2019

FUTUREVIEW WEBINAR SERIES

AN OFFERING FROM APTAU

Travel Behavior Trends: Competing for Mode Loyalty

Moderator: Matthew Dickens, APTA Senior Policy Analyst

Wednesday, January 30th, 3:00-4:15 PM Eastern

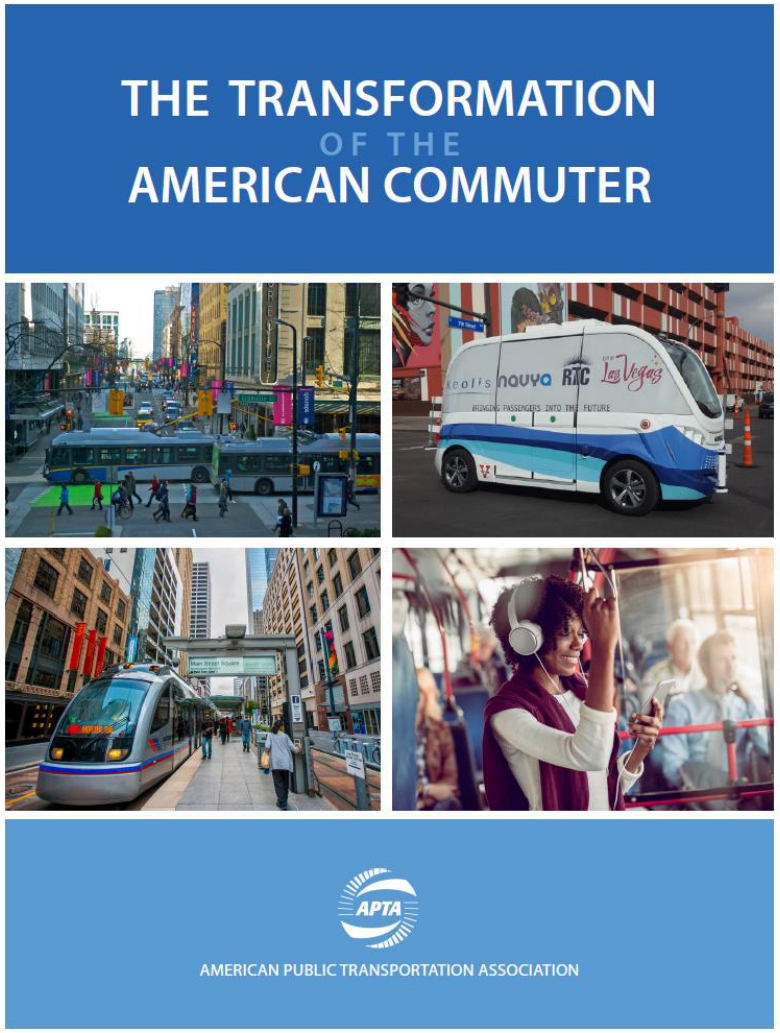
Speakers

Conan Cheung
Senior Executive Officer – Service Development, Scheduling & Analysis
Los Angeles Metro

Katharine Kelleman
Chief Executive Officer
Port Authority of Allegheny County

Matt Hogan
Partner
ALG Research

The Transformation of the American Commuter



Authors

DARNELL CHADWICK GRISBY
Director, Policy Development and Research

ZACH SMITH
Program Manager – Policy and Planning

RICH WEAVER
Director of Planning, Policy, and Sustainability
Co-Director National Center for Mobility Management

FRANCISCA VILLALOBOS
Mobility Innovation Hub Fellow

MANTILL WILLIAMS
Director, Advocacy Communications

MATTHEW DICKENS
Senior Policy Analyst

MACPHERSON HUGHES-CROMWICK
Policy Analyst

Research Objectives

Frame

- Frame public transportation's role in the New Mobility Landscape

Show

- Show how public transit will be necessary and relevant going forward, even in the face of new offerings/technology

Explain

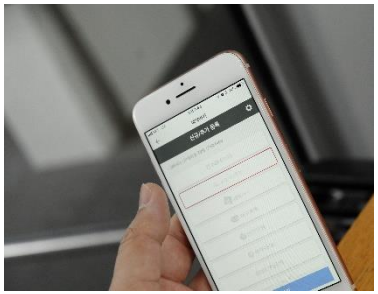
- Explain public transit agencies' emerging role as mobility managers

Key Finding #1

- Public Transportation is the Backbone of a Multi-Transit Lifestyle
  - New technologies, data capabilities, and business models disrupt public transportation

Public Transportation: Backbone of a Multi-Transit Lifestyle

- Millennials own cars more because they need them than because they want them
- Changing demographics and personal preferences favor public transportation

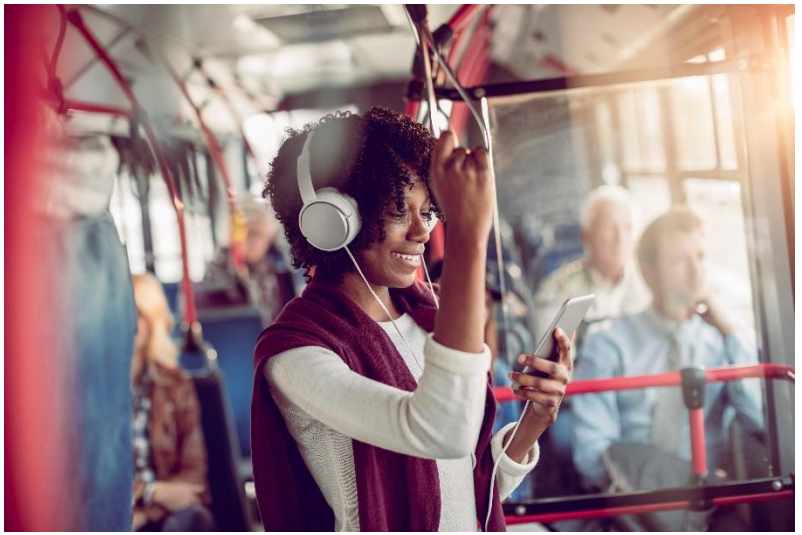


Key Finding #2

- Consumers Support Public Transportation
  - Support for more funding for public transportation is high
  - Support for transit priority: bus lanes

Consumers Support Public Transit

- Public transit will remain the most efficient way to move people, especially at peak periods
- Bus lanes and other interventions make public transportation more efficient
- These interventions are necessary to prioritize transit, grow ridership, and prevent congestion disaster



Key Finding #3

- Public Transportation's Role is as Mobility Manager
  - Regional actors needed to organize the wealth of transportation options

Public Transportation's Role: Mobility Manager

- Public transportation agencies well-suited to this role
- Best prepared to guide users to efficient and cost-effective travel
- Public agency has public mandate to protect the consumer and social equity

Takeaways/Next Steps

- Public Transportation will be the backbone of a multi-modal society
- Continue engagement with private sector partners
- Embrace culture of experimentation
- Protect consumer data & public interest as mobility managers
- Continue investing in public transportation

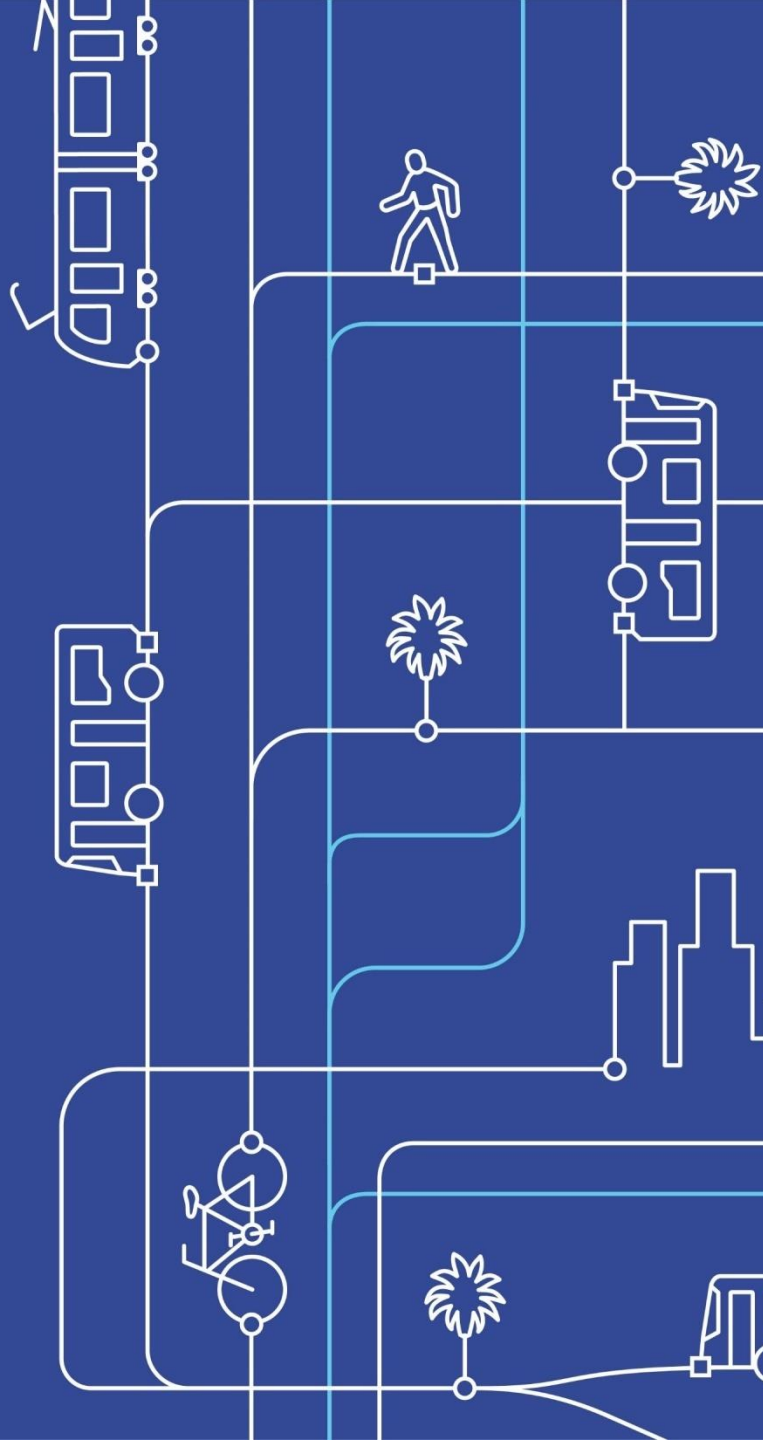
NEXTGEN Bus Study

Understanding Transit Market Potential

APTA FutureView Webinar

01.30.19

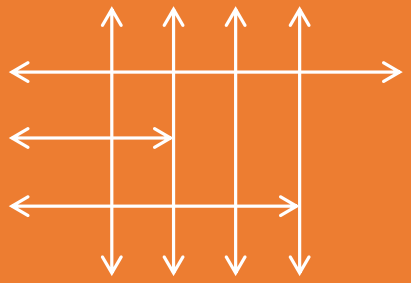
Metro®



Metro System Overview

BUS	• 140 Lines/170 Routes • 2,300 buses • 14,000 stops • 800,000 weekday boardings • 7 million annual service hours • S1.2 billion annual operations
RAIL	• 4 Light Rail/2 Subway • 240 cars • 93 stations • 350,000 weekday boardings • 1.3 million annual service hours • $542 million annual operations

So, what is NextGen?



A new bus network

Something for everyone

Why are we doing this?

Outdated bus network

It’s been 25 years since last redesign!

More People

1 million new residents

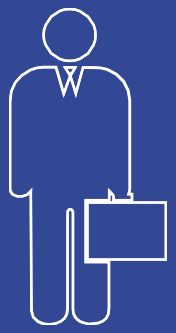
More places to go

New destinations

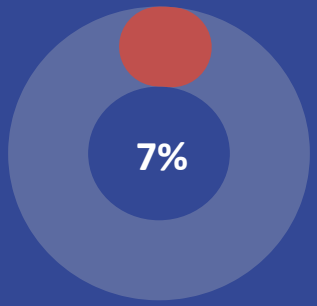
More ways to get there

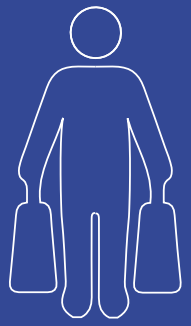
Travel patterns have changed

Four Types of Customers

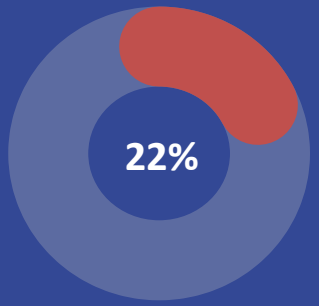


Frequent

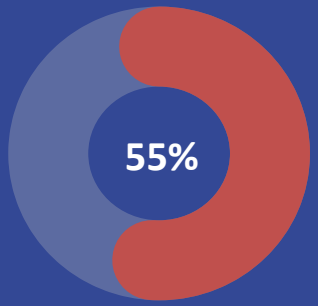




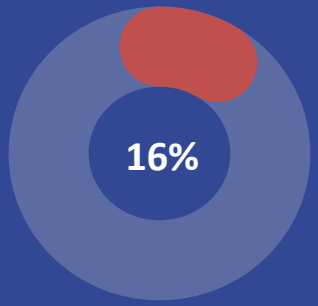
Occasional



Infrequent



Non-Rider



As a % of all LA County residents

Transit Riders Frequency of Travel

Based on four months of TAP (farecard) data

Frequent

Occasional

Infrequent

Usage Frequency	Count of Tap Cards	Count of Boardings
>150 Transactions	152,532 5%	43,680,893 52%
50 – 150 Transactions	248,851 9%	22,027,882 26%
10 – 50 Transactions	552,374 20%	12,585,194 15%
<10 Transactions	1,905,501 66%	5,614,072 7%
Total	2,859,258 100%	83,908,041 100%

Source: TAP data - Metro and Municipal Operators (July through October, 2017)

If 1 in 4 non riders used transit two times per month, we would more than recoup the lost ridership

