TRANSPORTATION RESEARCH BOARD

# TRB Webinar: Alternative Services for ADA Paratransit Riders

November 15, 2023

1:00 - 2:30 PM



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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

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See email following webinar for the certificate to provide to your board

# **Purpose Statement**

This webinar will include successful examples of alternative services. Presenters will share the highlights of and updates to their respective services. Presenters will also explain how to use the accompanying tool to plan and evaluate an alternative service.

# **Learning Objectives**

At the end of this webinar, you will be able to:

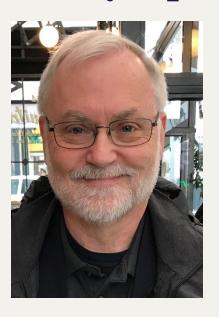
- Design and implement an alternative service, with the understanding of how transit agency goals and local conditions may shape the design
- Understand the regulatory requirements and constraints that impact alternative services
- Use the Alternative Service Estimation Tool (ASET) to plan and evaluate an alternative service

## **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



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## **TCRP Report 239**

# The Provision of Alternative Services by Transit Agencies: The Intersection of Regulation and Program

**November 15, 2023** 

KFH Group, Incorporated | In Association with Texas A&M Transportation Institute



















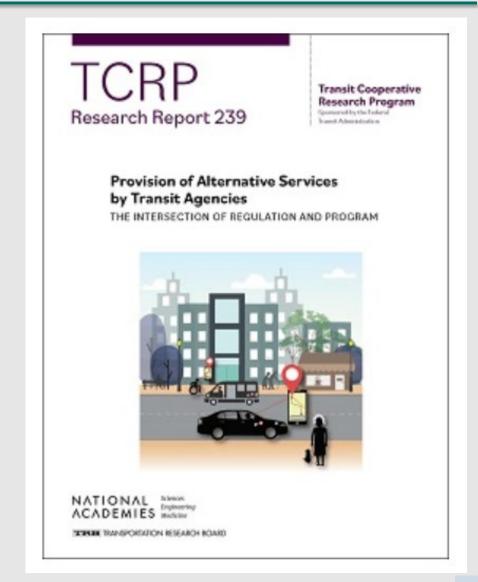
#### **Research Team**

#### **KFH Group**

**Buffy Ellis, PI and Co-Author** 

# **Texas A&M Transportation Institute (TTI)**

Will Rodman, Deputy PI and Co-Author Todd Hansen, Developer of the "ASET" Tool



# **Project Panel**

Jameson Auten, Kansas City Area Transportation Authority (formerly), Kansas City, MO (Chair)

Timothy Barham, GRTC Transit System, Richmond, VA

Ron L. Brooks, Accessible Avenue, LLC, Phoenix, AZ

Bonnie Epstein, Pinellas Suncoast Transit Authority, Saint Petersburg, FL

Jon Gaffney, Golden Gate Transit, San Rafael, CA

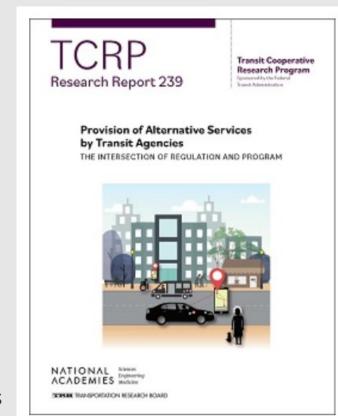
Tammy Haenftling, Dallas Area Rapid Transit (DART), Dallas, TX

Carol L. Ketcherside, Valley Metro, Phoenix, AZ

Bonnie Graves, FTA Liaison

Thomas Scotton, FTA Liaison

Mariela Garcia-Colberg, Senior Program Manager Cooperative Research Programs Transportation Research Board



#### What are Alternative Services?

- Transit agency-sponsored, on-demand services offered to ADA paratransit riders as an option
- Do not have to meet ADA paratransit requirements
- But must comply with ADA requirements
- Most common examples: taxi and/or TNC-based subsidy programs



