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Can Ridehailing Deliver Equity? Lessons for New Mobility Planning

Anne Brown
University of Oregon

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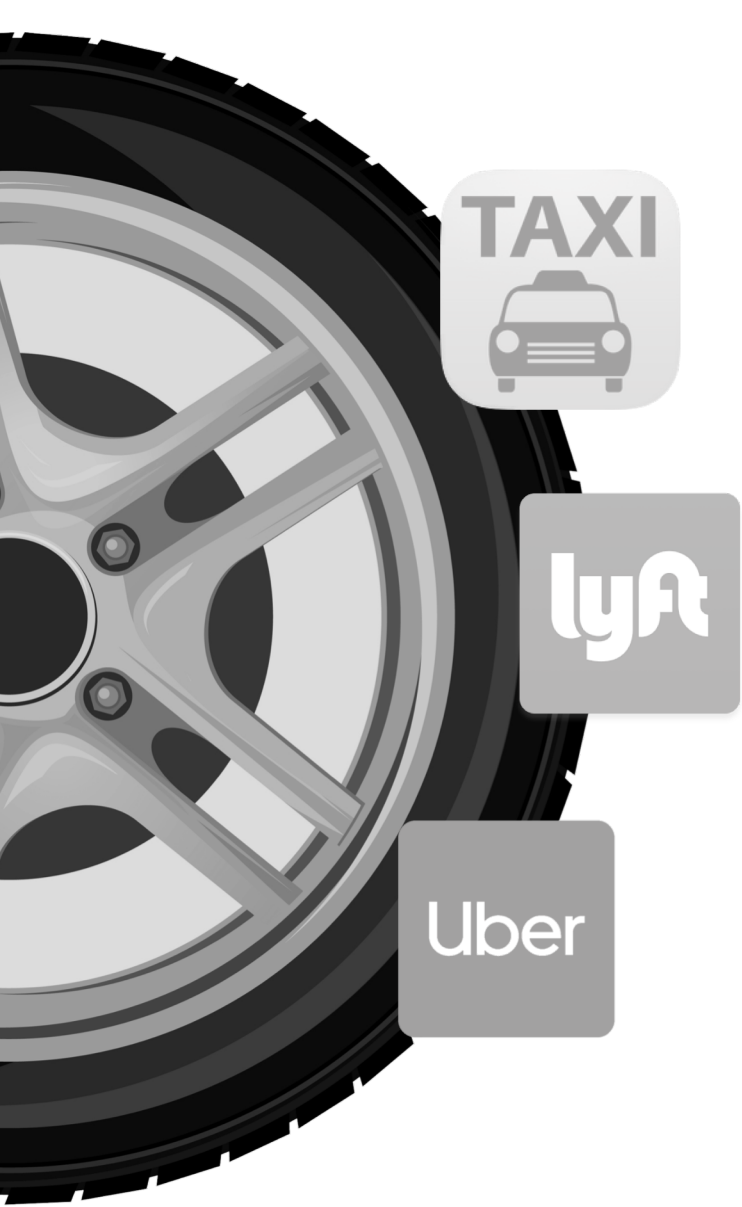
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Can Ride-hailing Deliver Equity? Lessons for New Mobility Planning

May 31, 2019 – Portland State University Friday Transportation Seminar

Anne Brown

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OREGON

School of Planning, Public
Policy and Management

OVERVIEW

- Taxis and ridehail access



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Policy and Management

OVERVIEW

- Taxis and ridehail access
 - In Los Angeles



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Policy and Management

OVERVIEW

- Taxis and ridehail access
 - In Los Angeles
- In a nutshell
 - Extends car access to nearly every neighborhood in LA



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 - Extends car access to nearly every neighborhood in LA
 - Most heavily used in areas with less personal car access



OVERVIEW

- Taxis and ridehail access
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 - Extends car access to nearly every neighborhood in LA
 - Most heavily used in areas with less personal car access
 - Ridehailing narrows but does not erase differences between riders



The need for occasional car access



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Sources: Ralph 2015, U.S. Census 2015, NHTS 2009, Garasky Fletcher and Jensen 2006

Taxis



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Taxi Discrimination

- Poor / no service in low-income neighborhoods and communities of color

Taxis



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Taxis

Taxi Discrimination

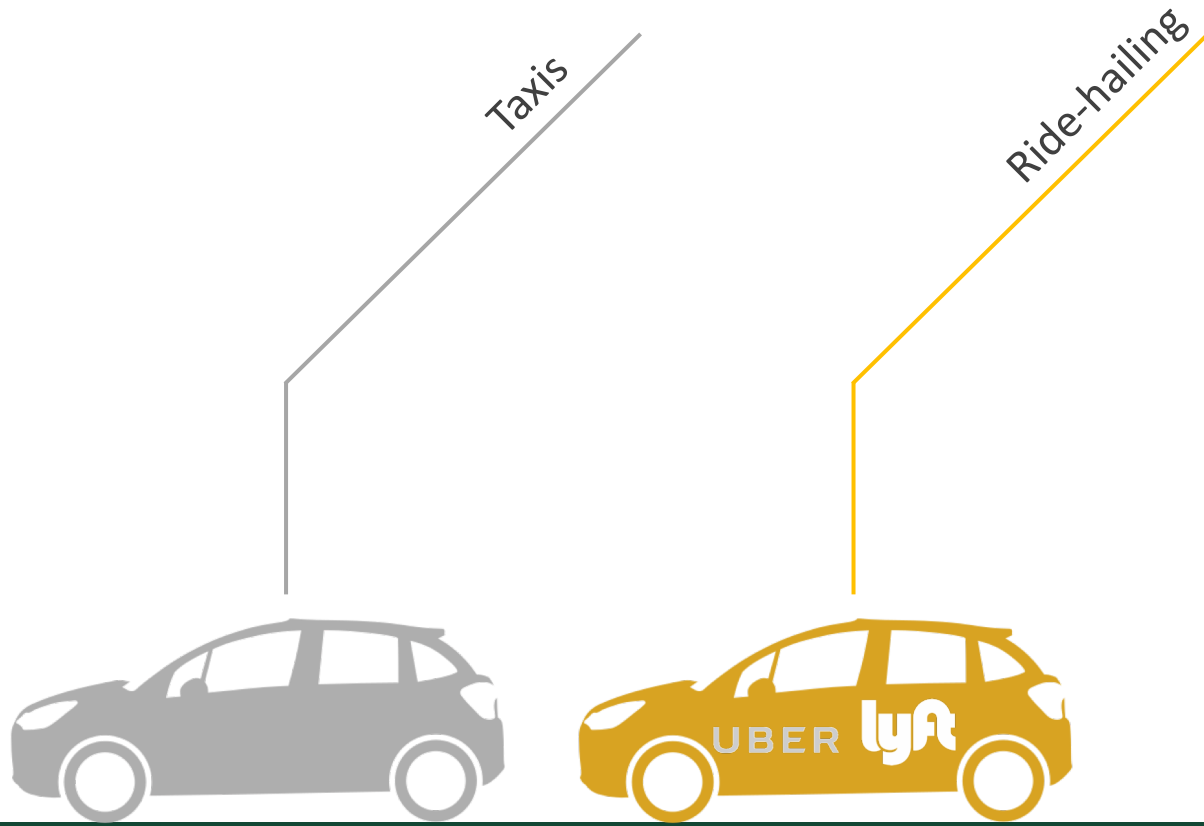
- Poor / no service in low-income neighborhoods and communities of color
- Discrimination against individuals



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A new chapter in car access?



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Ride-hail travel & equity in Los Angeles



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Where are
Lyft trips?

Where are
Lyft trips?

What factors
are
associated
with
individual
Lyft use?

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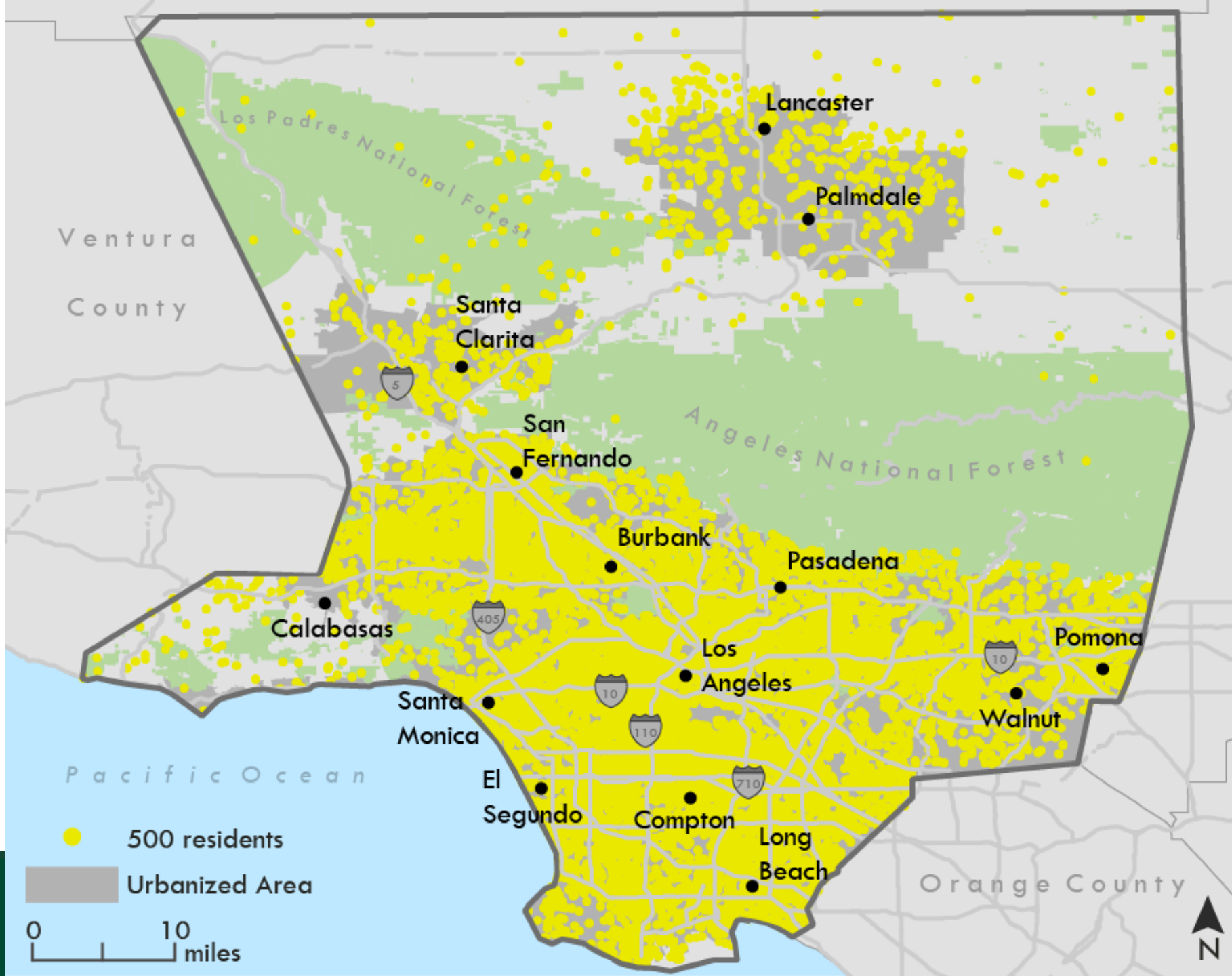
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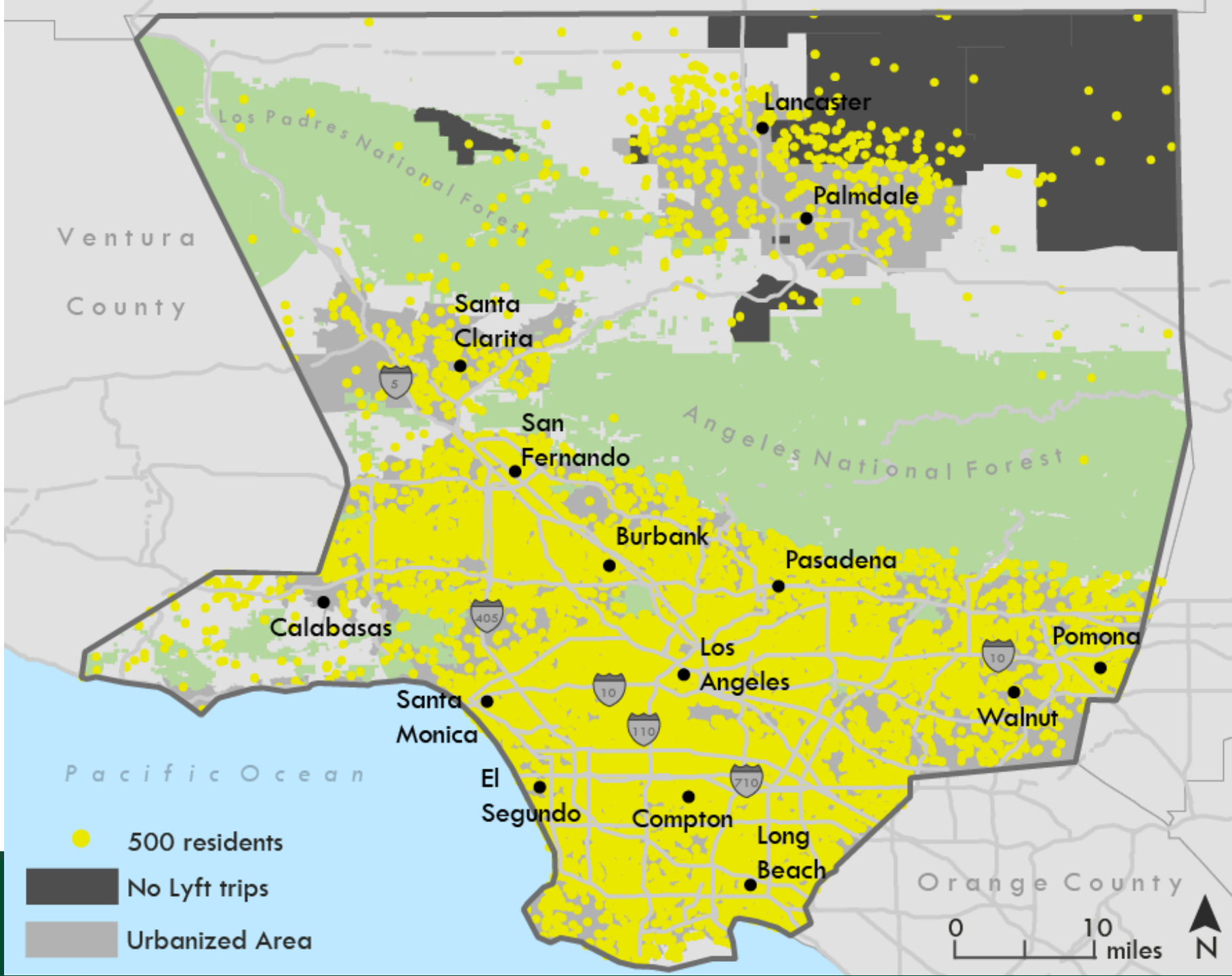
6.3 million Lyft trips taken in Los Angeles County

