

Travel Behavior Inventory Program

# 2016 Transit On Board Survey

2017-07-10

Metropolitan Council Transportation  
Committee



# Purpose

- Understand transit travel markets
- Improve regional forecast model
- Investigate effect of major new transit service
  - “After” survey for Green Line
  - “Before” survey for Green Line Extension, Blue Line Extension
- Respond to FTA guidance

# Project Background

- Conducted approximately every 5 years on entire fixed-route bus/rail system
- Funding: \$800,000 from TAB/Regional Solicitation  
\$550,000 from Council local sources
- Agency Partners: Metropolitan Council, MnDOT, University of Minnesota, MVTA, SouthWest Transit, City of Plymouth, City of Maple Grove, FTA

# Phase 1: On to Off Count

- Stop to stop count
- Boarding-to-alighting flows
- 25 High ridership bus, rail routes
- Allows more refined sampling and expansion of Phase 2
- Spring-summer 2016
- Collected 58,337 records

# Phase 2: Origin-Destination Survey

- Detailed questionnaire administered by trained interviewer
  - 5+ minutes to complete
  - Summer-fall 2016
  - Collected 31,521 surveys
  - Very high quality data
- Data:
    - Home
    - Boarding/alighting
    - Origin/destination
    - Access/egress
    - Trip
    - Fare
    - Vehicles
    - Demographics

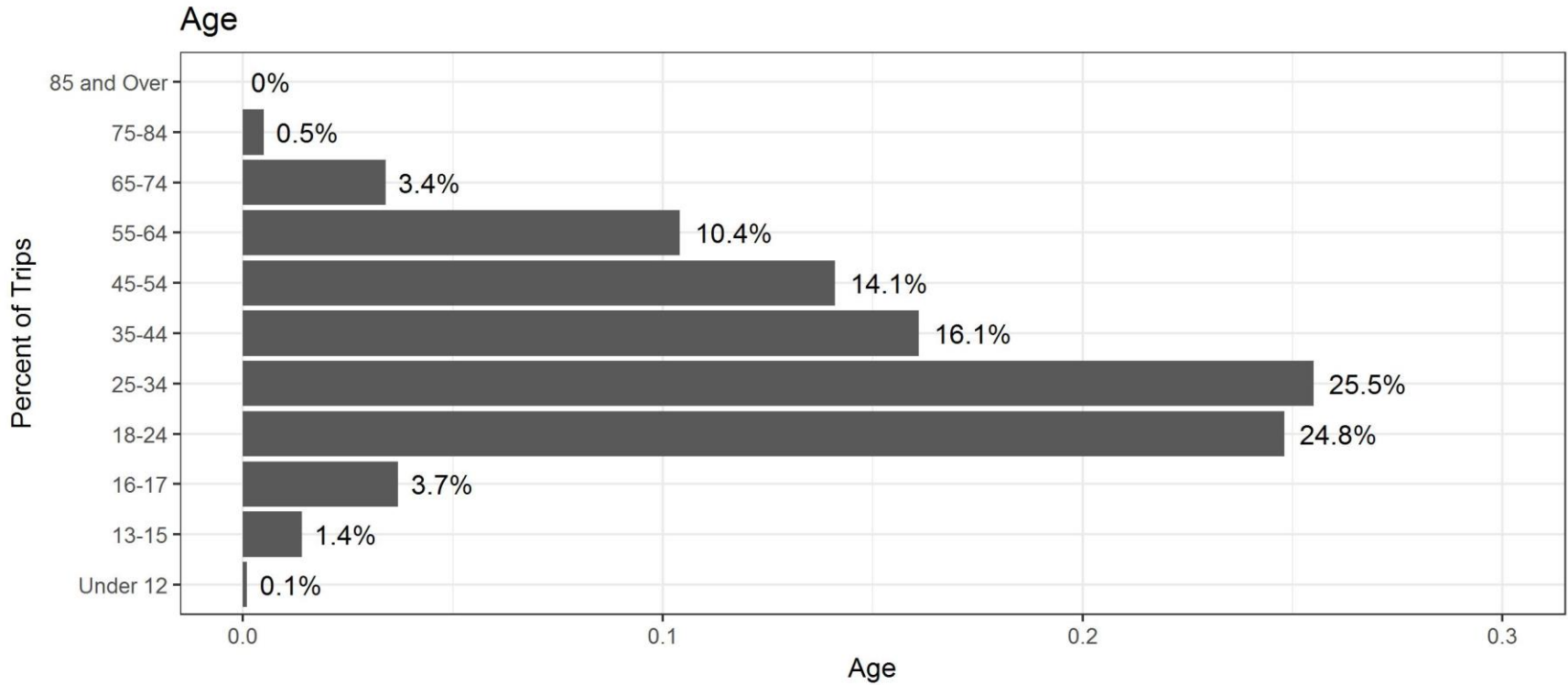
# O/D Records Collected

Provider	Records
Maple Grove	382
Metropolitan Council	1,025
Metro Transit	27,393
MVTA	1,110
Plymouth	232
SouthWest	445
U of M	934

Route Type	Records
BRT	321
Commuter Rail	350
Express	4,811
LRT	10,396
Suburban Local	1,636
Urban Local	14,007