# **Research Objective**

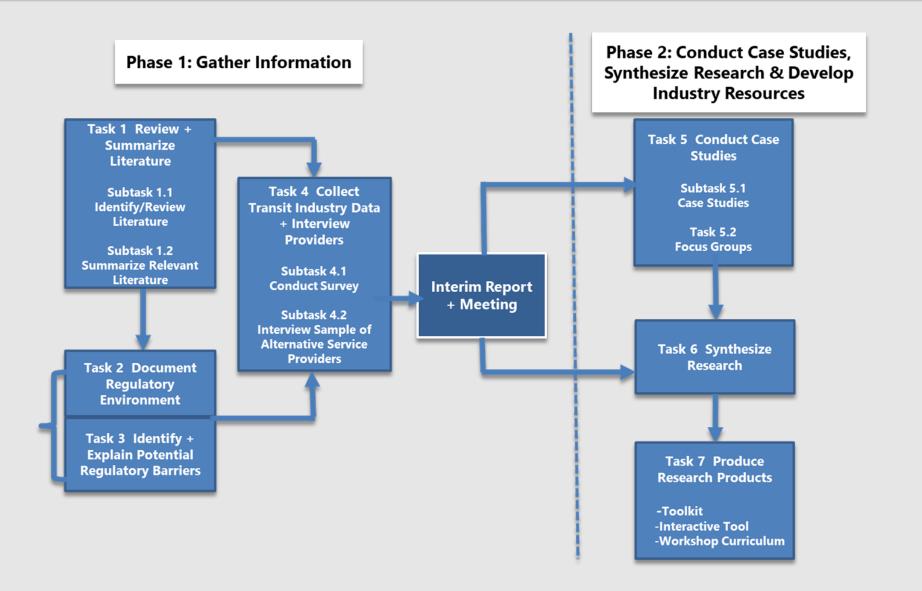
## **Overall Objective**

"To understand how taxis, ride-sourcing services, and other non-dedicated service providers are being used for alternative services for individuals with disabilities."

# **Core Questions**

- To what extent do alternative services for ADA paratransit riders reduce overall paratransit costs?
- To what extent do alternative services, in particular those using new ridesourcing providers, meet the travel needs of ADA paratransit riders and particularly those who use wheelchairs?
- What are the legal and regulatory issues that frame the planning, implementation, and operation of an alternative service? What should transit agencies address to ensure their alternative service complies with applicable regulatory matters?

# **Research Approach**



# **Survey Respondents (18 total)**



Boston, MA – MBTA – On-Demand Paratransit Pilot—Lyft and Uber (and CURB)

Broward County, Florida – BCT – Rider Choice — Cab Connect, 17 taxi co.

Chicago, IL – Pace – Taxi Access Program (TAP) — Chicago taxi companies

Columbus, OH – COTA – Mainstream On-Demand — UZURV

Contra Costa Co, CA – Tri Delta Transit – Mobility On Demand — Lyft, Uber, 1 taxi co.

Dallas, TX – DART – TNC Pilot—Uber

Denver – RTD – Access-a-Cab—1 Taxi (50 WAVs)

Flagstaff, AZ – Mountain Line – Mountain Line Taxi Program — Lyft, Uber, 10 taxi co.

Houston, TX – METRO – METROLift Subsidy Program—1 Taxi (75 WAVs)

# **Survey Respondents (18 total)**



Las Vegas, NV – RTC – On-Demand Pilot Program—Uber, Tango (WAV broker)

Monterey Co, CA – MST – Taxi Voucher Program—5 taxi companies

New York City, NY – MTA/NYCT – On-Demand E-Hail Pilot—3 taxi/limo apps

Phoenix – Valley Metro – RideChoice—Uber, 34 taxi co., 10 NEMT providers

Pinellas County, FL – PSTA – Access on Demand—Lyft, (Uber), 1 taxi co

Richmond, VA – GRTC – CARE On Demand—UZURV and Roundtrip

San Antonio, TX – VIA – Taxi Subsidy Program—1 taxi co. (26 WAVs)

San Bernardino, CA – Omnitrans – TAXI Ride & LYFT Ride—Lyft, 1 taxi co.