LOS ANGELES COUNTY



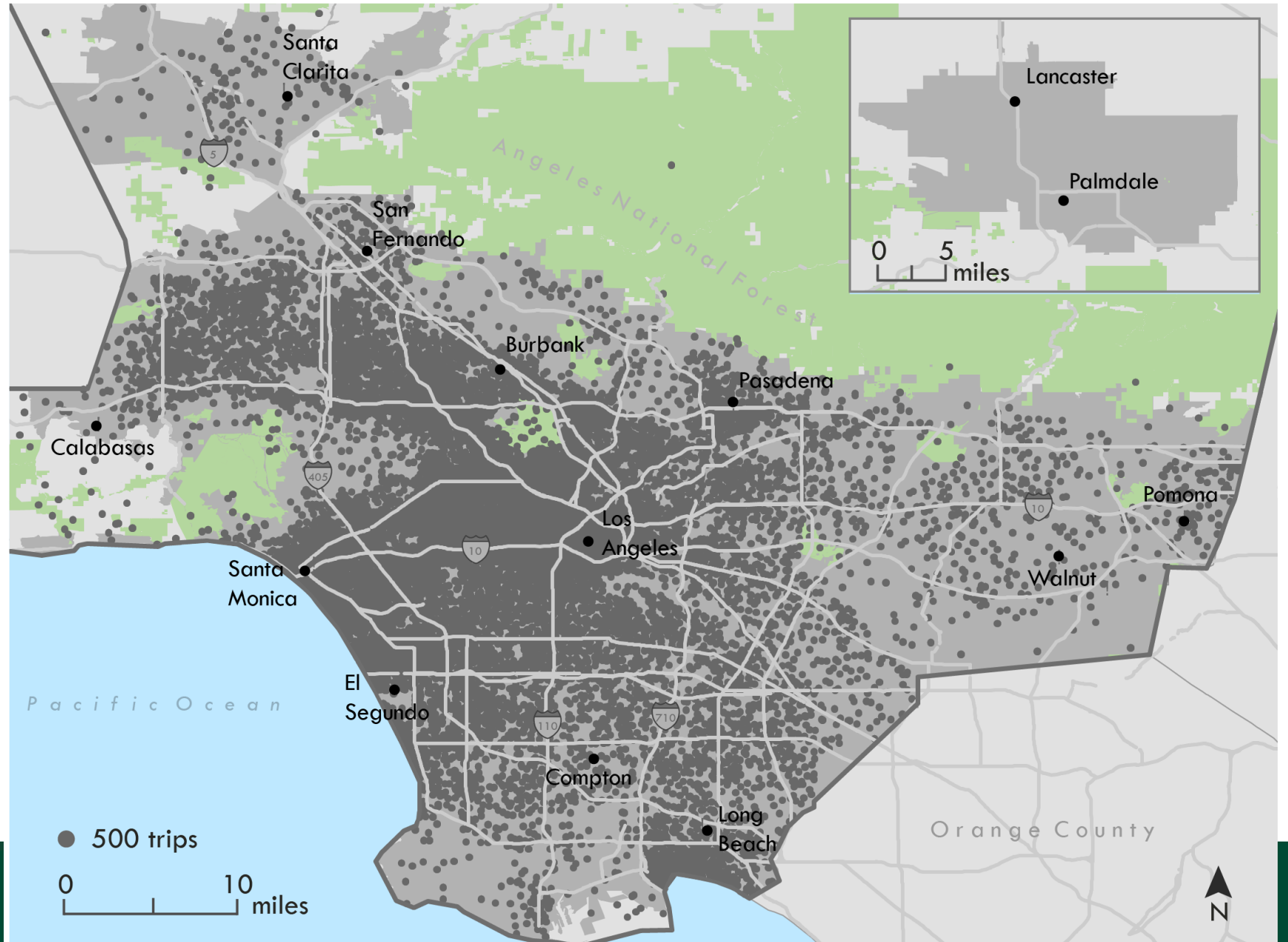


WHERE *AREN'T* LYFT TRIPS?



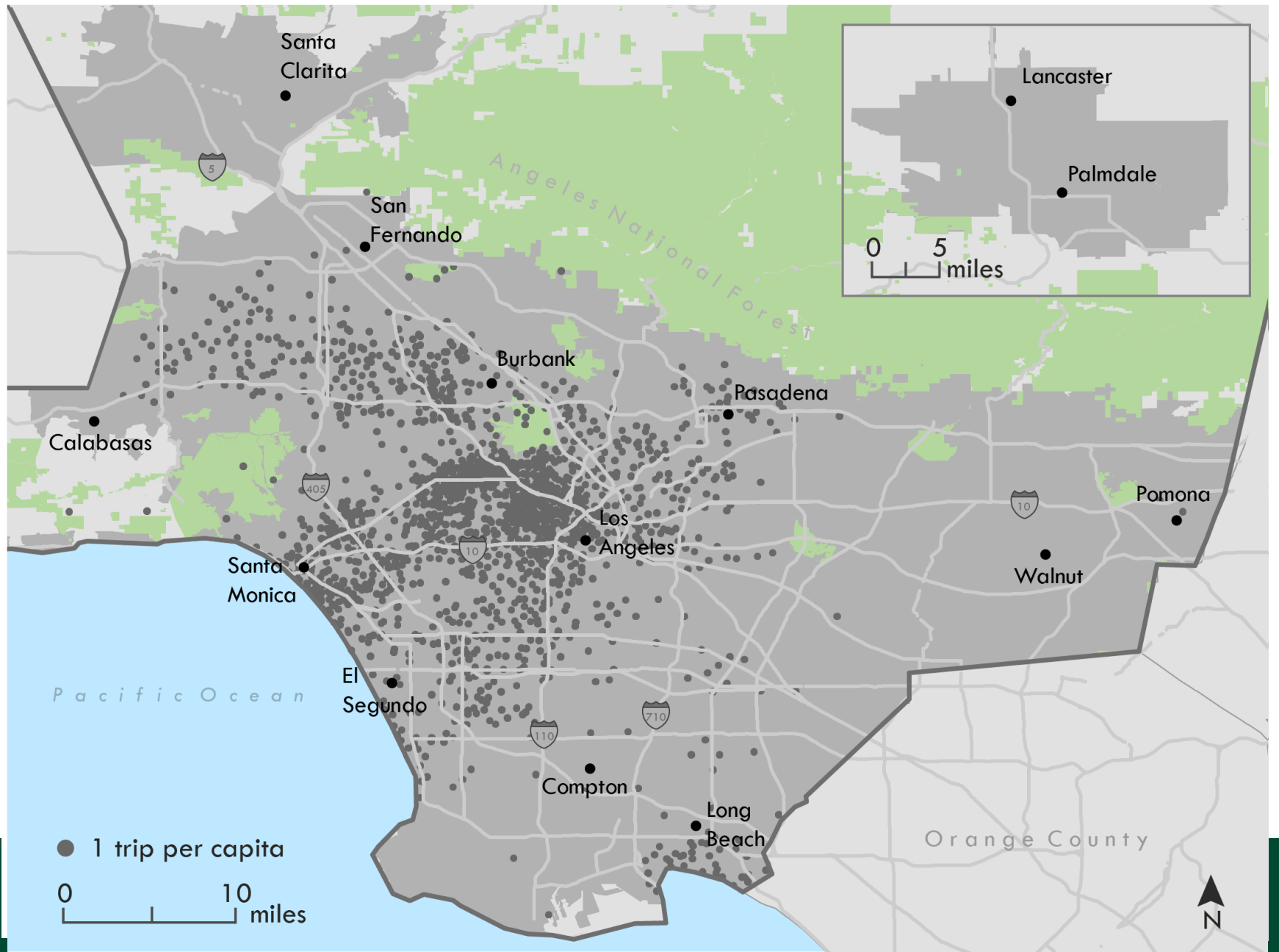


WHERE ARE LYFT TRIPS?



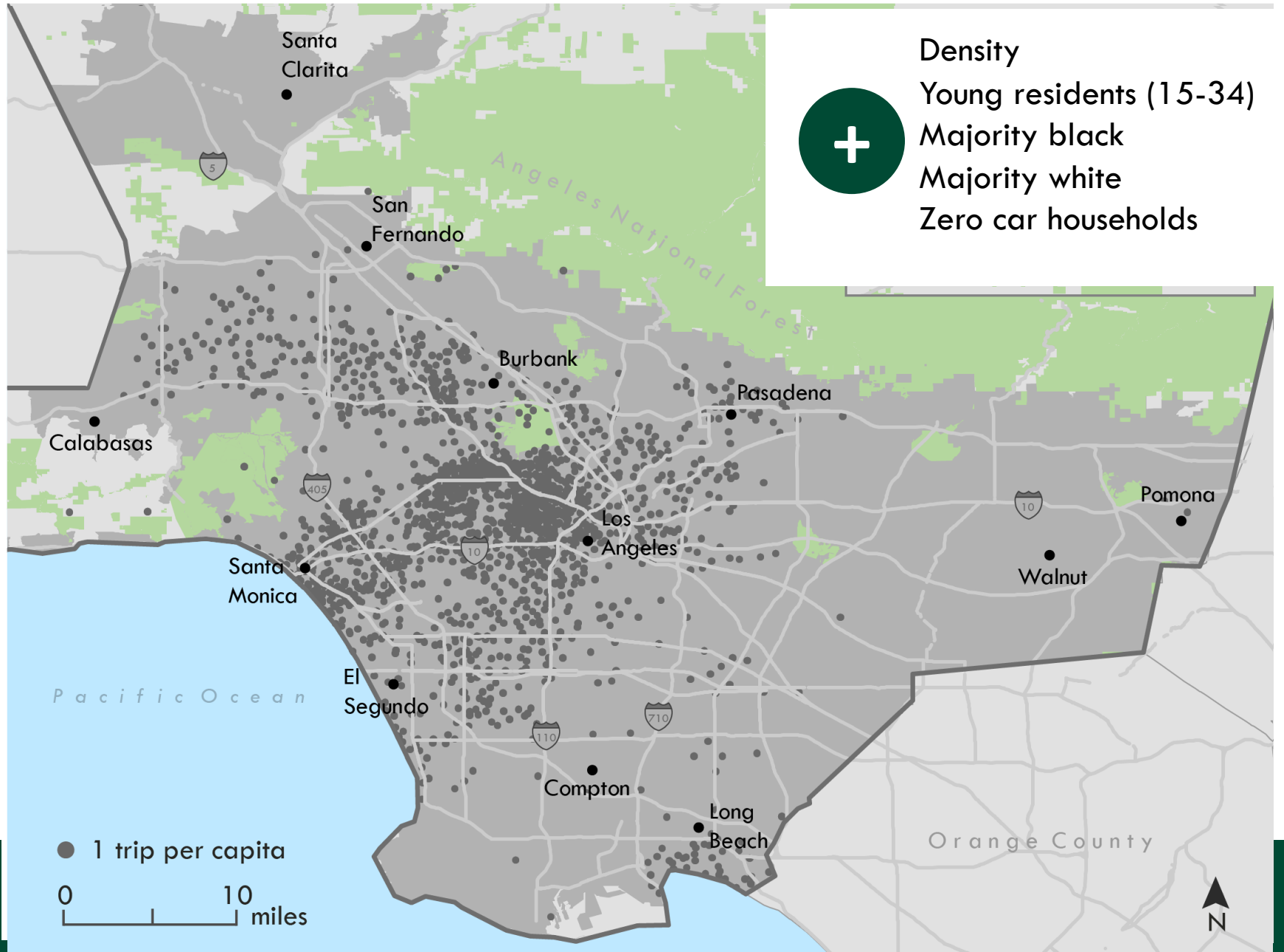


WHERE ARE LYFT TRIPS?



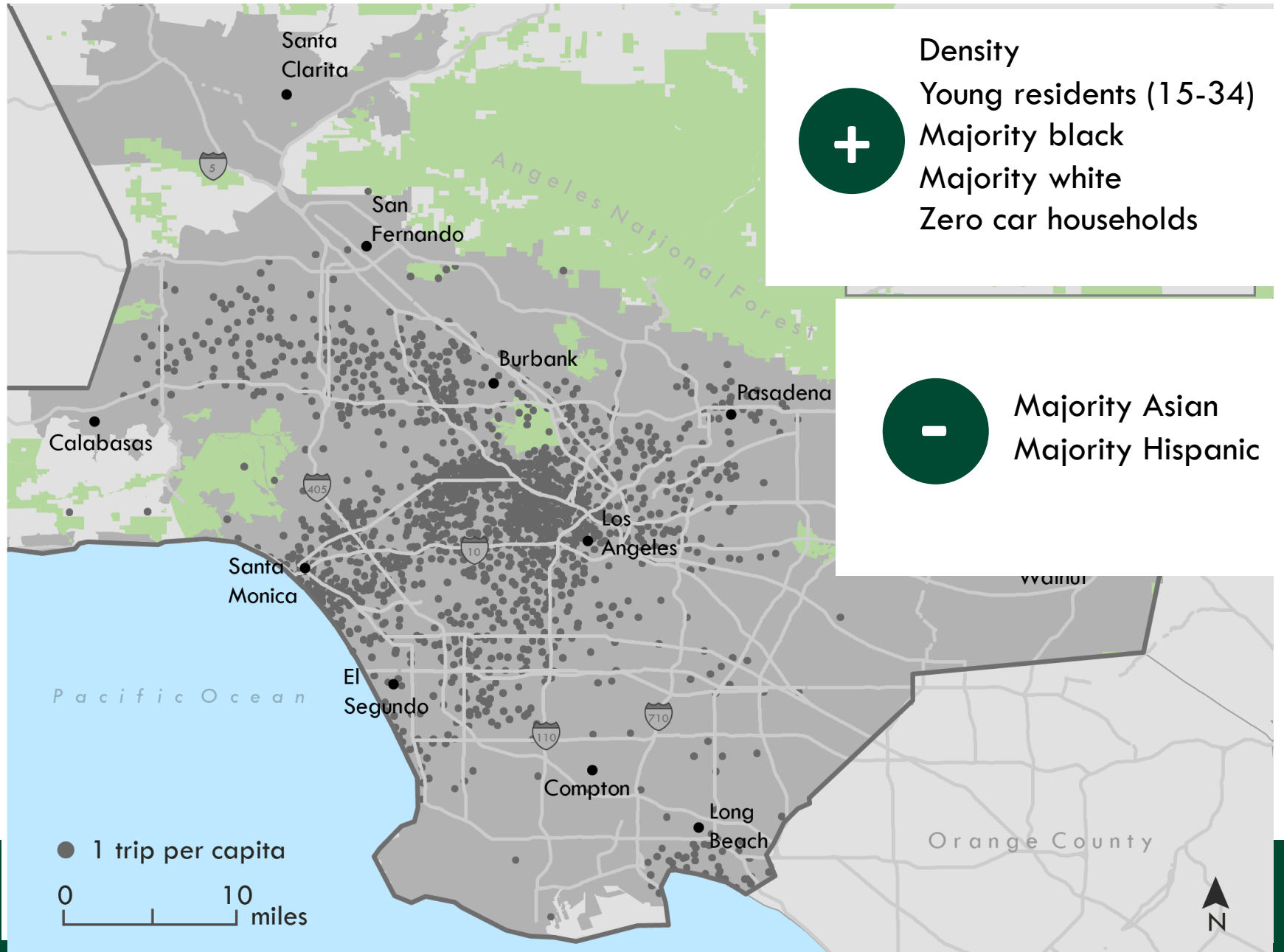


WHERE ARE LYFT TRIPS?





