CHADDICK INSTITUTE FOR METROPOLITAN DEVELOPMENT
DePaul University

21 Key Takeaways from Partnerships between Public Transit Providers & Transportation Network Companies in the United States

BY: MALLORY LIVINGSTON SHURNA & JOSEPH P. SCHWIETERMAN, PH.D.

CHADDICK INSTITUTE POLICY SERIES | APRIL 14, 2020
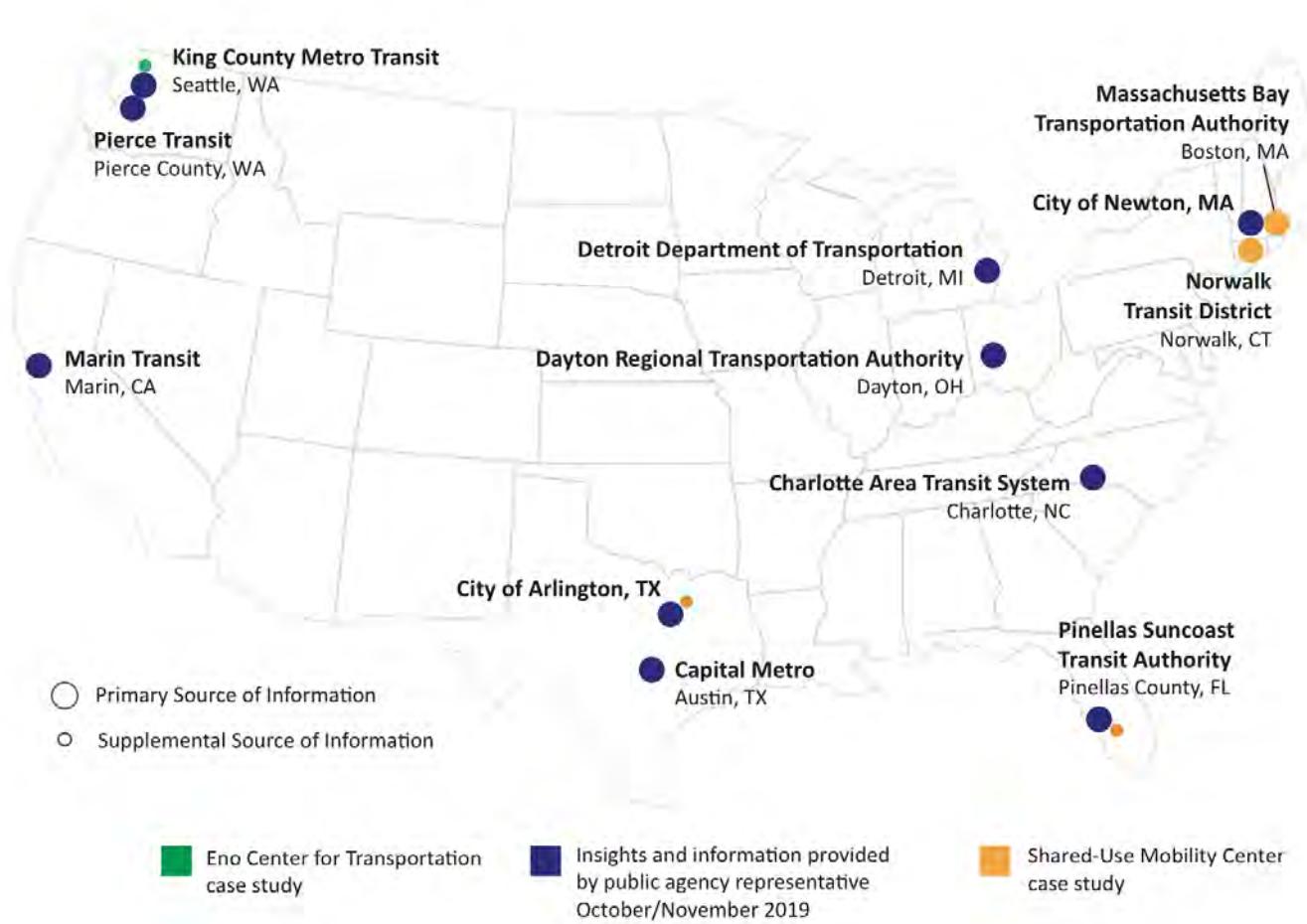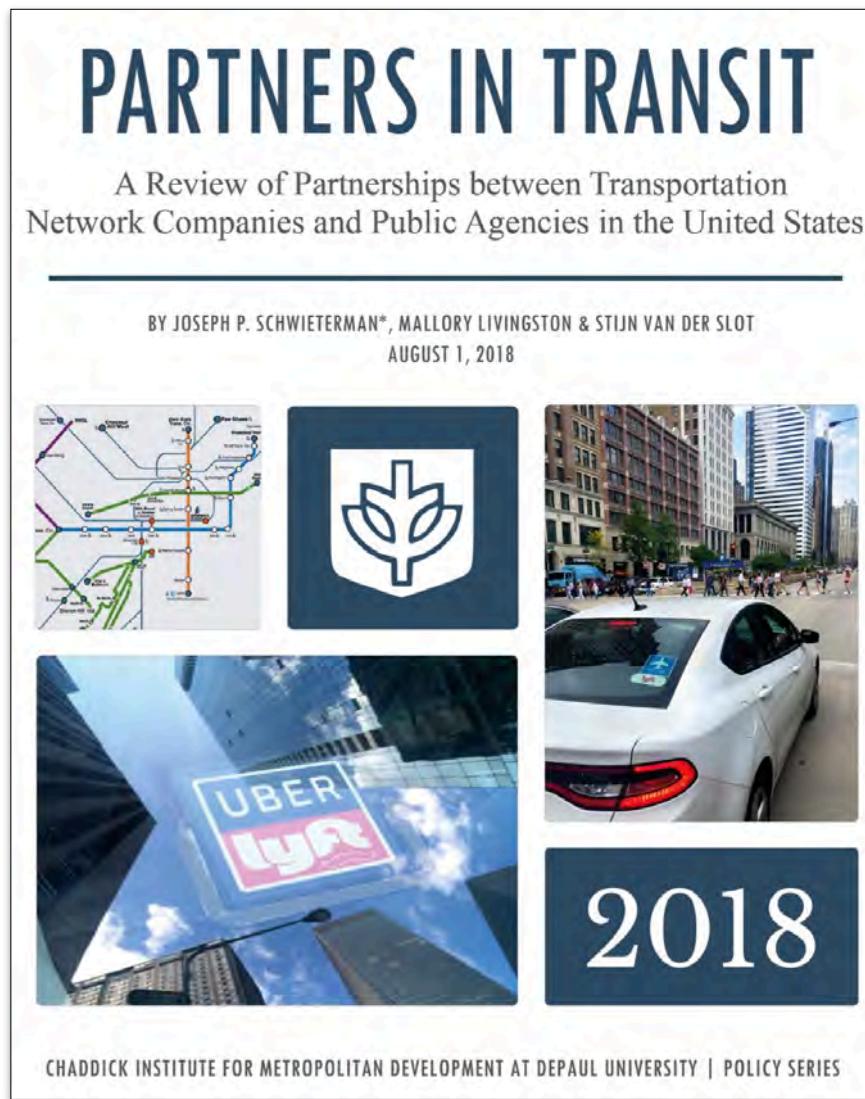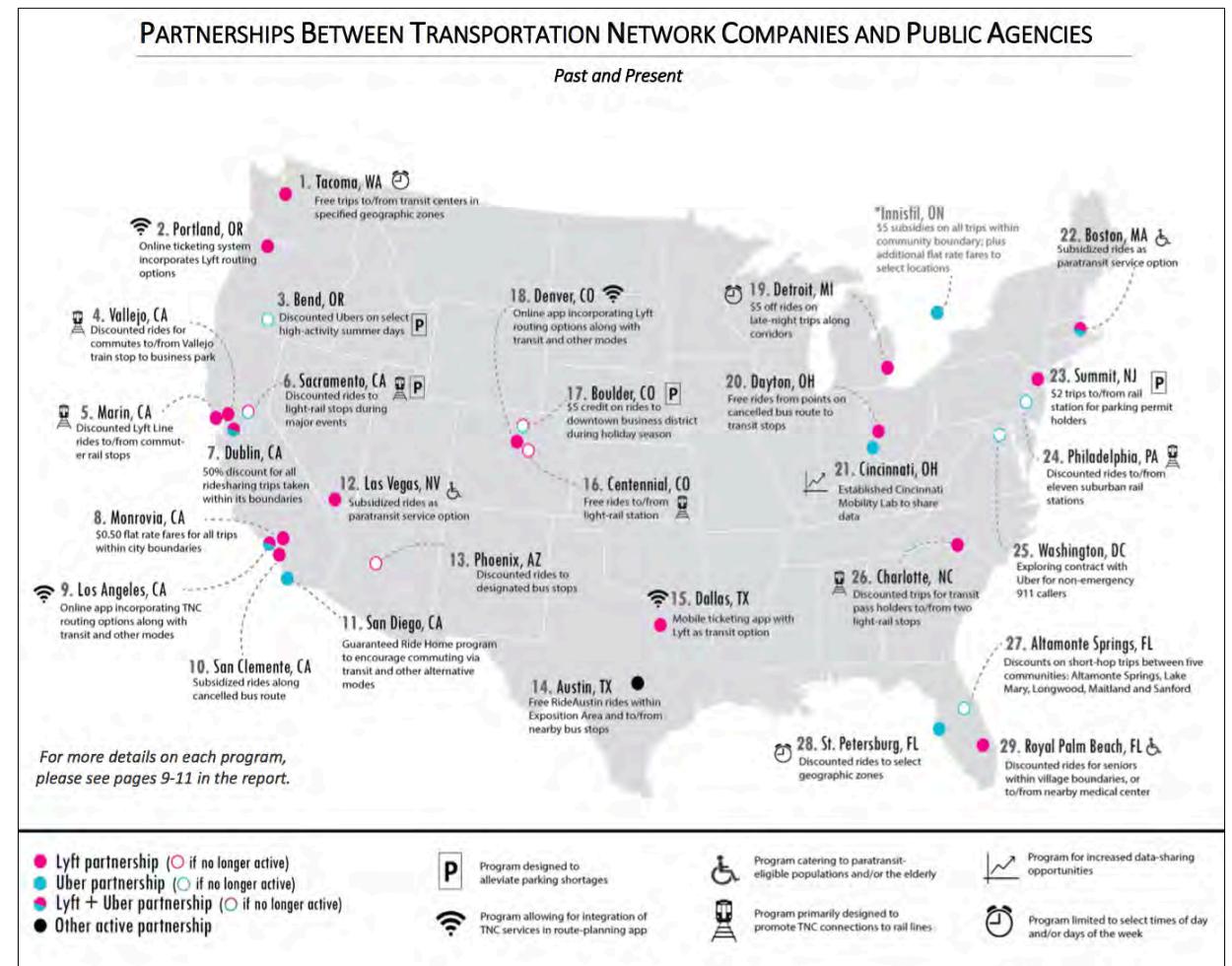
PANELISTS

