Making Transit Count

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National Association of City Transportation Officials

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NACTO

VANCOUVER, BC + TRANSLINK
SEATTLE + KING COUNTY METRO
PORTLAND + TRIMET
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BURLINGTON
TORONTO
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AUSTIN
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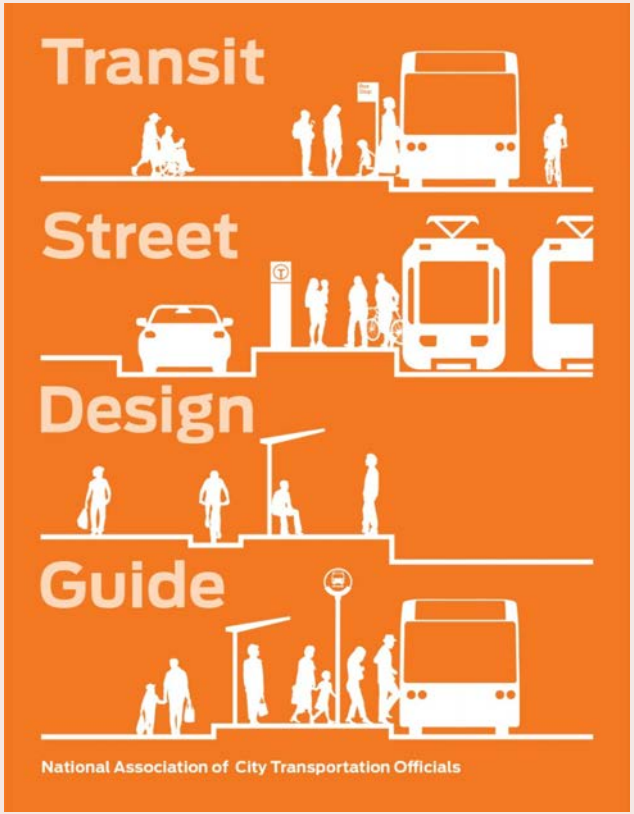
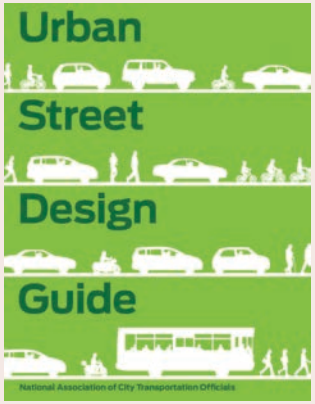
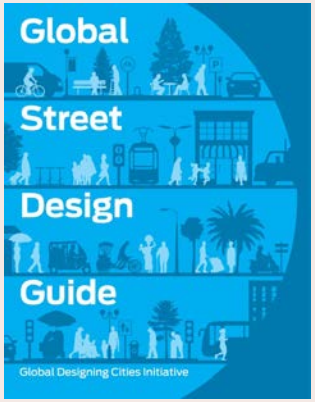
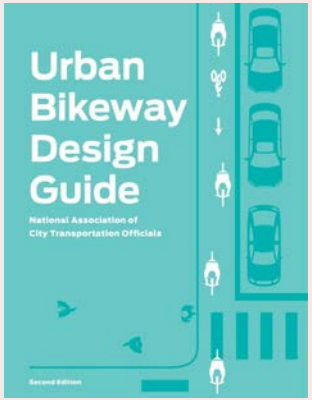
HOUSTON + METRO
ORLANDO
WEST PALM BEACH
FT LAUDERDALE
HONOLULU
MIAMI
MIAMI BEACH
NACTO