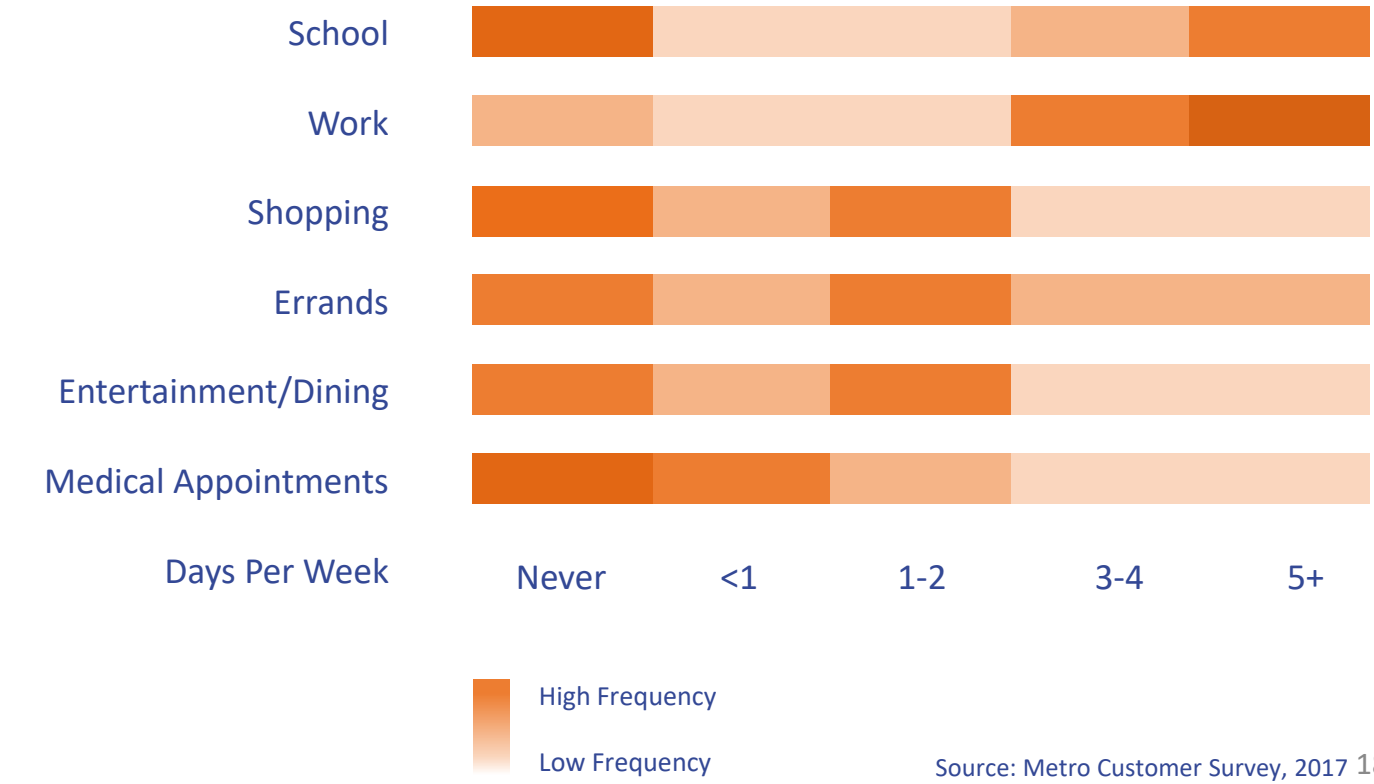
Current Riders

Trip Purpose

Regular riders take buses to…

Work: 85% of riders

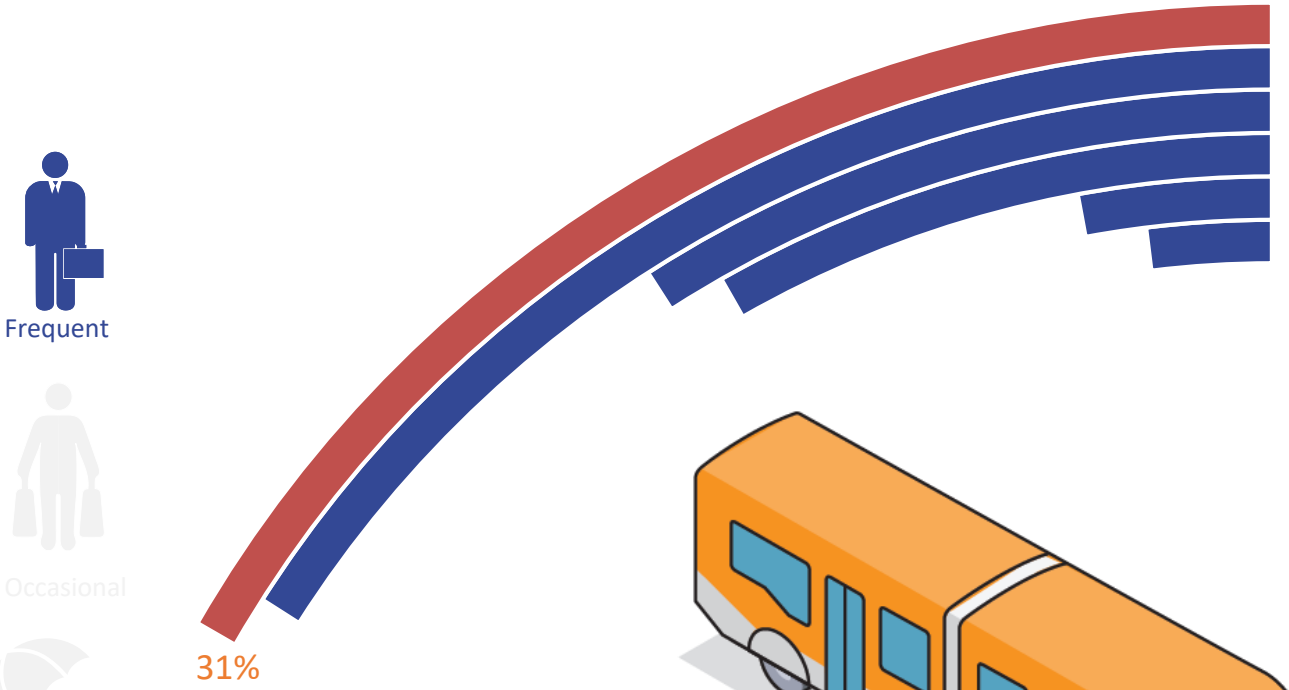
Shopping, Errands, & Entertainment: Over 50% of riders



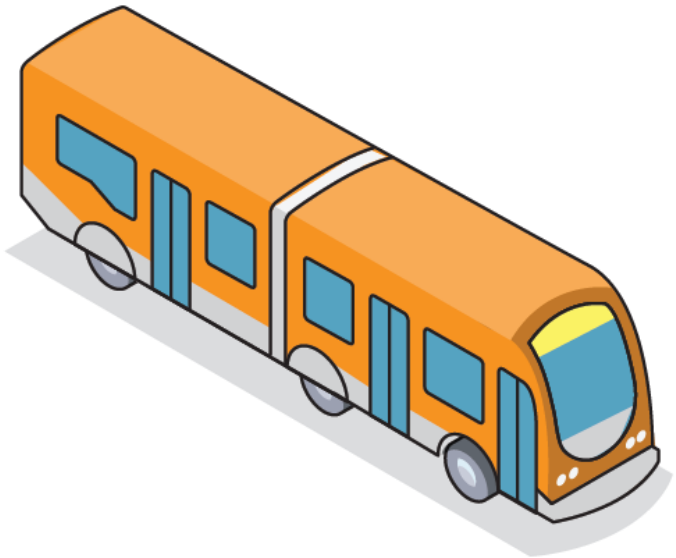
Source: Metro Customer Survey, 2017

Current Riders

Main Reason for Riding



It's convenient
I don't have a car available
I don't want to drive in traffic
I don't have a drivers license
It's good for the environment
It's cheaper than parking



Source: Metro Customer Survey, 2017

Current Riders

Main Reason for Riding

It's convenient because…

Frequent

It gets me where I need to go in timely matter
There is a stop near my house
It's easy to use
It's affordable

Occasional

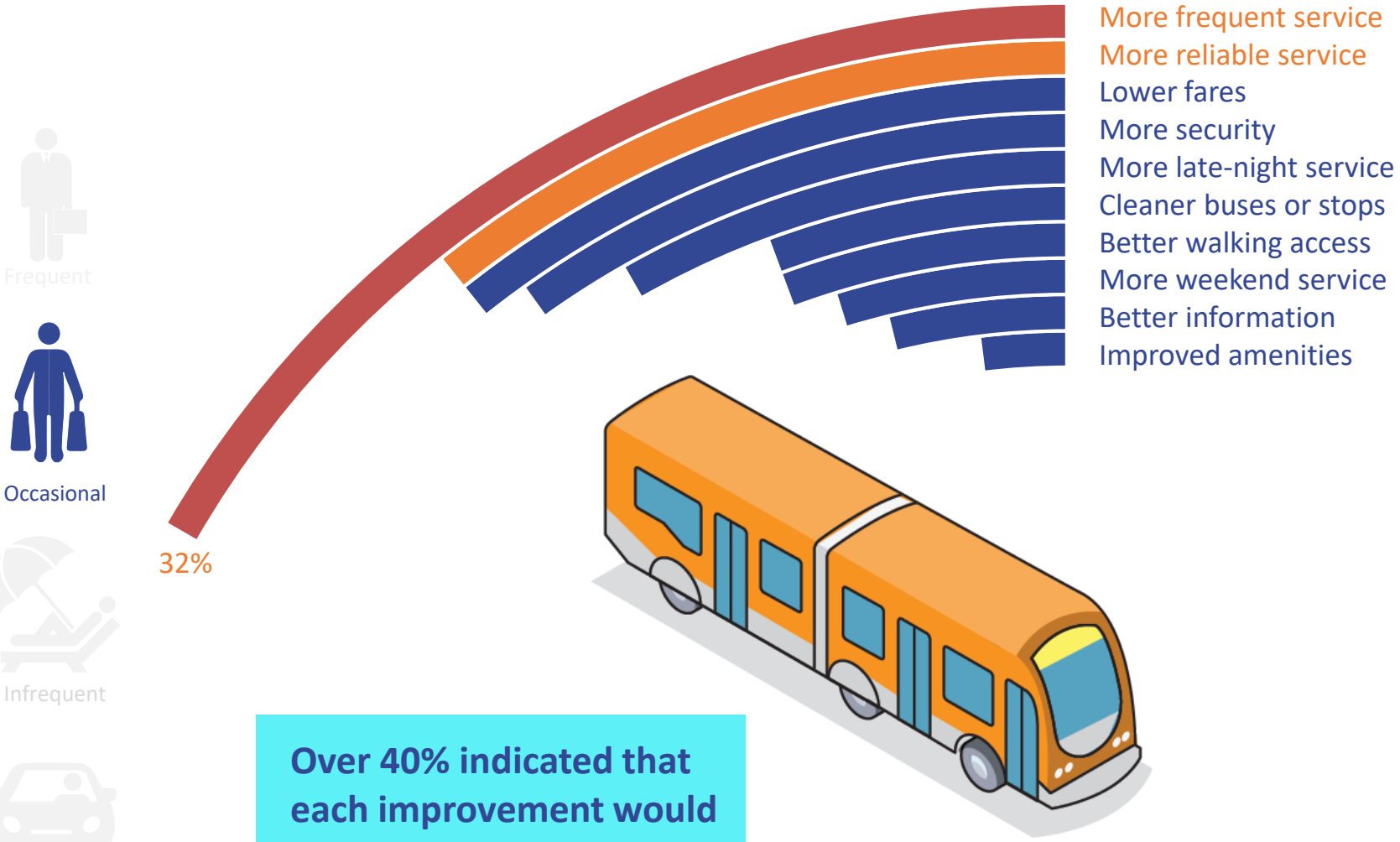
Infrequent

Never

Source: Metro Customer Survey, 2017

Current Riders

Primary Improvement Desired



Over 40% indicated that each improvement would lead them to ride more

Source: Metro Customer Survey, 2017

Current Riders

Frequent

Occasional

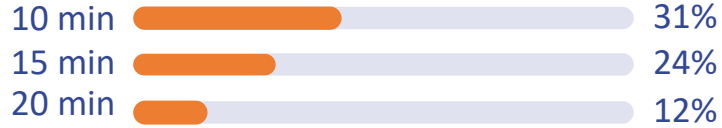
Infrequent

Never

What Does Frequent Mean?

During Peak Hours

Off-Peak Hours



What Does Reliable Mean?

