

Travel Behavior Inventory Program

2016 Transit On Board Survey

2017-11-02

CTS Transportation Research Conference



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 partners: Transportation Advisory Board, Metropolitan Council
- 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

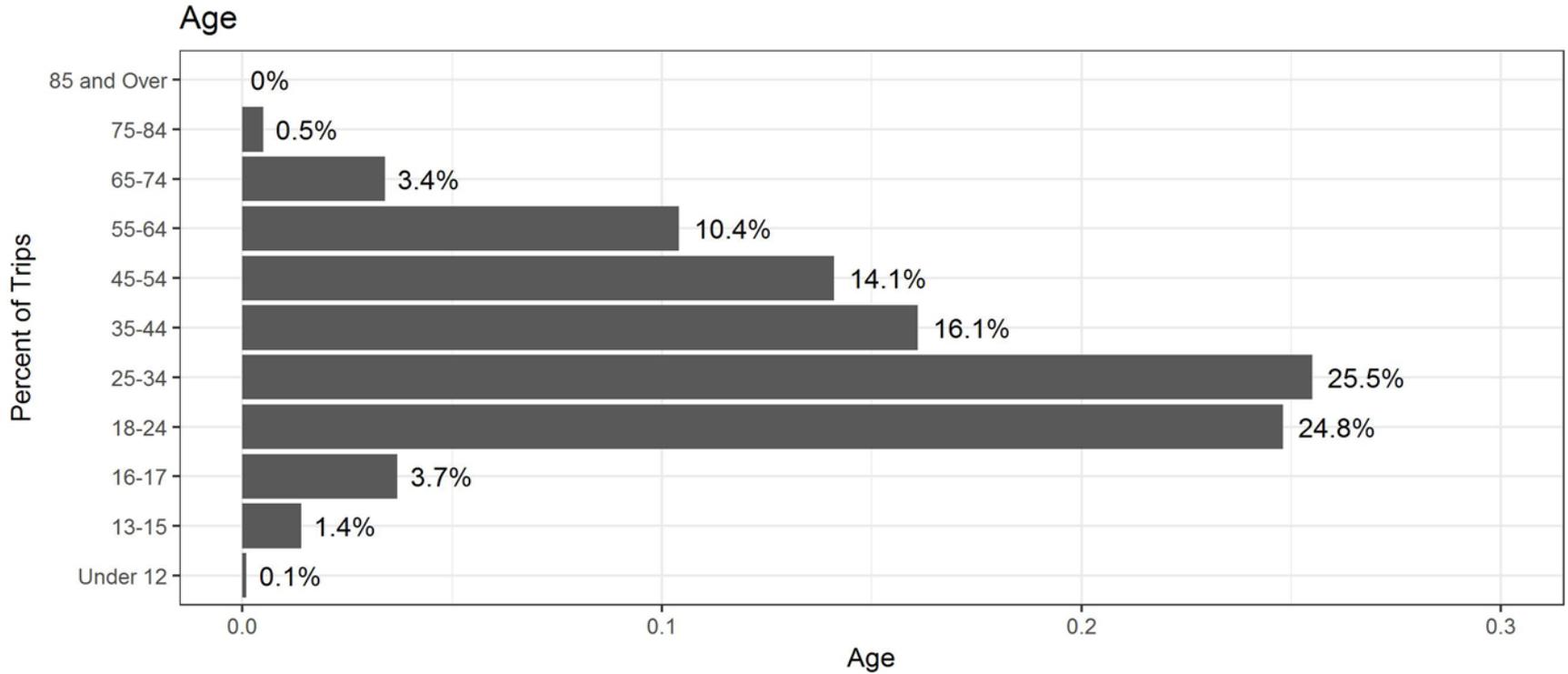
O/D Records Collected

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

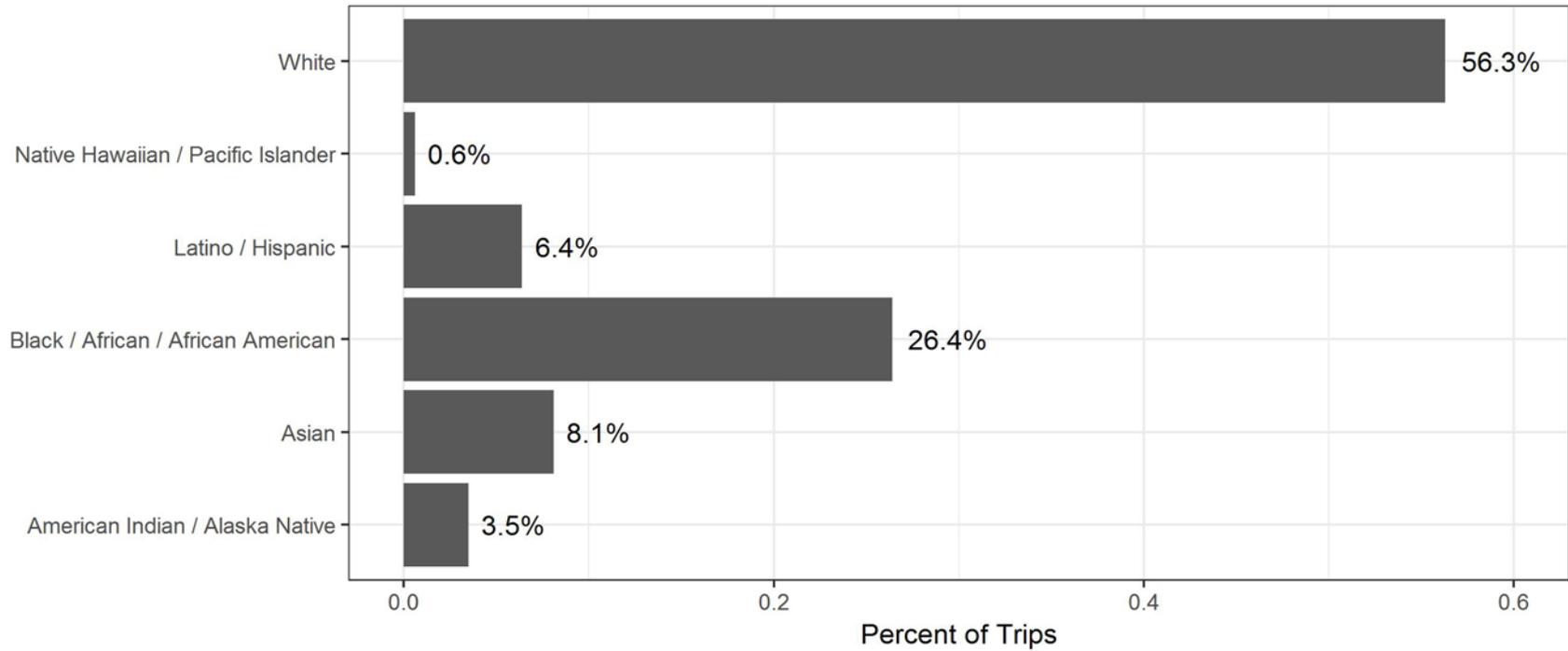
Route Type	Records
BRT	321
Commuter Rail	350
Express	4,811
LRT	10,396
Suburban Local	1,636
Urban Local	14,007