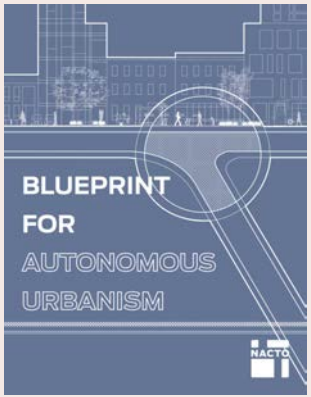
NACTO Design Guides

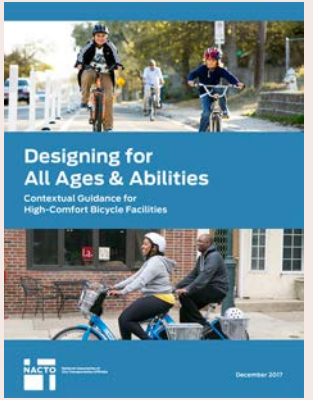




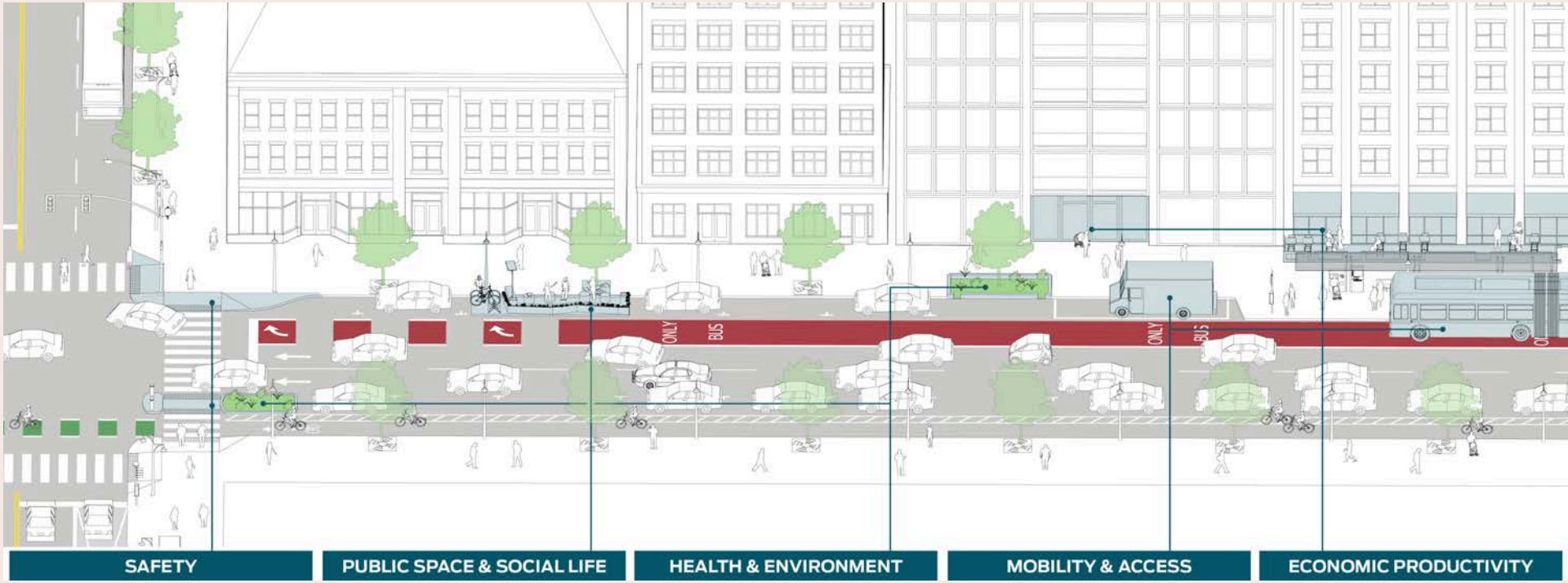








Measuring the Street



Mobility

Safety

Walkability

Efficiency

Reliability

Equity

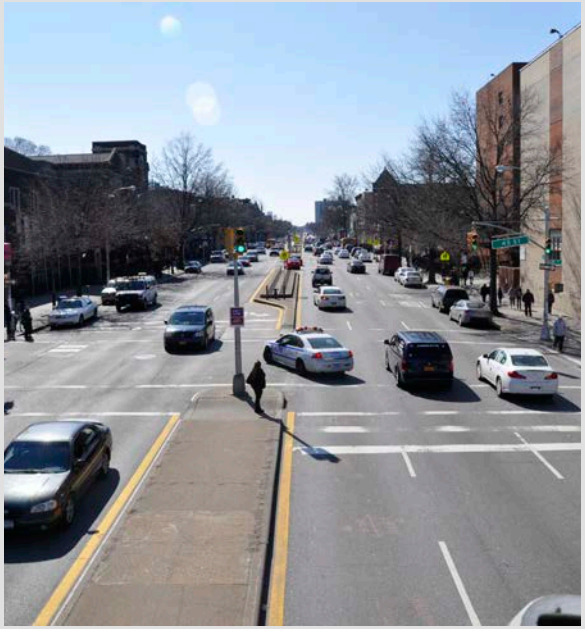
Vitality

Quality

Data, data everywhere…

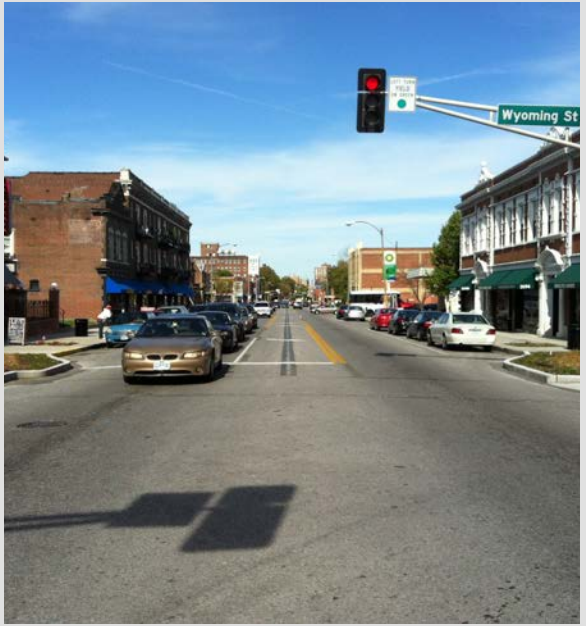
What do we measure?

Moving Vehicles

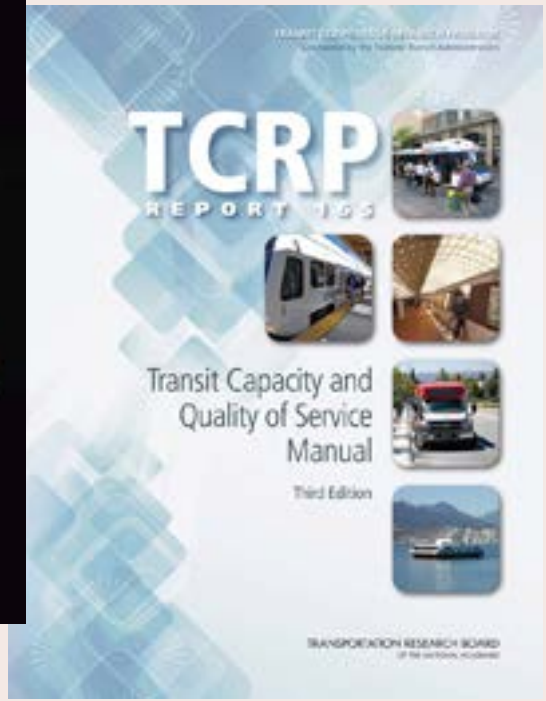


Reducing Collisions

Minimizing Delay



The Guidance Gap



Making Transit Count

- Use data to tell a clear & compelling story
- Vehicle-focused metrics undermine transit goals
- Transit-focused metrics advance better outcomes

3 False Narratives

1. “But Traffic is already bad.”

2. “It Will Hurt Small Business.”

“Nobody Takes The Bus”

”The Bus Lane is Always Empty”

“Transit Ridership is Dropping Anyway”

“AVs Will Solve It”

“It’s Impossible”

3. “We don’t need to invest in transit.”

Answering hard questions.

"Will it get safer or more dangerous?"

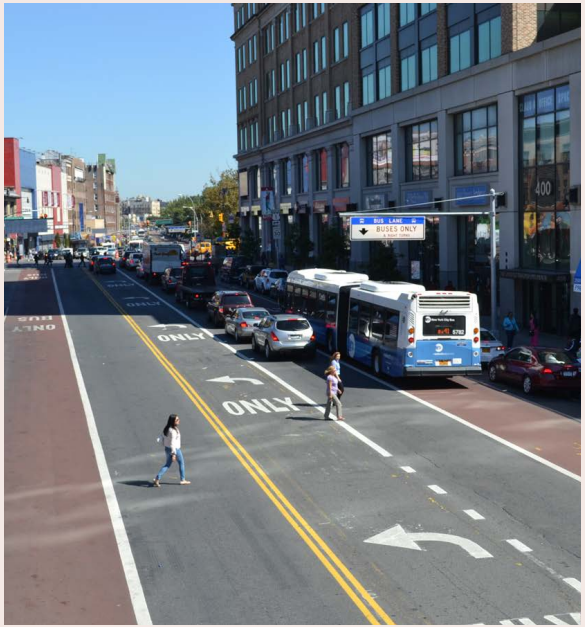
"What kinds of traffic pattern changes should we anticipate?"

"What about all our other goals?"

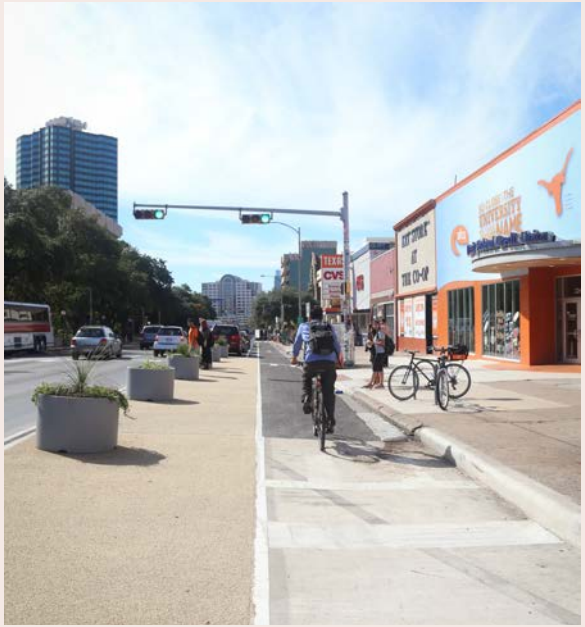
Answering the Hard Questions

What can we measure?

Moving People



Systemic Safety



Reliable Travel

What can we measure?

Walk & Bike Access

Vibrant Public Space

Economic Vitality

1. “But Traffic is Already Bad”

“You’re taking away a lane???”

“You’re taking away a lane???”

Measure Reliable Travel, not Delay

- ✓ Transit Travel Time
- ✓ Transit Reliability
- ✓ Excess Wait Time / Journey Time
- ✓ Systemic Safety