1. Buses are on time
2. Accurate information on real-time arrival
3. Reduced transfer wait time
   (for Former and Infrequent Riders)

Primary Improvement Desired

Source: Metro Customer Survey, 2017

Service Parameters

All Riders

- Travel Speed
- Frequency
- Reliability

Current

- More Service
- Fares
- Information

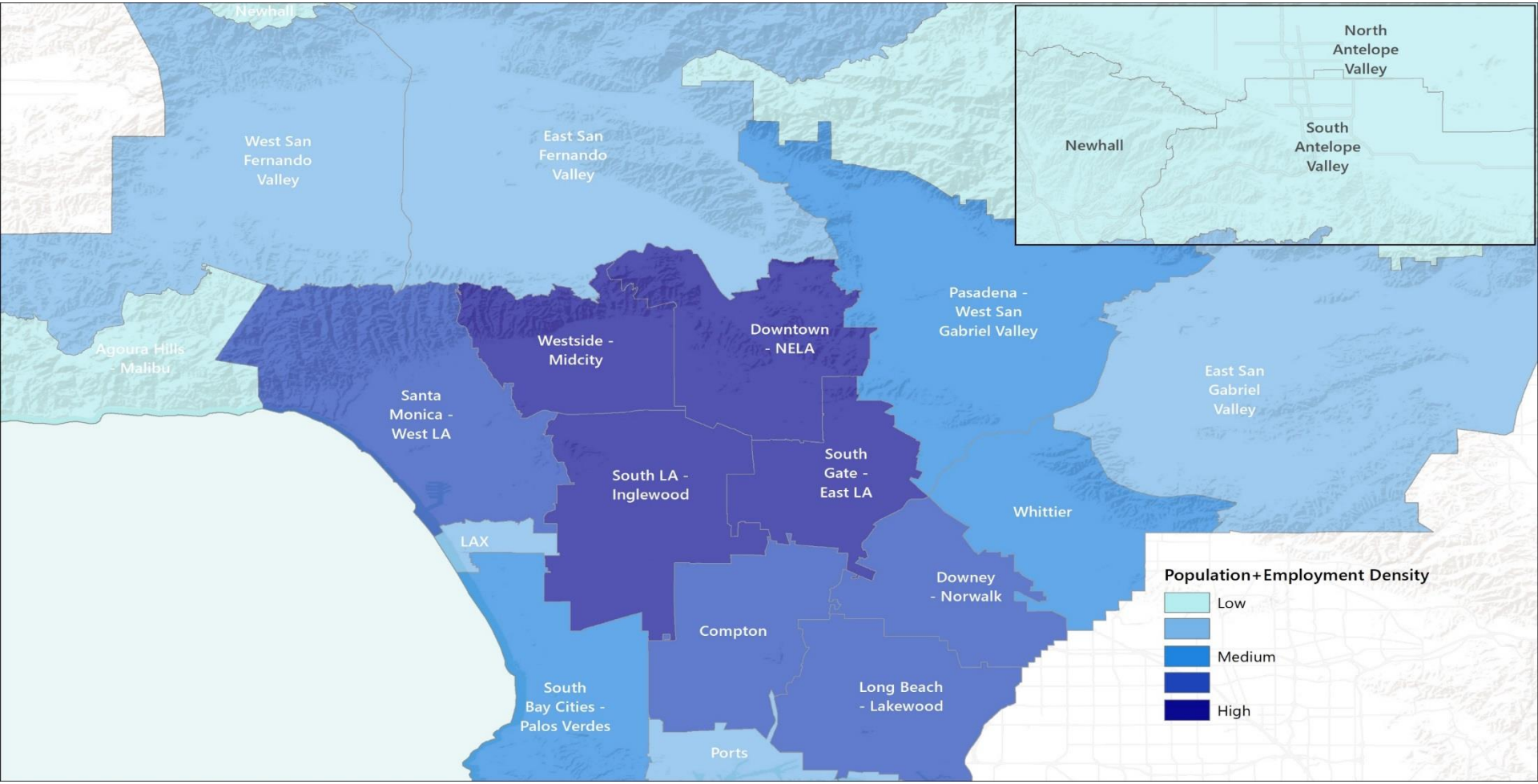
Former

- Security (women, certain geographies)
- First/Last Mile (elderly, higher income)
- Comfort (odors, crowding)

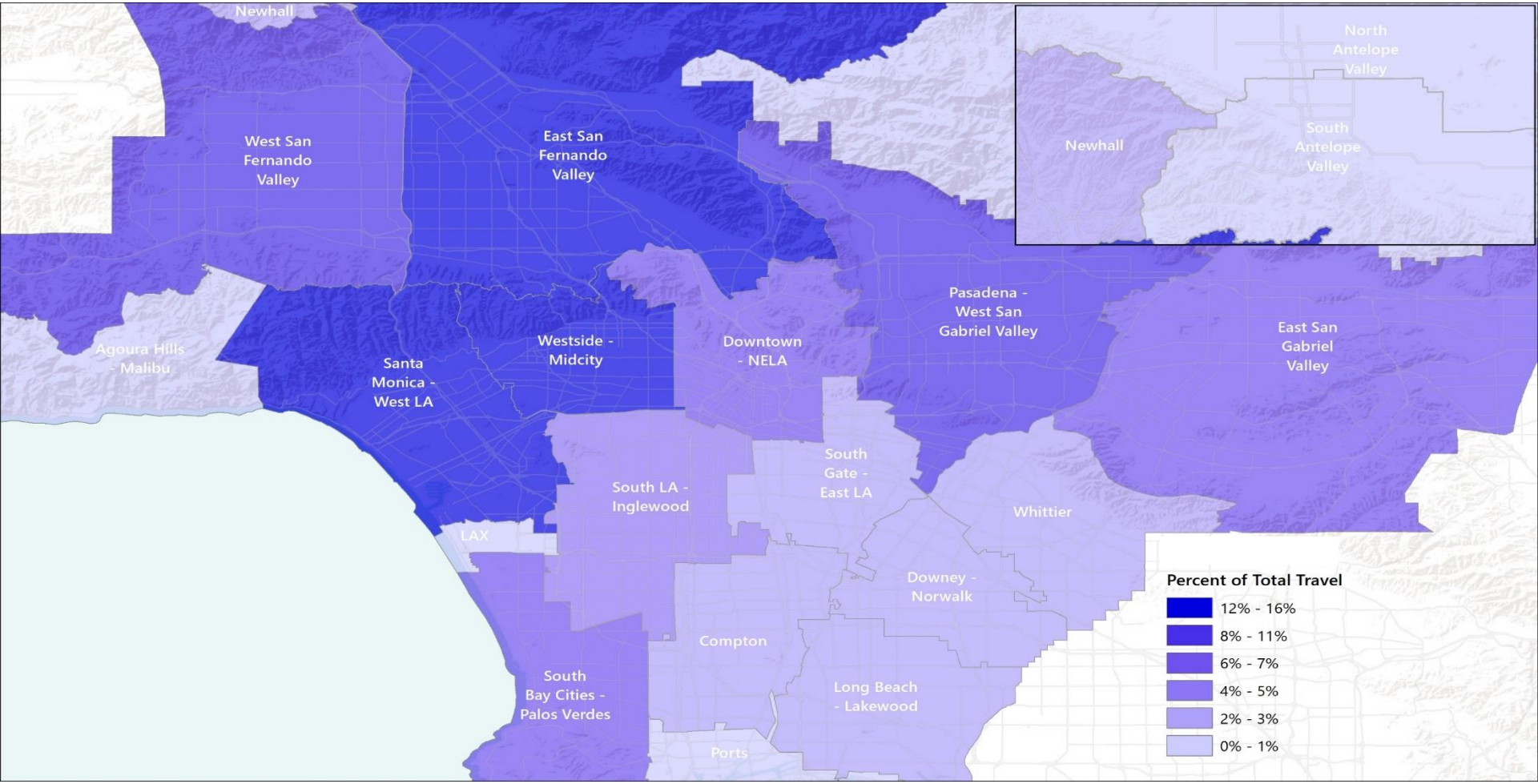
Infrequent/ Non-Rider

- Information (non-riders)
- First/Last Mile (women, youth, elderly)
- Comfort (odors, crowding)

Population and Employment Density



Travel Intensity (cell phone data)

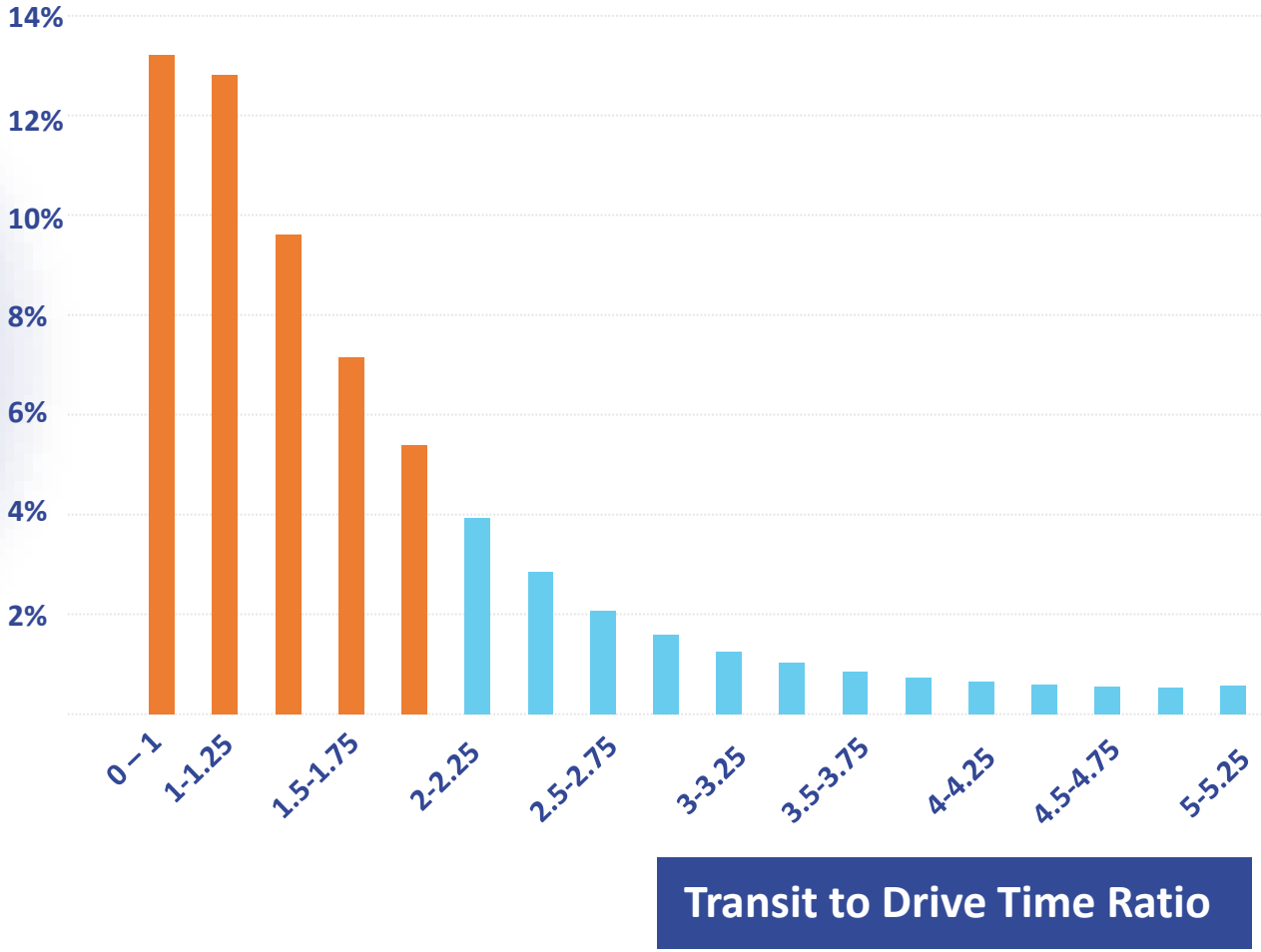


Competitiveness of Relative Travel Times

Travel Time Comparison with Auto

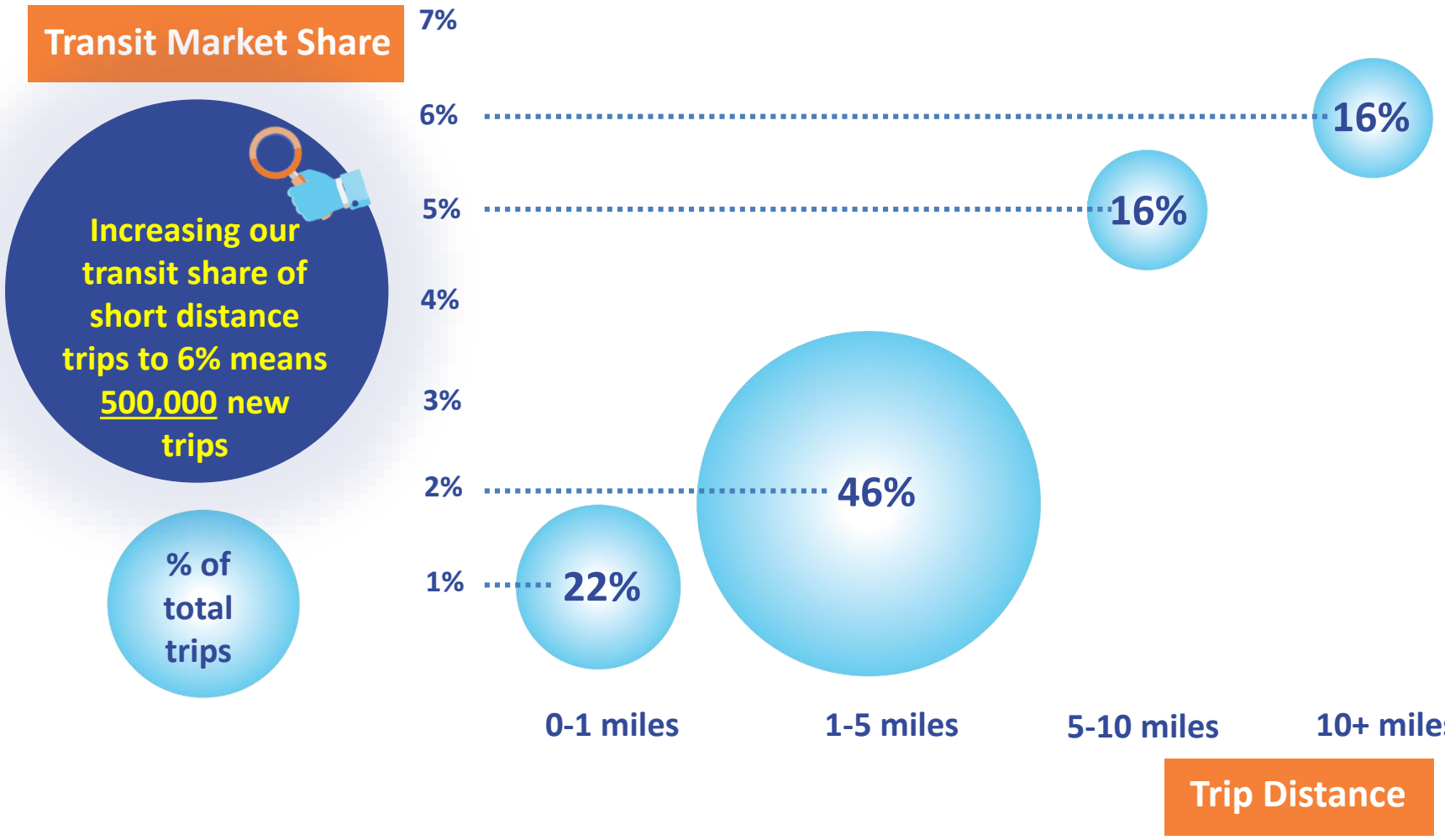
Transit Market Share

Transit is most competitive when no more than 2x slower than auto

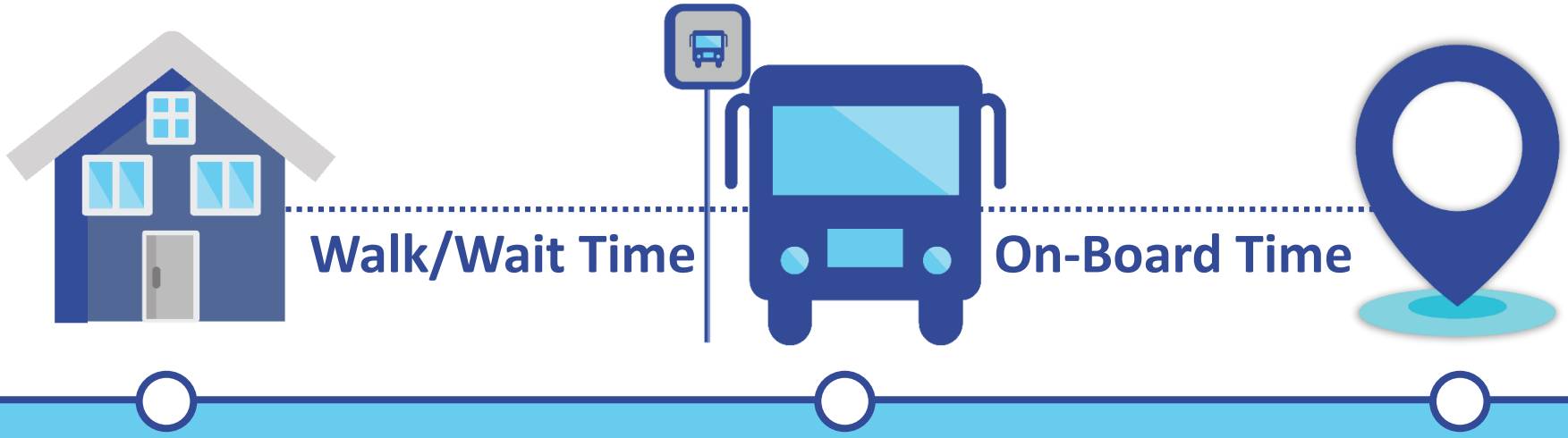


Competitiveness and Market Potential

Transit Market Share by Distance & Percent of Total Trips



The Transit Journey



The **walk/wait** and **on-board** time are the two factors that make up total transit travel time.