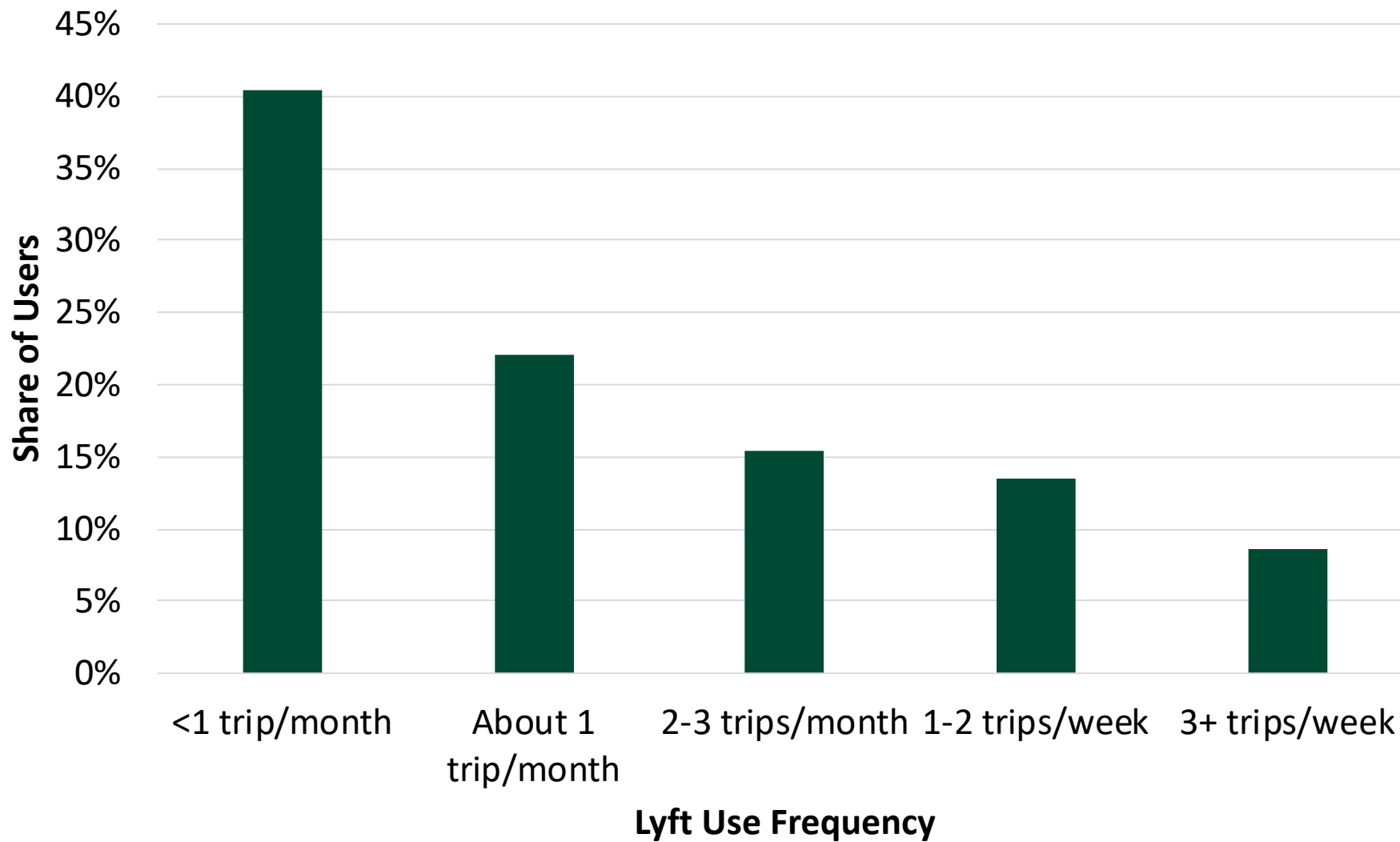
WHERE ARE LYFT TRIPS?





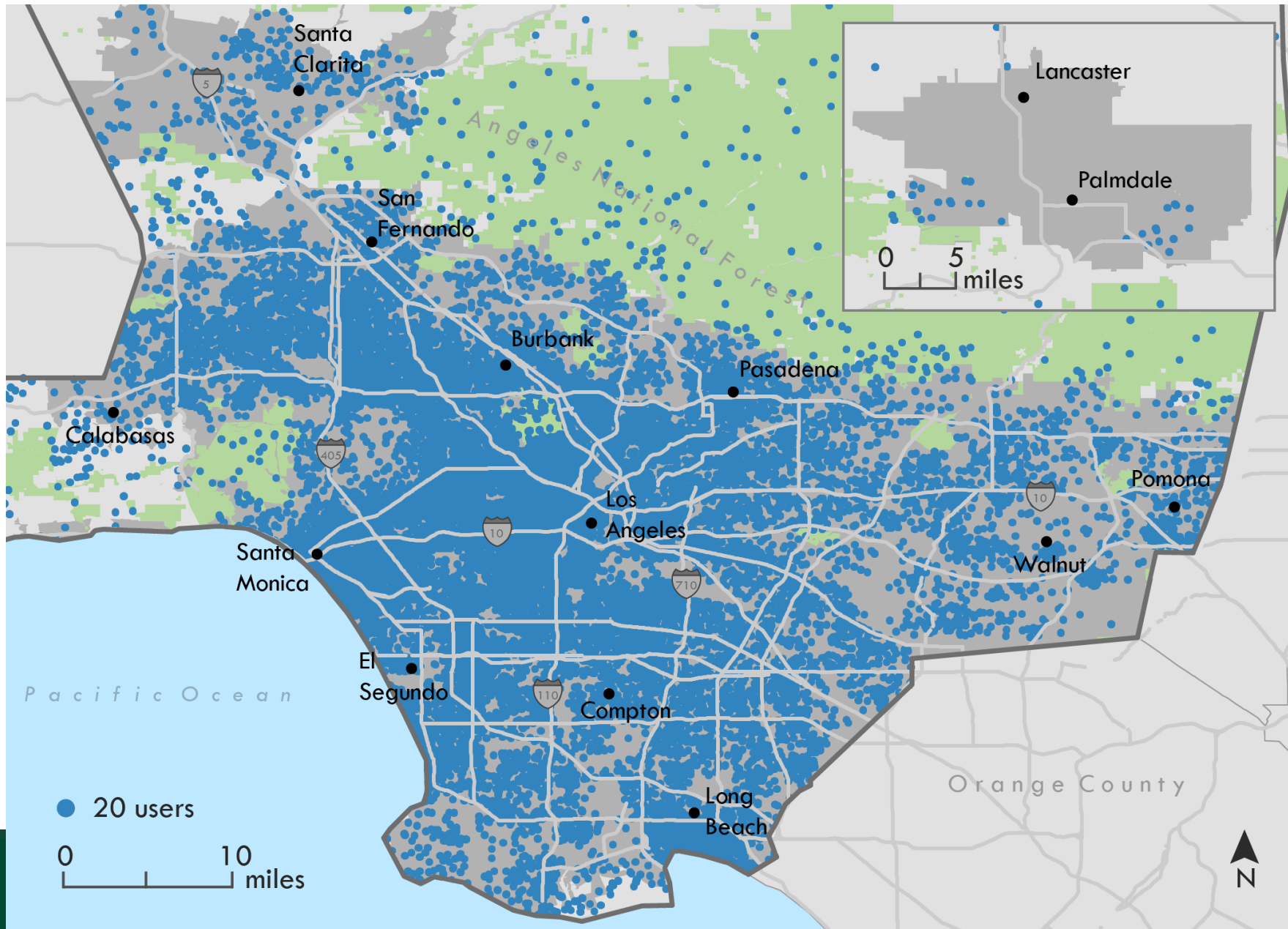
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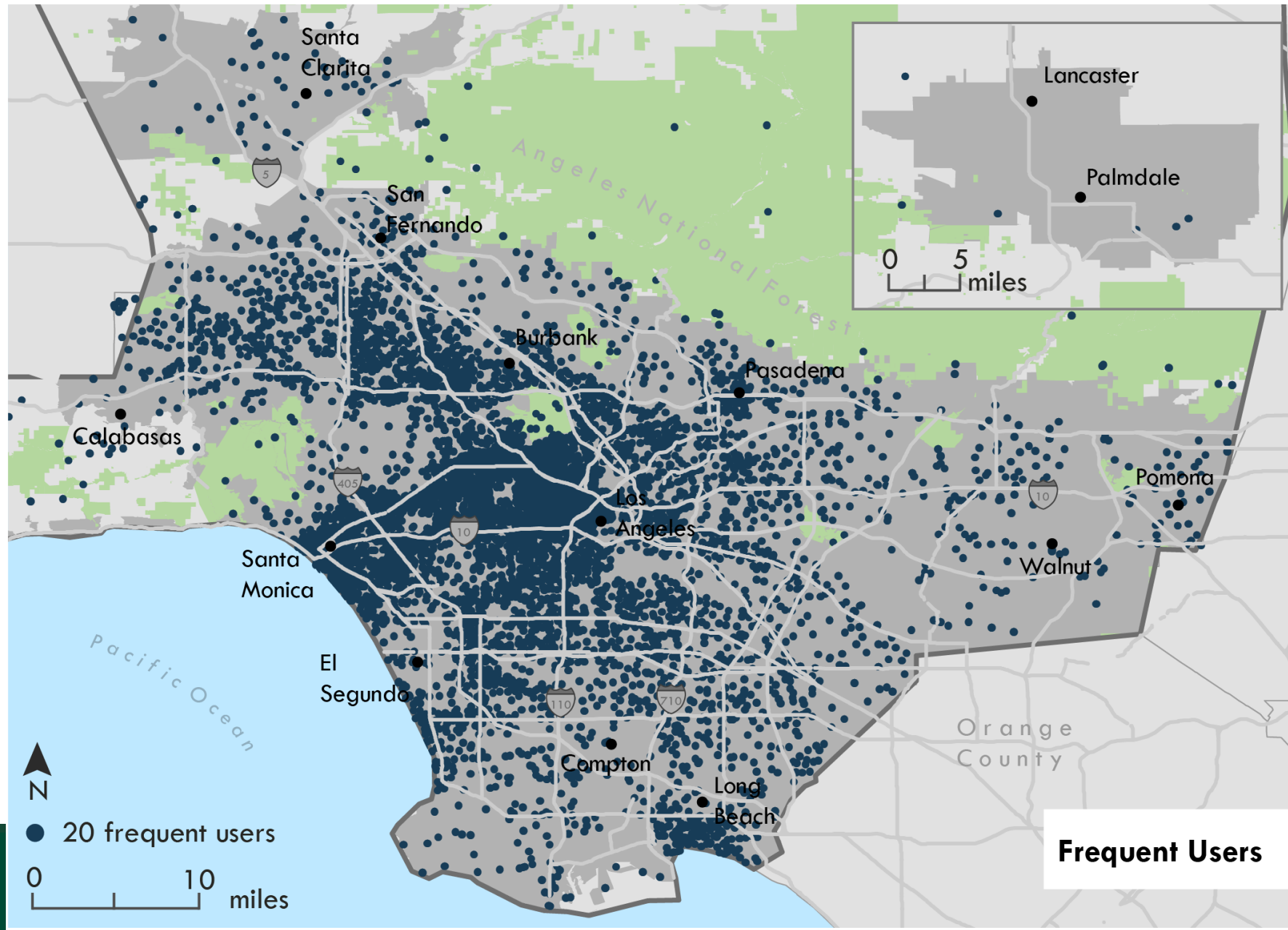


WHERE DO LYFT USERS LIVE?



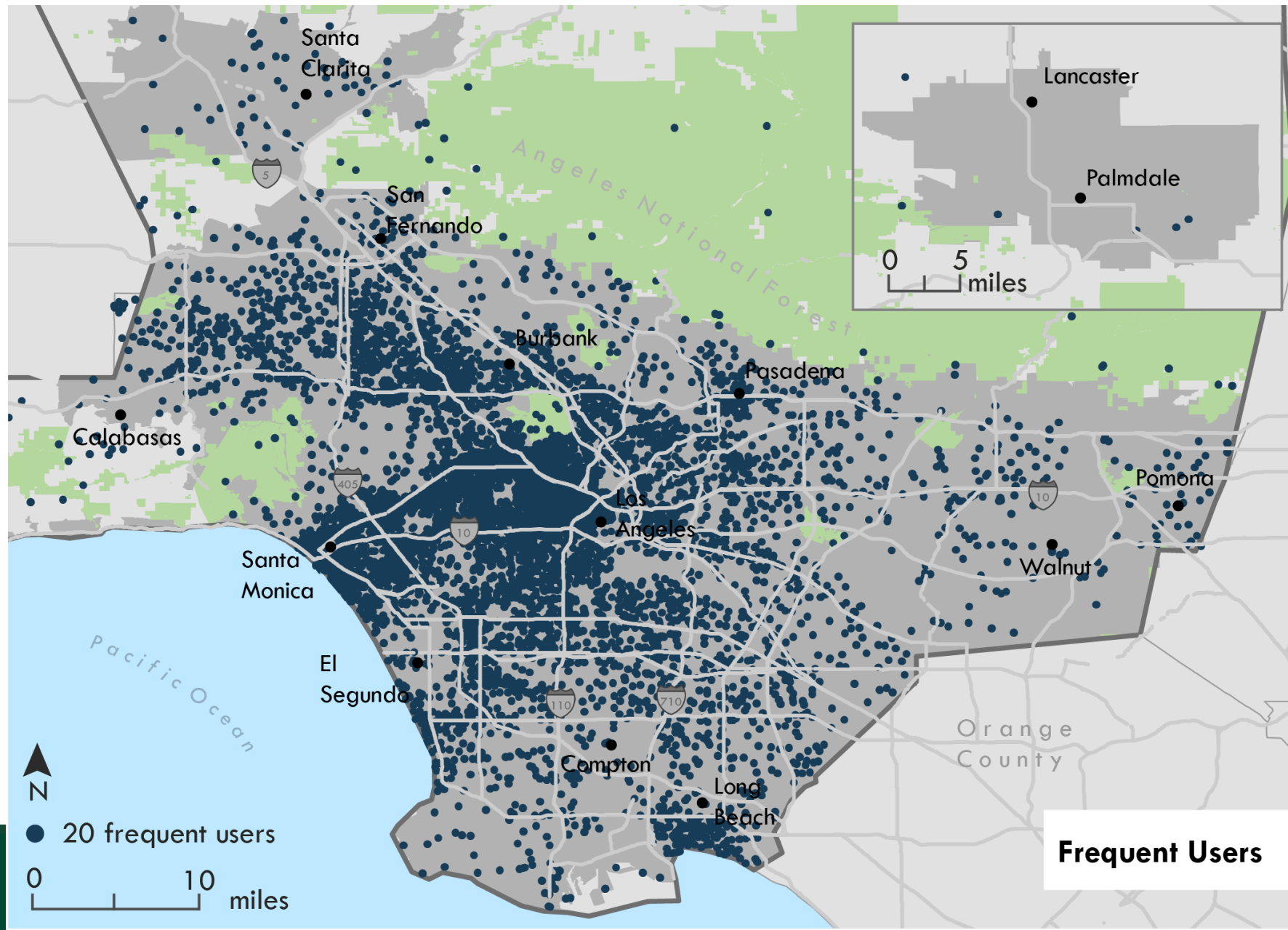


WHERE DO LYFT USERS LIVE?





