CCAM-TAC
Technical Assistance Center

Research on Transportation and Health

WORKSHOP BLOCK 1

10:15 – 11:15 AM

Presenters

Seth Chizeck
PhD Student
Carnegie Mellon University

Caroline Rodier
Researcher
UC Davis Institute of Transportation Studies

Brian Harold
Policy Evaluation Specialist
UC Davis Institute of Transportation Studies

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Emerging Mobility Community Engagement Lead
San José Department of Transportation

The Effect of Public Transportation Fare Subsidies on Health and Well-Being

Evidence from a Randomized Pilot Program

JUNE 2, 2025

SETH CHIZECK

Background

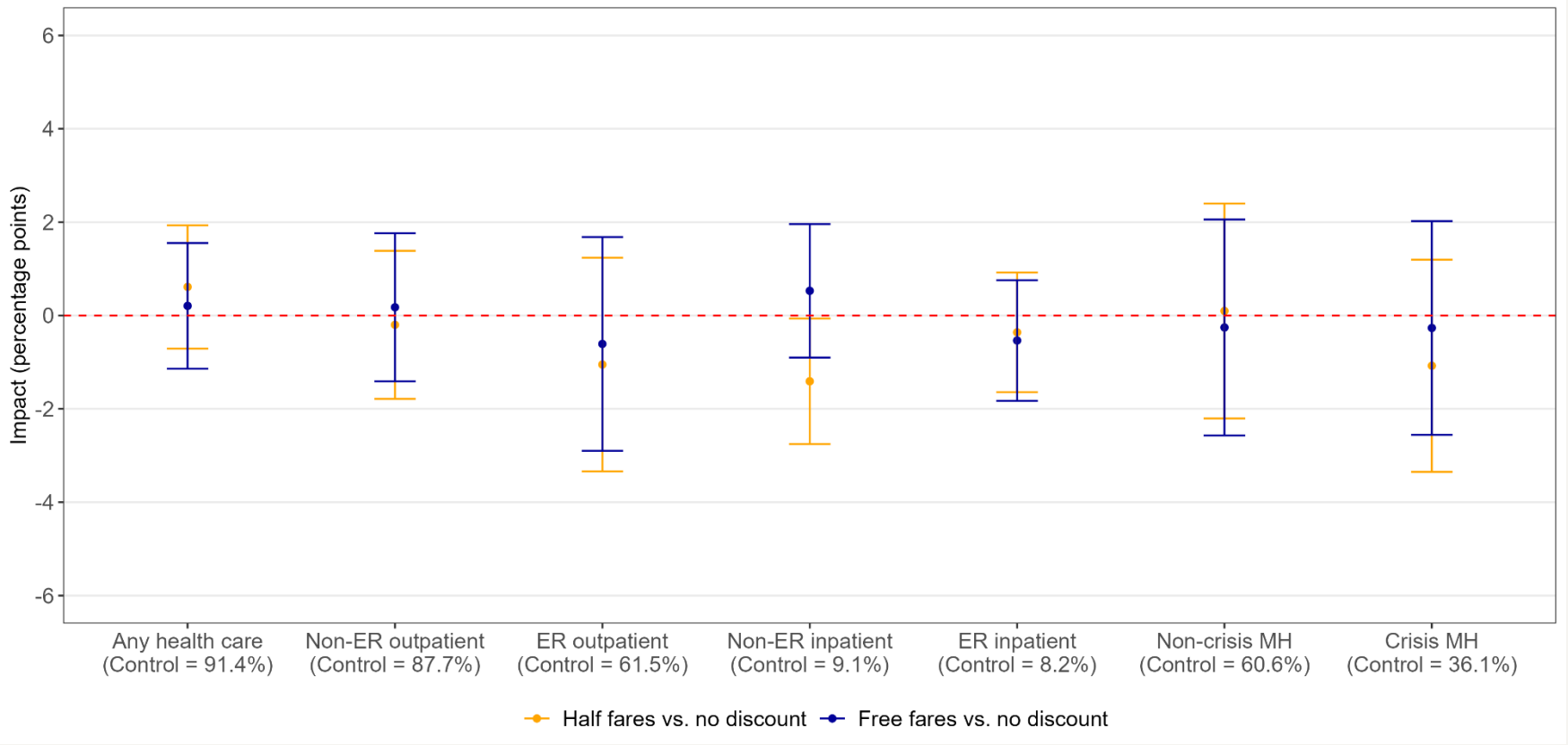
- Randomized evaluation of discounts on bus and light rail for low-income residents of Allegheny County, Pennsylvania (Pittsburgh)
- Served 9,544 adults who receive SNAP benefits. Each adult from separate household
- Each adult assigned to one of three groups: free fares, half-price fares, or no discount
- Discounts lasted for 16 to 19 months
- Measured causal effects on transit use, mobility, employment, health care use, well-being, and much more
- This presentation focuses on impacts on health care usage and health

High-level summary of findings

- Both discounts reduced transit spending and improved travel capabilities relative to status quo fares
- Free fares increase public transit ridership by 1.48 trips per week (43%)
  - Mainly comes from shifts in travel mode for existing trips, rather than from new trips
- Half fares do not increase transit ridership
- Free fares substantially increase employment and earnings for unemployed workers
- No effect on whether the person received any health care in first 18 months; minimal effects on volume of care usage
- Neither discount affected health, subjective well-being, or financial stability

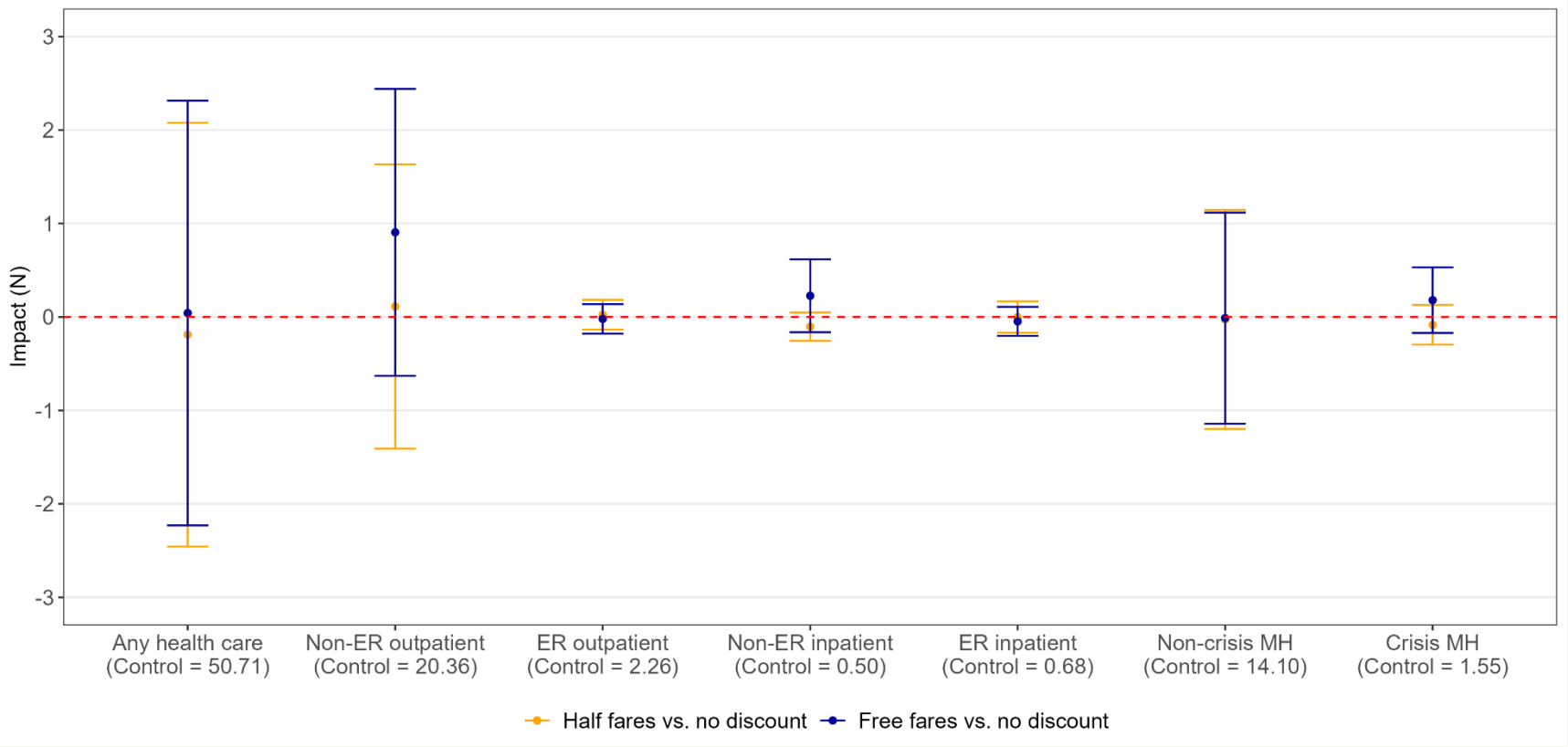
Outcomes

Fare discounts did not affect likelihood of receiving Medicaid-funded health care in first 18 months



