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TRB TRANSPORTATION RESEARCH BOARD

TRB Webinar: Expanding Microtransit Services and Improving the Rider Experience

December 12, 2022

1:00 – 2:30 PM



AICP Credit Information

1.5 American Institute of Certified Planners Certification Maintenance Credits

You must attend the entire webinar

Log into the American Planning Association website to claim your credits

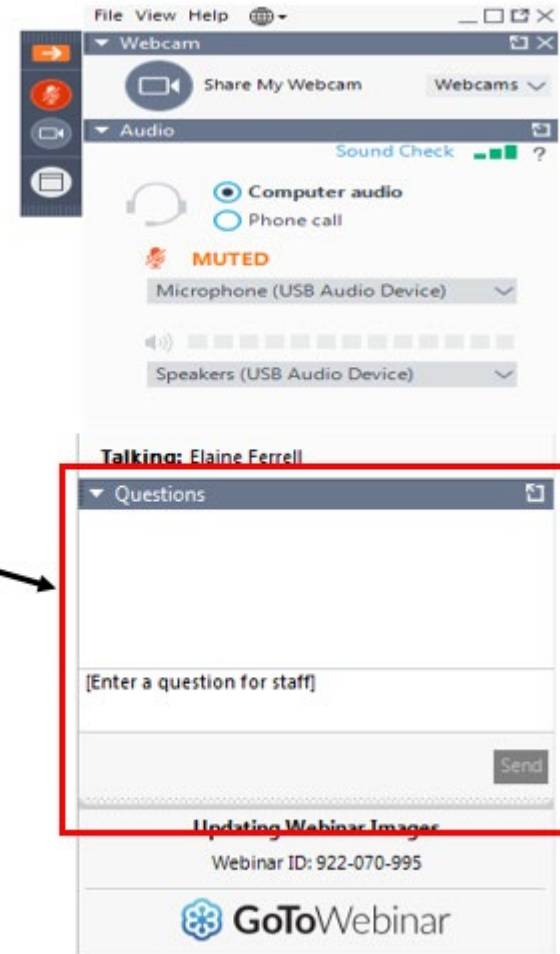
Contact AICP, not TRB, with questions

Learning Objectives

- Forge public-private partnerships for improved mobility
- Complement or replace traditional transit and route based operations with microtransit

Questions and Answers

- Please type your questions into your webinar control panel
- We will read your questions out loud, and answer as many as time allows



Today's presenters



Rodger Lentz
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City of Wilson, NC



Mallory Avis
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Battle Creek Transit



Jaron Robertson
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Wilson RIDE – Two Years of Microtransit Success

Transportation Research Board Presentation – December 2022

Rodger Lentz, AICP – Assistant City Manager at City of Wilson, NC

RIDE was launched in September 2020 to replace all existing fixed routes with a fully on-demand microtransit service

240

trips per day on Fixed Route

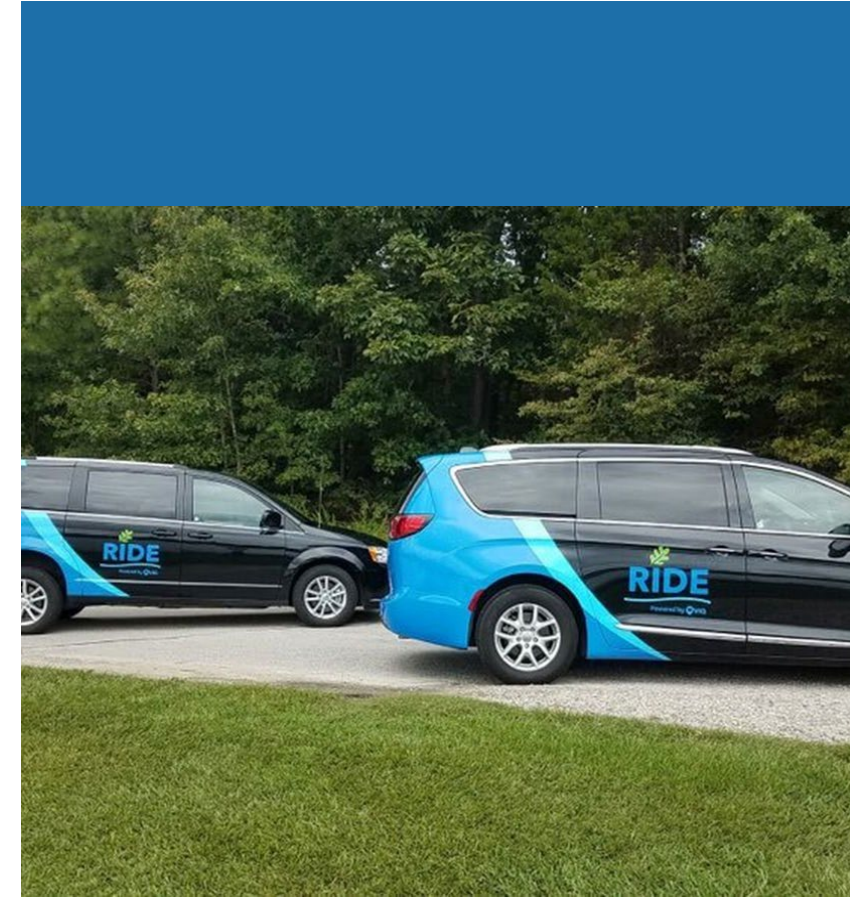
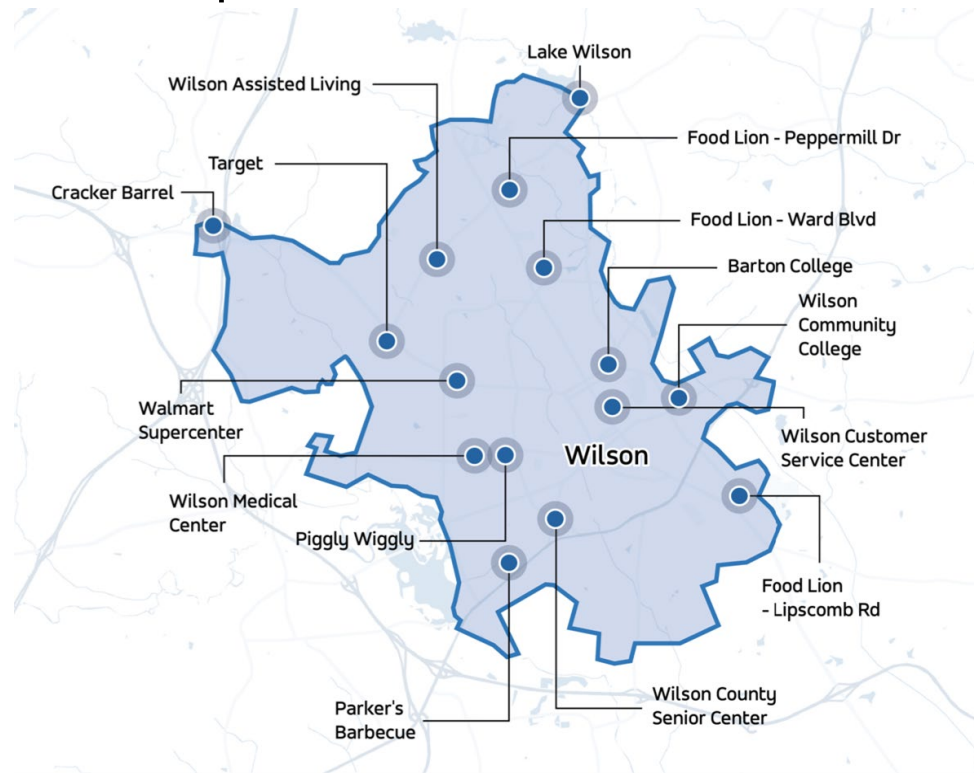
34%

of riders reported not having access to a smartphone

40%

riders are cash preferred

- Sep-20 replaced all fixed routes with a 12+ vehicle on-demand service in Wilson
- Large population of riders who are senior citizens, unbanked, people with disabilities, and don't have access to a smartphone



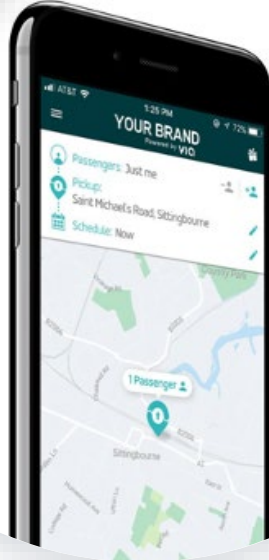
What we wanted to accomplish

- Drive economic growth by connecting Wilsonians with more jobs
- Improve access to critical resources - healthcare, food, government, regional transportation options
- Grow ridership with convenient and tech-enabled experience
- Deliver a higher quality of service for comparable cost to today's fixed route
- Minimal long term capital investment or risk



Two partnership models — your choice

SaaS



Software-as-a-Service

Licensing Via's on demand shuttle system to transit agencies and operators who prefer to use their own vehicles and drivers.

TaaS



Transportation-as-a-Service

Turnkey solution operated by Via on behalf of our partners that includes technology, drivers, vehicles, and operations management.