Selected Demographics

Demographic Profile- Age

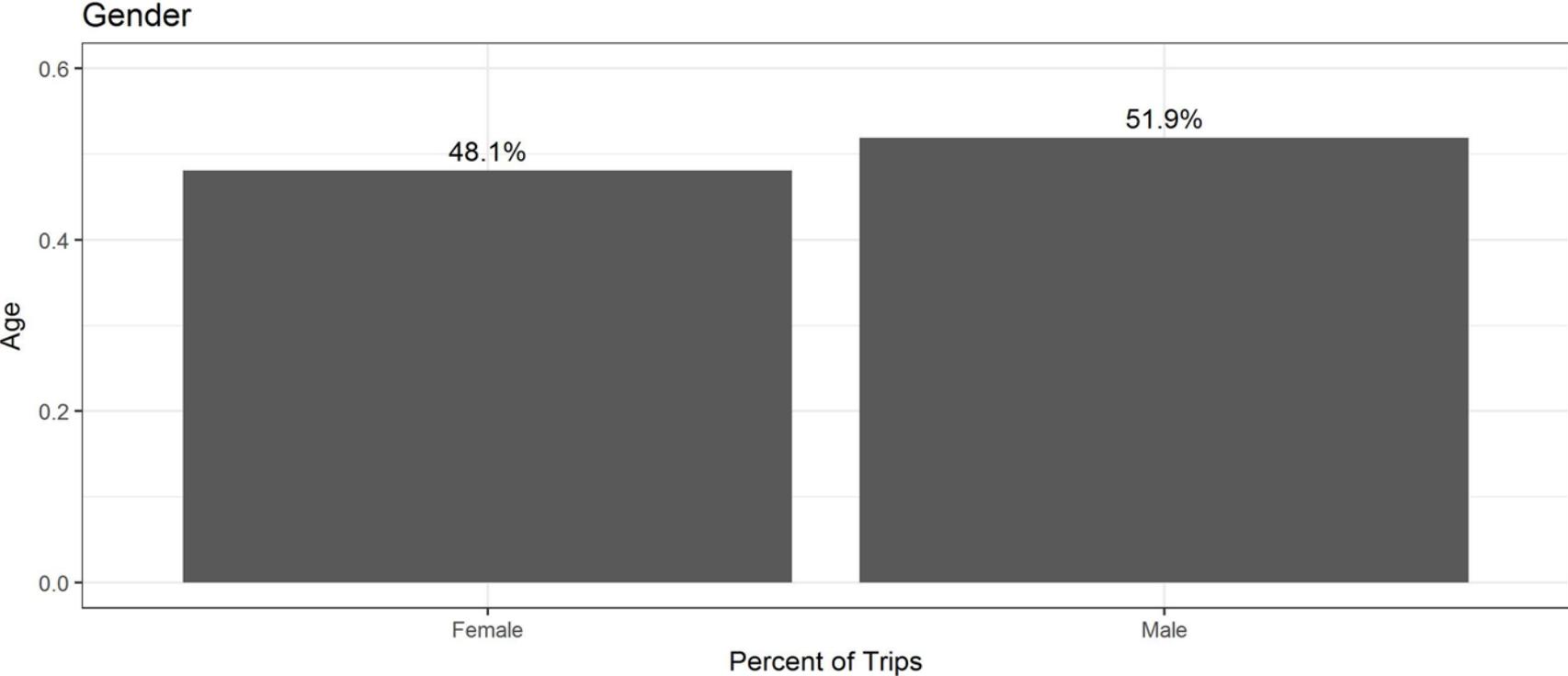


Demographic Profile: Race

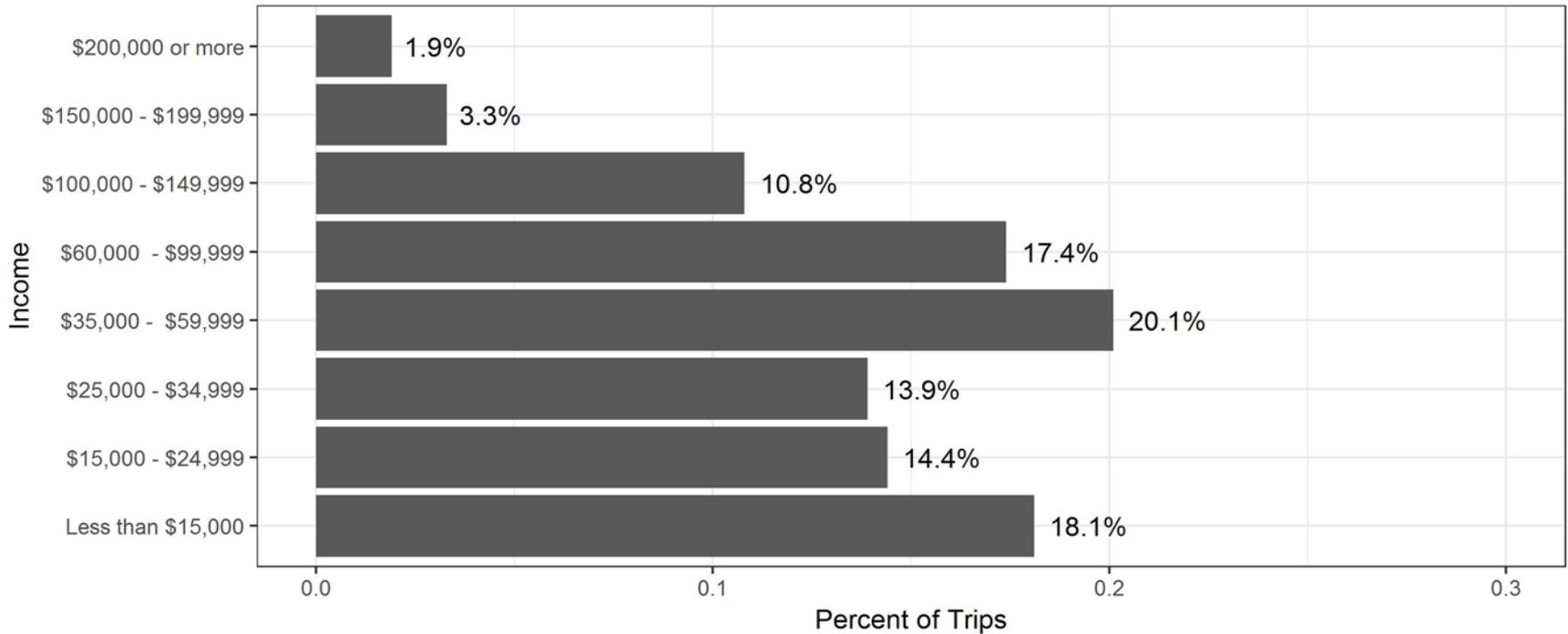