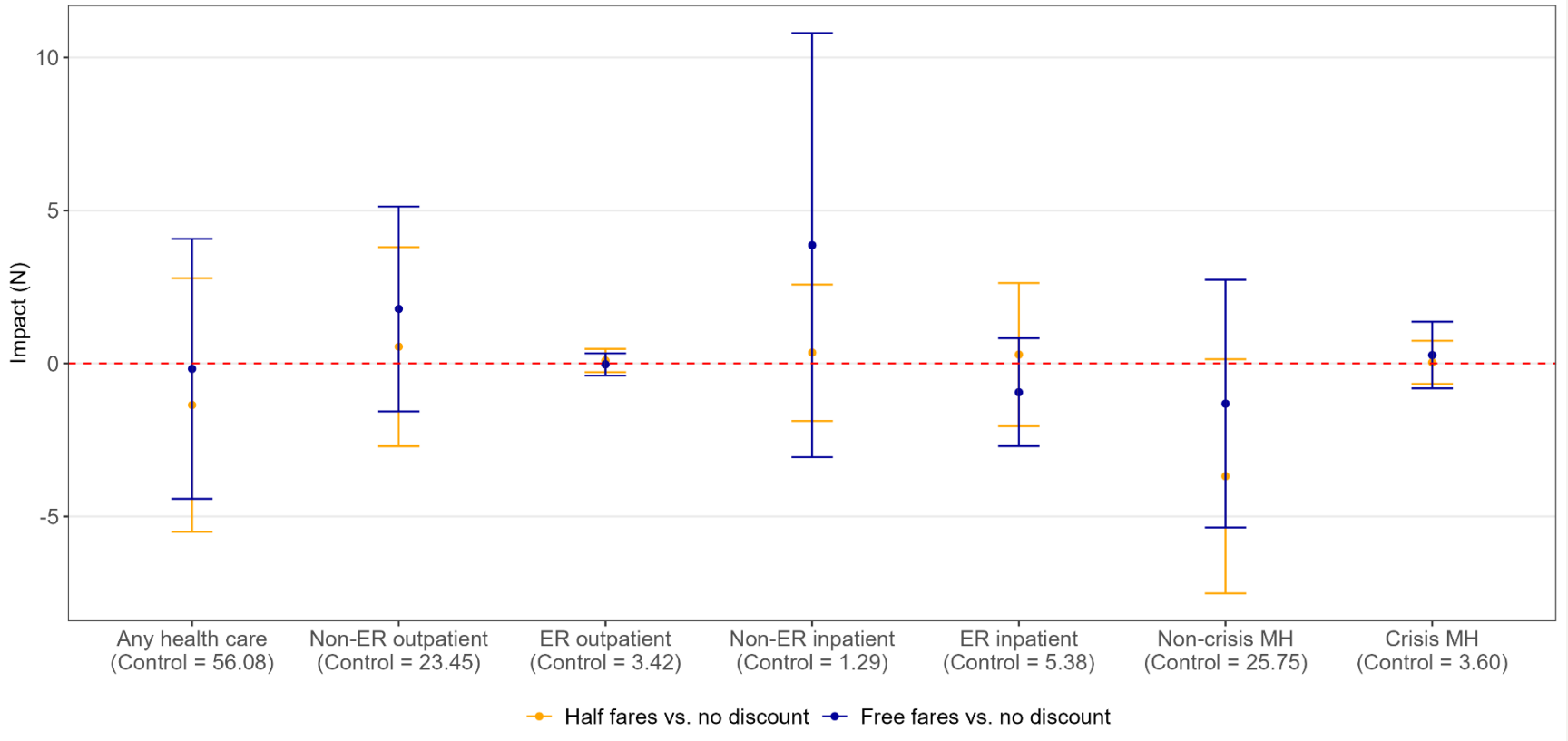
Outcomes

Fare discounts did not affect the number of days with a Medicaid-funded health care claim in first 18 months



Outcomes

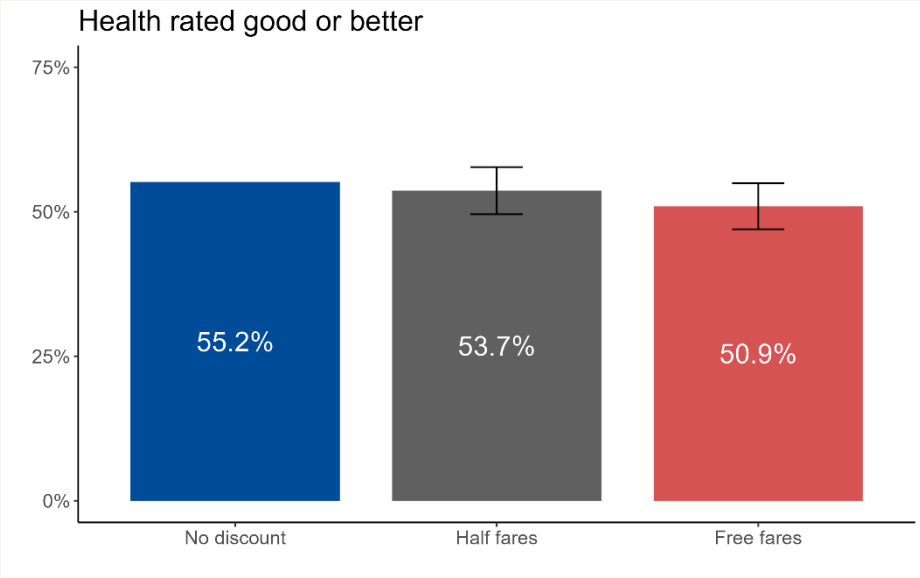
Lack of effects persists when looking at people who received care in the 6 months before enrollment in study

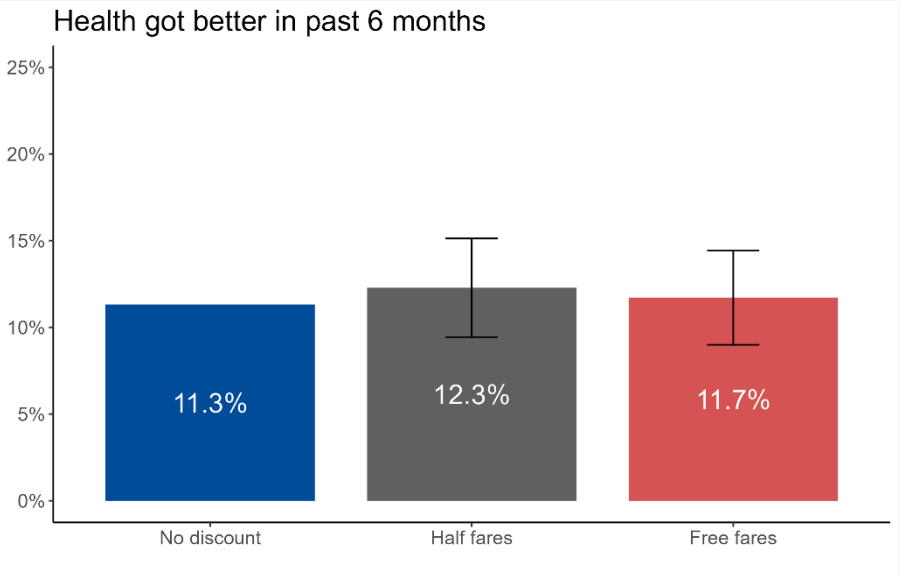


Outcomes

Fare discounts did not affect self-reported health

Follow-up surveys asked for self-rating of health on 5-point Likert scale. Also asked "how has your health changed in last 6 months?"