Flexibility of service has allowed us to address many different goals

Fixed Route Challenges:

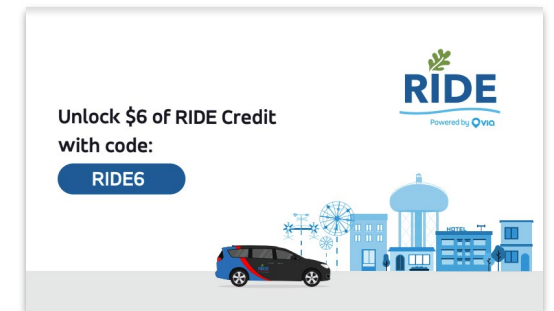
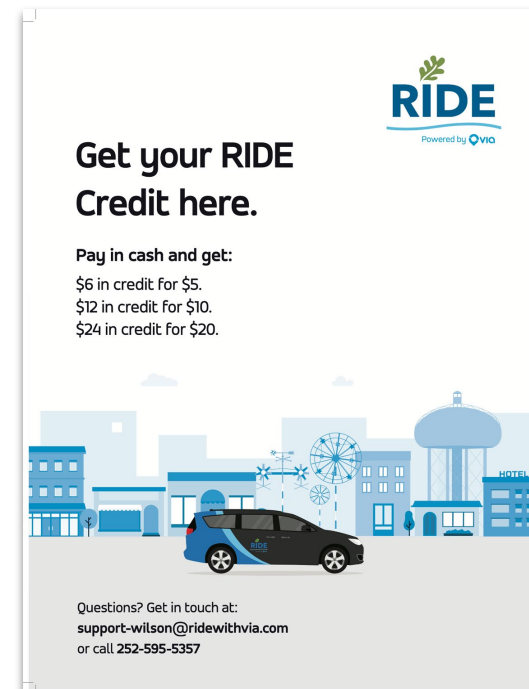
- Longer wait times (60 minute headways)
- Lack of transparency (when is the next bus?)
- Limited service area due to fixed route nature

RIDE goals :

1. Reduce passenger wait times by using dynamic routing to bend supply to where demand is
2. Eliminate the guesswork! Show ETAs and provide real time tracking
3. Expand the utility of transit by opening up a broader service area

Increased Access:

- Seniors - Door to Door/Phone Booking
- Unbanked - Alternative Payment Methods
- Riders w/o Smart Phones - Phone booking
- Riders with Disabilities - Door to Door Booking

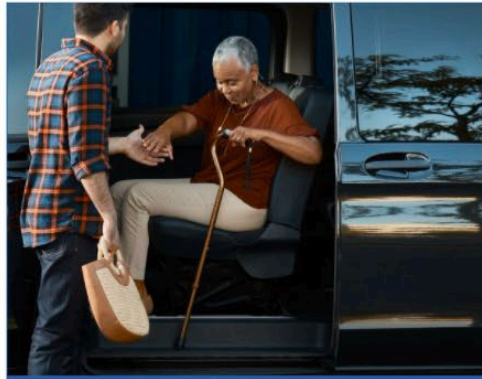


Accessibility features promote equity



Mixed fleet that includes WAV vehicle(s) to accommodate a range of rider preferences

Accessible Vehicles



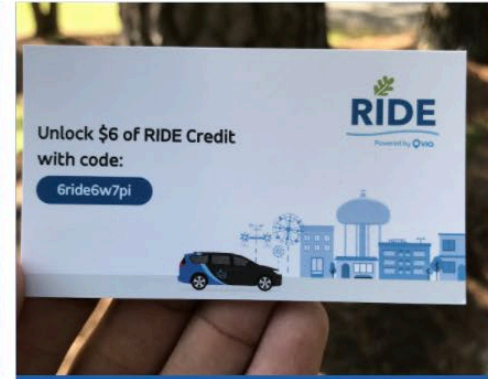
Door-to-door pickups & drop-offs for mobility limited riders

Customized Service



Simple phone booking process for those without web or smartphone access

Phone Booking



Prepaid debit cards, vouchers & cash payment options for unbanked users

Cash Payments

Innovative Solution

Hours and Fares

6 DAYS A WEEK

Mon - Fri
5:30 am - 7pm
Sat
7 am - 6 pm

SEPT 1, 2020
launch

FLAT FARES

\$2.50 base price
+1s - \$1
children under 8 free
Senior/disabled id card holders
½ fare

10 Ride Pass for \$20

No more waiting for the bus.

Book rides on your phone on the app or by calling in. Get a ride within minutes.

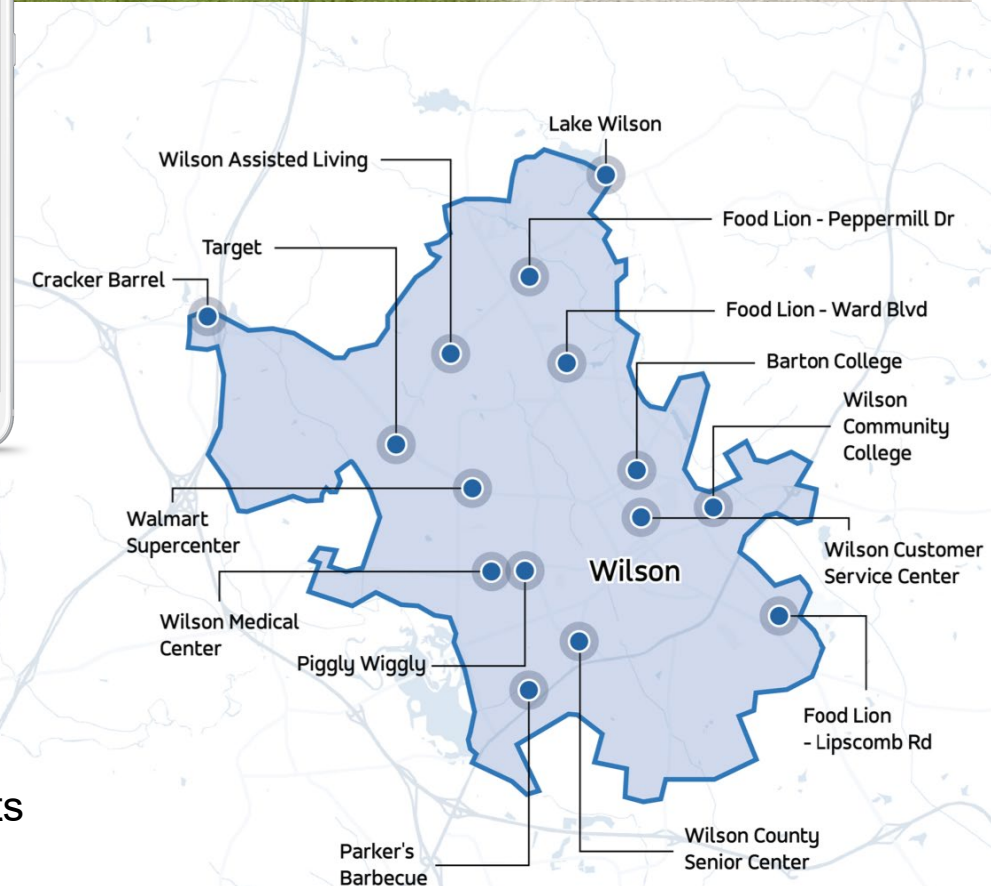
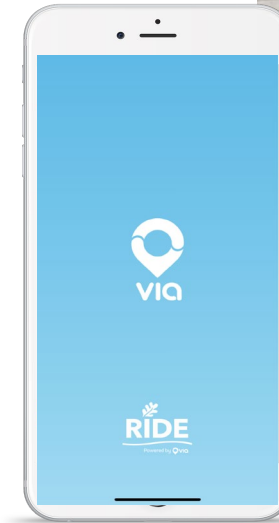
First 10 rides at Launch were free!

What looks different:

- Service area increased to entire city
- 15 - 20 minute goal for wait times
- Booking through an app
- Credit/Debit card & voucher payment

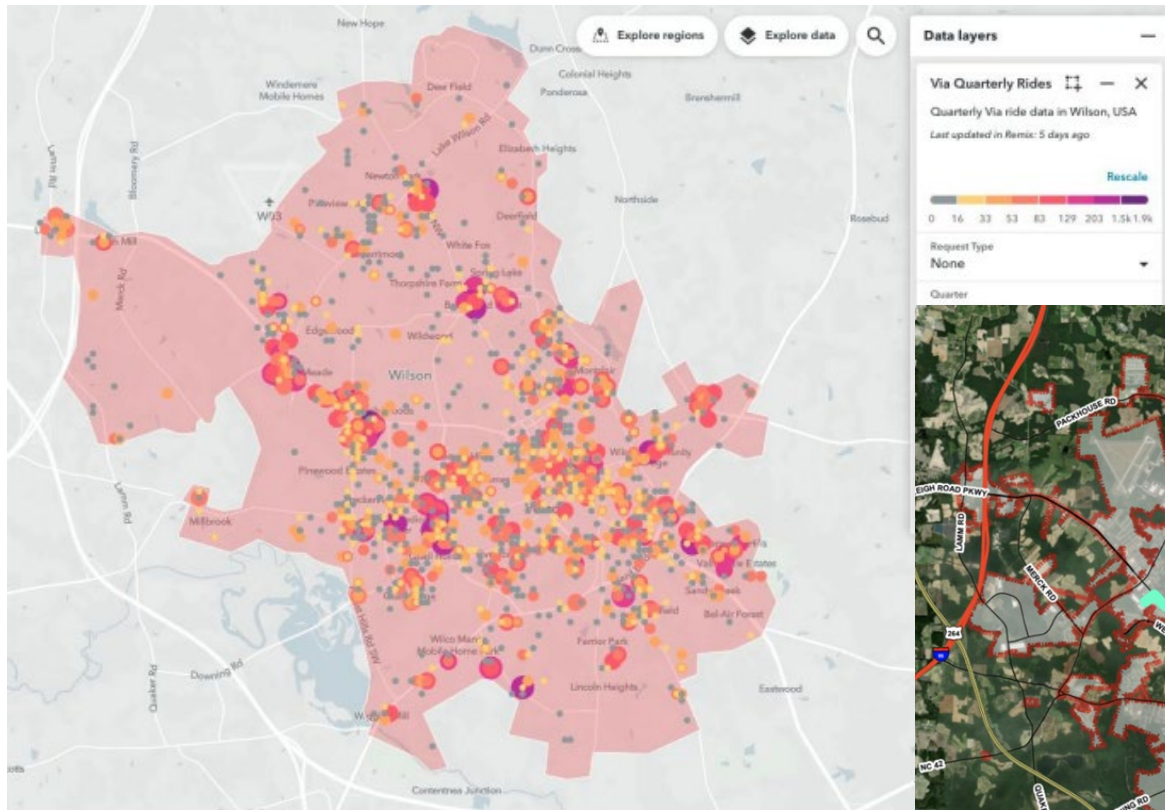
Funding:

- Comparable cost to fixed route at launch
- \$1.2 Million per year at launch now at \$2.2 million per year
- As demand goes up, ETA increases without additional supply of vehicles/drivers (which costs more)



RIDE expanding access and enabling essential activities

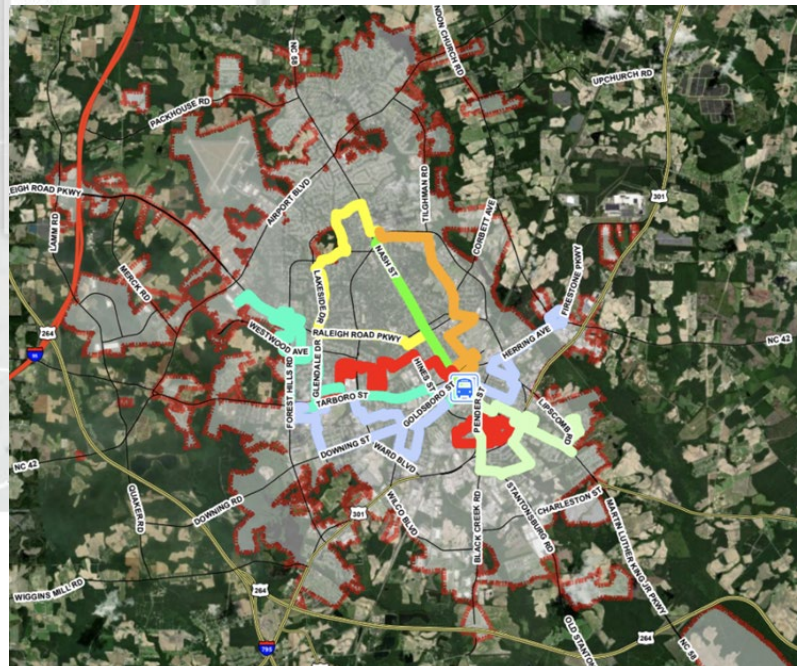
Increasing demand outside of fixed route service area (major job sites)