Washington, DC – WMATA – Abilities Ride—3 TNCs, 7 taxi co, 2 van co, CURB

#### **Subsidy Method**

Provider-side subsidy with multiple providers | Most common model



- Transit agency contracts with providers
- Rider arranges service with selected provider
- Rider pays base fare, transit agency subsided remaining portion of fare up to defined amount, rider pays any overage.
- More frequent subsidies: \$9-\$18 of trip cost, \$15 most common. Two agencies provide a much higher subsidy per trip \$27 and \$38.
- Most transit agencies limit # trips per day or month.

#### **Subsidy Method**

User-side subsidy | Less common model



- Classic taxi vouchers being replaced
- Rider loads funds into a farecard or bankcard account
- Transit agency loads matching funds into account; ranged from 1:1 to 4:1
- Rider arranges service with provider
- Limits: maximum subsidy or value per month
- No financial relationship between transit agency and providers

# **Subsidy Method: Provider-Side**

#### **How Provider-Side Subsidy Models Can**

#### **Reduce Cost/Trip or Provide More Trips**



ADA paratransit cost/trip = \$36.00

ADA paratransit fare = \$3.00

**Cost per ADA paratransit trip** = \$33.00

Alternative service subsidy/trip = \$11.00

Each "mode-shift" trip saves agency \$22.00.(\$33 - \$11)

But each "newly induced" trip costs agency \$11.00.

**Cost is neutral** if 2 newly induced trips for every 1 mode-shift trip. But transit agency is providing two more trips for the same \$33 budget.

Cost reduced if <2 newly induced trip for every 1 mode-shift trip.

Cost increases if >2 newly induced trip for every 1 mode-shift trip.



# Wheelchair Accessible Service

#### • Provided by:

- Primary provider(s)
- ➤ If not by primary provider(s):
  - Transit agency requires primary provider(s) to provide accessible service through third-party.
  - Transit agency contracts directly with WAV provider, e.g., NEMT company.
- **Trips using WAVs ranged from 3.6% 8.2%** of total reported alternative service trips, with one exception at 24.1%



# Safety and Insurance

- Driver training requirements varied.
  - ➤ ADA's "training to proficiency" does not apply.
- Drug and alcohol testing
  - > FTA requires the testing, but provides the "Taxi Exception"
  - ➤ If riders have a choice of providers, testing requirements do not apply.



# Data and Data Sharing

- **Data sharing remains an issue** but is getting better.
- Interviewed alternative service providers reported they provide all requested data.
- Some agencies reported including alternative service data with annual NTD reports, but such data is to be reported only if the service meets the federal definition of public transportation and is shared ride.



#### **MUST PROVIDE EQUIVALENT SERVICE**

#### Service equivalency measured by seven criteria

- Response time/on-time performance
- > Fares
- Service area
- Hours and day of service
- > Trip purpose restrictions or priorities
- > Availability of information and reservations capability
- > Any constraints on capacity or service availability

#### Response time/on-time performance

- A challenge for surveyed transit agencies. Some unaware; if aware, data not reported
- On-demand trips WAV vs. non-WAV response times must be relatively equivalent
- Advanced reservation trips WAV vs. non-WAV OTP must be relatively equivalent
- ➤ One case study agency reported WAV response time data averages 10-15 minutes, compared to anecdotal average of 5 minutes for non-WAV trips.
- Uncertainty about FTA's taxicab exception and NTD reporting.



# Regulatory **Environment**

#### **ACCESSIBILITY TO SERVICE**

#### Riders must be able to access the service

- > If apps are used, a call-in option must also be provided
- Not a problem for taxi-based systems
- > TNCs have local and national call centers
- > Some transit agencies allow riders without smart phone or internet access to call paratransit call center; trips "assigned" to TNCs via concierge link

#### Cashless services

- ➤ Not a problem for taxi-based systems
- Transit agencies with TNC-based service suggest riders use credit or debit cards, or for the unbanked, "cash" cards.

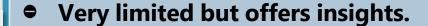


- Cost savings typically estimated as straight comparison between cost per alternative service trip vs. cost per ADA paratransit trip, with calculation of savings as if all alternative service trips had been ADA paratransit trips.
  - This accounts for only one for one mode-shift trips and not for subsidies associated with new trips induced on the alternative service.