Mallory Livingston Shurna
Independent Consultant
Chaddick Institute
(Author, "21 Takeaways")

Casey Gifford
Senior Planner
King County Metro Transit
(Via to Transit Service)
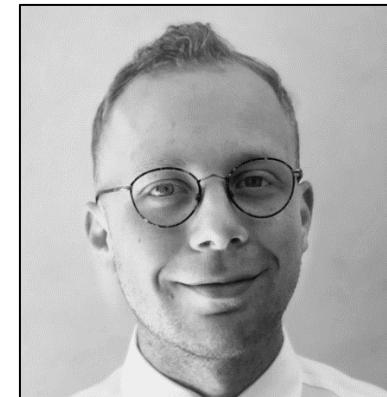
Cody Lowe
Planning Analyst
Marin County Transit District
(Connect Program, Marin Transit)
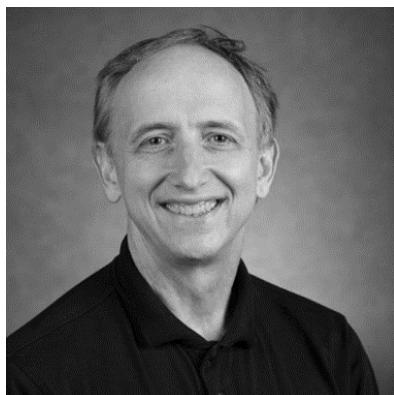
Joe Schwieterman
Professor
DePaul University
(moderator)

Penny Grellier
Community Dev. Administrator
Pierce Transit
(discussant)
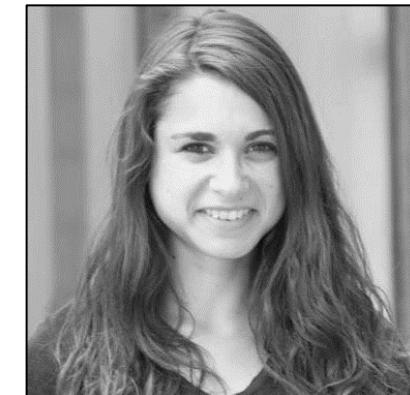
Stacey Matlen
Senior Mobility Strategist
City of Detroit
(discussant)

Report Structure

1. Summary of Research Methods

2. 21 Takeaways from TNC-Public Agency Partnerships

3. Anticipated Trends for the Next Stage of Partnerships

21 Key Takeaways from Partnerships between Public Transit Providers & Transportation Network Companies in the United States

BY: MALLORY LIVINGSTON SHURNA & JOSEPH P. SCHWIETERMAN, PH.D.

lyft UBER VIA BUS

DEPAUL UNIVERSITY

SHARED-USE MOBILITY CENTER

CHADDICK INSTITUTE POLICY SERIES | APRIL 14, 2020
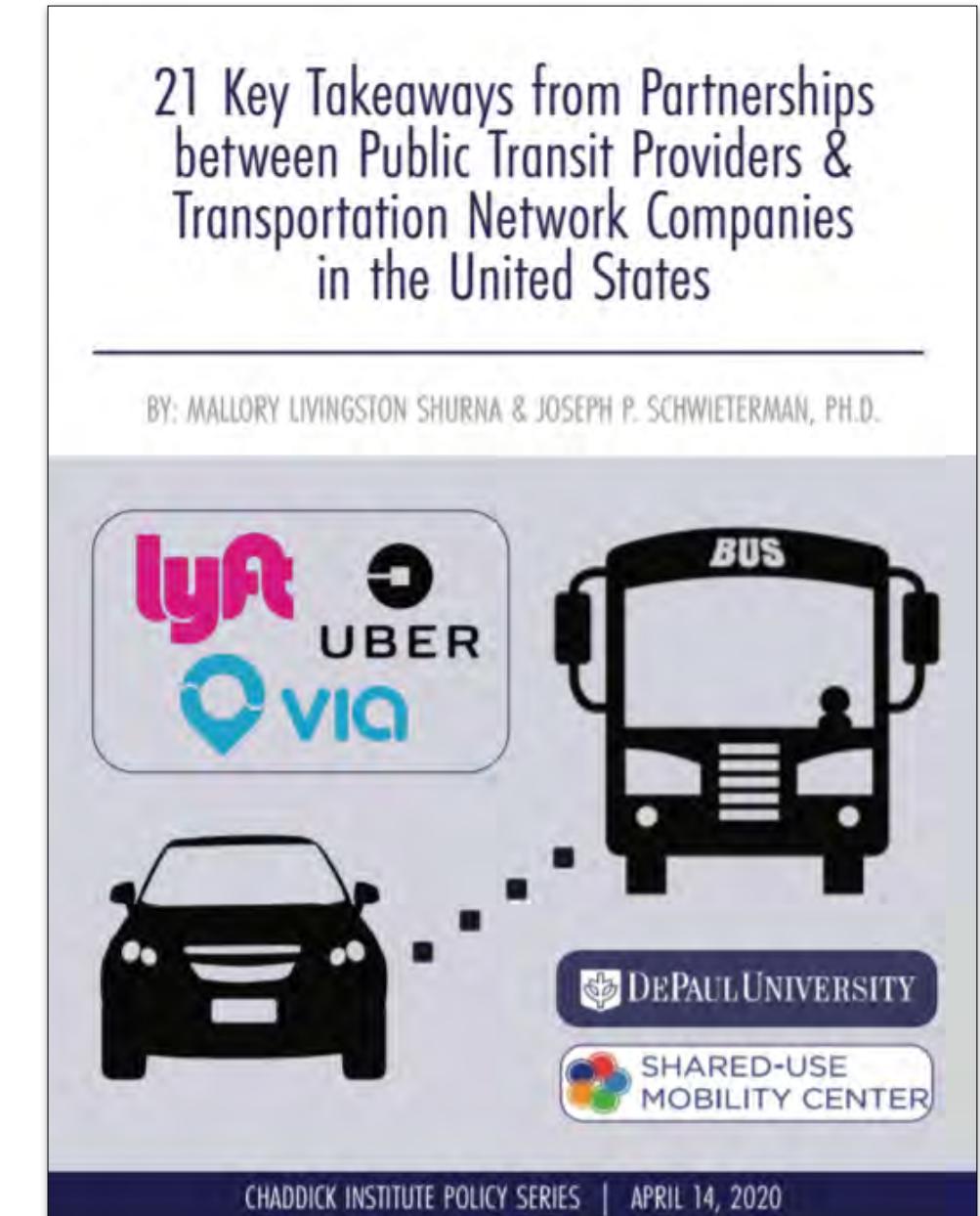
Methods Used to Assess Partnerships

Assessments of each program's attributes and evolution: The study team reviewed the characteristics of each program and their public sector partner(s) as well as categorized notable attributes.

Discussions with program leaders: The study team arranged for discussions and consultations with 10 city or transit agency representatives directly involved in on-going or discontinued partnerships and representatives with Uber and Via.