Note: Multiple responses possible for race, will sum to more than 100%

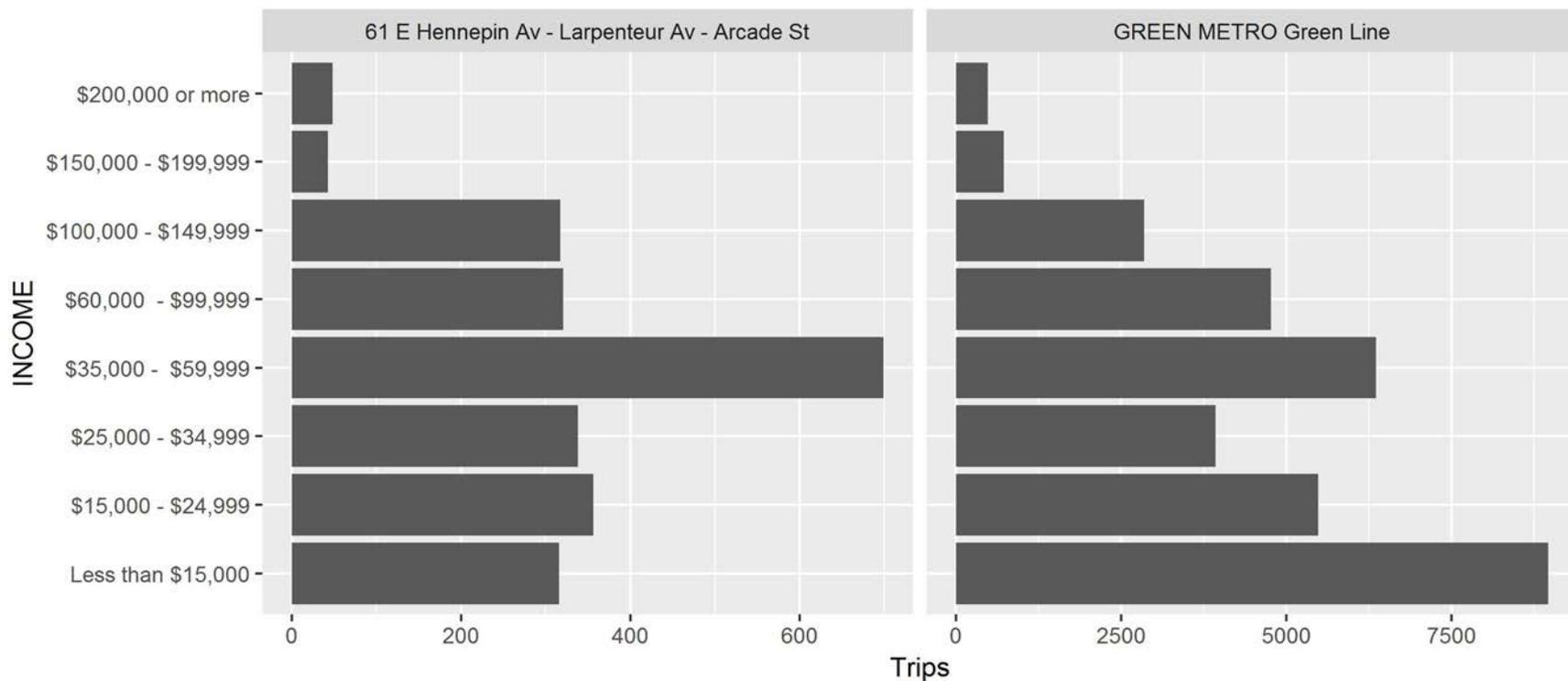
Demographic Profile- Gender



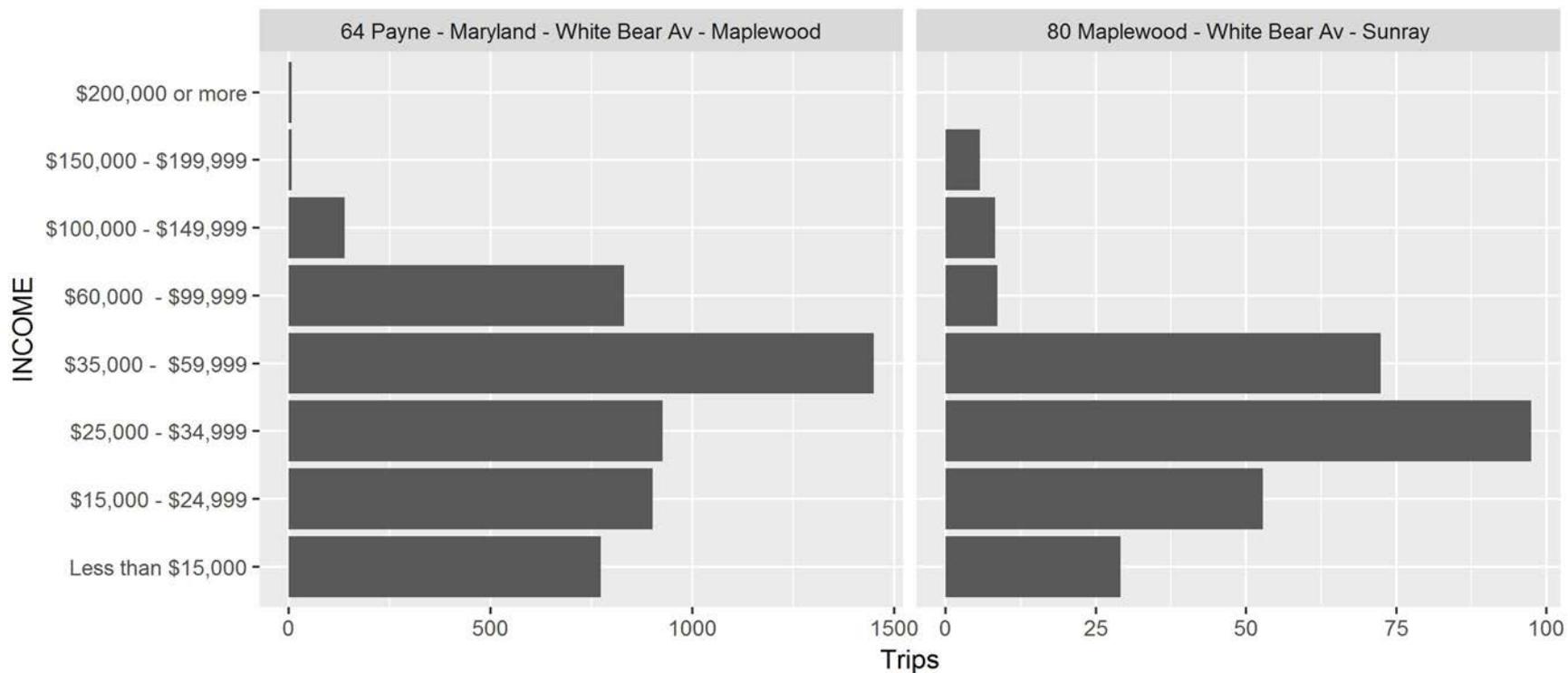