TCRP Report 239

# Input from Riders



#### • Riders who use the alternative service:

- Mix of riders who switched all trips and those still using ADA paratransit for some trips.
- ➤ Often use alternative service for return trips from medical appointments.
- Like direct, no shared-rides; service reliability; and same day trip booking.

#### • Riders who do not use the alternative service:

- > Do not know about it.
- Do not want to pay higher fare.





# **Case Studies**

### **Five Case Studies**



Broward County, Florida – BCT – Rider Choice

Cab Connect, 17 taxi companies (13 of which have WAVs)

Flagstaff, AZ – Mountain Line – Mountain Line Taxi Program

Lyft, Uber, 10 taxi companies

Richmond, VA – GRTC – CARE On Demand UZURV and Roundtrip

San Antonio, TX – VIA – Taxi Subsidy Program

1 taxi company (26 WAVs)









# Richmond, VA – GRTC – CARE On Demand



- To address increasing demand and cost, on-demand service began as **one-year pilot in August 2017**.
- Two providers: UZURV and Roundtrip.
- **Drivers:** passenger sensitivity training, defensive driving; UZURV meets FTA drug & alcohol testing (not a GRTC requirement).
- Service hours: less than for CARE.
- **Trips scheduled** at least 2 hours in advance and up to 30-90 days in advance depending on provider.
- Fare structure: Rider pays \$6 fare (2 X CARE fare), with GRTC subsidy of \$15. For trips more than \$21 (\$6 + \$15), rider pays overage.





# CARE On Demand | 2018 - Partial 2021





	2018	2019	2020	<b>2021</b> (10 mos.)
CARE vs. CARE On-Demand Trips				
Total CARE Trips	222,639	225,856	165,073	160,819
Total CARE On-Demand Ridership (Passenger Trips)	22,945	30,535	23,625	24,596
CARE On-Demand				
Avg. Trip Distance (miles)	6.4	6.5	6.3	6.3
Avg. Travel Time (minutes)	16.1	15.9	15.8	15.9
Avg. Passengers per Trip	1.05	1.05	1.06	1.07
% Ambulatory Trips	91%	92%	92%	86%
% Wheelchair Trip	9%	8%	9%	14%
% UZURV Trips	68%	65%	69%	70%
% Roundtrip Trips	32%	35%	31%	30%
OTP, measured at 0/+15 min. (UZURV only)	99.4%	98.6%	99.2%	94.7%
Operating Costs				
Avg. Cost per CARE On-Demand Trip	\$25.29	\$26.05	\$26.32	\$27.24
% Trips > \$21.00 (\$6 fare + \$15 GRTC subsidy):				
Combined (UZURV & Roundtrip)	71%	82%	89%	99.50%

# CARE On Demand | Determining Cost Savings - 2 Metrics

**First:** Relative proportion of CARE On-Demand trips to total CARE trips. Objective 10%. GRTC achieved its objective in first full year of CARE On-Demand.





	Trips				
	Total CARE	Total CARE On Demand	% CARE On Demand of CARE		
<b>2017</b> (5 mos. Aug-Dec)	97,845	3,691	3.8%		
2018	222,639	21,921	9.8%		
2019	225,856	29,090	12.9%		
2020	165,073	22,208	13.5%		
<b>2021</b> (10 mos. Jan-Oct)	160,819	23,207	14.4%		

# CARE On Demand | Determining Cost Savings - 2 Metrics

**Second:** Savings to GRTC if CARE On-Demand trips were provided by CARE (ADA paratransit). *47% savings in 2019; 54% savings in 2020.* 





	2018	2019	2020	<b>2021</b> (10 mos.)
Total Cost to GRTC for CARE On Demand Trips	\$319,270	\$433,241	\$331,482	\$347,946*
CARE Cost per Trip	\$28.21	\$28.19	\$32.71	\$36.39*
Total Cost if CARE On Demand Trips Provided by CARE	\$617,911	\$819,791	\$720,457	\$844,503*
Savings to GRTC	\$298,641	\$386,550	\$388,974	\$496,557*

<sup>\*</sup>Preliminary cost figures.