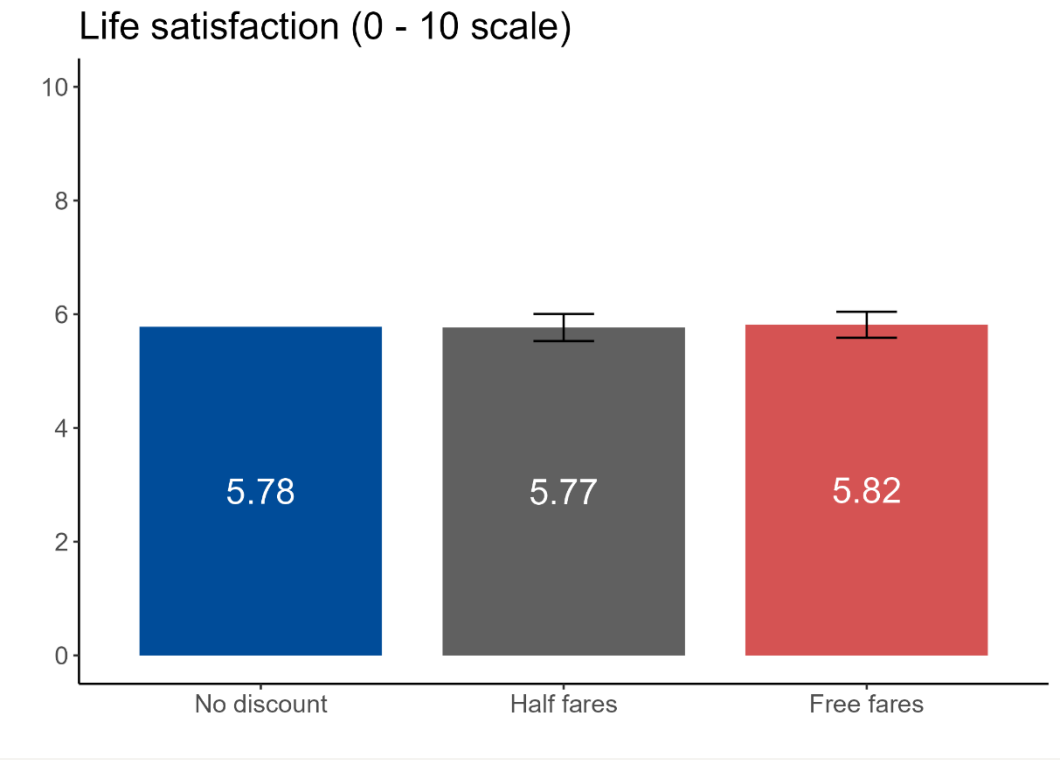




Outcomes

Fare discounts did not affect life satisfaction

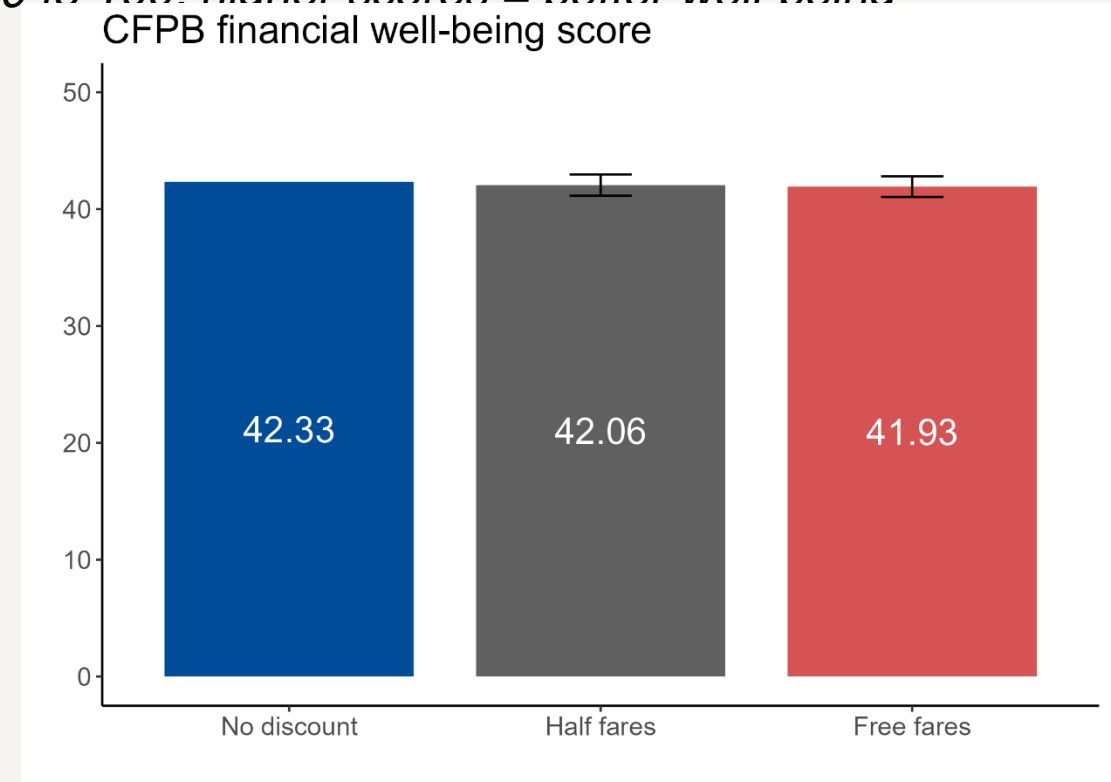
Follow-up surveys asked "On a scale of 0 to 10, where 0 is not at all satisfied and 10 is completely satisfied, how satisfied are you with life as a whole these days?"



Outcomes

Fare discounts did not affect a standardized measure of financial well-being

Follow-up surveys included CFPB financial well-being questionnaire. Scores range from 0 to 100; higher scores = better well-being

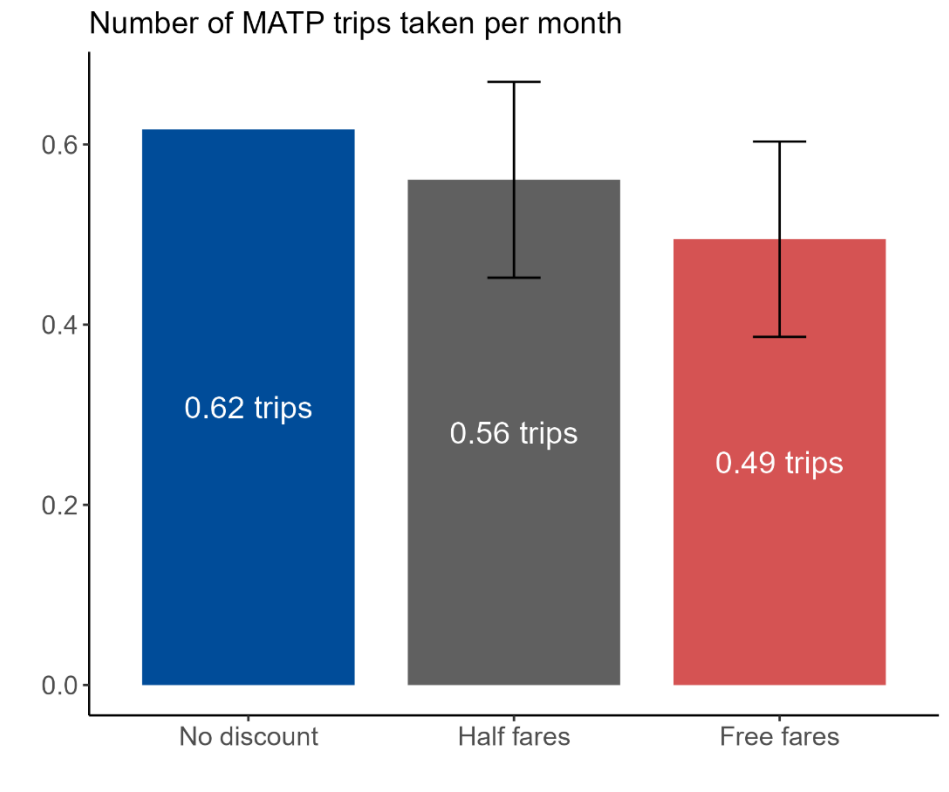


Outcomes

Key context: Medicaid patients already entitled to free trips to doctor in PA

- Medicaid provides unlimited trips to doctor (Access vans, bus tickets, Ubers, etc.)

- Negative effect on MATP trip volume -> free fares group substituted one form of free transit for another



Discussion of health results

- Not necessarily surprising to find minimal impacts of transit fare prices on health care usage and health outcomes
- Telehealth reduces transportation barriers to care
- Mixed evidence on relationship between income transfers and health care usage from recent cash transfer RCT's
- The (often poor) quality of public transit service in Pittsburgh limits impacts of fare discounts on downstream outcomes

Thank You!

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South LA Universal Mobility Wallet Project