RIDE has created key connections to jobs in Wilson

52%
use RIDE primarily for commuting

38%
use RIDE primarily for essential errands (grocery, healthcare)

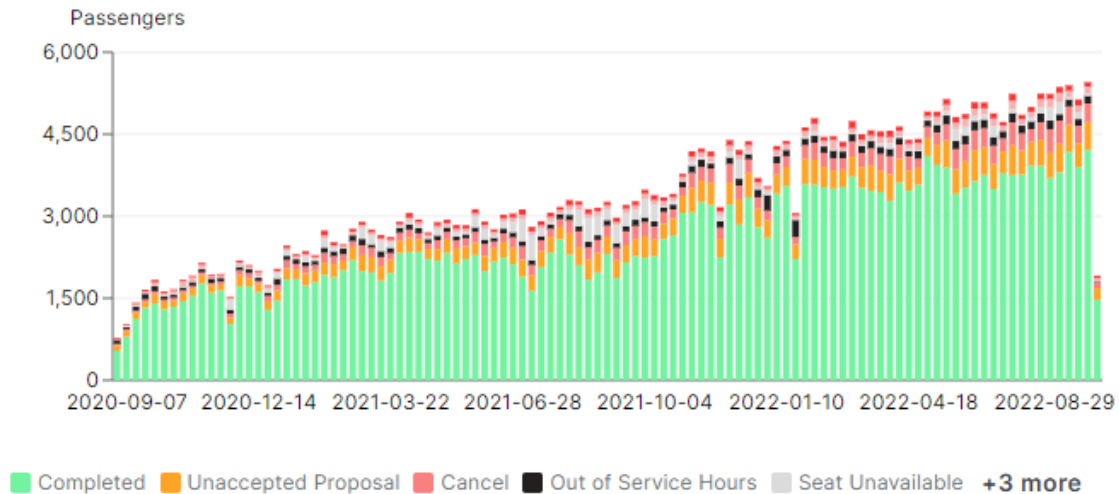


Wilson Transit ran five fixed routes that connected at a downtown transit center. These routes covered approximately 40% of Wilson city limits.

RIDE's performance has been strong, exceeding expectations

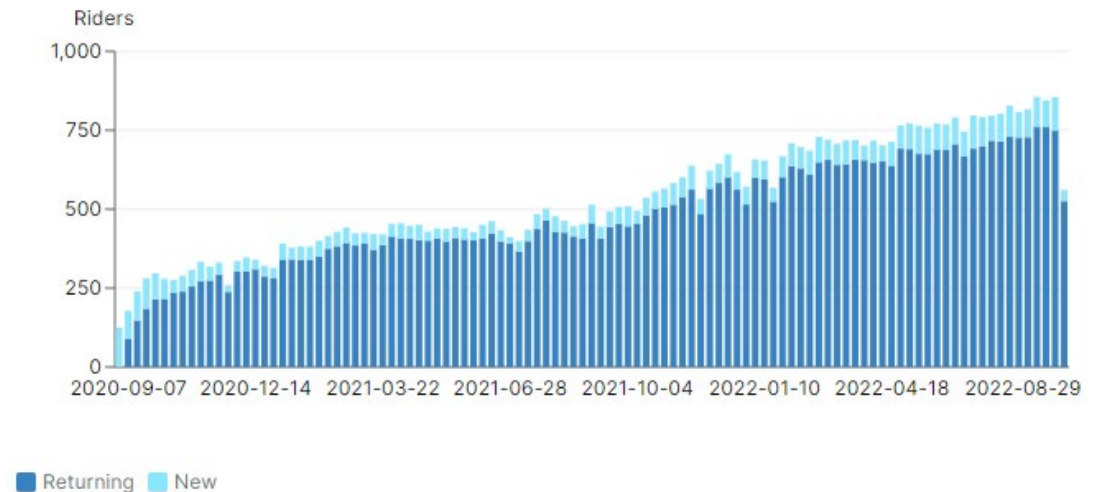
Detailed Ride Requests Status

Breakdown of all ride requests (passengers) by status.



Active Riders

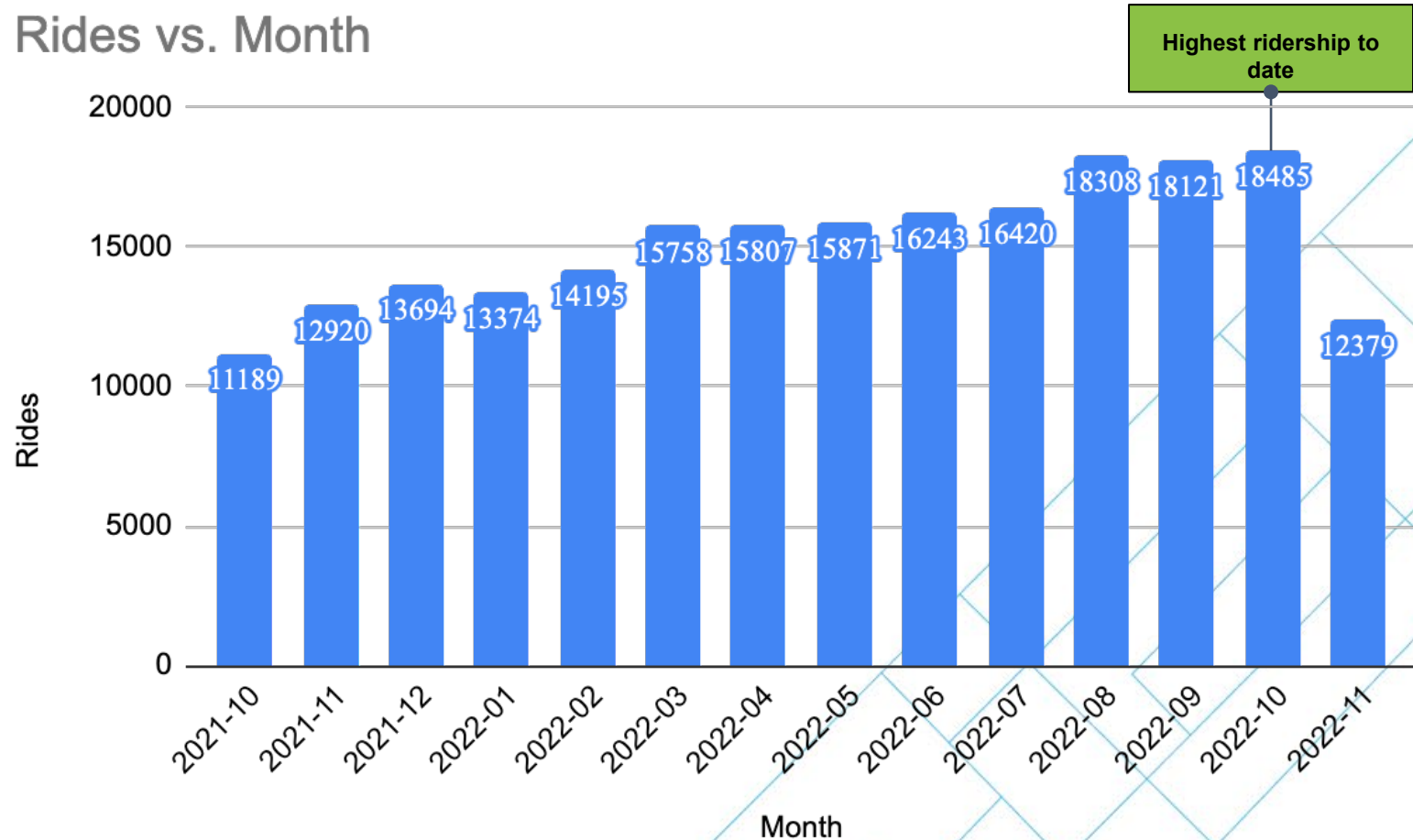
Riders who took a ride in the period selected (broken down by those who took their first ride ever and...



Growth in Monthly Completed Rides

- Continued ridership growth in 2022
- Completed **highest monthly trips** ever in October
- High demand has remained into September and October

Rides vs. Month



RIDE has grown significantly since launch in Year One

96,182

Rides Taken

Peak was 2,577 trips in a week compared to an average of 1,450/week on fixed-route.

18.5 min

Average Wait Time

3.5

Avg. riders per vehicle hour

2,394

Unique Active Riders

RIDE performance in Year Two – Another Year of Significant growth

2

173,188

Rides Taken

Peak was 4,215 trips in a week compared to a peak of 2,577 trips in a week in year one.