WHAT FACTORS ARE ASSOCIATED WITH INDIVIDUAL LYFT USE?

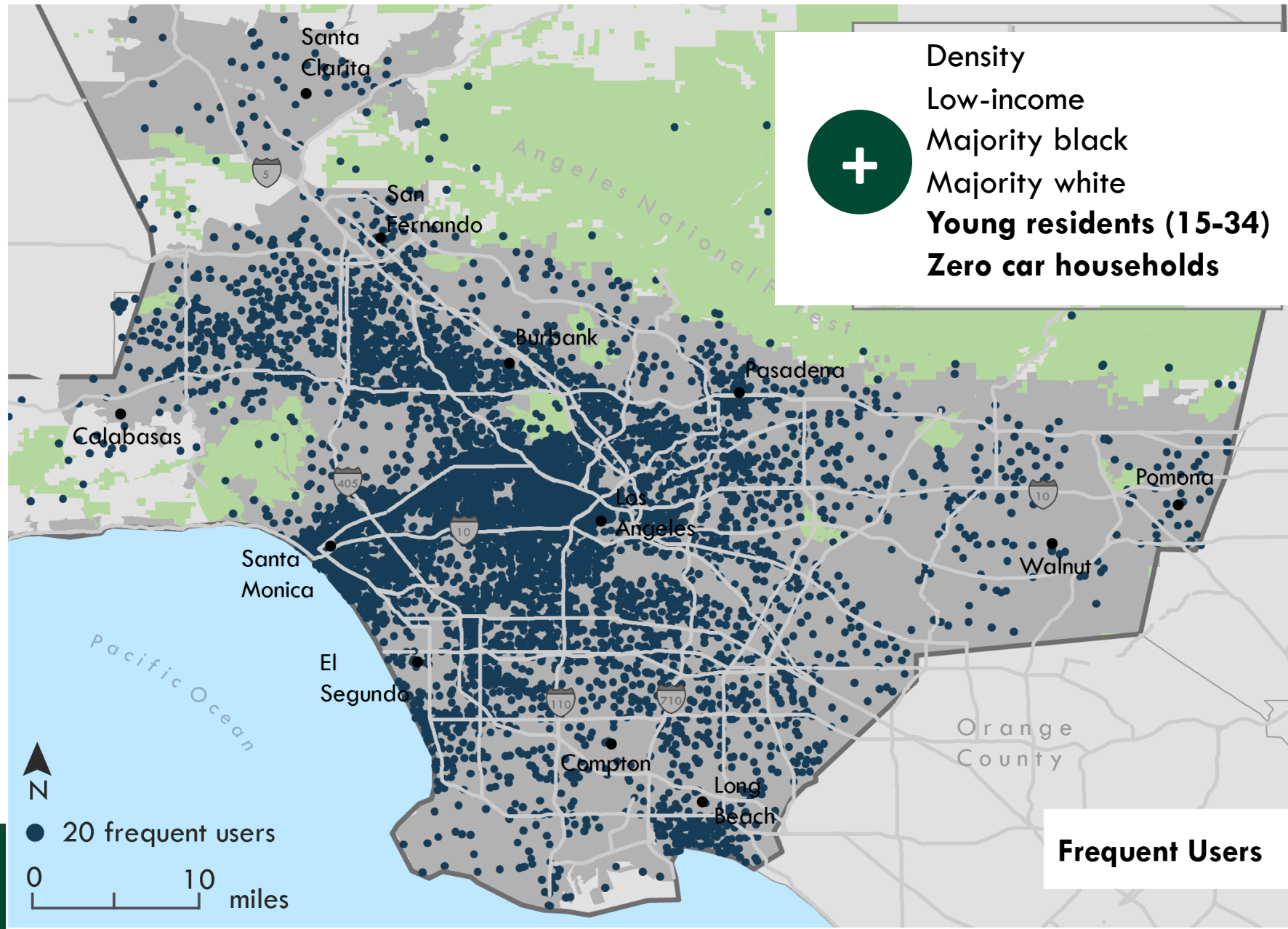


Frequent Users



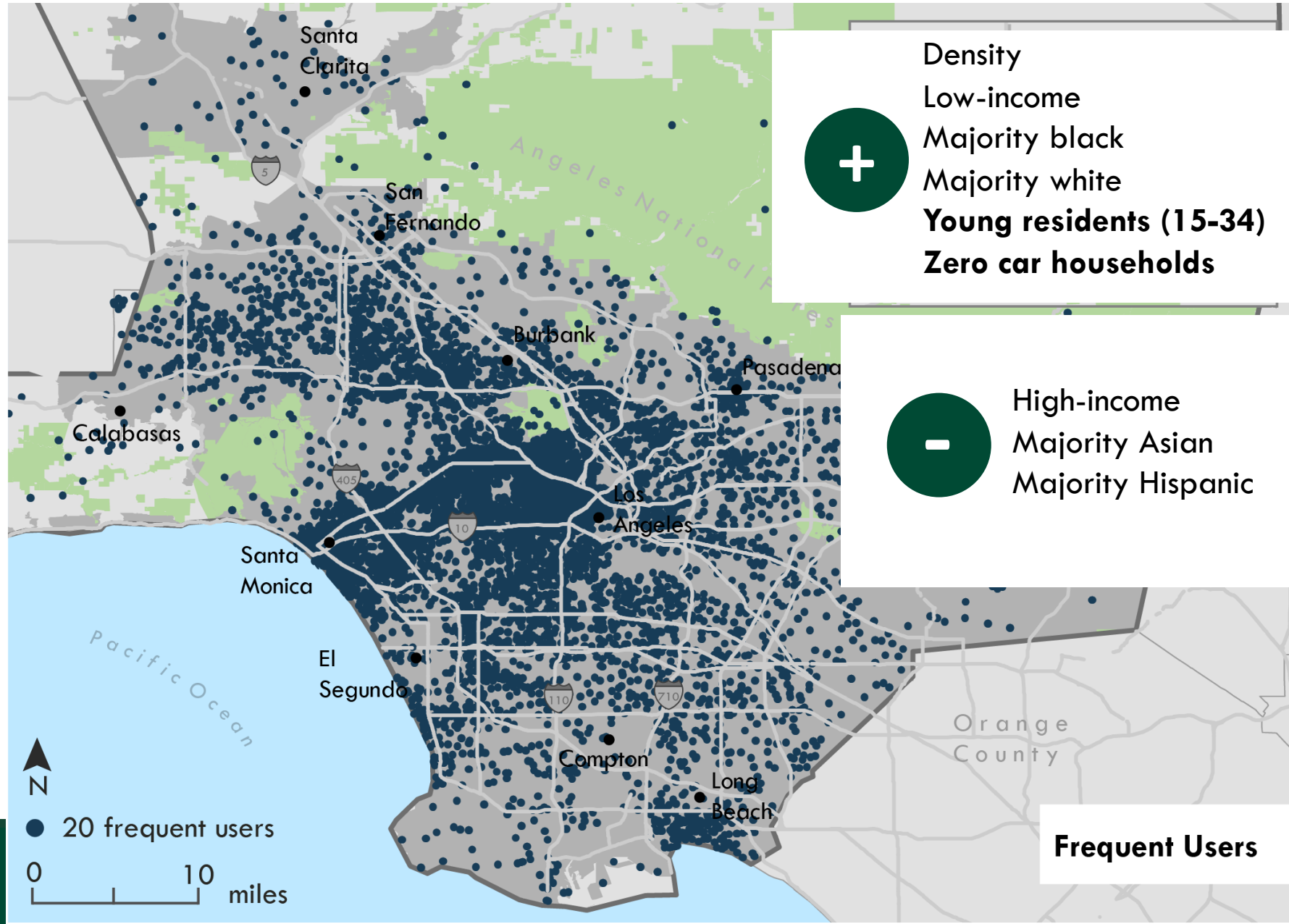


WHAT FACTORS ARE ASSOCIATED WITH INDIVIDUAL LYFT USE?





WHAT FACTORS ARE ASSOCIATED WITH INDIVIDUAL LYFT USE?



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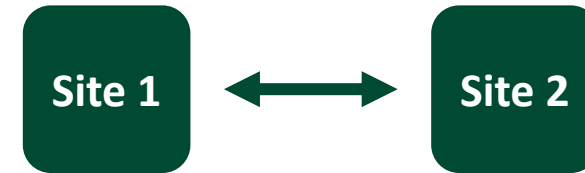
Is there
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Where are Lyft trips?

What factors are associated with individual Lyft use?

Is there evidence of discrimination in the ridehail and taxi industries?

Audit study: 1,704 Lyft, Uber, and taxi trips



- Wait times
- Cancellation rates
- Driver characteristics



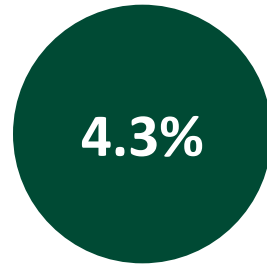
FINDINGS

1. General patterns of service
2. Differences across rider characteristics

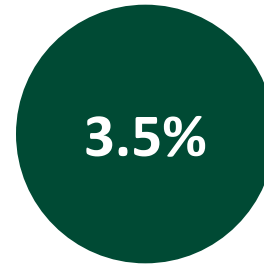


CANCELLATIONS

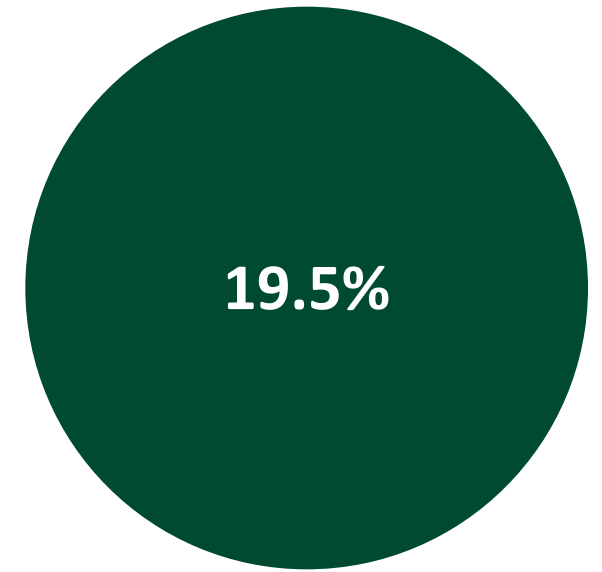
Share of rides
with request
cancellations



Lyft



Uber



Taxis

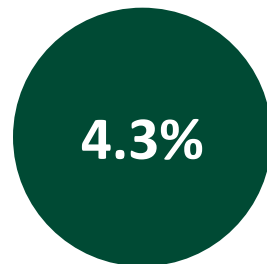
4.3%

3.5%

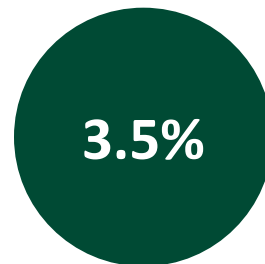
19.5%

CANCELLATIONS

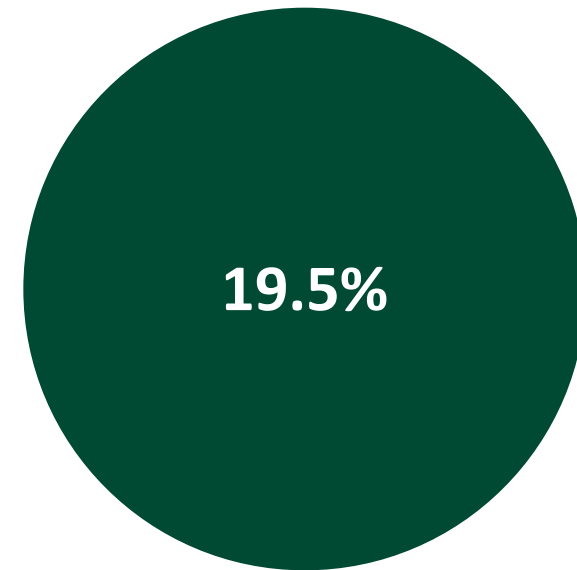
Share of rides with request cancellations



