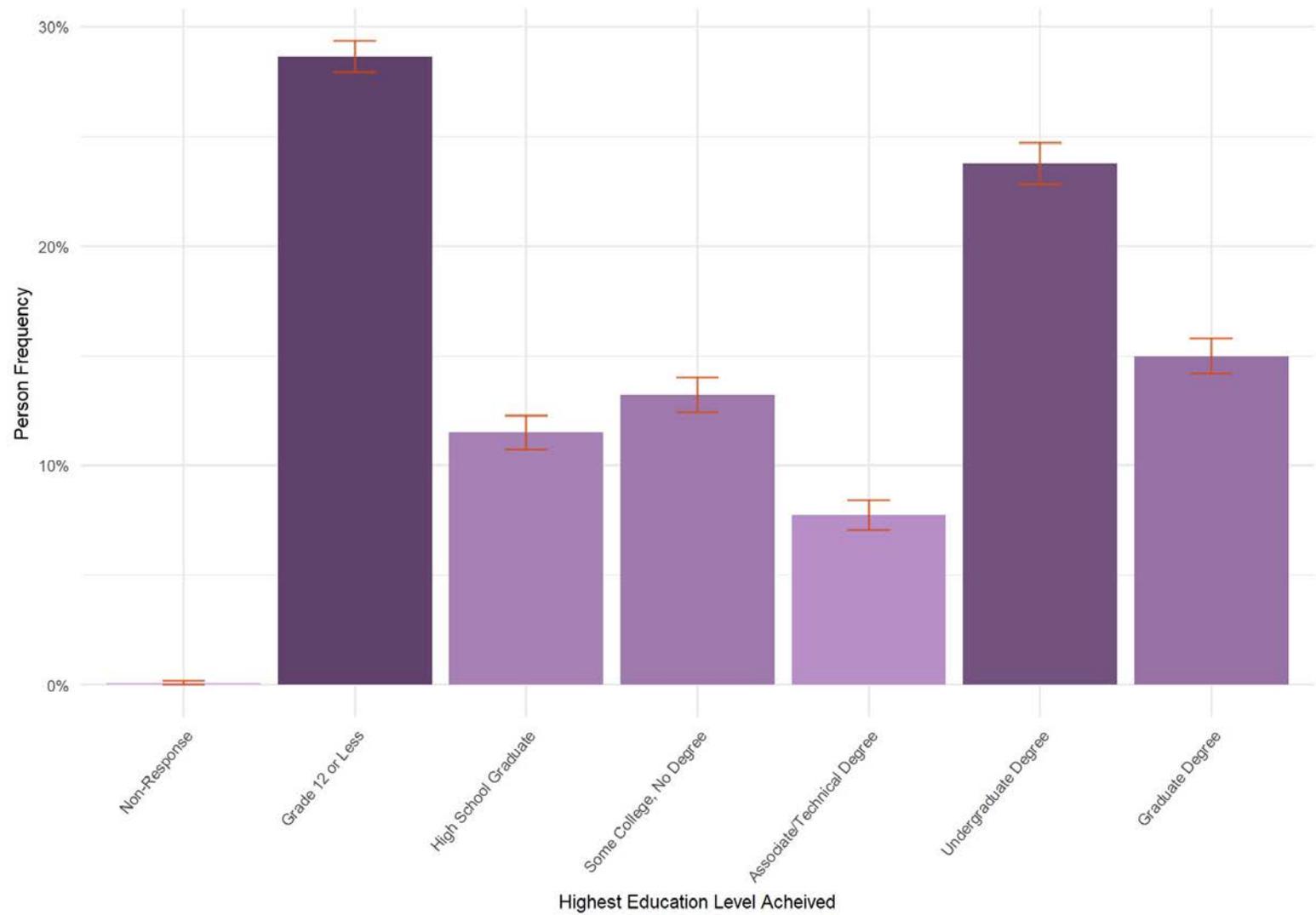
# Age Distribution

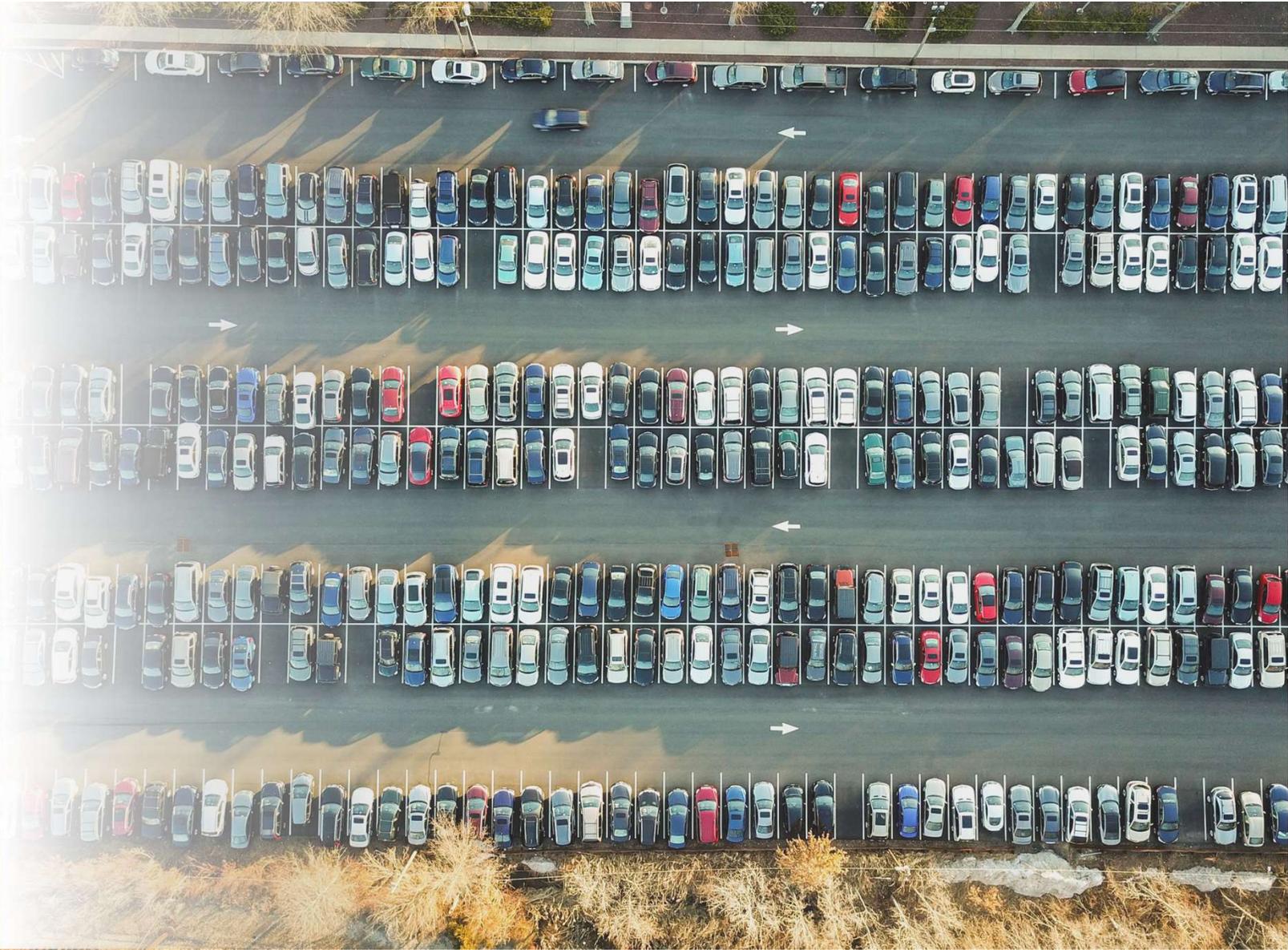


# Race



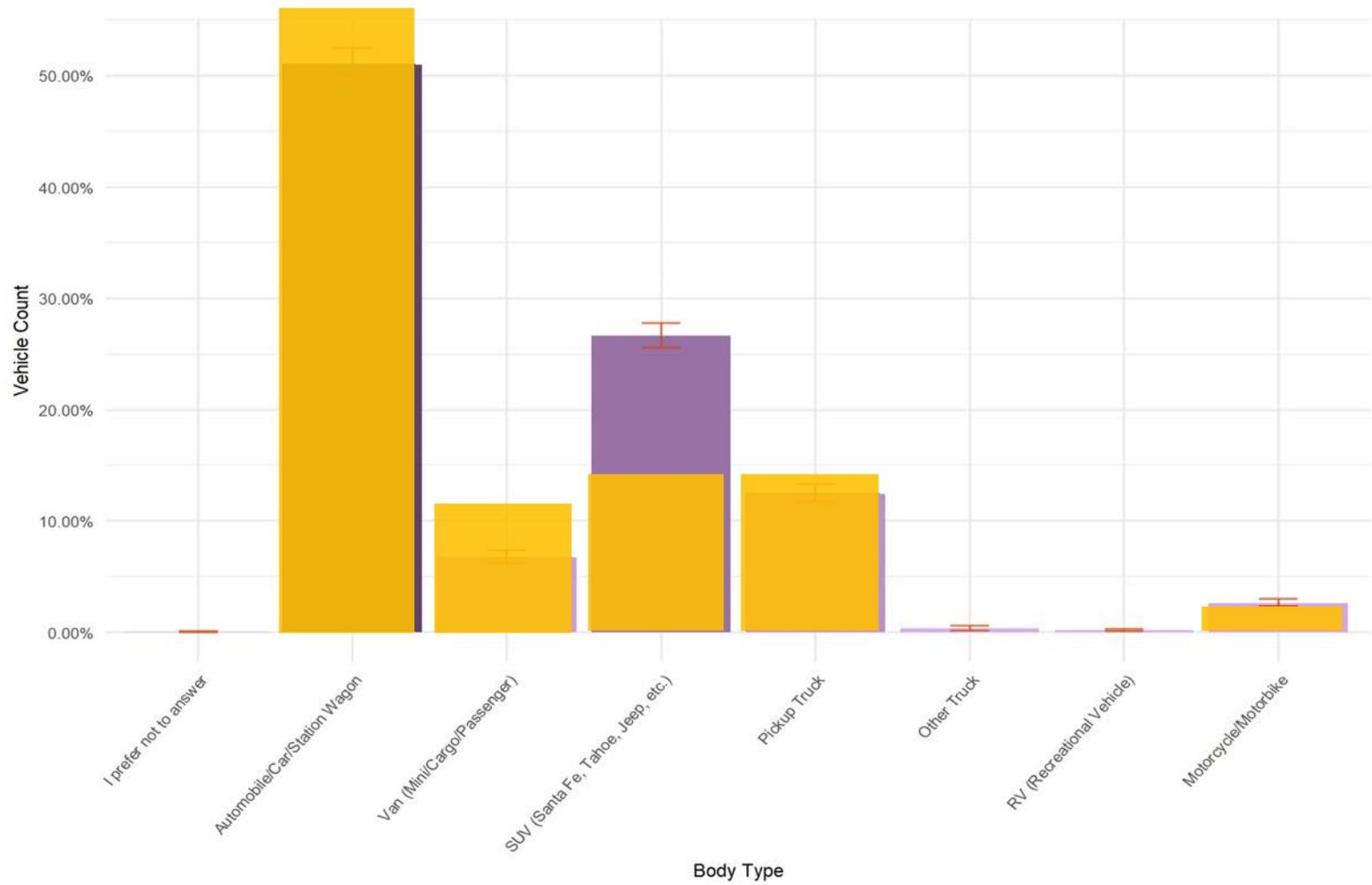
# Educational Attainment



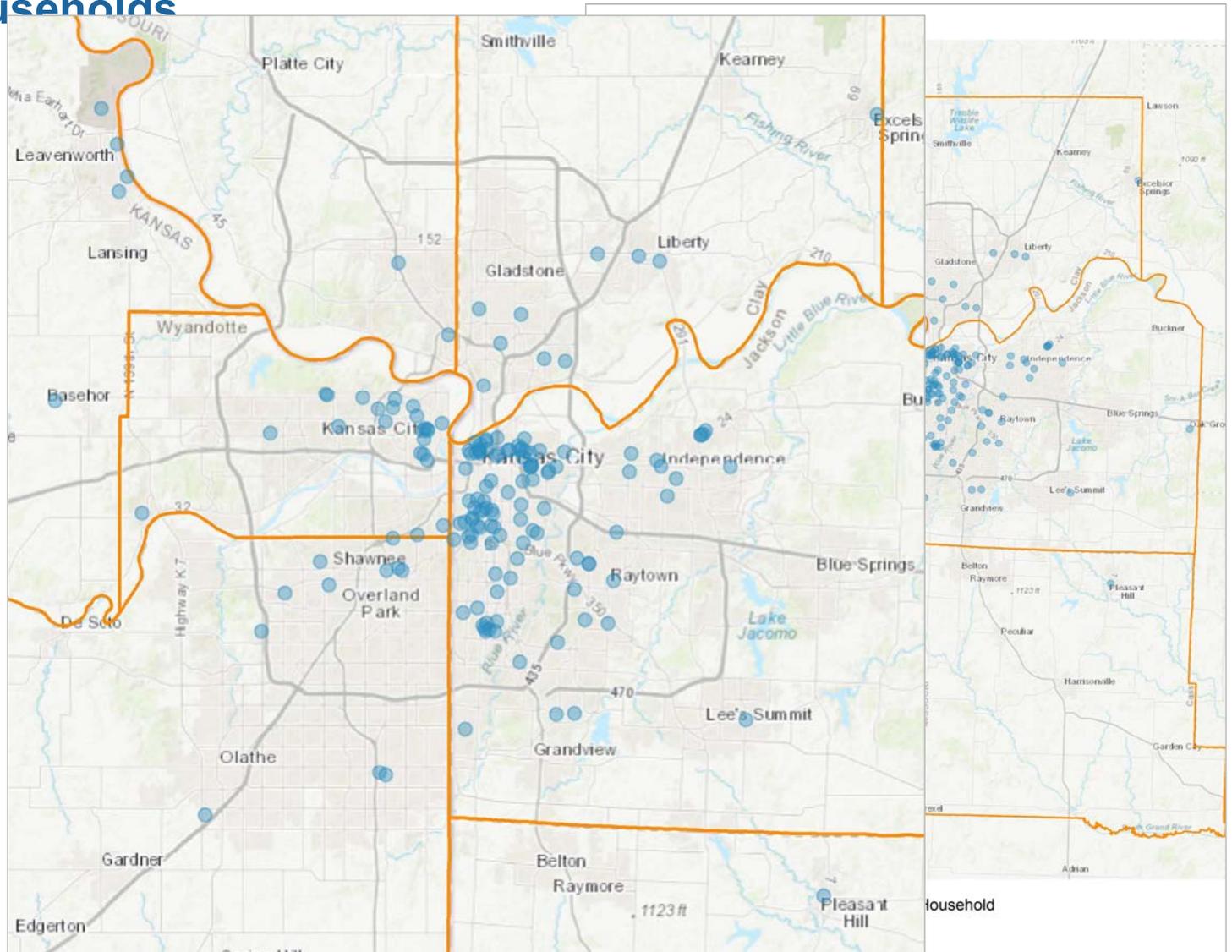


# Vehicle Details

# Vehicle Fleet Body Type



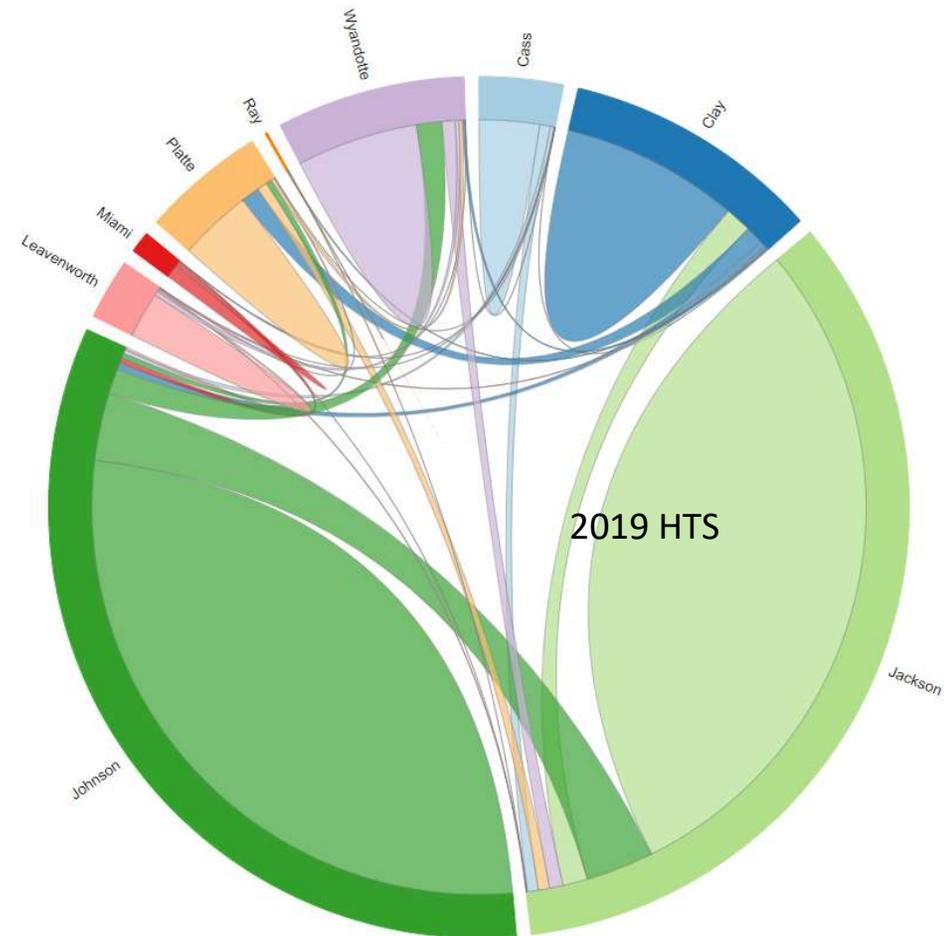
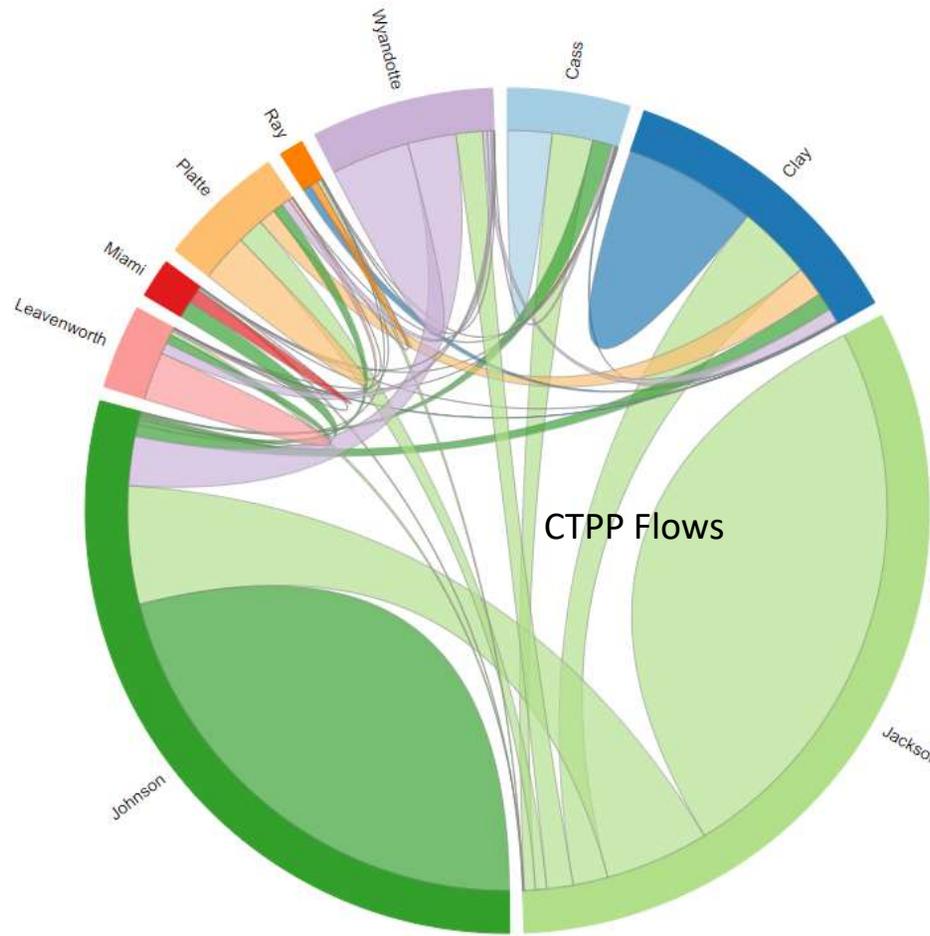
# Zero Vehicle Households