18.3 min

Average Wait Time

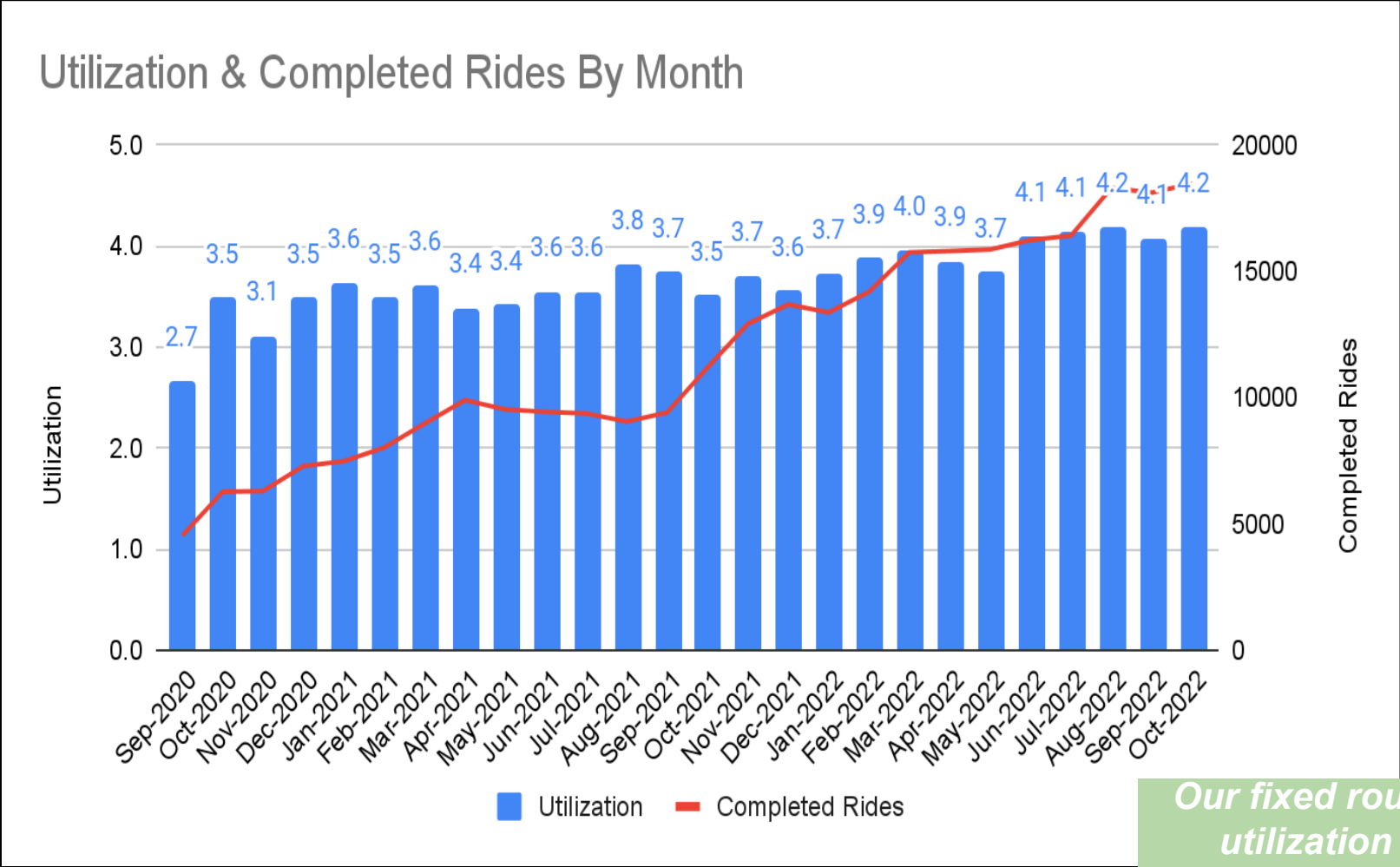
3.9

Avg. riders per vehicle hour

4,764

Unique Active Riders

Since the launch of the RIDE service, Via and the City of Wilson have worked together to increase efficiency while accommodating increased in demand



Our fixed route utilization averaged 5.8 riders per vehicle hour

- ### Key Service Changes
- 1. Sept 2021 - Expansion of hours to support increasing demand
 - 2. April 2022 - Max detour was increased, resulting in slightly longer deviations to pickup additional riders
 - 3. November 2022 - Walking parameters are under review, to understand how extra walking might improve efficiency

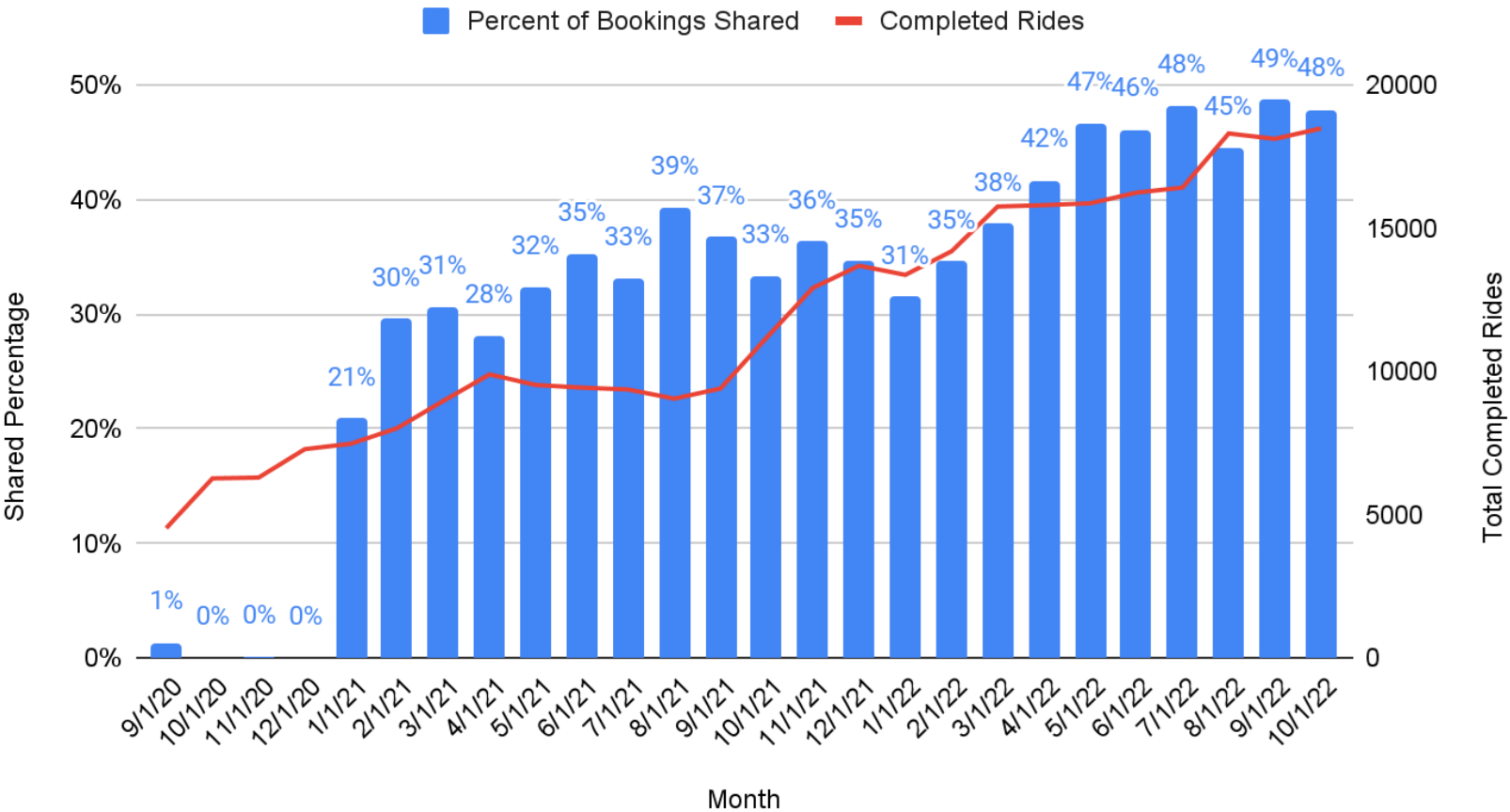
RIDE: Percentage of Trips Shared | September 2020 - October 2022

Sharing Calculation

Percentage of bookings with one or more **stop** (pickup or dropoff) between its own pickup and dropoff

- As of May, 2022 Nearly **1 in every 2 RIDE bookings shares the vehicle with another user**
- Highlights how RIDE has increased efficiency to accommodate growing demand

Shared Percentage vs. Month

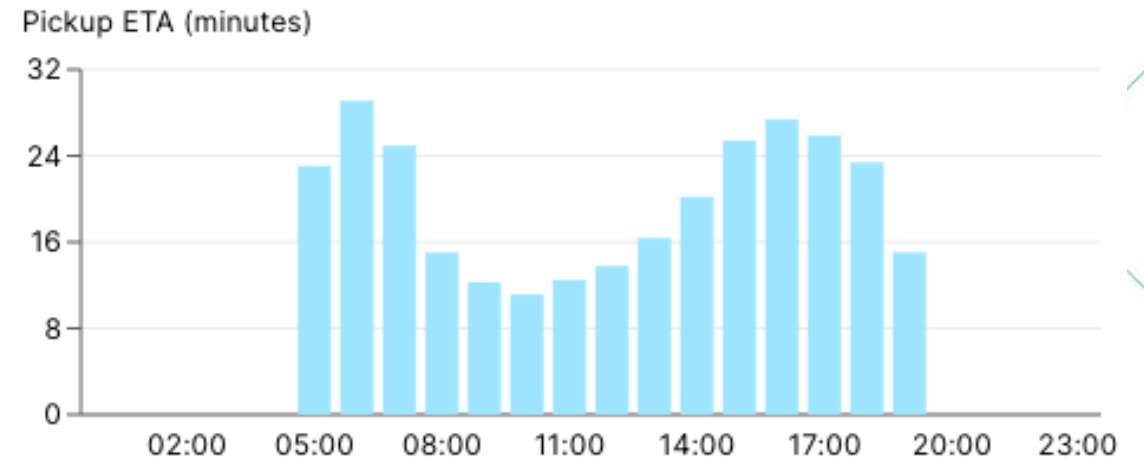


RIDE: Avg. Hourly ETA and Acceptance Rate | September 2022 - November 2022

- Average proposal acceptance rate remains **above 84%**
- Demand continues to peak in the **Morning and early Afternoon**
- Consistent Demand curve leads to **easier supply planning** and more **consistent rider expectations**

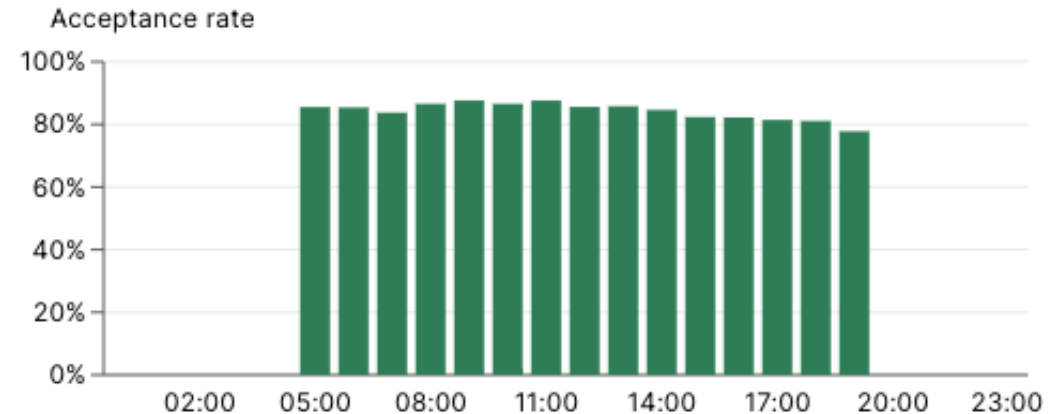
Average Pickup ETA (On Demand Rides Only)

Average pickup ETA among all requests where a ride proposal was displayed.