Lyft

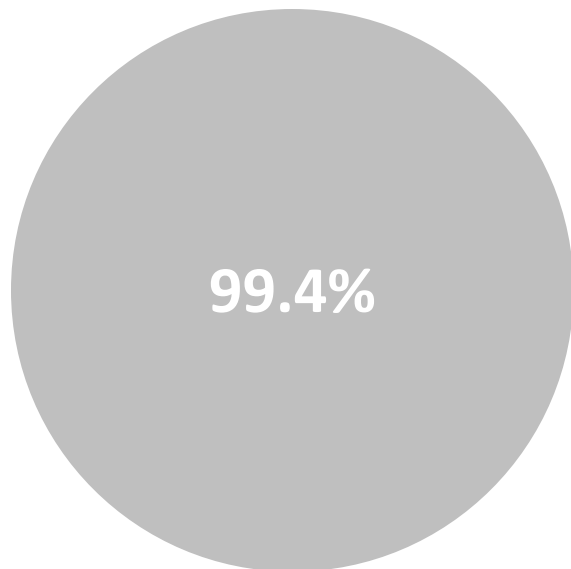


Uber

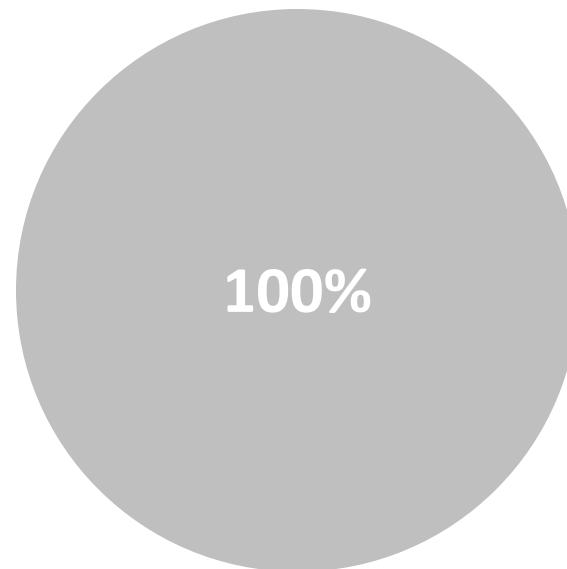


Taxis

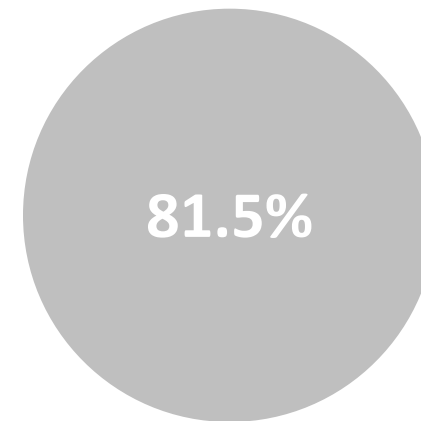
Share of riders who got picked up



Lyft

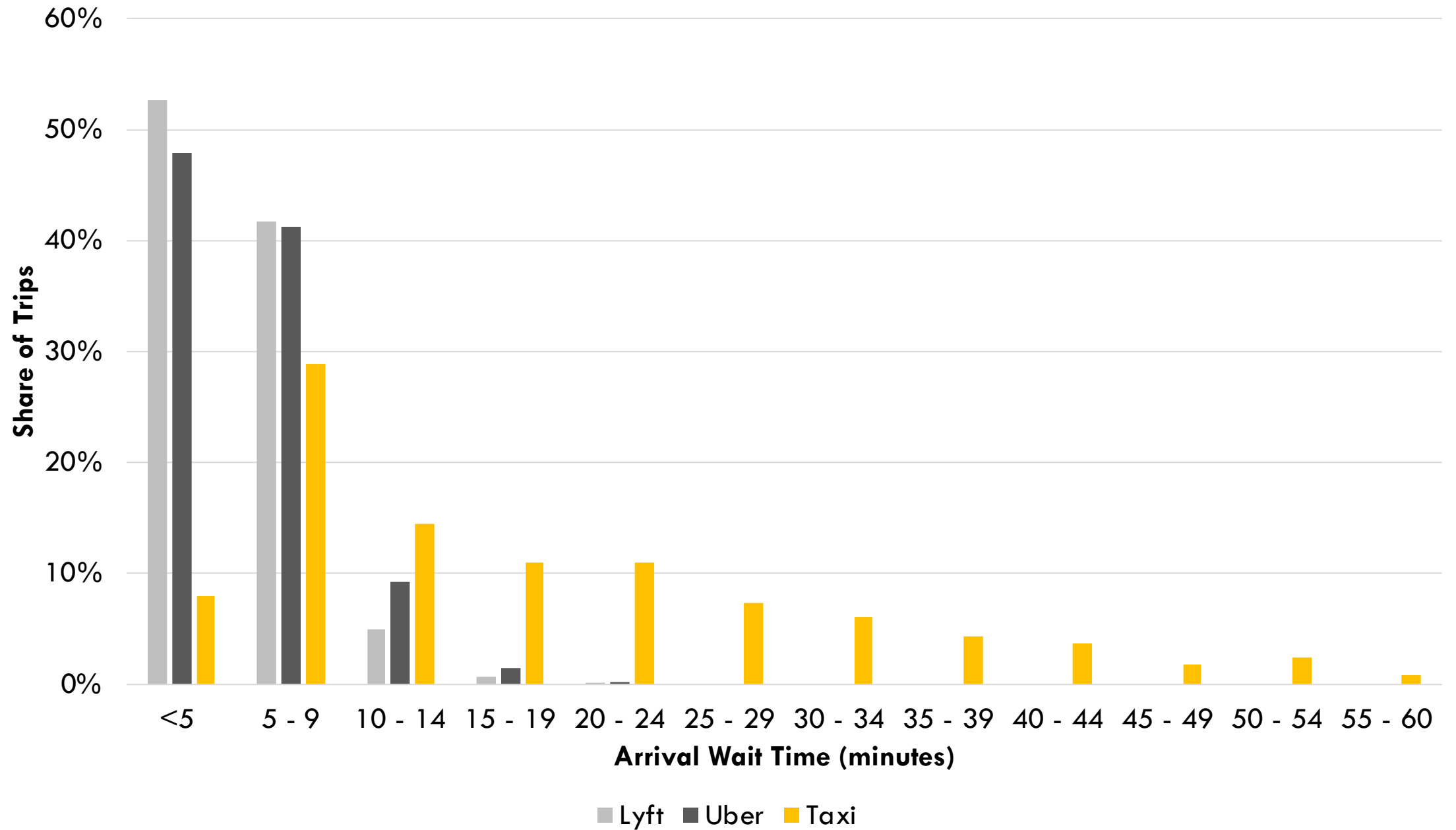


Uber



Taxis

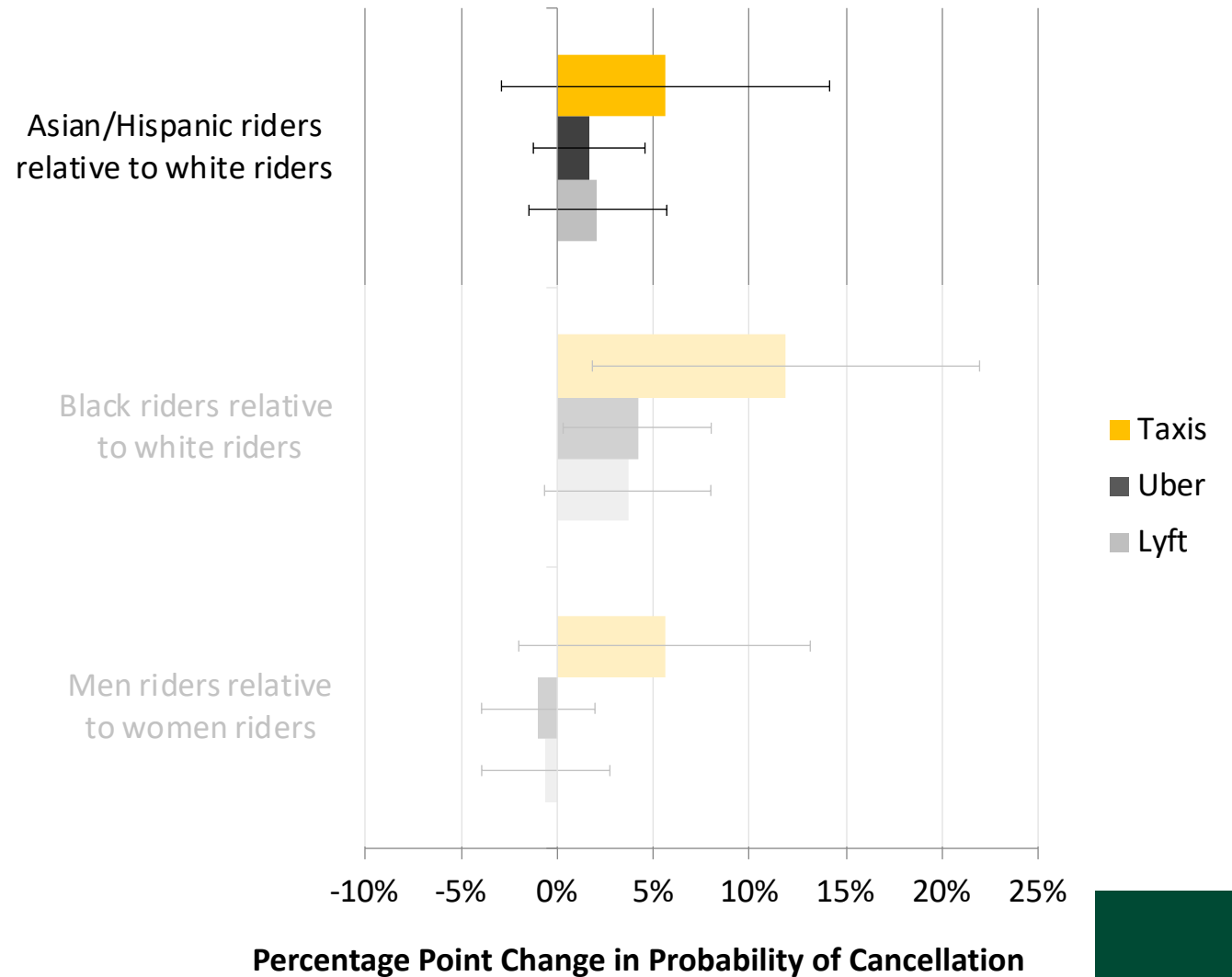
ARRIVAL TIMES



CANCELLATIONS

- No differences between white, Asian, and Hispanic riders

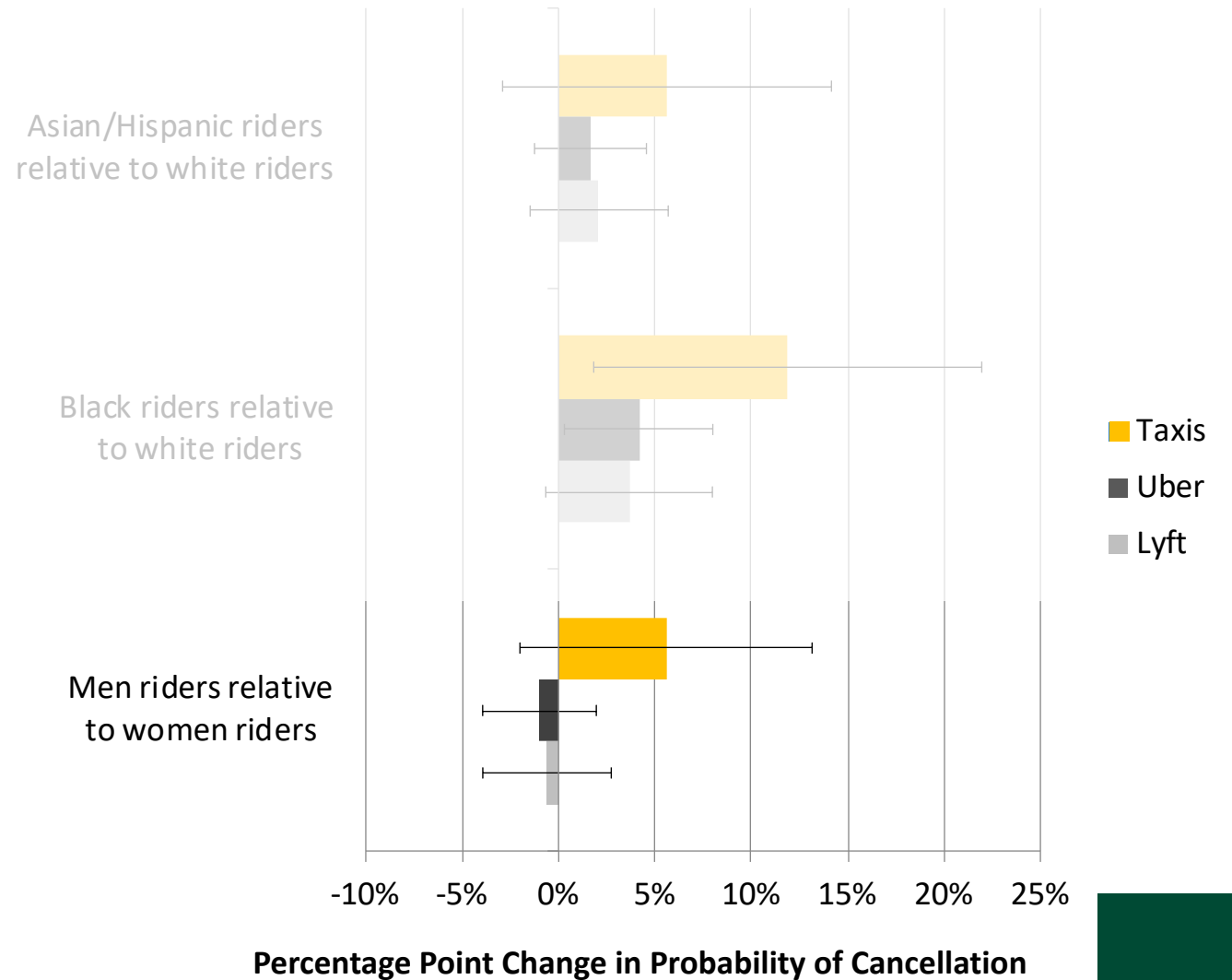
Cancellation Rates



CANCELLATIONS

- No differences between men and women

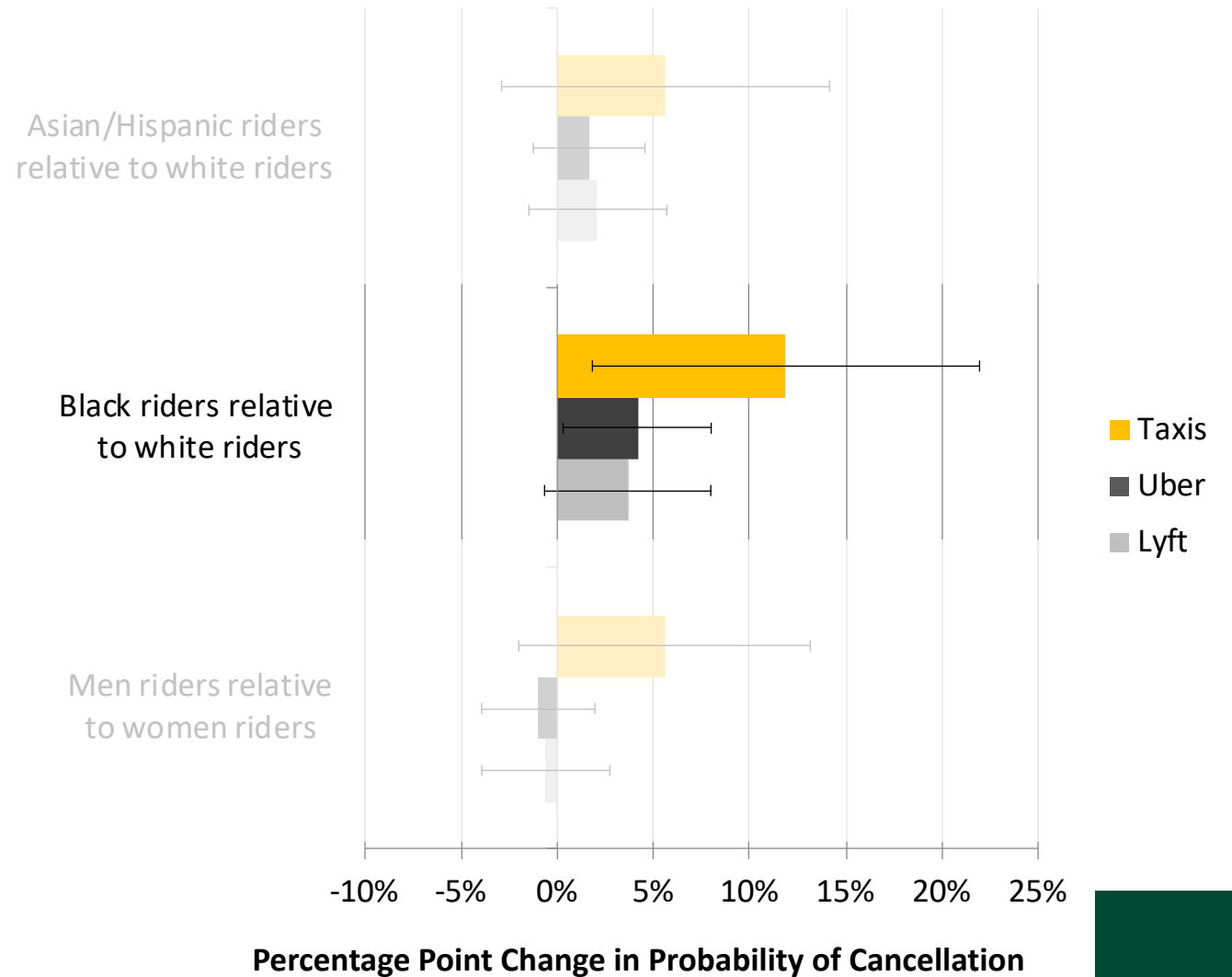
Cancellation Rates



CANCELLATIONS

- 26% of taxi trips hailed by black riders were cancelled

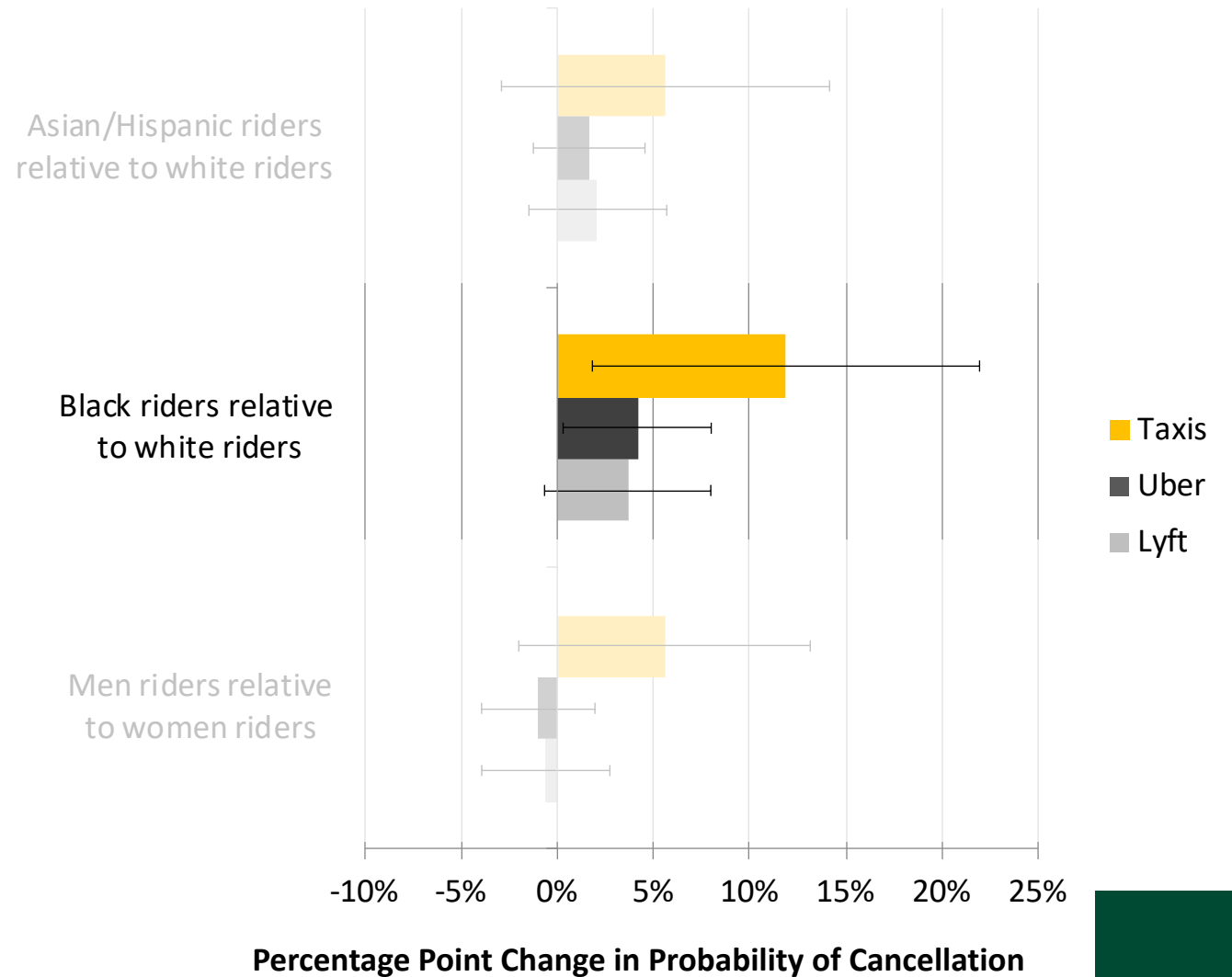
Cancellation Rates



CANCELLATIONS

- 26% of taxi trips hailed by black riders were cancelled
