UTAH TRANSIT AUTHORITY QUARTERLY MICROTRANSIT PILOT PROJECT EVALUATION

SOUTH SALT LAKE COUNTY, 3RD QUARTER OPERATIONS
FOR THE MONTHS OF JUNE 2020 / JULY 2020 / AUGUST 2020

Prepared by UTA Innovative Mobility Solutions under the Office of Communications & Marketing

EXECUTIVE SUMMARY

BACKGROUND

Utah Transit Authority's Innovative Mobility Solutions Team has partnered with Via to deploy a Microtransit Pilot (Pilot) for one year beginning on November 20, 2019. This on-demand, shared-ride Pilot is designed to expand access to UTA services throughout the zone, to improve mobility for all users, and to provide a quality customer experience. In general, the project team is interested in understanding whether Microtransit provides a valuable and cost-effective service to meet the needs of customers in the region, as well as future deployment potential for Microtransit Services in UTA's Five Year Mobility Plan.

OVERALL HEALTH OF PILOT PROJECT: Q3 UPDATE

In the third quarter of the Pilot, hundreds of riders continued to use the Microtransit service for thousands of essential trips during the COVID-19 outbreak. Total rides increased by 2% over Q2 which is a positive trend given summer months typically deliver lower UTA ridership numbers. With an extra service day in Q3, daily ride averages held steady at 169 per day. Top learnings at this stage are:

- After dipping in July, August ridership picked up again in step with UTA system wide trends
- Utilization increased by 42% with more efficient aggregation of riders
- Cost per rider fell by 11% as ridership increased and driver hours were reduced to help optimize the service

Figure 1: Key Performance Indicators (KPIs)

Pilot Objective	Metric	Q1	Q2	Q3
Ridership	Total ridership	19,891	10,962	**11,176**
	Avg. weekday ridership	316	169	**169**
	Utilization[1]	1.88	1.02	**1.18**
Customer Experience	Avg. wait time (minutes)	11	10	**10**
	Avg. customer rating[2]	4.8	4.8	**4.8**
Overall Performance	Cost per rider	$19.10	$34.30	**$30.61**
	Public support	✓	✓	**✓**
	Days of operation	63	65	**66**

Key:

🟩	=	On target	🟧	=	Approaching target	🟥	= Not on original, pre-COVID target

[1] Utilization – Average riders per hour per vehicle
[2] Average customer rating – Based on a scale of 1-5

HOW COVID-19 HAS IMPACTED UTA & THE MICROTRANSIT PILOT

UTAH DIRECTIVES, PUBLIC HEALTH AND TRANSPORTATION

These are extraordinary times here in Utah and throughout the world. On March 11th, the World Health Organization declared COVID-19 a global pandemic. On March 27th Utah Governor Herbert issued a "Stay Safe, Stay Home" directive to all Utahns to reduce the risk of COVID-19 transmission and minimize the impact on hospitals.[3] According to the Wasatch Front Regional Council, the pandemic has decreased traffic volumes to transit stations by 38%, reduced congestion and travel times, and limited transit use.[4]

IMPACT TO UTA[5]

As part of the ongoing effort to limit the spread of the COVID-19 virus and ensure fiscal responsibility, UTA implemented temporary service reductions from April through August. In addition, UTA has taken several measures to promote social distancing during the COVID-19 pandemic to protect riders and employees. UTA advised people to limit their transit use to the essential trips outlined by local and state leadership. Changes included:

- Requiring passengers to wear a face mask
- Installation of plexiglass partitions between drivers and passengers
- Rear door bus boarding
- Asking passengers to stay 6-feet back from bus operators
- Daily cleaning and disinfecting of all vehicles

Like other transit agencies across the country, UTA has seen a significant decrease in ridership due to the COVID-19 pandemic. Average weekday ridership declined by -59% in July and by -60% in August compared to last year.