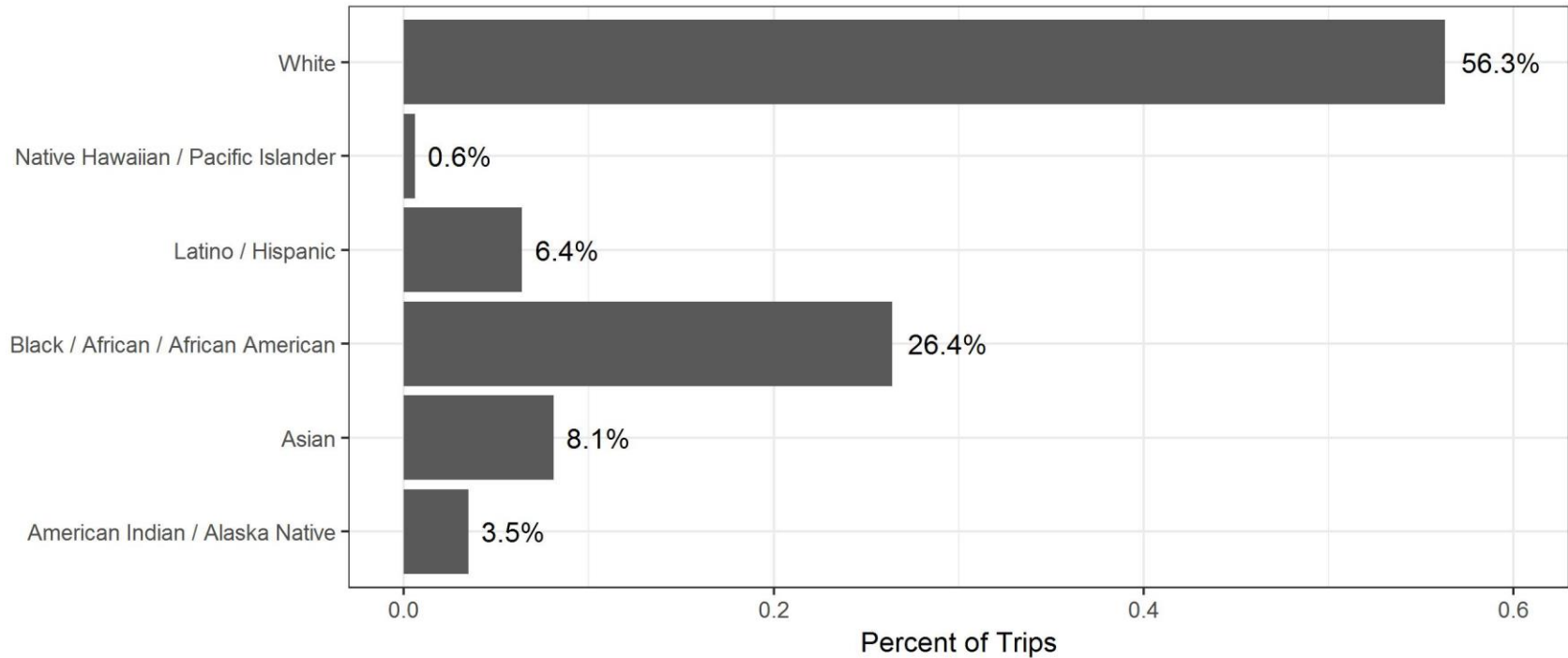
# Selected Demographics

# Demographic Profile- Age



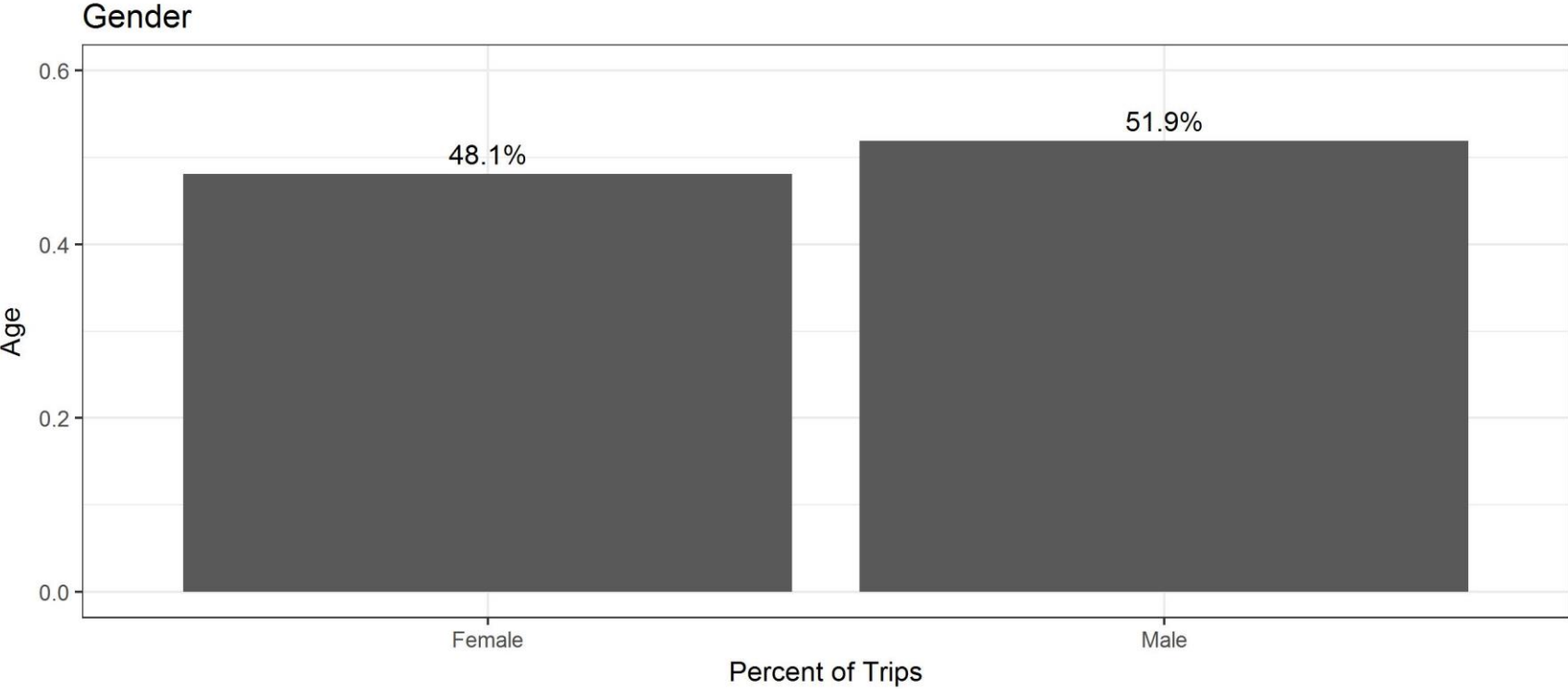


# Demographic Profile: Race