Source: GRTC Operational Data - CARE On Demand; and GRTC CARE On-Demand Trip Comparison - Annually

# **GRTC's CARE On Demand**





 CARE On-Demand achieved objective as lower cost option for ADA paratransit riders.

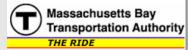
#### **Benefits**

- Effective alternative for ADA paratransit riders during pandemic with solo rides and viable option while CARE contractor built up capacity to meet re-emerging demand from pandemic's low levels.
- GRTC set subsidy limit for a CARE On-Demand trip at modest level, half of cost for CARE trip, helping protect against potential "new" costs for CARE On-Demand.

#### **Shortcomings**

- Second metric assumes each CARE On-Demand trip would have been a CARE trip.
- Some CARE On-Demand trips may be new trips, so GRTC's calculation may overstate savings (GRTC recognizes this).

#### Pilot started September 2016



#### *In partnership with:*





Accessible

Taxis

- TNC-based alternative service
- Sept 2016 March 2017: 400 participants
- Customer = \$2.00; MBTA = Up to \$13.00
- Customer pays overage
- Payment through app; no cash
- Initial trip limit: 20 trips per month
- Trip reservations primarily by accessible mobile app; call-in option for Lyft only
- WAV service: Lyft used First Transit and Uber incentivized WAV taxi drivers
- Difference in vehicle insurance paid by TNCs

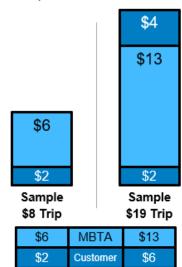
#### On-Demand Paratransit Pilot: Innovative Elements



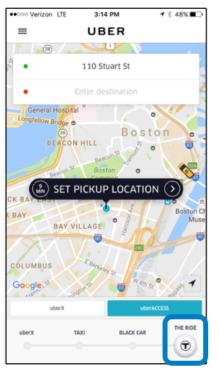
The MBTA and its partners have focused on providing innovative, customized solutions to meet customer needs

#### **Pricing**

Customer pays first \$2, the MBTA pays next \$13, and the customer pays remainder of the trip's cost



#### Apps



#### **Ordering Options**

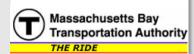








**Initial Outcomes (March 2017)** 



*In partnership with:* 



First Transit



Accessible Taxis

- 13,000 total trips through mid-March
- < 1% of trips on wheelchair accessible vehicles</p>
- Average subsidy per trip (thru Feb 2017): \$9.00
- Average fare paid (thru Feb 2017): \$4.50
- Use of The RIDE down about 20% among participants
- Cost savings on program participants trips on The RIDE and TNCs: 6%

#### Changes as of March 2017

- 375 new participants added
- New trip limit based on use of The RIDE

#### *In partnership with:*

Massachusetts Bay

Transportation Authority



First Transit



Accessible Taxis

#### Changes as of May 2017

- Board approves eligibility to all customers of The RIDE
  - ➤ As of 2022 over 5,000 registrants
- New individual trip limits based on use of The RIDE (2, 10, 20, 30, 40)
- UberPool (shared-ride service) added as a lower-rate option

## **Boston | MBTA | On-Demand Pilot**

#### Changes as of March 2018

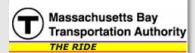
- Curb (taxi broker app) added as third provider
  - ➤ Curb pulled out in March 2020 (due to low demand COVID)
- Max subsidy per trip increased to \$38 (so fare + subsidy = \$40)

#### Changes to WAV Service – 2019-2020

- Uber and Lyft enter into contracts with national ops mgmt. companies
- Rate a combination of hourly rates and mileage rates on-call

#### Changes to WAV Service – 2020-2022

- Uber contracts with NEMT company provider
- Lyft partnering with individual WAV providers