Demographic Profile- Income



Sample Route Comparisons

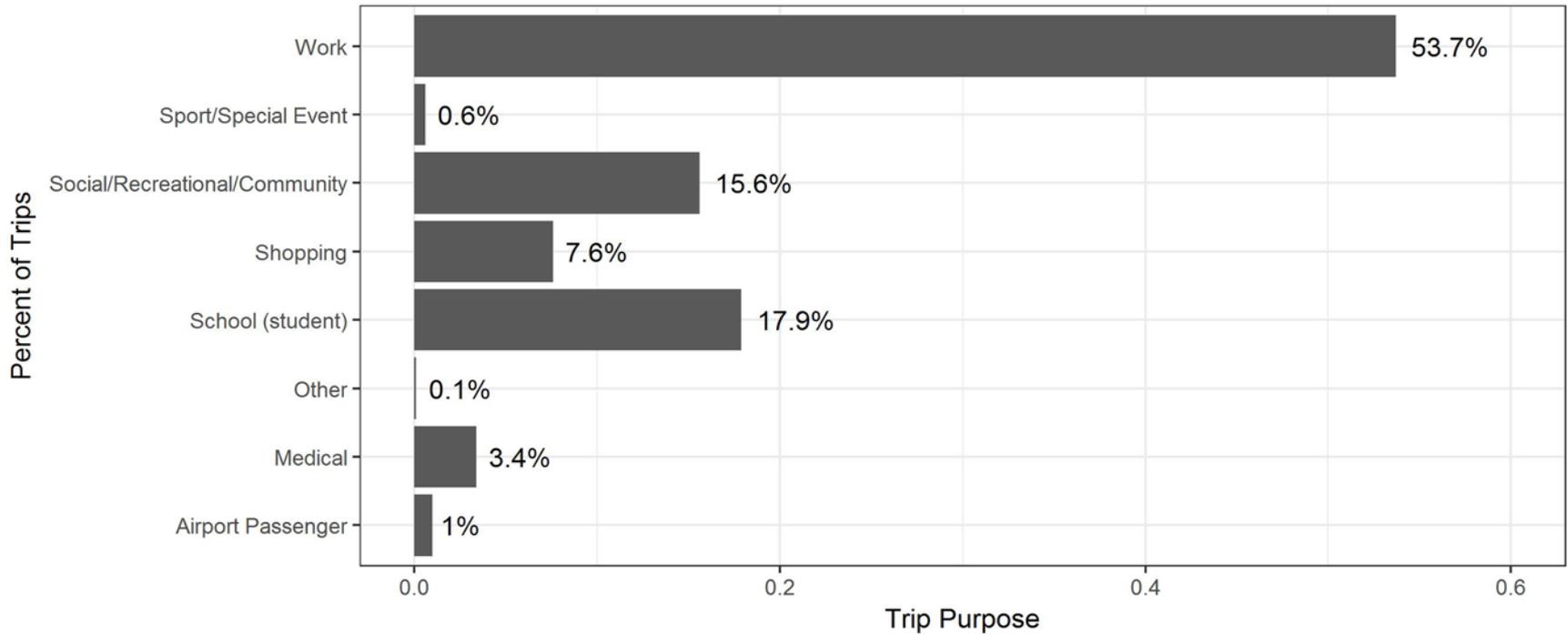


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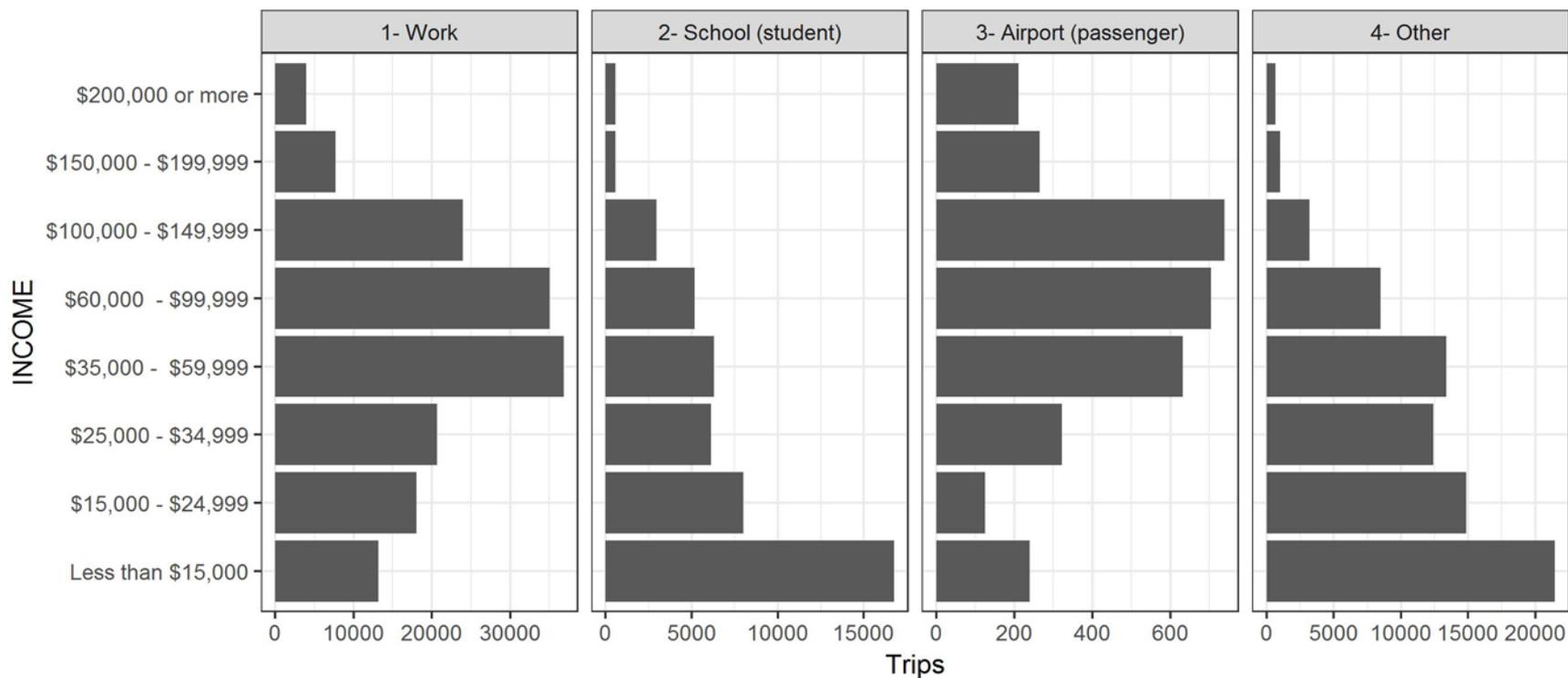