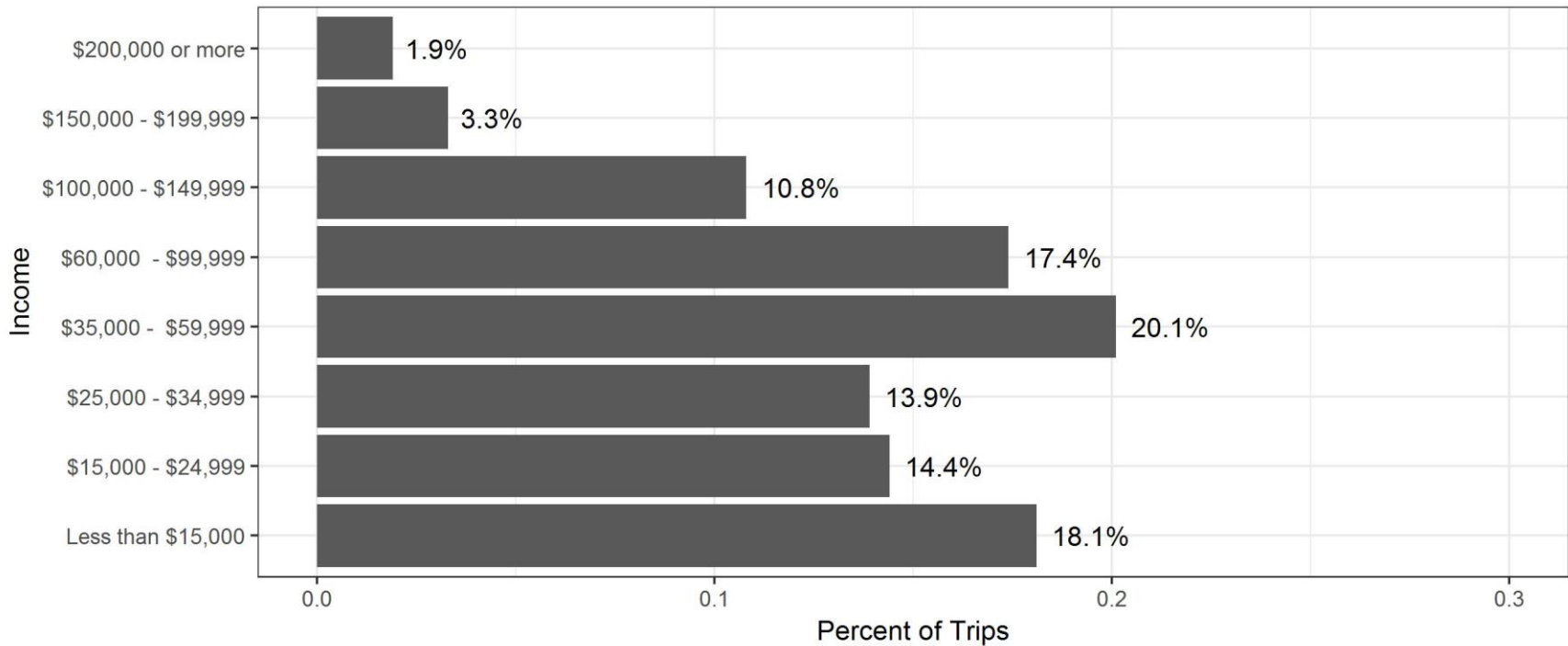


Note: Multiple responses possible for race, will sum to more than 100%

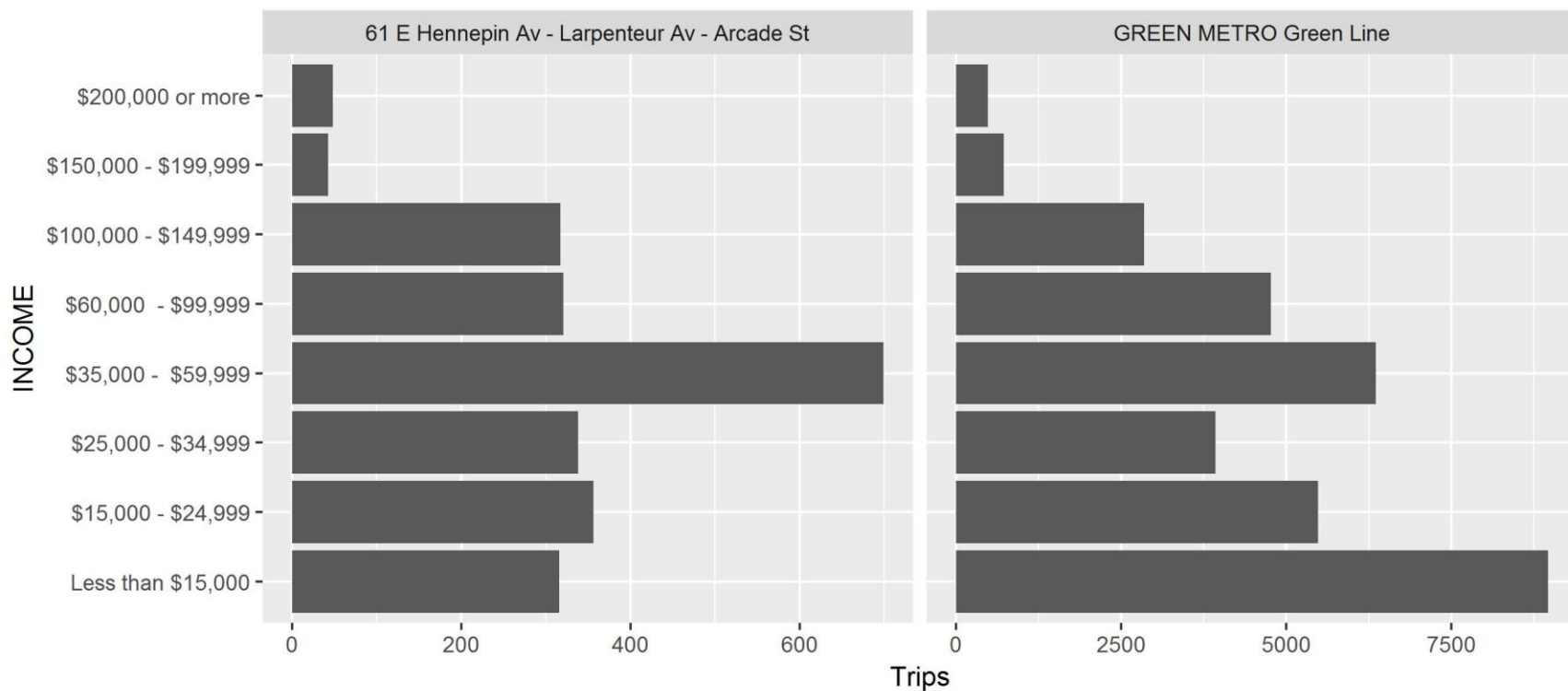
# Demographic Profile- Gender