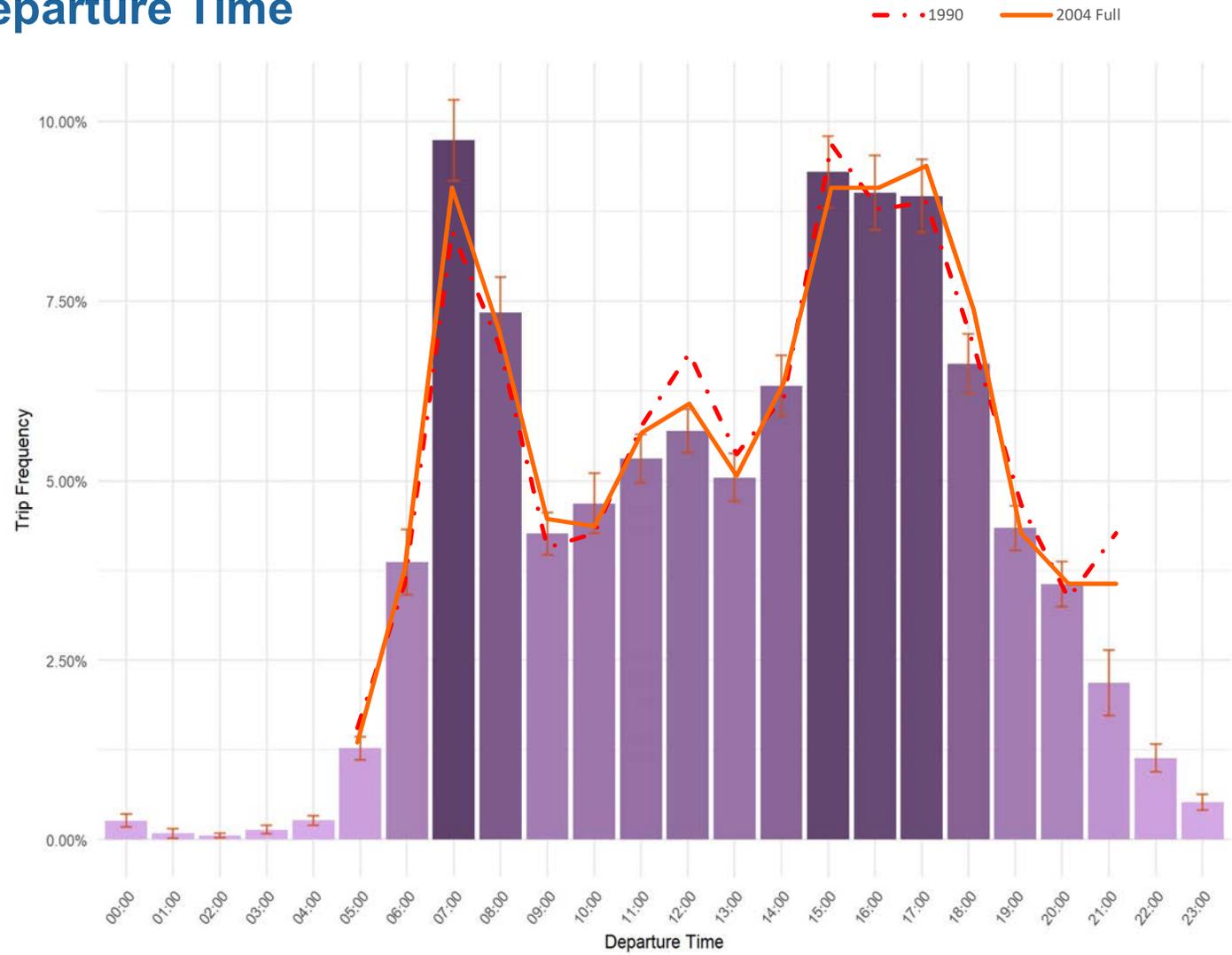


# Travel Details

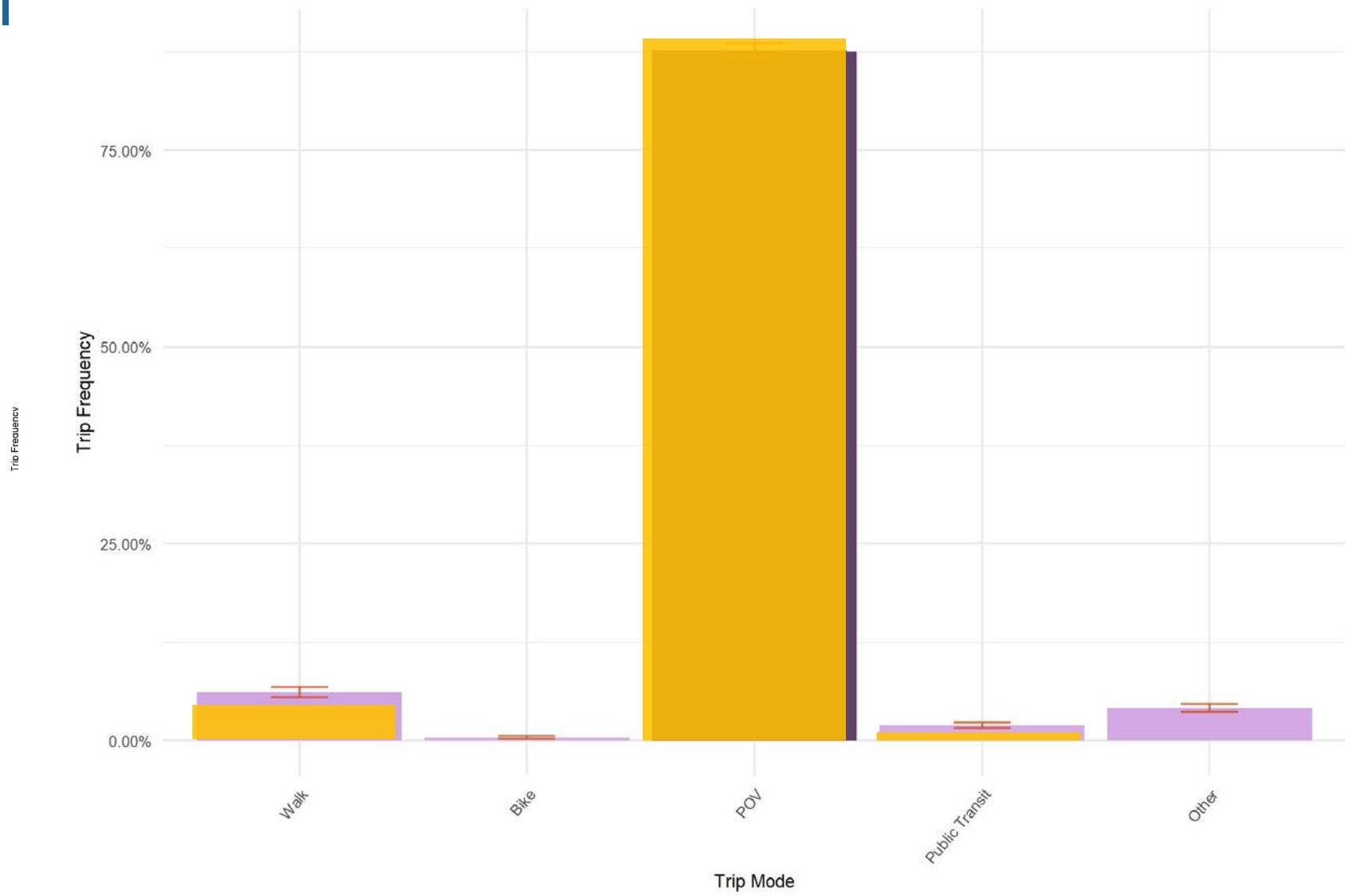
# County to County Flows for Work Trips



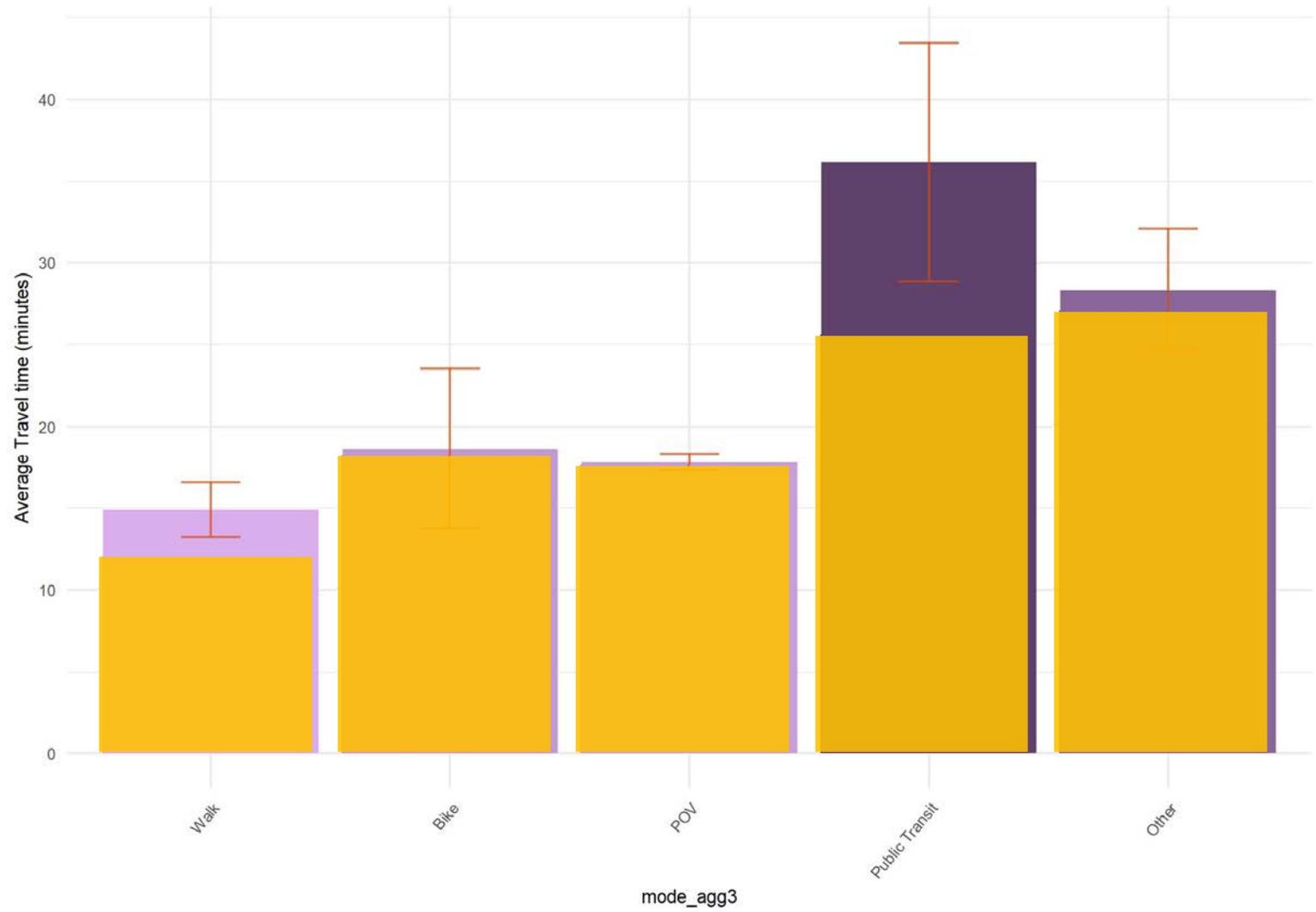
# Distribution of Trip Departure Time



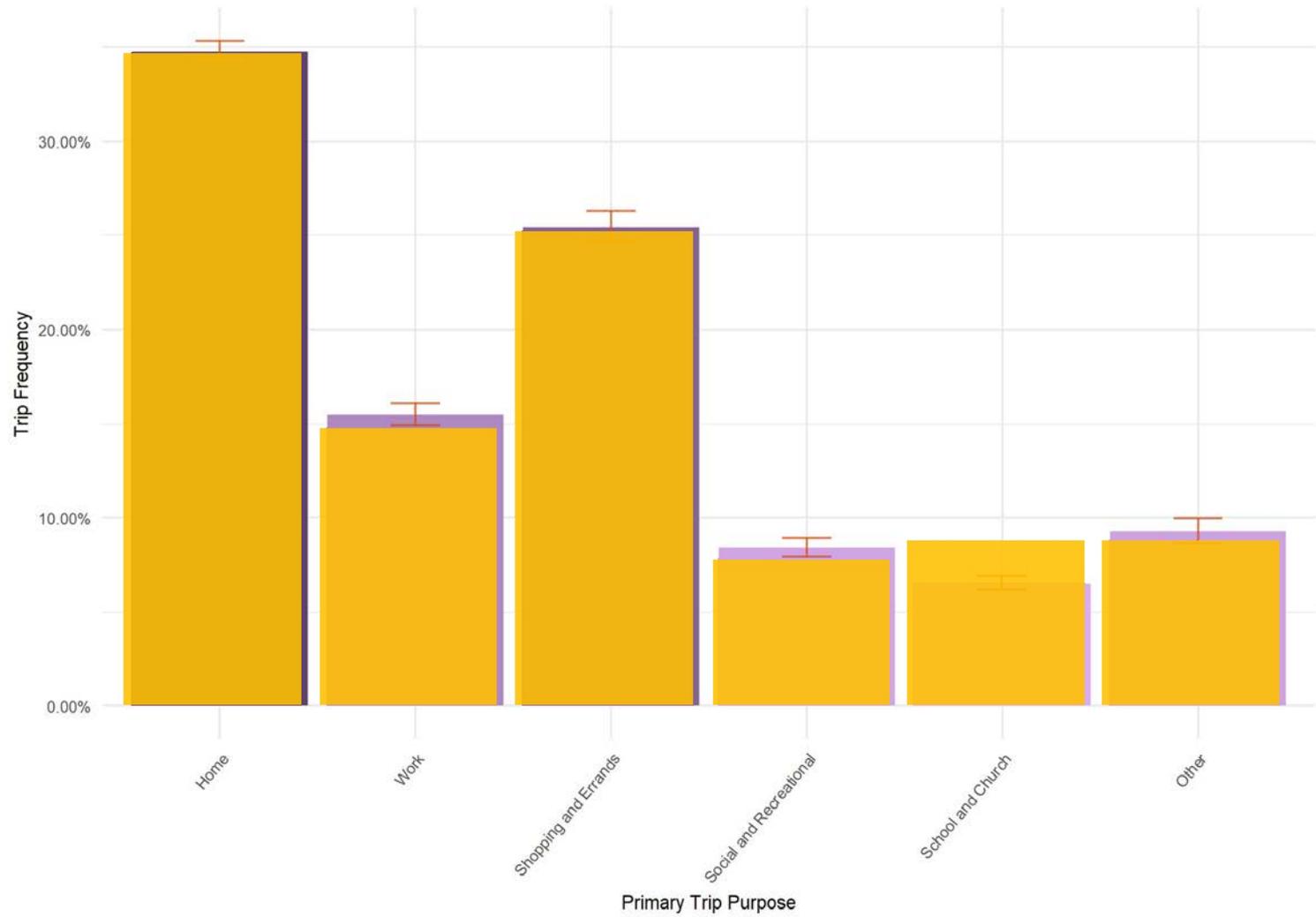
All



## Trip Duration by Mode

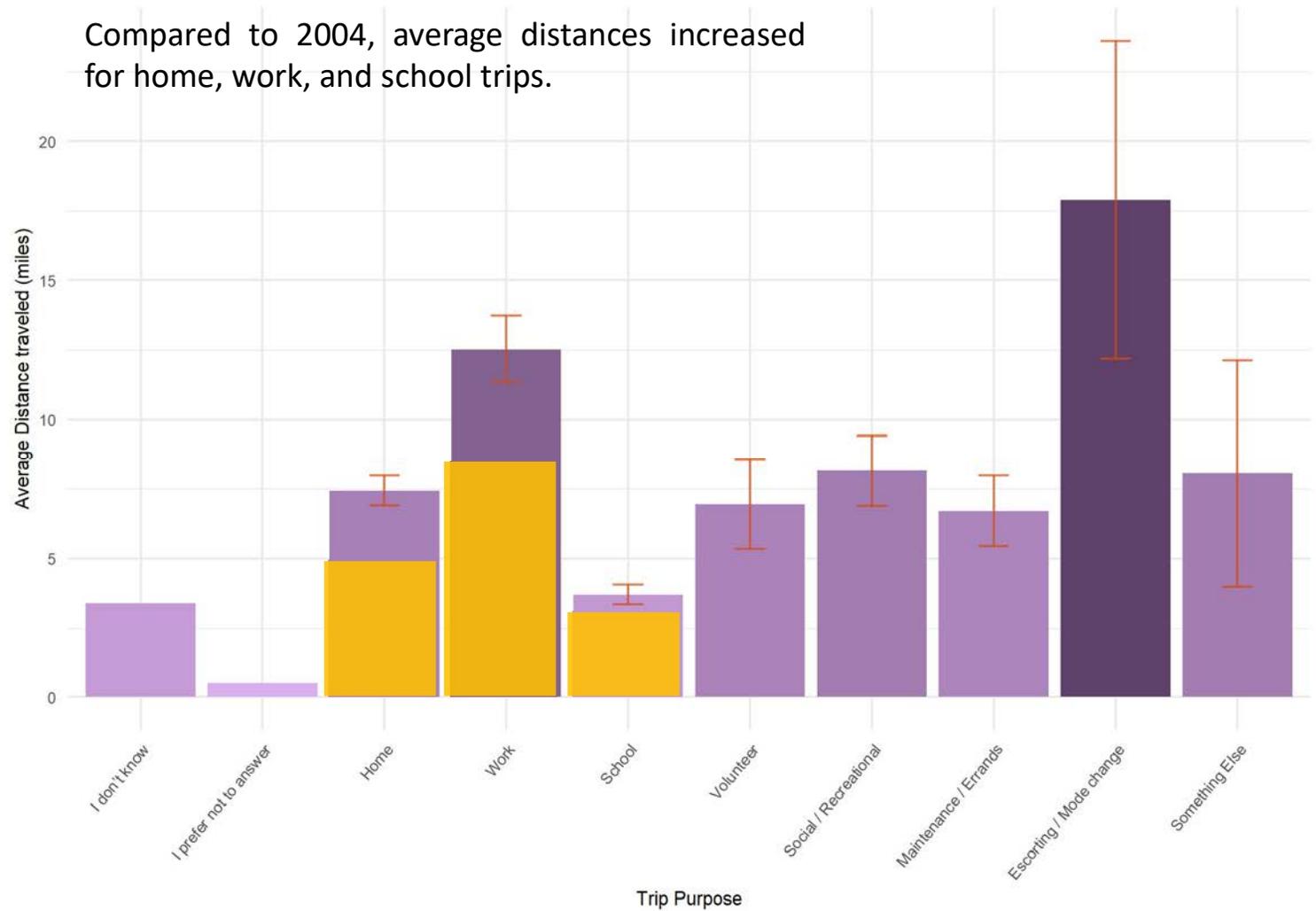