When is Travel Speed important?

For Long Distance Trips: *10 to 12.5 Miles*

Travel Speed is the key factor for longer trips.

30% of time
getting to/from transit

e.g. 10 mins

70% of time
on-board transit

e.g. 25 mins

When is Frequency important?

For Short Distance Trips: *0 to 2.5 Miles*

Frequency is the key factor for shorter trips.

50% of time
getting to/from transit

e.g. 10 mins

50% of time
on-board transit

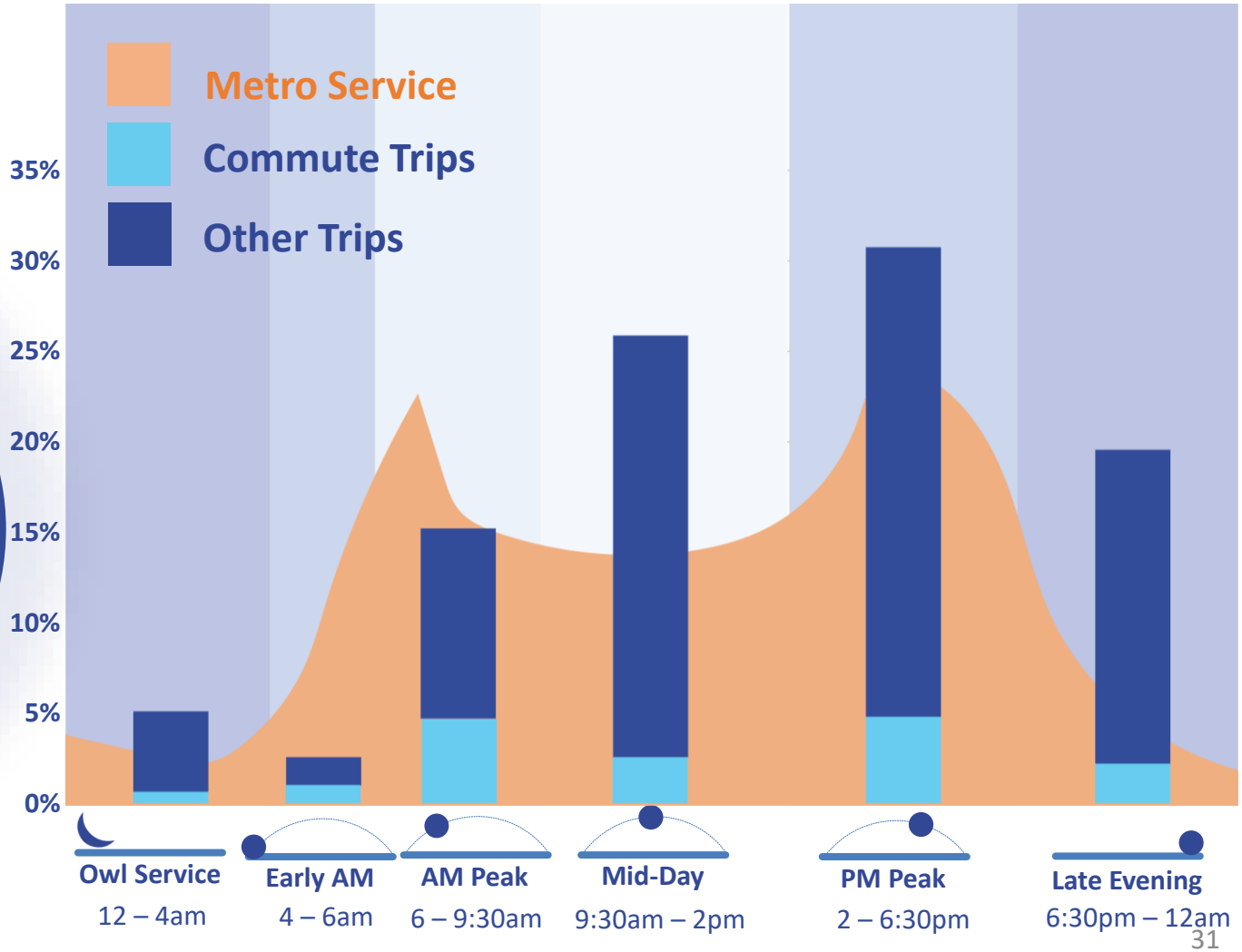
e.g. 10 mins

More Frequent Service for Non-Commute Trips

Travel and Operations by Time of Day

Share of all trips and service by time of day

Current service does not match midday and evening travel demand.



Note: Bar chart shows data by time period while area plot shows hourly data

Major Discoveries

It's about the complete transit experience

- We need to be fast, frequent and reliable to be considered a viable travel option.
- Attracting customers to our services requires attention to the overall experience, including security for women, first/last mile connections for elderly, clear and relevant information for new customers, etc.

The existing network is misaligned with current travel demand

- High concentration of travel does not always mirror areas of high population and employment densities where we have the most transit service.
- Transit travel time must not be more than 2 times slower than driving to be competitive, which means faster bus service for long distance trips and more frequent service for short distance trips.
- We focus on serving long distance peak hour commute trips, while our biggest opportunity for growth is short distance trips throughout the day and evening.

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Where do we go from here?

Technical Analysis

- (Supply) - Evaluate current network to identify high performing services for optimization and low performing for restructuring.
- (Demand) - Use new data (e.g. cell phone) and tools (e.g. transit propensity index) to identify new market opportunities.
- Understand travel patterns of existing and potential customers.
- Identify what it takes for transit to be competitive in these markets.

Public Outreach

- Conduct workshops to educate the public on process, data considerations, and to solicit feedback and ideas for improvement.
- Targeted outreach to specific needs (e.g. persons with disabilities, vulnerable communities)

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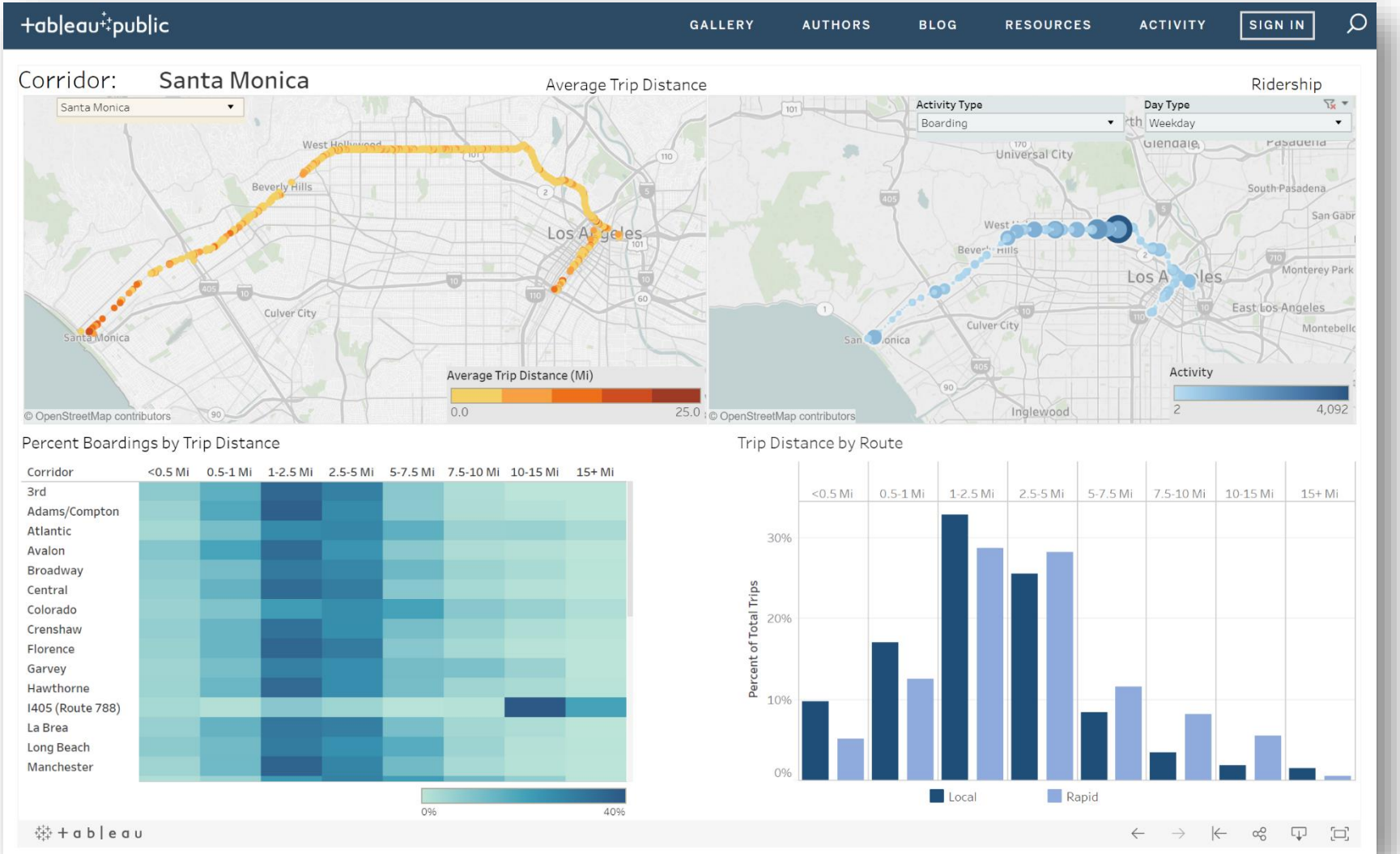
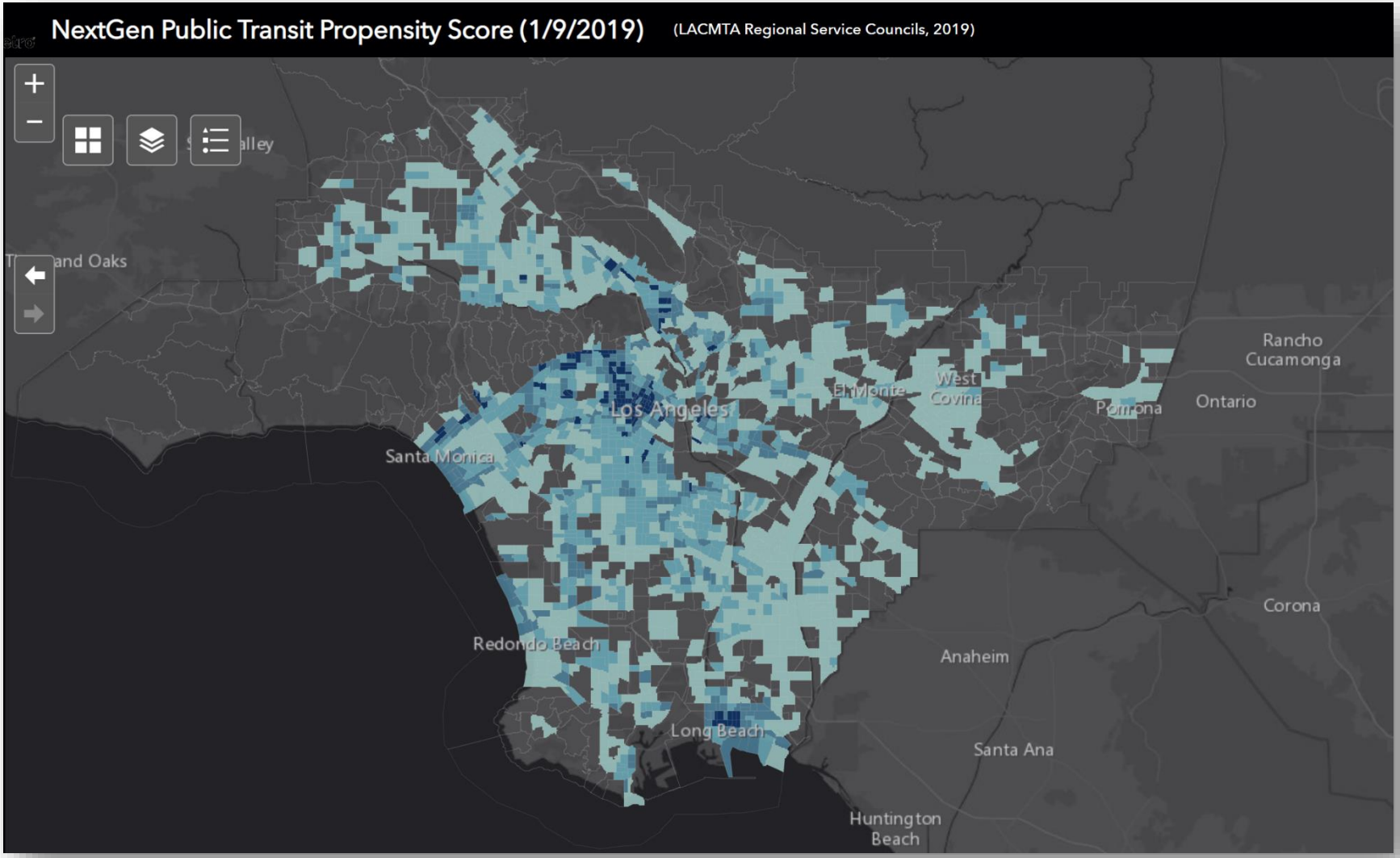
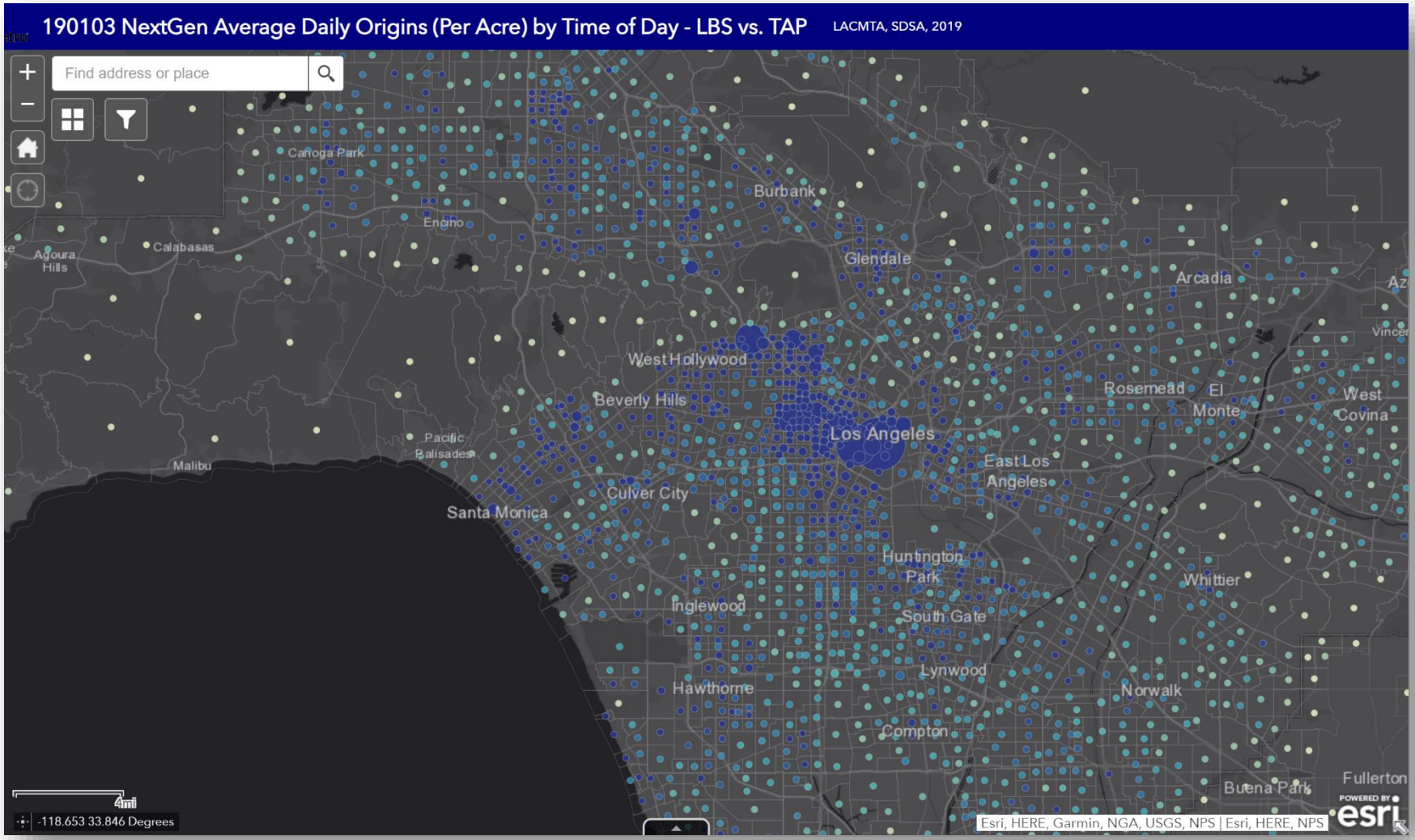
Example: Corridor Analysis