Riders Care About Reliability, Not The Schedule*

*On frequent routes

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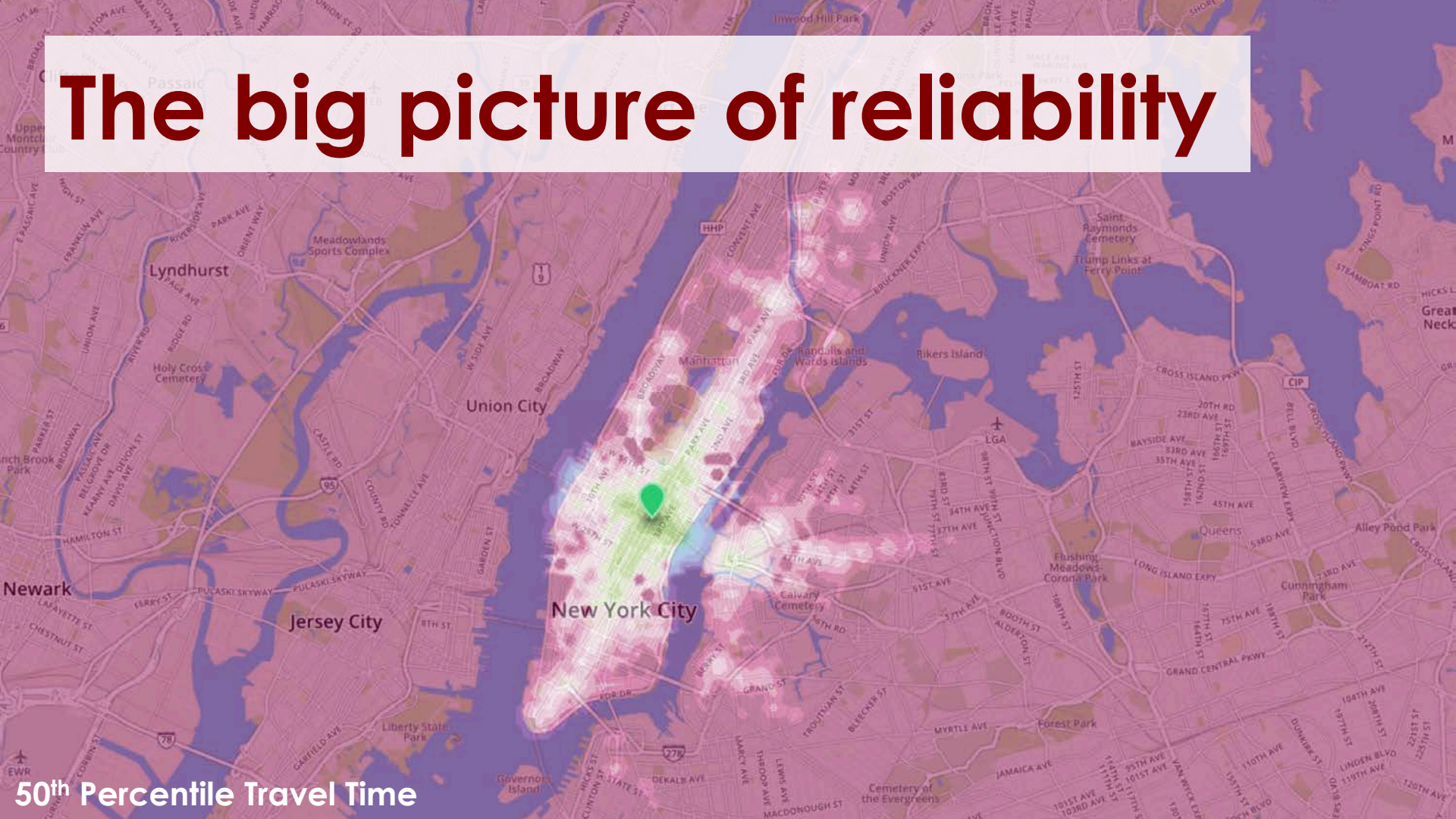
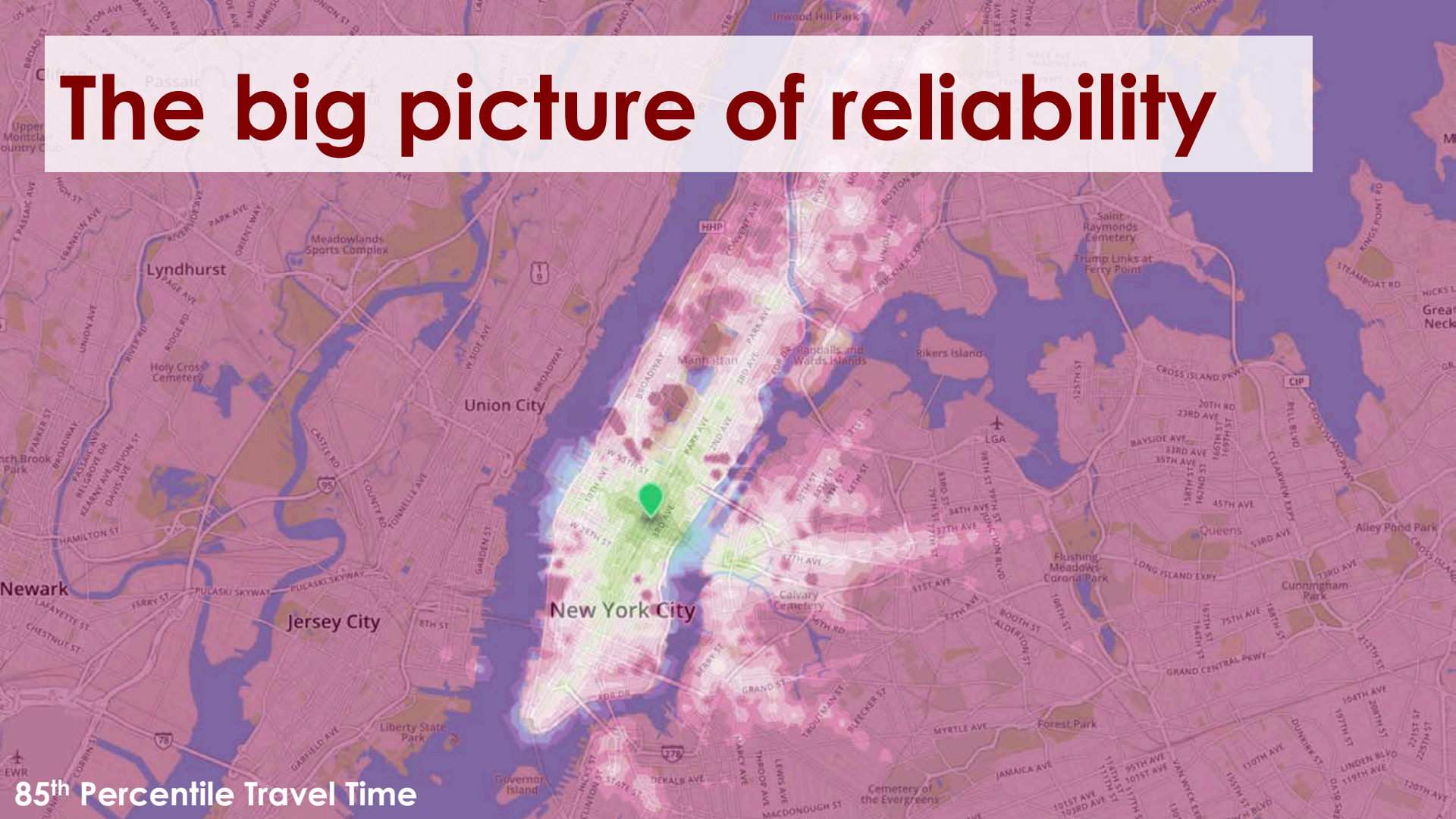
*On frequent routes