IMPACT TO THE MICROTRANSIT PILOT

The Microtransit Pilot adopted social distancing and right-sizing of services similar to UTA's adjustments in response to the pandemic. Changes included:

- Encouraging passengers to sit in the seat farthest from the driver
- Reduced maximum passengers allowed from 6 to 3
- Reduced vehicle supply to meet demand and achieve cost savings
- Providing face masks to drivers and riders
- Installation of plexiglass partitions between driver and riders
- Daily cleaning and disinfecting of all vehicles

Like other UTA services, the Microtransit Pilot ridership declined significantly due to COVID-19. This has made it difficult to achieve the original ridership and ridership-related metrics.

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[3] Utah COVID-19 response website: https://storymaps.arcgis.com/stories/cabf07b39a6046ee992f1630949a7c80
[4] WFRC report: https://docs.google.com/document/d/1yfrLHwpmEERRZzXZd-3uATTIUv-ZBLd7vIODi8gmCi0/edit
[5] UTA COVID-19 update website: https://www.rideuta.com/Rider-Info/Coronavirus-COVID-19-Updates

BEYOND METRICS – DETERMINING SUCCESS

OBJECTIVE SUMMARY

While tracking to KPIs is essential, quantitative metrics alone cannot tell the whole story. The prime qualitative objectives of the Pilot and status are:

	OBJECTIVE	STATUS
1.	Improve mobility and enhance the customer experience.	*On target*
2.	Provide expanded access for all users in the area, especially for users with disabilities.	*On target*
3.	Improve overall transit ridership by providing first and last mile connections to UTA TRAX and FrontRunner stations.	*On target*
4.	Provide trips to other important destinations in the area such as job sites, hospitals, and grocery stores.	*On target*
5.	Present economically sustainable models for scaled implementation.	*On target* [6]
6.	Engage the public and garner public support for the Pilot.	*On target*

Status is currently on target for six out of six objectives as assessed by the Pilot team, even with COVID-19 significantly affecting Pilot operations. Pilot Objectives are referred to throughout this report to check progress towards a successful Pilot project.

SUCCESS

For UTA, the Pilot will be successful if after 12 months:

1. UTA can measure the Pilot's performance using quantative and qualitative data.
2. The Pilot Objectives are achieved.
3. UTA can make informed, data-driven decisions on whether to continue the Pilot and to extend UTA's contract with Via, determine the future of Flex Routes in the service area, and the potential for microtransit in the UTA Five Year Mobility Plan.

EVALUATION PROCESS

To evaluate the Pilot, performance metrics, as identified in the Microtransit Evaluation Plan, will be collected and reported out monthly. Comprehensive quarterly reports will take place at three-month intervals throughout the project. A final evaluation report will be prepared upon Pilot completion.

PUBLIC SUPPORT

The hardest objective to gauge is public support. The Pilot team must estimate the level of public approval based on direct engagement, ridership trends, customer satisfaction scores and inferences. In Q3 public support for the Pilot can be inferred from rider survey responses, generally positive feedback from riders and sustained, recovering ridership numbers. The Pilot team aims to build on this support through continued community outreach and quality service delivery.

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[6] See Cost Effectiveness Figure 11 on Page 8 for details