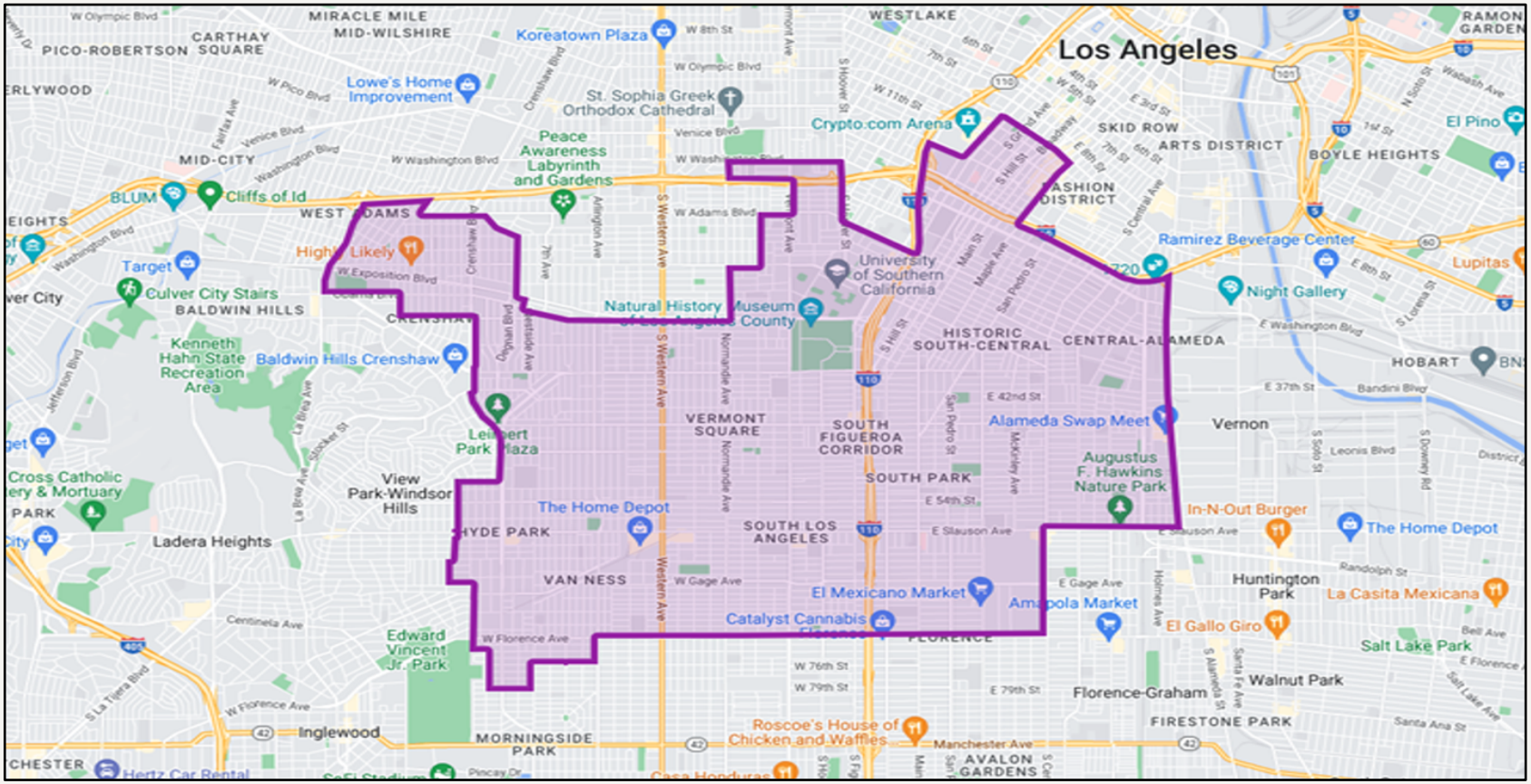
JUNE 2, 2025

CAROLINE RODIER
UC DAVIS INSTITUTE
OF TRANSPORTATION STUDIES

South LA Universal Mobility Wallet

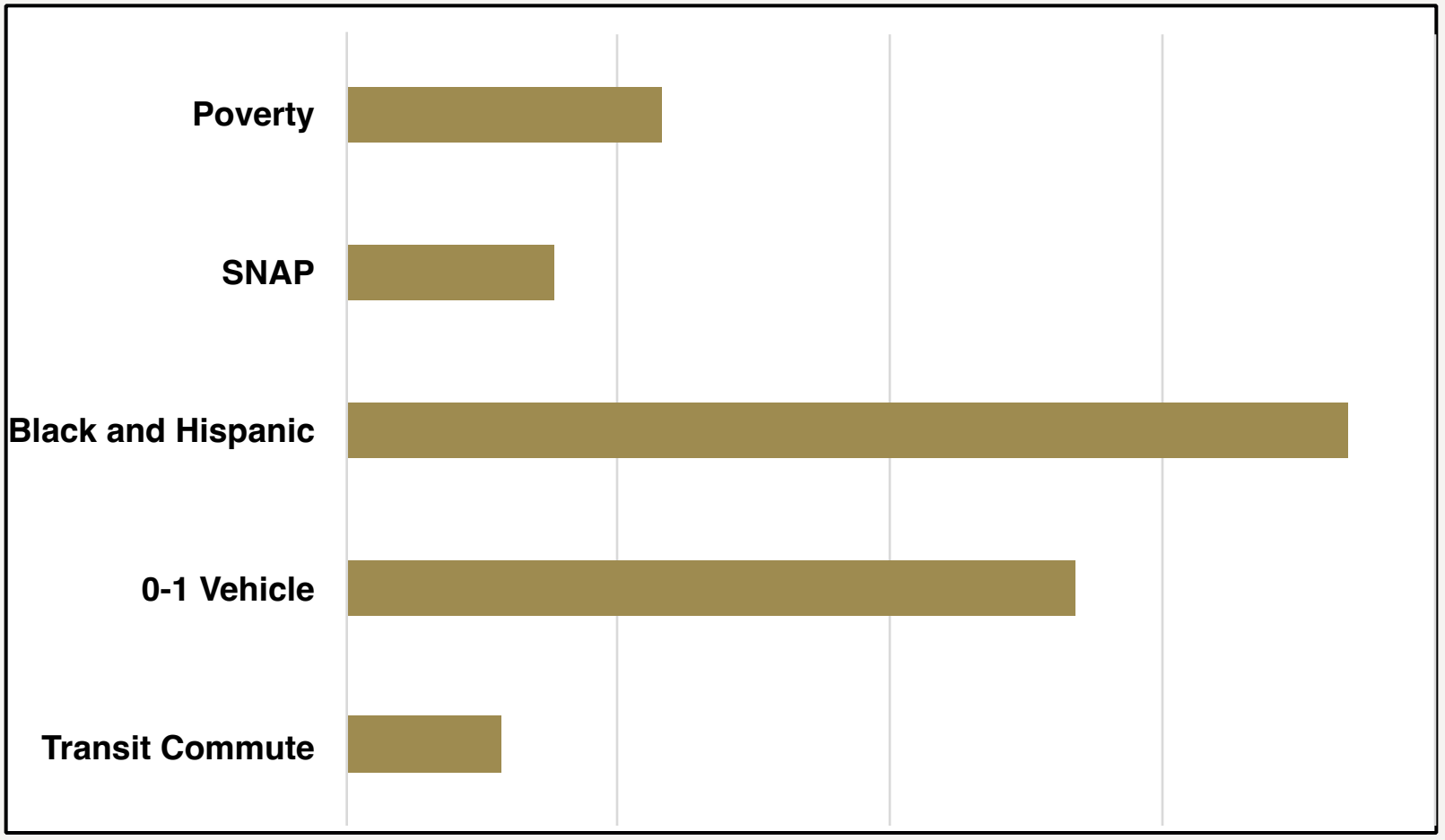
- Community Engagement
- Application Website
- Eligibility: Below the poverty line
- Mailed pre-paid debit card
  - $150 per month for 12 months
- Merchant Category Codes Allowed
  - Regional and Local Transit
  - Ridehailing and Taxi
  - Carsharing and Rental Car
  - Personal and shared low-speed modes
- Goals:
  - Reduce financial barriers to travel
  - Travel and related GHG Effects
  - Potential to scale
- LA Metro Implementation and CARB and LA DOT funding

Pilot Area in South LA

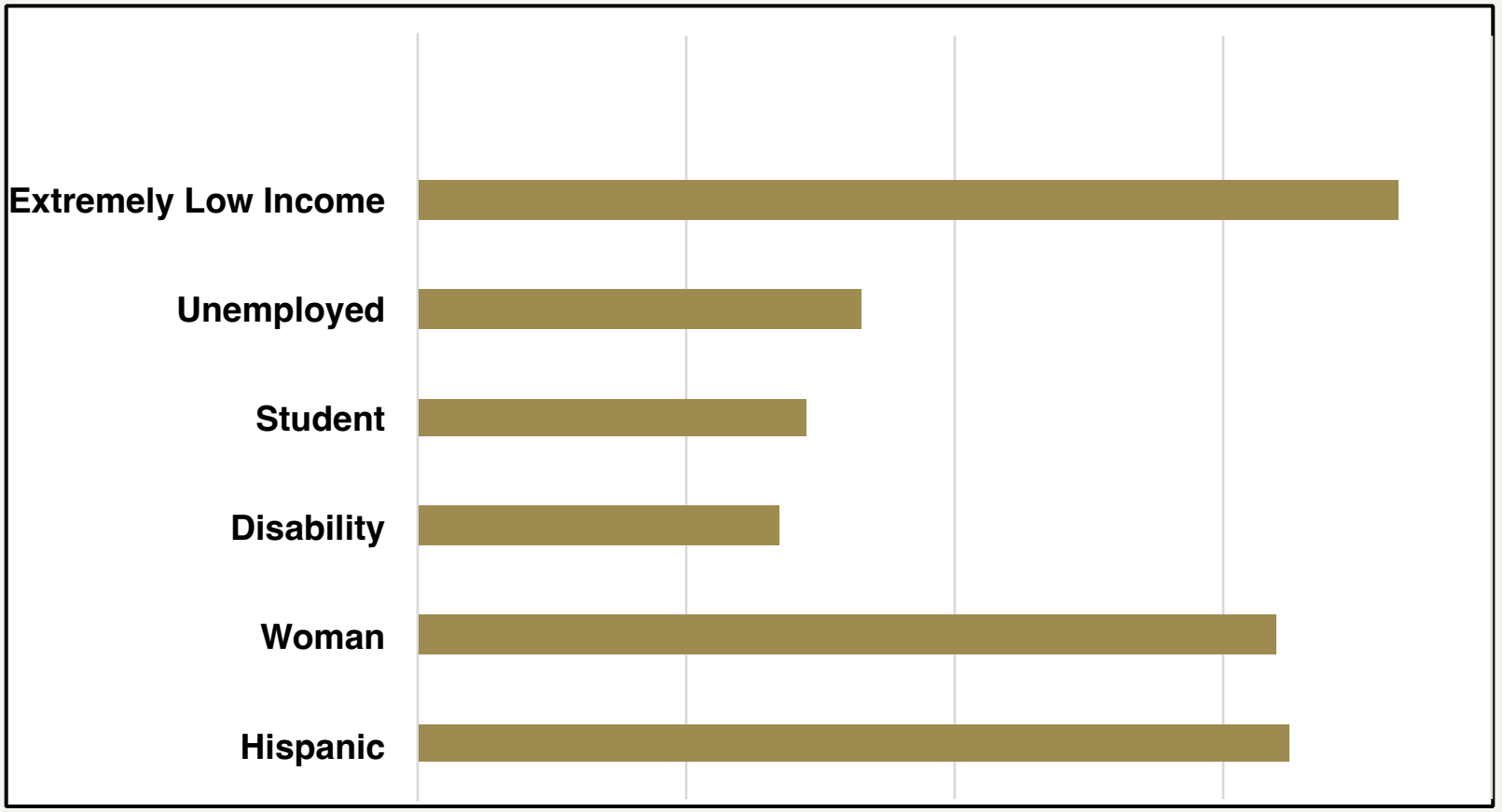


South LA: Demographic and Travel Attributes

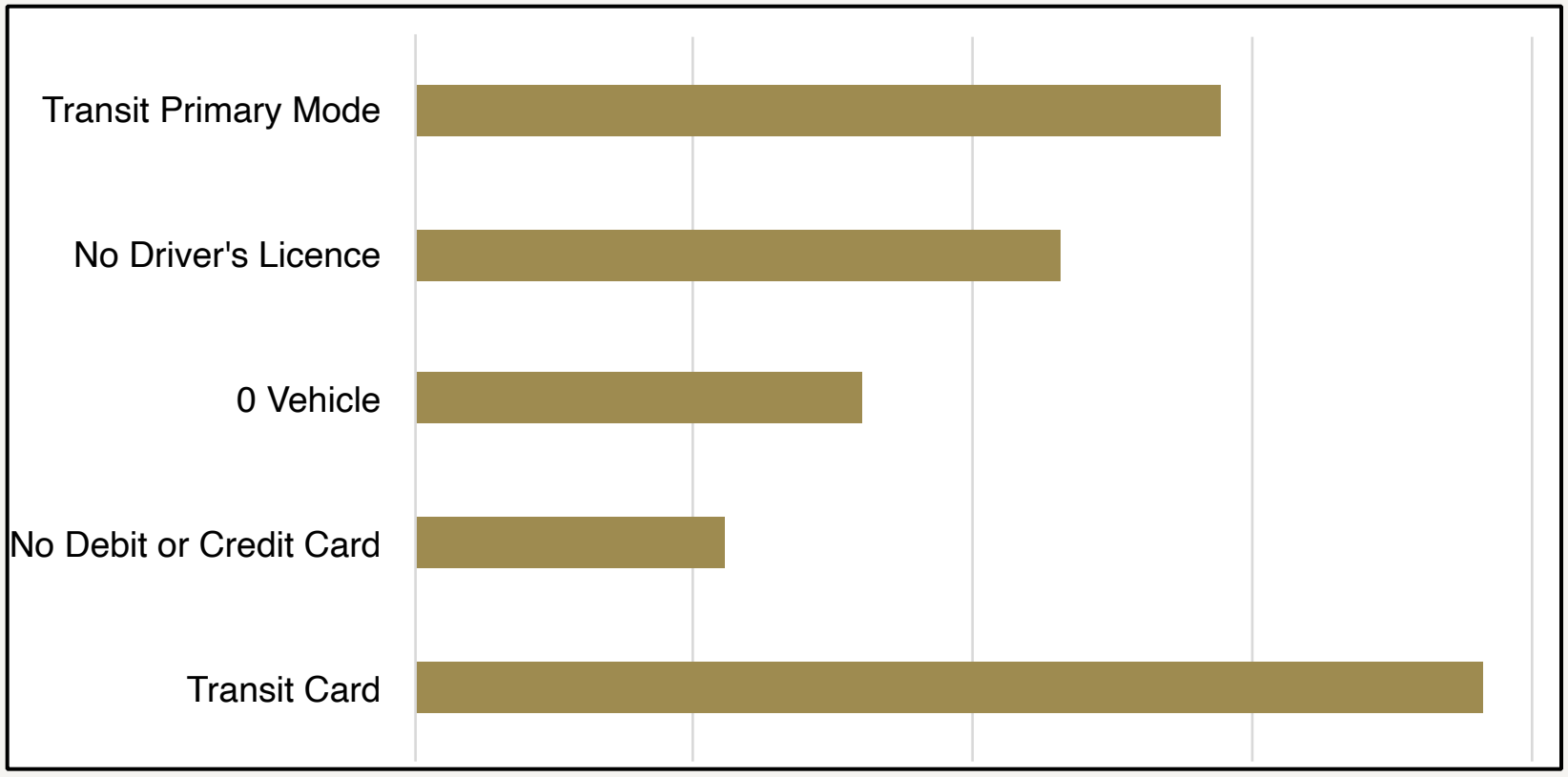
South LA: Demographic and Travel Attributes