 - vs. 15% of taxi trips by white riders
 - vs. 20% of taxi trips by Asian/Hispanic riders

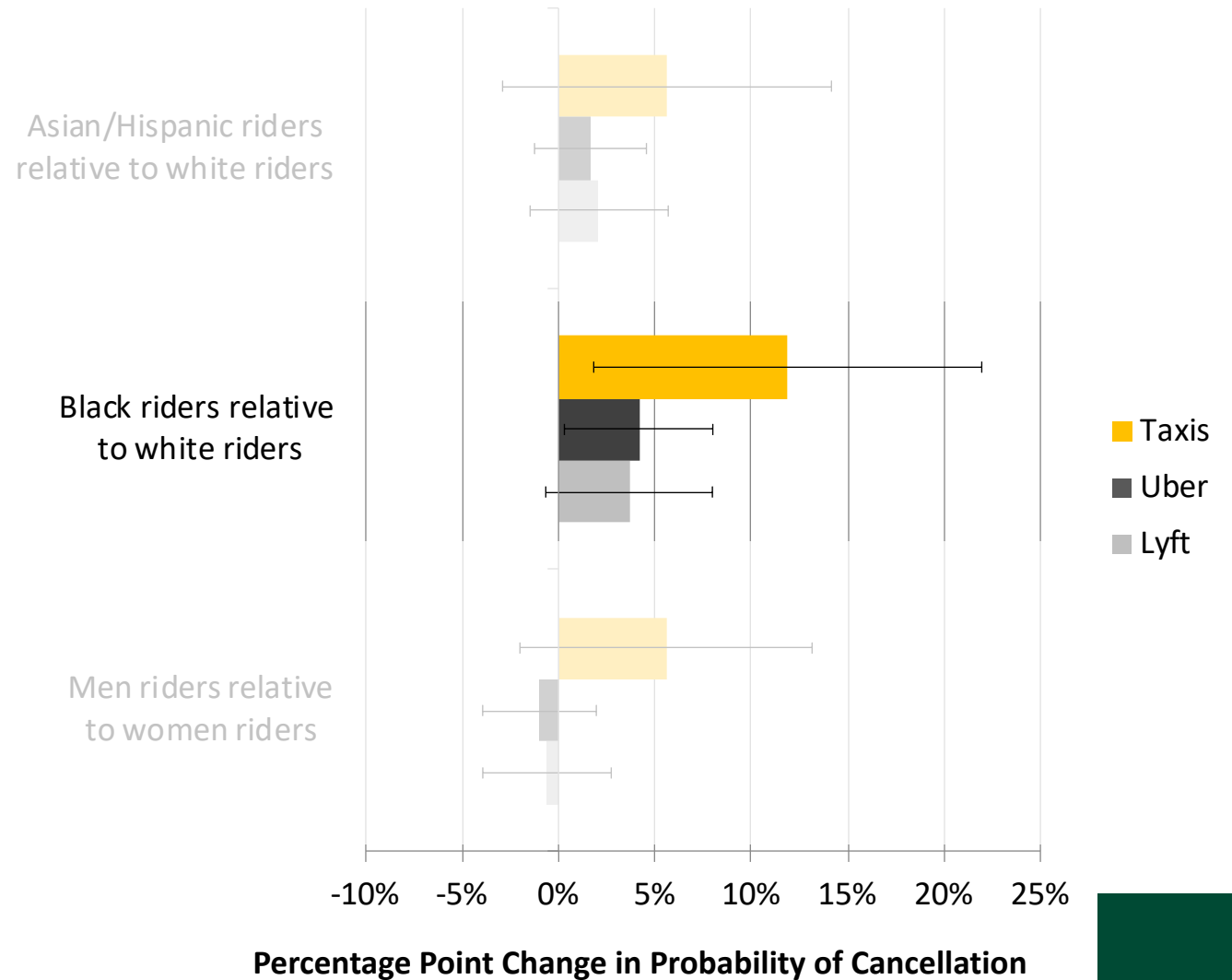
Cancellation Rates



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- 26% of taxi trips hailed by black riders were cancelled
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- Black riders were **73% more likely** to have a taxi cancel on them vs. white riders

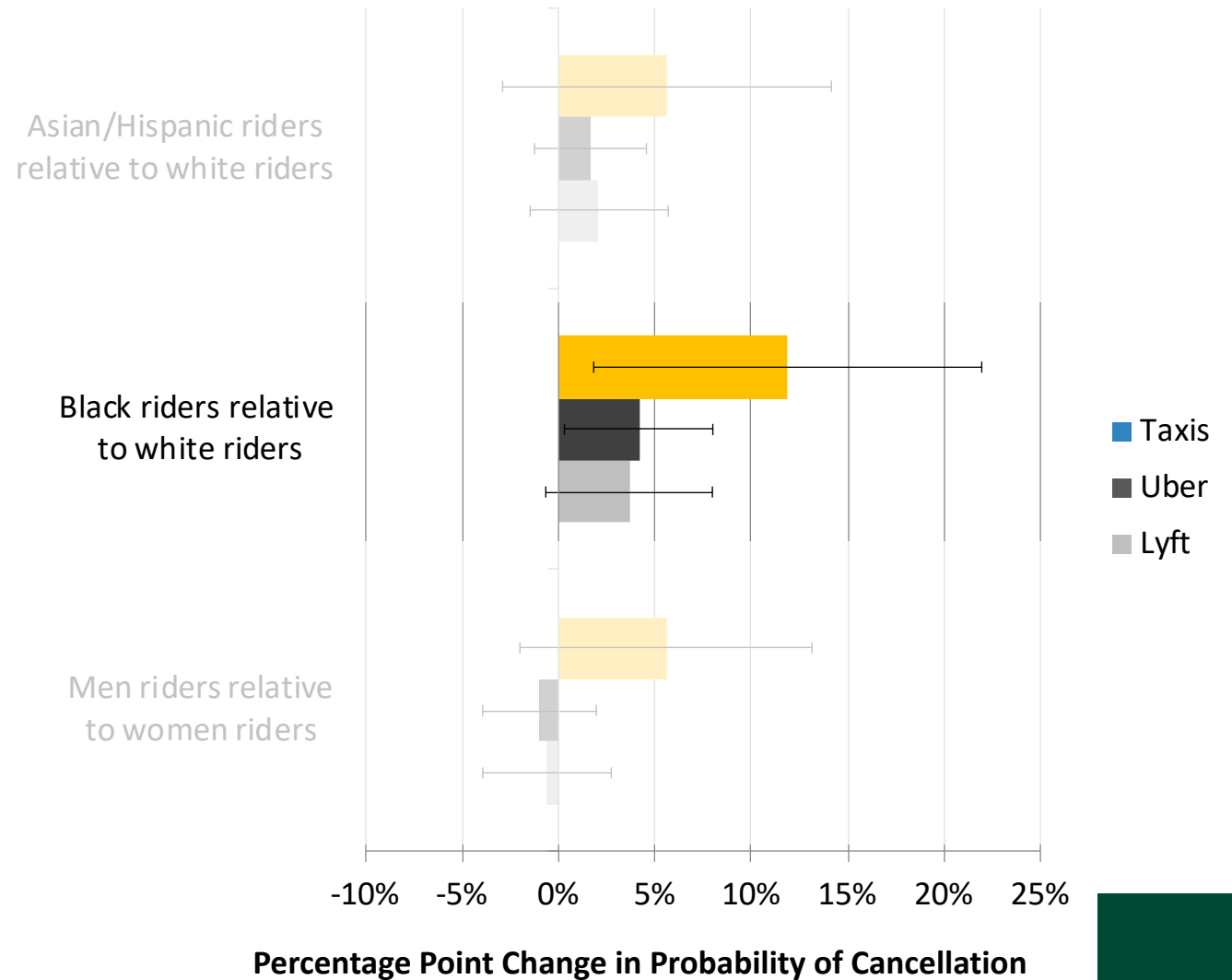
Cancellation Rates



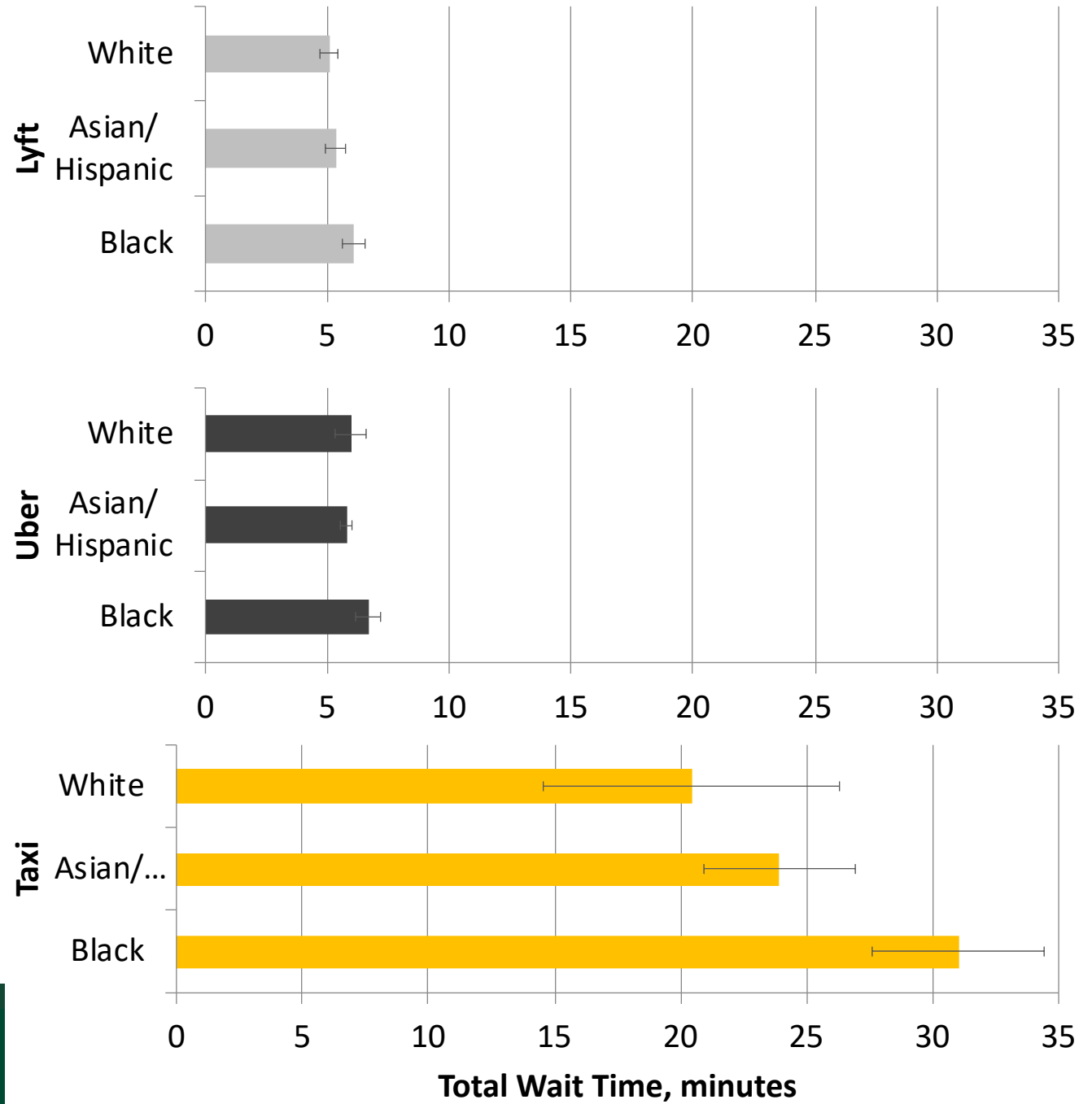
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- Black riders were **73% more likely** to have a taxi cancel on them vs. white riders
- On Uber and Lyft, was about a 4 percentage point difference