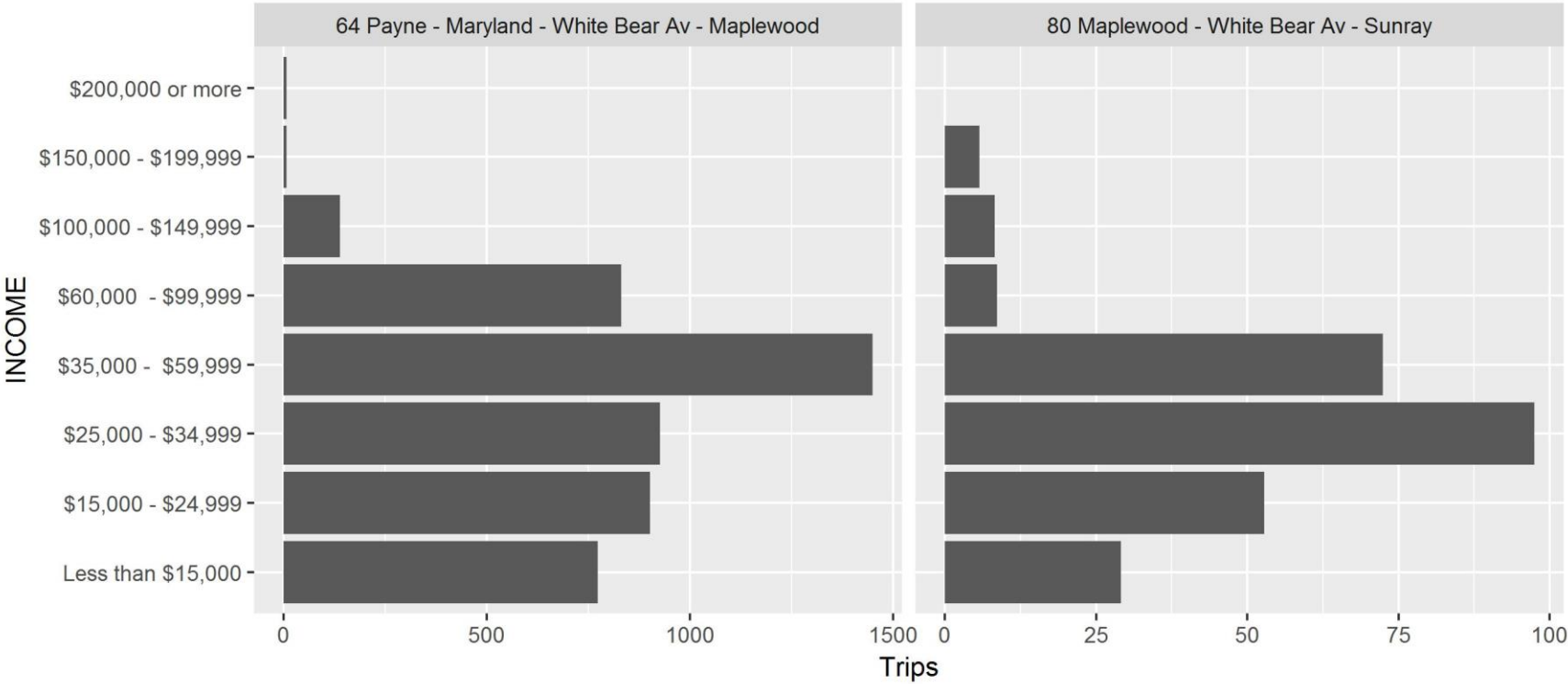
# Demographic Profile- Income



# Sample Route Comparisons

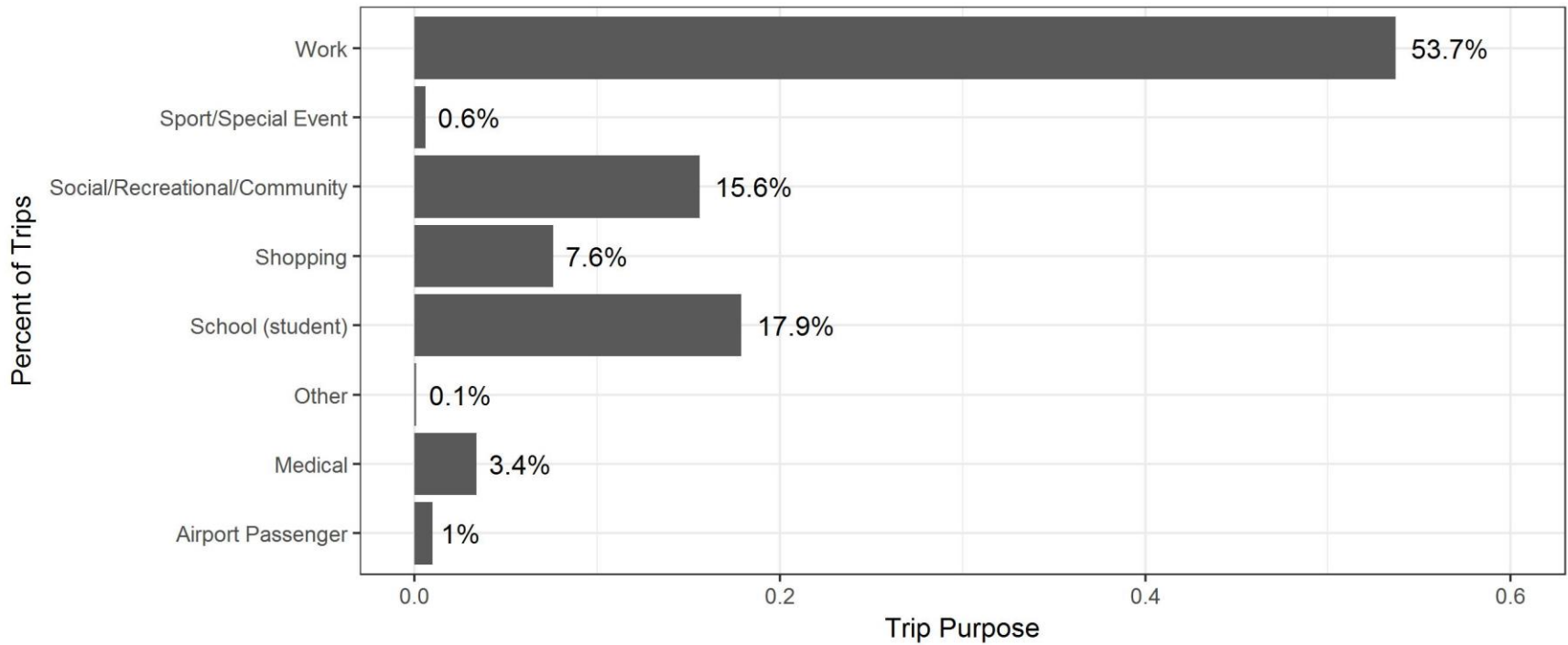


# Sample Route Comparisons