Sample Travel Data

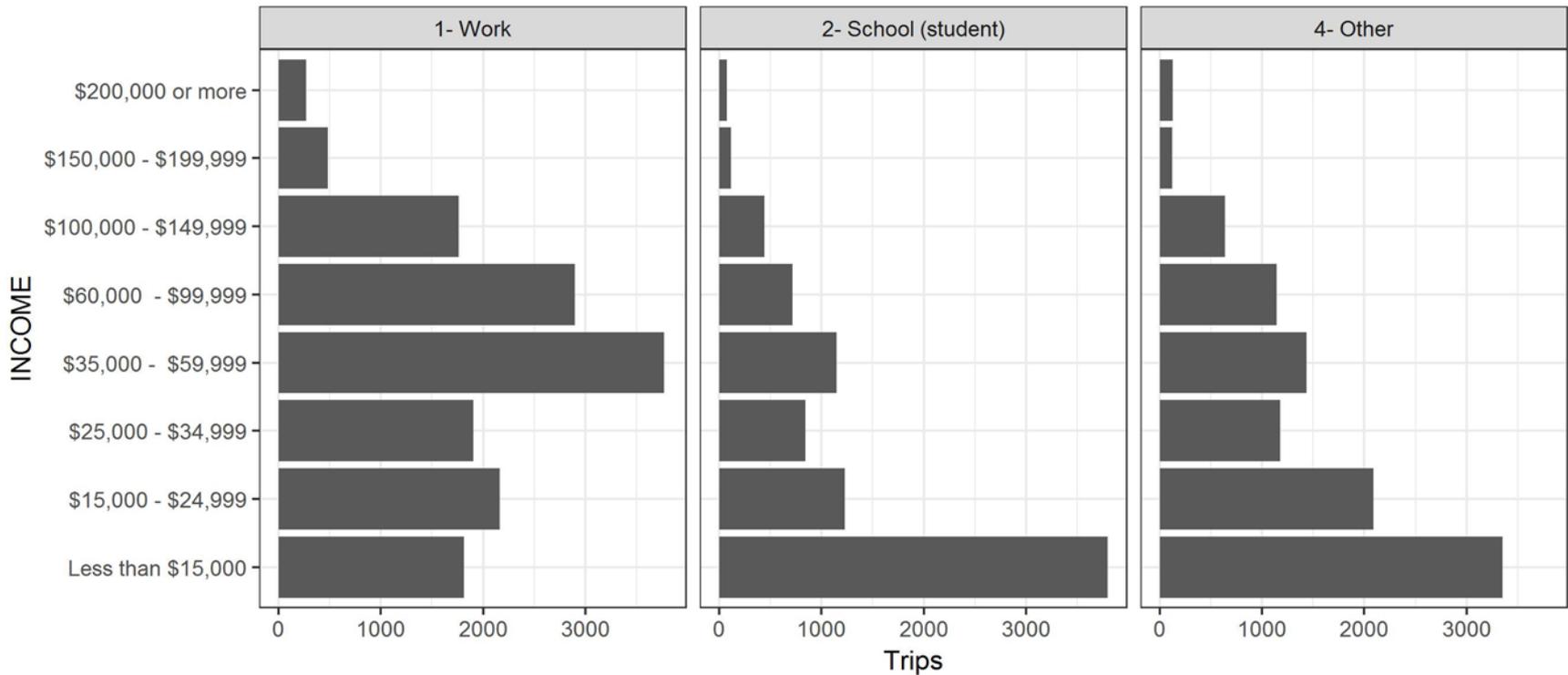
Trip Purpose



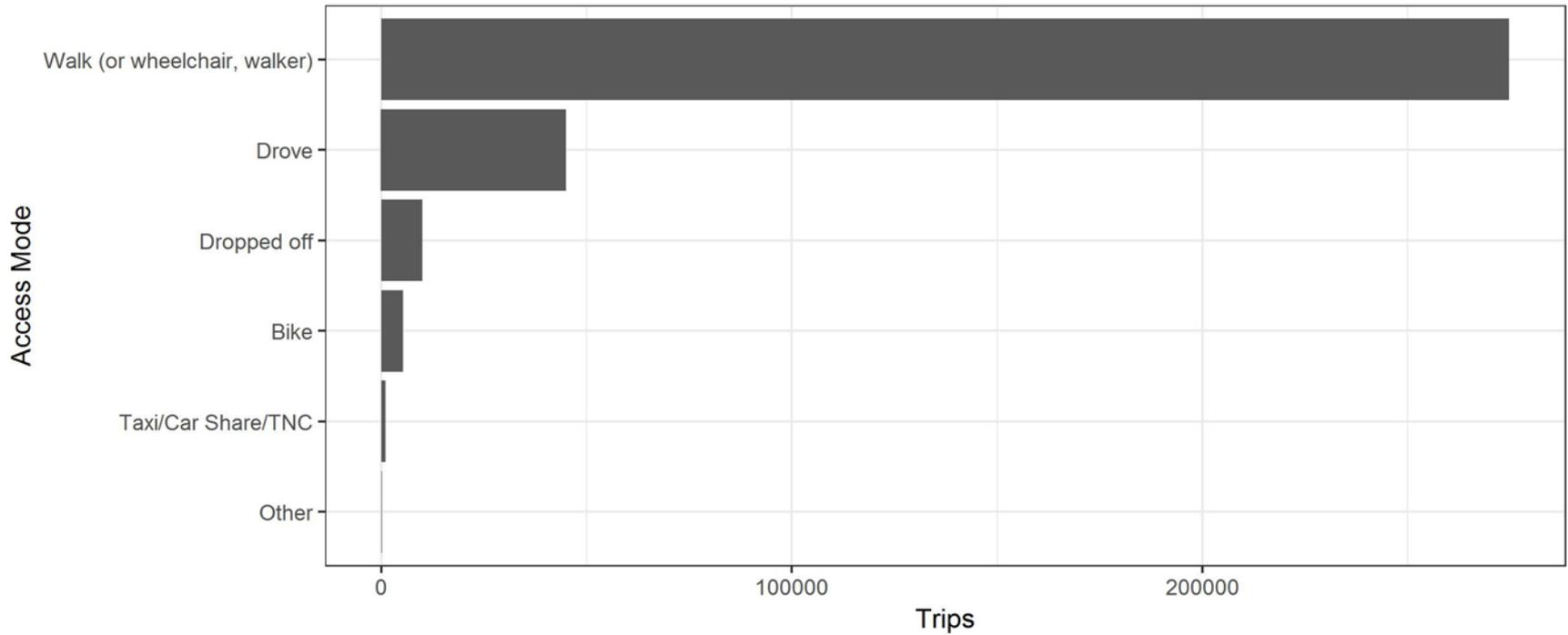
Trip Purpose- System Wide



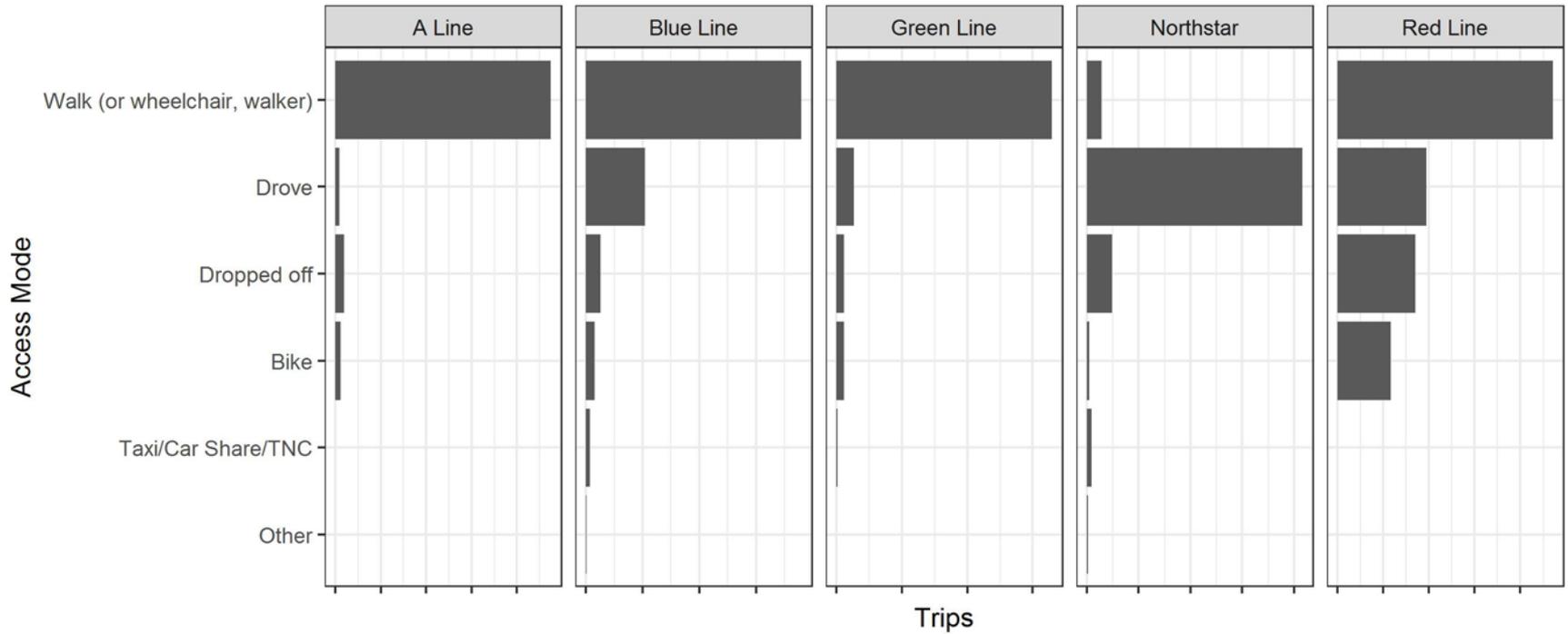
Trip Purpose- Green Line