The big picture of reliability



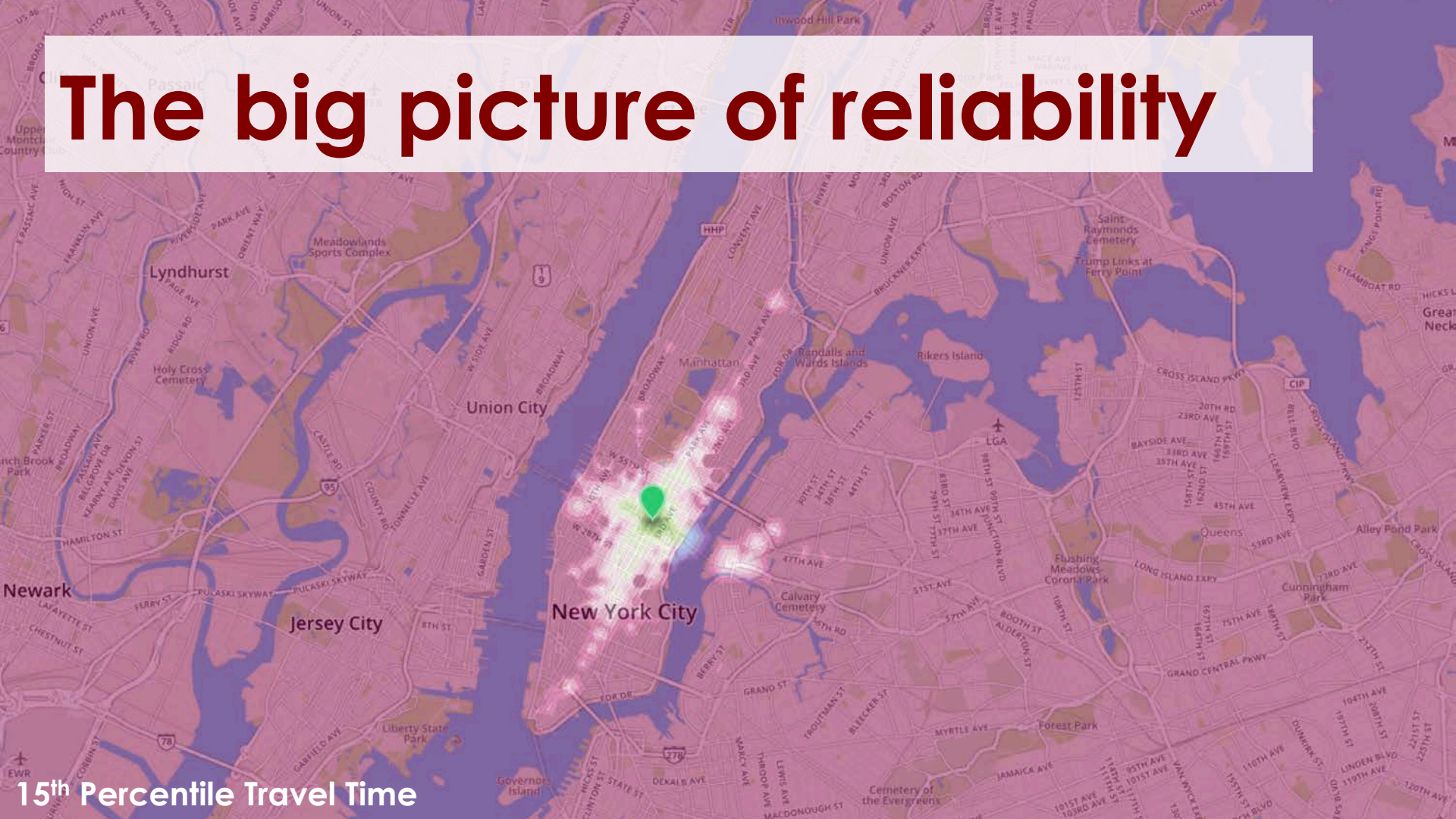
50th Percentile Travel Time

The big picture of reliability



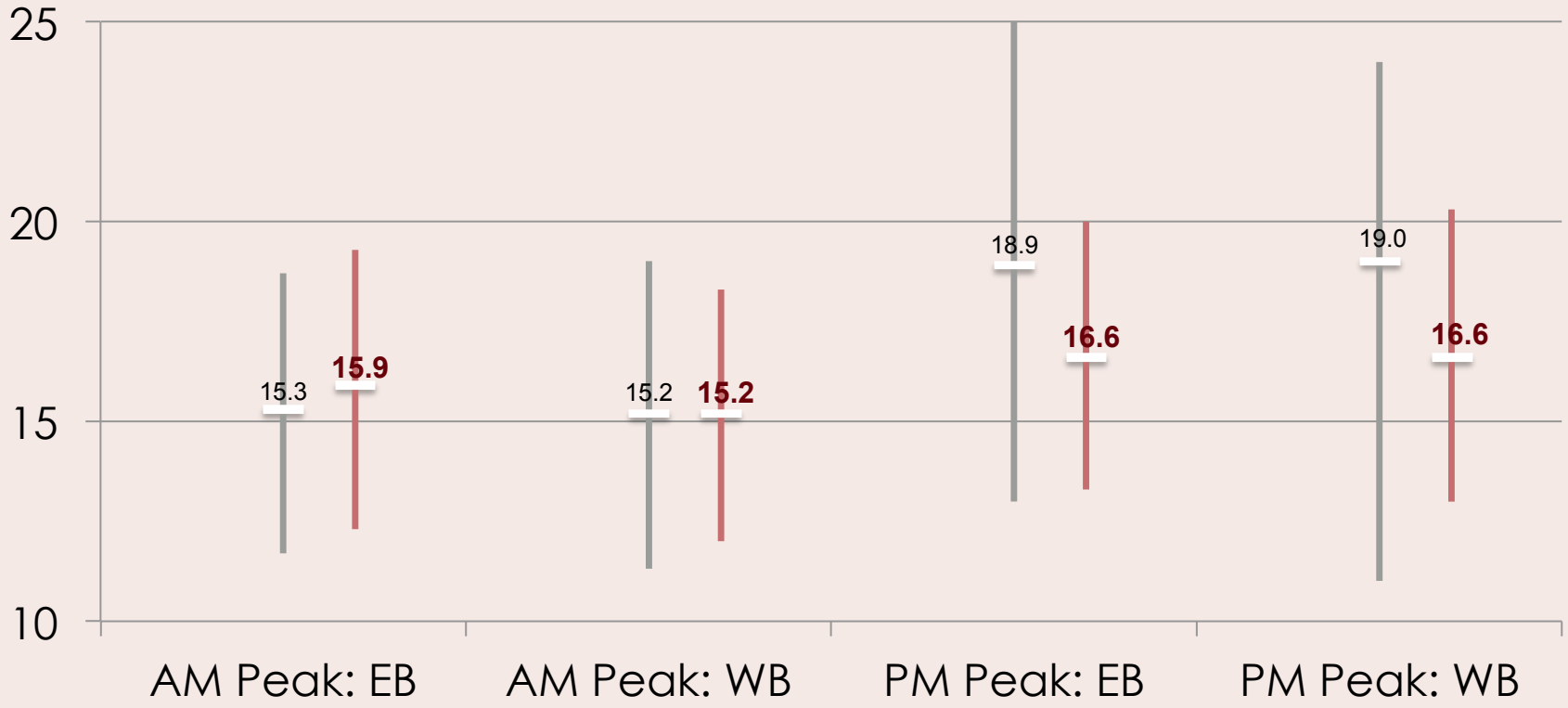
85th Percentile Travel Time

The big picture of reliability



15th Percentile Travel Time

Travel Time Range



King Street Pilot, Toronto

Use metrics that value riders.