Example: Market Opportunities



Example: Mode Share Analysis

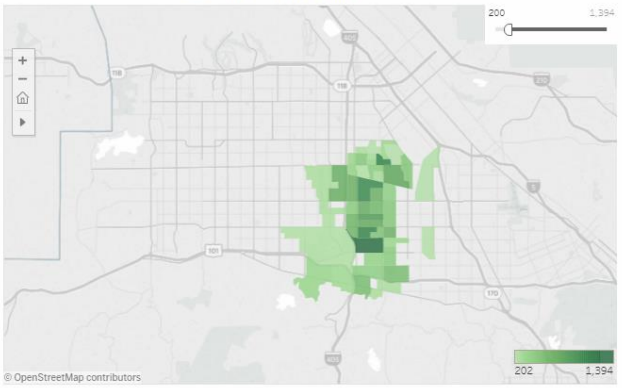


Example: Transit Competitiveness Analysis

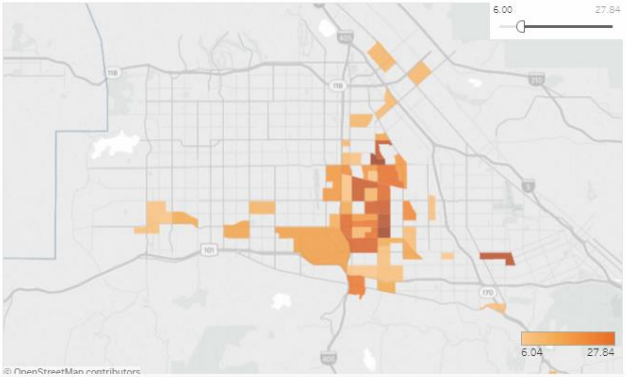
Overview | Input Parameters | Travel Patterns

TRAVEL PATTERNS

ALL TRIPS* - DESTINATIONS



TAP TRIPS - DESTINATIONS



QUICK STATS

Trips on Weekday

All Trips *	42,252
TAP Trips	1,291

Transit Market Share

3.06%

% All Trips* where Transit is Competitive**

5.72%

- **Transit Trip patterns match All Trips**
- **Increase midday frequency to improve competitiveness**

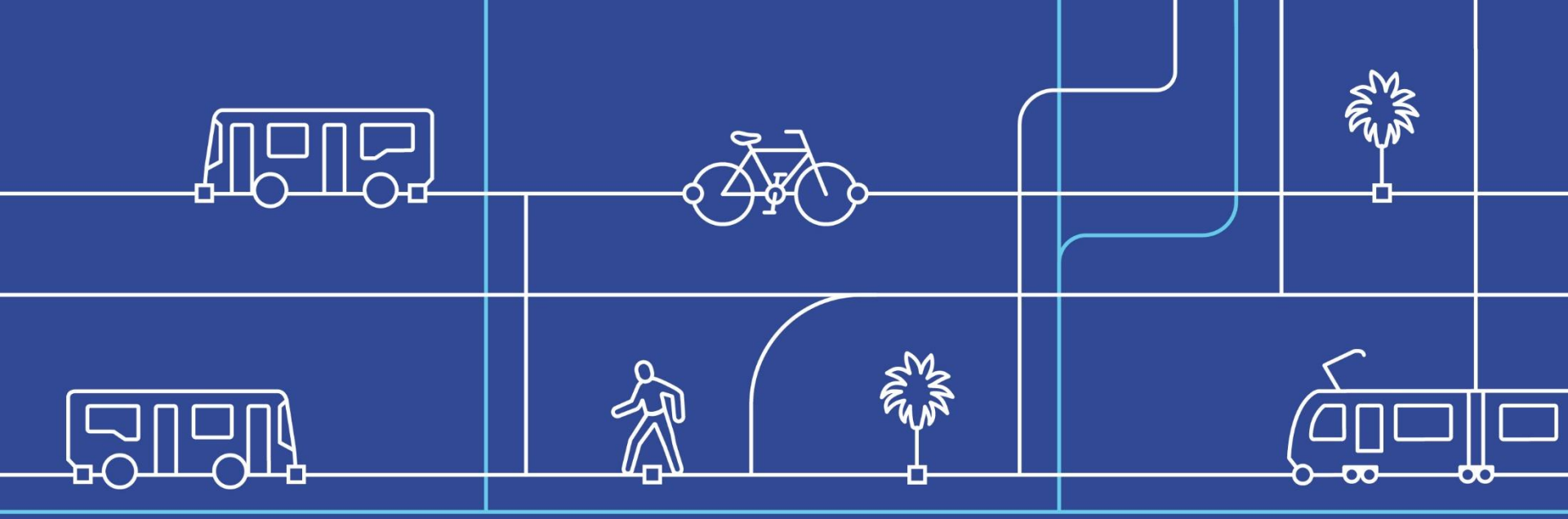
Travel Time (TT) Competitiveness

TT ratio	All Trips *	TAP Trips	Transit Market Share
0.00 - 1.00	41	0	0.24%
1.00 - 1.25	106	2	1.68%
1.25 - 1.50	280	29	10.27%
1.50 - 1.75	662	99	14.98%
1.75 - 2.00	1,329	149	11.24%
2.00 - 2.25	2,113	155	7.34%
2.25 - 2.50	2,598	174	6.71%
2.50 - 2.75	3,086	169	5.49%
2.75 - 3.00	3,550	143	4.04%
3.00 - 3.25	3,613	113	3.12%
3.25 - 3.50	3,548	83	2.33%
3.50 - 3.75	3,479	45	1.31%
3.75 - 4.00	3,010	27	0.91%
4.00 - 4.25	2,812	21	0.76%
4.25 - 4.50	2,067	11	0.56%
4.50 - 4.75	1,854	7	0.40%
4.75 - 5.00	1,384	4	0.31%
5.00 +	6,722	28	0.42%

Travel Distance from Origin

Distance bin	All Trips *	TAP Trips	Transit Market Share
0.00 - 1.00 mile	10,079	101	1.00%
1.00 - 2.50 miles	13,017	301	2.31%
2.50 - 5.00 miles	8,247	321	3.90%
5.00 - 7.50 miles	3,894	193	4.95%
7.50 - 10.00 miles	2,246	104	4.61%
10.00 - 15.00 miles	2,525	138	5.45%
15+ miles	2,245	133	5.95%

Footnotes:
* LBS trips with a feasible transit path
** Trips where ratio of transit travel time by auto travel time is less than or equal to 2.00



Thank You

Conan Cheung
Sr Exec Officer, Service Development
LA Metro
Email: cheungc@metro.net
Tel: 213.418.3034

Metro

Katharine Kelleman, CEO
Port Authority of Allegheny County


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Photo: Volvo USA

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Photo: UBER


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Port Authority of Allegheny County

AMERICAN PUBLIC TRANSPORTATION ASSOCIATION

ANZALONE LISZT GROVE research

American Public Transportation Association

Key Findings from National Poll

January 30, 2019

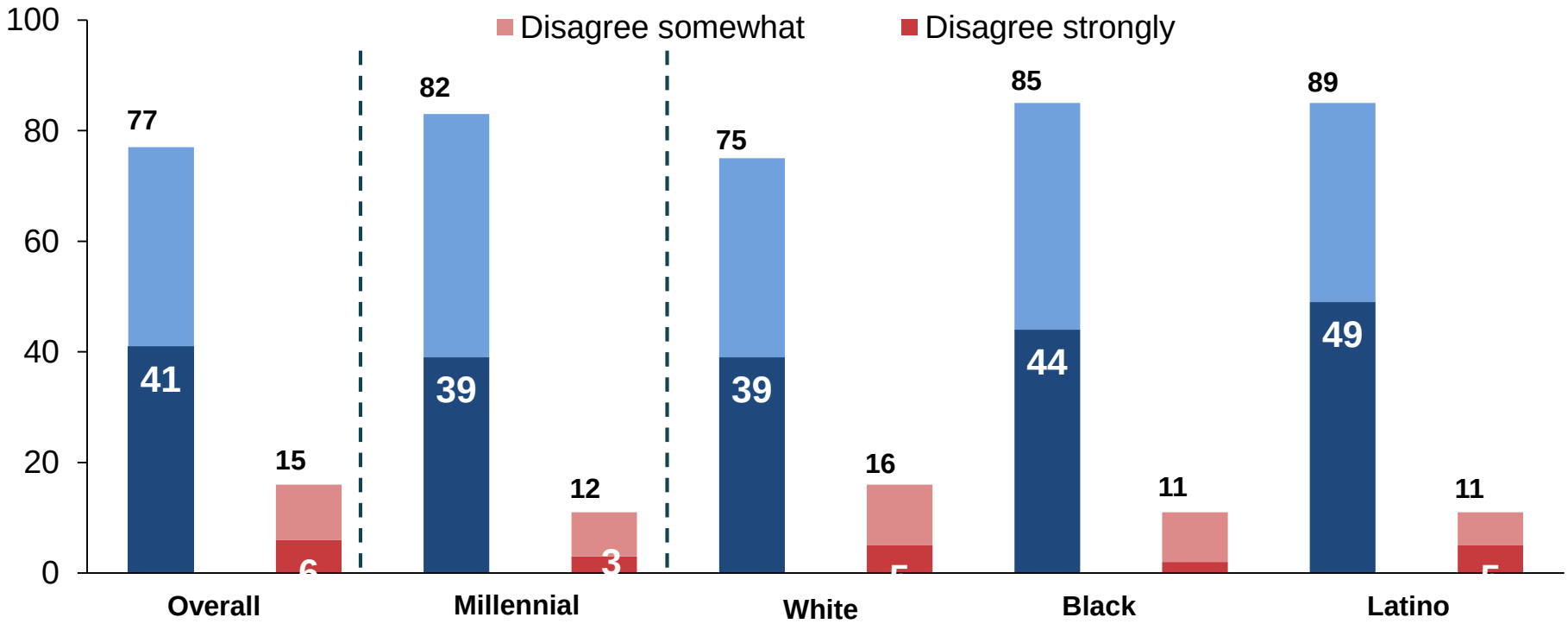
Methodology

- Anzalone Liszt Grove Research conducted a nationwide survey of 1000 adults from June 7-14, 2018.
  - The survey included a phone survey of 800 adults which has a margin of error of 3.5% at the 95% confidence level. The survey was conducted in English and Spanish and 52% of interviews were conducted over cell phones.
  - The survey also included an online oversample of 200 millennials (aged 18 to 34). In all, the survey included interviews with 441 millennials over the phone and online.