Participants: Demographic Attributes



Participants: Travel



Transit Accessibility

Rail pink and blue; Thick lines 15 min headways; Thin lines >15 min headways; Source: LA Metro

In Sum…

- Participants
  - Extremely low incomes
  - Low levels of auto ownership
  - Very high levels of transit use
- Depending on household location, access to
  - High-frequency transit
  - Low-frequency transit

Research: Pilot Evaluation

Data Collection

Of the 2,250 applicants,

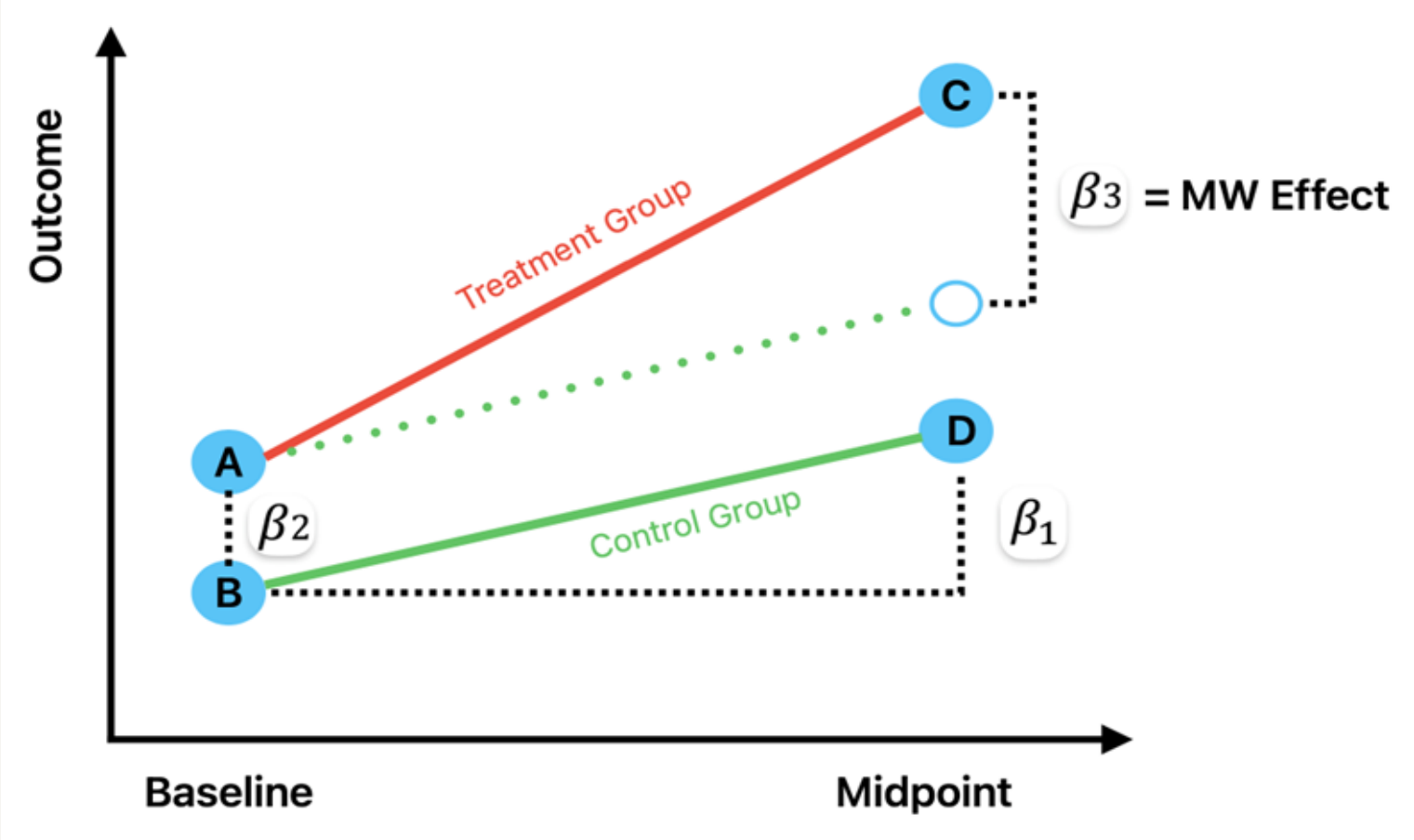
- 900 were randomly selected to receive a mobility wallet—treatment group
- The remaining applications are the control group

A survey was administered to the treatment and control groups

- Before the distribution of the prepaid card mobility wallet card
- 6 months after the activation of the prepaid card

The survey also included the treatment-only questions

Differences in Difference (DiD) for Control and Treatment Groups

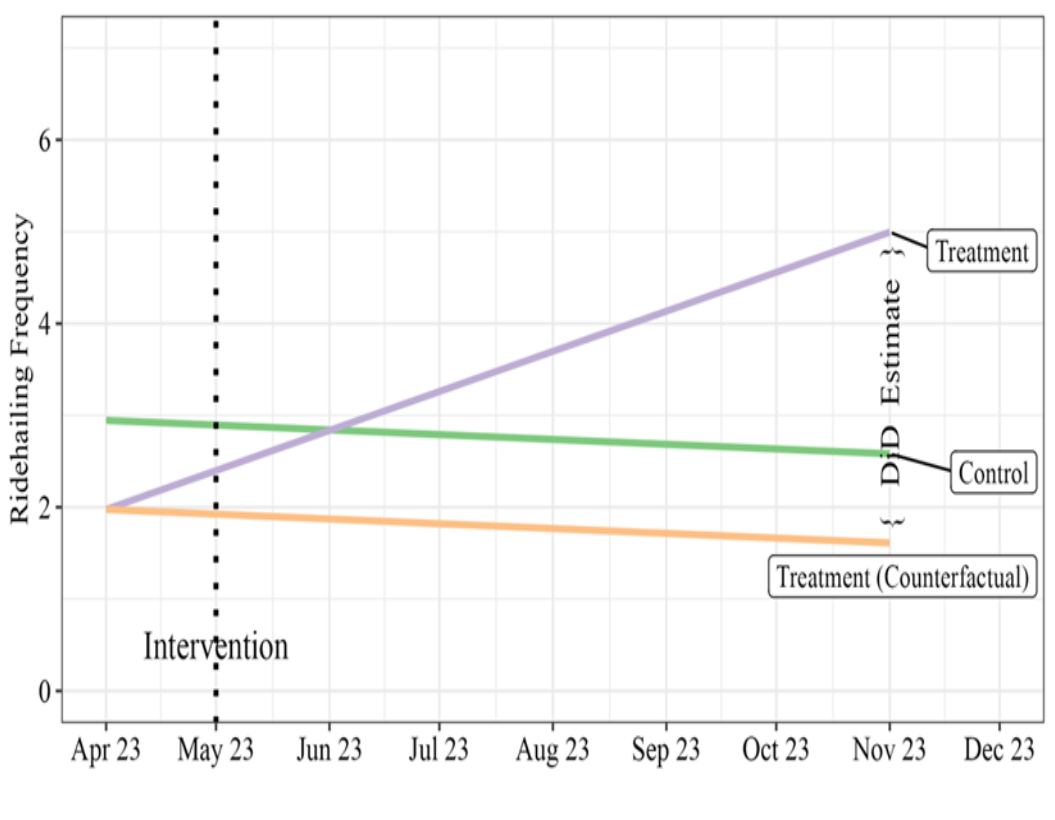


Outcomes

Change in Frequency of Travel by Mode

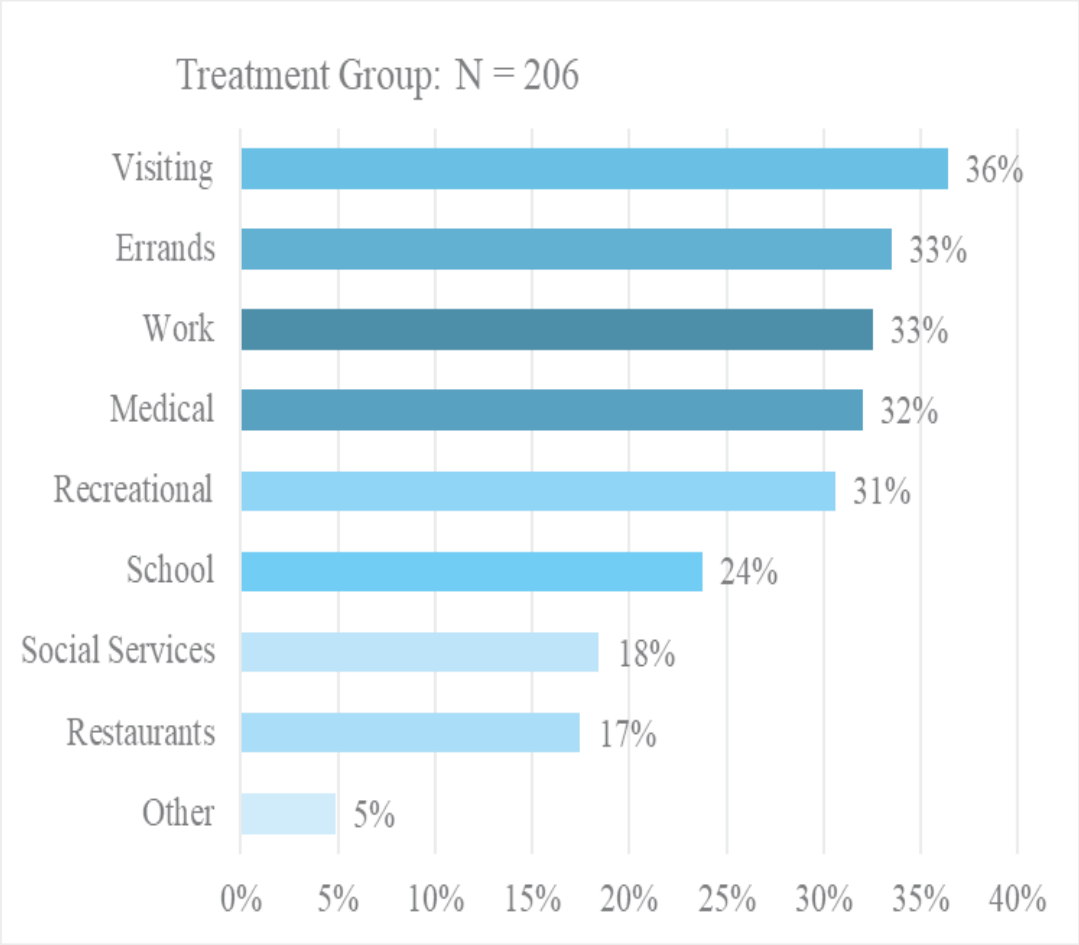
The DiD model shows:

- Significant increases in **ridehailing** (<0.001)
- But **not transit** or other models
- Higher ridehailing frequency:
  - **Disability, self/ family member** (p=0.001)
  - Those **under 30** years old (p<0.001)

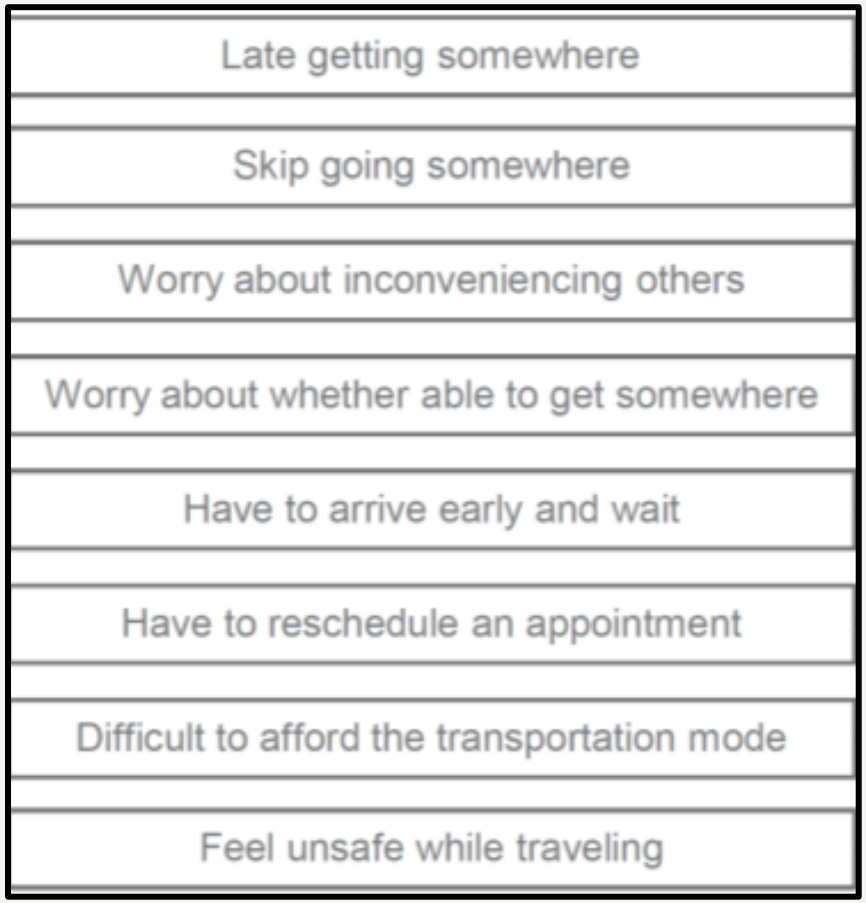


Destination Accessibility

- Measured increase and decrease in accessibility from survey results
- **Destination access significantly improved** (P=0.035)
- Figure shows increase in destination type from treatment-only survey



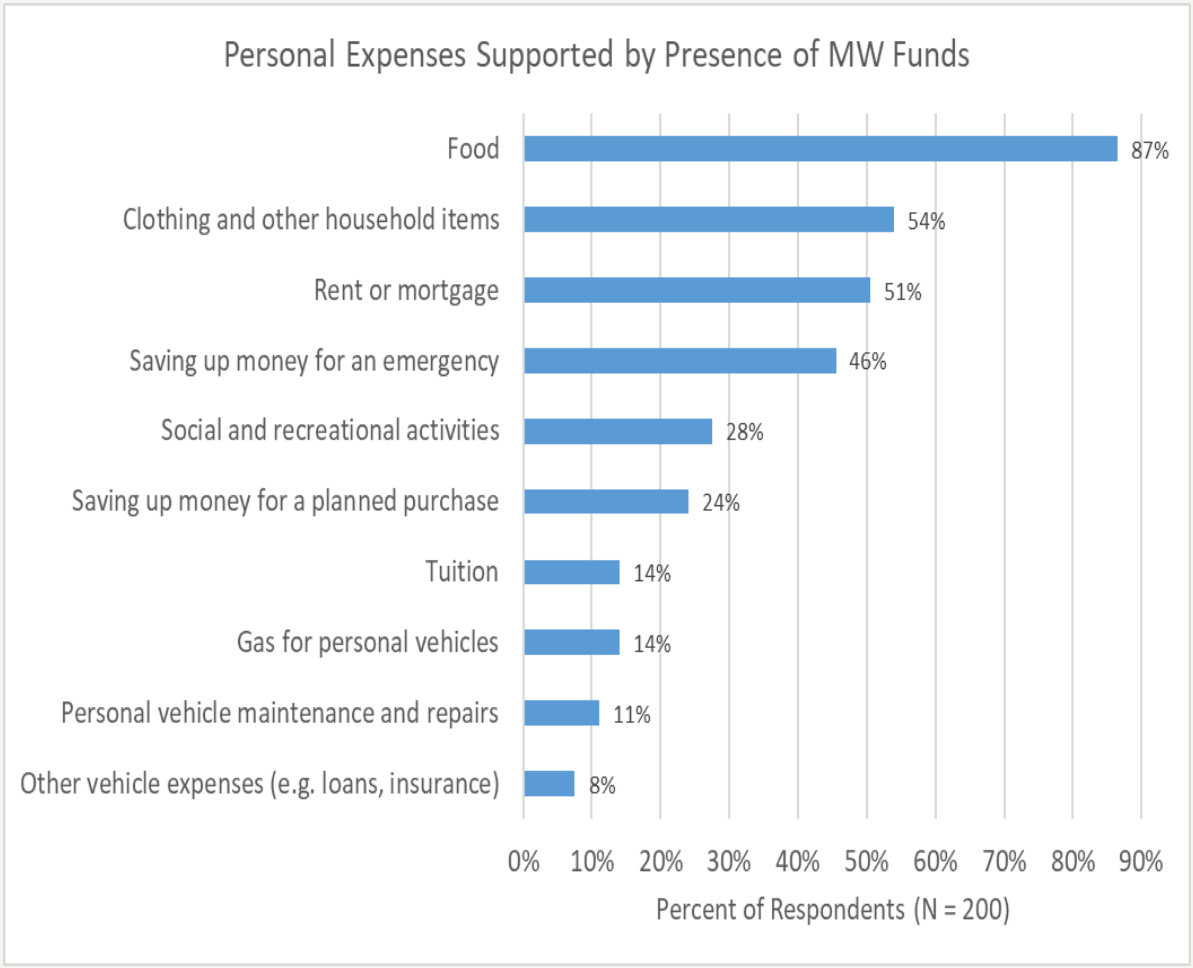
Transportation Security Index



- **Significant increase in transportation security ($p<0.001$)**
- Lower transportation security:
  - **Disabled**, self or family member, ($p<0.001$)
  - **Less than 30** years old ($p<0$)
  - **Women** ($p=0.015$)

Other results: Treatment Only

- **Vehicle shed (4%) and postponed acquisition (4%)**
- Respondents used the mobile wallet to pay for their usual travel modes, most often transit, and thus had more money for personal expenses



Conclusions: Change in Modes

- Study provides initial insights into the potential travel effects of the mobility wallet pilot in South LA:
  - Significant increase in ridehailing but not transit or other low-speed modes
  - Access to transit is relatively good in the study area, transit was the primary mode for survey respondents, and LA Metro offers a discount program to qualified low-income applicants
  - Descriptive statistics did show an increase in transit use—there may not have been much room to increase transit among the participant population
  - Significant increase in ridehailing may have supplemented transit use and increased accessibility and transportation security

Conclusions: Change in GHGs

- Study provides initial insights into the potential GHG effects of mobility wallets:
  - A significant increase in ridehailing may increase GHG emissions
  - However, the reported vehicle shed (4%) and postponed acquisition (4%) due to the pilot after only 12 months may show significant potential to reduce passenger vehicle travel and VMT
  - Future studies could examine this trade-off with observed and survey data

Conclusions: Potential Health Impacts

- Significantly increased transit security may indicate reduced loneliness and stress, which both have significant impacts on health.
- Increases in frequency of travel to medical appointments, visiting friends and family (loneliness), recreation (physical activity), and grocery shopping (reduced hunger and, perhaps, healthier food)
- When household budgets increase, the results show funds are most often used for food (87%) and for social and recreational activities (27%).
- In sum, results from this study indicate the potential for increased overall health due to the mobility wallet. However, more research is needed to better understand these effects.

Next Steps…

- LA Metro has secured funding for two more pilots (2 and 3)
- Phase 2 includes South LA (1000 wallets) and LA County (1000 wallets)—debit cards have just been distributed
- The study area for phase 3 is still in the discussion phase.
- The phase 2 surveys will include short validated health questions.
- Methods could be significantly improved by integrating surveys with observed data; however, research budgets can be limited, and the collection of observed data is expensive.

Thank You!