QUARTERLY PERFORMANCE DETAIL

Figure 2: Q3 Data Table

Pilot Objective	Metric	Goal	JUN 2020	JUL 2020	AUG 2020	Q3 Total	Q3 WAV[7] Only
Ridership	Total ridership	N/A	3,556	3,557	4,063	11,176	331
	Avg. weekday ridership	350 - 450 (at 6 months)	162	155	193	169	5
	Avg. riders per hour per vehicle (utilization)	2.5 - 4.5 (at 6 months)	1.1	1.1	1.5	1.18	N/A
	WAV request %	2% - 5%	3.1%	3.4%	2.4%	N/A	3.0%
	First mile / last mile connections to transit	25%	35%	29%	31%	N/A	N/A
	Shared rides %	25% (at 6 months)	9%	9%	16%	N/A	N/A
Customer Experience	Avg. customer rating	4.8 out of 5.0	4.89	4.84	4.80	4.84	4.84
	Average wait time	< 15 minutes	9	9	12	10	11
	On time pick up %	95%	94%	93%	91%	93%	89%
	Avg. minutes per ride	N/A	10	10	11	10	11
	Avg. miles per ride	N/A	3.8	3.9	3.9	3.9	3.1
	Avg. travel time	< 3 minutes per mile	2.6	2.6	2.8	2.6	3.5
Overall Performance	Operating cost[8]	$486,806 (Q3 Budget)	$119,302	$121,143	$101,628	$342,074	N/A
	Operating hours	13,222 (Q3 Budget)	3,378	3,354	2,719	9,451	N/A
	Operating miles	N/A	40,139	39,530	39,928	119,597	N/A
	Cost per hour	$36.82 (Q3 Budget)	$35.32	$36.12	$37.38	$36.20	N/A
	Cost per rider	< $13.08	$33.55	$34.06	$25.01	$30.61	N/A
	Cost per mile	N/A	N/A	N/A	N/A	N/A	N/A
	Safe operations (avoidable accidents)	< 1 per 100,000 miles	0	0	0	0	N/A
	Trips booked through Via's call center	N/A	4%	5%	3%	5%	32%
	Fares from credit cards[9]	N/A	$2,228	$2,494	$2,426	$7,148	N/A

[7] WAV – Wheelchair Accessible Vehicle. Three of the 17 total Via vehicles are WAVs.
[8] Operating cost – Fully allocated; includes operating and capital costs. Excludes marketing expenses.
[9] Fares from credit cards – Includes credit card, debit card, Apple Pay and Google Pay.

RIDERSHIP

Average weekday ridership held steady in Q3 even with the health crisis. At the end of Q3, August weekday ridership recovered slightly and increased by 25% over July as shown in Figure 3. Similarly, utilization rose by 42% compared to Q2. As seen in Figure 4, the percentage of **shared rides** was stable at 9% in June and July, then picked up modestly to 16% in August even with social distancing. Given social distancing requirements and configured limits to 3 riders per vehicle, it is not currently possible to meet the pre-COVID **utilization** target.

Figure 3: Monthly Avg. Weekday Ridership
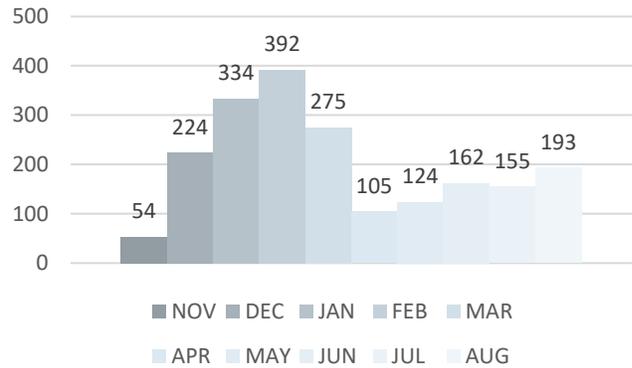
Figure 4: Shared Rides
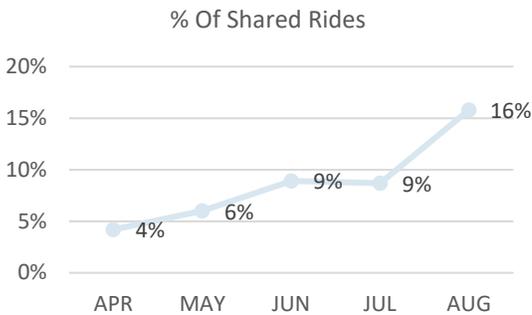
As shown in Figure 5, an average of 5 trips per day were WAV requests. Figure 6 reveals that most riders took interlocal trips in Q3. Figure 7 displays the top origin and destination points during the second quarter of the Pilot. Riders are using the service to connect to UTA TRAX and FrontRunner trains for **first and last mile** connections, plus travelling within the zone to local businesses for work, shopping, and recreation. Together this data demonstrates that **mobility has improved** in the Pilot service area for a diverse set of needs and for users with disabilities.