Published reports and performance audits: The team reviewed a wide body of research, including reports and case studies published by various public agencies, including the Eno Center for Transportation and the Shared-Use Mobility Center.
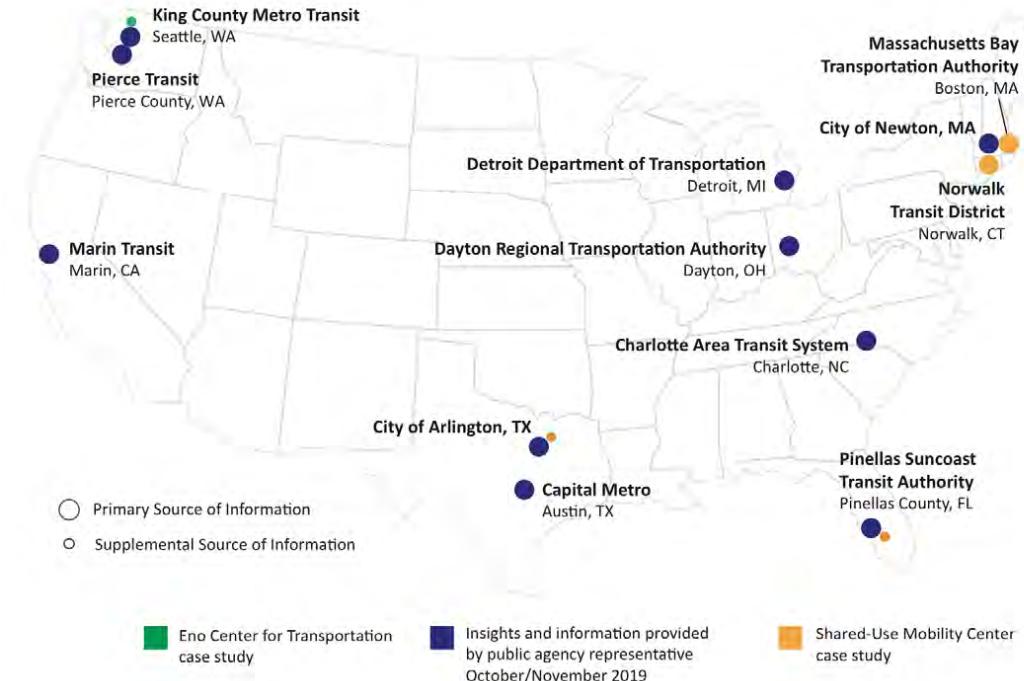
Partnerships Assessed

Principal Purpose	Type of On-Demand Program	
	Transportation-as-a-Service Programs	Software-as-a-Service Programs
First/Last Mile Service	• Pierce Transit (Lyft), Tacoma, WA* • Charlotte Area Transit Authority (Lyft), Charlotte, NC* • City of Arlington, TX (Via)* • King County Metro, in partnership with Sound Transit and the City of Seattle (Via), Seattle & Tacoma, WA*	
Service in Response to Fixed Route Reductions and/or Low Frequency	• Greater Dayton Regional Transit Authority (Lyft/Uber), Dayton, OH* • Detroit Department of Transit (Lyft), Detroit, MI* • Pinellas Suncoast Transit Authority (Uber), St. Petersburg, FL*	• Capital Metro (Via), Austin, TX* • Norwalk Transit District (TransLoc, Via), Norwalk, CT
Service for Seniors and/or People with Disabilities	• Massachusetts Bay Transit Authority (Uber/Lyft), Boston, MA • City of Newton, MA (Via)*	• Marin Transit (Via), San Rafael, CA *

* Denotes consultations and/or discussion provided by agency representative to our study team

Report Structure

1. Summary of Research Methods

2. 21 Takeaways from TNC-Public Agency Partnerships

3. Anticipated Trends for the Next Stage of Partnerships

21 Key Takeaways from Partnerships between Public Transit Providers & Transportation Network Companies in the United States

BY: MALLORY LIVINGSTON SHURNA & JOSEPH P. SCHWIETERMAN, PH.D.

lyft UBER VIA BUS

DePaul University

SHARED-USE MOBILITY CENTER

CHADDICK INSTITUTE POLICY SERIES | APRIL 14, 2020
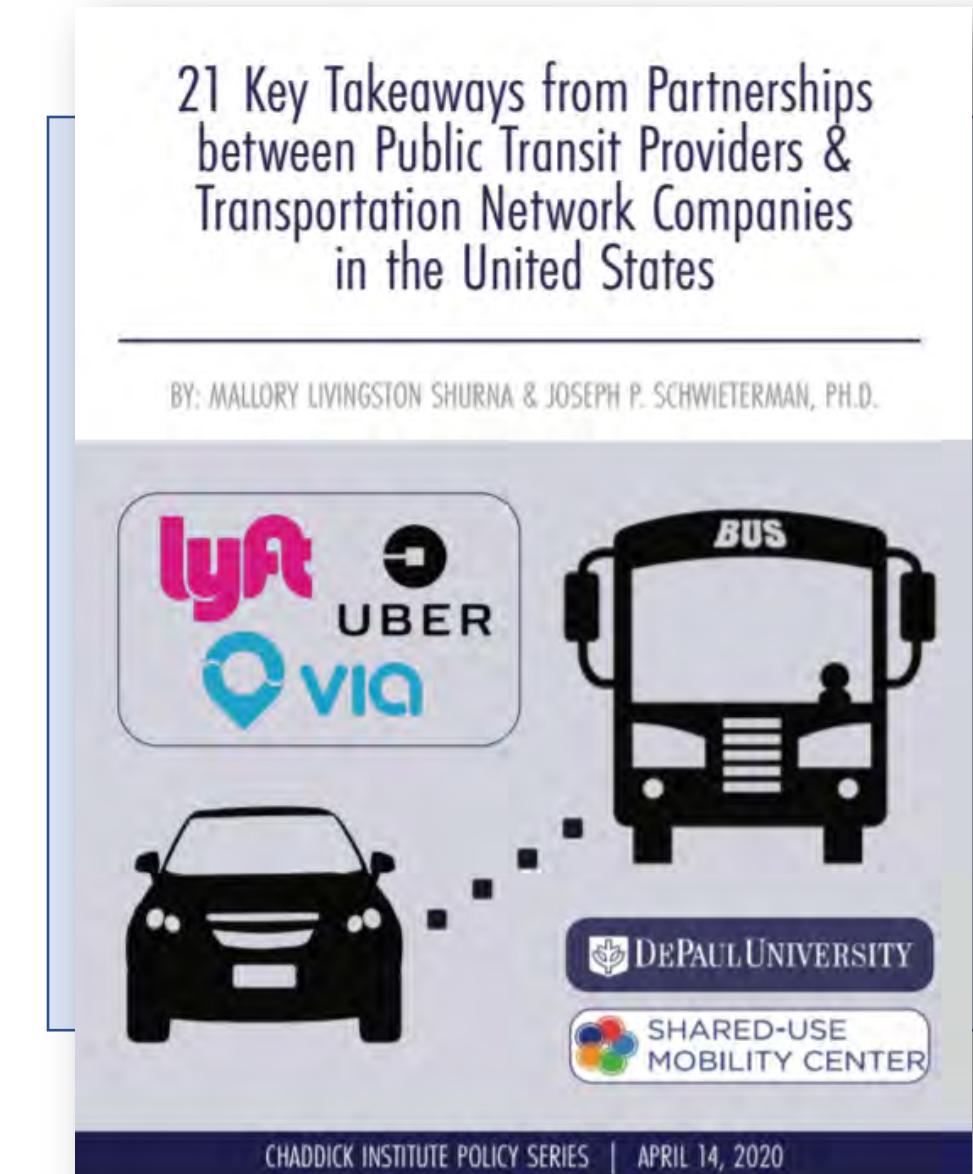
Major Takeaways from TNC-Public Agency Partnerships Assessed

21 Major Takeaways

Meeting Federal Regulations

Planning Process

Financing & Payments

Funding

Program Launch

Improving Operations & Troubleshooting

Data & Evaluation
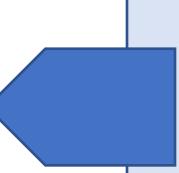
#1. The demand for wheelchair-accessible vehicles has tended to be lower than anticipated among partnerships not designed primarily to serve seniors and people with disabilities.

Meeting Federal Regulations:

The demand for wheelchair-accessible vehicles has tended to be lower than anticipated among partnerships not designed primarily to serve seniors and people with disabilities.

Program	Launch Date	Number of WAVs Requested (through end of 2019)
Detroit DOT's *Night Shift*	May 2018	0
Pierce Transit's *Limited Access Connections*	May 2018	0
Charlotte Area Transit System's *First/Last Mile*	April 2018	0
Dayton RTA's *Connect On-Demand*	June 2017	0
King County Metro's *Via to Transit*	April 2019	400+

In the opinion of most agency representatives consulted, the number of WAV requests has been well below expectations set at program launch.

In fact, Pierce Transit was able to extend its pilot due to an operating budget freed up by having fewer accessible rides requested than planned.

21 Major Takeaways

Meeting Federal Regulations

Planning Process ◄

Financing & Payments

Funding

Program Launch

Improving Operations & Troubleshooting

Data & Evaluation

#5. A flat-rate subsidy program is often the lowest-cost option among public agency-TNC partnerships.

However, it routinely comes at the expense of having ready access to driver and customer information and the ability to set certain performance standards.

Planning Process

A flat-rate subsidy program is often the lowest-cost option among public agency-TNC partnerships. However, it routinely comes at the expense of having ready access to driver and customer information and the ability to set certain performance standards.

With a flat-rate subsidy option:

- Pro: Likely lowest-cost service option for the sponsoring agency
- Con: Lose access to drivers, customers

Example: **Pierce Transit** had to wait for Lyft to send out a feedback survey, because Lyft had access to the contact info for program users. The agency only had access to the 5% of users who called in to book a ride, rather than using Lyft's platform.

Agency *Program*	Subsidy Amount	Purpose of Program
PSTA *Direct Connect*	$5 per trip	Response to fixed-route reductions
MBTA *On-Demand Paratransit Pilot Program*	Up to $40 per trip	Paratransit service
Detroit DOT *NightShift*	$7 per trip	Compliment low-frequency fixed-route service
Pierce Transit *Limited Access Connections*	Full cost of trip in designated area	First/last mile service

The **City of Newton, MA** received several responses to its RFP for a turnkey on-demand program for seniors.