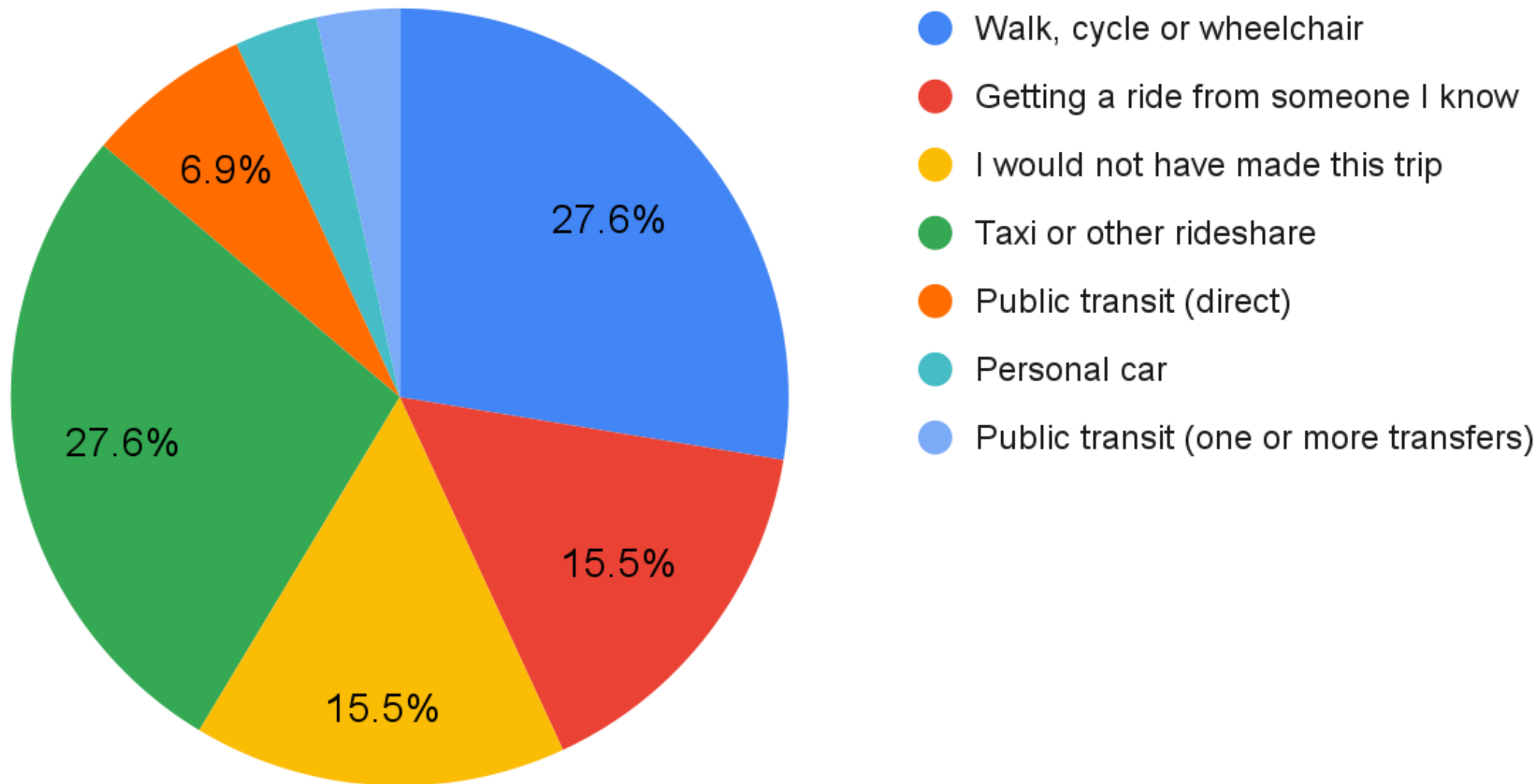


Rider Acceptance Rate

Proposals accepted by riders / proposals displayed to riders.



How would you have made your most recent trip on RIDE if the service wasn't an option?

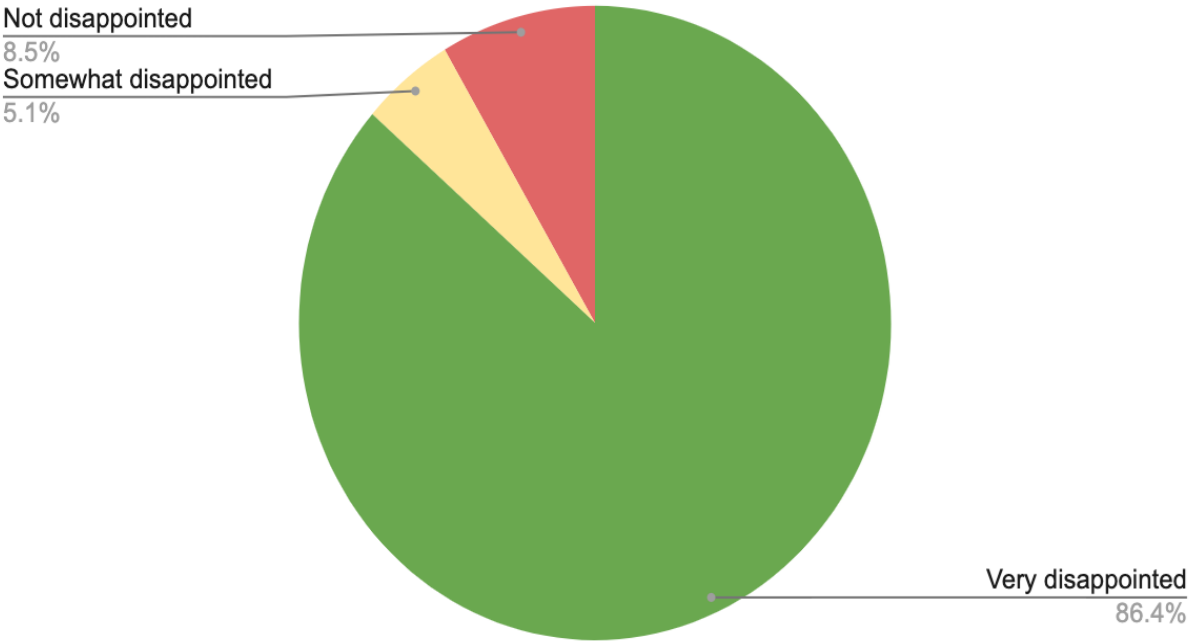


Ride has become a crucial service to the people of Wilson

"When I have to be somewhere I like to get where I'm going. On the city bus you had to transfer, get on another bus. You had to leave the house an hour 2 in advance just to make it somewhere on time."

"My mother stays in an area where the city bus only runs once a day, very early in the morning. I would need need to walk a long way to get to her house before, but now I can go visit anytime."

How disappointed would you be if you could no longer use RIDE?



Please elaborate on your answer:

- “RIDE is my primary mode of transportation. I'm legally blind and RIDE has given me a new sense of independence.”
- “I depend on RIDE for everywhere I go, Dr. appointments, grocery store, work & more.”

Users* of RIDE cross all walks of life...

57%

Of responding riders report annual household income **below \$25k**

73%

Of responding riders identify as **women**

80%

Of responding riders identify as **minorities**

86%

Of responding riders are **do not have access to a personal vehicle**

I don't have a car nor the income to comfortably afford that extra expense right now, this is the way I get to and from work. Also other places such as doctors appointments.



...and the the service has had a HUGE impact on their lives

94%

Would be disappointed if they could no longer use RIDE

And, on average, they rate their rides **4.8/5 stars**

“It’s my main transportation to and from work. If not I’d be left walking.”

57%

Say affordability is their main reason for riding

While almost **74% of riders** say the **money they saved** riding the service is one of its biggest benefits.

“I had my first interview and [RIDE] are the ones who took me there then took me back home”

63%

Riders say RIDE has had an economic impact on their home or business

While **48% of riders** say the service has helped them **gain or maintain employment.**

Funding and Compliance

- Utilizes existing FTA rural funding (5311), City budget, and one time grants
- Independent contractor drivers adds a unique compliance challenge
- FTA training, drug and alcohol testing, and most other FTA requirements apply
- IMD will have extra oversight initially to ensure continued compliance

Questions?

Contact Info:

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rlentz@wilsonnc.org

252-399-2210

Ryan Brumfield - Director of the Integrated Mobility Division of NCDOT:

ryan.brumfield@dot.gov

Enhancing Transit Using Microtransit

Mallory Avis, Public Transit Director

The BCGo Vision

- **Coordinated Mobility**
 - demonstrate the feasibility of coordinating services between multiple providers; public and private
 - reduce/prevent the duplication of services
 - utilize each agency's assets to the fullest
- **Provide transportation to areas previously un(der)served**
- **Change the perception of public transit**
 - custom vehicle design, "premium" transportation option
 - technology that enhances the overall customer experience
 - increase ridership by appealing to customers of all ages

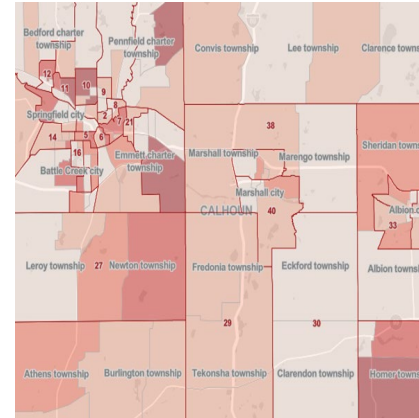
The BCGo Environment

- **Calhoun County, Michigan**

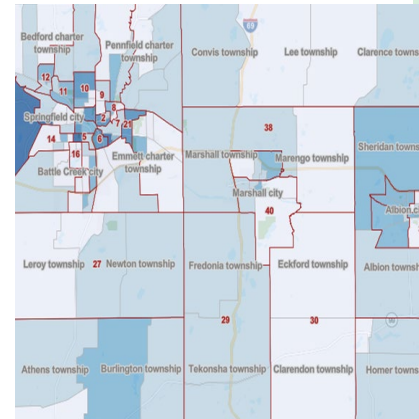
- Population: ~135,000
- 718 Square Miles
- 4 small cities = 50% of pop.
- Primarily rural
- No county-wide transportation