Figure 5: Trips on WAVs

	JUN	JUL	AUG
Total Rides WAV	112	121	98
Avg. Weekday WAV Riders	5	5	5

Figure 6: Trip Connections

	JUN	JUL	AUG
First Mile / Last Mile	35%	29%	31%
Interlocal Trips	65%	71%	69%

Figure 7: Top Locations in Q3

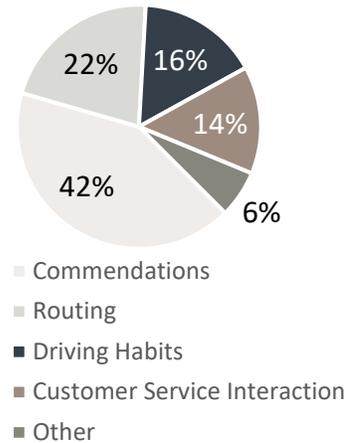| #	Top 10 Origin (Pick Up) Locations Origin	City		#	Top 10 Destination (Drop Off) Locations Destination	City	
1	FrontRunner, Draper	Draper		1	FrontRunner, Draper	Draper	
2	TRAX, Draper Town Center	Draper		2	TRAX, Draper Town Center	Draper	
3	TRAX, Daybreak (Duckhorn)	South Jordan		3	Business	Riverton	
4	Business	Riverton		4	TRAX, Crescent View	Sandy	
5	TRAX, Crescent View	Sandy		5	TRAX, Daybreak (Grandville)	South Jordan	
6	TRAX, Daybreak (Grandville)	South Jordan		6	TRAX, Daybreak (Duckhorn)	South Jordan	
7	Business	Riverton		7	FrontRunner, South Jordan	South Jordan	
8	Business	South Jordan		8	Business	Riverton	
9	Residential	Herriman		9	Business	South Jordan	
10	Residential	Draper		10	Business	Riverton	

UTA

CUSTOMER EXPERIENCE

Providing an **enhanced customer experience** is one of the Pilot's primary objectives. This is being measured by customers rating their experience in the Via app immediately after their ride. Approximately 36% of riders rated their trips in the third quarter, giving the Pilot service an average score of 4.8 out of 5.0 stars and meeting the Pilot's stated goal of 4.8.

Figure 8: Customer Feedback by Category

Formal **customer feedback** was collected mainly through the Via app and by UTA customer service representatives. Over the quarter there were 112 total comments logged, mainly through Via's app. Figure 8 shows that there were more commendations than any other type of feedback. Praise for the service was followed by complaints about vehicle routing, concerns about driving habits, and complaints about driver behavior. Requests to expand the level of service (i.e. longer hours, larger zone) and other types of issues (i.e. fares, app usage) rounded out the feedback. These comments are reviewed by the Pilot team and with Via to continuously improve the service. In addition to the formally logged and tracked feedback, the Pilot team is listening to customers on social media and through an Open UTA survey.
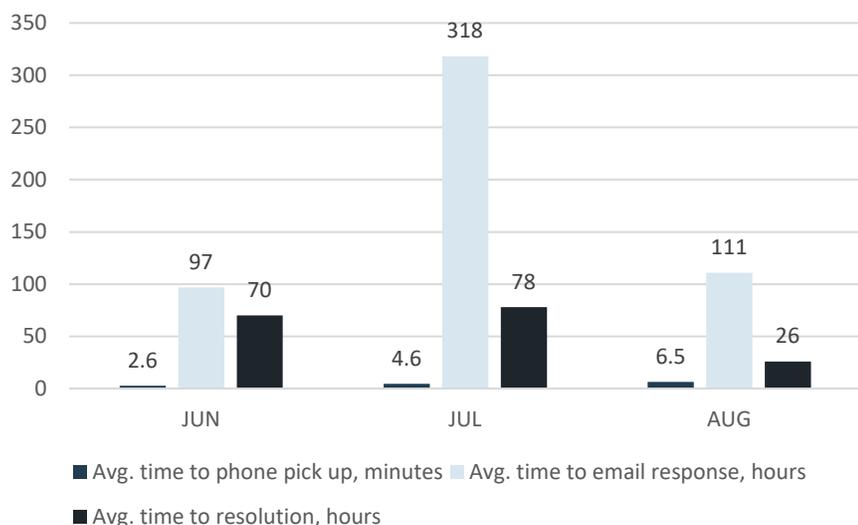
- Commendations
- Routing
- Driving Habits
- Customer Service Interaction
- Other