# Primary Trip Purpose

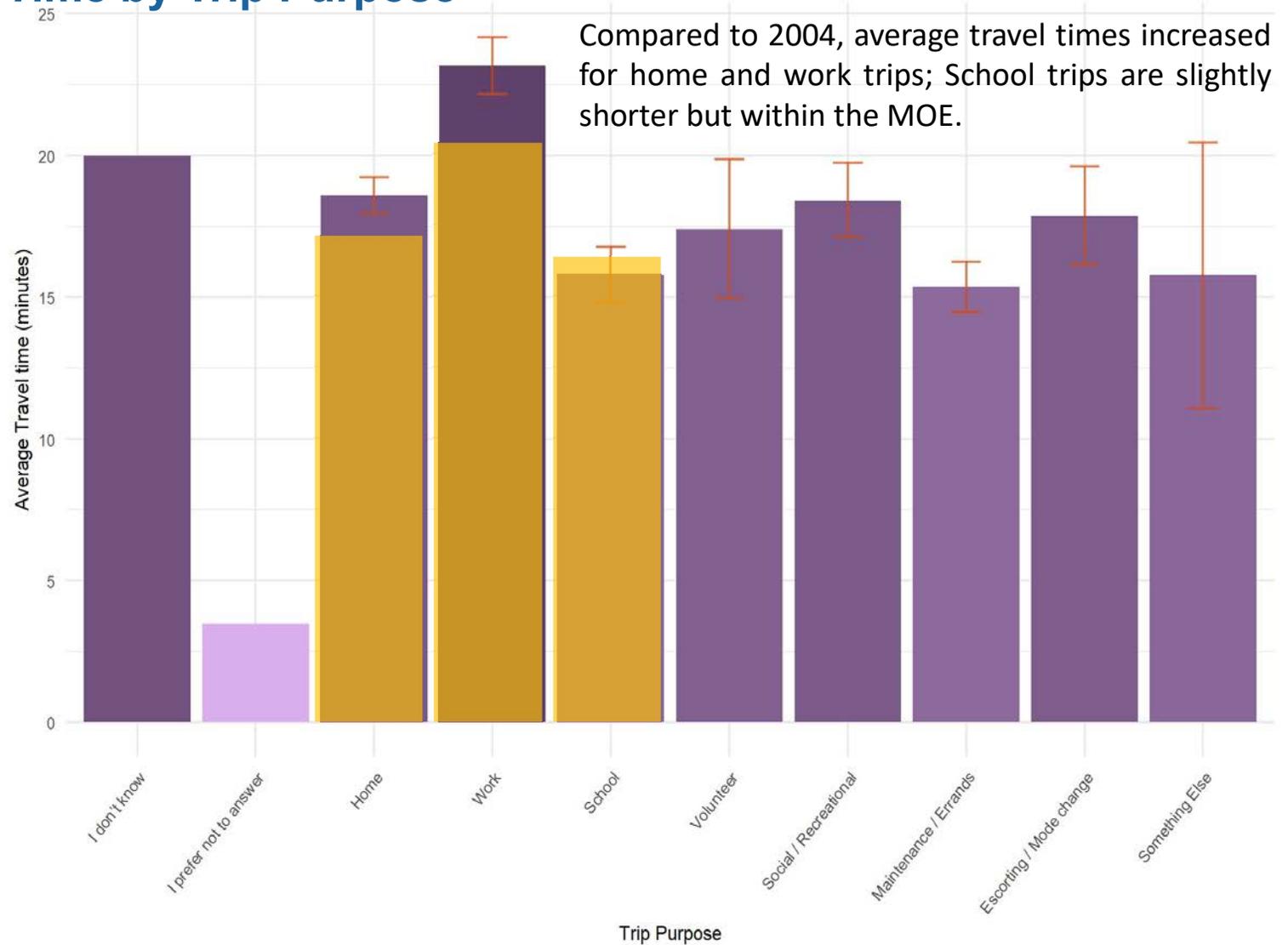


## Average Distance by Trip Purpose

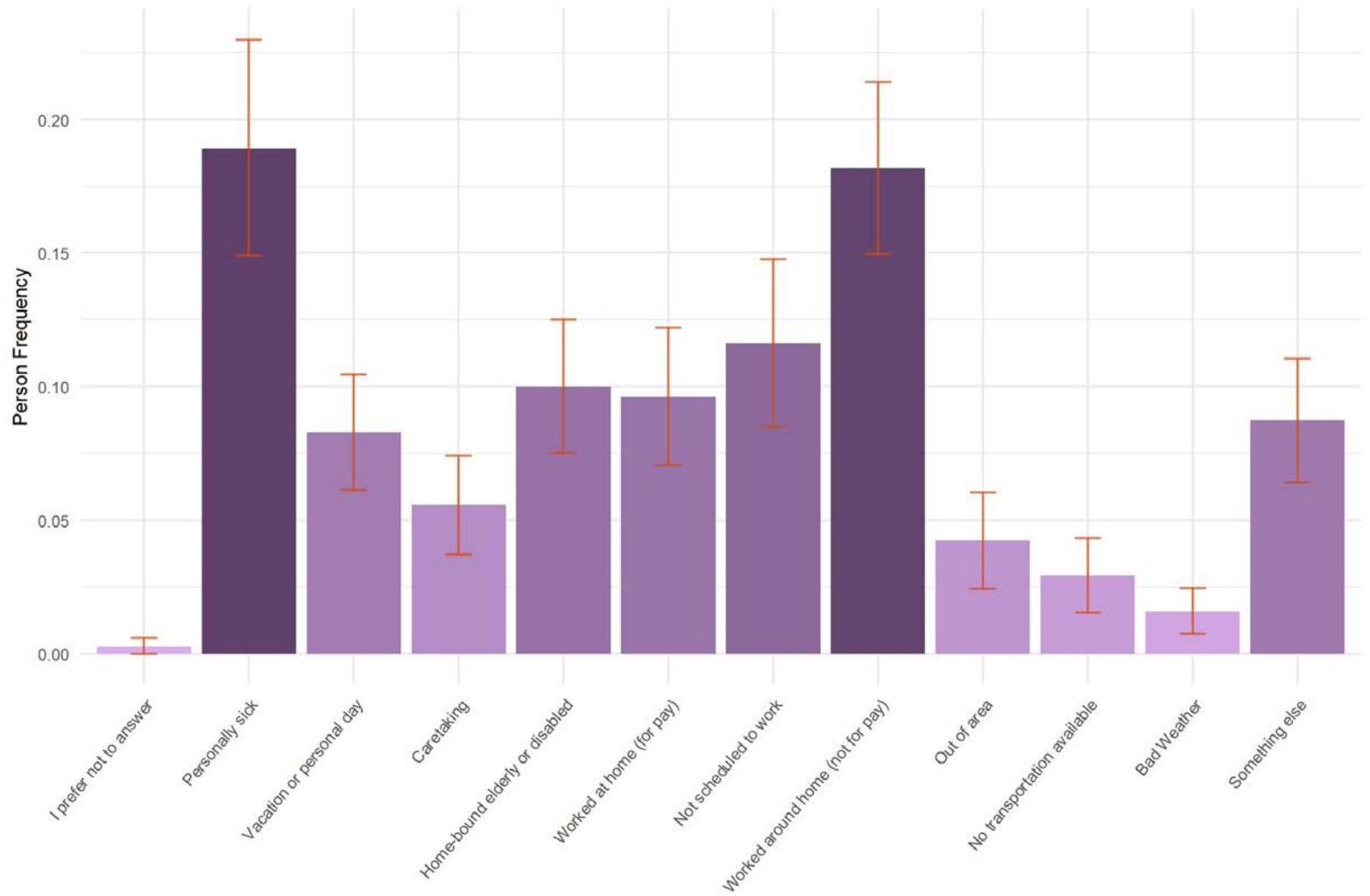
Compared to 2004, average distances increased for home, work, and school trips.

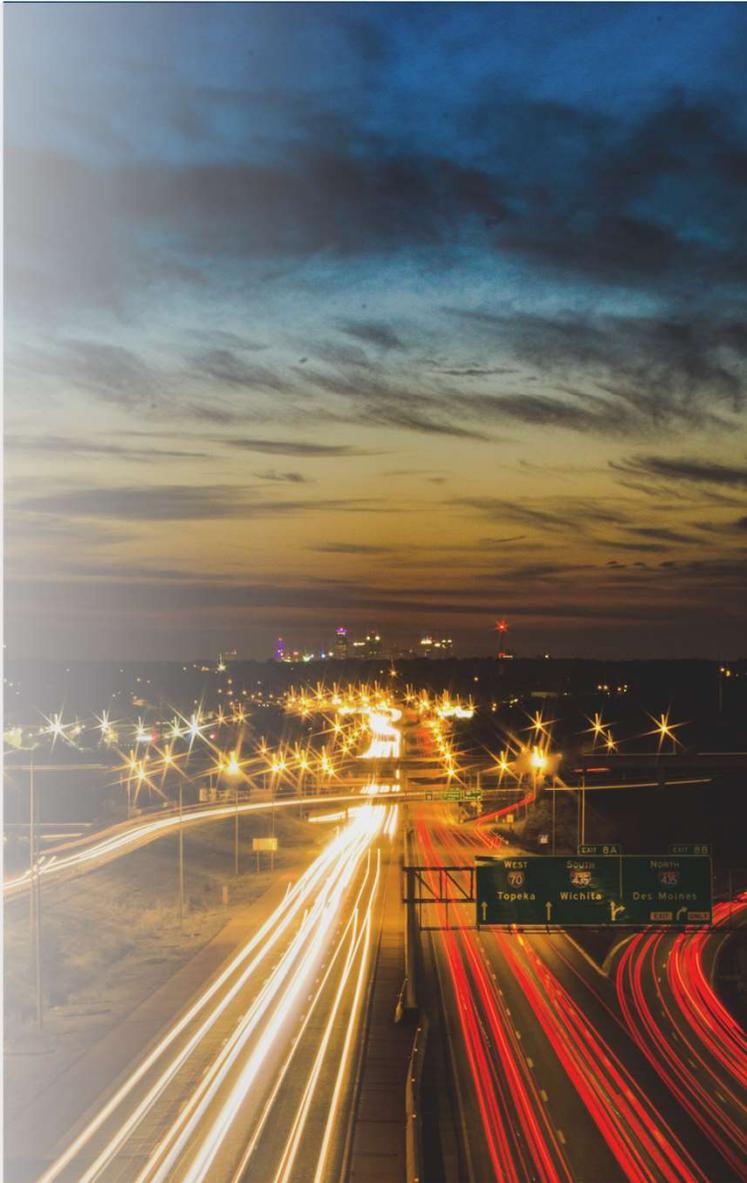