*On frequent routes

Excess Wait Time

*On frequent routes

Excess Wait Time

Excess Wait Time =

Passengers Waiting

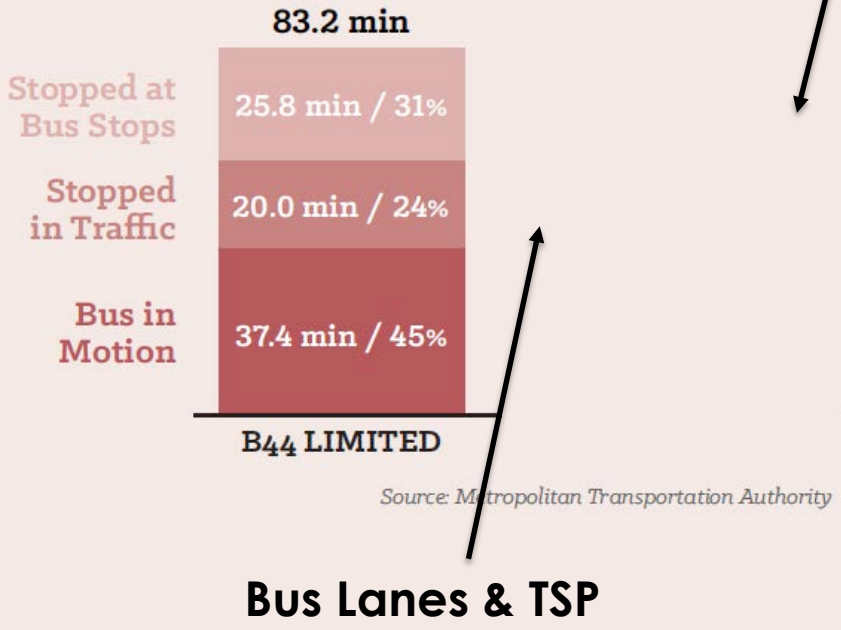
X

 # minutes late

*On frequent routes

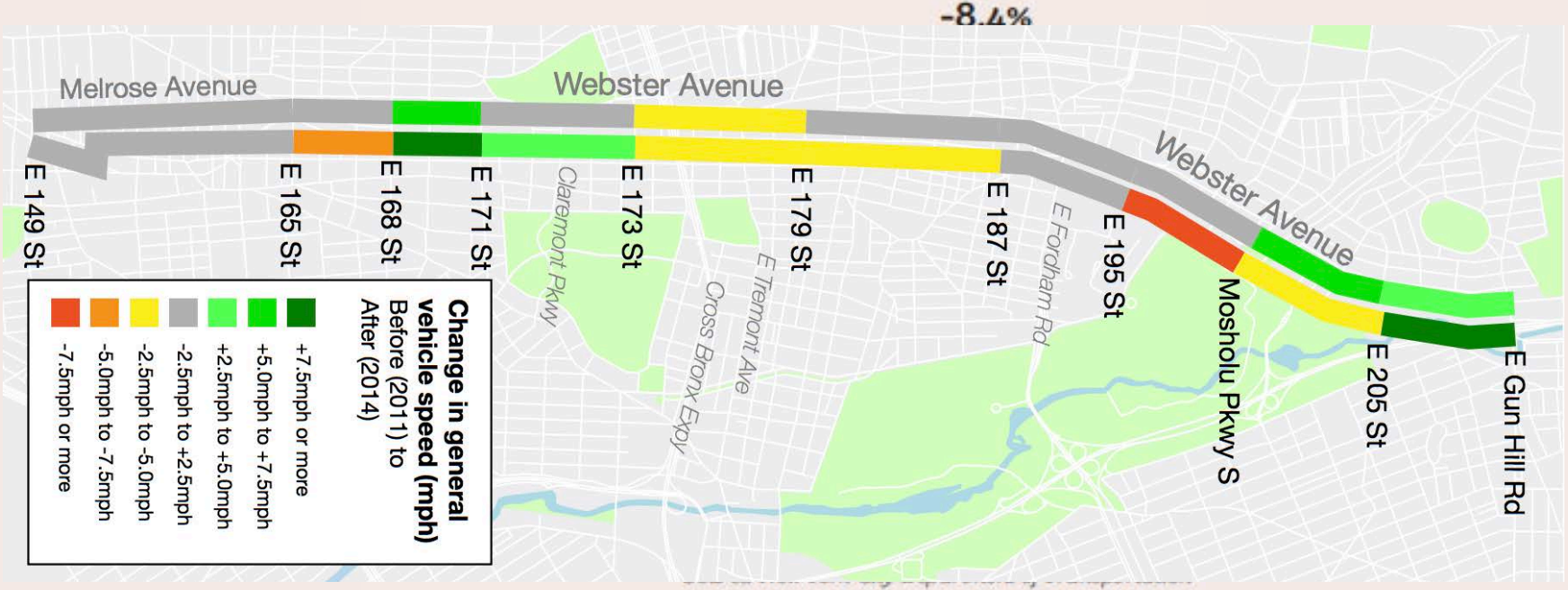
Break down components of delay.