Figure 9: Sample Rider Feedback by Category

Sample Comment	Category
"Best driver you guys have!" "He went out of his way to be kind." "First time I ever heard of VIA, but it will not be the last time I use it." "Van helped me get my missing bag back!" "The driver was there promptly and greeted me warmly…."	Commendations
"She never showed up to my spot and made me super late to work."	Routing
"Driving with one hand on the steering wheel?? Not safe."	Driving Habits
"…suggested having VIA expanded to service the ski resorts"	Level of Service
"Could have turned on the air conditioner. It's very hot. It's summer."	Customer Service Interaction
"The customer is calling in for a new reduced fare code for VIA…" "It wasn't me they picked up."	Other

When customers need to book a ride over the phone or resolve a problem, they dial into a Via-operated call center. Due to the recent volatility in demand, Via's team has been optimizing their call support team. Figure 10 shows that average phone pick-up times increased slightly throughout Q3 due to staffing adjustments. After higher than normal resolution times in July, service levels have improved.

Figure 10: Via Customer Call Center Service Levels

- ■ Avg. time to phone pick up, minutes
- ■ Avg. time to email response, hours
- ■ Avg. time to resolution, hours

"This guy. Ah! The best. Pay him more." –
Customer comment June 9th

"He took his time to wait so i can take a bit of my groceries into my home!!!! :D Very much appreciated!!!! :D" –
Customer comment July 14th

COST EFFECTIVENESS

The Pilot team analyzes costs per the Pilot Objectives to present economically sustainable models for scaled implementation. Operating microtransit under a Transportation-As-A-Service (TAAS) model, UTA's cost to run each hour of service is a fixed **cost per hour** as negotiated in the UTA-Via agreement. Adding fuel expenses and enhanced cleaning routine costs, total operational costs in Q3 averaged $36.20 per hour which compares favorably to a UTA benchmark system cost of $45.93 per hour as shown in Figure 11.

UTA's Flex Routes set the basis for the Pilot's **cost per rider** goal. In general, microtransit cost per rider is expected to be higher than fixed route bus but lower than paratransit bus, and UTA's Flex Route operating costs per rider fall into that range. In 2018 Flex Routes in the service area had an average investment per rider (IPR) of $16.35. The Pilot aims to be more cost effective than existing service by cutting costs 20% from $16.35 to $13.08 per microtransit rider. In Q3 the Pilot averaged $36.20 per rider as shown in Figure 11.[10]

Figure 11: Cost Effectiveness Tracking

	PILOT TARGET	PILOT Q1	PILOT Q2	PILOT Q3	UTA BENCHMARK	BENCHMARK BASIS
COST PER RIDER	< $13.08	$19.10	$34.30	$30.61	$16.35	UTA Flex Route Bus
COST PER HOUR	$36.82	$36.18	$35.07	$36.20	$45.93	UTA System
COST PER MILE	N/A	N/A	N/A	N/A	N/A	UTA System

The Pilot finished Q3 under **budget** by 3,771 hours and -$144,732 (-26%). Cost savings are due to the Pilot's ability to reduce hours as customer demand remained steady but at lower levels due to the health crisis. Cumulative Pilot operations tracking for the first three quarters shows a total of -8,189 hours and -$332,881 under budget.

