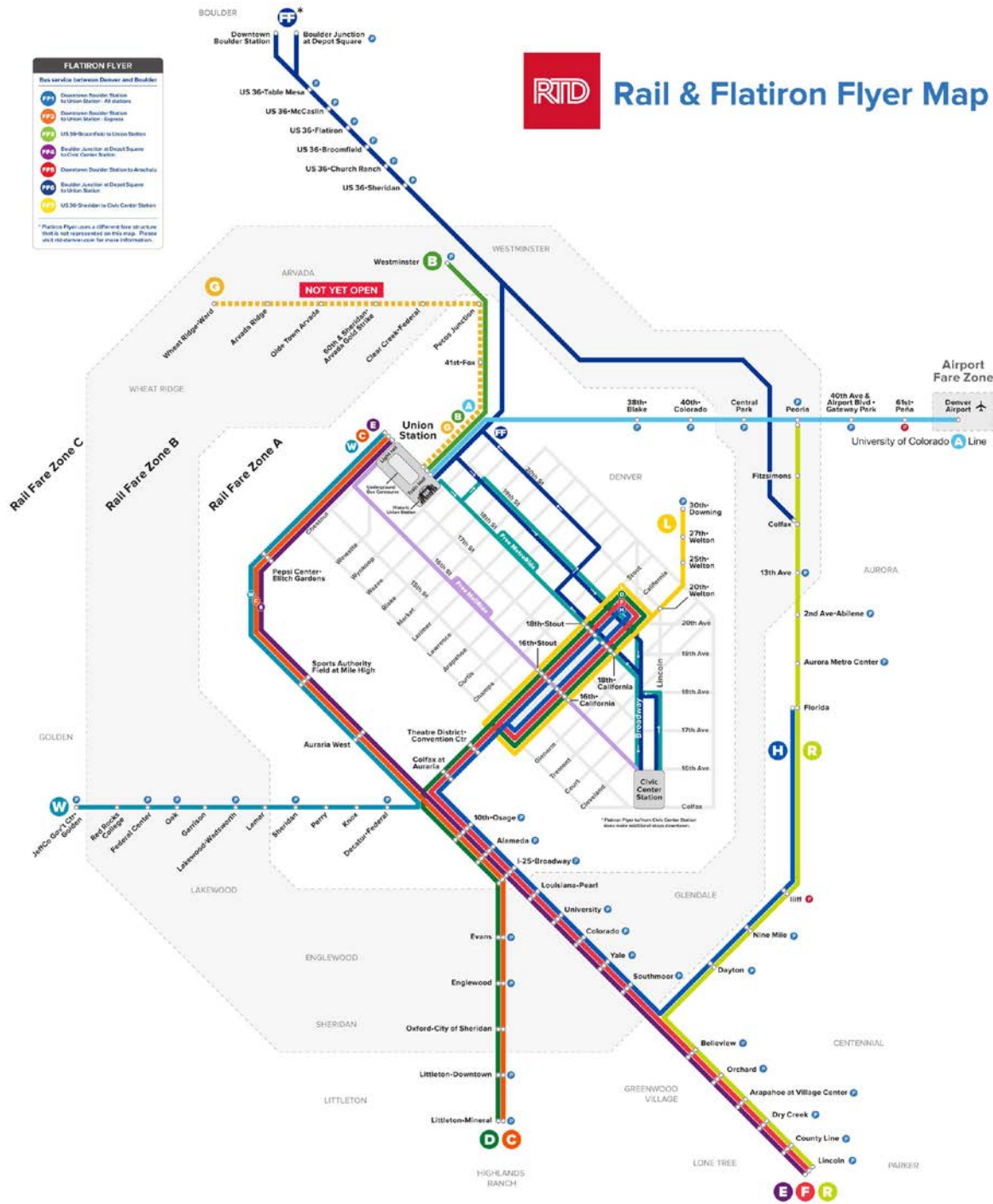


Transit Agencies as Mobility Integrators

Paul DesRocher, Manager, Planning Coordination
Regional Transportation District



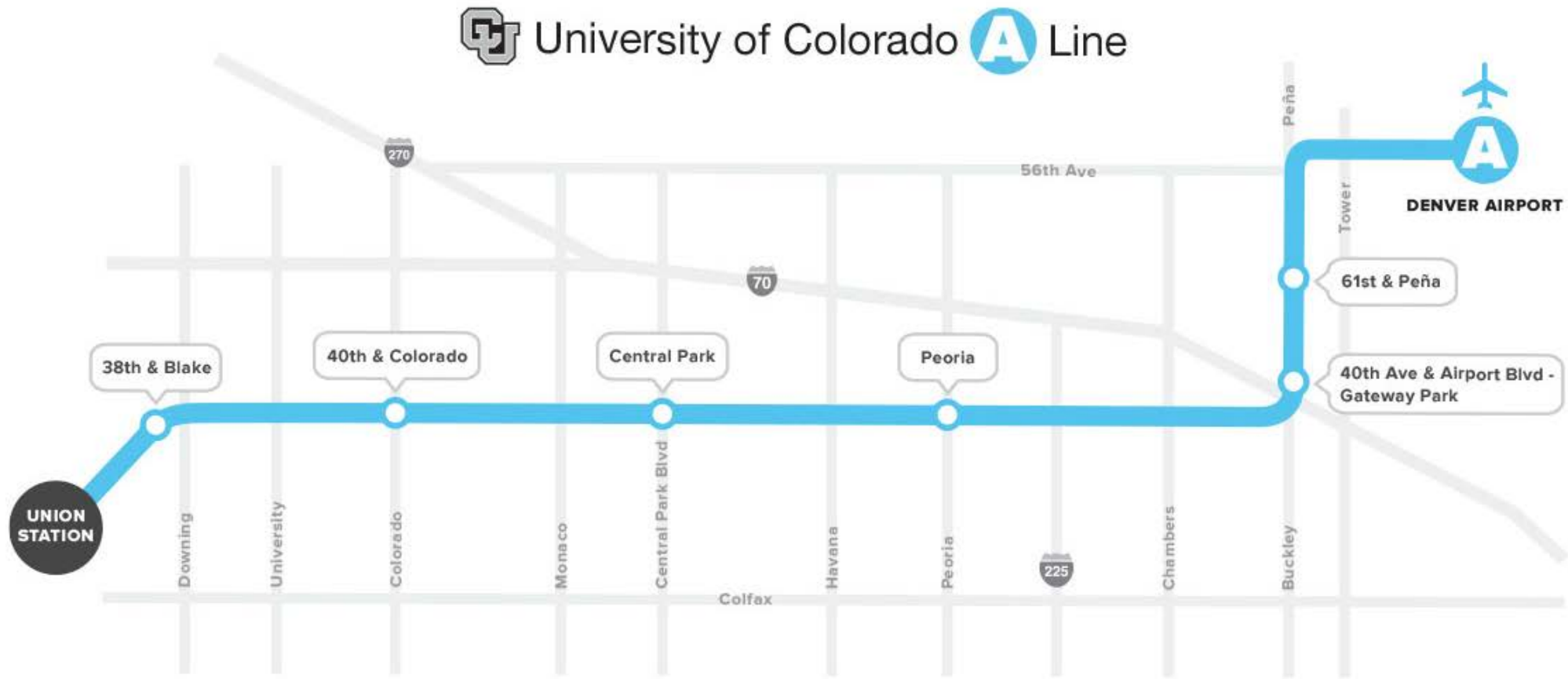
Denver Metro Rail/BRT System



Public Transit Strengths and Weaknesses



Public Transit Main Lines



Station Contexts

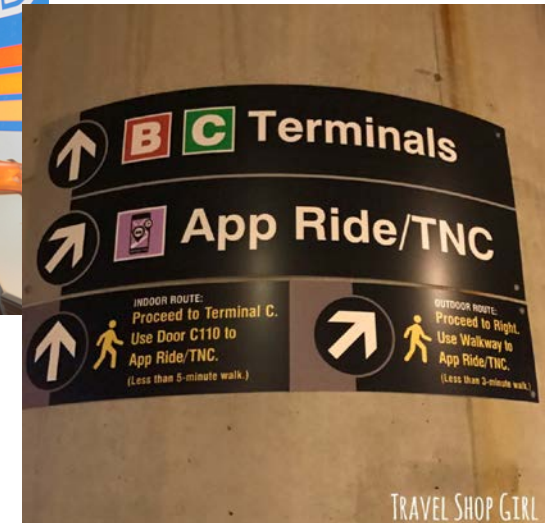


Station Contexts



First and Last Mile Strategic Plan

To define strategies and policies that improve multimodal transportation and connectivity to RTD services and facilities with the ultimate goal of **making RTD more accessible to more people.**



Station Typologies

Typology	Examples	Land use Density	Employment density	Residential density	Accessibility/ Service levels
Urban	Downtown Arvada/Belmar/Longmont, areas of Broadway, Federal and Colfax in Denver, DU campus, Anschutz campus, Denver neighborhoods	High	High	High	High
Suburban Mixed	Northglenn Marketplace Mall, US 36 and Sheridan Park-n-Ride area, Broomfield Plaza, Colorado Marketplace Shopping Center (Thornton)	Medium	High	Medium	Medium
Suburban Residential	Residential areas of Lone Tree, Highlands Ranch, Northglenn, Thornton, Aurora, Littleton, Parker, Lakewood, Brighton, etc.	Low	Low	Medium	Low/Med

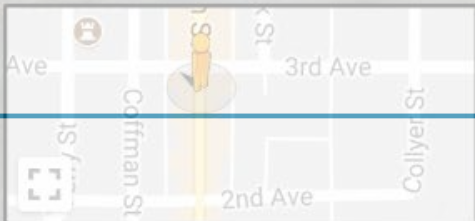
249 Main St
Longmont, Colorado

Google, Inc.