## Average Travel Time by Trip Purpose



## Reason for No Trips on Travel Day



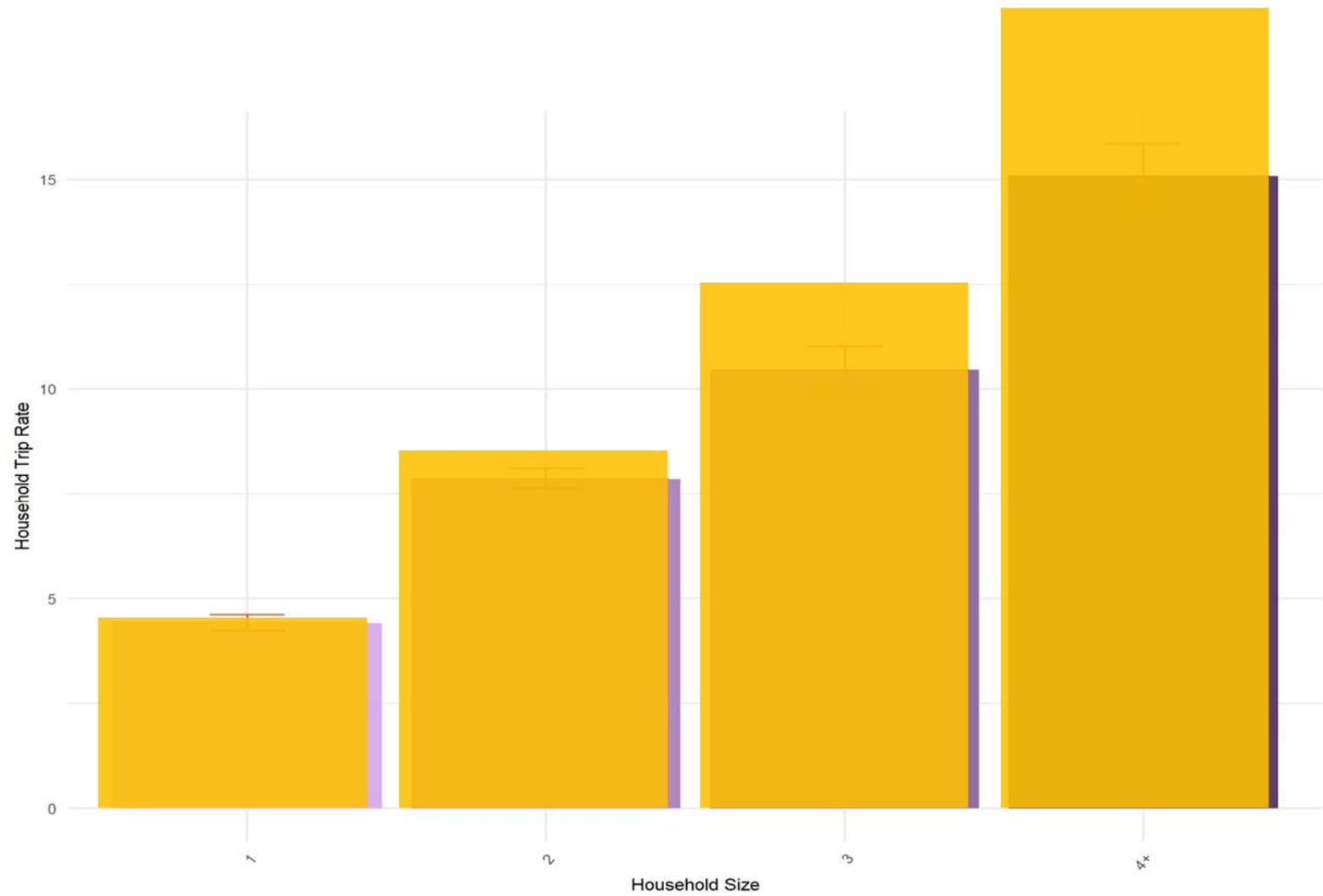


## Trip Rates

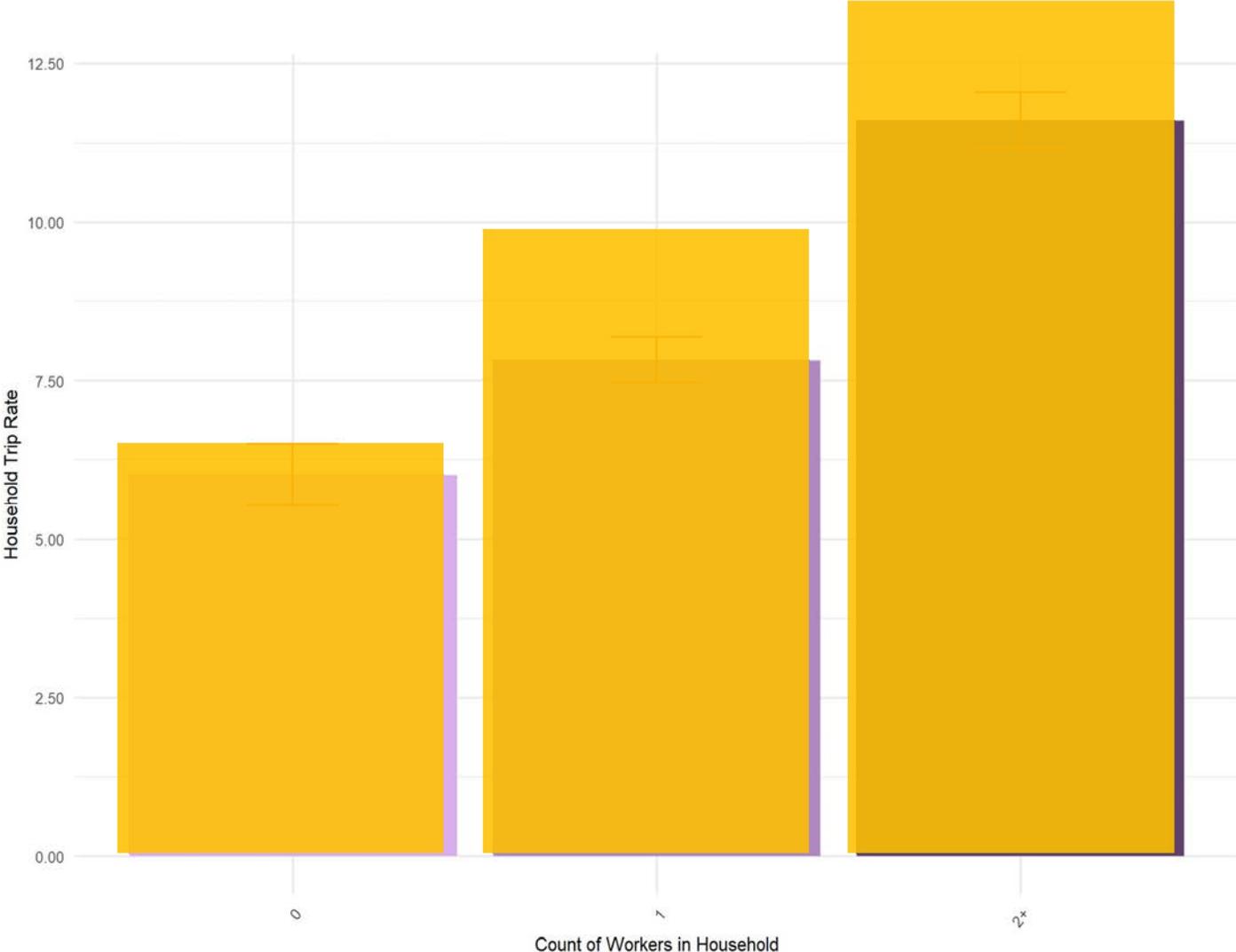
## Trip Rates

	2004 Weighted	2019 Unweighted	2019 Weighted	2019 MOE (95%)
Household Trip Rate	10.56	7.96	8.85	0.22
Person Trip Rate	4.26	3.64	3.45	0.09