Access Modes- System Wide



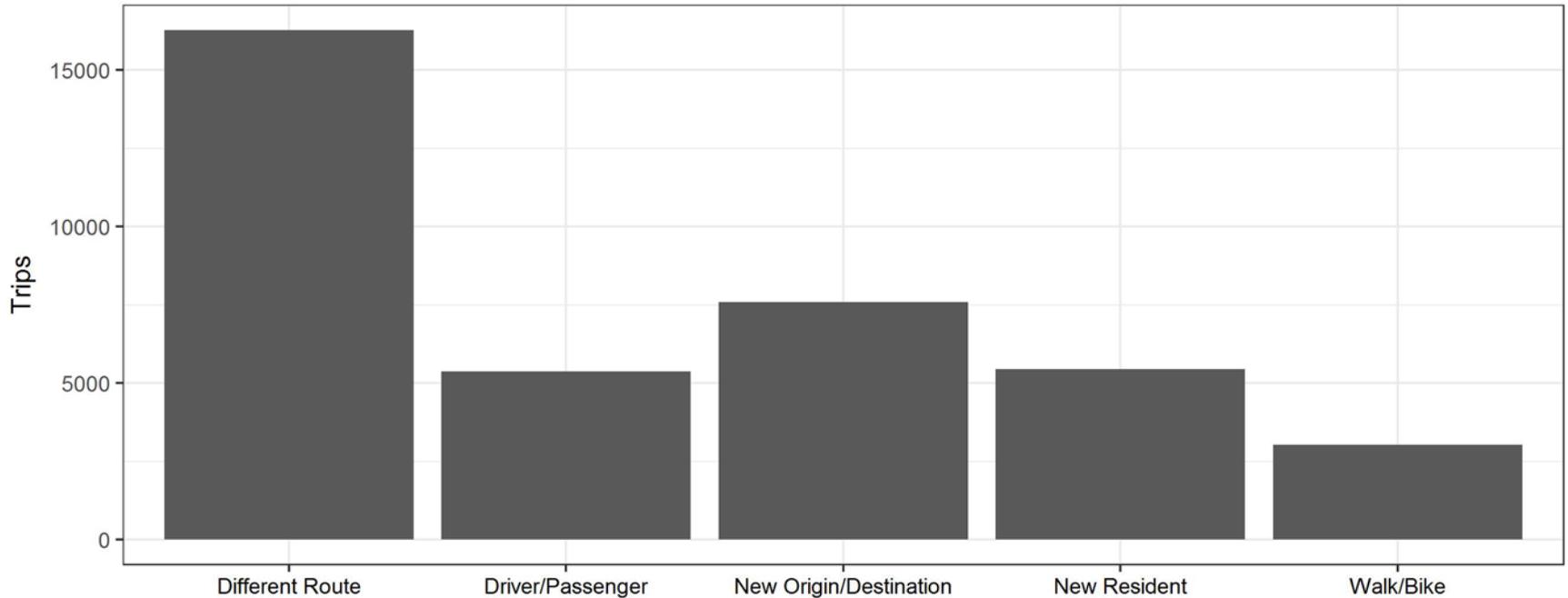
Access Mode- Selected Routes



Impact of Green Line

Impact of Green Line

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



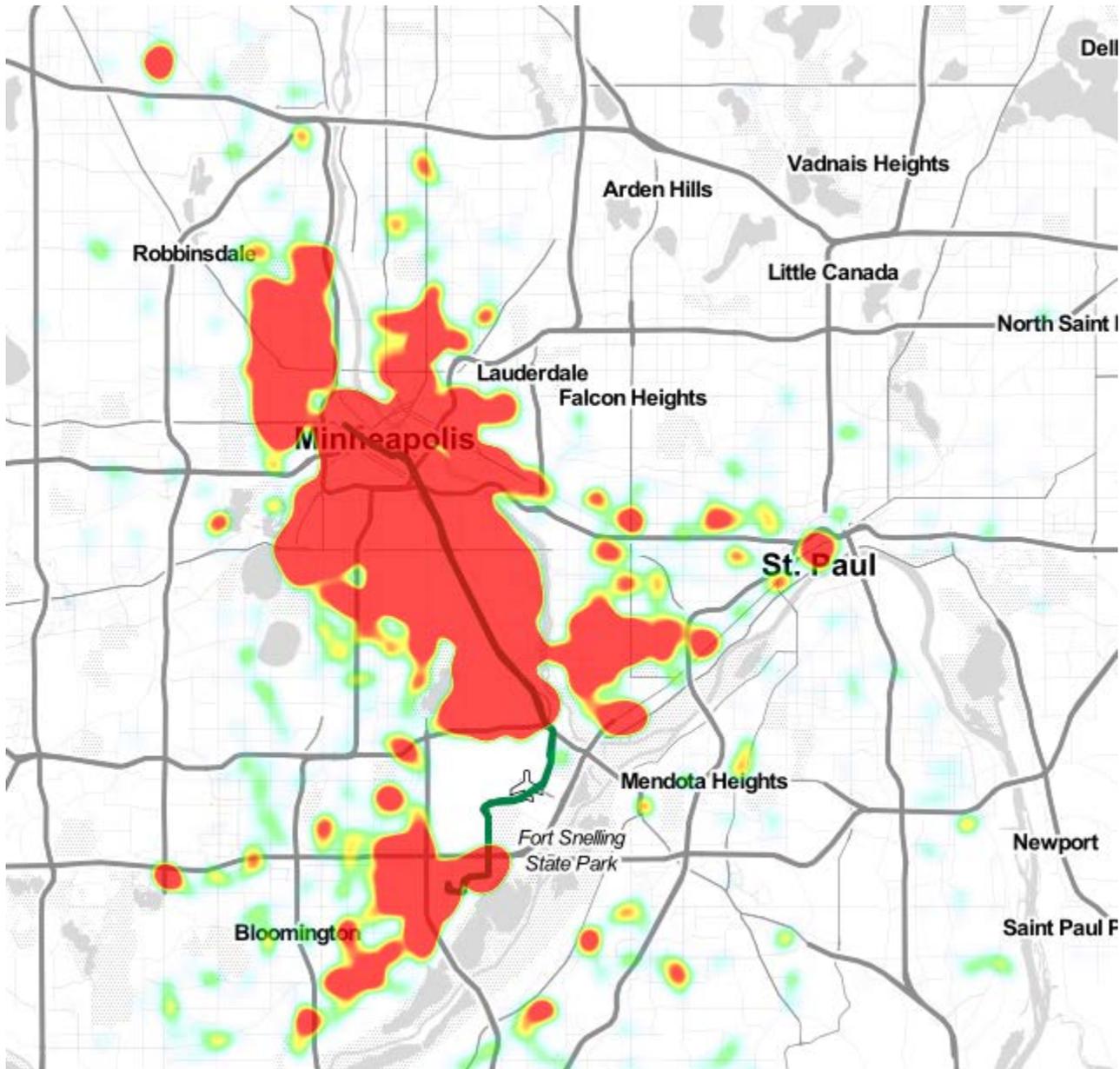