Street View - Jun 2017

Urban

- High land use density
- Mix of high employment and residential
- Many destinations
- Good levels of transit access
- Relatively high multimodal share
- Good scope of first and last mile solutions



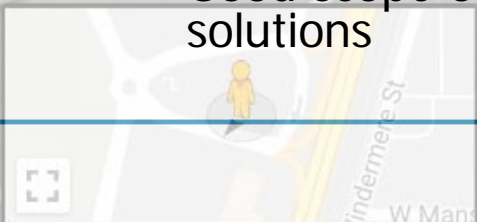
Google

Regional Transportation District

Google

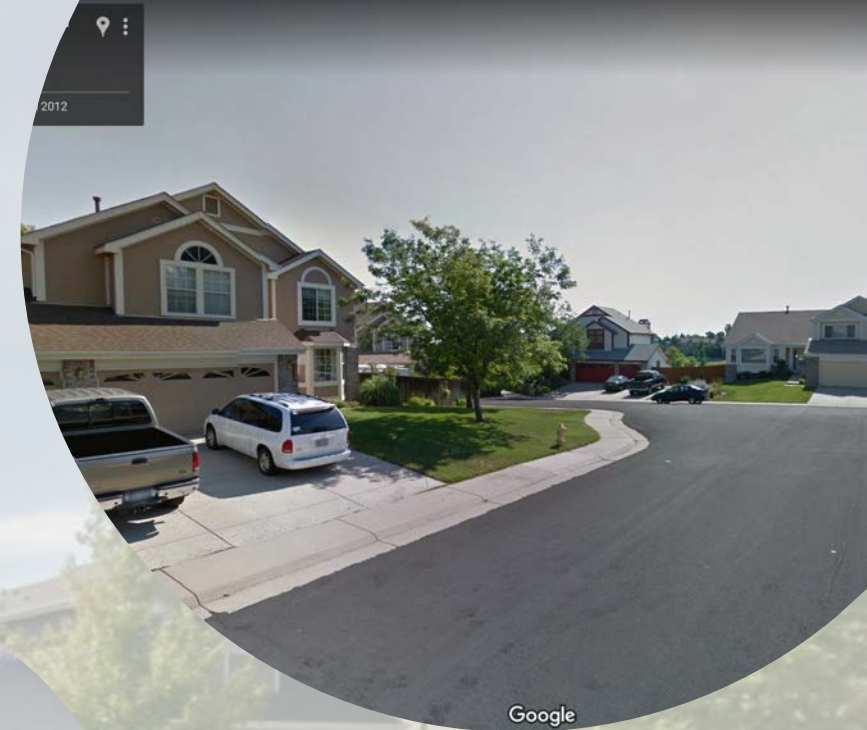
Suburban Mixed

- Medium land use density
- Mix of office parks, shopping malls, event spaces and industrial areas
- Medium-high employment
- Numerous destinations
- Medium levels of transit access
- Relatively high SOV share
- Good scope of first and last mile solutions



Suburban Residential

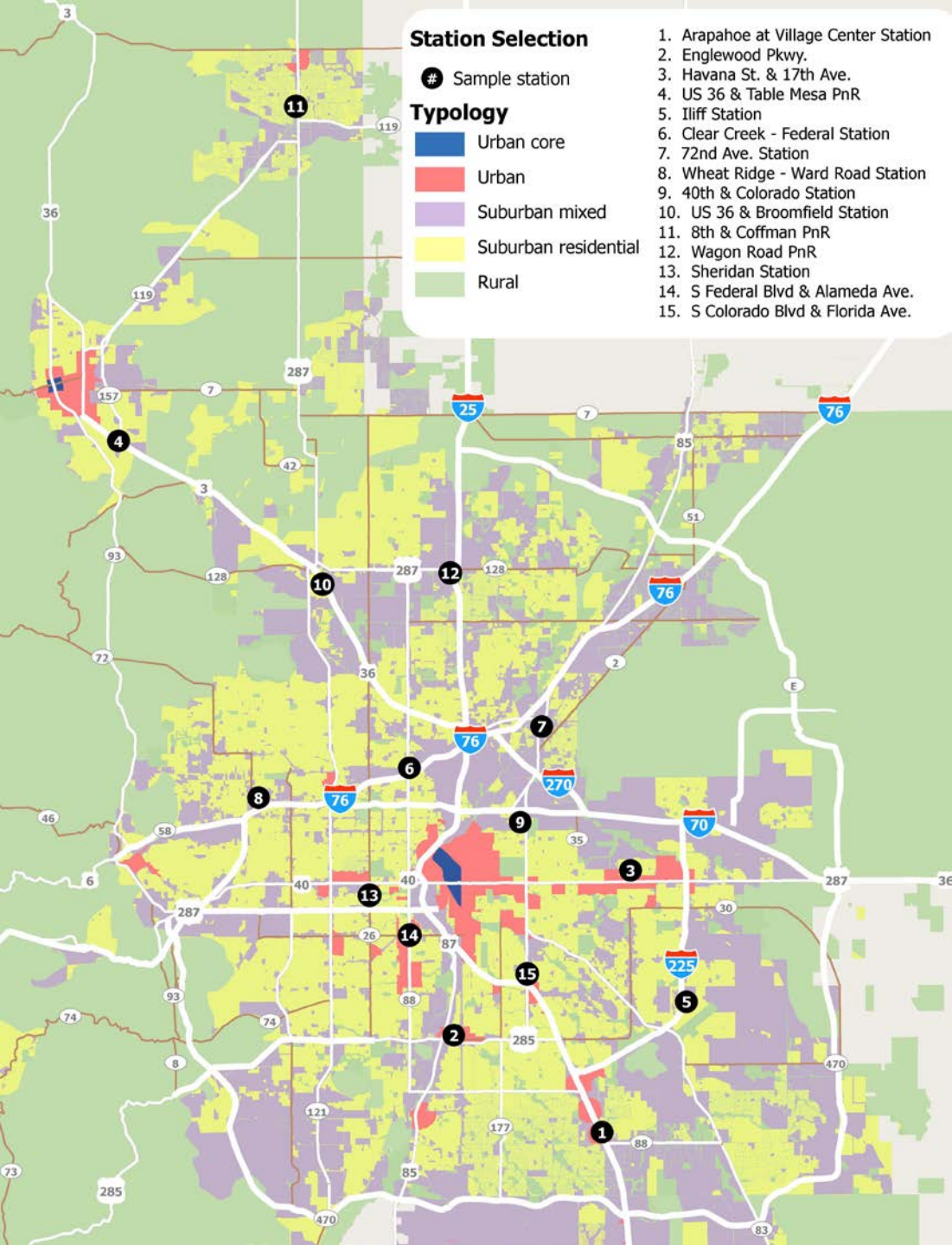
- Low density
- Residential
- Few destinations
- Low/Med levels of transit access
- High SOV share
- Low scope of first and last mile solutions