Americans overwhelmingly agree that public transportation is the backbone of a “mixed-transit lifestyle.”

This belief is especially strong among African Americans and Latinos.

Do you agree or disagree with the following statement: Public transportation is the backbone of a ‘mixed-transit lifestyle’



Millennials place the most importance on access to public transit in deciding where to live and work, particularly millennials who are Democrats, who live in cities, who are well-educated and those of color.

Importance of Public Transit to Deciding Where to Live *Subgroups with Highest % Important*	**% Important**
ALL ADULTS	***48***
18-34 Dem Male	76
18-34 City Dem	74
18-34 Liberal	68
18-34 of Color	67
18-34 City	65
18-34 Post College Grad	63

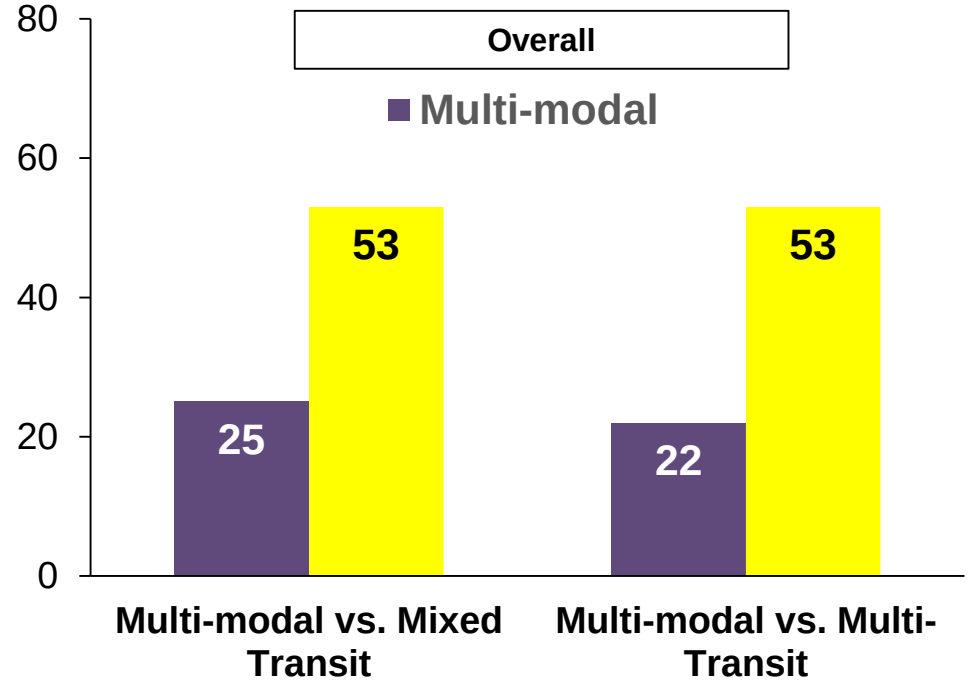
Importance of Public Transit to Job Search *Subgroups with Highest % Important*	**% Important**
ALL ADULTS	***50***
18-34 City Dem	81
18-34 Dem Male	80
18-34 City College Grad	74
18-34 Liberal	74
18-34 Post College Grad	71
18-34 of Color	69

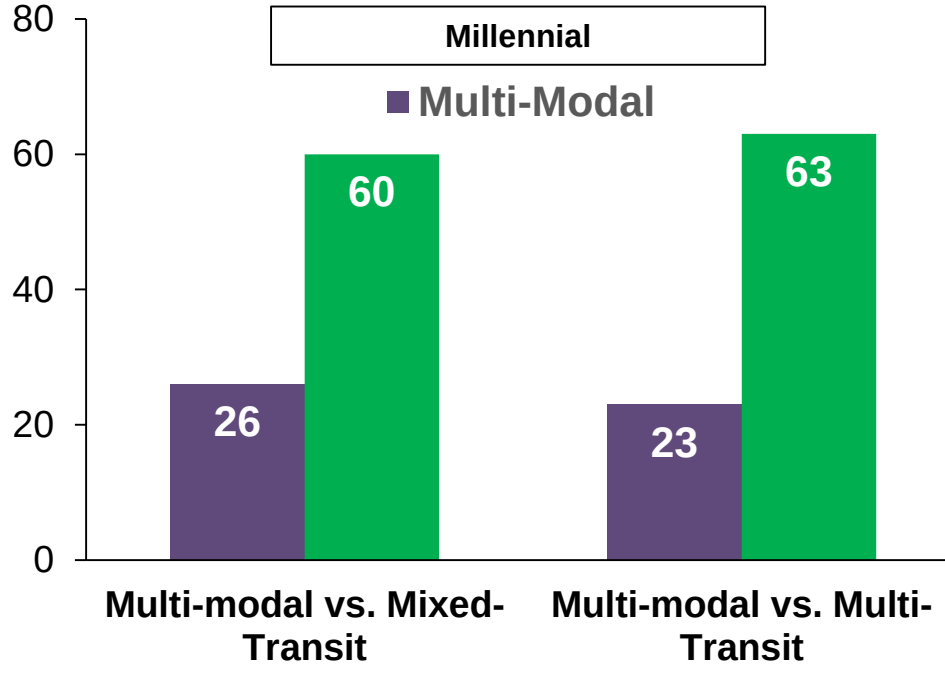
Americans strongly prefer the terms “mixed transit” or “multi-transit” to “multi-modal” for describing a lifestyle that regularly uses more than one type of transportation. There was no difference in preference for “mixed transit” vs. “multi-transit.”

There was also a lack of awareness over what multi-modal meant in our qualitative research with millennials.

MULTI-MODAL VS. MIXED / MULTI-TRANSIT

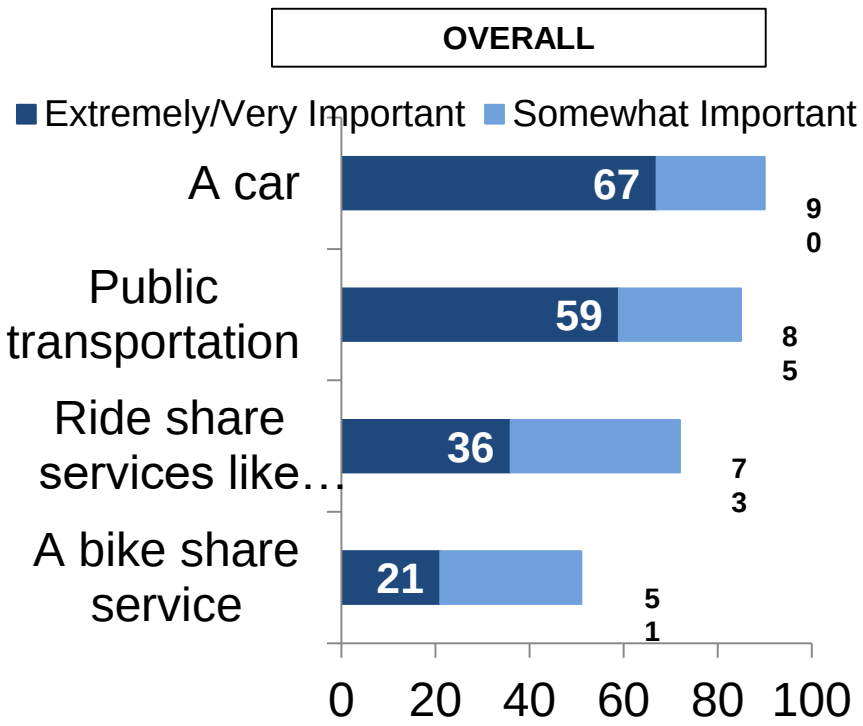
Which of the following do you think is a better term for describing a lifestyle in which someone uses more than one type of transportation on a regular basis?

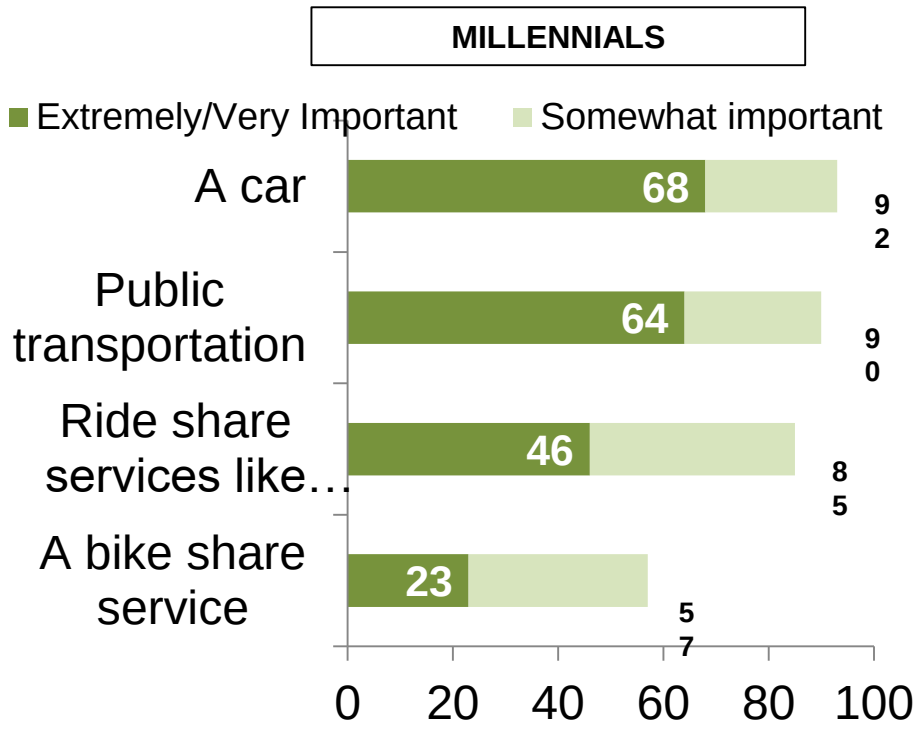




85% of Americans think public transportation is important to a “mixed transit” lifestyle. Millennials believe public transit is as important to such a lifestyle as a car.

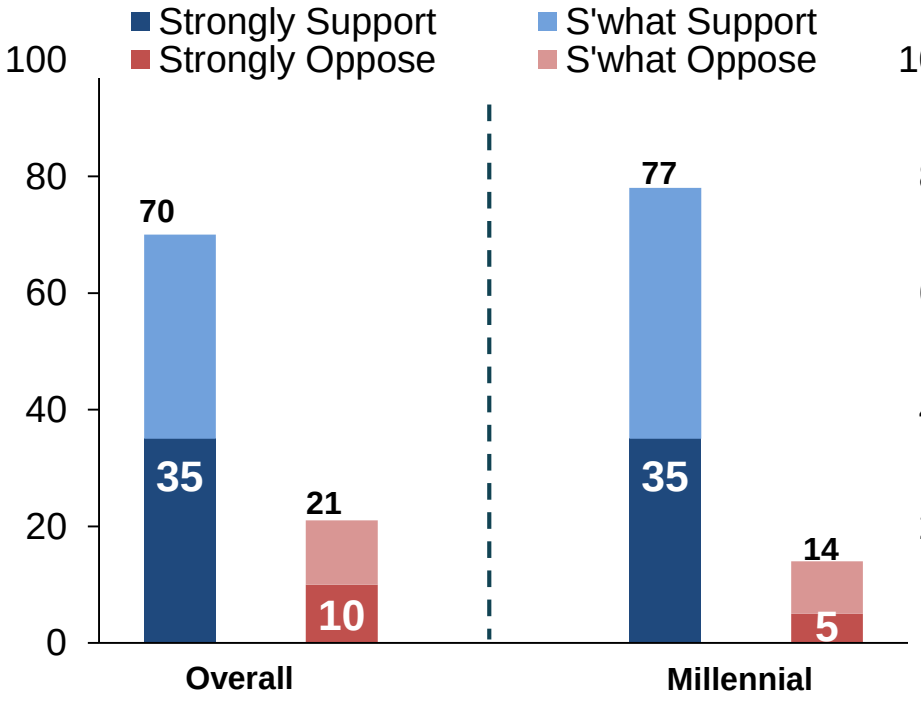
For each of the following, please indicate how important you think it would be to a "mixed-transit" lifestyle:



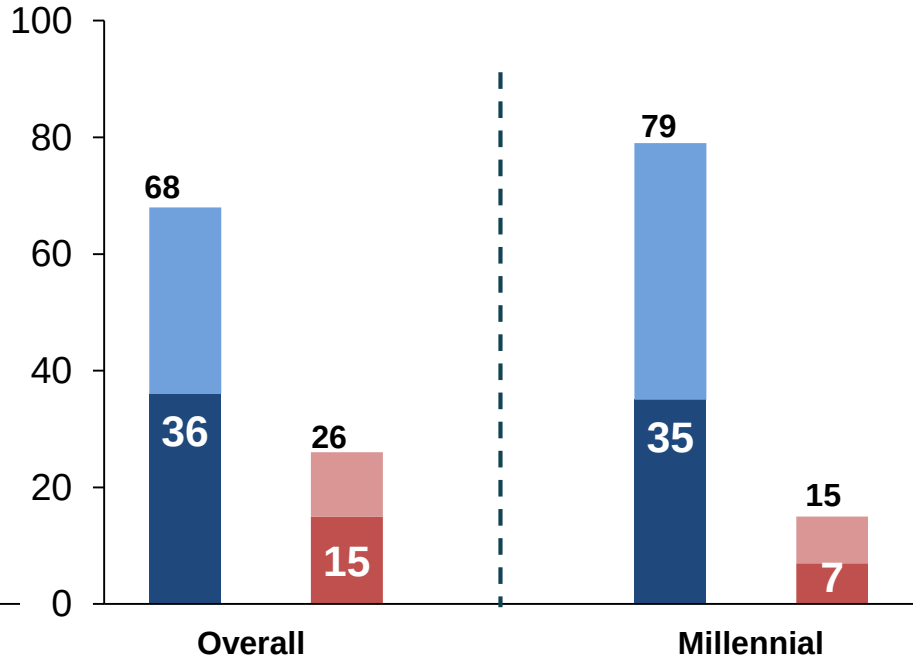


There is strong support for increased funding for public transit at both the local and federal level.