After deliberation, the city opted to contract with Via on account of its desire for a branded fleet, in-house customer service and trained drivers, which city officials felt were critical to a program oriented towards seniors, many of whom were likely not familiar with traditional ridesharing services.

	Lyft *Lowest cost option among responses received to RFP*	**Via** *More expensive option, relative to Lyft proposal*
Payment Type	Subsidy per trip	Subsidy per service hour
24-Hour Service	Yes	No
Guarantee Against Driver Shortages	Yes	No
In-House Customer Service	No	Yes
Branded Vehicles Dedicated to Program Only	No	Yes
Guaranteed Sensitivity Training for Program Drivers	No	Yes

Planning Process

A flat-rate subsidy program is often the lowest-cost option among public agency-TNC partnerships. However, it routinely comes at the expense of having ready access to driver and customer information and the ability to set certain performance standards.

CATS on-demand service boundary area

Agencies need to assess the goals they are trying to achieve in order to select the type of on-demand program to best suit those aims.

For programs with a large service area or those restricted to first/last mile service: lowest-cost option (likely flat-rate subsidy) may be most feasible option.
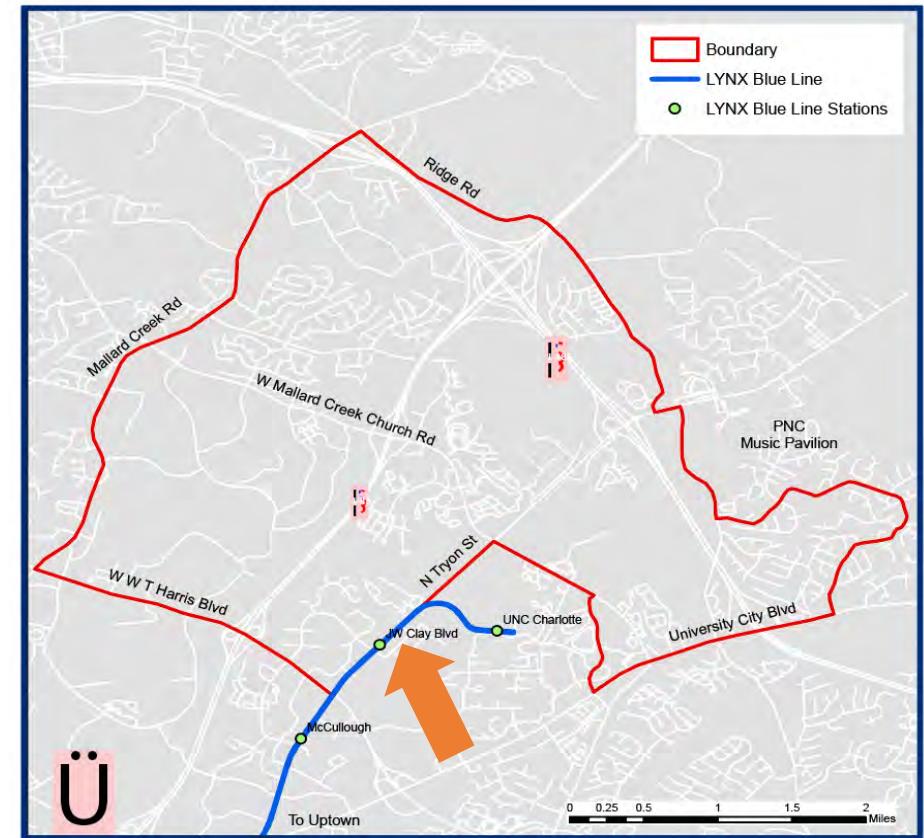
This geo-fenced service area for the Lynx partnership in Charlotte, NC is designed to improve connections between public transit and the nearby business district. Source: CATS

Planning Process

A flat-rate subsidy program is often the lowest-cost option among public agency-TNC partnerships. However, it routinely comes at the expense of having ready access to driver and customer information and the ability to set certain performance standards.

Agencies need to assess the goals they are trying to achieve in order to select the type of on-demand program to best suit those aims.

For programs catering to seniors and people with mobility impairments: may opt for more control regarding drivers and customer information than subsidy-only option provides.

Source: Anju Miura for The Boston Globe

Source: Marin Transit

21 Major Takeaways

Meeting Federal Regulations

Planning Process

Financing & Payments

Funding

Program Launch ◀

Improving Operations & Troubleshooting

Data & Evaluation
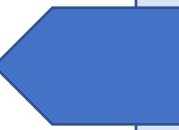
#15. Several administrators found that their programs needed more time than originally anticipated for public awareness to grow and promotional efforts to take hold. Pilots are often extended to support an accurate appraisal of performance.

Program Launch:

Several administrators found that their programs needed more time than originally anticipated for public awareness to grow and promotional efforts to take hold. Pilots are often extended to support an accurate appraisal of performance.

Drawing definitive conclusions from pilots requires gathering data on rides taken under stable conditions, and it often takes longer than anticipated for programs to reach those conditions.

Pierce Transit's *Limited Access Connections* program was launched in May 2018, but it was not until the following March that a consistent number of trips were being taken.
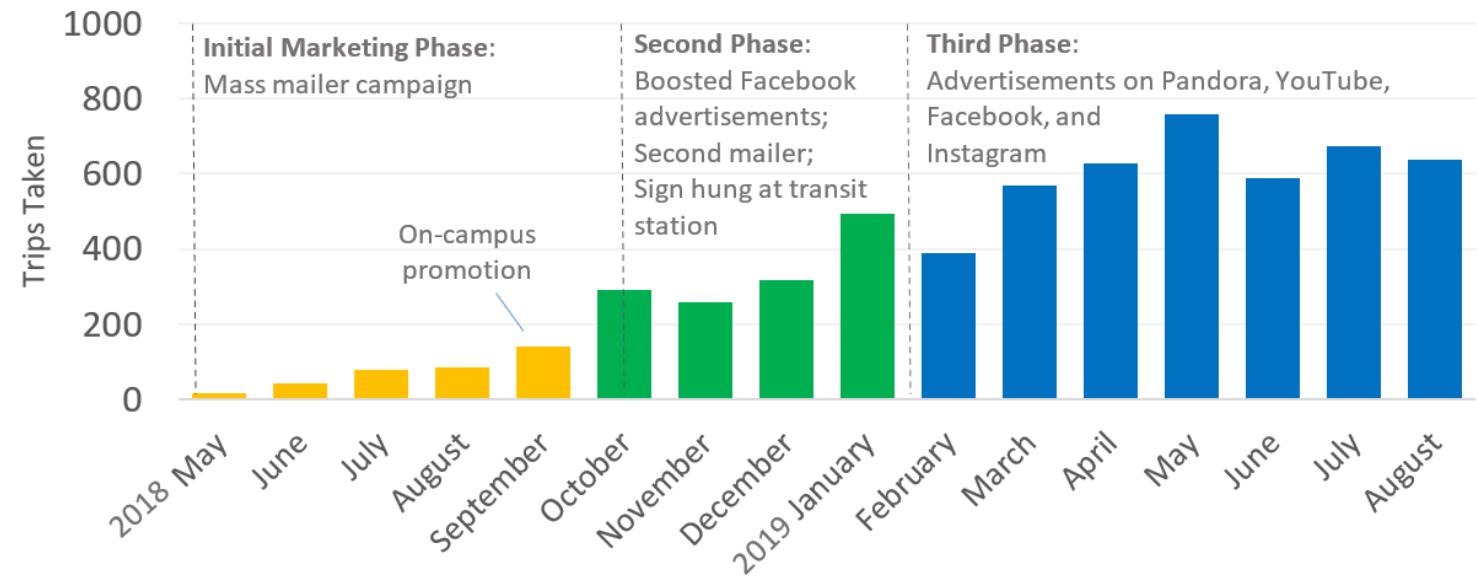
Program Launch:

Several administrators found that their programs needed more time than originally anticipated for public awareness to grow and promotional efforts to take hold. Pilots are often extended to support an accurate appraisal of performance.

Drawing definitive conclusions from pilots requires gathering data on rides taken under stable conditions, and it often takes longer than anticipated for programs to reach those conditions.

- In **Charlotte**, the 12-month pilot program to provide first/last mile service was extended in response to evidence that more time was needed for the full effect of marketing strategies to be seen.

- **Marin Transit's** pilot is currently in the second of two planned six-month extensions. Eight adjustments to parameters guiding service delivery, as well as software changes during the pilot's first few months, made assessment difficult.

21 Major Takeaways

Meeting Federal Regulations

Planning Process

Financing & Payments

Funding

Program Launch

Improving Operations & Troubleshooting

Data & Evaluation

#19. Dedicated staff time is critical during the initial pilot phase to help troubleshoot problems.

However, after a program grows more established, a regular call or meeting between the sponsoring public agency and the TNC partner usually provides sufficient opportunity to maintain open and effective lines of communication.

Improving Operations & Troubleshooting:

Dedicated staff time is critical during the initial pilot phase to help troubleshoot problems. However, after a program grows more established, a regular call or meeting between the sponsoring public agency and the TNC partner usually provides sufficient opportunity to maintain open and effective lines of communication.

The initial pilot phase often benefits from dedicated staff time to address unanticipated challenges

---

After launch of its *Direct Connect* program, **PSTA** chose to expand its geographic boundary for drop-offs at designated spots from 400ft to 800ft after receiving feedback that passengers were having to exit rides on high-traffic streets ill-suited to pedestrians.

After launch of the **Newton, MA** NewMo program for seniors, Via determined it had underestimated the time required for seniors to make a booking over the phone and to board vehicles, resulting in an adjustment of number of vehicles and customer service agents required.