Typology Overlays

Two (2) types of overlays include:

- 1. Prioritization overlay:** The function of this overlay is to help prioritize locations that may require FLM solutions more than others.
 - Historically vulnerable populations
 - High accessibility needs
- 2. Recommendation overlay:** The function of the recommendation overlays is to help tailor the recommendations at specific locations with certain attributes.
 - High shift/visitor variability
 - High visitor trips
 - High propensity to change
 - Parking utilization



Representative Stations

Project Schedule

12 Month Project - 2018

Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec

Project Management and Stakeholder/Public Outreach

Existing Cond./Problem ID

First/Last Mile Station Typologies

Selection of Rep. Stations

Station/Typology Recommendations

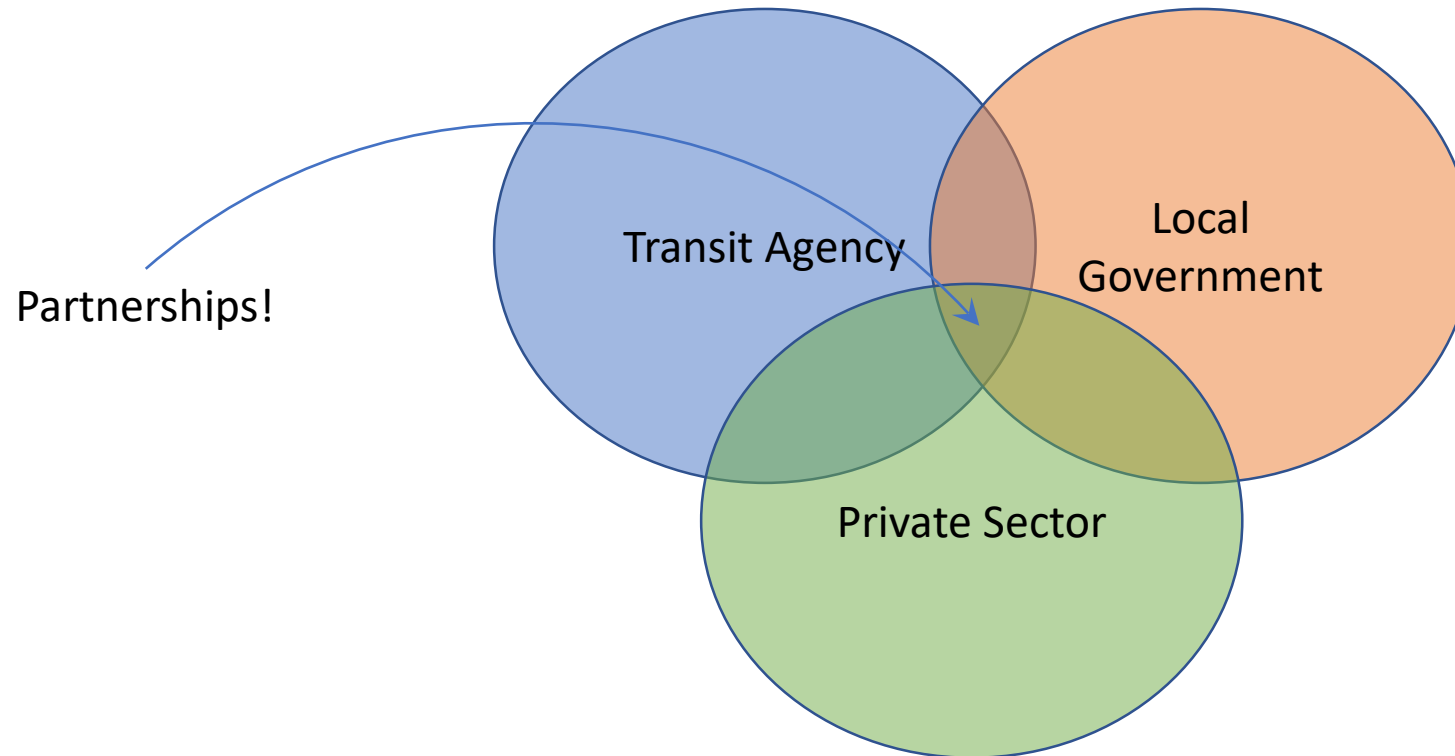
Toolbox of Solutions

Final Report / Pilot Projects

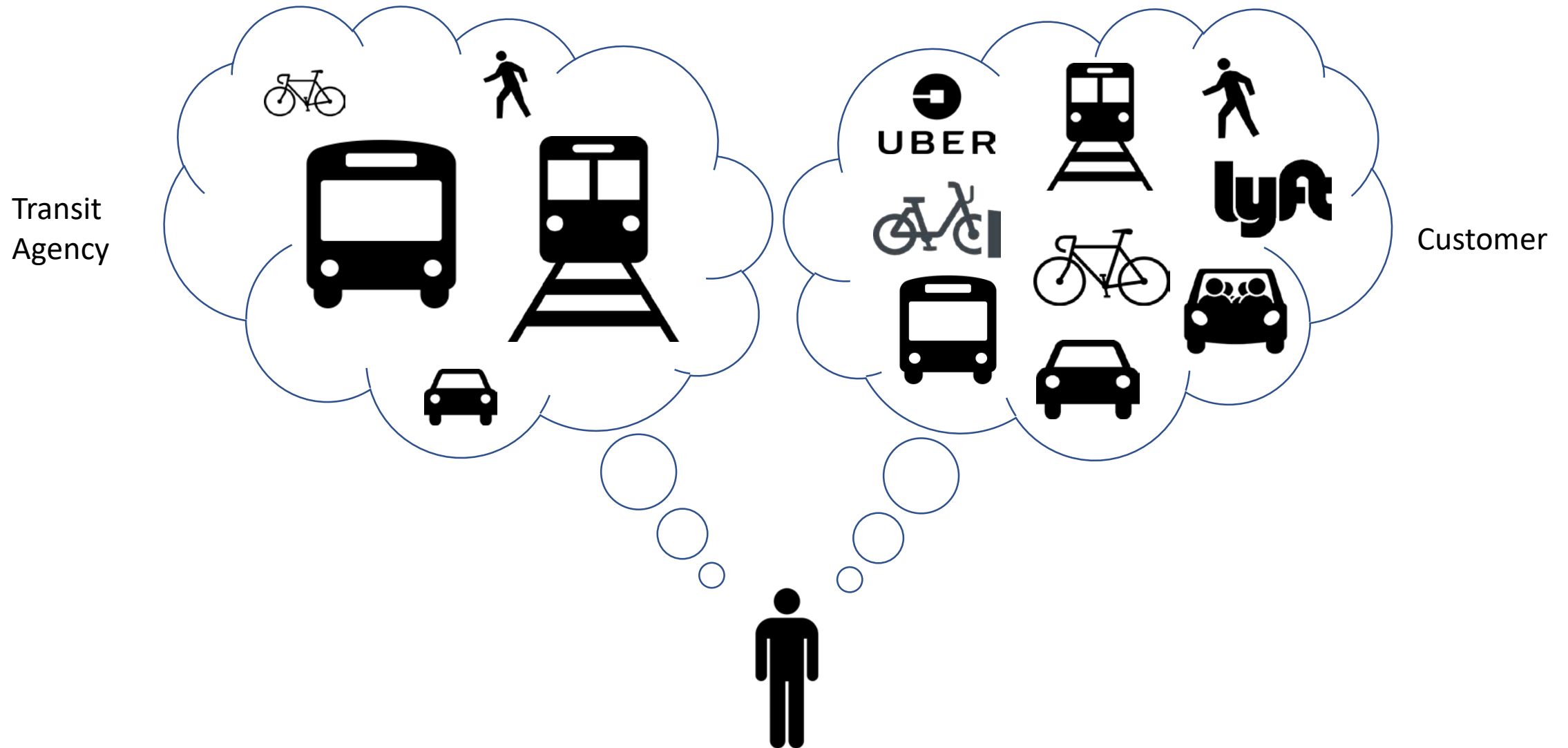
Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec

First and Last Mile - Implementation

Who's responsibility is it?



Transit Agency Considerations vs Customer Choice



Why should we care about the FLM issue?

Transit ridership increased between 2010 and 2015; per capita boardings decreased.