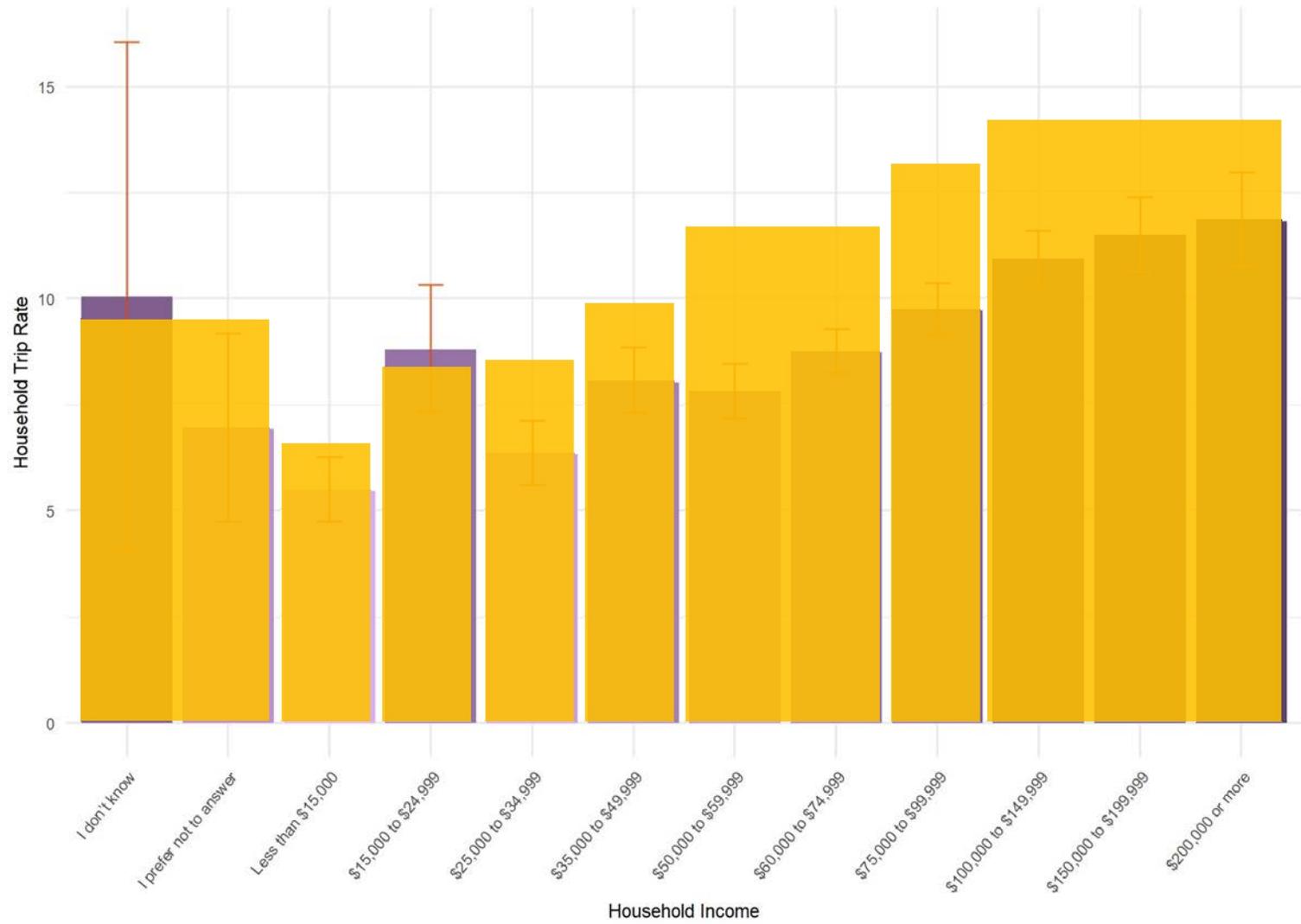
## Household Trip Rates by Household Size



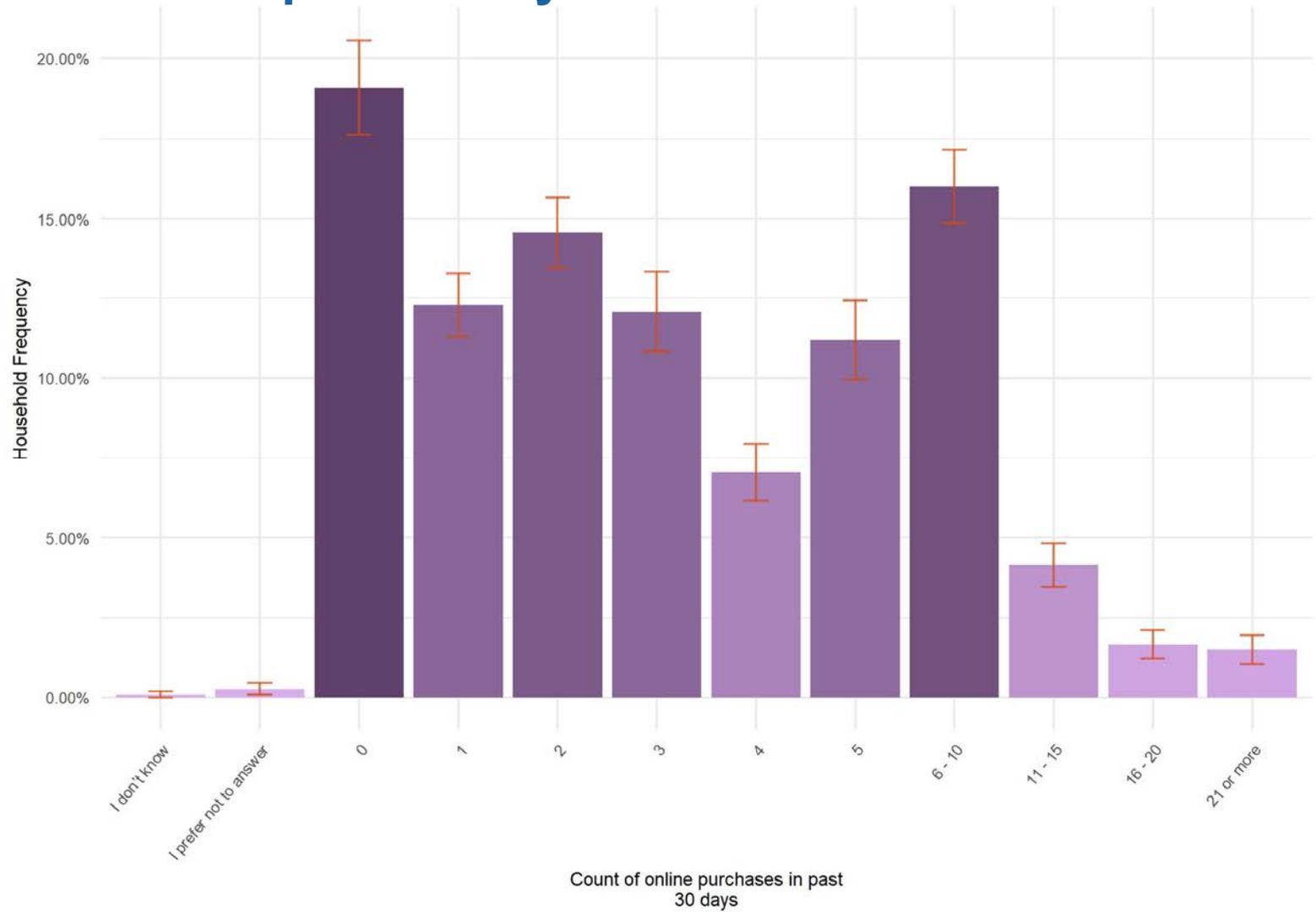
# Household Trip Rates by Household Workers



# Household Trip Rates by Household Income



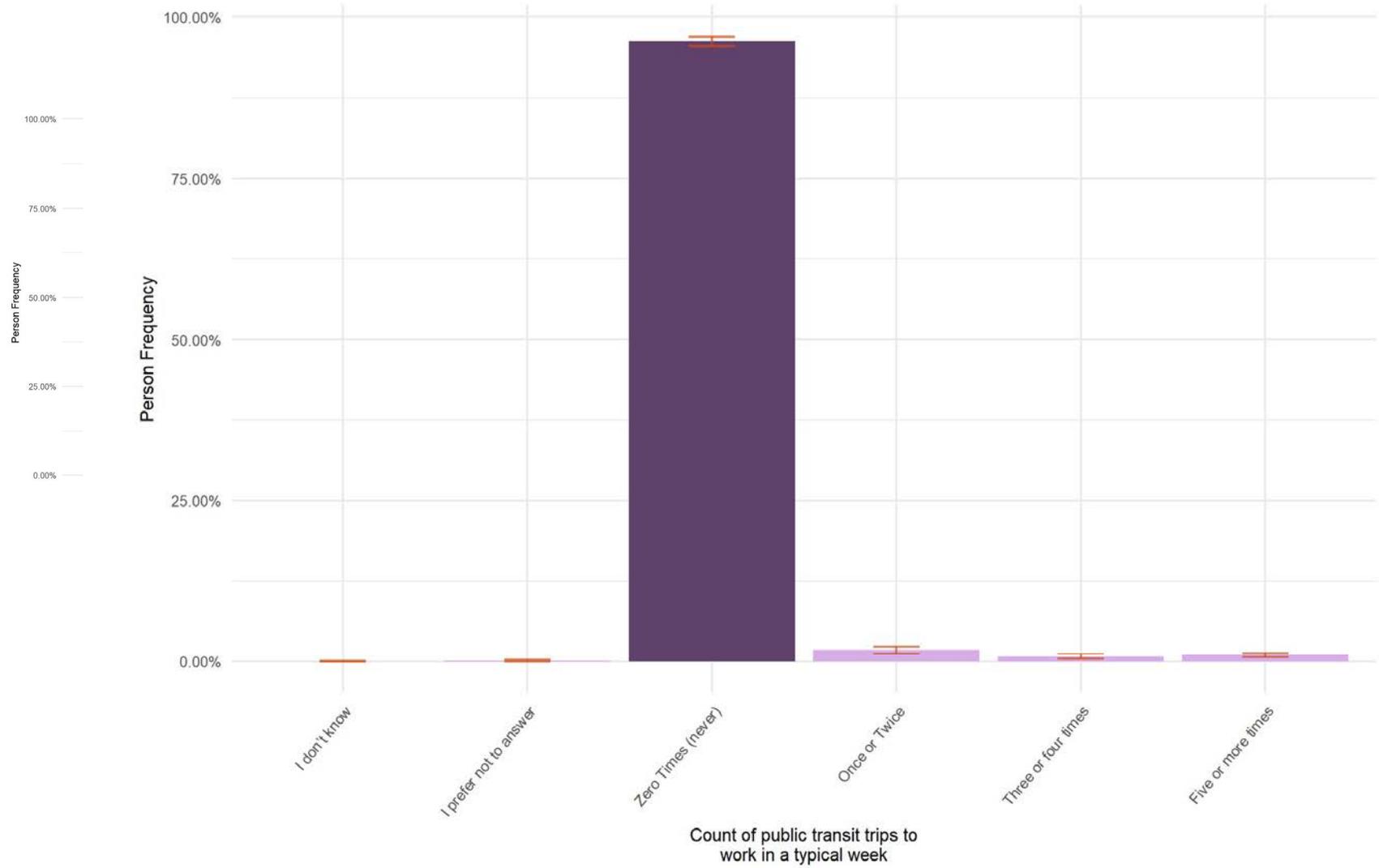
# Online purchases in the past 30 days



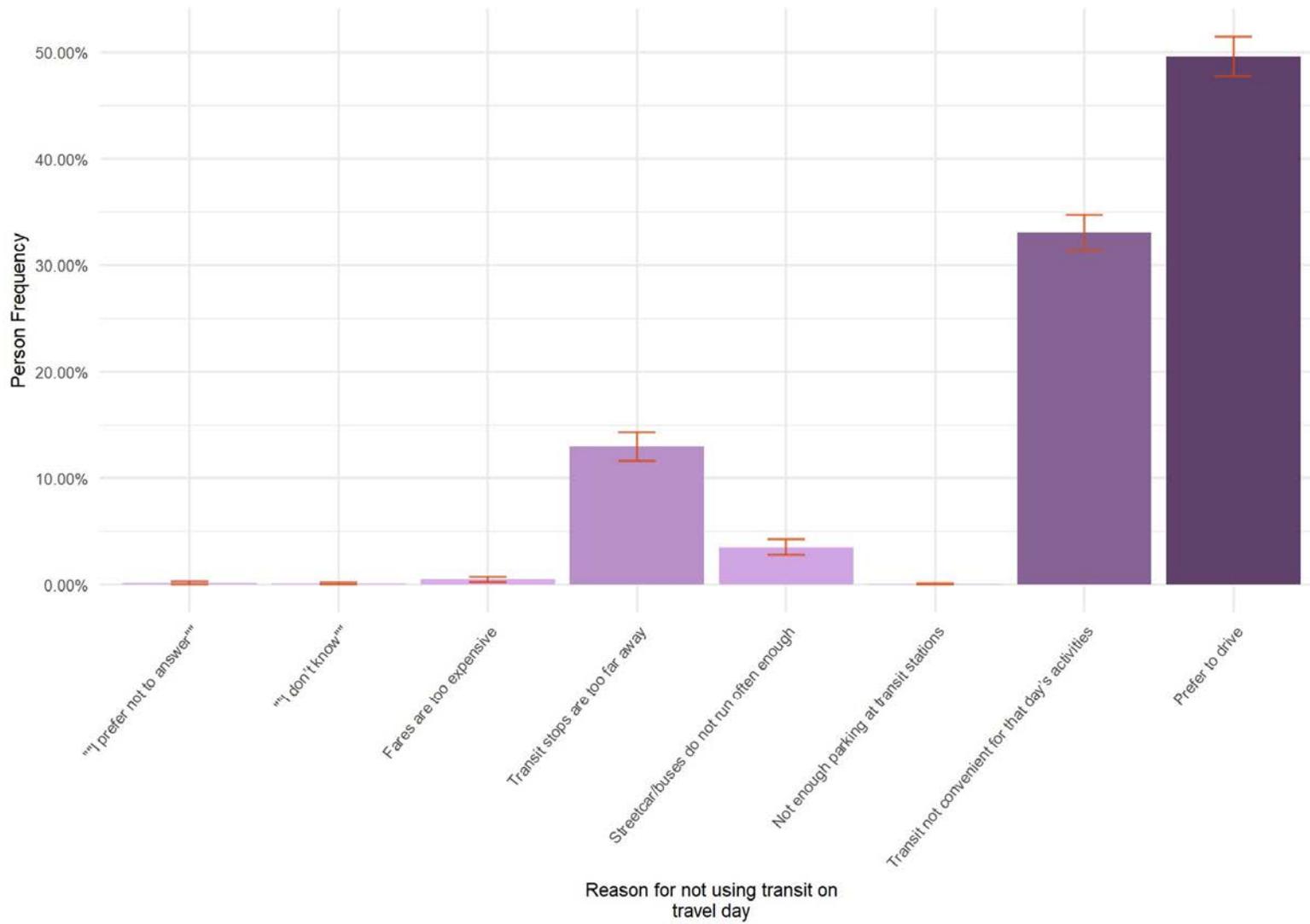


## Transit Trips

# Transit Use



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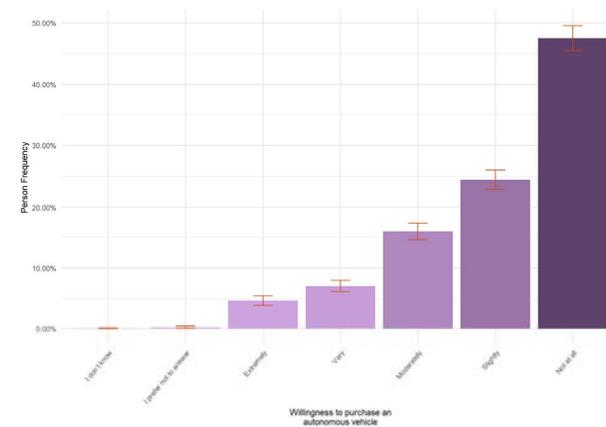
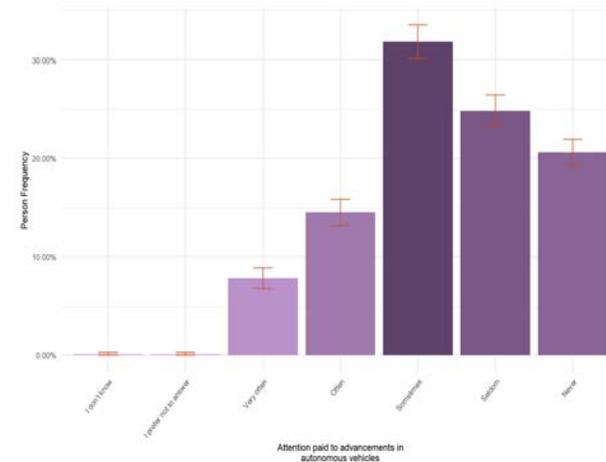