After launch of its *Night Shift* program, the **Detroit DOT** discovered that the codes publicized on buses for customers to text to receive Lyft credits did not work for one of the phone carriers in the Detroit area.

Improving Operations & Troubleshooting:

Dedicated staff time is critical during the initial pilot phase to help troubleshoot problems. However, after a program grows more established, a regular call or meeting between the sponsoring public agency and the TNC partner usually provides sufficient opportunity to maintain open and effective lines of communication.

The initial pilot phase often benefits from dedicated staff time to address unanticipated challenges

This dedicated staff time and oversight during the pilot can enabled a more smooth and efficient transition from incubation period to stabilized operation.

Marin Transit spoke with the Via team **around three times weekly during its launch phase** before reducing contact to twice weekly when the program stabilized, and then to **a single weekly call**, primarily to discuss "help tickets" submitted and customer-service issues.

Pierce Transit team had a standing call with Lyft **every two weeks** and sent technical queries to the company as they arose after the program became more established.

Report Structure

1. Summary of Research Methods

2. 21 Takeaways from TNC-Public Agency Partnerships

3. Anticipated Trends for the Next Stage of Partnerships

21 Key Takeaways from Partnerships between Public Transit Providers & Transportation Network Companies in the United States

BY: MALLORY LIVINGSTON SHURNA & JOSEPH P. SCHWIETERMAN, PH.D.

lyft UBER via BUS

DePaul UNIVERSITY

SHARED-USE MOBILITY CENTER

CHADDICK INSTITUTE POLICY SERIES | APRIL 14, 2020

Anticipated Trends for the Next Phase of Partnerships

1. Greater integration of on-demand programs with larger transit system

A growing number of public agencies will pursue integration of fare payments for their on-demand programs with the trip planning and booking platforms used by their transit systems.

Payment integration is a key element in ensuring that on-demand programs are viewed by customers as components of the transit system as a whole.

Examples:

- **PSTA**, **CATS** and **Dayton RTA** are working to integrate payment for programs operated by TNCs into the respective agencies' public transit system platforms.

- **King County Metro** has installed transit fare card readers in each of the on-demand vehicles deployed for its first/last mile program.

A co-branded vehicle in King County Metro's Via to Transit program. Source: King County Metro

2. More on-demand programs in suburban and rural communities

Potential savings with on-demand programs in lower-density areas compared to fixed-route service

Dayton RTA: ~$700,000 annually to operate its *Connect On-Demand* service, eliminating ~45,000 annual bus-service hours. Previous fixed-route service cost ~$95 per vehicle hour.

Source: Dayton RTA

Agency representative suggested that their on-demand program is successful as a first/last mile service precisely because:

1. Demand is too low to justify fixed-route service to the area;

2. On-demand ridership is not high enough to render the program cost-prohibitive; and

3. The designated service area lacks many sought-after destinations besides connections to transit, meaning most people use the program as a first/last mile service to access transit stops.

Reminder that service area selection is key, and more tools are likely to emerge to better help agencies determine where to set geographic boundaries for their on-demand programs

3. Growing familiarity with partnerships and available data will increase program evaluation frequency and sophistication

Agencies will become better equipped at comprehensively evaluating their partnerships based on their growing familiarity with available data, the expanding technical capabilities of TNCs, and the enhanced sharing of information among stakeholders.

- Federal *Mobility on Demand Sandbox* and *Integrated Mobility Innovation* programs are increasing understanding of the possibilities presented by innovative partnerships.

- Agencies are sharing their own lessons with others.

- Private-sector partners are improving dashboards for public-sector partners to pull real-time data, and developing template surveys and evaluation tools.

https://tsrc.berkeley.edu/mobility-demand-mod-sandbox-demonstrations-independent-evaluations-ie

4. Greater use of on-demand programs for paratransit service

More public agencies will turn to TNCs for enhanced paratransit service while scaling their offerings to the specific mobility needs of those served.

MBTA has found that the average cost of a TNC trip through its pilot program for paratransit-eligible customers is $9.07, significantly lower than the average per trip cost of $52.00 for its traditional paratransit service.

Customer designation:	Cannot walk long distances	Cannot walk short distances (ambulatory)	Needs WAV
Eligible for:	Subsidized rideshare to the nearest transit station	Subsidized door-to-door rideshare	Subsidized trip on fully accessible vehicle contracted by paratransit provider

Going forward, agencies will likely match their range of paratransit services to customers' capabilities in increasingly specified ways, which may involve providing WAVs for some, door-to-door rideshare trips for others, and last/first mile trips for those with lesser mobility challenges.

5. More large-scale partnership to emerge in the United States, mirroring trends in Europe.

Many of the earliest on-demand partnerships in the US involved smaller cities and small- to mid-size transit agencies.

The next phase may well involve more ambitious undertakings, perhaps even ones akin to the first/last mile program partnership between ViaVans, Mercedes-Benz Vans and Berlin's transportation authority, Berliner Verkehrsbetriebe, which involves more than 150 vehicles.
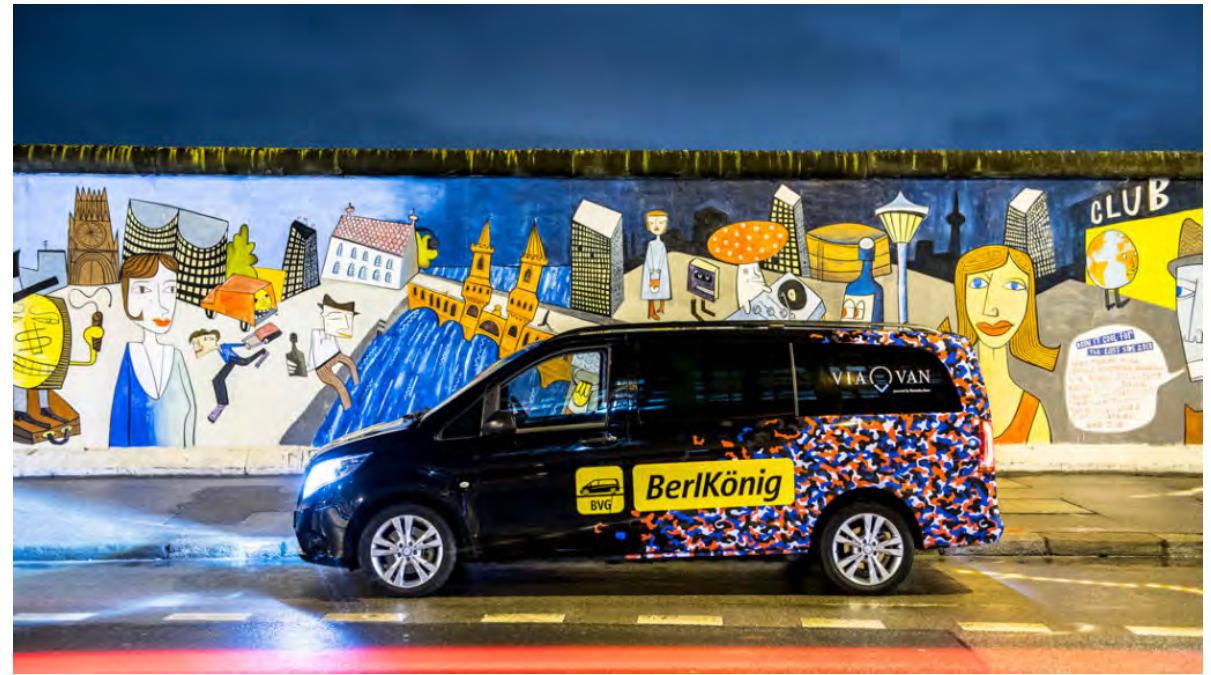
Source: ViaVan

Project overview

- First and last mile shared ride service **connecting with transit**

- **12-month** pilot (launched April 2019)

- Project impetus: **FTA Mobility on Demand Sandbox Grant**

- Project partners: **King County Metro, Sound Transit, City of Seattle, Via**

Pilot goals

- Improve mobility by **expanding access to transit.**

- Test how to develop a **partnership with a private sector mobility company**, integrating TNC services with existing transit services.

- **Broaden TNC access** to a wider audience, including populations without smartphones, those who need wheelchair accessible vehicles, unbanked populations, and populations with limited English proficiency.

- **Inform best-practices** and FTA guidance for public-private partnerships.

VIA TO TRANSIT – SE Seattle Service Areas

Monday–Saturday: 5 a.m. – 1 a.m. | Sunday: 6 a.m. – midnight

S DEARBORN ST
23RD AVE S
17TH AVE S
S COLLEGE ST
21ST AVE S
LAKESIDE AVE S
LAKE WASHINGTON BLVD S
24TH PL S
Mount Baker
7 8 9 14 48 106
SOUTH DAKOTA ST
15TH AVE S
Columbia City
50 106
S ORCAS ST
Seattle
Othello
36 50 106
S CLOVERDALE ST
Rainier Beach
9 106 107
RAINIER AVE S
S RUSTIC RD
CORNELL AVE S
S 115TH ST
RENTON AVE S
S 129TH ST
S 128TH ST
Tukwila

LEGEND
- Mount Baker Station service area
- Columbia City Station service area
- Othello Station service area
- Rainier Beach Station service area
- Link light rail
- Link light rail station
- 7 Bus connections

N

VIA TO TRANSIT – Tukwila Service Area

Monday–Friday: 6–9 a.m., 3:30–6:30 p.m.