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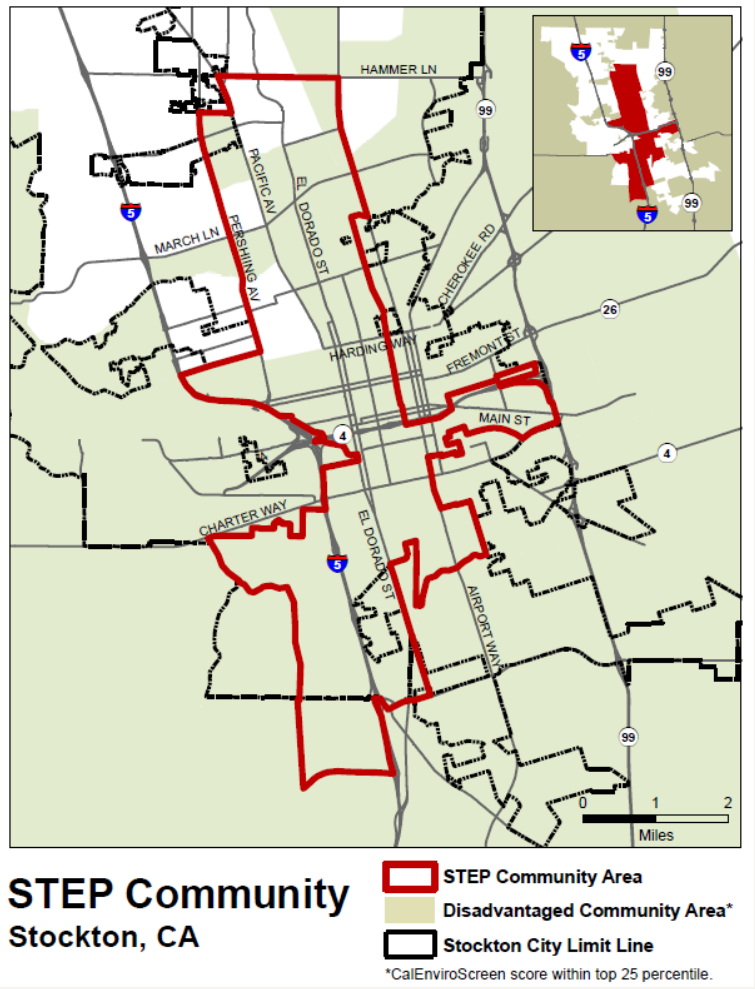
Stockton Mobility Incentives Project

JUNE 2, 2025

BRIAN HAROLD
UC DAVIS INSTITUTE
OF TRANSPORTATION STUDIES

Background

- **Stockton Mobility Collective:** Suite of mobility pilot projects implemented in Stockton (California's Central Valley) using CARB cap-and-trade funds
- Electric carshare and bikeshare, Mobility-as-a-Service application, and Mobility Incentives mobility wallet program
- Grant period: 2021-2025, pilots primarily operated from 2023-2024
- Goals: Improve access to destinations, complement existing transit, encourage the use of lower-carbon modes of travel and reduce reliance on personal vehicles



Source: California Air Resources Board

Set-Up

Stockton Mobility Incentives: A Mobility Wallet Pilot

- Prepaid debit cards issued to Stockton residents beginning in July 2023
- Participants must reside in project boundary, be 18+ years of age, and meet income limits
- Eligible for public transit, private bus and rail, carsharing and bikesharing, and ridehailing (Uber and Lyft added midway through the 18-month pilot)
- 961 active participants
- Total funds spent: $561,471 (average $584 per card)

Program Income Eligibility

If your household contains this many people…	Your annual household income must be less than this to qualify:
1	$49,100
2	$56,100
3	$63,100
4	$70,100
5	$75,750
6	$81,350
7	$86,950
8	$92,550

Set-Up

UC Davis evaluated the Mobility Incentives pilot:

- Card transaction data
- User surveys (baseline, midpoint, endpoint)
- Research questions to assess whether Mobility Incentives:
  - Improve access to destinations?
  - Improve transportation security?
  - Result in mode shifts such as increasing transit use or reducing personal vehicle use?
  - Suggest a potential for health- and lifestyle-related benefits?
- Survey response: 299 for baseline, 167 for midpoint, 160 for endpoint (17-31% response rate)

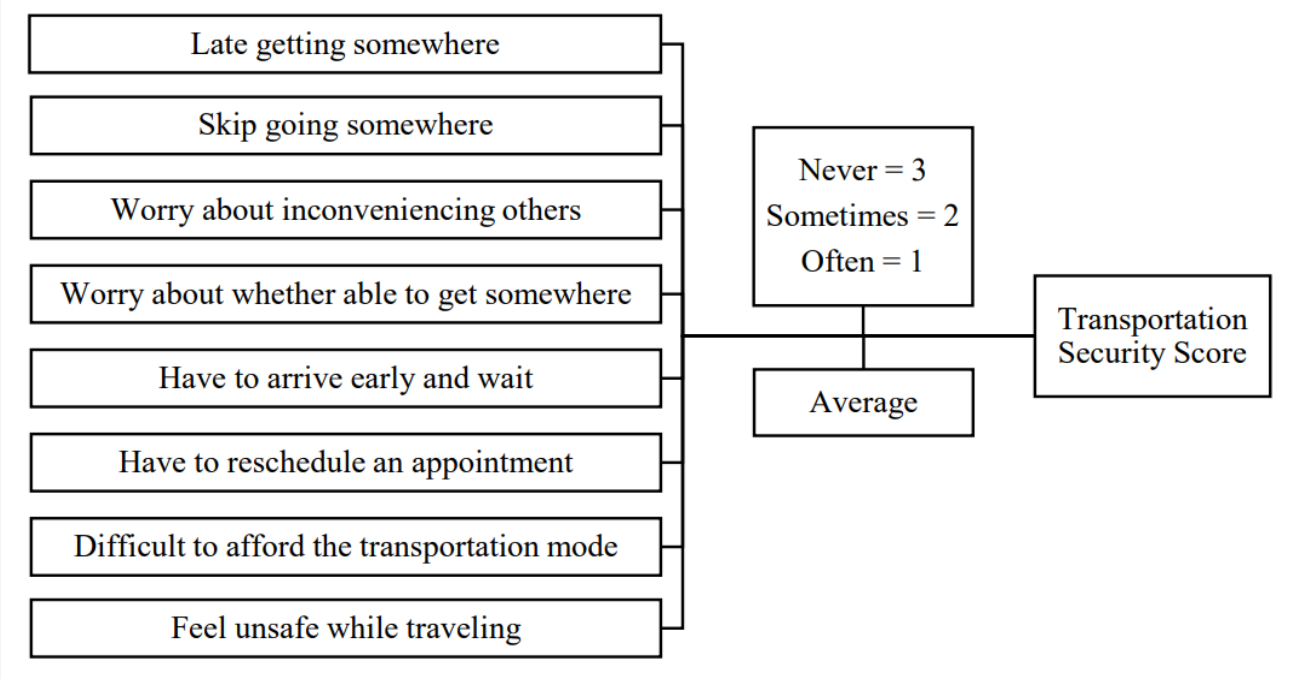
Outcomes

Mobility Incentives participant characteristics (baseline survey):

- **Car insufficient households:** 62% of respondents have 0 personal cars for their household, 87% have fewer cars than household adults
- **Reliance on transit and cars:** 38% primarily use transit for transportation, 34% primarily use a private car
- **Accessibility challenges:** 33% have a temporary or permanent disability or health-related challenge that makes it difficult to travel outside home
- **Travel mode limitations:** Only 9% of respondents report that they could use transit to make all the trips they need to make
- **Families:** 36% live with children under 18, 28% with children 10 and under
- **Unbanked or underbanked:** More than one-third (37%) did not have a credit or debit card before joining the Mobility Incentives program

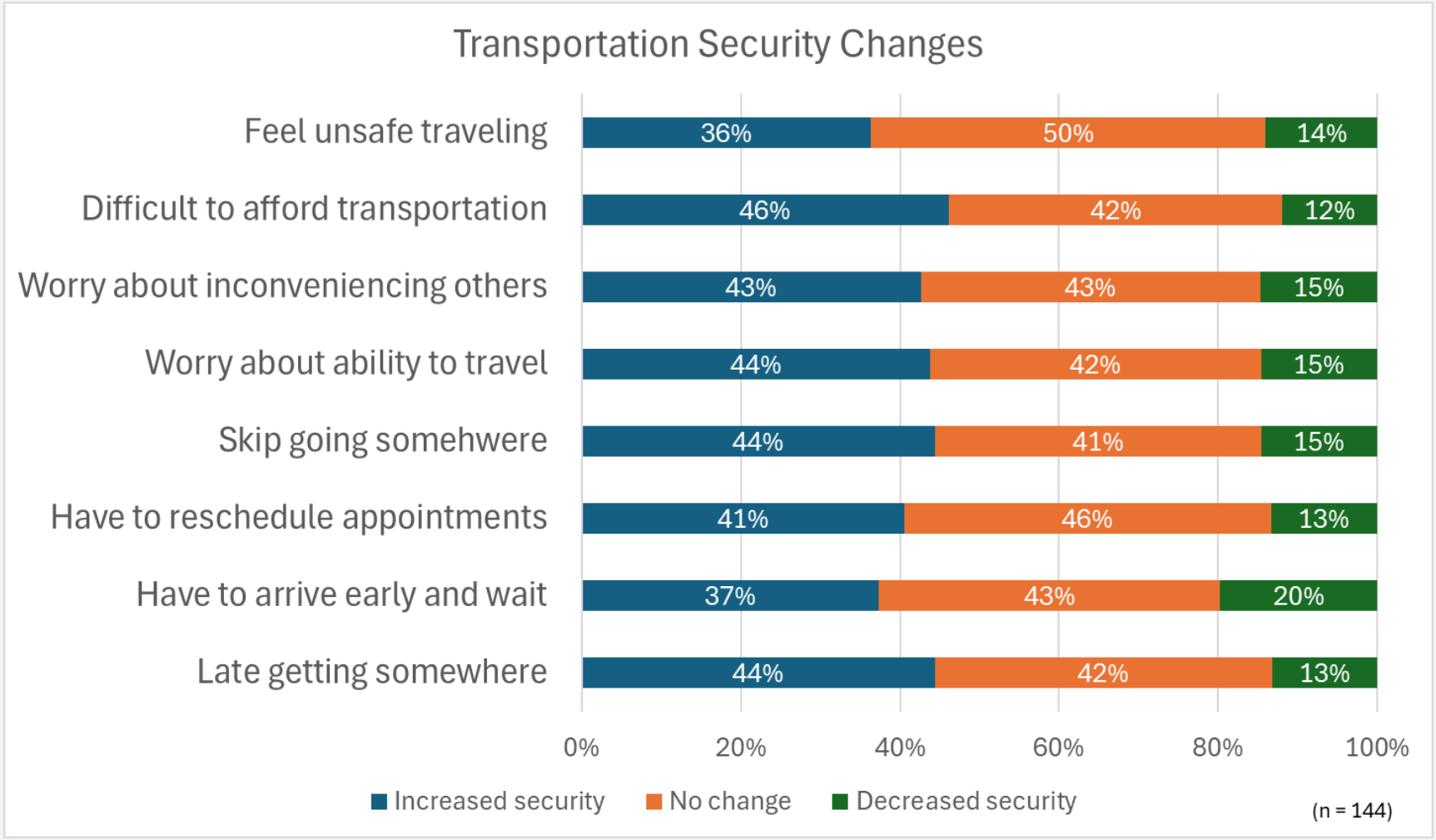
Outcomes

- Transportation security relates to how well people can travel to essential destinations and opportunities
- Used shortened version of 16-item Transportation Security Index (TSI): 6 items plus “affordability” and “safety” questions