Cancellation Rates

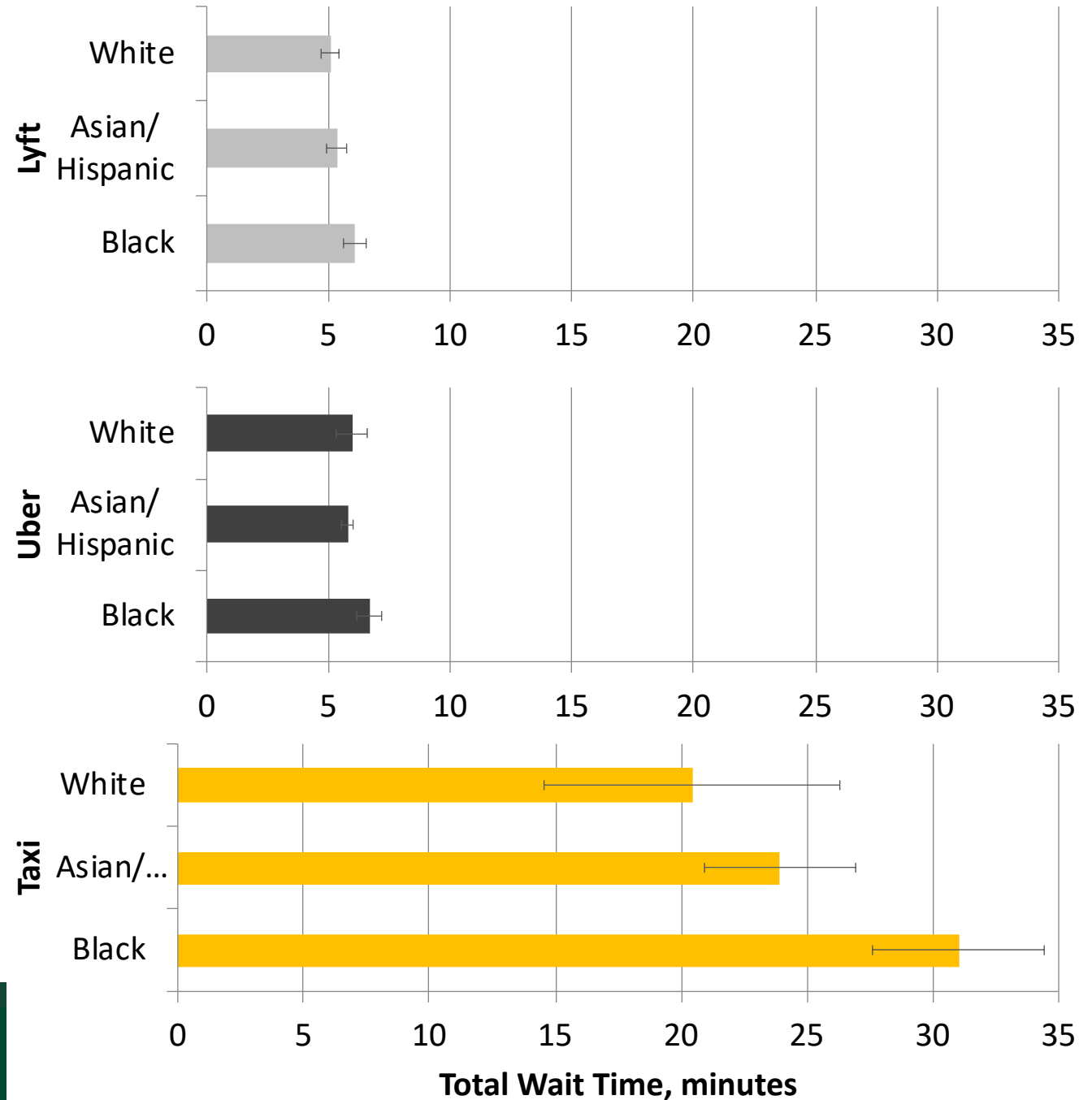


TOTAL WAIT TIMES



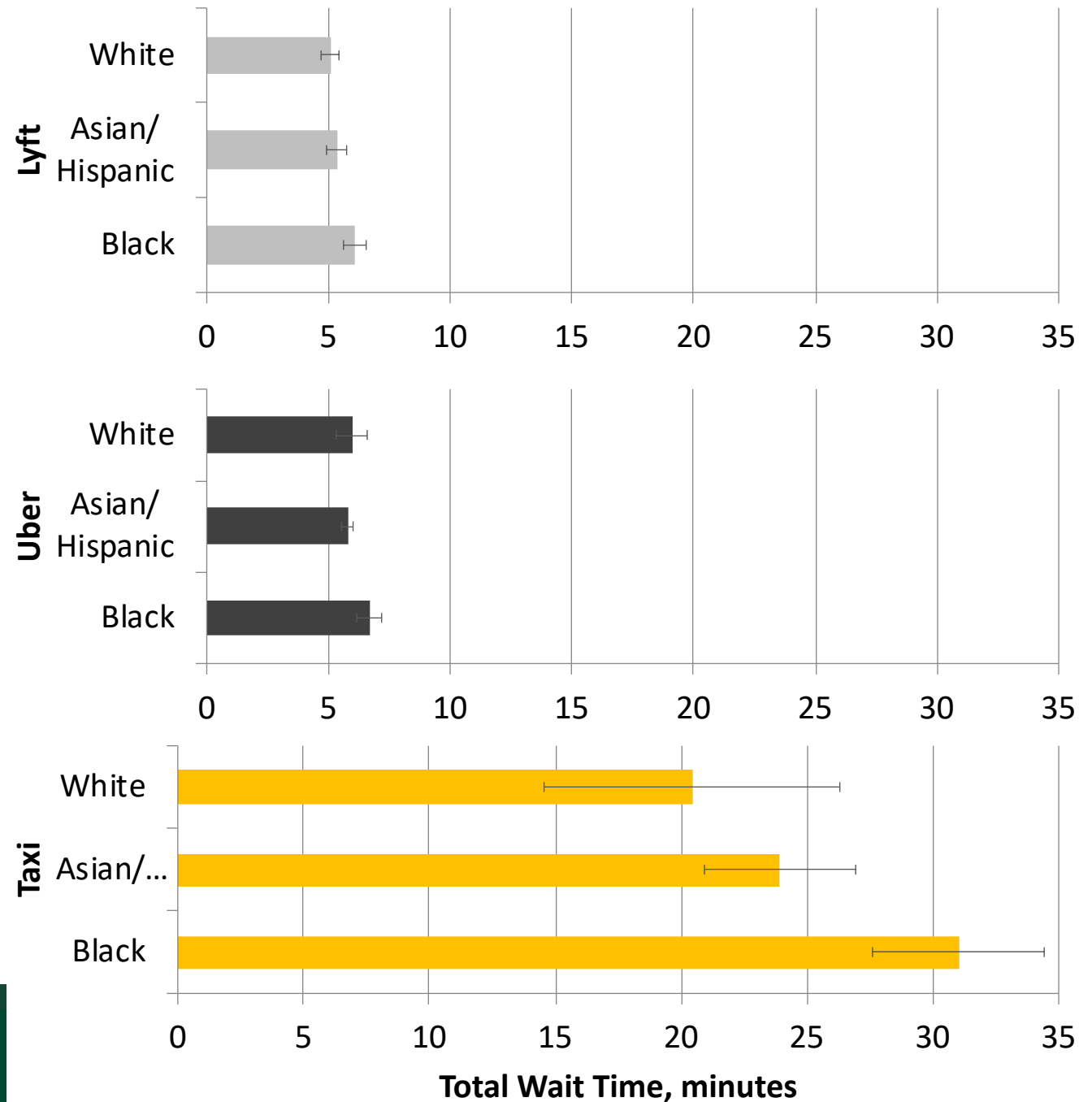
TOTAL WAIT TIMES

- No differences between white, Asian, and Hispanic riders



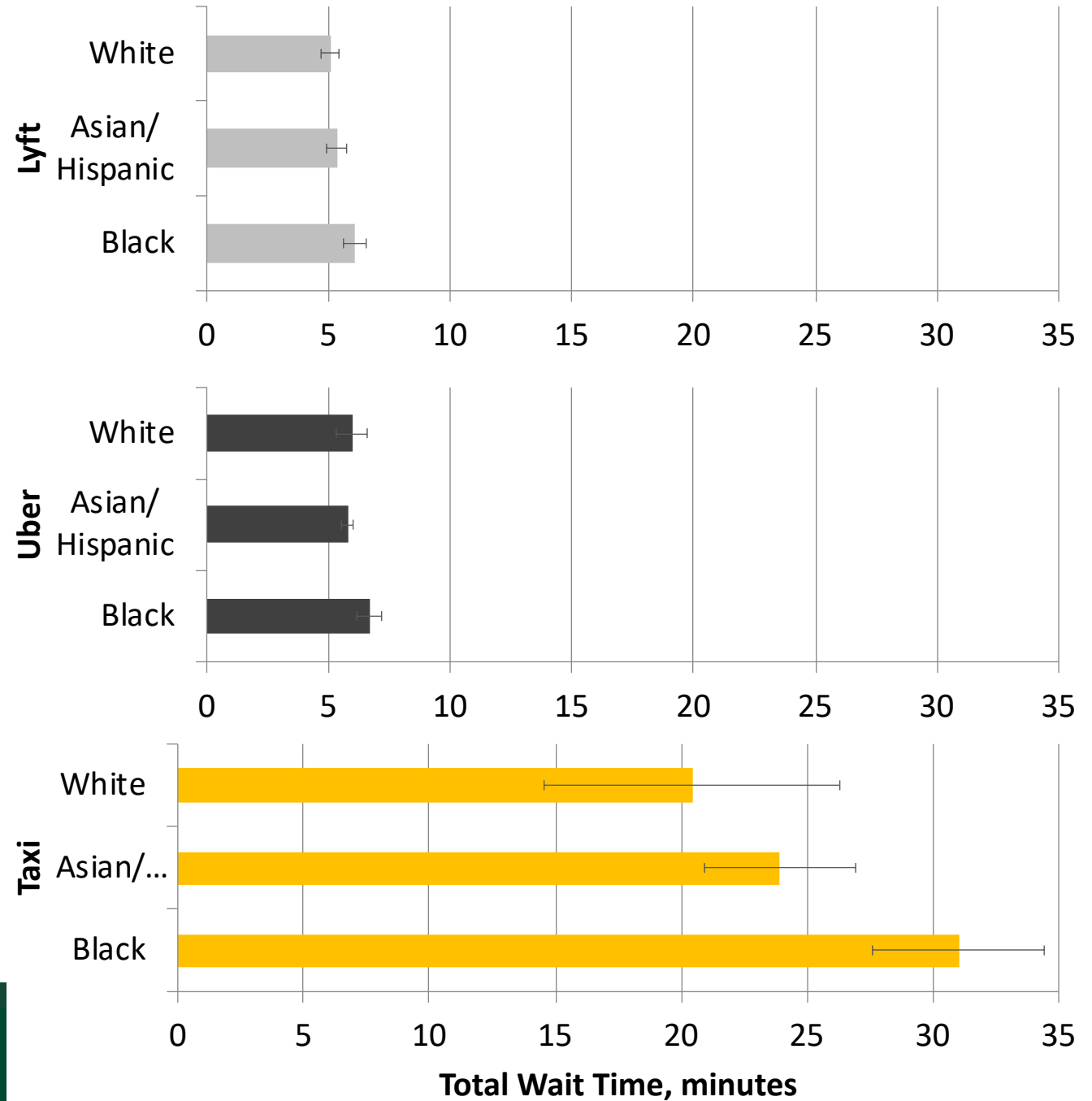
TOTAL WAIT TIMES

- No differences between white, Asian, and Hispanic riders
- No differences between men and women