Seattle
Tukwila
99
S 116TH WAY
S 115TH ST
24TH AVE S
TUKWILA INTERNATIONAL BLVD
INTERURBAN AVE S
518
SeaTac
Tukwila International Blvd.
A F 124 128
S 160TH ST
SOUTHCENTER BLVD
99
405

LEGEND
- Tukwila International Blvd. Station service area
- A 124 Bus connections
- Link light rail
- Link light rail station

N
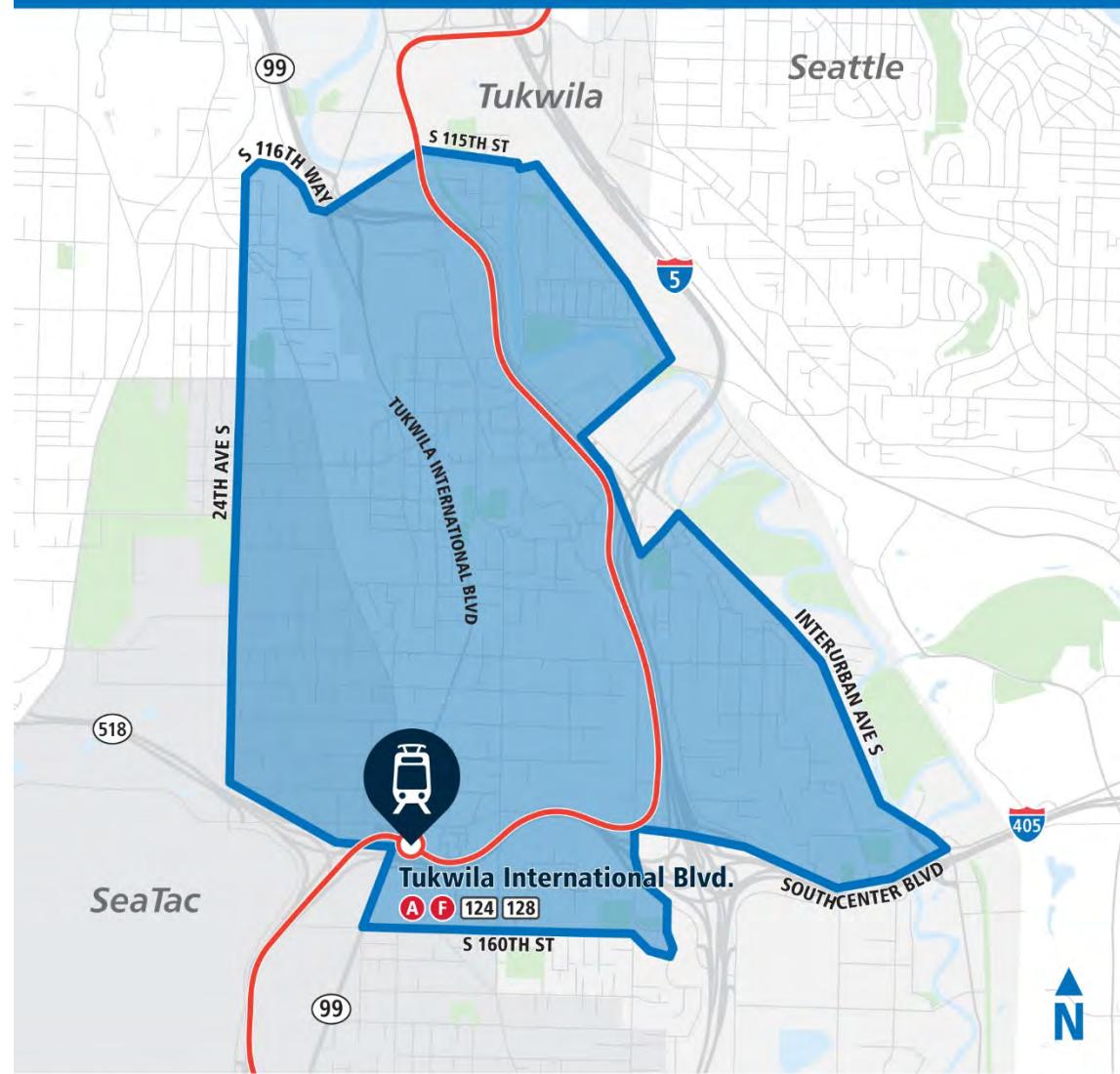
How to ride

1. Download the Via app

2. Book an on-demand ride with the app or call 206-258-7739

3. Ride and connect to buses and Link light rail at Mount Baker, Columbia City, Othello, Rainier Beach, and Tukwila International Boulevard Stations

How does it work?

- **Walk** up to 5 minutes*

- **Get picked up** within 10-15 minutes

- **Take a shared ride**

- **One end of trip must be Link light rail station**

- **Payment options** include ORCA cards or Transit GO mobile ticket, credit cards/debit cards

- **Integrated fares,** free transfer to buses and light rail

*unless require mobility assistance

35

Equity & accessibility

- **Wheelchair accessible vehicle (WAV)** option

- **Call center** option for people without smartphones

- **Reduced fare programs** accepted with ORCA payment

- **Integrated fares,** free transfer to buses and light rail

Equity & accessibility

- **Service areas**
- **Diversity of languages** in marketing materials
- **Ethnic media** ads
- Outreach through **community based organizations** to promote service, build feedback loop
- **Interpreter services** for call center

Growing ridership

- Total Unique Riders: 16,000

- Ridership
 - Total rides: 259,000
  - WAV: 1,000

- Growth in ridership at all hubs since pilot launch
  - Dips in ridership correspond roughly with holidays (Memorial Day, July 4th, Labor Day, Thanksgiving)
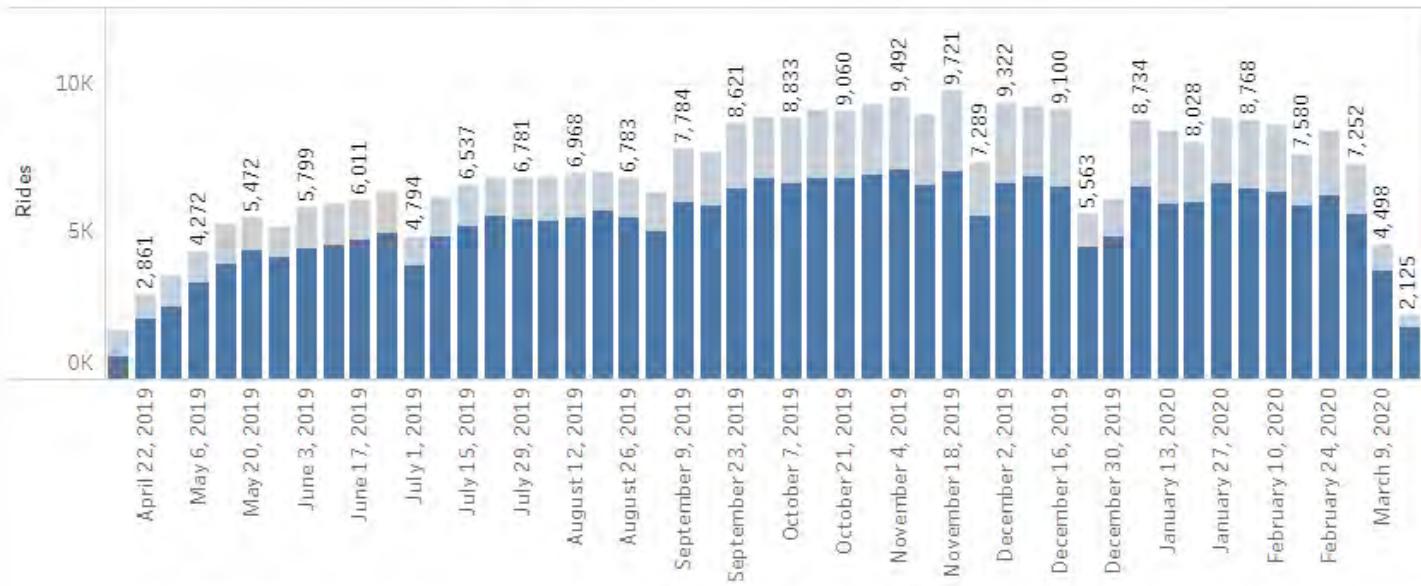
Data from 4/16-3/22

Excellent customer experience

- Average trip rating (out of 5)
  - Total : 4.8
  - WAV: 4.8

- Average wait times
  - Total: 9 min
  - WAV: 12 min

- Average trip time
  - Total: 8 min
  - WAV: 8 min

Data from 4/16-3/22
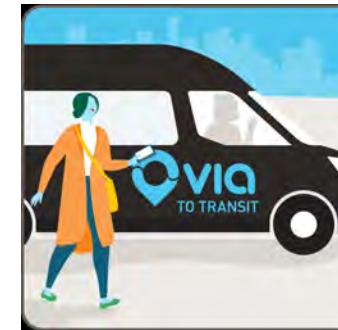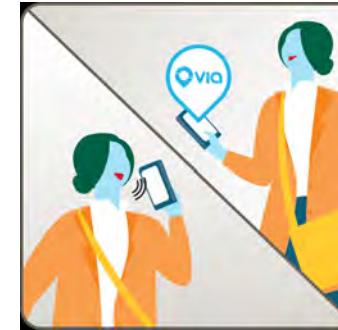
High Equity Impact

- 29% reduced fare trips*

- ~15% low-income riders**

- 37% people of color**

- 43% of transit customers at these stations do not have access to a car for their trip***