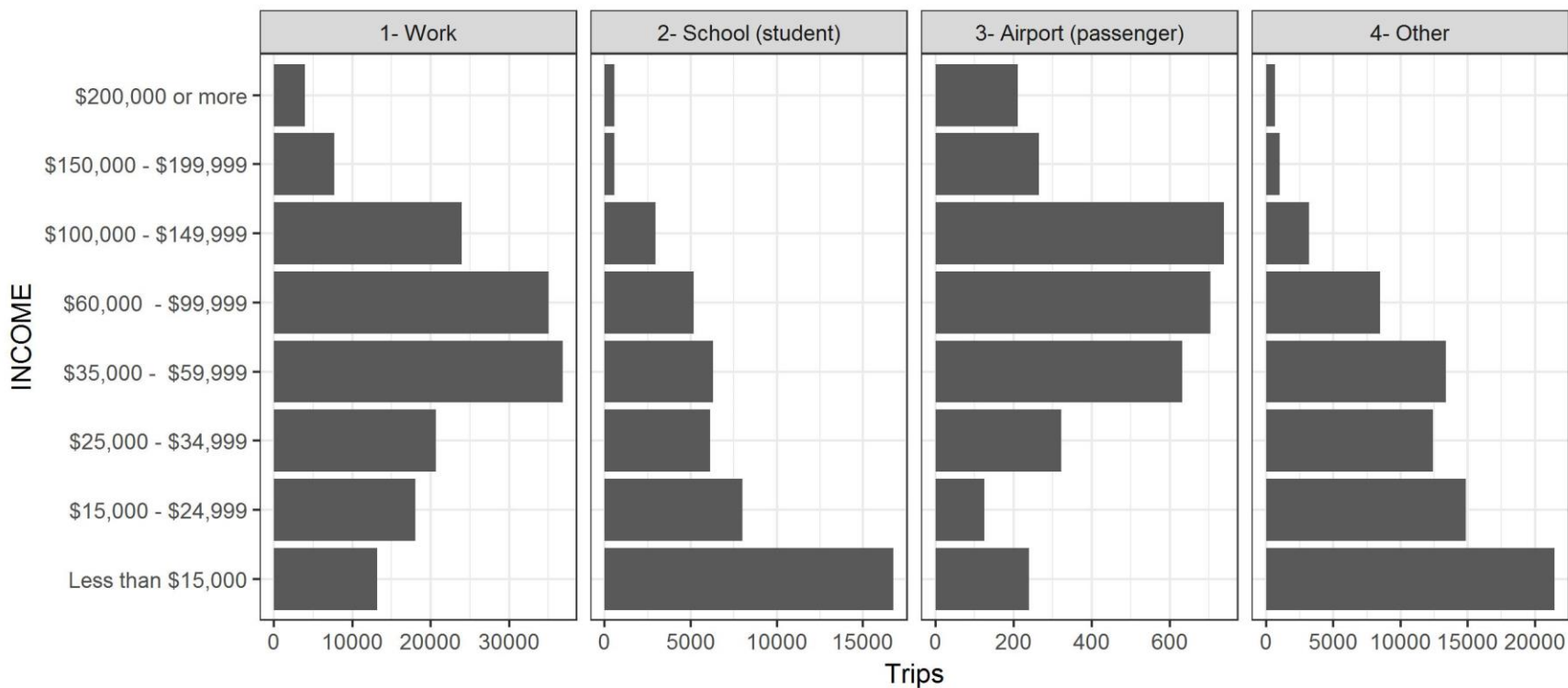


# Sample Travel Data

# Trip Purpose

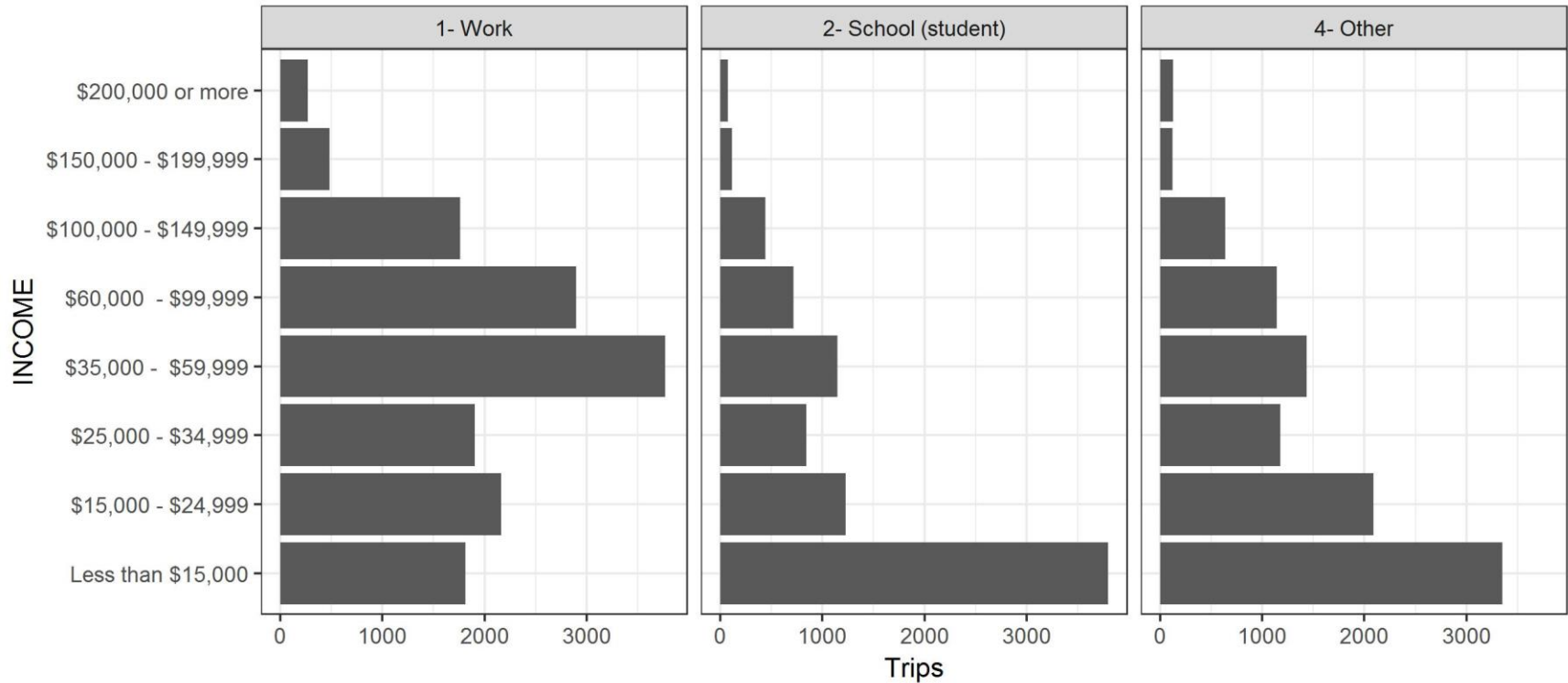


# Trip Purpose- System Wide

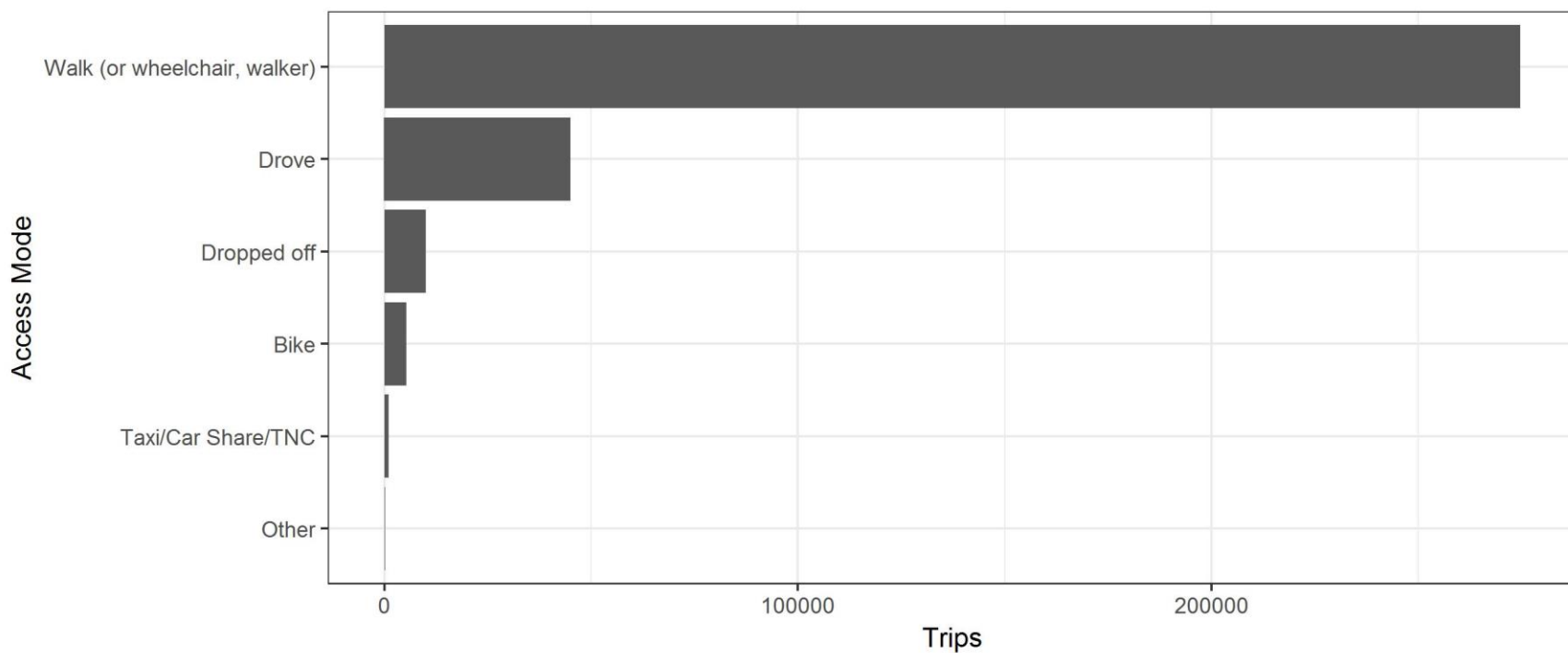