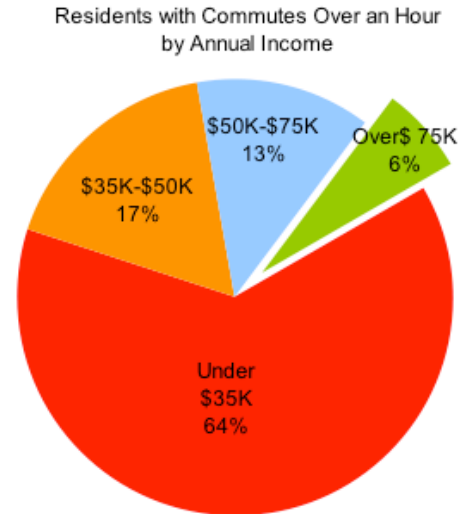
5% increase
in annual boardings
(4.8 million more boardings)



4% decrease
in annual boardings per capita
(1.6 fewer boardings per person)

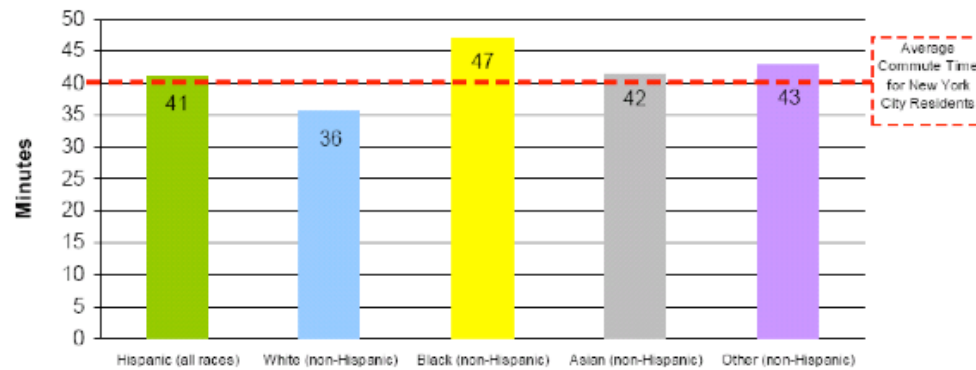
- Light rail ridership has **increased 30%**, bus ridership has been steady.
- Regional transit mode share was **consistent at 4%**.
- Ridership on the E/F/H Lines has **increased 18%**.

Why should we care about the FLM issue?



Race and income disparities in New York City commute times

Commuter Time of New York City Residents



Source: US Census CTPP 2000

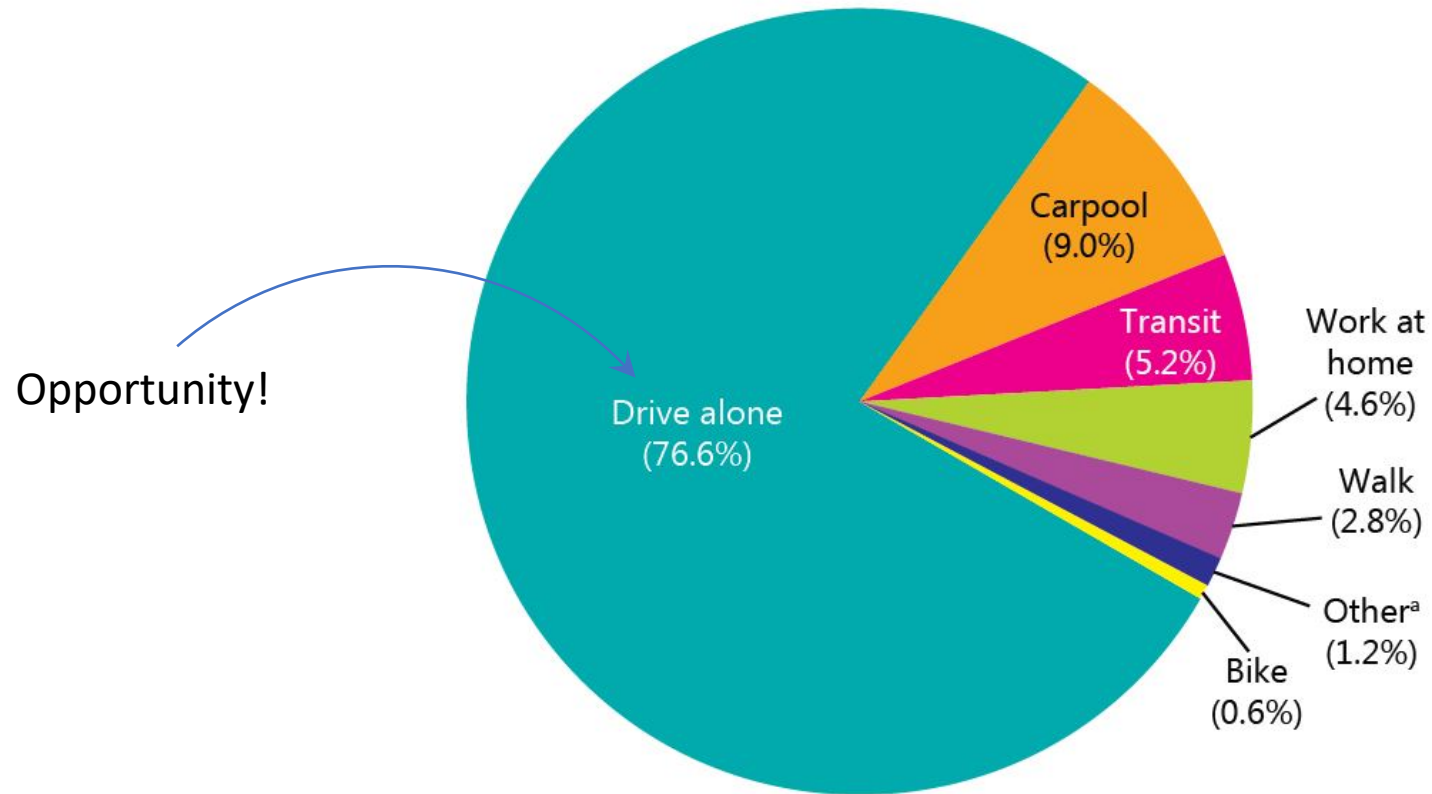
Are we providing what our customers really want?