Source: https://poverty.umich.edu/research-funding-opportunities/data-tools/the-transportation-security-index/

Outcomes


Transportation Security Changes
Feel unsafe traveling
36%
50%
14%
Difficult to afford transportation
46%
42%
12%
Worry about inconveniencing others
43%
43%
15%
Worry about ability to travel
44%
42%
15%
Skip going somehwere
44%
41%
15%
Have to reschedule appointments
41%
46%
13%
Have to arrive early and wait
37%
43%
20%
Late getting somewhere
44%
42%
13%
0%
20%
40%
60%
80%
100%
Increased security
No change
Decreased security
(n = 144)

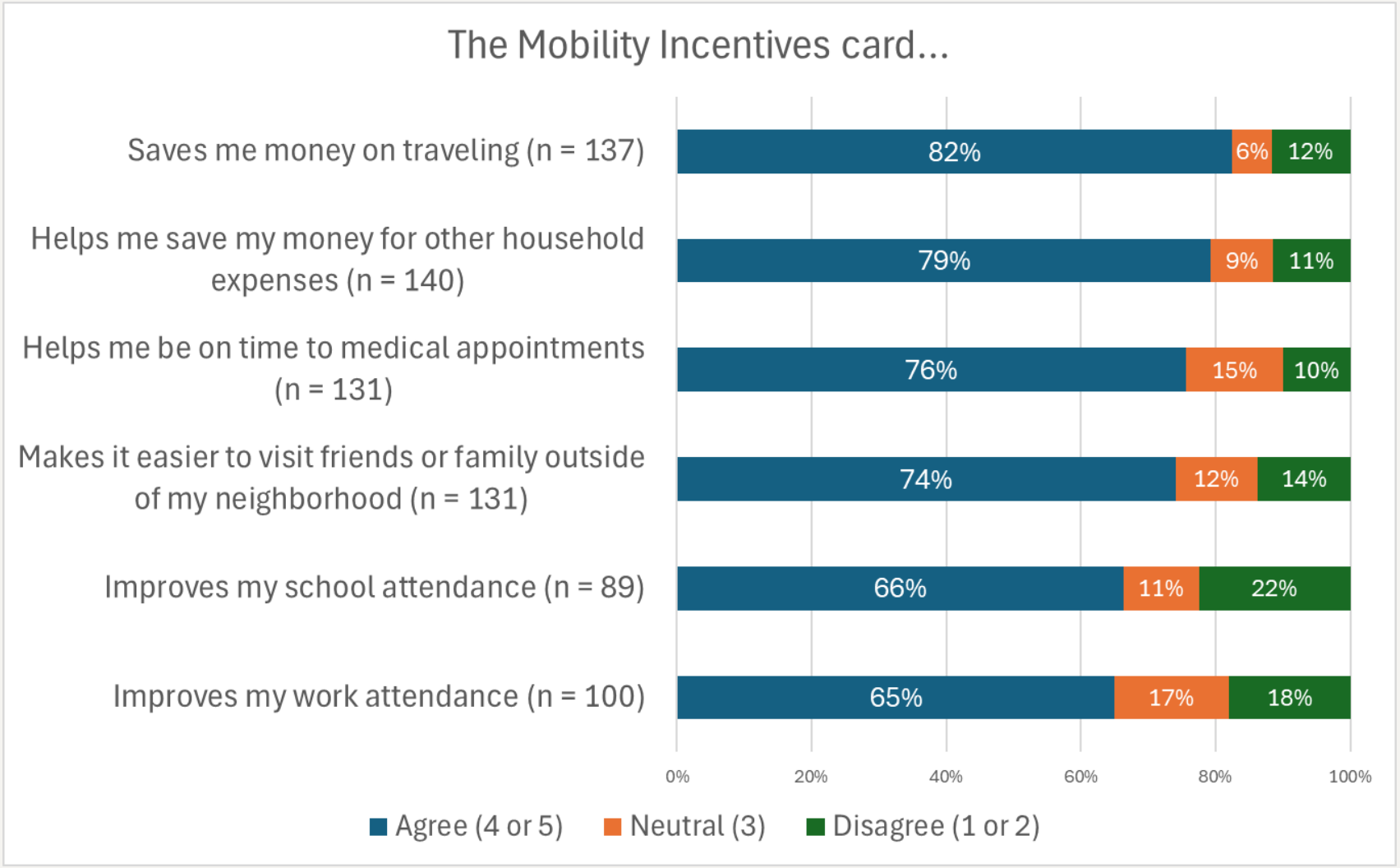
Outcomes

Mobility Incentives Mode Shifts (from baseline to midpoint)

Of responding participants…

- 56% reported a change in their primary mode (the form of travel they use most often)
- 10% shifted to transit as their primary mode
- 7% shifted to Carshare as their primary mode
- 12% shifted to ridehailing as their primary mode (21% if only counting members who responded after Uber/Lyft were added as eligible services)
- Additionally, 9% shifted from using a personal vehicle as their primary mode to using either transit or Carshare

Outcomes


The Mobility Incentives card...
Saves me money on traveling (n = 137)
82%
6%
12%
Helps me save my money for other household expenses (n = 140)
79%
9%
11%
Helps me be on time to medical appointments (n = 131)
76%
15%
10%
Makes it easier to visit friends or family outside of my neighborhood (n = 131)
74%
12%
14%
Improves my school attendance (n = 89)
66%
11%
22%
Improves my work attendance (n = 100)
65%
17%
18%
0%
20%
40%
60%
80%
100%
Agree (4 or 5)
Neutral (3)
Disagree (1 or 2)

Outcomes

Lessons Learned and Future Research

- Results suggest that Mobility Incentives have the potential to reduce transportation barriers, encourage the use of modes that supplement transit, and achieve a variety of travel and lifestyle outcomes
- The introduction of ridehailing as an eligible mode greatly increased the level of spending, likely to due the higher cost of ridehailing and flexibility of this travel option
- EV carsharing was a popular mode choice, and evaluation of that pilot showed that most trips taken with the service could not have been made otherwise (using personal vehicles, transit, or other modes)
- Future evaluations will increase the focus on health-related outcomes such as stress levels, access to medical care, and longer-term outcomes such as improved employment, academic achievement, and social well-being

Thank You!

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East San Jose Mobility Wallet

JUNE 2, 2025

DANIELA CASTAÑEDA

SAN JOSÉ DEPARTMENT OF TRANSPORTATION

Background

- **Project Title:** East San Jose Mobility Wallet
- **Community Needs:** Make existing transportation options more accessible to 300 car insecure households in East San Jose.
- **Approach:** Social service, holistic and trauma-informed approach to empower participants to make transportation choices that best meet their individual needs, and to provide a service rooted in dignity, respect, and trust.
- **Existing Transportation Options:** VTA Bus, VTA light rail BART, Caltrain, Uber/Lyft, Bikeshare coming in early 2026
- **Budget:** $1.6 million; $1.3 million will go directly toward mobility wallet assistance

Background

- **Planned Project Outcomes:**
  - Increase access to affordable and reliable transportation options
  - Improve participant ability to meet essential needs (e.g., work, school, medical, childcare)
  - Data and insights to inform future mobility equity programs
- **Measurements That will be used:**
  - Pre-, mid-, and post-program surveys
  - In-depth interviews
  - Impact on quality of life, including improved access to jobs, healthcare, education, and other essential services
  - Frequency and type of transportation used

Set-Up

- Partnerships:
  - Pre debit card service provider (TBD)
  - Community-based organization and social services provider Amigos de Guadalupe
- In person orientation
- **Types of transportation used/allowed in project:** Public transportation in the entire bay area, Greyhound and Amtrak, Bay Wheels Bikeshare, Uber/ Lyft, carshare, and upcoming transportation options that become available during the pilot program.
- **Amount of money given to program participants:** $150-$200+ per family depending of family size and needs

Set-Up

- **Participant eligibility for program:** Eligibility criteria are being developed in collaboration with community members who currently receive support such as food assistance, rental assistance, and case management from social service agencies. This collaborative approach ensures the criteria reflect the lived realities of Bay Area residents, recognizing that standard federal and state income thresholds do not align with San Jose's high cost of living.
- Special considerations for survivors of domestic violence, including Violence Against Women Act (VAWA) privacy protections and flexibility on residency requirements, to support their transition to a life free from violence without added barriers.

Outcomes

We are launching Summer 2025. Outcomes TBD

Thank You!

DANIELA CASTAÑEDA

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Showcasing Impact through Shared Outcomes on Transportation's Impact on Health

WORKSHOP BLOCK 2

11:30 – 12:15

Objective and Goals

Building on Workshop 1, this interactive session will explore potential health outcomes for researchers, policymakers, and stakeholders to consider when evaluating transportation initiatives. Through a panel discussion and group engagement, we will begin developing a recommended outcomes/survey document to guide future evaluation efforts at the intersection of transportation and health.

Goals:

- Co-develop a working document outlining meaningful shared outcome measures
- Identify key evaluation domains and validated measures
- Discuss funder expectations and future research directions

Panelists

Facilitator: Bill Wagner, *Director at CCAM-TAC*

Barbara Rubino
Associate Chief Medical Officer at Covered California

Valerie Lefler
Founder and Executive Director at Feonix - Mobility Rising

Graciela Garcia
Staff Air Pollution Specialist at California Air Resources Board

Panel Questions for Facilitator

- What challenges are there in developing and implementing these projects?
- What additional data is needed to measure impact of mobility wallets?
- What are meaningful metrics for measuring mobility wallets impact on health that can be shared across transportation and healthcare sectors? (e.g., hospital admissions, miles traveled, trips taken, mode used, emissions, missed appointments, social connection, etc.)?
- What future research is needed to highlight the effectiveness of addressing transportation insecurity?