Impact of Green Line

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

Sample Travel Market Visualizations

Will this link work?

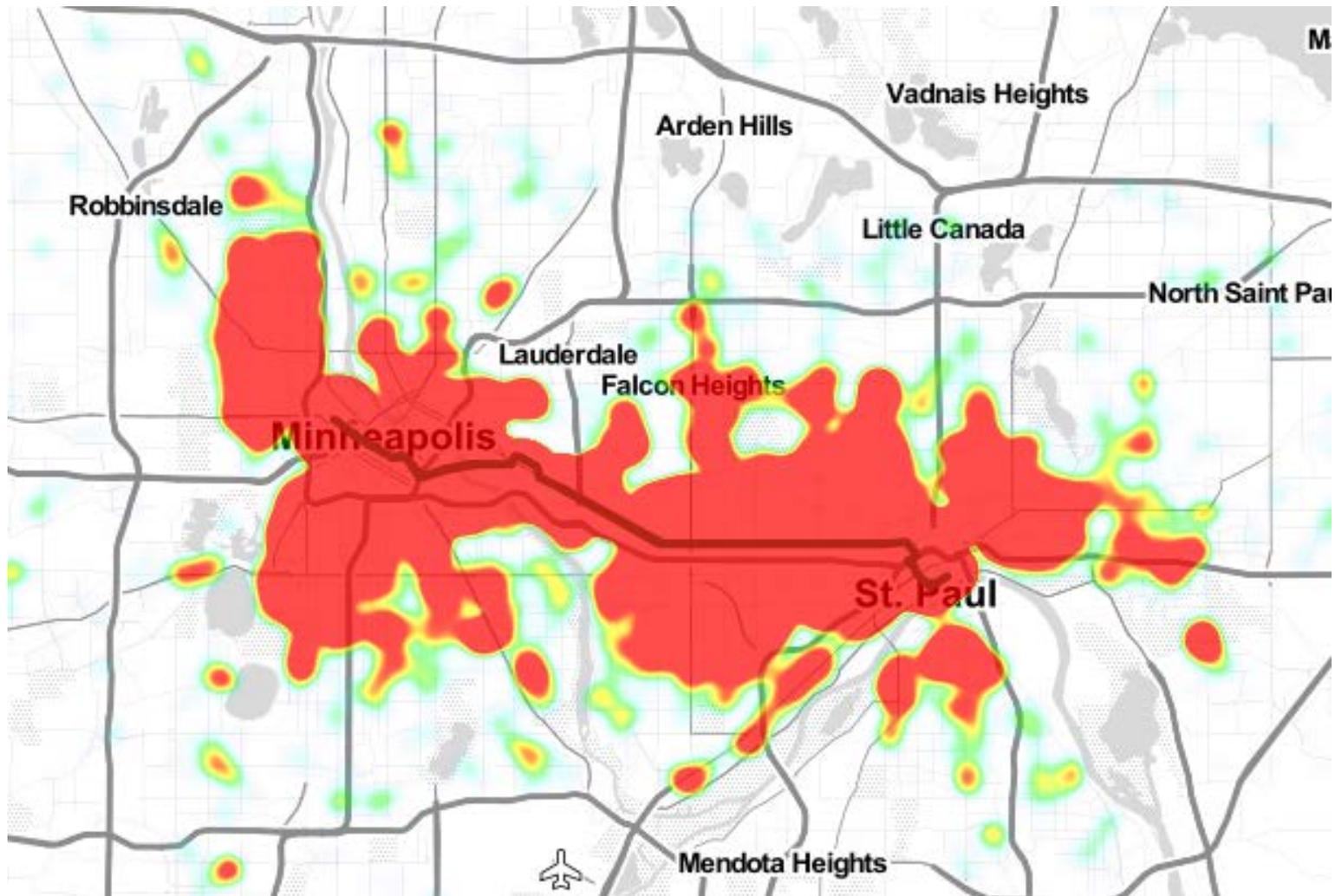
- [Metro Transit On Board Survey App](#)