- 59% female**

*ORCA data
** Survey of Via riders, likely under-represented
***Survey of transit riders at MB, CC, O, & TIBS
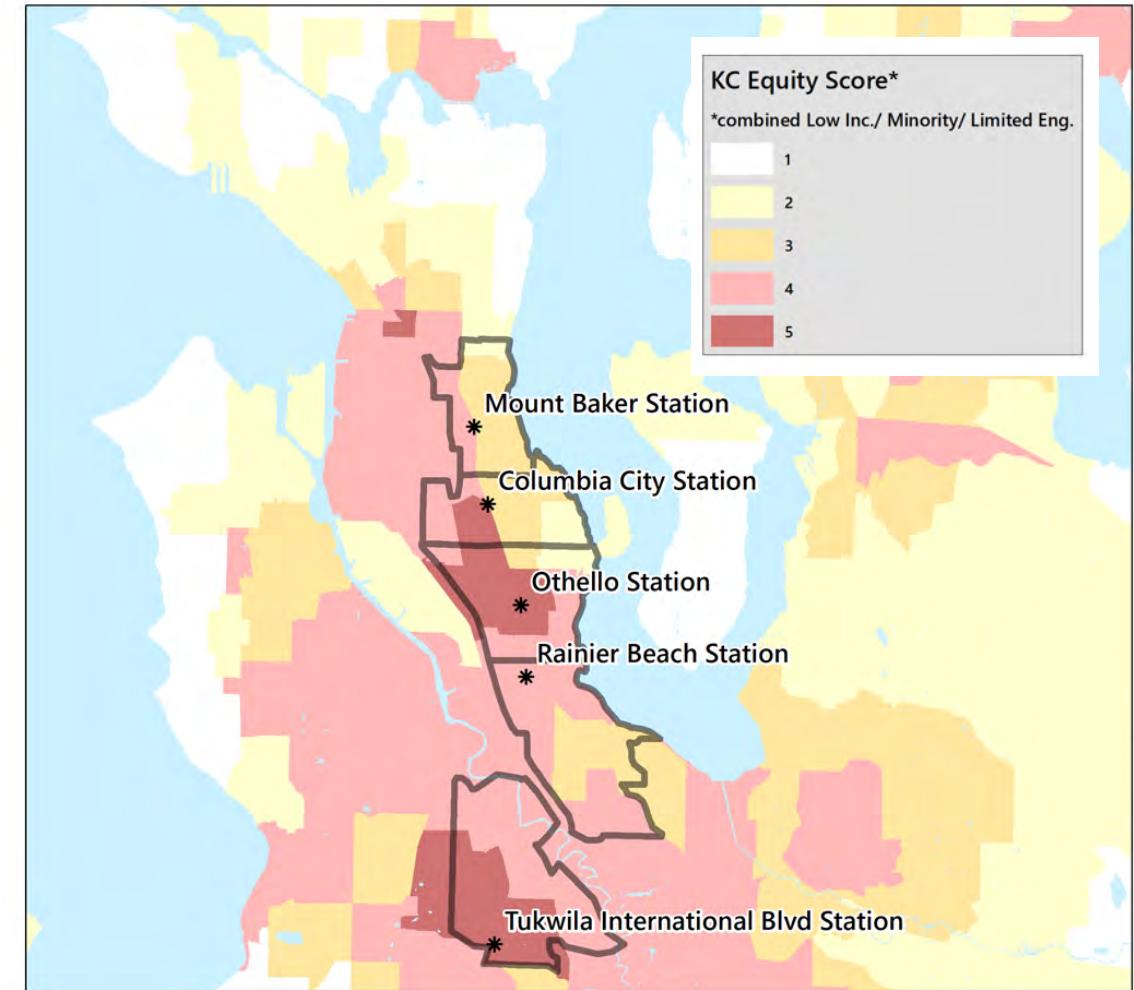
Evaluation

- Trip and vehicle data

- Customer surveys

- Customer feedback

- Listening sessions with:
  - Youth
  - People of color
  - Limited English Proficiency
  - Seniors
  - People with disabilities
  - Low income

- Research Team #1: Eno Center for Transportation, University of Washington, University of California Los Angeles, University of Oregon; Research Team #2: UC Berkley

Key Learnings

- Feeder-to-fixed services work best where:
  - There is poor local bus service in the community
  - The transit hubs being served have high-frequency transit service
- TNCs can flex supply of drivers to meet demand, which increases efficiencies
- Contiguous service areas allow for greater efficiency
- Fare integration has been critical
- Customers like on-demand feeder-to-fixed services

Thank you!

Casey Gifford

Innovative Mobility Senior Planner

King County Metro

cgifford@kingcounty.gov
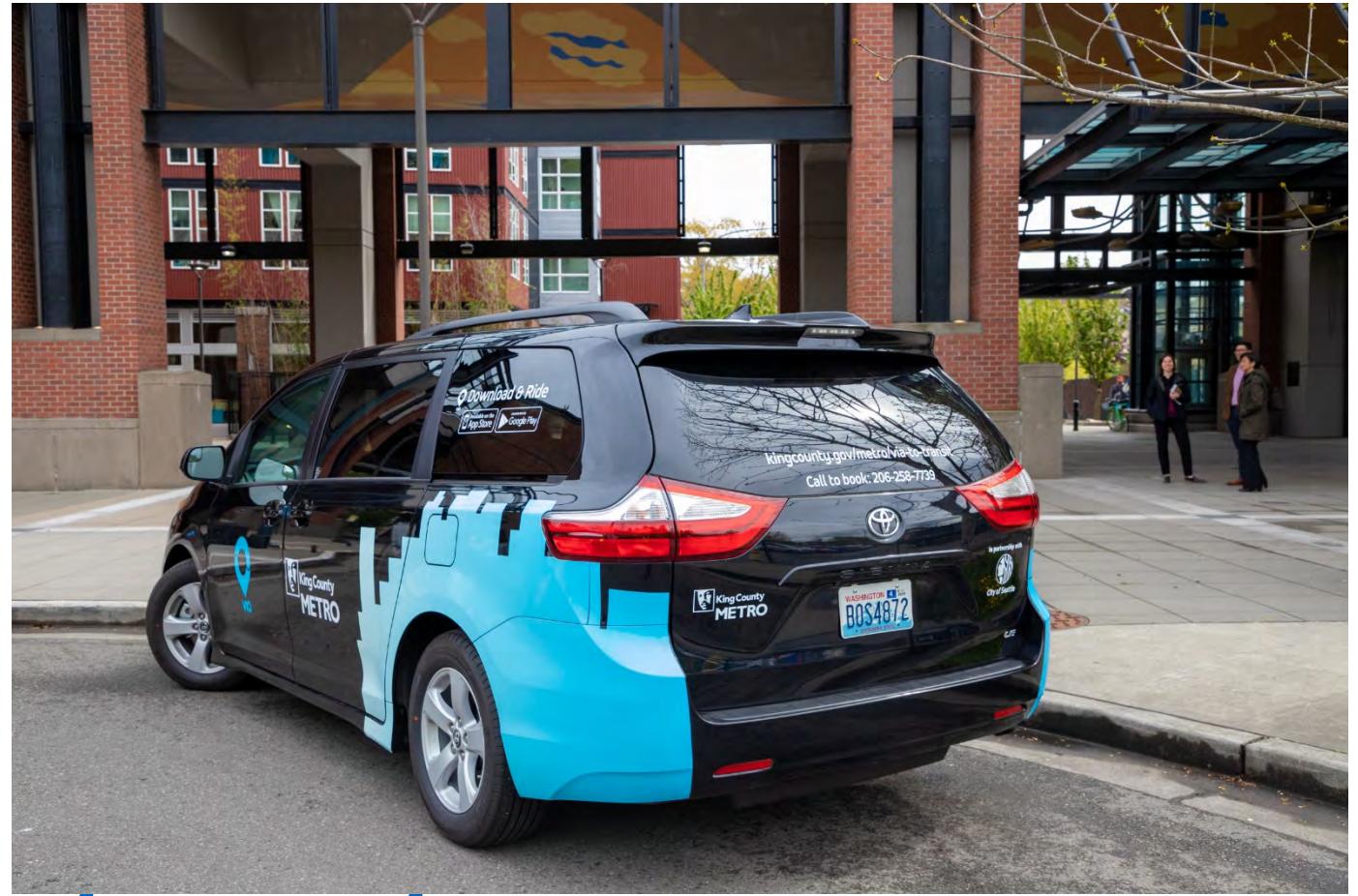
kingcounty.gov/metro/via-to-transit

Marin Transit Connect

Pilot duration: May 2018-June 2020

DePaul University Chaddick Institute for Metropolitan Development

April 16, 2020

What is Connect?

- On demand, shared-ride, accessible general public transit service

- Trips requested through an App or by calling Scheduling Line

- Curb-to-curb service within the Service Area (San Rafael)

- Agency-owned vehicles operated under contract with paratransit service provider (Whistlestop)

- Goals:
  - Provide increased/new same-day option for riders with disabilities
  - Increase first and last mile connectivity to existing fixed route transit
  - Help commuter traveling to jobs in Marin County reach their final destinations
- Pilot Program Questions:
  - Can a new program effectively serve multiple markets?
  - How will riders respond to new technologies (app-based reservation service)?