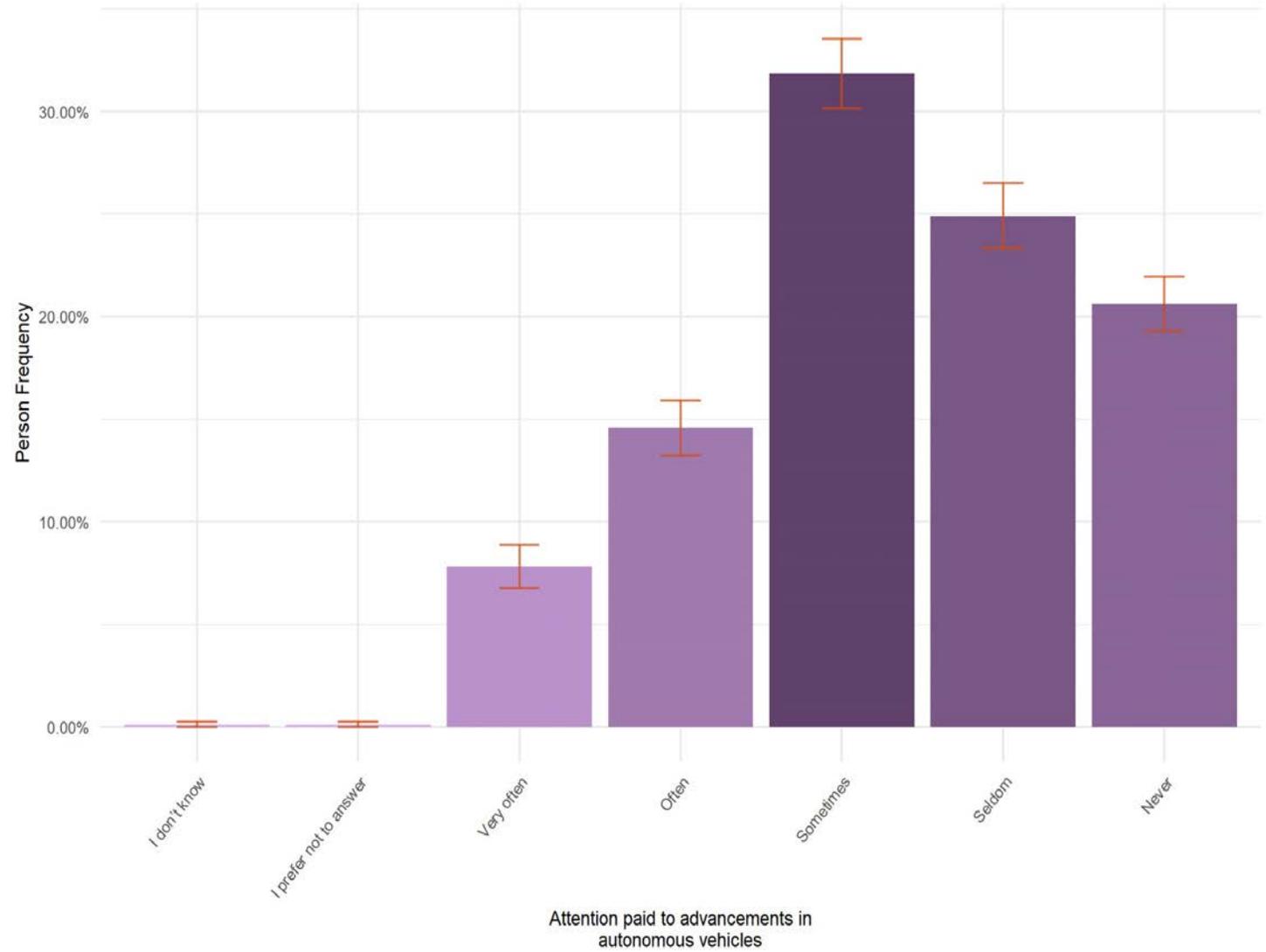
## Automated and Electric Vehicles

# Automated Vehicle Awareness and Future Ownership

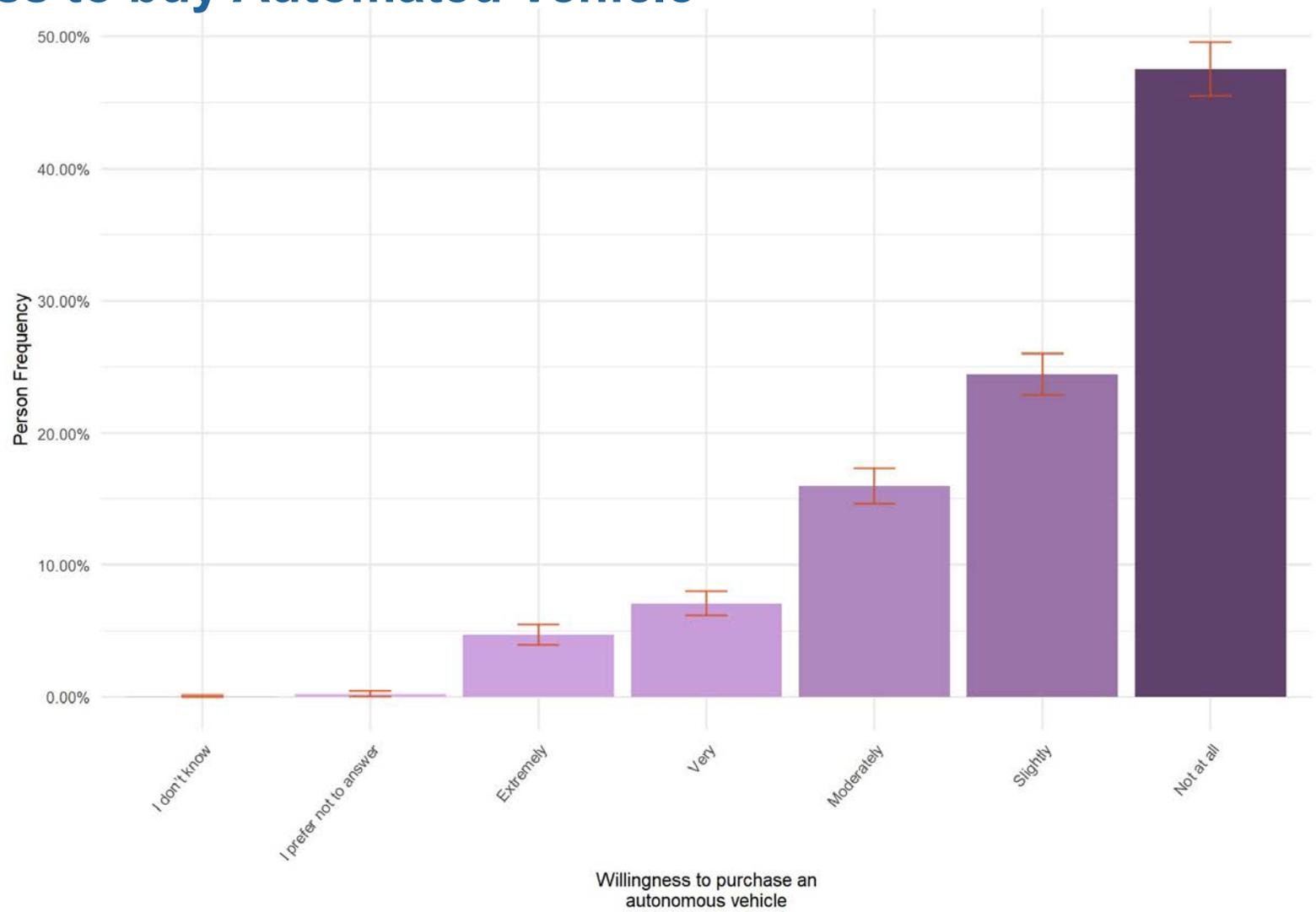
- How much do you pay attention?
- How willing are you to buy one?
- For your next vehicle what type of fuel will you consider?

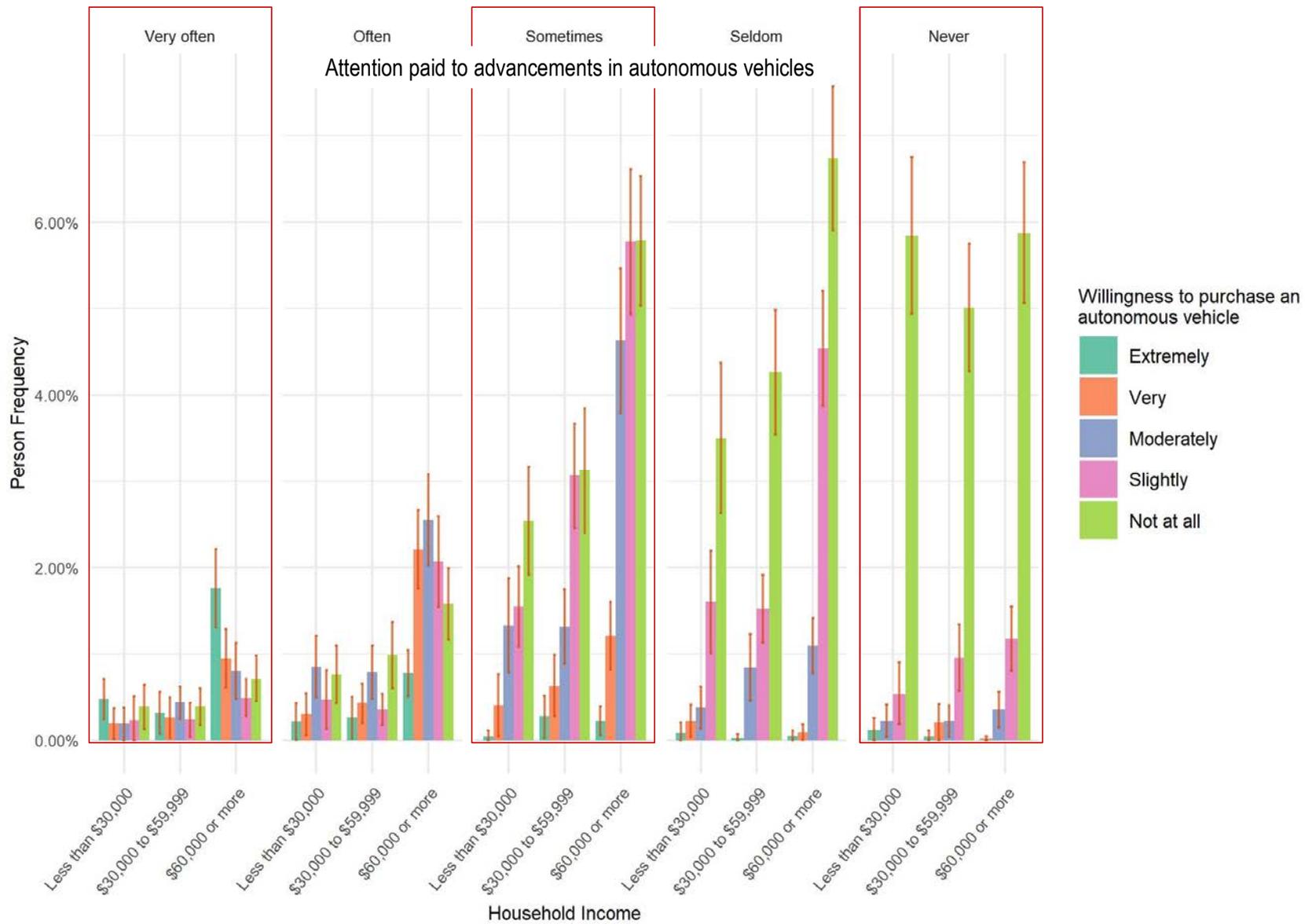


# Awareness of Automated Vehicles



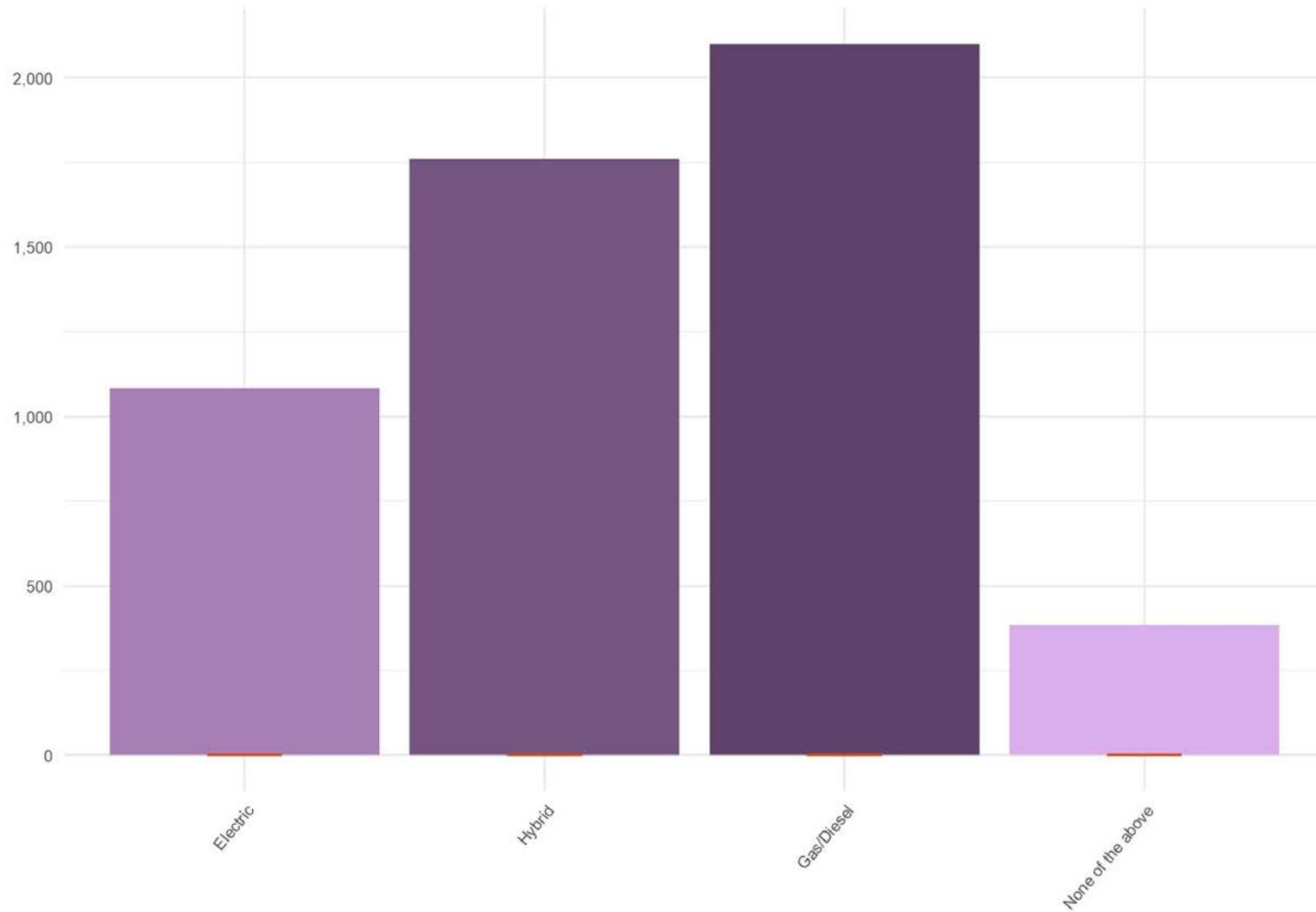
# Willingness to buy Automated Vehicle





## Interest in Electric Vehicle Future Purchase

- For your next vehicle what type of fuel will you consider?