- **Demographics**

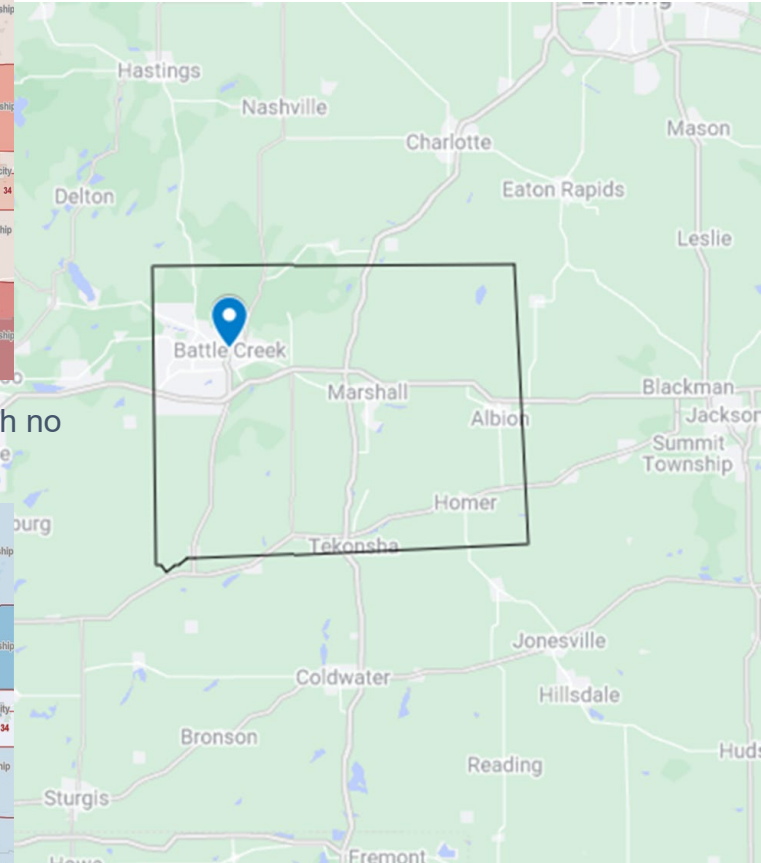
- 69% of the population is under 150% of the poverty line
- 6% more senior citizens
- 2% more people with disabilities
- Significant number of households with no access to a personal vehicle



Owner occupied households with no vehicles available (2020)



Income below poverty level + disability (2020)



The BCGo Impact

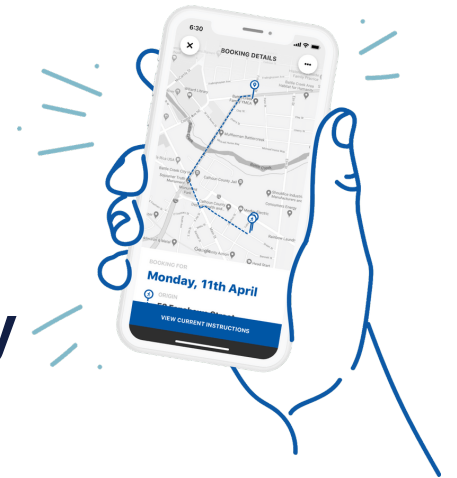
In 20 months of operation...

- **3,123 unique users**
 - +100 new users per month
- **62,841 booking requests**
 - 13,436 completed trips (~22%)
 - 14,639 passengers
- **55% of users are new public transportation users**

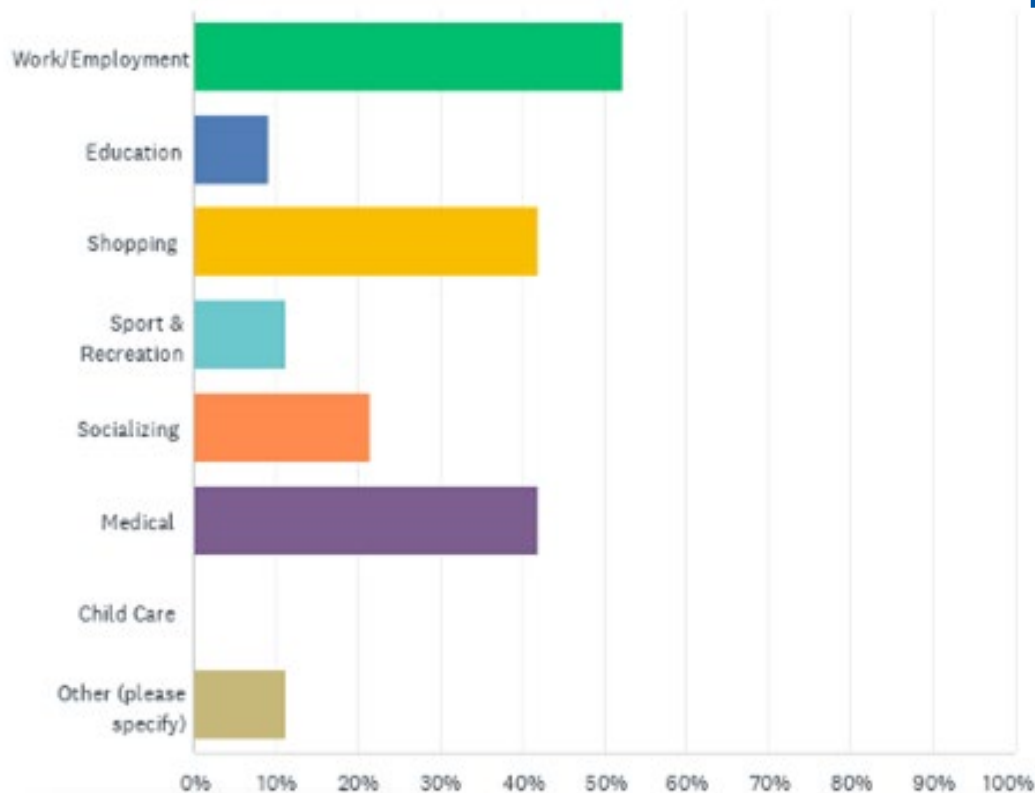


The BCGo Effect

- **Technology enabled transportation increased efficiency and reduced operational costs**
 - 70% of users book through the BCGo app
 - 68% of fares are paid through the app
 - maximizes ridership and minimizes wasted miles
- **ADA passengers organically shifted to this new model of transportation**
 - existing paratransit service was previously commingled with demand response service; BCGo adds an additional layer
 - passengers are willing to pay extra for additional features



The BCGo Need



8/10

How satisfied
are you with
BCGo?

3/10

How stressful is
BCGo?

7/10

How reliable is
BCGo?

“

It has been **very helpful** and I'm grateful I've been able to use it the times I have! It has helped me a lot! The drivers are nice as well!

It makes everything **so much easier** than trying to get a cab or catch a bus.

I can get myself to places **without asking people for rides.**

I think this service has great potential, and is

DEFINITELY needed in our community!

”

Next Steps in Enhancing Service

- **Mobility-as-a-Service, integrate all modes of transportation**
 - technology-enabled platform for fixed route, paratransit, demand response, and bikeshare
 - identify mobility options available to each passenger, and qualifications or requirements associated with each mode
- **Partner with private transportation services to further expand and enhance services**
 - create centralized dispatch system
 - utilize transportation assets to their fullest





Expanding Transit through Microtransit Services

TRB Webinar
December 12, 2022

Jaron Robertson

Acting Planning Director

Director Innovative Mobility Solutions

Utah Transit Authority

UTAH TRANSIT AUTHORITY

- Provides public transit throughout Wasatch Front region of Utah (80% of state's population)
- 83 Routes including:
 - 76 Bus and Flex Route Bus
 - 2 BRT (UVX & OGX)
 - 4 Microtransit Zones
 - 1 Commuter Rail (FrontRunner)
 - 3 Light Rail (TRAX)
 - 1 Streetcar (S-Line)
 - Paratransit Service
 - Vanpool



WHY MICROTRANSIT

Microtransit services are a critical part of a coverage-based and integrated transit system