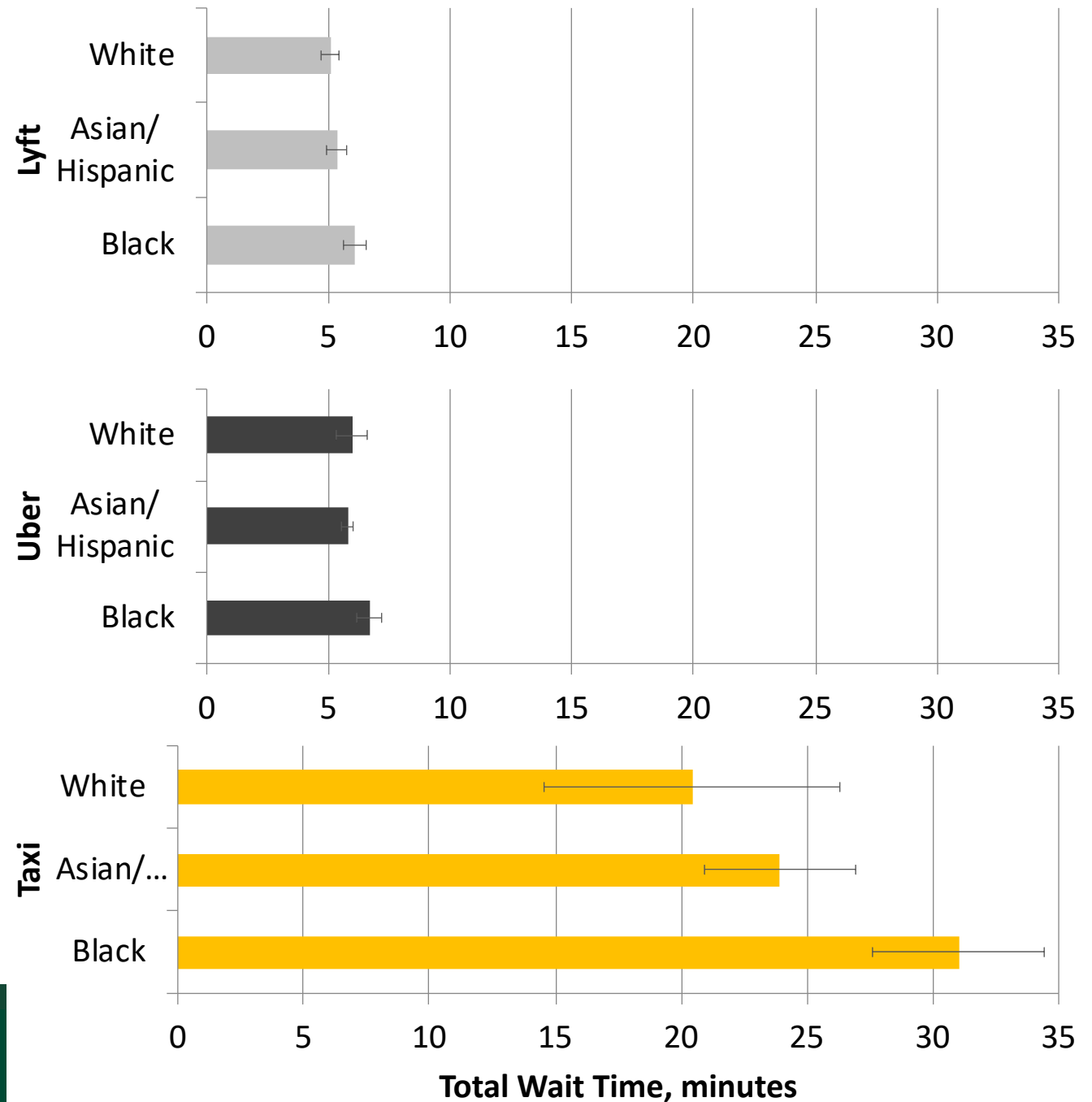
TOTAL WAIT TIMES

- Black vs. white riders → black riders wait, on average:



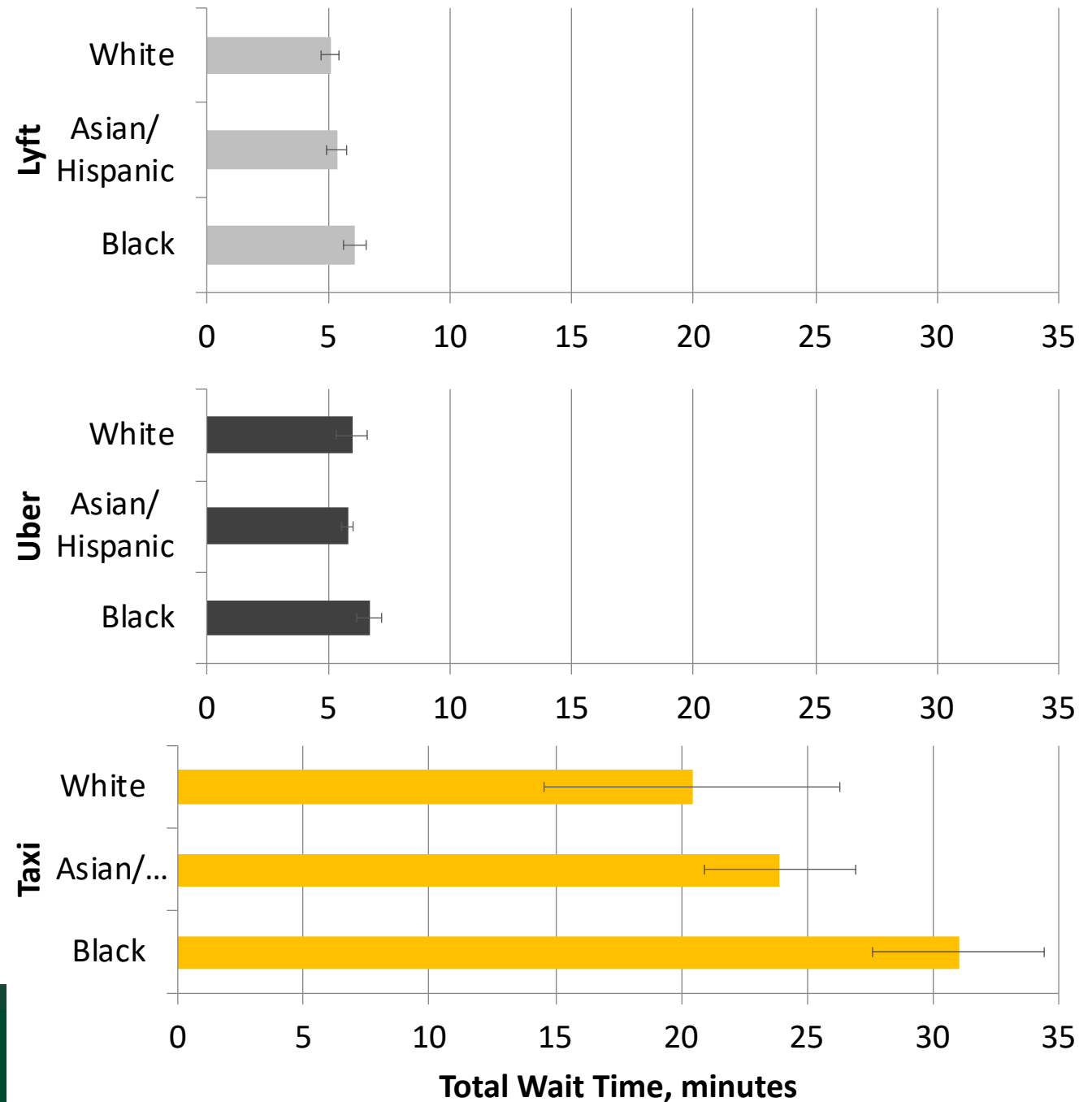
TOTAL WAIT TIMES

- Black vs. white riders → black riders wait, on average:
 - **Taxi:** 6 min 47 sec to 14 min 47 sec longer



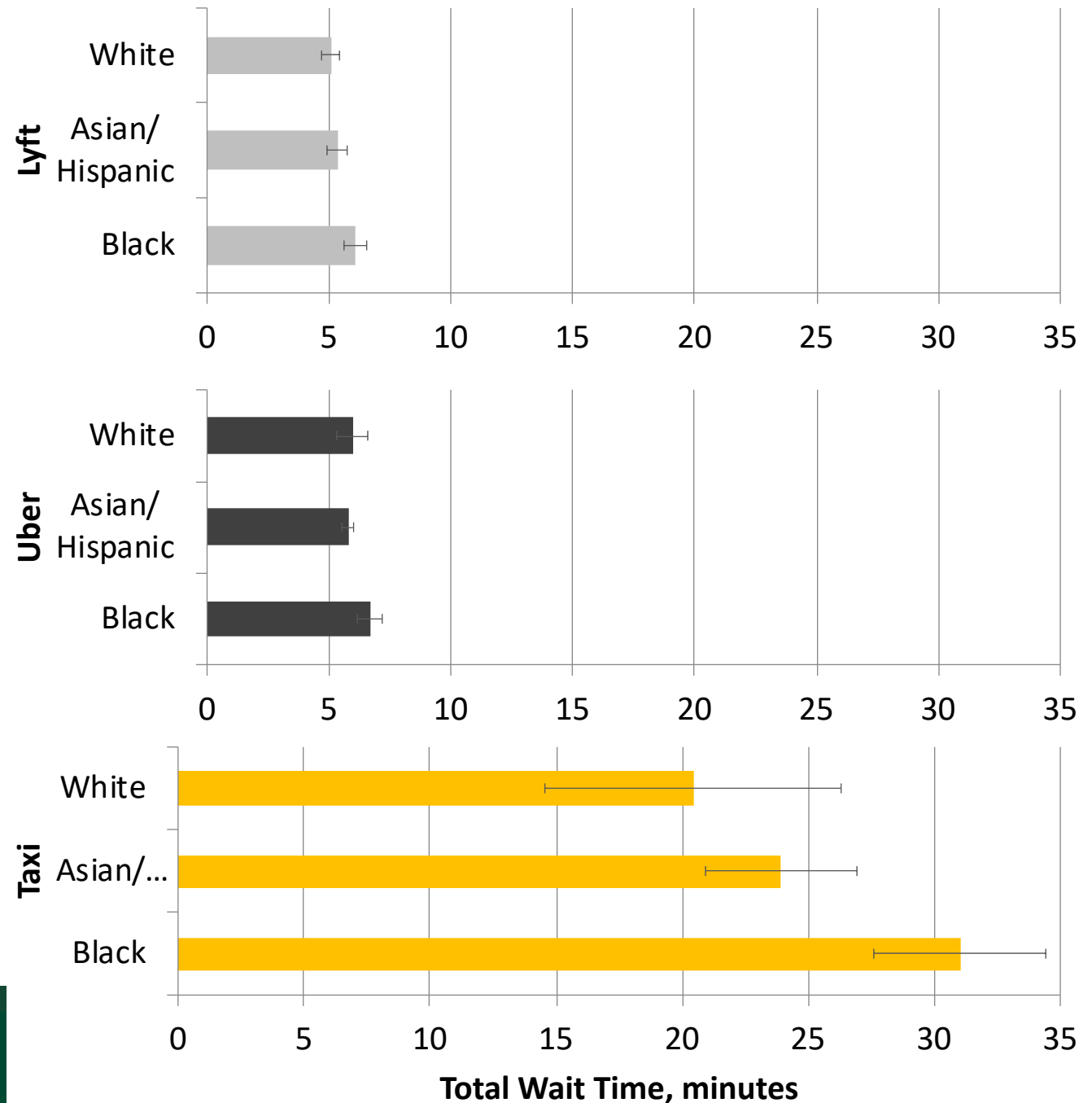
TOTAL WAIT TIMES

- Black vs. white riders → black riders wait, on average:
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 - **Lyft:** 32 sec – 1 min 43 sec longer



TOTAL WAIT TIMES

- Black vs. white riders → black riders wait, on average:
 - **Taxi:** 6 min 47 sec to 14 min 47 sec longer
 - **Lyft:** 32 sec – 1 min 43 sec longer
 - **Uber:** 11 sec to 1 min 30 sec longer



Technology isn't a clean slate.



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What should policymakers do?

- Policies to ensure access



What should policymakers do?

- Policies to ensure access
- Policies to reduce discrimination



Ensuring access for all

- Banking and smartphone access remain critical barriers to shared mobility access
 - Lessons from ride-hail pilots & bike share



Ensuring access for all

- Banking and smartphone access remain critical barriers to shared mobility access
 - Lessons from ride-hail pilots & bike share
- Even for those with technology; barriers remain



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- Banking and smartphone access remain critical barriers to shared mobility access
 - Lessons from ride-hail pilots & bike share
- Even for those with technology; barriers remain
- Language



Ensuring access for all

- Banking and smartphone access remain critical barriers to shared mobility access
 - Lessons from ride-hail pilots & bike share
- Even for those with technology; barriers remain
- Language
- Accessible vehicles



Tackling discrimination

- Platform-level



Tackling discrimination

- Platform-level
- Policymakers: audits and enforcement



A need for metrics and data

- Equity-first goals needed to deliver equitable access to new mobility



A need for metrics and data

- Equity-first goals needed to deliver equitable access to new mobility.
 - Clear metrics & data linked to these goals



A need for metrics and data

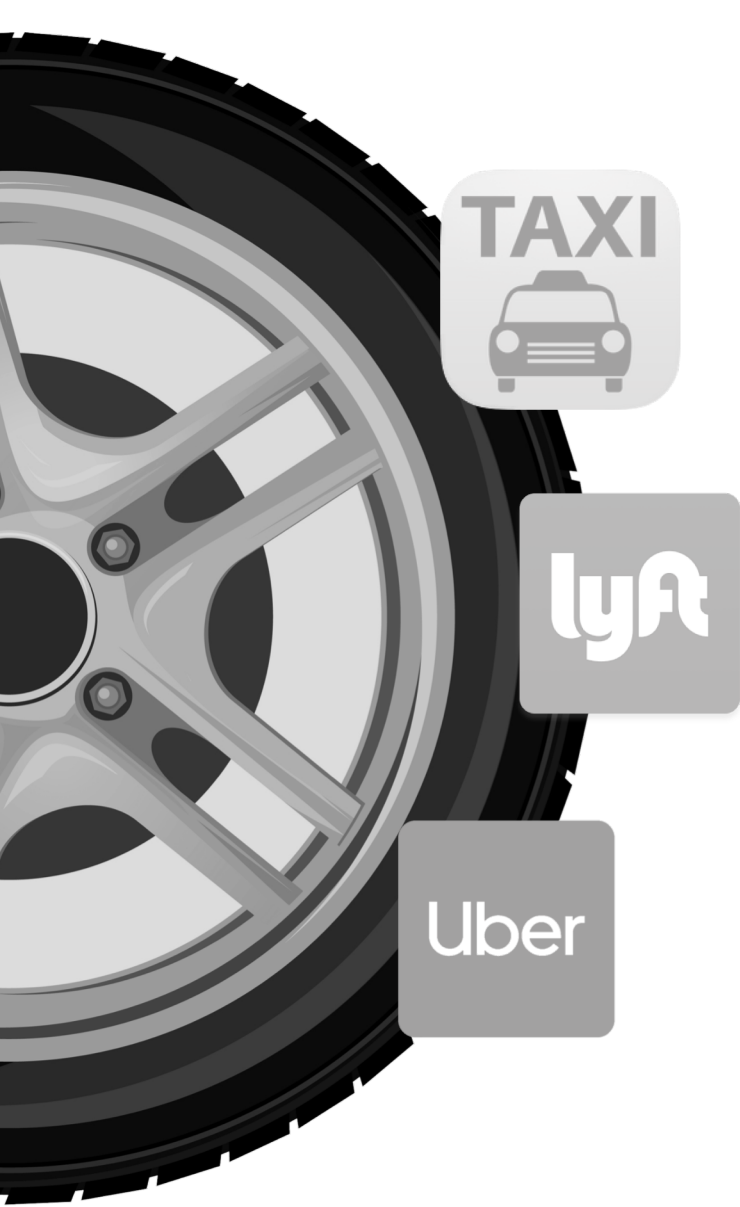
- Equity-first goals needed to deliver equitable access to new mobility.
 - Clear metrics & data linked to these goals
 - Equity at the neighborhood and individual level



A need for metrics and data

- Equity-first goals needed to deliver equitable access to new mobility.
 - Clear metrics & data linked to these goals
 - Equity at the neighborhood and individual level
 - Data of users and non-users





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