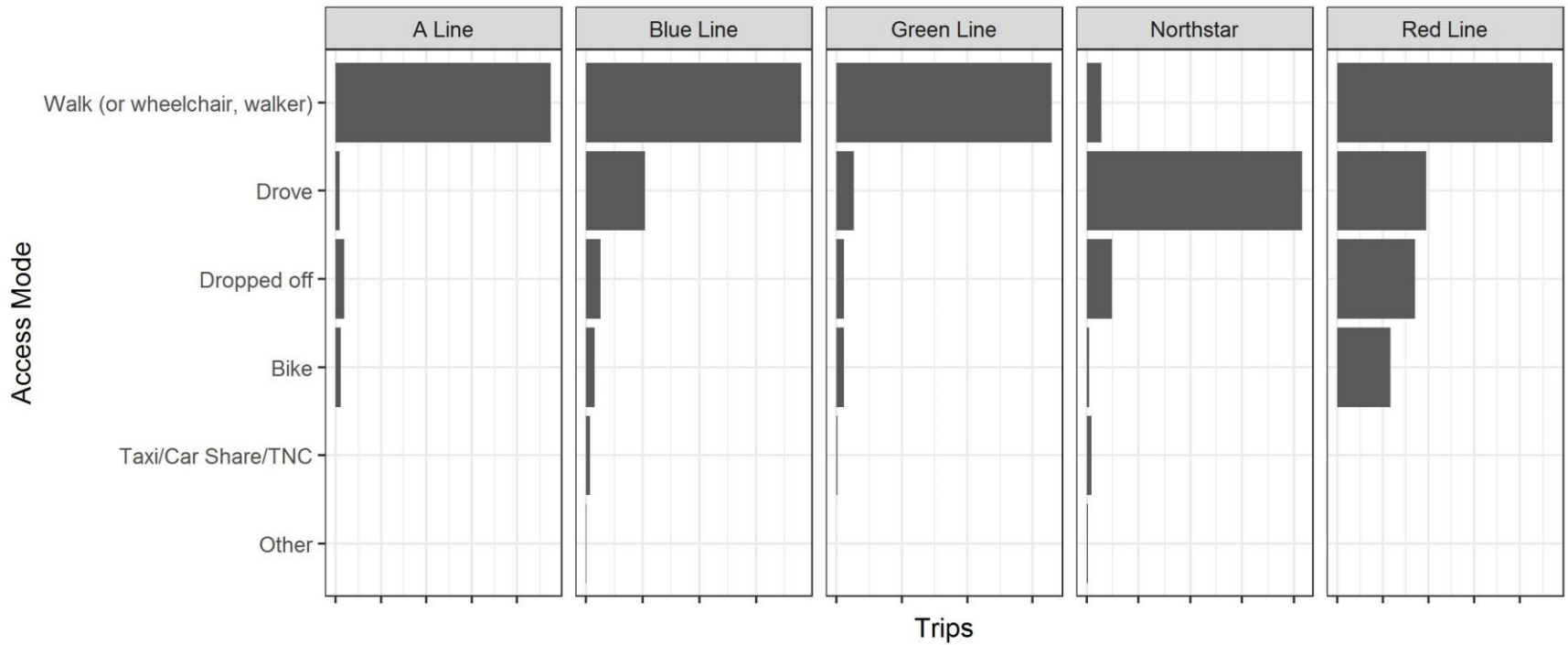
# Trip Purpose- Green Line



# Access Modes- System Wide



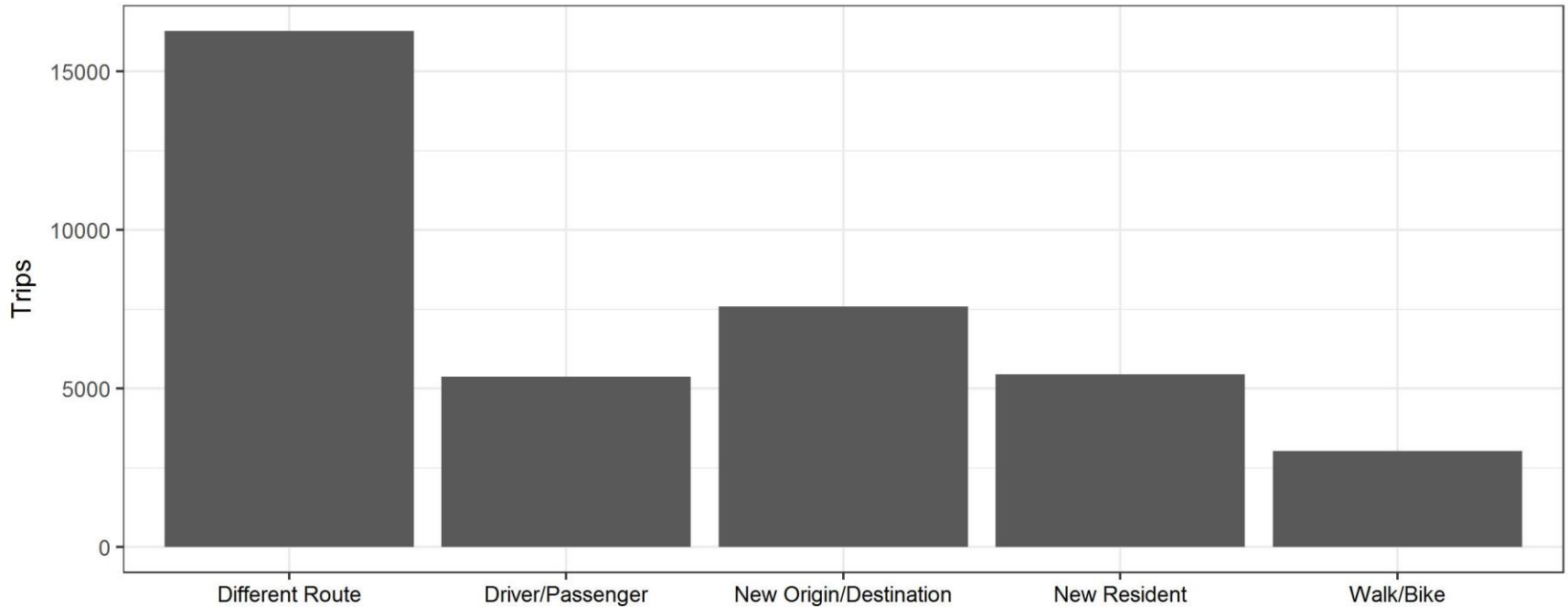