Customers want **safe, frequent, reliable service** – plain and simple.

All-purpose riders have **more choices and less tolerance** to poor transit customer experiences.

The future of public transit hinges on **shifting from a supply model to a demand model** and embracing emerging modes to better serve, satisfy and grow ridership.

“New” Mobility vs. “Old” Mobility?



Smartphones as a Mobility Device



The Amazon Effect

The screenshot shows the Amazon product page for a Nite Ize SpotLit LED light. The page features a navigation bar at the top with the Amazon logo, search bar, and various links. The main content area includes a product image of the SpotLit LED light, a price of \$6.98, and a 'Buy Now' button. The product description highlights its features, such as being weather-resistant and suitable for use as a dog collar charm or keychain. The page also includes a 'Share' section, a quantity selector, and a 'Subscribe & Save' option.

amazon
Tools & Home Improvement

Departments
Your Amazon.com Today's Deals Gift Cards Registry Sell Help

Tools & Home Improvement Best Sellers Deals & Savings Gift Ideas Power & Hand Tools Lighting & Ceiling Fans Kitchen & Bath Fixtures Smart Home Shop by Room Launchpad

Gifts for Valentine's Day

EN Hello, Sign in Account & Lists Orders Try Prime Cart

\$10 & Under with FREE shipping

Back to results

Nite Ize
Nite Ize SpotLit Clip-On LED Light with Carabiner, Weather Resistant

★★★★☆ 4,463 customer reviews | 98 answered questions

Price: \$6.98 ✓prime
FREE Shipping on orders over \$25—or get FREE Two-Day Shipping with Amazon Prime

In Stock.
Want it Wednesday, Feb. 14? Order within 22 hrs 26 mins and choose One-Day Shipping at checkout. Details
Ships from and sold by Amazon.com. Gift-wrap available.

Color: White

- CLIP ON LIGHT - Have a Nite Ize SpotLit LED clip on light handy whenever you need a mini-beacon to light your way through the dark. A quick and easy attachment and bright, long-lasting light make it a staple for everything from daily life to overnight adventures.
- GREAT FOR DOGS - Lightweight and water resistant clip light makes for a perfect, all-weather dog collar charm or dog collar light for when your pup is playing out in the dark.
- MULTI-USE - Nite Ize SpotLit LED clip on light provides an ambient glow bright enough to read, find your keys or keyhole, locate tent lines and camping gear, attach to your person for visibility, or use as a dog collar charm or dog collar light.
- LONG-LASTING + DURABLE - This water resistant clip light features a secure stainless

Share

Qty: 1

Subscribe & Save

Save up to 5% on auto-deliveries starting Mar 14. Skip or cancel anytime.

Auto-delivered: Monthly

Yes, I want FREE Two-Day Shipping with Amazon Prime

Add to Cart

Turn on 1-Click ordering for this browser

Ship to: denver, 80201

Add to List

Cost to Organization vs. Cost to User

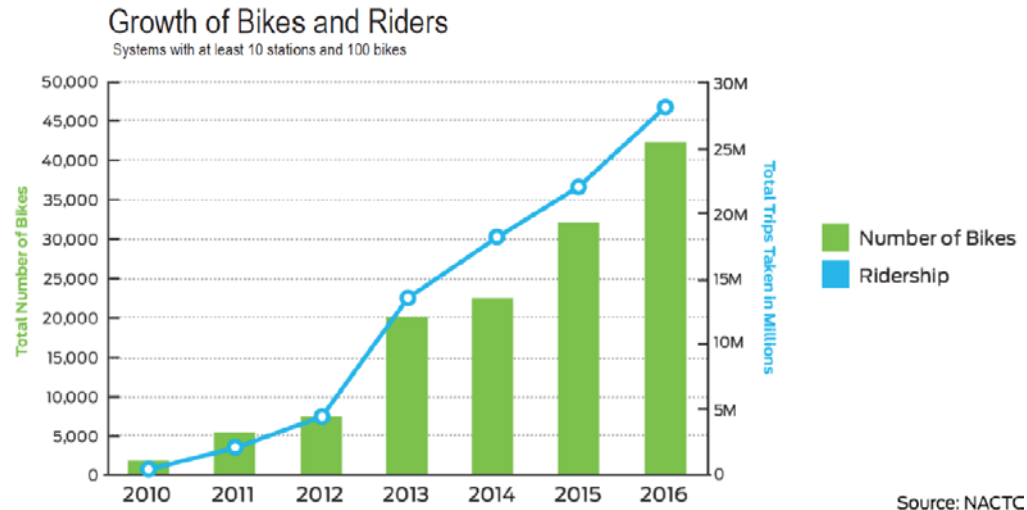
The screenshot shows the Amazon.com interface for a search of 'fitbit'. The top navigation bar includes the Amazon logo, a search bar with 'fitbit' entered, and a department dropdown set to 'All Departments'. On the left, a sidebar contains navigation links for 'Apps & Games', 'Activity Tracking', and a link to 'See All 21 Departments'. Below these are filter options: 'Refine by', 'Amazon Prime' (with a checked checkbox), 'Eligible for Free Shipping' (with a 'Clear' link and a checked checkbox for 'Free Shipping by Amazon' circled in yellow), and a 'Brand' filter with options like Fitbit, Niutop, I-SMILE, Nike, Jawbone, and Vancle. A red arrow points to the 'Free Shipping by Amazon' checkbox. The main content area displays two product listings: 'Fitbit Alta Fitness Tracker' (labeled 'Best Seller') priced at \$128.95 (down from \$129.95) with Prime shipping, and 'Fitbit Charge HR Wireless' priced at \$135.