*Would you support or oppose your **city or town** increasing funding for public transportation?*



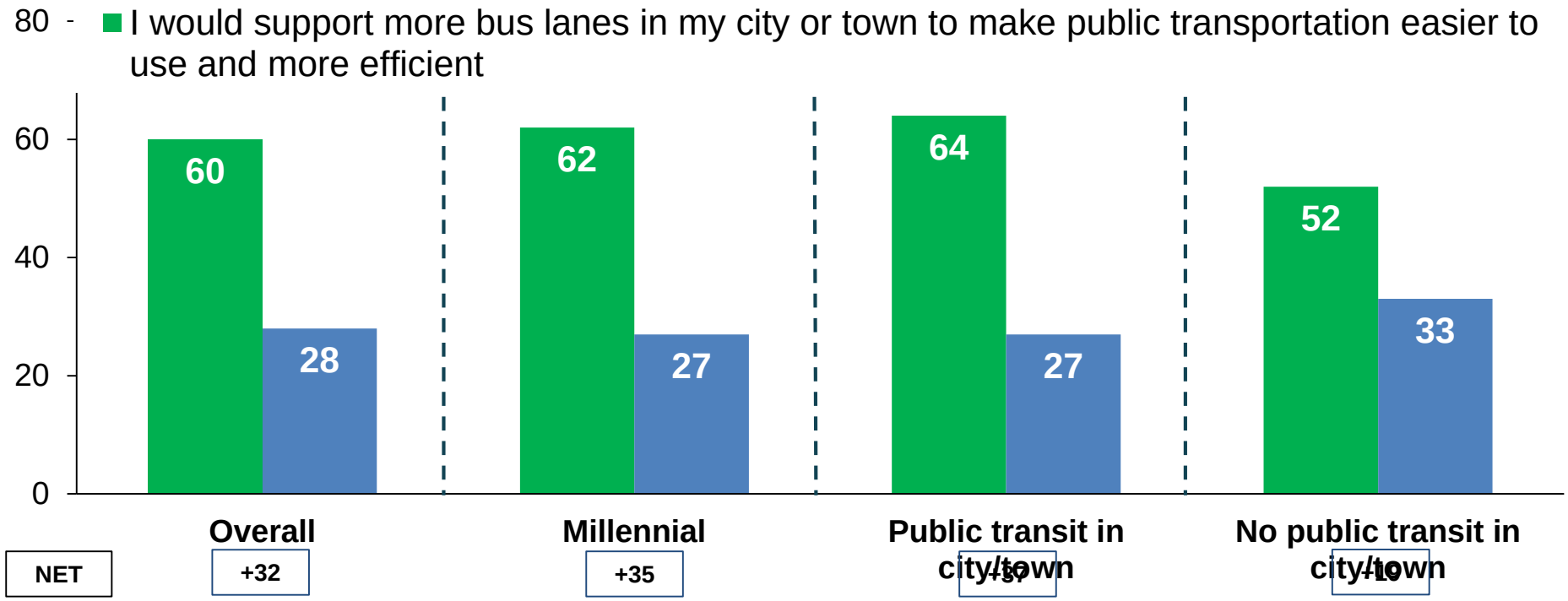
*Would you support or oppose the **federal government** increasing funding for public transportation?*



By a more than two-to-one margin, Americans support more bus lanes in their city or town. Support for more bus lanes extends to those with no public transit in their town.

SUPPORT FOR MORE BUS LANES

Which of the following comes closer to your opinion?

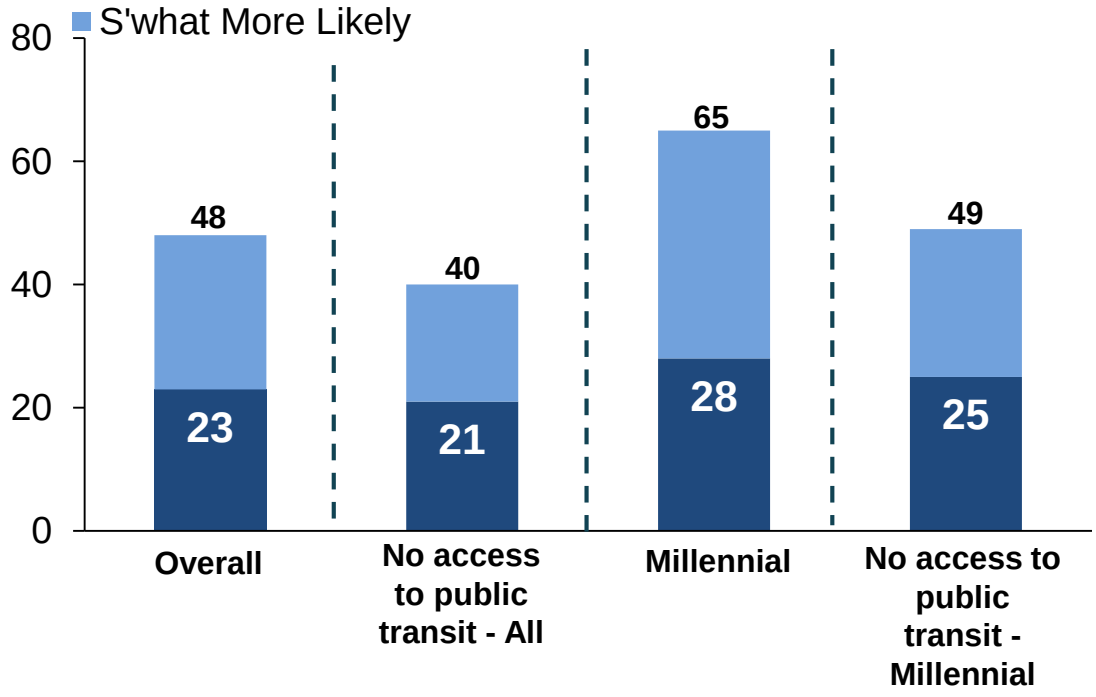


Nearly half of Americans, and two-thirds of millennials, say they would be more likely to use public transportation if it were more convenient and accessible. Millennial Democrats, particularly men and those in the suburbs, would be most likely to use public transit more if it was more convenient.

40% of Americans with no public transit access say they would use it if more accessible.

IMPACT OF MAKING PUBLIC TRANSIT MORE CONVENIENT / ACCESSIBLE

Would you use public transportation more if it were more convenient or accessible?

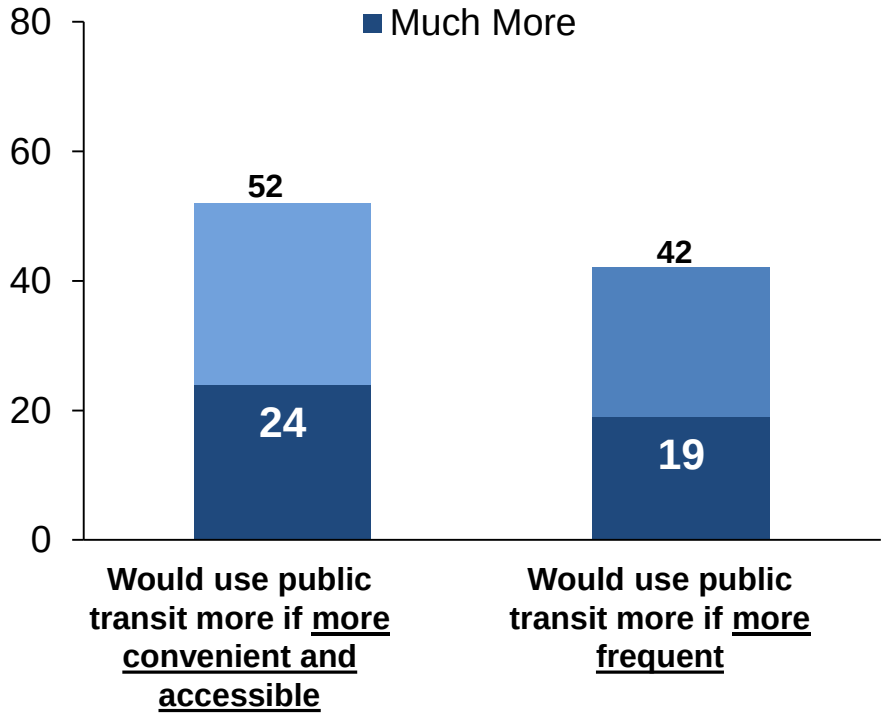


Subgroups Most Likely to Use Public Transit More if More Convenient / Accessible	% More Likely
OVERALL	***48***
18-34 Dem Male	85
18-34 Suburb Dem	84
18-34 Liberal	80
18-34 College Suburb	77
18-34 Post College Grad	75
18-34 City Dem	75

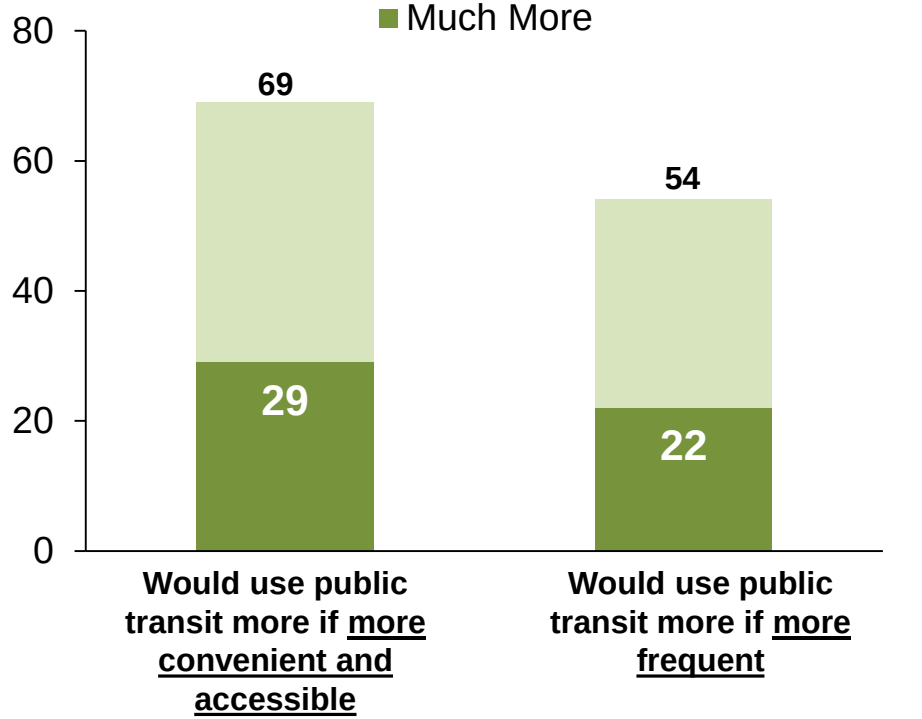
For those with public transit in their town, greater convenience and accessibility would have more of an impact on their public transit use than greater frequency. That said, over 40% of those with public transit in their town would use it more if it ran more frequently.

MAKING PUBLIC TRANSIT MORE CONVENIENT / ACCESSIBLE VS. MORE FREQUENT

ADULTS WITH PUBLIC TRANSIT IN TOWN

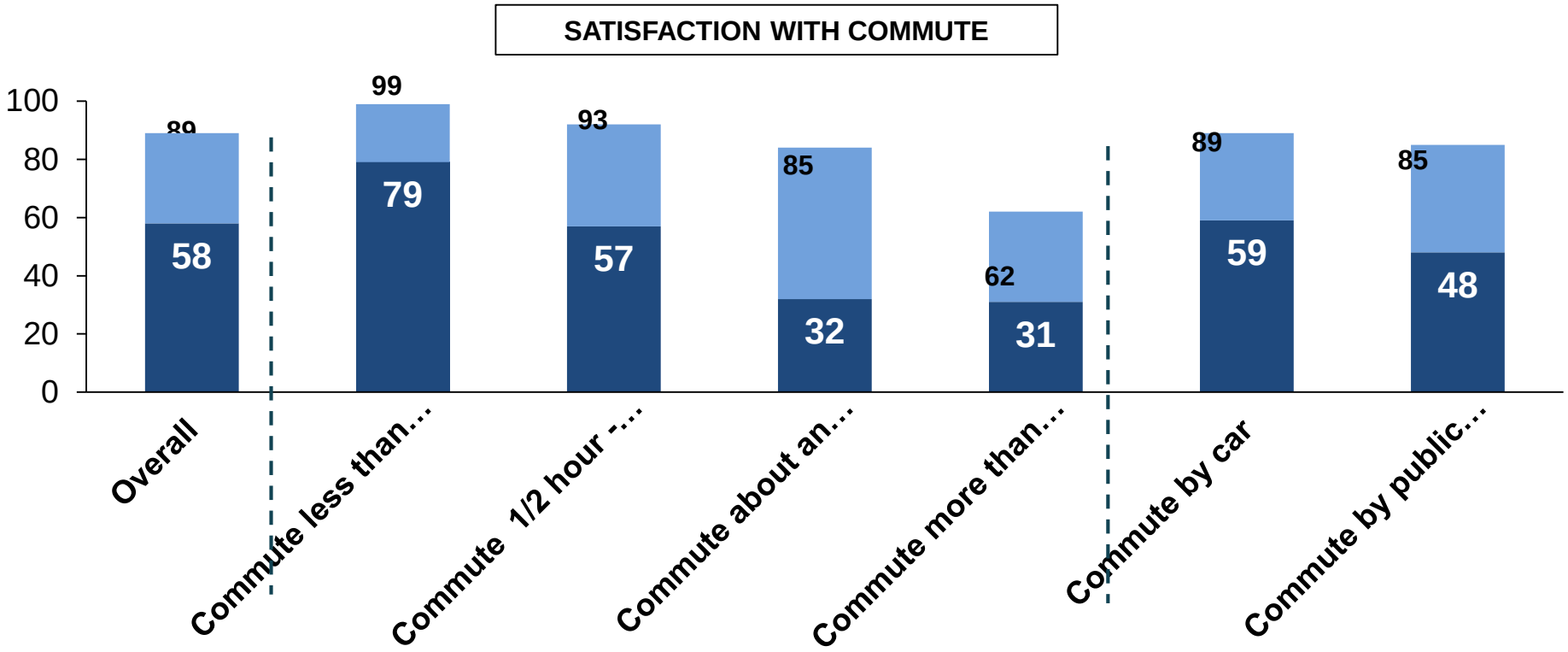


MILLENNIALS WITH PUBLIC TRANSIT IN TOWN



One challenge we have is that Americans have lost touch with what is a reasonable commute. Nine-out-of-ten commuters are satisfied with their commute, including 62% of those whose commute is over an hour.