1



2



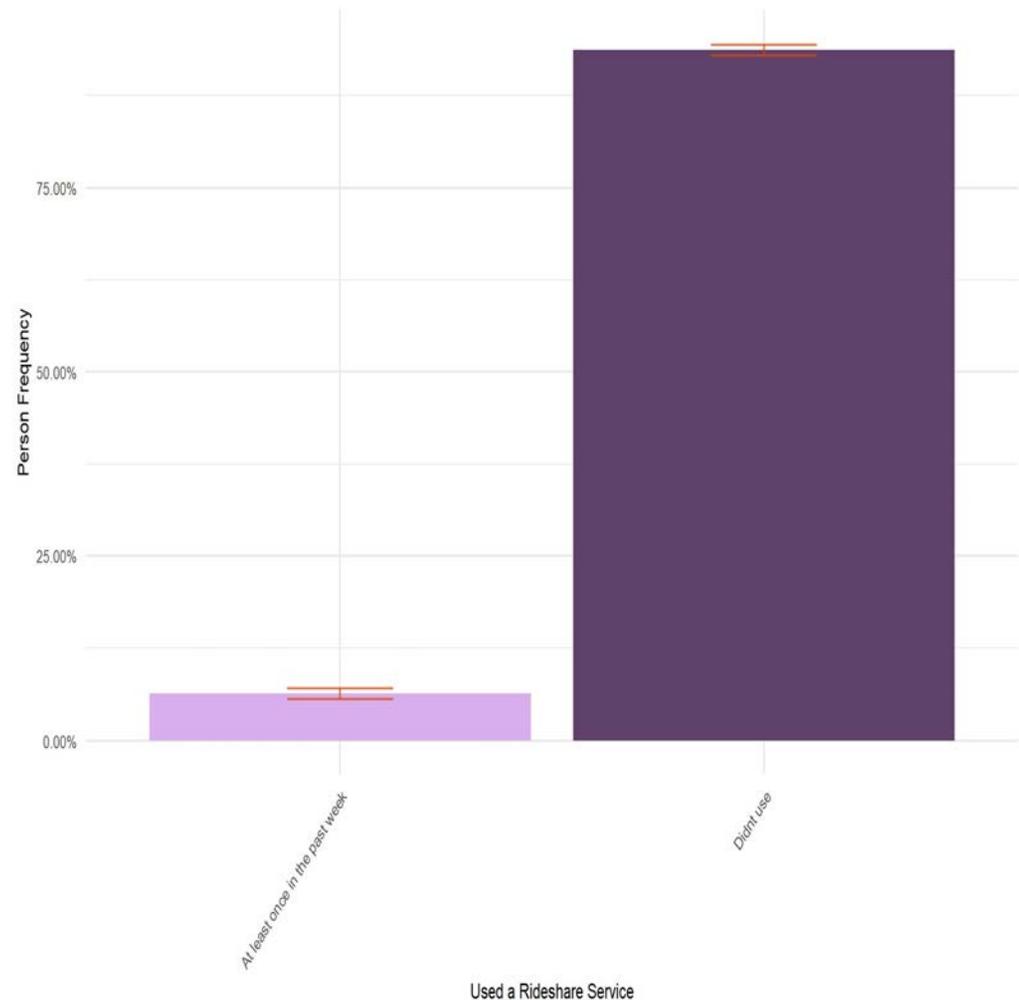
TNC

3

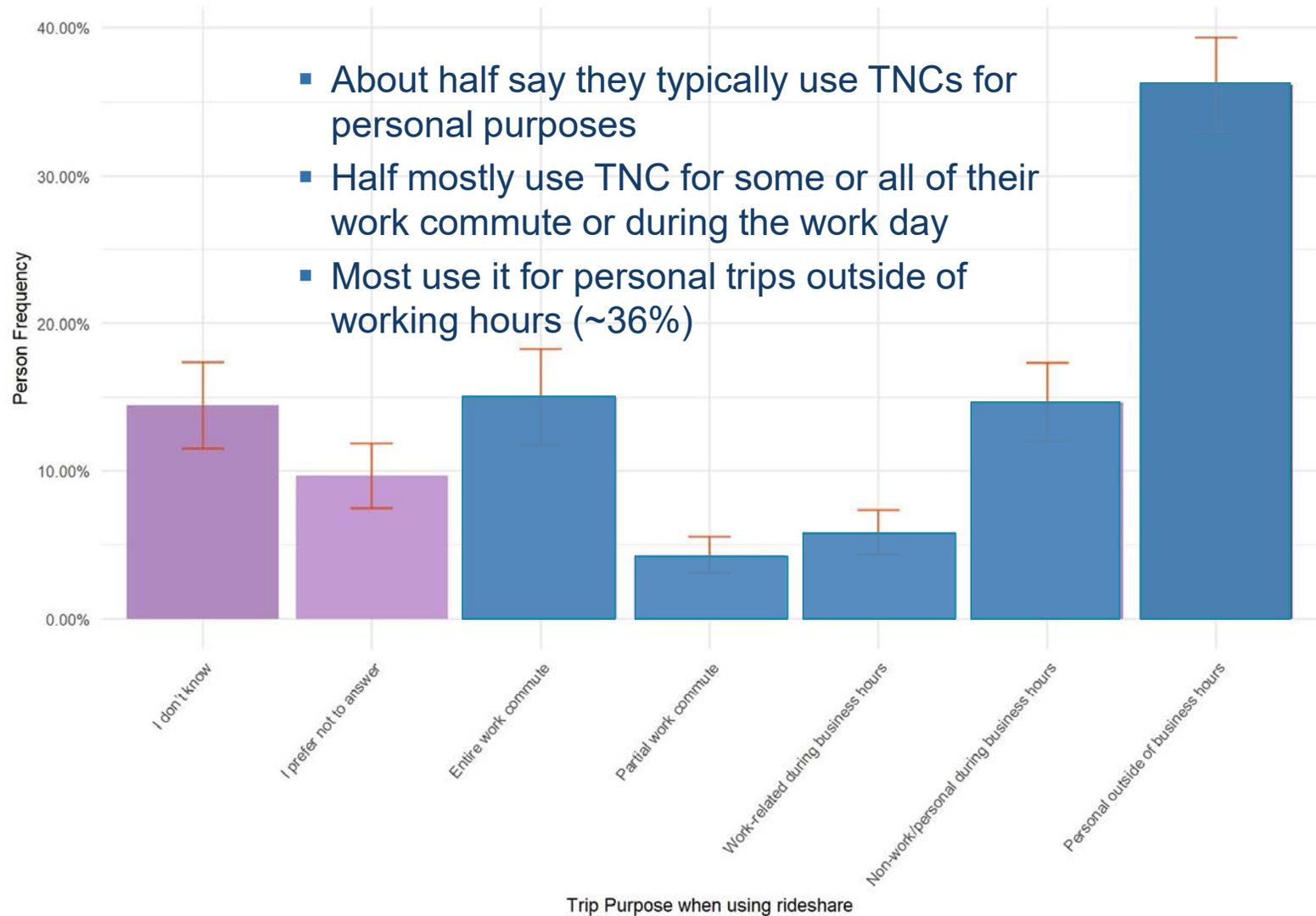


## TNC use in the last week

- Only a small share of people (~6.4%) reported using a rideshare service at least once in the past week
- 4.45% used TNC only once or twice



# Purpose when using TNC



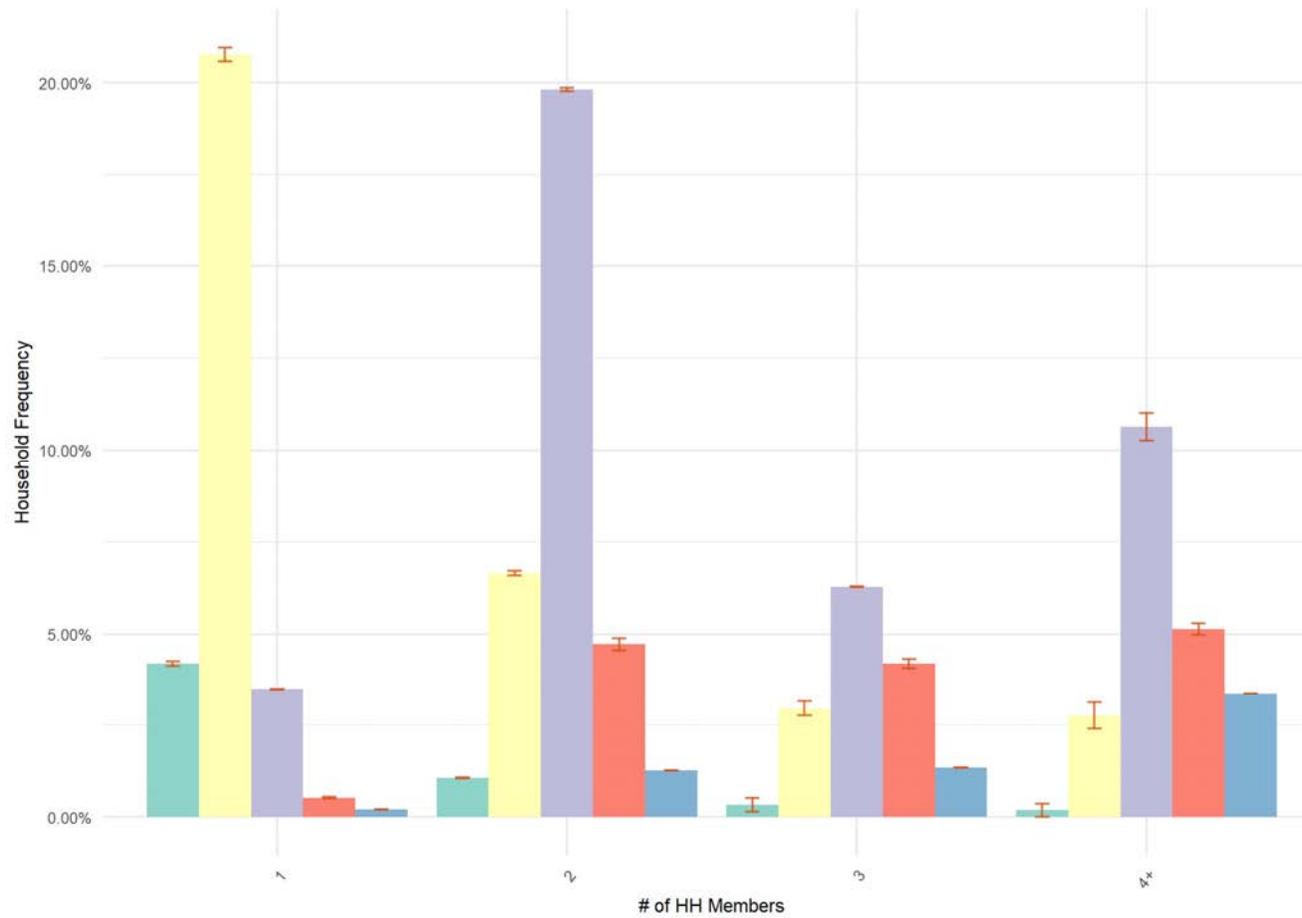
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0-trip HHs	2.3%	<b>0.9%</b>	4.4%
0-vehicle HHs	4.0%	5.3%	<b>5.8%</b>
Mode of Travel	1990 Survey	2004 Survey	2019 Survey
Driver	65.9%	64.1%	69.3%
Passenger	24.8%	26.1%	18.1%
Bus	0.9%	1.2%	1.7%
Taxi	0.1%	0.3%	0.1%
Uber/Lyft	--	--	0.2%
School Bus	4.4%	3.7%	2.4%
Walk/Bike	3.4%	4.3%	<b>6.5%</b>
<b>Other</b>	<b>0.5%</b>	<b>0.3%</b>	<b>1.7%</b>
Scooter (Bird/Lime)	--	--	0.01%
Streetcar	--	--	0.14%
BCycle	--	--	--
Carpool/Vanpool	--	--	1.10%