Expand transit
access and
coverage



Provide first and last
mile connections



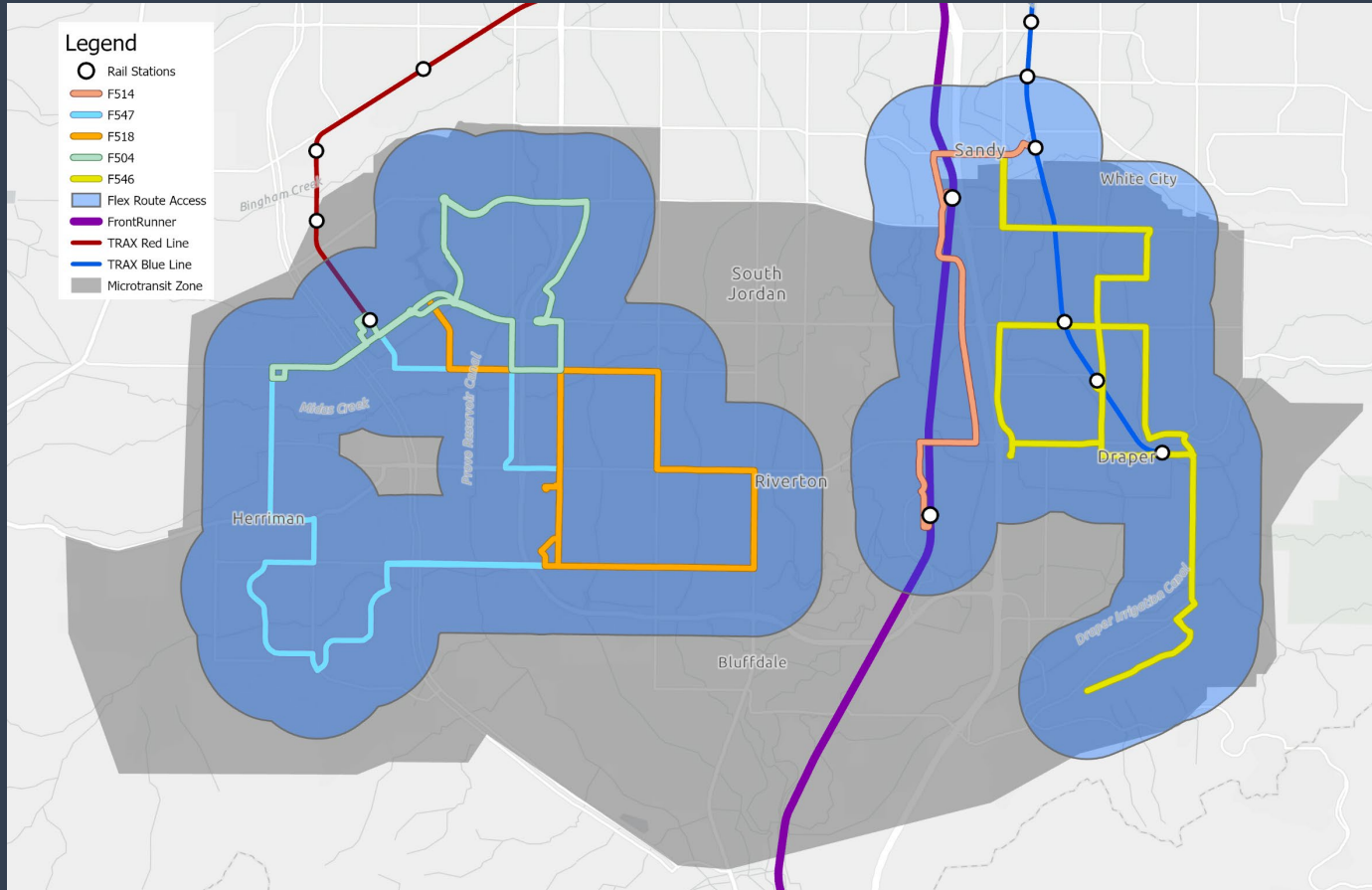
Improve flexible
transportation
options



Repurpose
underperforming bus
routes

COVERAGE-BASED SERVICE MODEL

Southern Salt Lake County Zone

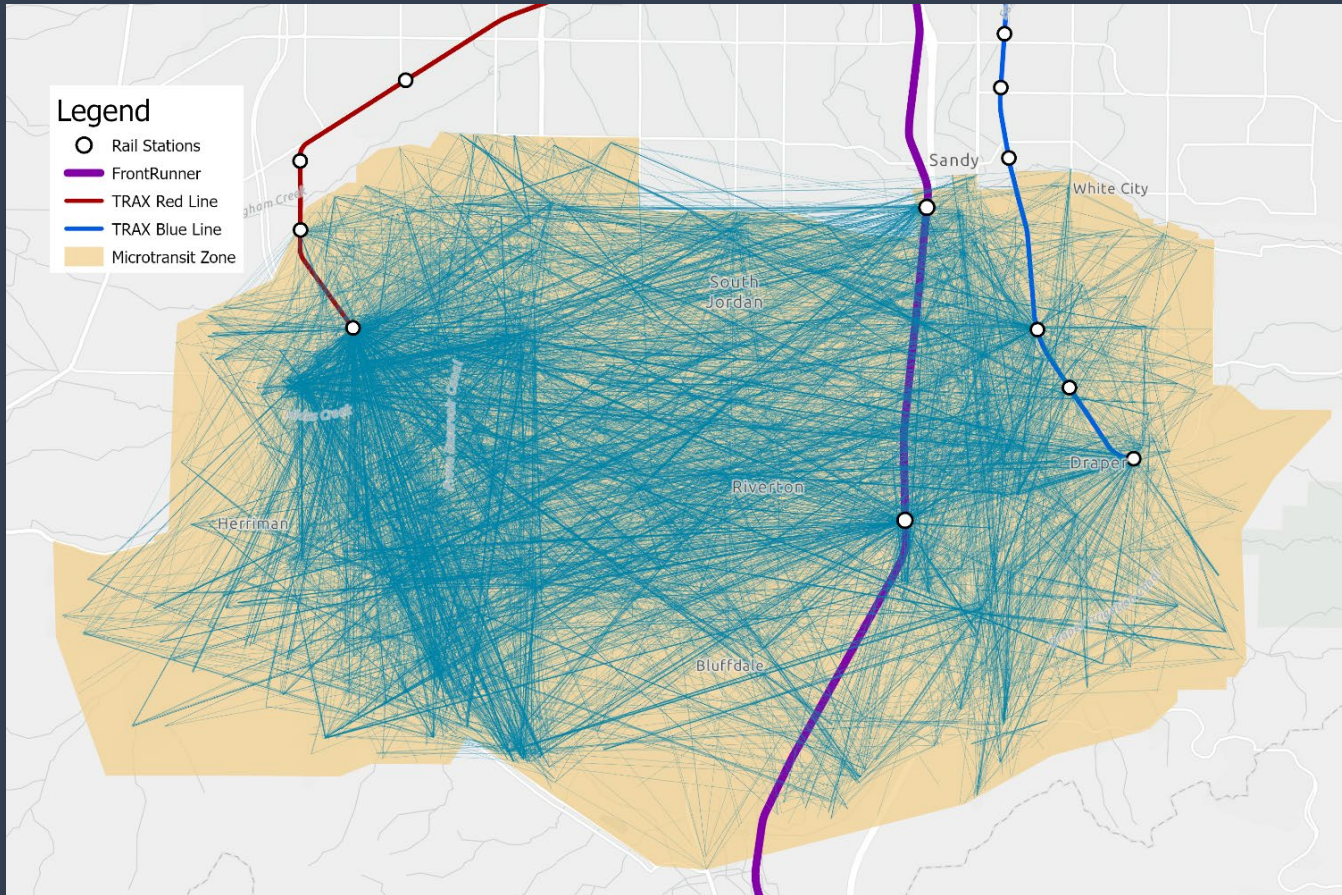


FLEX BUS ROUTES

- Coverage Area: 46 sq. miles
- 2019 Avg. Daily Ridership: 369
- 2019 Avg. Frequency: 30/60 min and peak trips
- 2019 Operating Costs: \$1.6M

COVERAGE-BASED SERVICE MODEL

Southern Salt Lake County Zone



Microtransit Zone Statistics

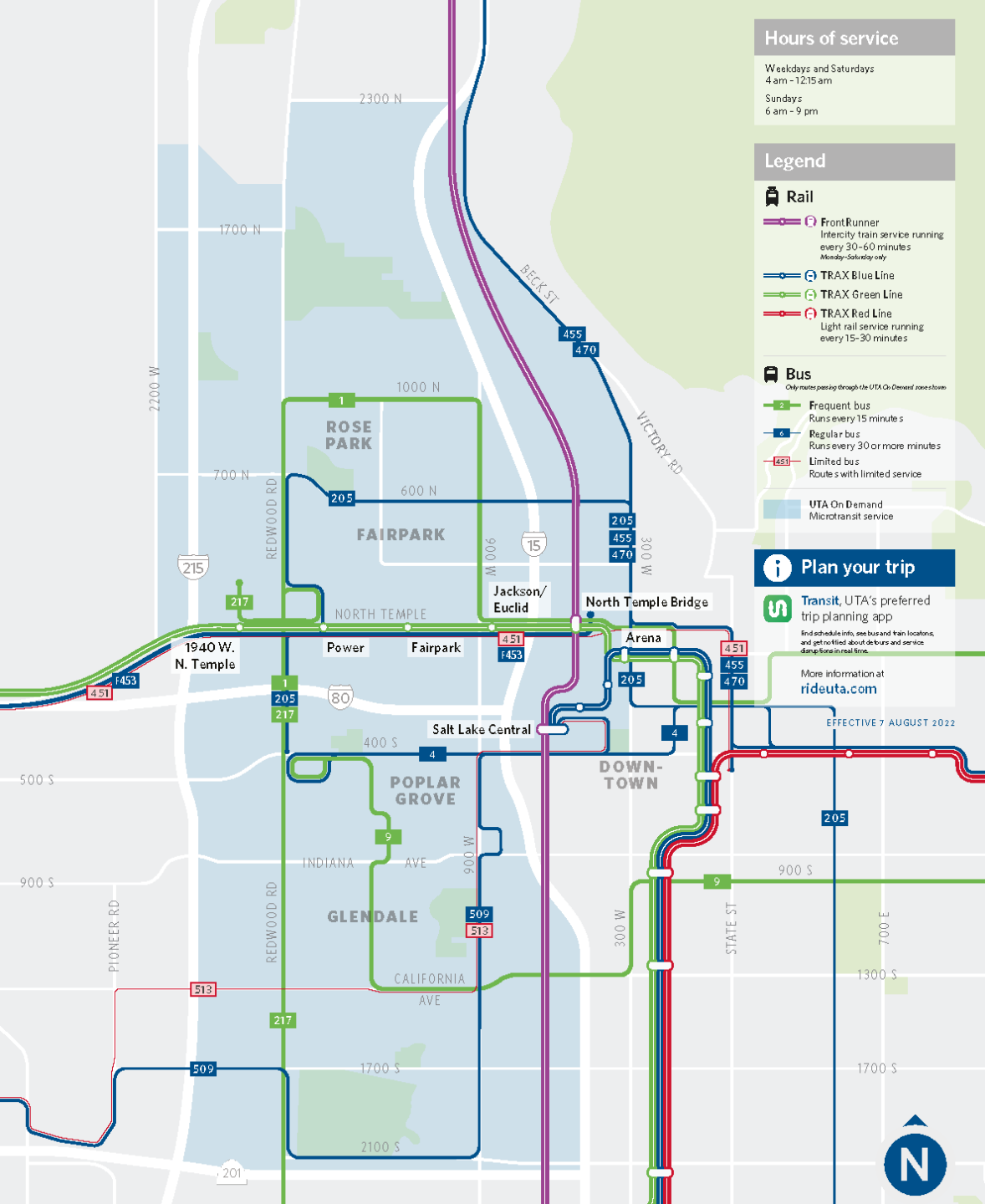
Zone Size

72 sq. mi

Population

246k people

- 2022 Avg. Daily Ridership: 528
- 2022 Avg. Pickup ETA: 19 min
- 2022 Operating Costs: \$3.6M
- Expanded transit coverage by 46% sq. miles