*In partnership with:* 



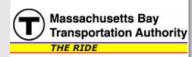
First Transit



Accessible Taxis

## **Boston | MBTA | On-Demand Pilot**

#### 2019 On-Demand Stats



#### *In partnership with:*



First Transit

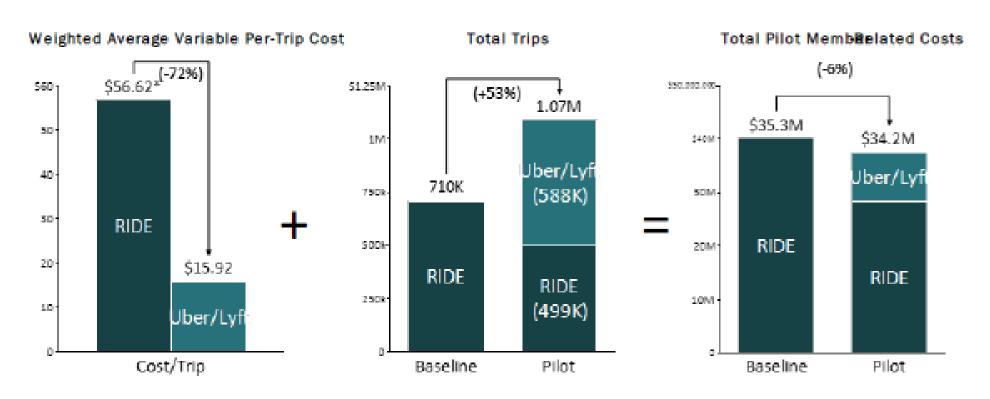


Accessible Taxis

- 261,000 On-Demand trips
- Even split between Uber and Lyft
- 7.3% trips required WAV service (more on Uber than Lyft)
- Average response times:10-15 min for WAV trips vs 5 min for non-WAV trip
- Deemed to be equivalent service by FTA
- Average subsidy = \$15.41

## **Boston | MBTA | On-Demand Pilot**

#### 2017-2020 On-Demand Results



<sup>\*</sup>Weighted average across all years of pilot. Estimate uses variable cost and fuel cost of dedicated service providers (no fixed cost).



## **Boston | MBTA | POP AND The RIDE Flex**

Apr 2019 - Mar 2020: MBTA Launches Provider Options Pilot (POP)

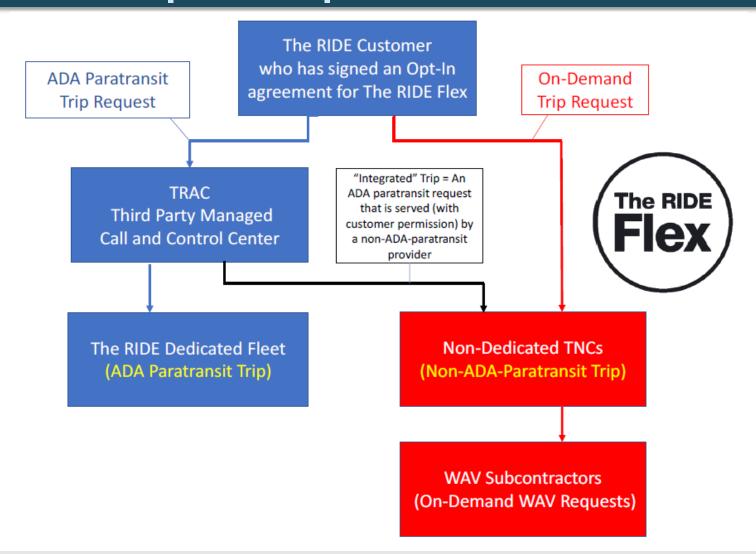
- Rider signs opt-in agreement
- Allows MBTA call/control center staff to assign trip request to Uber or Lyft
- Rider is allowing MBTA to assign a rider's ADA paratransit trip request to a non-ADA paratransit service provider
- Rider may opt out for any particular trip
- Fare = The RIDE fare

March 2020: MBTA Issues RFP for Combined On-Demand and POP: Rebrands Combined service as The RIDE Flex

One combined contract; one combined opt-in agreement



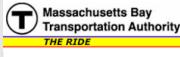
## **Boston | MBTA | The RIDE Flex**



## **Boston | MBTA | The RIDE Flex**

#### The RIDE Flex – 2022 Use

- 5,000 of 35,000 active The RIDE customers use The RIDE Flex
- 50% of the 5,000 utilize the On-Demand element in any given month