## Conclusions

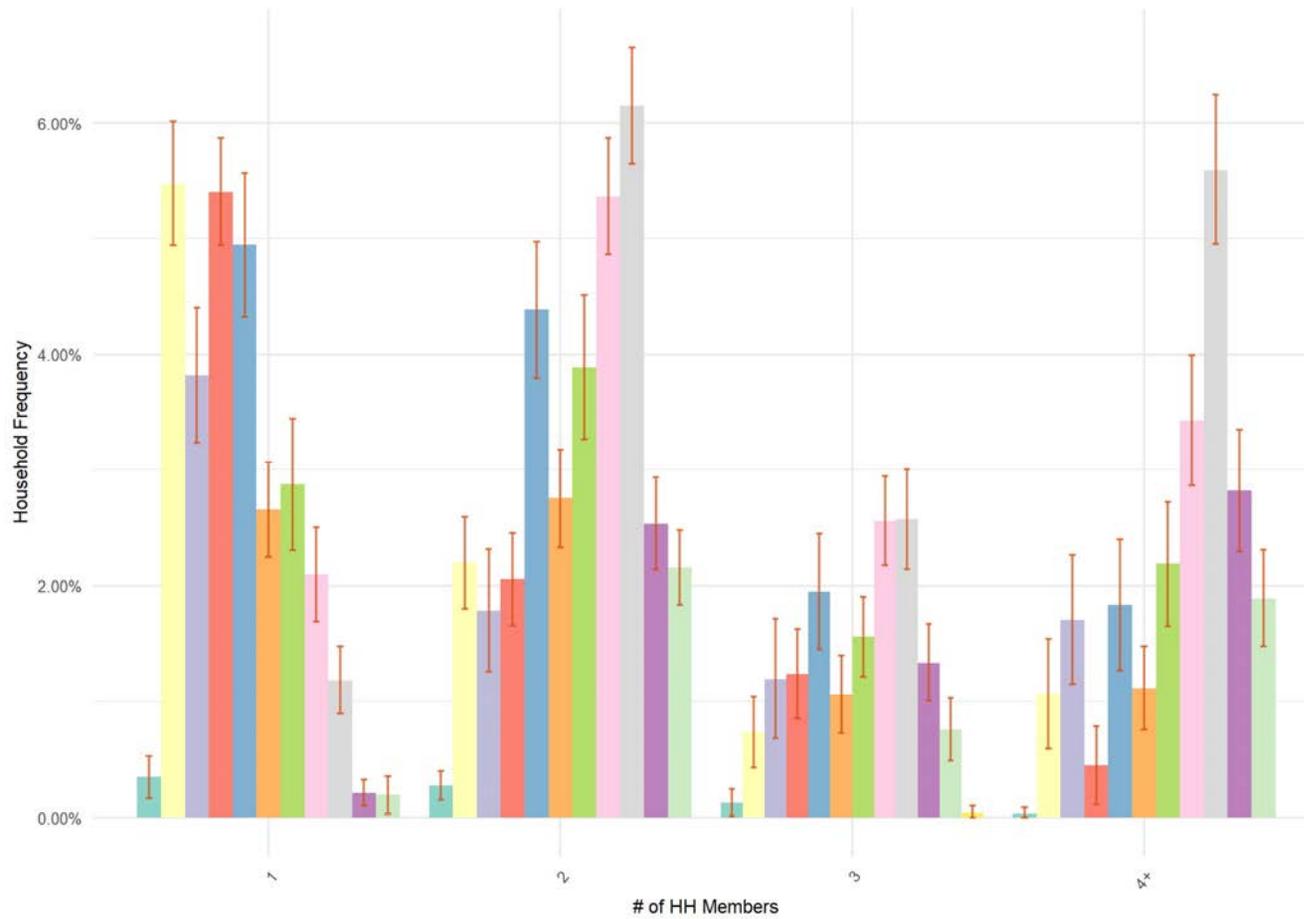
- New modes
- Trip replacement
- Use of TNC
- Trip rates
- Distance/duration
- Transit use
- Mode share
- High visibility but not impactful yet?
- Some evidence of this
- Low use on day; mostly replacing Taxi trips?
- Lower than in 2004; similar to national trends
- Further/longer for key purposes than 2004
- Mode share up; non-use due to inconvenience
- Auto still dominant; walk/bike up; marked decrease in HOV

## Further Discussion

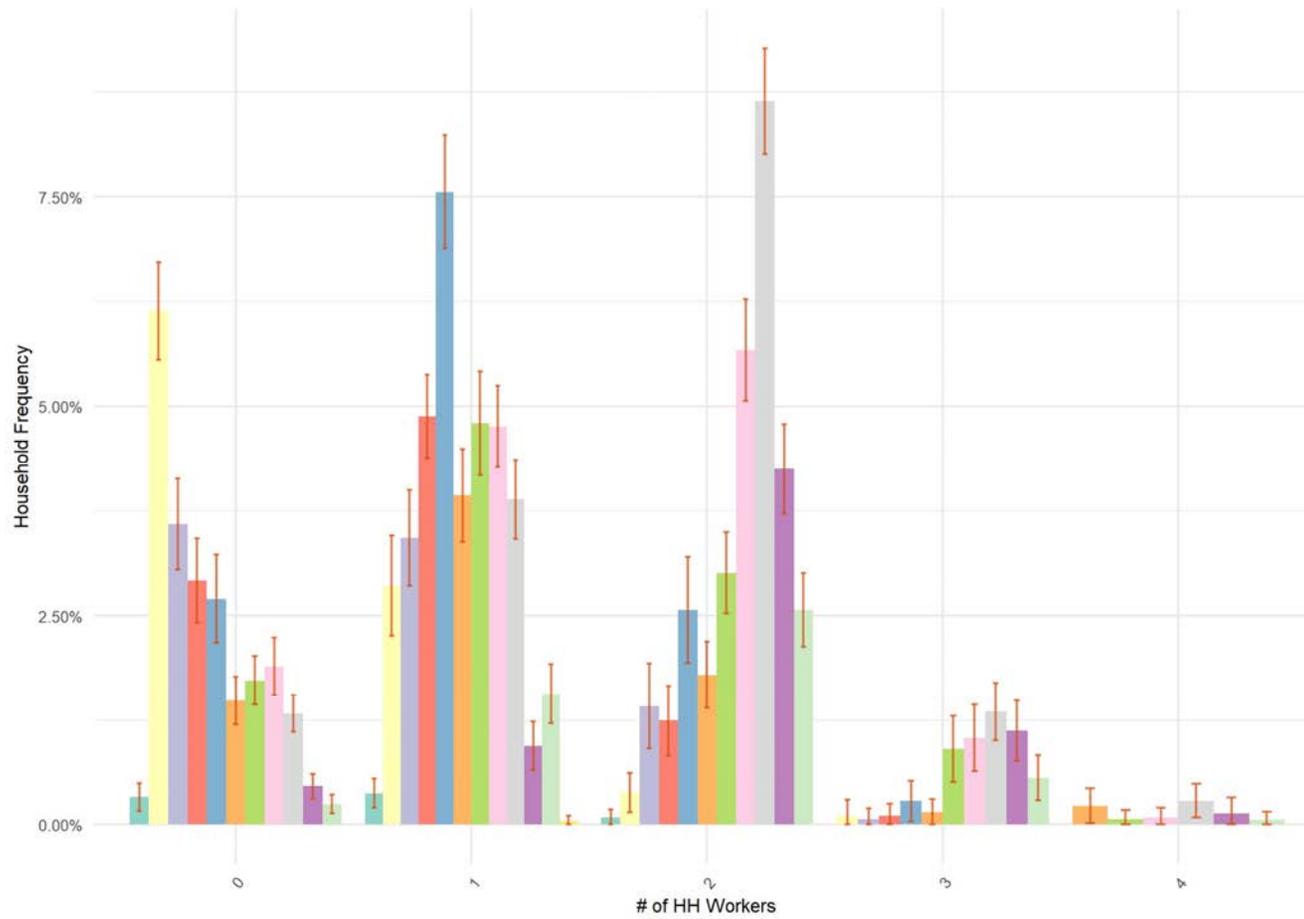
# Number of Household Vehicles by Household Size



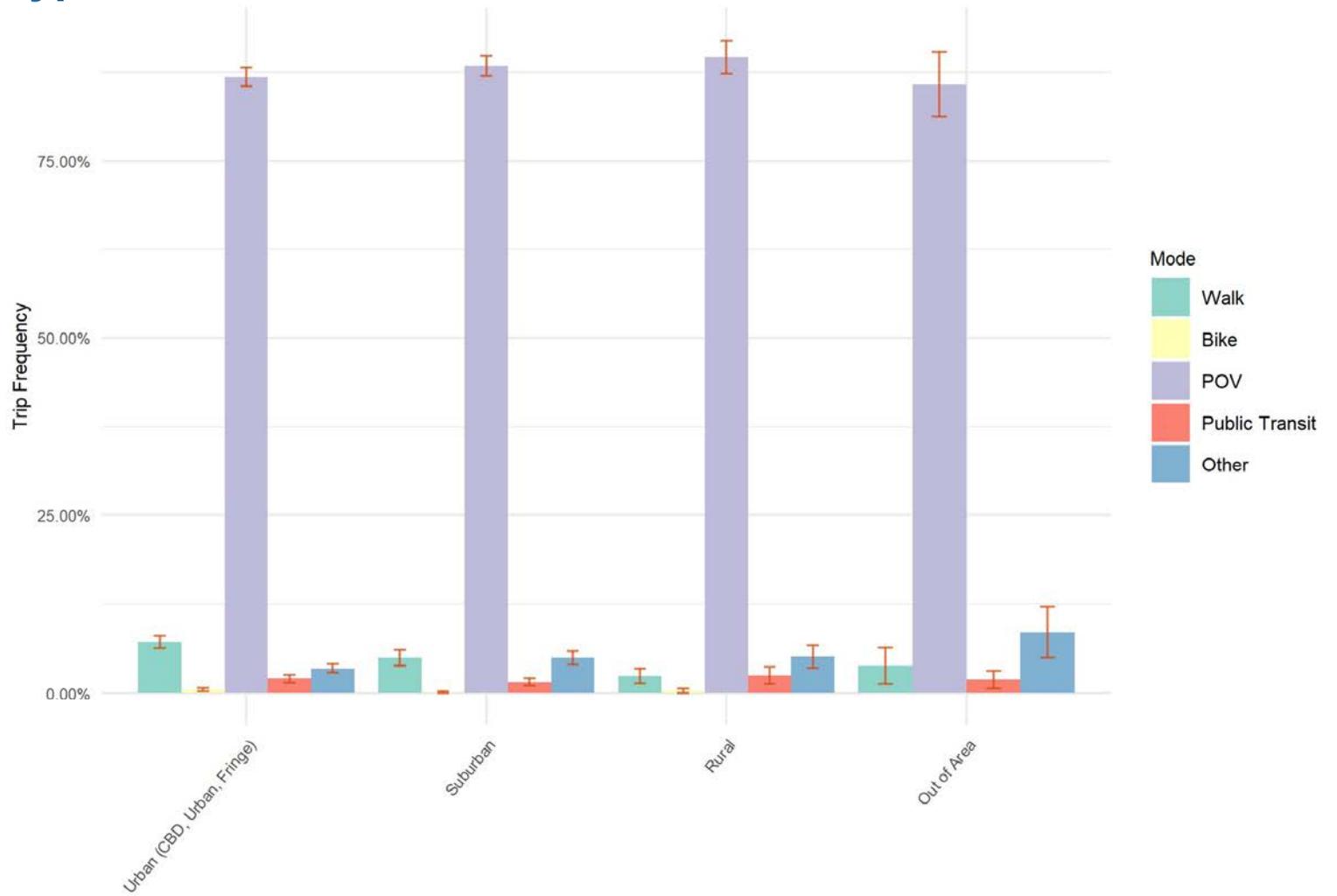
# Household Size by Income



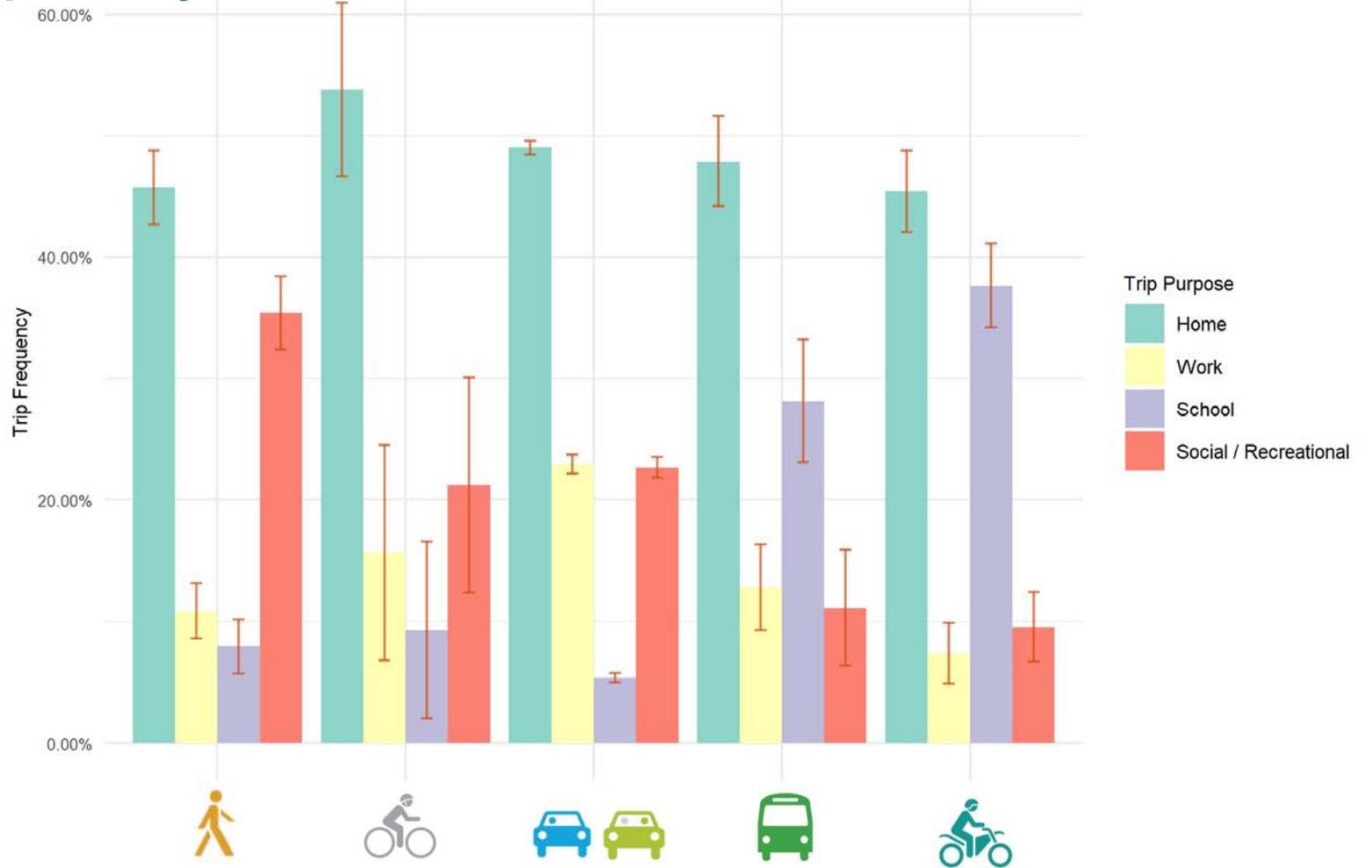
# Income by Number of Household Workers



## Mode by Area Type



# Top Trip Purposes by Mode



# Household Size by Online Purchase Frequency