All-Door Boarding

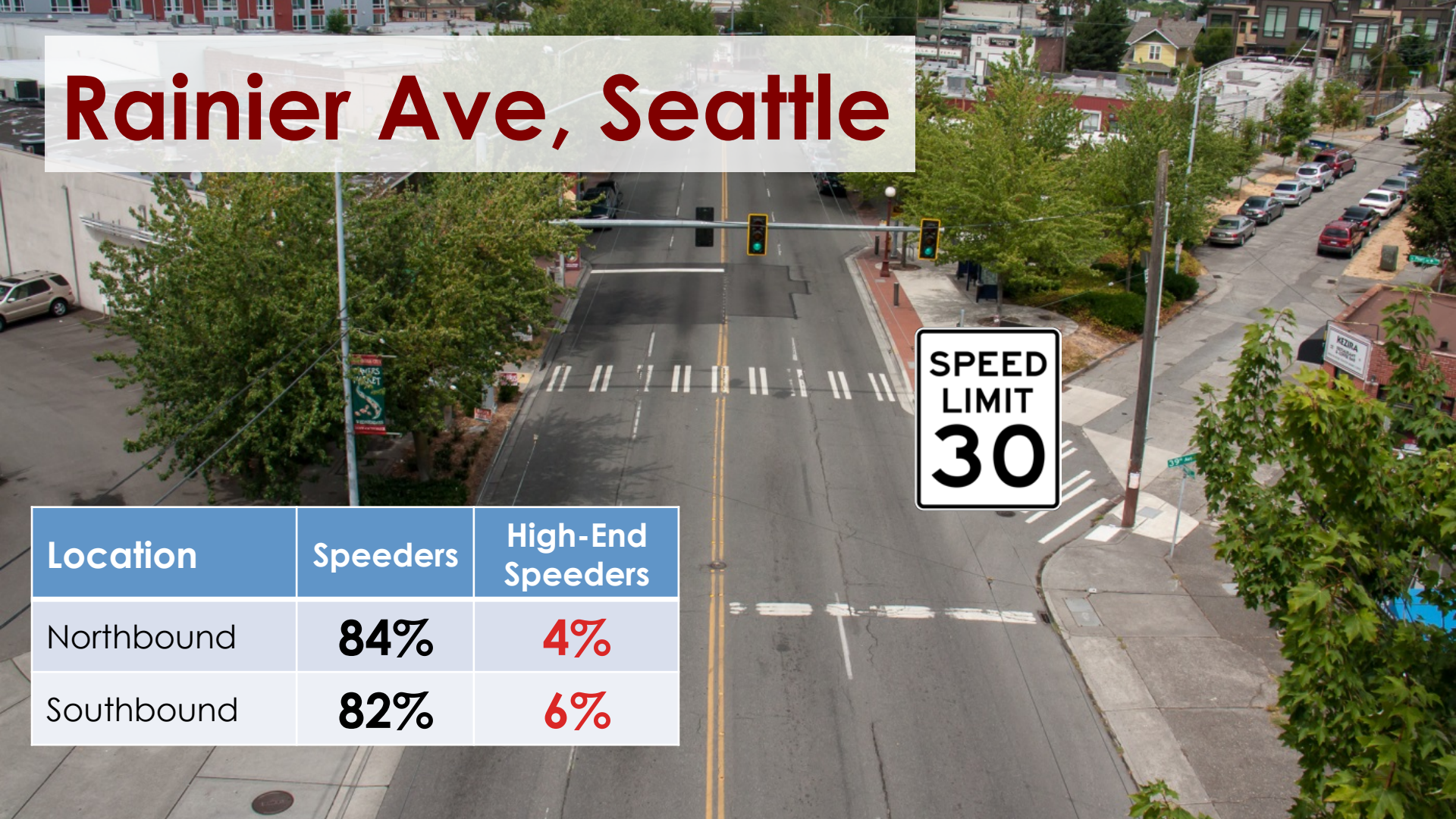


Bus Lanes & TSP

Reliable Traffic Movement, not LOS

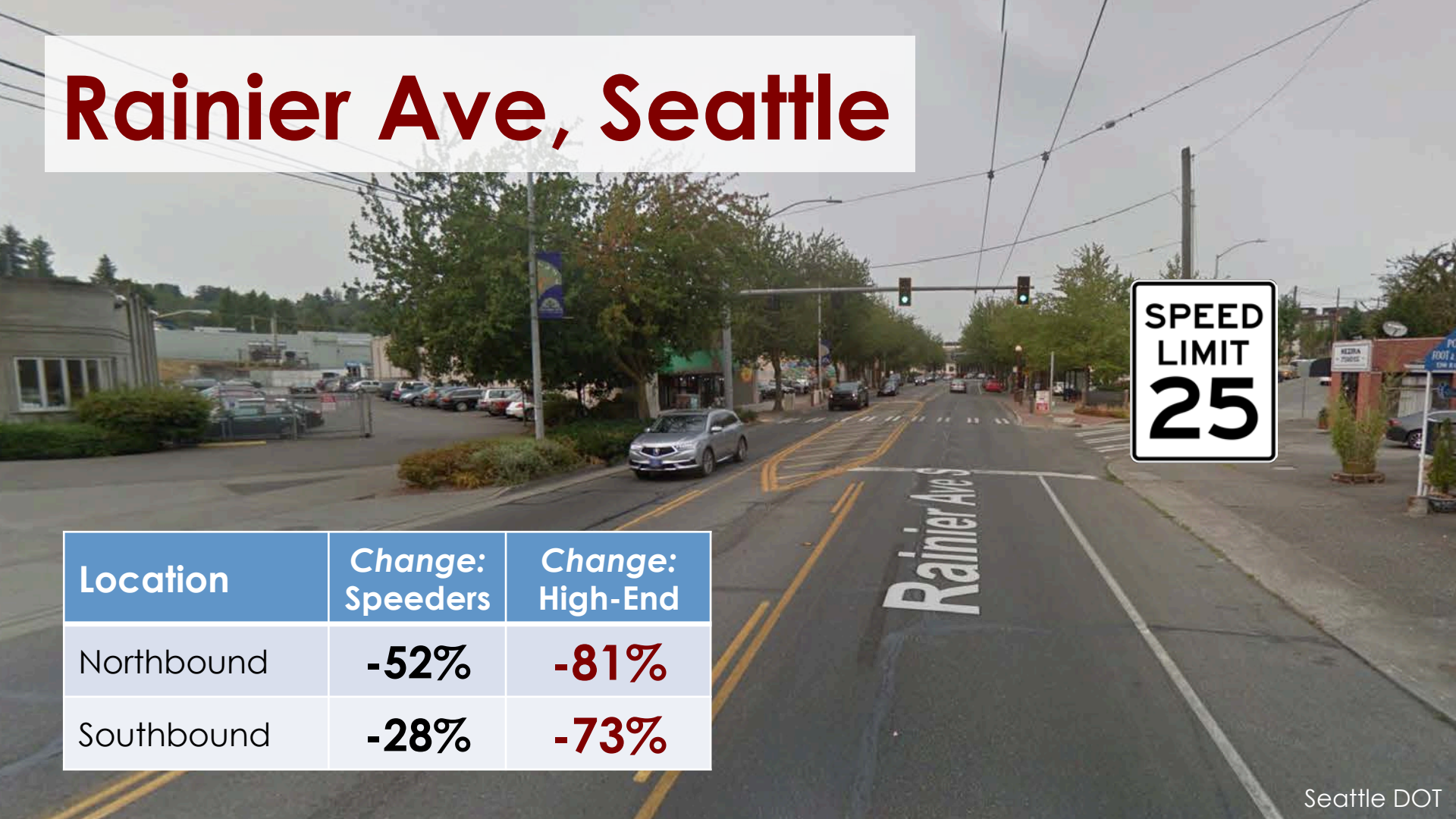


Rainier Ave, Seattle



Location	Speeders	High-End Speeders
Northbound	84%	4%
Southbound	82%	6%

Rainier Ave, Seattle



Location	*Change:* Speeders	*Change:* High-End
Northbound	-52%	-81%
Southbound	-28%	-73%

Seattle DOT

Rainier Ave, Seattle

Before:

9 injury crashes per year

After:

0 injury crashes in 2016

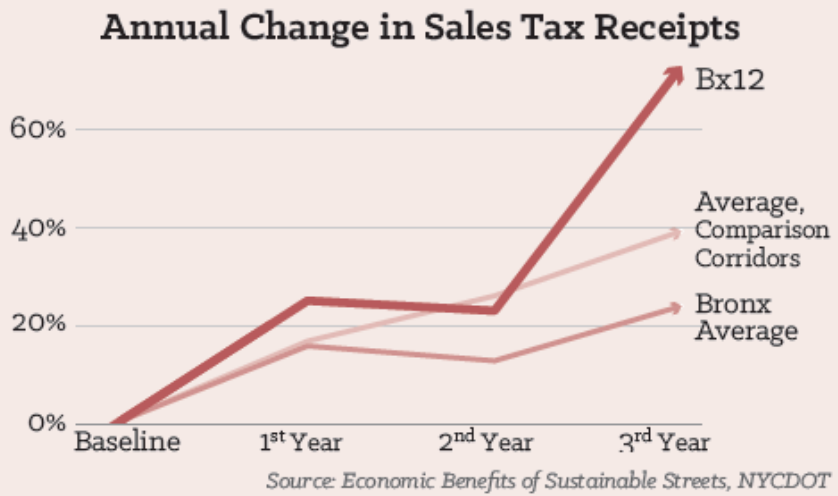
Seattle DOT

2. “It Will Destroy My Small Business”

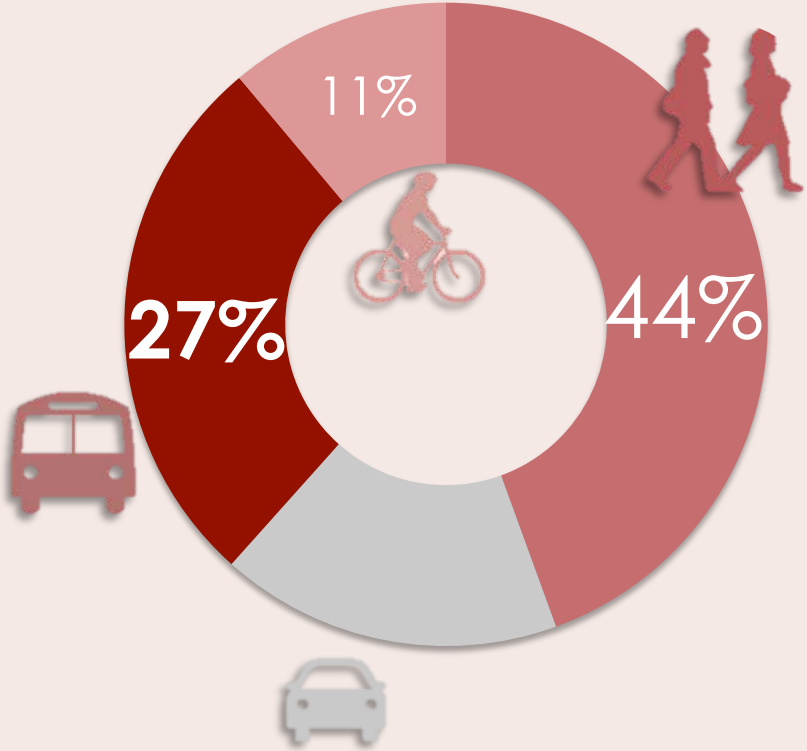
Truth vs. “Truthiness”

- ✓ Retail Sales & Vacancy
- ✓ Arrivals by Mode to Local Business
- ✓ Arrivals by Location to Local Business

Transit sustains Main Street …



… when more people can arrive.