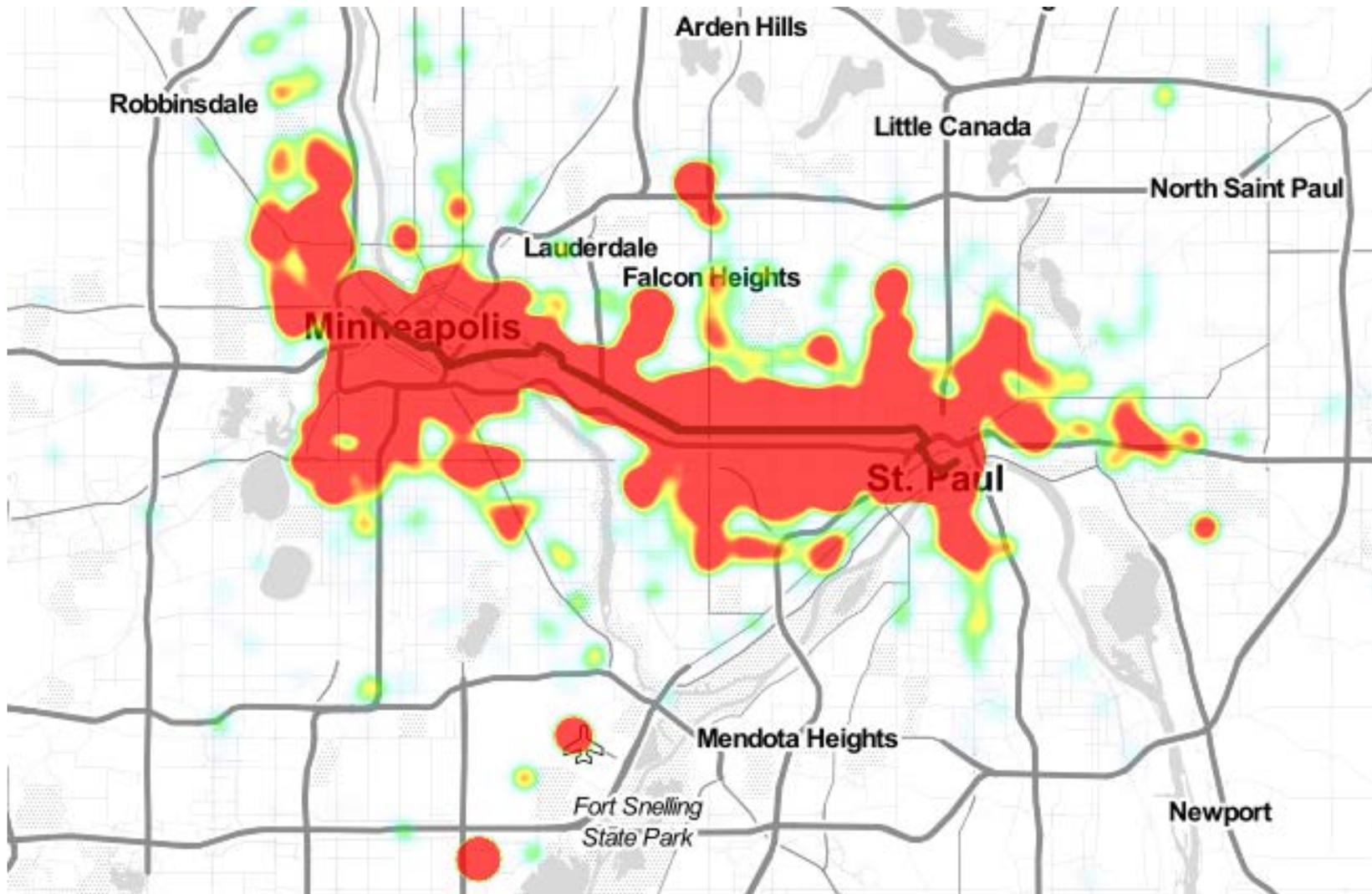
Blue Line Home Locations



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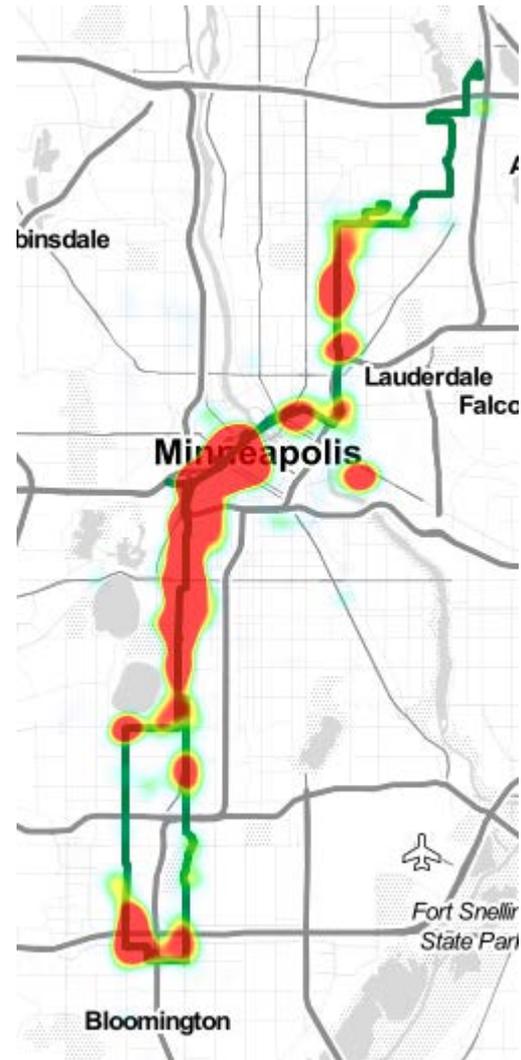


Green Line Home Locations



Green Line Destinations

Route 4 Home Locations and Destinations



Project Status

- Consultant team finishing final report
- Data available by request
- Project report November 2017

- Next survey 2021



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