# Access Mode- Selected Routes



# Impact of Green Line

# Impact of Green Line

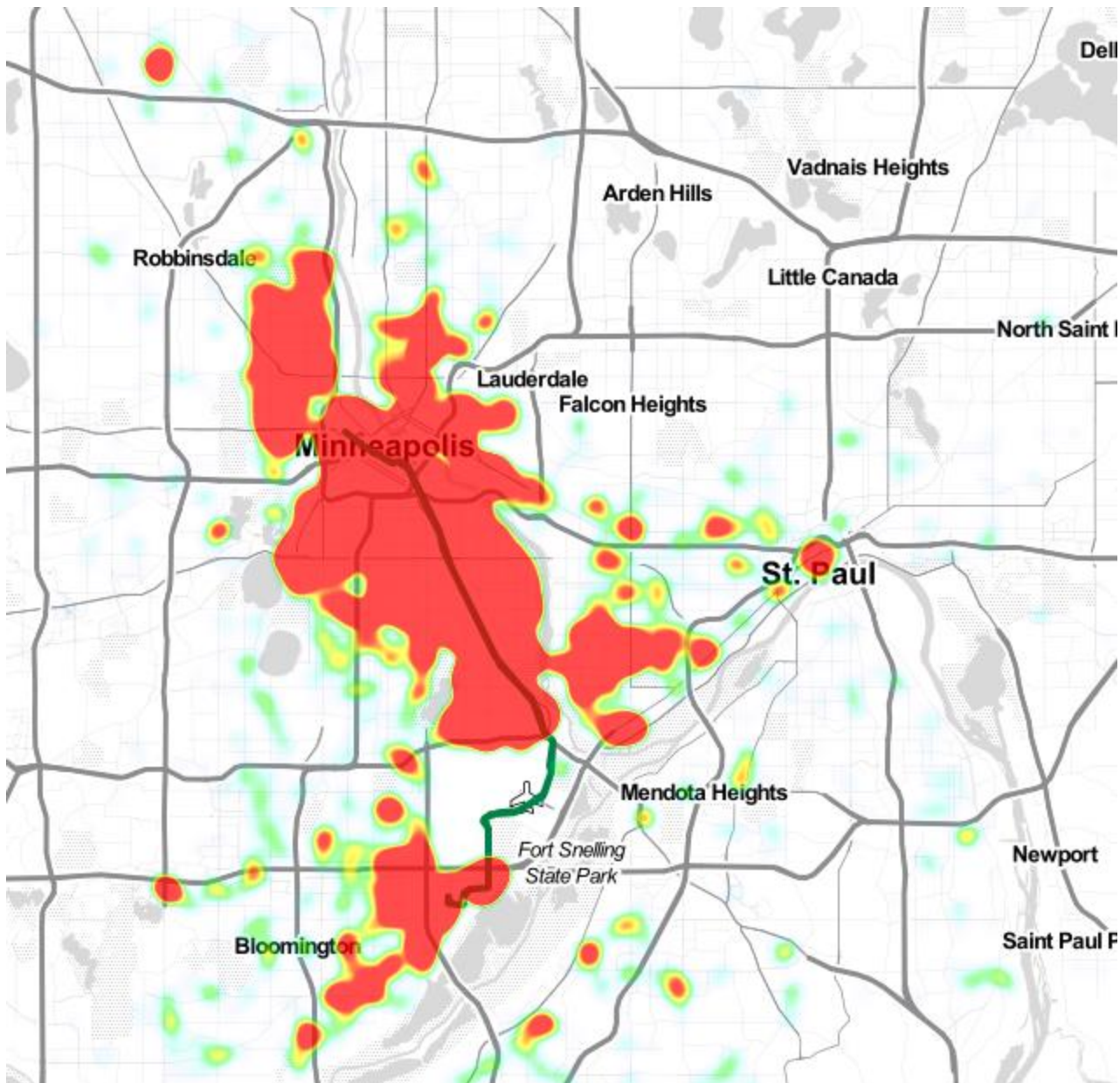
How did you usually make this trip prior to the Green Line opening?