- Excel workbook for data inputs with step-by-step instructions
- Built using examples of alternative services researched and cost savings estimation methodology developed by MBTA (Boston)
- Intended as a planning and evaluation tool



**Planning Calculator** – Estimates costs based on different subsidy and other service parameters

Two components:

**Cost Savings Calculator** – Estimates cost savings of an existing alternative service

## **ASET Planning Calculator – Inputs**



Baseline ADA
Paratransit Inputs
(annual)

Total Operational Cost*	\$ 10,000,000	
Paratransit Fare	\$ 2.50	
Total Paratransit Trips	200,000	
* Use either the total blended cost for paratransit service		

\* Use either the total blended cost for paratransit service (variable plus fixed costs) or instead use total variable costs only

Alternative Service Inputs (planned)

Enter \$ Amoun	t Subsidy Level per Trip	\$	10.00
Subsidy Payment Model Design: Mark an "x" for either Flat Subsidy	Flat Subsidy Payment	X	
Payment or Max Subsidy Payment	Max Subsidy Payment		
• if Max Subsidy Payment is chosen, you can have the option to change the Lower	Lower Bound		
Bound Subsidy per Trip %	Subsidy per Trip		100%

## **ASET Planning Calculator – Further Alternative Service Inputs**



#### Trip Mileage Subsidy Limit:

Mark an "x" if trips taken in the program have a <u>Trip Mileage Limit</u>

• If Trip Mileage Limit is chosen, set the limit, charge per mile above the limit, and estimated average trip miles

#### Mark if using Trip Mileage Limit

Trip Mileage Limit

Miles

Charge per Mile above
Limit \$ 1.00
Estimated Average Trip

#### **User-Side Sudsidy Design:**

Mark an "x" if using a <u>User-Side Subsidy</u>

• If User-Side Subsidy is chosen, set the initial fare amount paid by the user

#### Mark if User-Side Subsidy

Initial Fare Amount

#### Χ

10

11

\$ 1.00

## **ASET Planning Calculator – Outputs**



#### Calculates the per trip cost and net customer benefit

- > Paratransit per trip cost vs. alternative service per trip costs
- Determines monetized benefits for customers at various "what-if" fare and subsidy levels

Weighted Average Variable Per-Trip Cost			
Paratransit	\$	50.00	
Alternative Service	\$	9.00	

Customer Perspective Outputs			
Customer Alternative Service Net Fare Cost	\$	1.00	
Customer Cost Difference (Net Customer Benefit)	\$	11.50	

## **ASET Planning Calculator – Outputs**



#### Customer cost difference is used to determine output results

- Paratransit trips + Alternative Service trips = Total trips
- Total cost based weighted average variable per-trip cost for each subtotal of estimated trips

Planning Calculator Outputs				
(rounded example results)				
	Paratransit Trips	Alternative Service Trips	Total Trips	Total Cost
Annual Estimated Totals	169,500	84,500	254,000	\$ 923,400

Outputs also can determine breakeven point and cost savings targets

## **ASET Cost Savings Calculator – Outputs**



#### Calculates the weighted average variable per-trip cost

- Difference between paratransit and alternative service per-trip costs
- Calculates 1-year results of cost savings and induced trips
  - Previous 5 years of paratransit trips calculates a growth rate
  - Estimated induced trips determines the **mode shift** from paratransit to alternative service (trips that would have been taken on paratransit)
  - Estimated cost savings from mode shift minus additional subsidy for the alternative service yields the resulting net cost change

#### **Paratransit Inputs**

- Total operational cost and trips (year of alternative service)
- Total trips for previous five years (prior to alternative service)

#### **Alternative Service Inputs**

 Average subsidy per trip, total trips, and year of implementation

Result: Net cost change by dollar amount and percentage



1

To what extent do alternative services for ADA paratransit riders reduce overall paratransit costs?



- Research suggests alternative services provide some cost savings based on cost per subsidized trip vs. cost per ADA paratransit trip.
- To really understand, need to differentiate between mode shift trips and new, induced trips. Costs for "new" trips may be more than any savings from modeshift trips.
- Capping subsidy for alternative service trips that is significantly less than cost for ADA paratransit trips and limiting number of trips per rider may helps protect transit agency from potential "new" costs with "induced" trips on the alternative service.
- Research project's Excel-based tool can be used to help estimate costsavings.