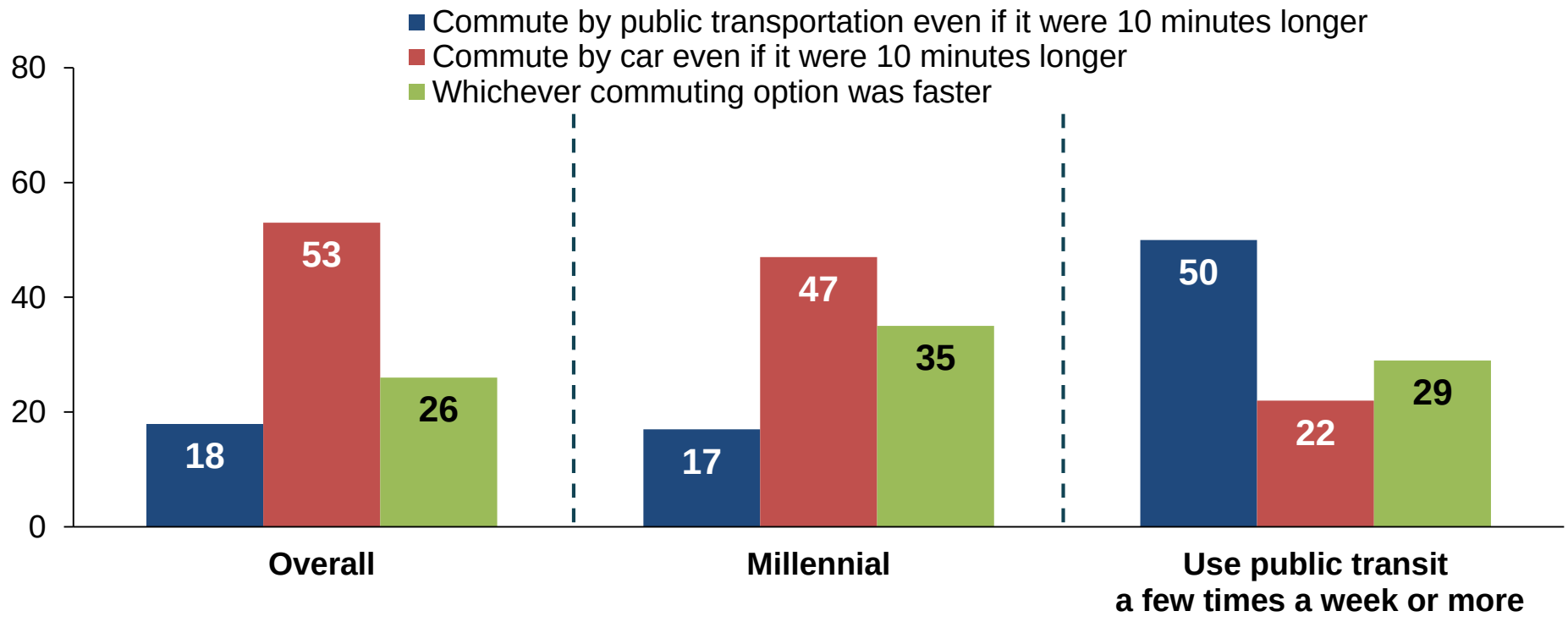
Car commuters are more likely to be very satisfied than those that commute by public transit.



Most Americans would prefer to commute by car, even if it took 10 minutes longer, than commute by public transit. This sentiment is held by millennials and across almost all major demographic groups. Frequent public transit riders are one of the few exceptions.

COMMUTING PREFERENCE: PUBLIC TRANSIT VS. DRIVING

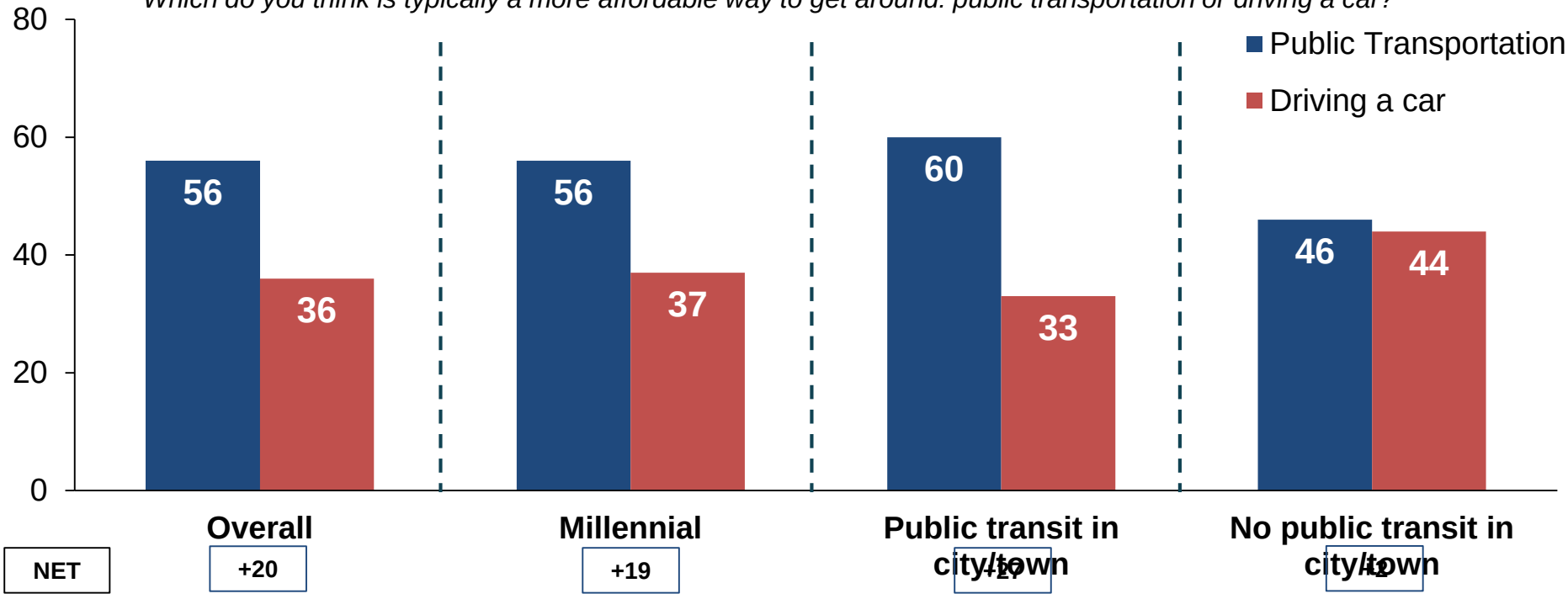
Which of the following commutes would you prefer?



While most prefer to drive even if it takes longer, Americans think taking public transit is more affordable than driving a car by a 20-point margin. Those who have public transit in their town are much more likely to see it as more affordable than those who do not.

MORE AFFORDABLE COMMUTE: PUBLIC TRANSIT VS. DRIVING

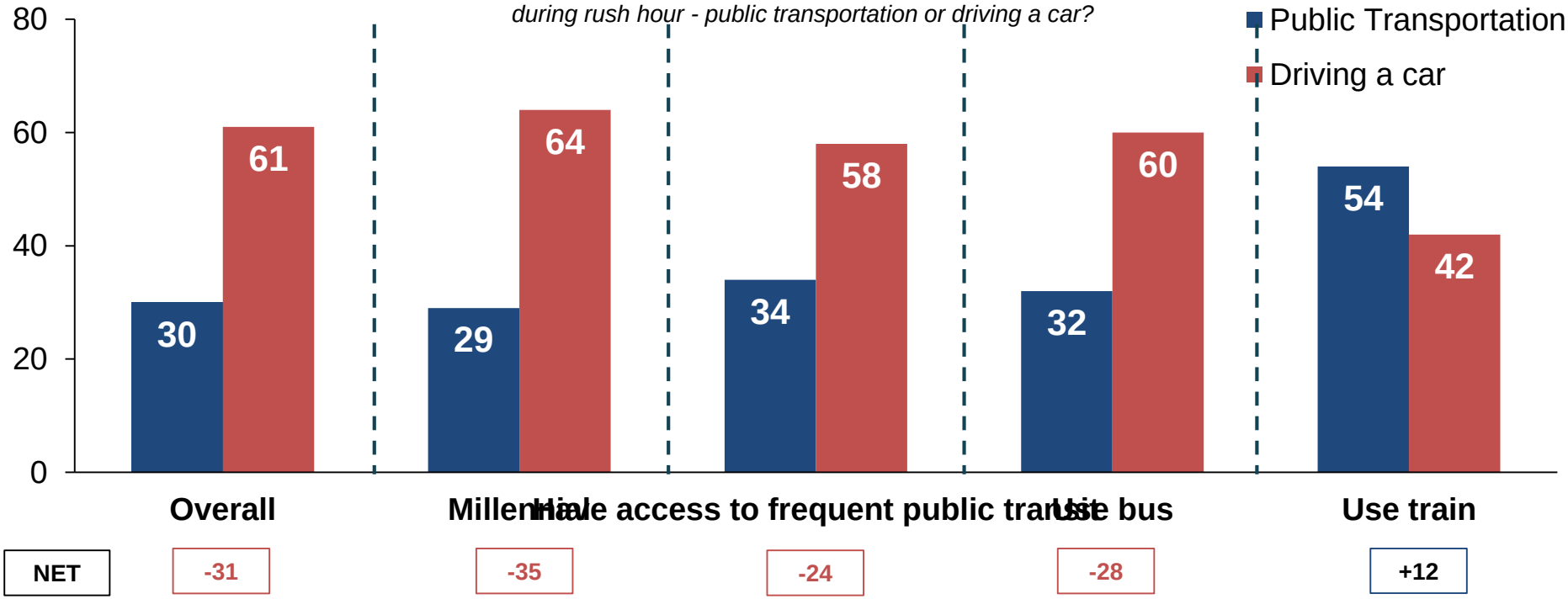
Which do you think is typically a more affordable way to get around: public transportation or driving a car?



While Americans believe public transit is more affordable, they believe driving is faster during rush hour. This belief may be driven by most public transit users taking the bus. Americans who commute on a train were one of the only groups that viewed public transit as a faster option during rush hour.

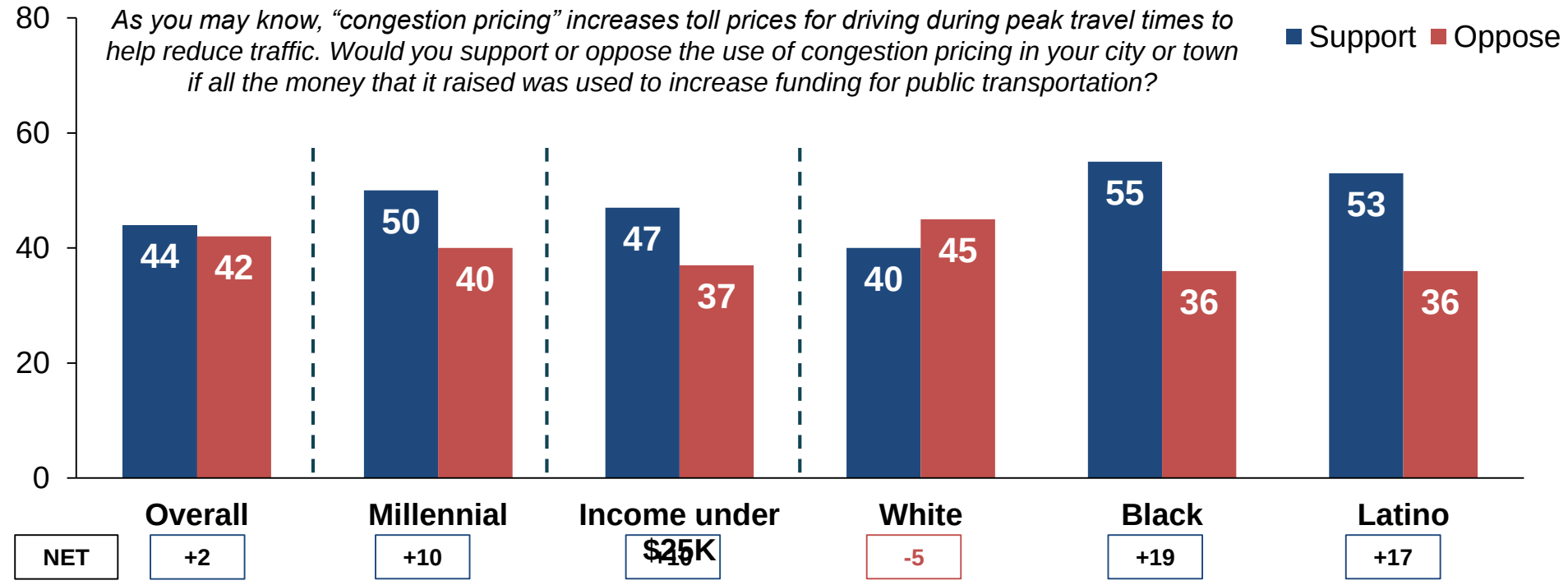
FASTER COMMUTE: PUBLIC TRANSIT VS. DRIVING

Which do you think is typically the faster way to get around a city or town during rush hour - public transportation or driving a car?



Americans overall are split on congestion pricing, but millennials support it by a 10-point margin. In our qualitative research, the biggest concern about it was its potential impact on lower income drivers, but lower income adults support it by double-digit margins, as do communities of color.

CONGESTION PRICING



Nearly a quarter of Americans – and almost a third of millennials – say they would use a ride-sharing service operated by their town's public transit agency. Black and Latino adults would be much more likely to use such a service than White adults.

If the public transit agency in the city or town you live in operated a ride-sharing service similar to Uber or Lyft, how likely would you be to use it – would you definitely use it, probably use it, probably not use it, or definitely not use it?