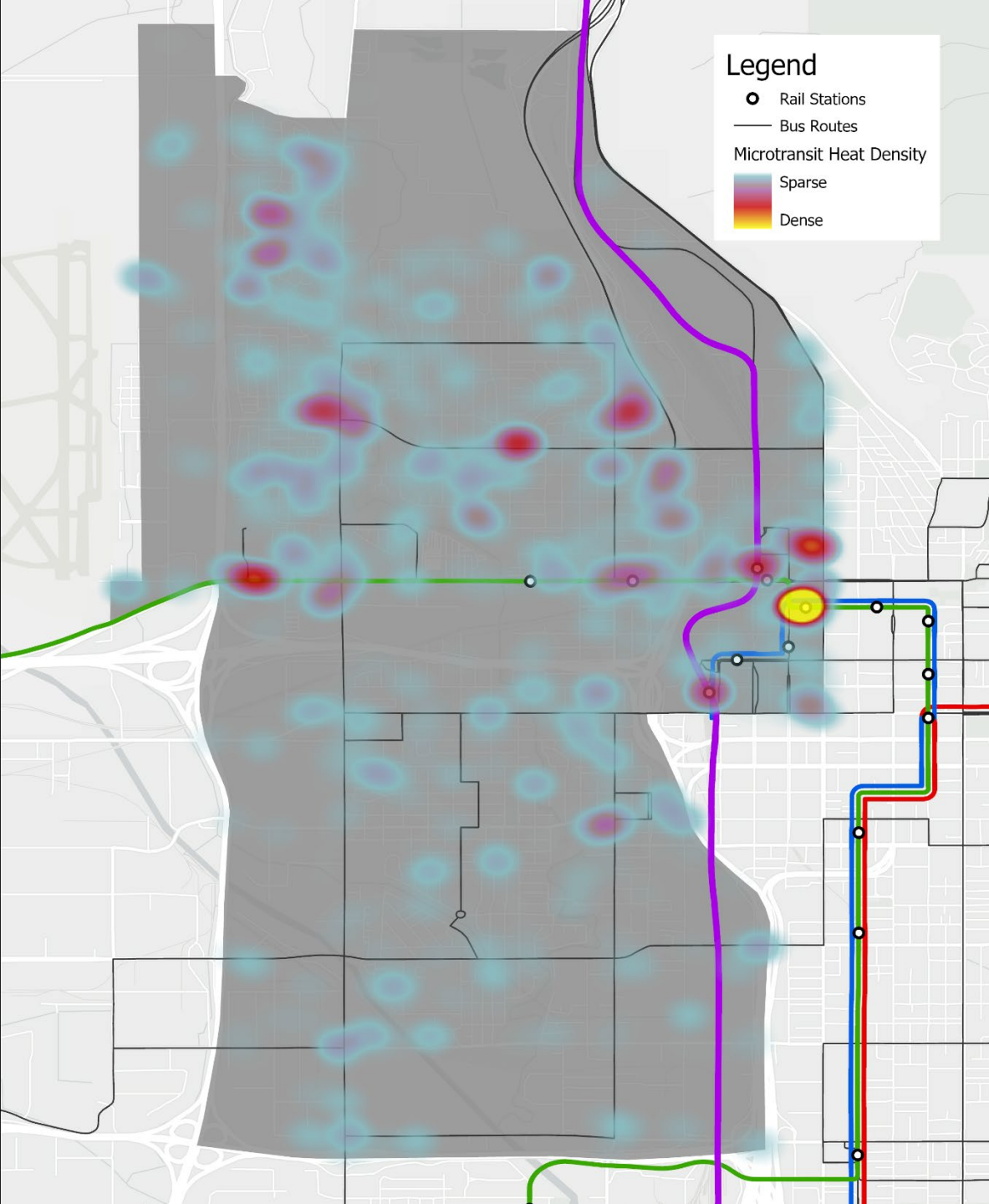
FIRST/LAST MILE SERVICE MODEL

SLC Westside Microtransit Zone

- Repurposed 3 underperforming bus routes
- Expanded transit coverage by 26% sq. miles
- Allowed for more direct fixed route alignment
- Provides on demand service 7 days/week

Microtransit Zone Statistics

Zone Size	Population	Pop. Density	Employment
15 sq. mi	60k people	5.0k people per sq. mi	38k jobs

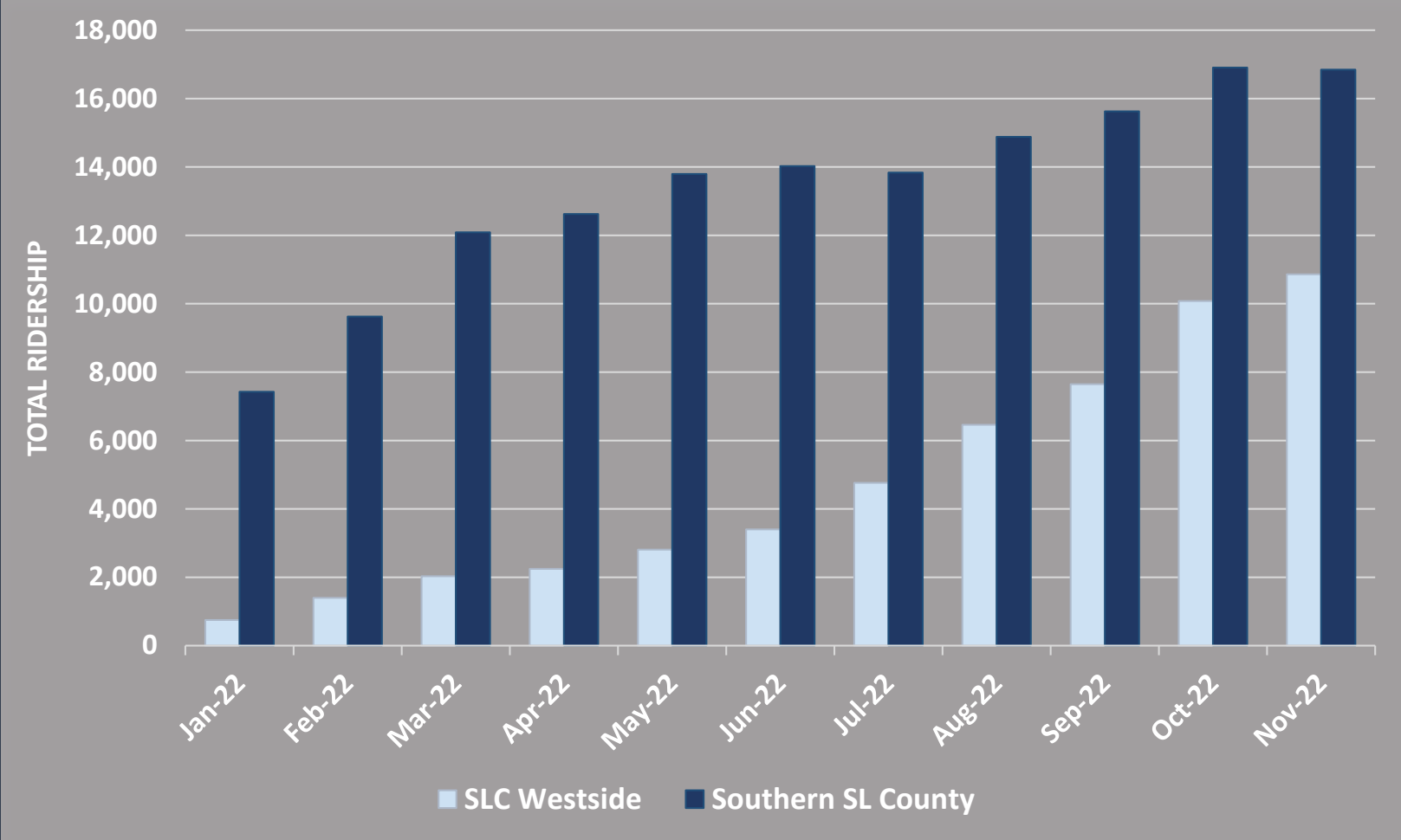


FIRST/LAST MILE SERVICE MODEL

SLC Westside Microtransit Zone

- Fixed Route Options
 - 10 rail stations (TRAX & FrontRunner)
 - 7 bus routes (15-60 min frequency)
- Average Pickup ETA: 10-12 min
- First and Last Mile Connections: 30-35%
- Average Trip Aggregation: 32-36%

2022 MICROTRANSIT RIDERSHIP



SLC Westside

- 52,442 YTD ridership
- 28% Avg monthly growth
- 1,350% Total YTD growth
- 2,648 Unique riders

Southern SL County

- 147,667 YTD ridership
- 8% Avg monthly growth
- 127% Total YTD growth
- 4,475 Unique riders



UTA ON DEMAND

HYBRID

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Today's presenters



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Hanna Cockburn
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Greensboro, NC

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Upcoming events for you

December 13

TRB Webinar: Trends in Transit
Ridership—Analysis, Causes, and
Responses

December 15

TRB Webinar: Measuring and
Managing Fare Evasion

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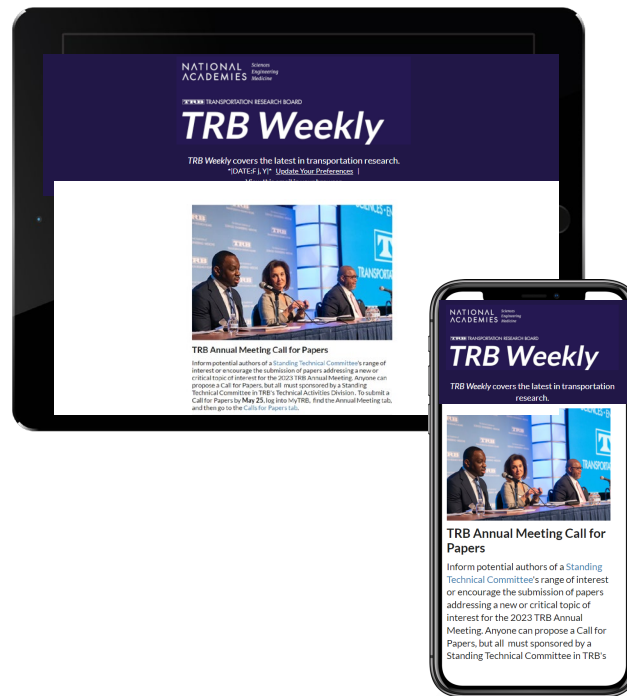
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Get involved

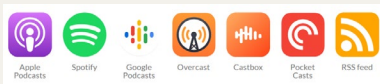
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- **Become a Friend of a Standing Technical Committee**

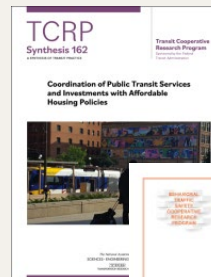
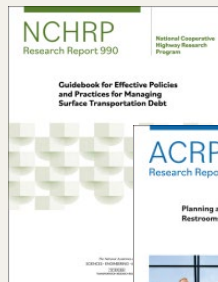
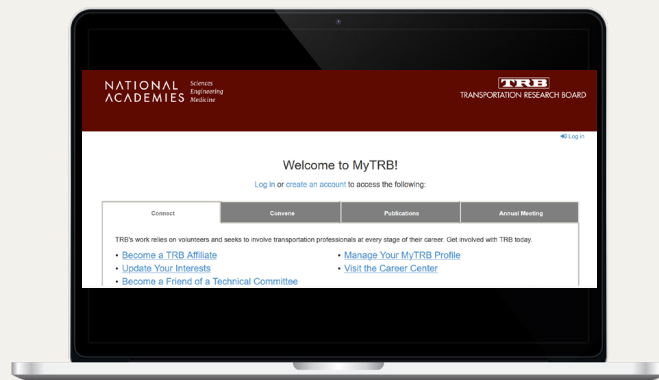
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