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[10] Unique to microtransit, this Pilot is tracking fully allocated costs that include both capital and most operating expenses, while all other UTA services track only operating expenses making it difficult to compare costs across service types. Cost per mile does not apply because these costs are already included in the hourly rate.

FLEX ROUTES

As part of the Pilot, UTA seeks to understand if microtransit can be an alternative mode of transit to traditional bus services in low density and harder to serve areas. During the Pilot planning phase, routes F504, F518, F534, F546, and F547 were identified as routes which do not meet UTA service and performance standards.[11] These standards include low ridership and a high IPR. While the Flex Routes remain in operations during the Pilot, the project team continues to monitor and evaluate their performance as part of the overall recommendations regarding the future of the microtransit service.

Like other UTA services, Flex Route ridership declined significantly due to COVID-19. Q3 Flex Route performance data indicates a year over year 70% total reduction in ridership across routes F504, F518, F534, F546, and F547. Route F534 has been suspended since April, and frequency on other routes is reduced due to COVID-19. Rider survey data, covered in a separate report, shows that nearly half (43%) of microtransit riders have taken Flex Route trips before. Likewise, the ridership numbers confirm that some UTA customers are changing modes as microtransit ridership continues to increase.

Figure 42: Selected Flex Route Trends

	JUN	JUL	AUG	Q3 TOTAL
LAST YEAR	JUN 2019	JUL 2019	AUG 2019	
F504	1,788	1,806	1,982	
F518	1,606	1,668	1,684	
F534	320	356	362	
F546	1,612	1,658	1,473	
F547	2,144	1,972	2,293	
FLEX ROUTE RIDERSHIP	**7,470**	**7,460**	**7,794**	**22,724**
THIS YEAR	JUN 2020	JUL 2020	AUG 2020	
F504	753	637	809	
F518	586	479	495	
F534	0	0	0	
F546	555	477	547	
F547	516	470	593	
FLEX ROUTE RIDERSHIP	**2,410**	**2,063**	**2,444**	**6,917**
YEAR OVER YEAR FLEX ROUTE RIDERSHIP CHANGE	-5,060	-5,397	-5350	
% CHANGE	-68%	-72%	-69%	
FOR COMPARISON, Q3 MICROTRANSIT RIDERSHIP	*3,556*	*3,557*	*4,063*	*11,176*

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[11] The microtransit service area was subsequently modified prior to launch. The F514, which meets UTA service and performance standards for Flex Routes, was included in the modified service area but is not included in the Flex Route Performance Indicators.

U T A

OVERALL PERFORMANCE

The Microtransit Pilot is testing a **coverage service model** by providing on-demand access to everyone in the area. The Pilot nearly doubled the coverage area with an 80% increase from 36 square miles to 65 square miles. Over the remaining months, the Pilot team will determine if microtransit is working as an efficient and effective coverage service by measuring against the KPIs on page 2 and the Pilot Objectives on page 3.

The majority (71%) of riders **pay** with a UTA pass, ticket, or transfer as shown in Figure 13. Credit card payment (27%) includes credit cards, debit cards, Apple Pay, and Google Pay. Free and promotional fares (1%) include free ride credits tied to a single-use promotional code and fares waived to smooth out customer service issues.

Figure 53: Q3 Fare Payment by Type

The Pilot's **safety** goal is less than one unavoidable accident per 100,000 miles.
In the third quarter of Pilot operations there were zero unavoidable accidents over 119,597 total miles surpassing the safety metric. Customer comments that touch on safety typically fall under Driver Habits (i.e. driving too fast) and Routing (i.e. unsafe drop off point). The Pilot team has developed an Incident Response Plan to define and report any safety incidents.

The Pilot is designed to deliver **accessible and equitable** service for all riders in the service area. The team is focusing on these key components to measure accessibility and equity:

- **WAV trips** – UTA estimates that 2-5% of fixed route transit riders use a wheelchair ramp to board a train or bus. The Pilot's goal is to fall within that same 2-5% range. In the third quarter, an average of 3% of Pilot riders requested WAVs reaching the quarterly target for the first time.