Markets

| Market	Objectives
Senior/ADA Riders	• Better understand same day paratransit opportunities and service delivery model • Improve transit options for conditionally eligible paratransit riders
Commuters traveling from outside of Marin	• Reduce number of drive alone commuters
Northern San Rafael residents and commuters	• Improve first and last mile connectivity between Northern San Rafael residential neighborhoods and transit corridors • Test delivery method for more effective/productive neighborhood shuttle

Service Overview

Service Hours: weekdays (6:05 am – 7:00 pm)
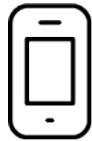
Ride Request: made using app or calling scheduling line

Fares: $3 flat fare* (senior/ADA) / $4 per mile* (general public)

Service Area: San Rafael

Vehicles: 9 passenger accessible vans

*Fares reflect fare changes implemented in February of 2020.
Previously, the general public and senior/ADA fares were a flat $4 and $2, respectively.

- Rider Profile
  - Primarily SMART, first/last mile commuter
  - Higher income, greater access to private autos than local transit rider
- Community Benefits
  - Supporting local employers
  - Accessible service for residents and day programs in service area
  - Mobility option for remote senior housing facilities, not accessible to fixed route services

- Role in the Transit Network
  - Highly personalized transportation service
  - Lower productivity, higher subsidy than traditional fixed route
  - Agency operated service is costly due to driver requirements and compensation structure
  - Transfers to regional transit network much stronger than local transit network
  - Geographic expansion should be considered to increase ridership. Added costs will need to be addressed
  - Additional support for senior/ADA markets needed to make Connect reliable option
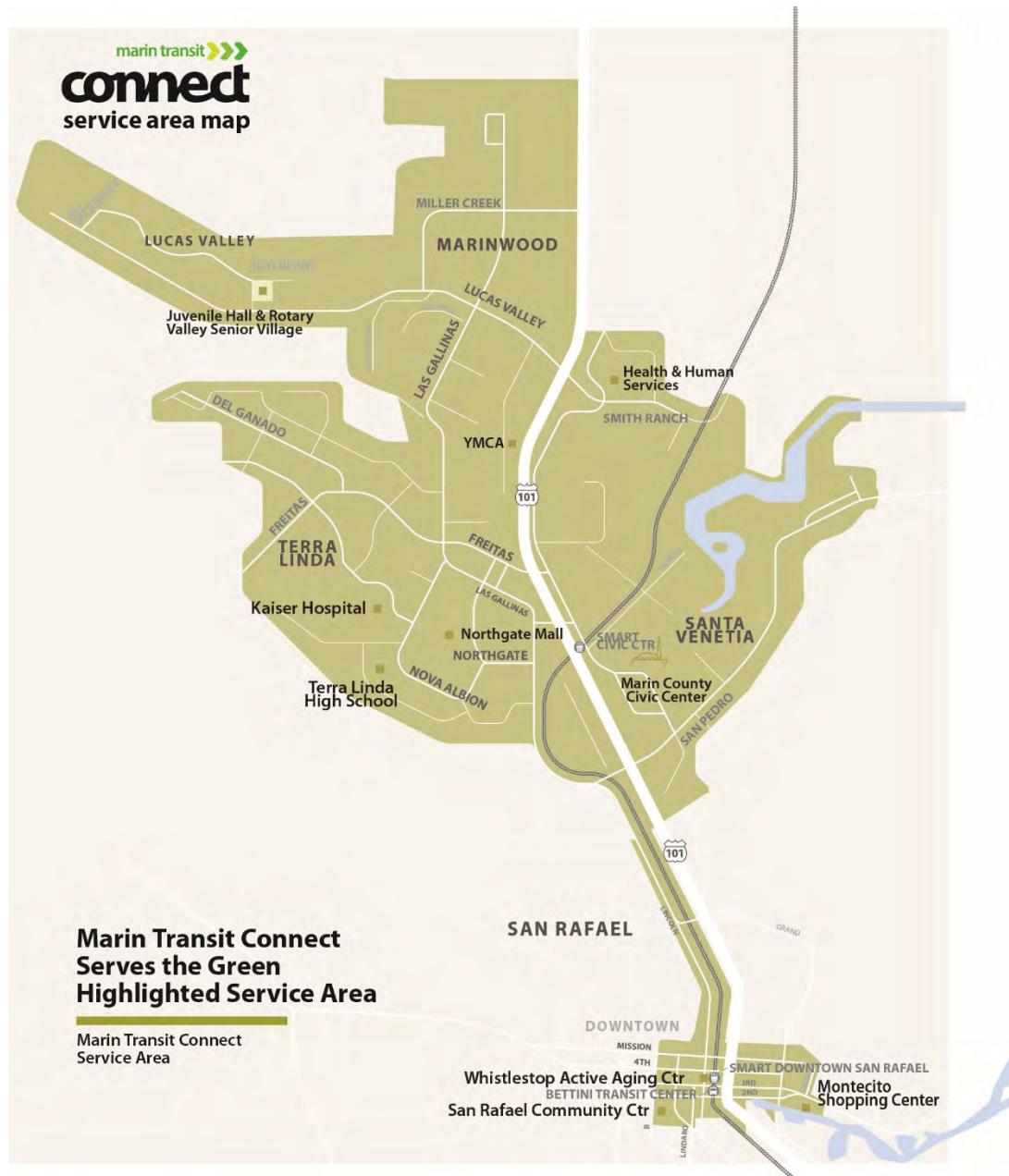
Market Changes

2020 Market Change
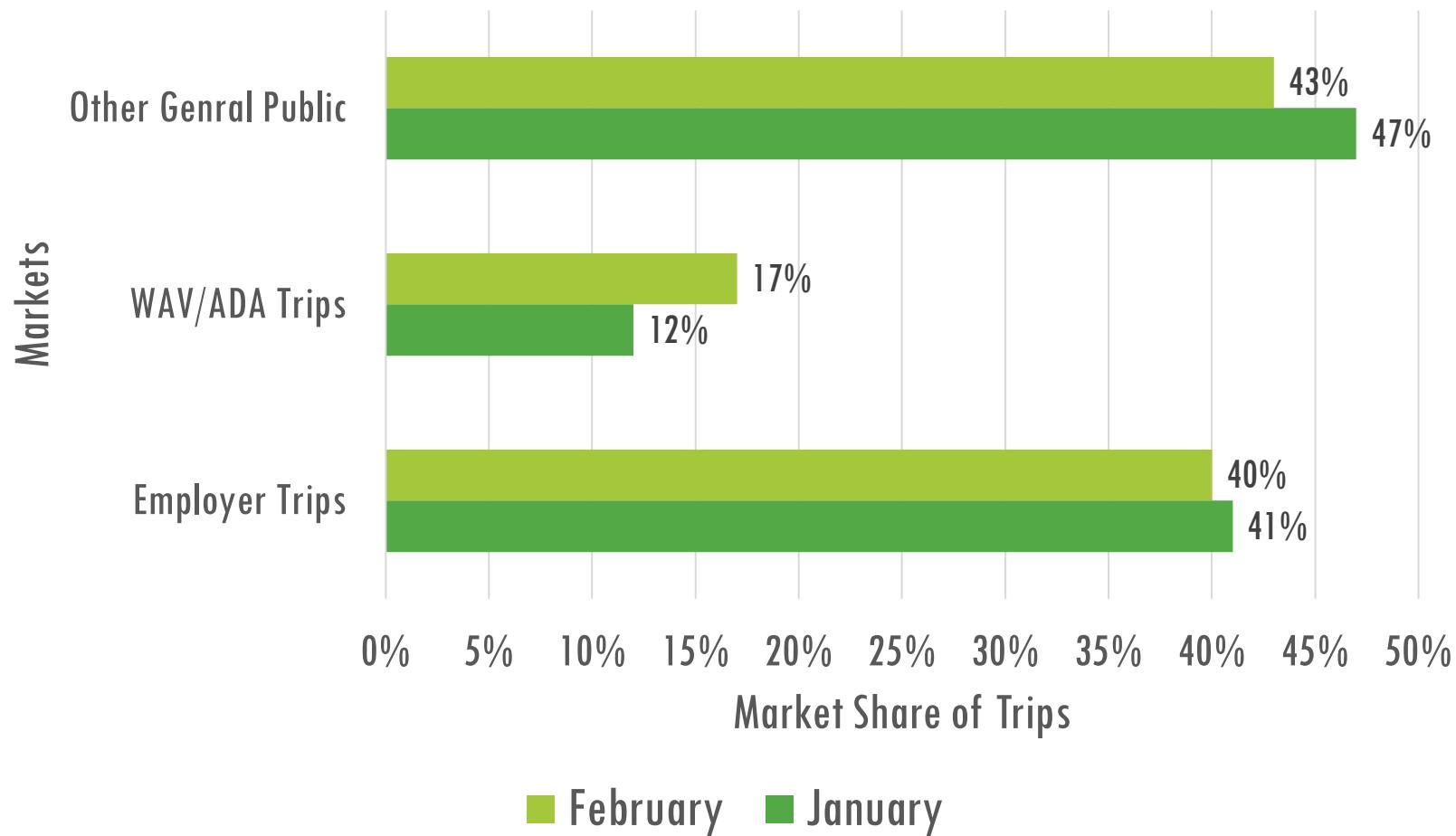
Impacts of February 2020 Service Changes

- Marketing efforts have increased number of new users and Marin Access riders

- Share of WAV/ADA riders has increased, employer market remains stable, and pricing changes have reduced share of general public trips

- Small uptick in midday trips but 6-9 AM & 3-6 PM continue to represent roughly 80 percent of all activity

- Fare revenue is increasing, but program still underperforms in productivity & cost effectiveness

- COVID-19 pandemic makes evaluation process difficult beyond first 5 weeks of program changes given significant reductions in ridership

Thank You

Cody Lowe

Planning Analyst, Marin Transit

clowe@marintransit.org

www.connect.marintransit.org