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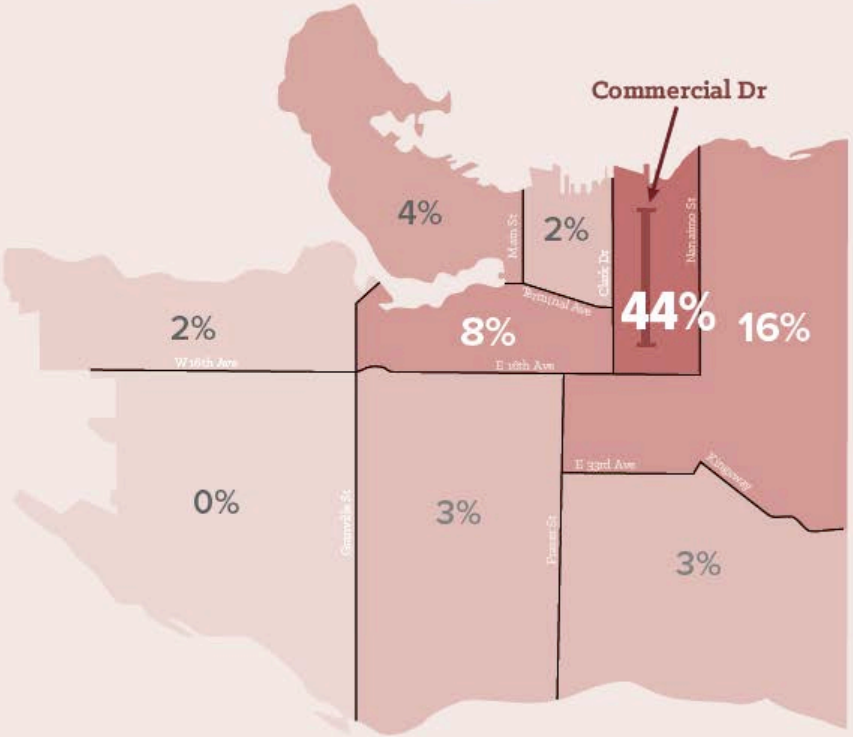


Intercept Surveys

- Mode of arrival
- Trip Origin
- Travel time
- Frequent travel behavior

nacto.org/interceptsurveytoolkit

“Nobody Takes The Bus”

”The Bus Lane is Always Empty”

“Transit Ridership is Dropping Anyway”

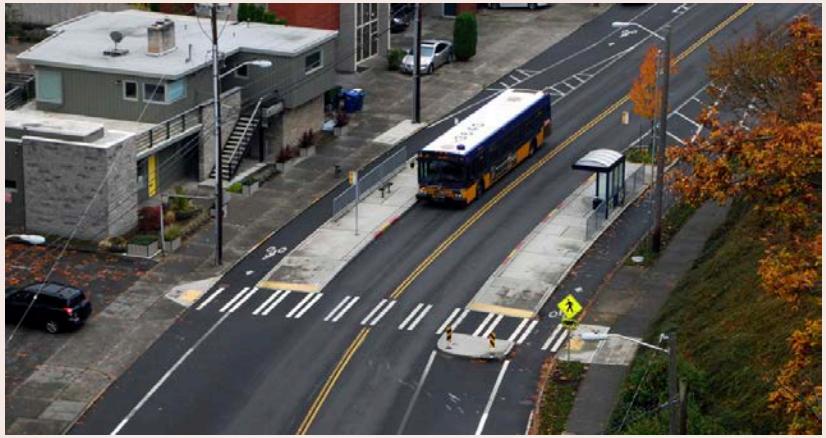
“AVs Will Take Over”

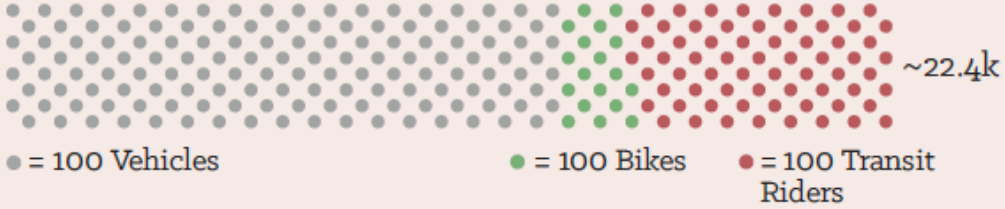
“It’s Impossible”

Measure People, not Traffic

- ✓ Total Person Throughput
- ✓ Transit Ridership Growth
- ✓ Cross-Section Allocation
- ✓ Multi-modal movement