# Impact of Green Line

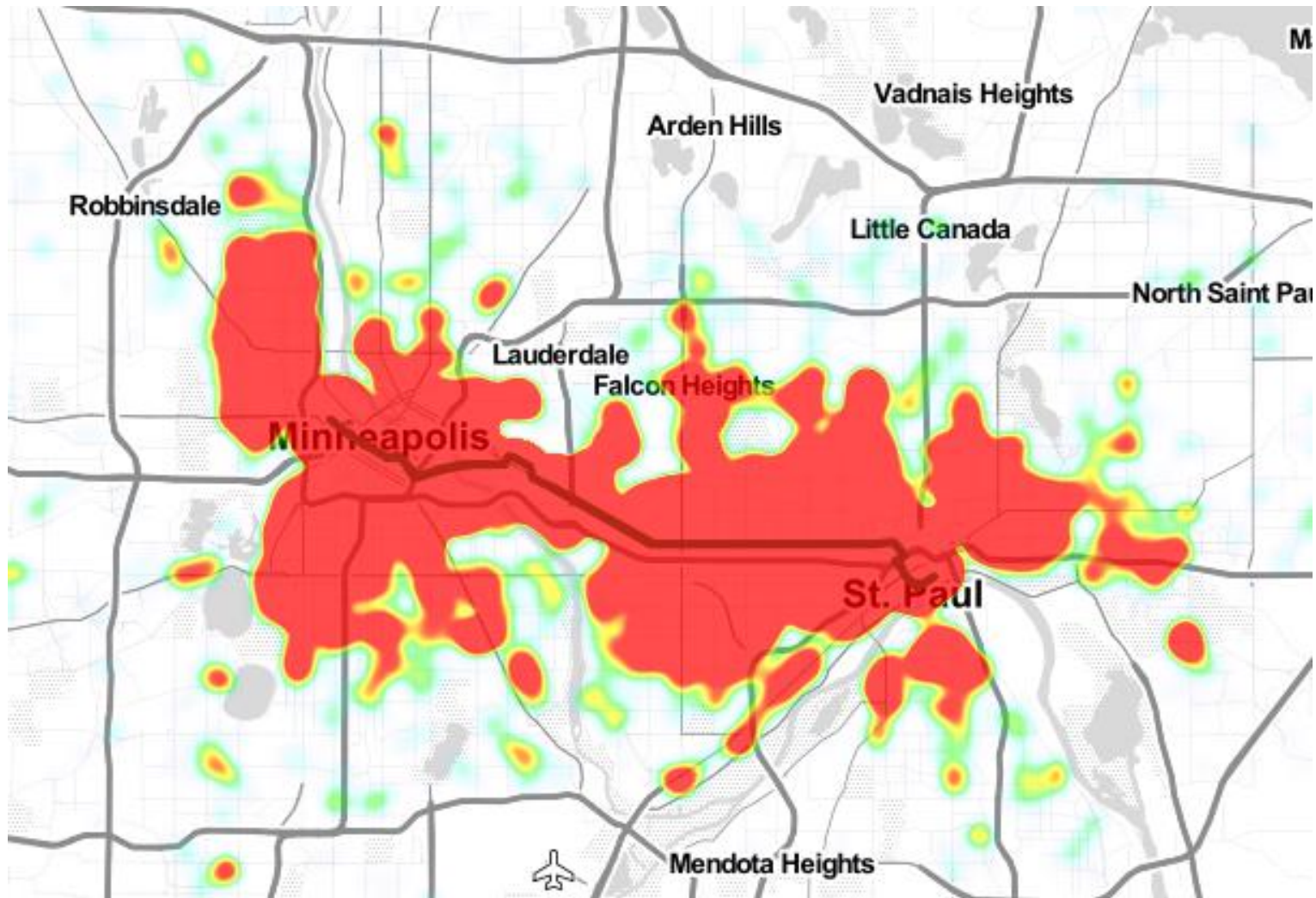
Did the Green Line impact your decision to take this trip?	
Yes	43%
No	57%

# Sample Travel Market Visualizations

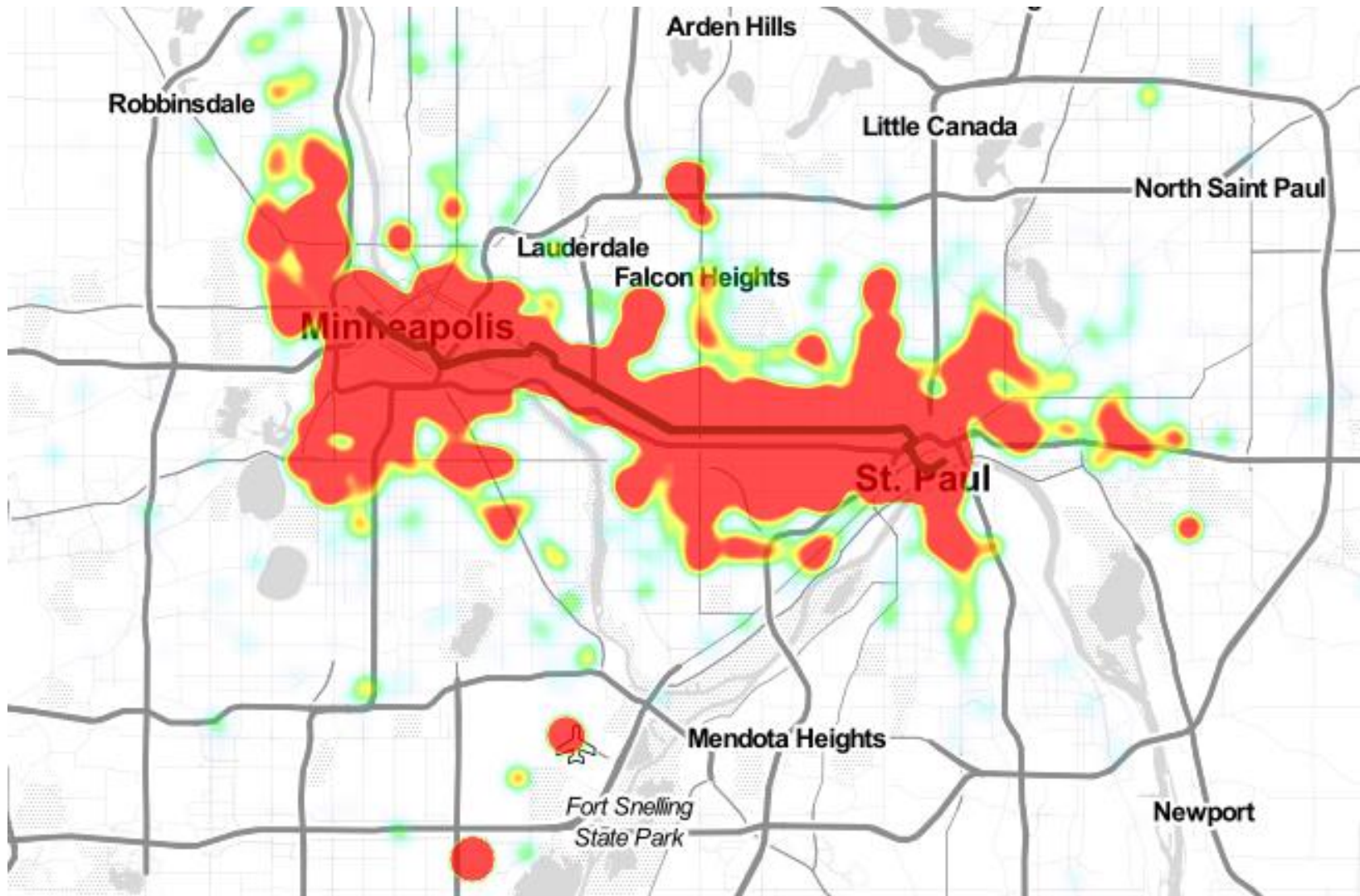


Blue Line Home Locations





## Green Line Home Locations



## Green Line Destinations

# Route 4 Home Locations and Destinations



# Project Status

- Consultant team finishing final data cleaning/expansion
- Metro Transit Strategic Initiatives working on interactive data analysis/visualization app
- Project report August/September 2017
  
- Next survey 2021



# Questions? Data/Analysis Requests?



**METROPOLITAN**  
C O U N C I L