- **Equivalent service** – The Pilot team logs quality of service data specific to WAV trips such as average wait time and customer satisfaction ratings. This data is then compared to the overall Pilot statistics, as shown in Figure 2, to check if WAV customers are receiving an equivalent customer experience. In the second quarter, the service achieved equivalent customer satisfaction scores at 4.84 out of 5.00. The average wait time for WAVs was one minute longer at 11 minutes and still below the 15-minute goal. On time pickup rates were less reliable at 89% for WAVs compared to 93% overall.

- **CAT committee feedback** – Due to COVID-19, some interaction with the Committee for Accessible Transportation (CAT) was temporarily curtailed. Outreach efforts in Q4 will include gathering CAT feedback on the Via app.
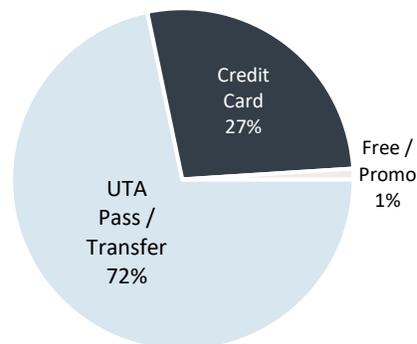
MARKETING AND PROMOTIONS

CURRENTLY ON HOLD. All advertising and marketing campaigns have been suspended since mid-March due to COVID-19. Marketing is an essential element to raise awareness of the new service and to encourage trial. To date the most productive marketing sources are organic growth, clicks to UTA's Pilot webpage, referrals from other riders, and community outreach / street marketing efforts.

In the third quarter, Via and UTA invited riders to participate in an online **survey**. Eighty-six riders answered the survey questions regarding their travel choices, satisfaction with the Pilot, COVID-19, and demographics. A summary of rider responses is available in a separate report.

CHALLENGES

No new service will launch without challenges. Operational **gaps** that temporarily hinder this Pilot are:

- **Paratransit connections**. Via is preparing to fully support transport of paratransit connection customers starting on November 1st. The team has scheduled internal testing late September and mid-October to begin testing with riders. The team has also identified WAV capacity issues and has up fitted two vans with wheelchair ramps to increase capacity.

- **DSPD certification**. The Pilot team relies on Utah's Division of Services for People with Disabilities (DSPD) program to vet driver eligibility to transport DSPD clients. Via is working on providing their driver partners with online access to DSPD training and is exploring any ways to streamline the certification process.

- Other Pilot challenges include fare reconciliation, refining the routing and ETAs, pick up / drop off points, and ongoing driver training.

NEXT STEPS

It's worth noting that even with COVID-19, there are no significant changes recommended by the Pilot team because the Pilot is currently achieving its stated Objectives. Priorities over the next quarter include:

- Determining how to evaluate potential **changes** to the Pilot. For example, should the operating hours or days be expanded? Should the service boundaries be modified? What are the cost and quality of service impacts? In addition, the Pilot team plans to review multiple survey findings and related comments with Via to develop a list of actionable items for improvement.

- In the fall with newly developed software features, resume testing of **paratransit connections** to make timed transfers between Via and Paratransit vehicles at designated service points. This is a critical component of the Pilot.

- Throughout the third quarter the Pilot team has been developing integration for **FAREPAY and electronic fare cards**. This enhancement is nearing completion and implementation. Communication plans are being developed now to support Via app changes targeted for late September.

- With an eye toward continuous safety improvements, UTA and Via will be piloting in-cabin **cameras and telematic systems** that can improve driver and rider safety, detect harsh and sudden movements, and gather data to coach and improve driving skills and reduce collisions.

- The **contract** with Via has a base term of one year, with two options to extend for two additional years. The Pilot team is recommending that the Pilot be extended from November 20, 2020 through the August 2021 change day for continued Pilot evaluation and testing.

APPENDIX A

PILOT SERVICE AREA