The Street Moves More People Now



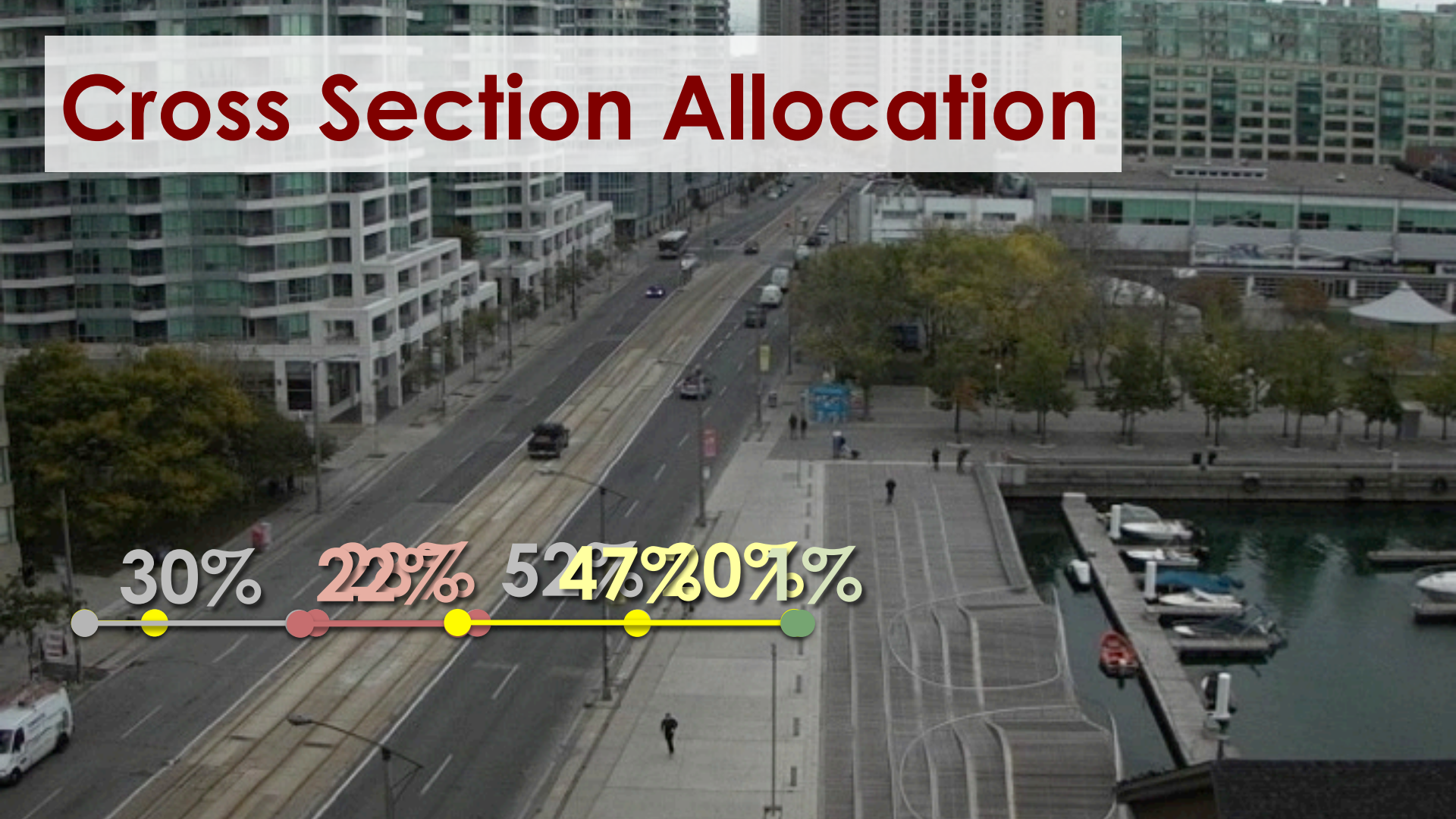


+14%

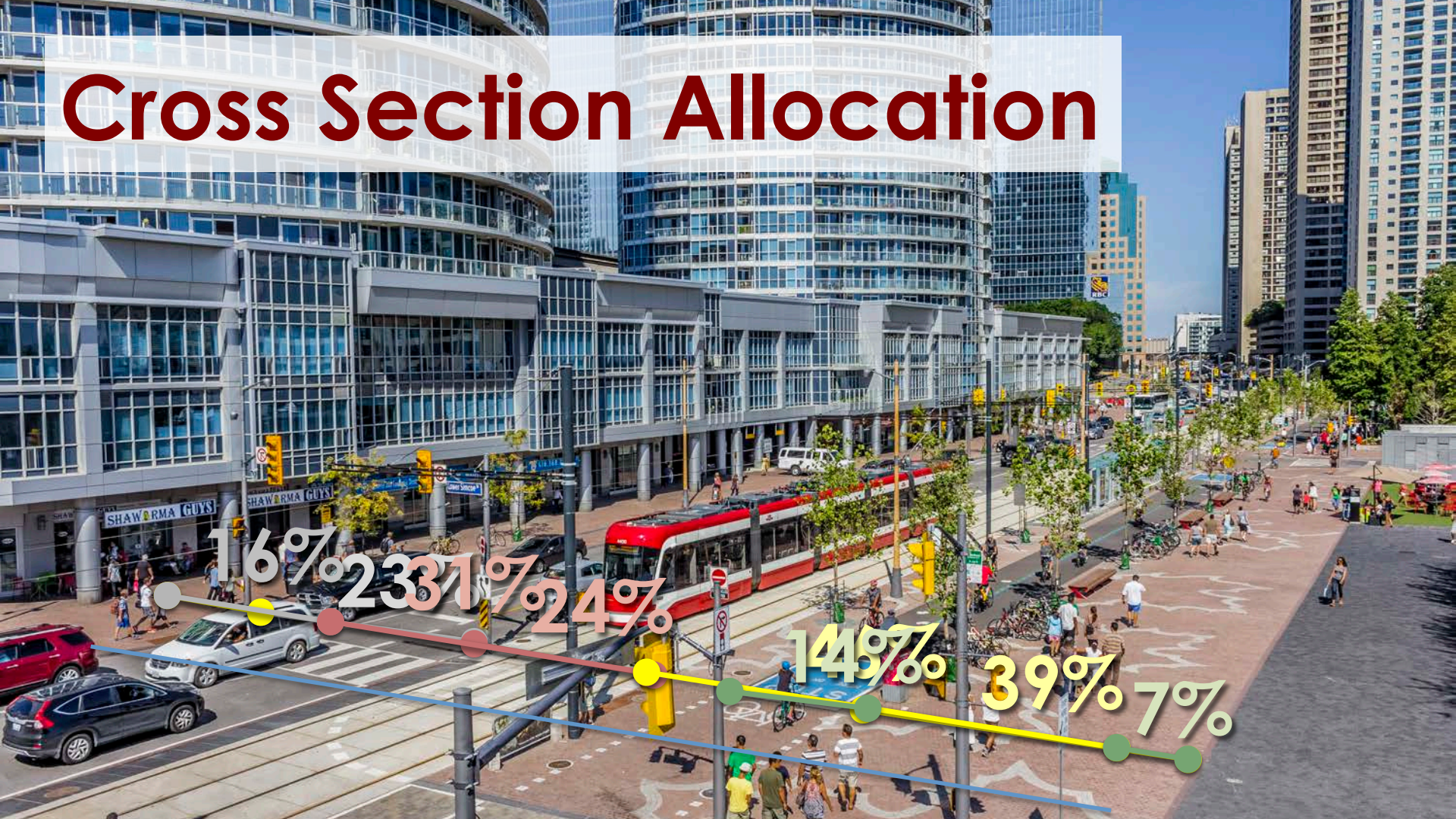
Total Person Throughput

Source: Seattle Department of Transportation and King County Metro

Cross Section Allocation



Cross Section Allocation



Ridership increases when service improves

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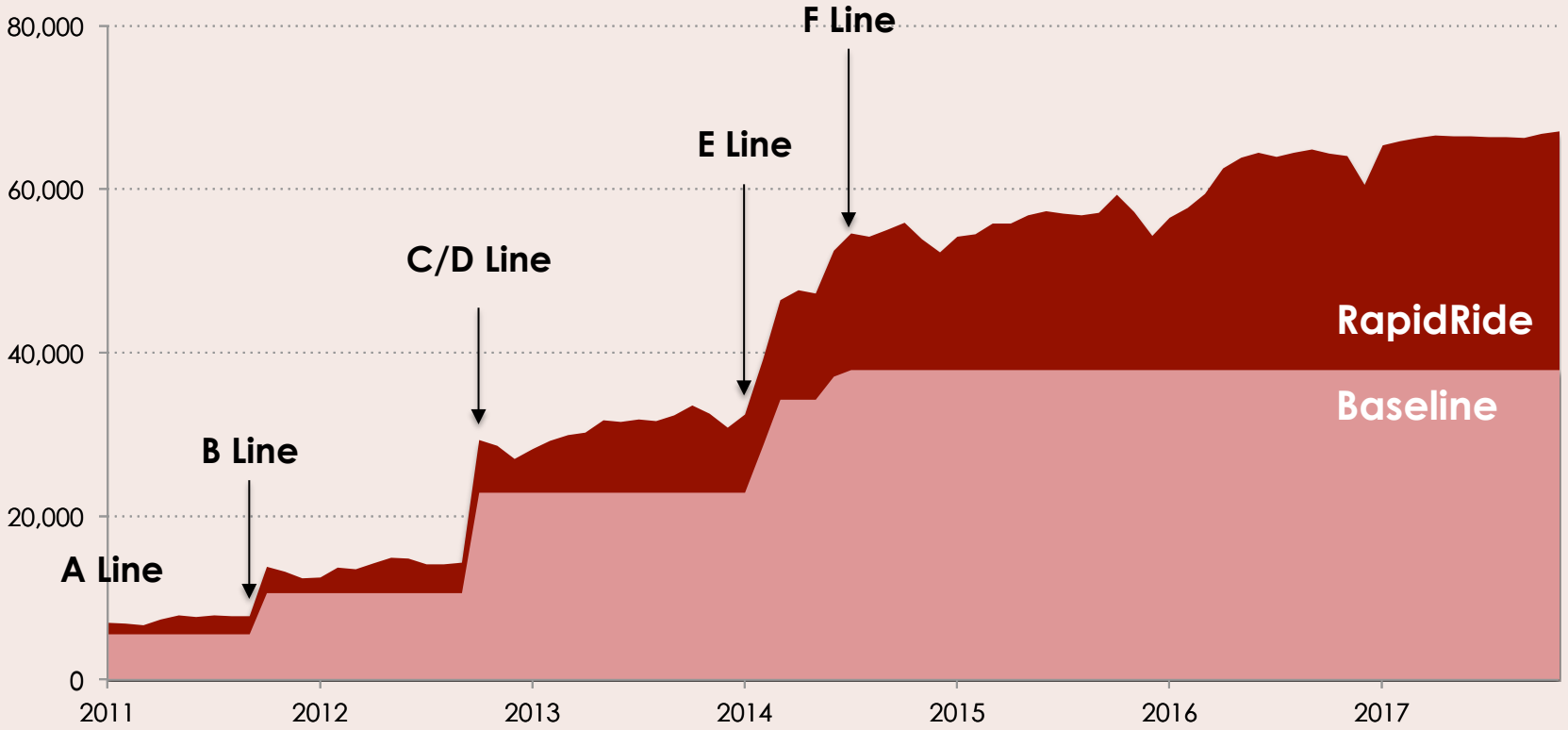

Thanks!

nacto.org/tsdg/
making-transit-count

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DESIGNING CITIES 2018
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