2

To what extent do alternative services, in particular those using new ride-sourcing providers, meet the travel needs of the ADA paratransit riders and particularly those who use wheelchairs?



- Alternative services meet more spontaneous travel needs than ADA paratransit.
- While limited, rider input found riders like the direct, no shared-ride trips, ability to schedule trips same-day, and service reliability.
- Data suggest riders who use wheelchairs use alternative services at lower rates than for ADA paratransit: 3.5% 8.2% (with one exception at 24.1%) compared to 15-25% on ADA paratransit.
- The research does not answer whether riders needing a WAV use alternative services at lower rates than ADA paratransit because of personal preferences; or whether the alternative service's WAV service is less timely and/or available.

3

What are the legal and regulatory issues that frame the planning, implementation, and operation of an alternative service?

What should transit agencies address to ensure their alternative service complies with applicable regulatory matters?



- Research project identifies the legal and regulatory matters that transit agencies should address, finding certain matters are more an issue and deserve more attention:
  - > Taxicab exception,
  - > Service equivalency for riders who use wheelchairs, and
  - > NTD reporting.

## **Questions?**

#### **TCRP Report 239**

## The Provision of Alternative Services by Transit Agencies: The Intersection of Regulation and Program

KFH Group, Incorporated | In Association with Texas A&M Transportation Institute

#### **Elizabeth (Buffy) Ellis**

KFH Group, Inc.

#### Will Rodman

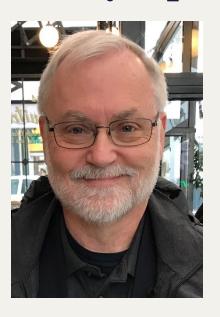
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## Today's presenters



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## Upcoming events for you

#### November 29, 2023

TRB Webinar: Advancing Equity in Travel Experiences—The Role of Gender and Identity

#### **December 4, 2023**

TRB Webinar: Sustainable and Low-Carbon Solutions for Asphalt Pavements

https://www.nationalacademies.org/trb/ events

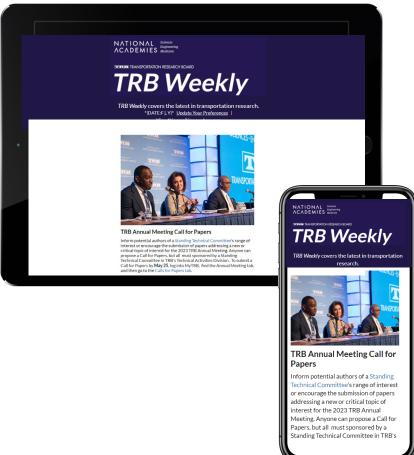


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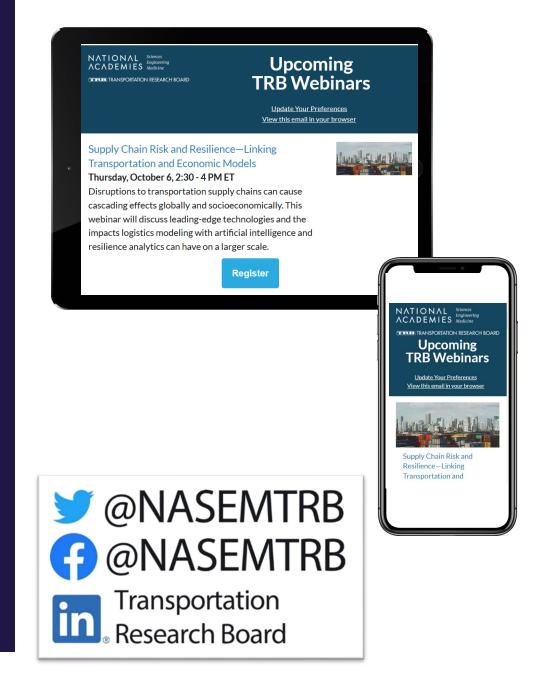
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