Operational Integration



Bikes and Transit

US Bike Share Growth [2010-2016]



Total Bike Share Trips

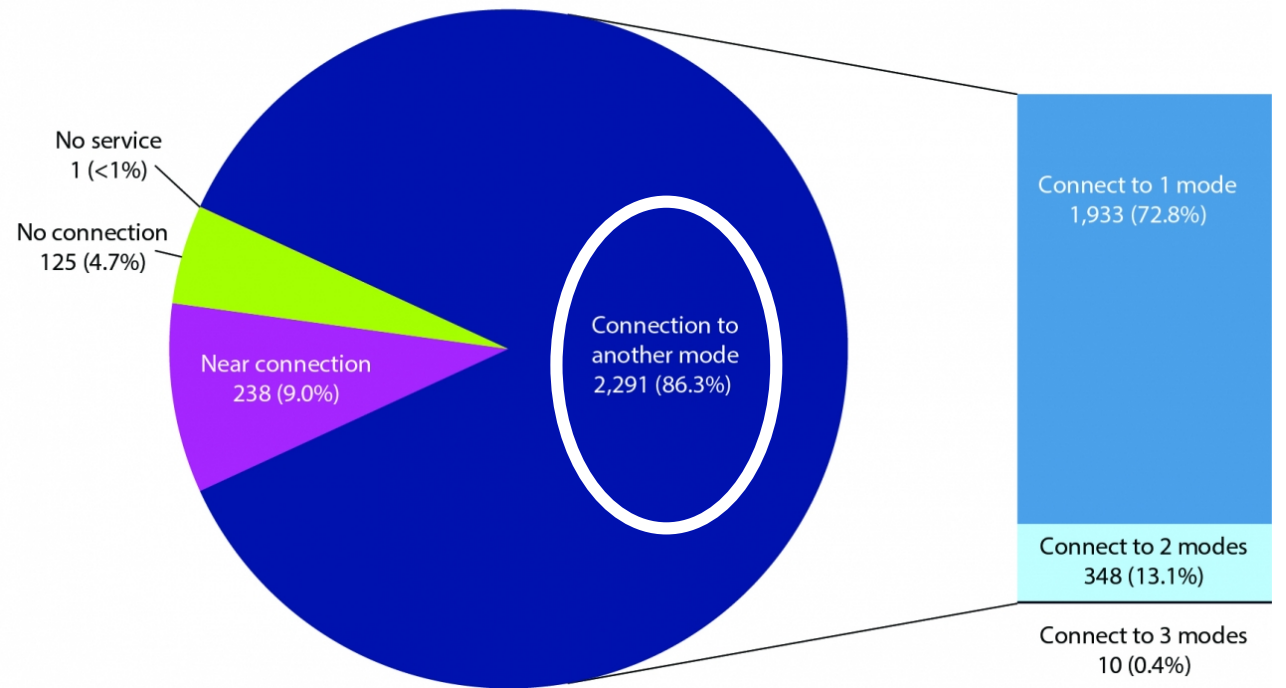
88 million

2016 Bike Share Trips

28 million

Graphic: King County Metro

FIGURE 1. Bike-Share Connectivity to Scheduled Public Transportation



Dockless Bikes



Micro-Mobility



RTD Mobility Summit

- Request for Information (RFI) released in Fall 2017 to Mobility on Demand/Transportation as a Service/Technology companies

Summit Purpose/Intent

- Invite broader group of lead staff from local jurisdictions and other entities interested in MaaS to a facilitated conversation around regional goals and to:
 - Share information about national case studies/projects
 - Share information about local projects and generate excitement about a regional MaaS approach



Closing Thoughts

- Focus on transit agency strengths, but don't ignore weaknesses.
 - "Sweet spot" is for P3's may be in FLM solutions
- Partnerships are key
 - Bring along private sector and public sector allies to achieve common goal
 - Integrate operations where possible
- Let go of public vs. private debate and consider consumer preferences
 - Ridership only one part of the discussion
 - Consumer trends will impact transportation trends
- Fewer transit resources will create more FLM needs
 - Jarrett Walker visioning – More frequent routes vs. "Coverage" - results in greater access needs

Thank You!

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