

# Fairfield and Suisun Transit

FY 2023-2028

Short Range Transit Plan

September 2022 DRAFT

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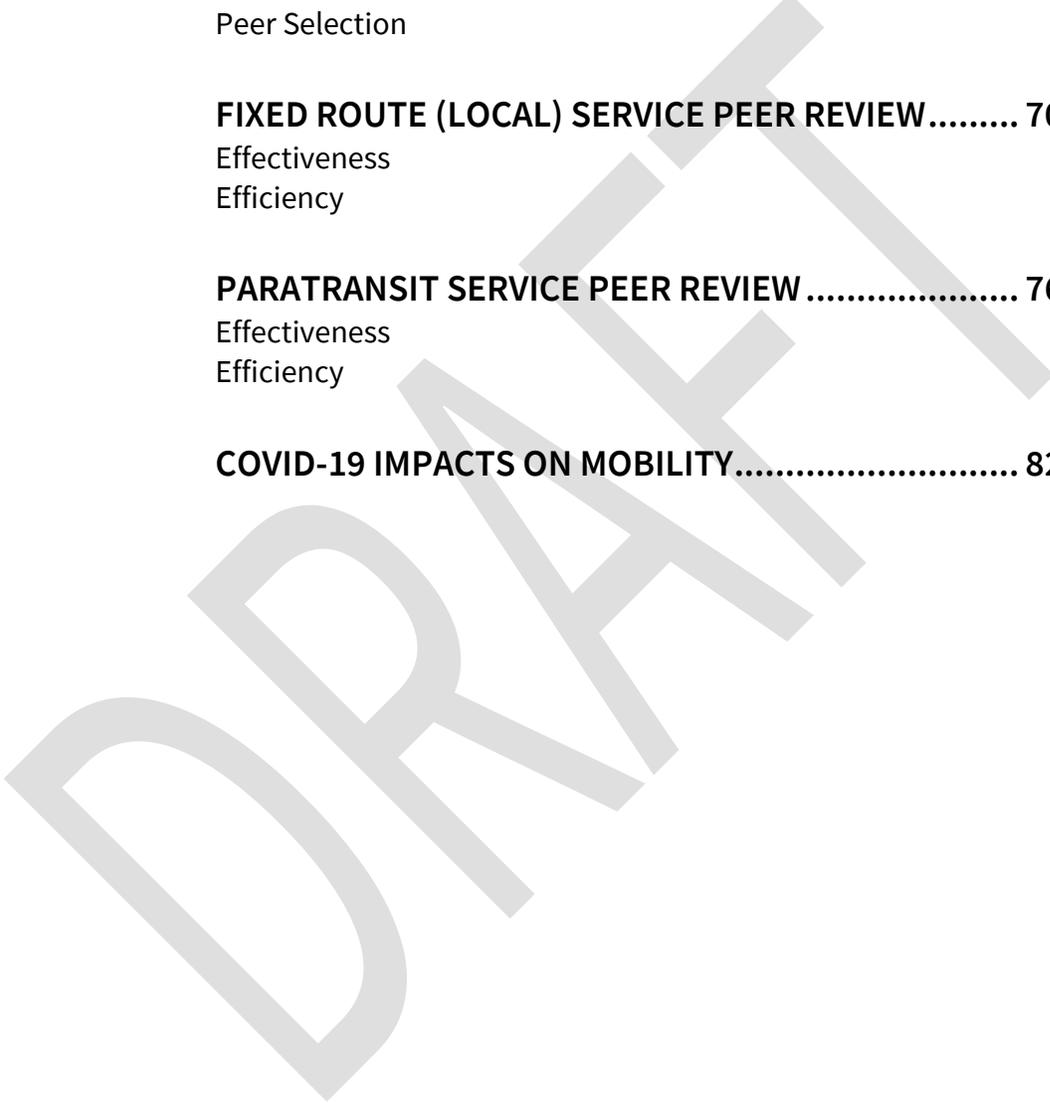
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## EXECUTIVE SUMMARY

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### BACKGROUND INFORMATION

Fairfield and Suisun Transit (FAST) currently operates transit service in Fairfield and Suisun City, California. The agency started in 1975 and operates public fixed route, Americans with Disabilities Act (ADA) paratransit, and a reduced fare local taxi program. Services are offered Monday through Saturday as early as 6 am on weekdays and 9 am on Saturdays and as late as 8 pm on weekdays and 5 pm on Saturdays.

Like most transit agencies across the country and worldwide, the COVID-19 pandemic has been the primary focus of FAST administrative and operations staff since March 2020. Transit ridership nationwide plummeted during the early days of the pandemic and has only recently begun to slowly recover.

### MICROTRANSIT

Amid the drastic adjustments and changes due to the COVID-19 pandemic, FAST recognized a need to proactively reimagine and adjust its services post-pandemic. In December 2020, the Fairfield City Council directed staff to initiate its first Comprehensive Operational Analysis (COA) called *FAST Forward* to provide the City of Fairfield (City) with a ten-year road map identifying changes needed for FAST to be a high functioning and sustainable transit network post-pandemic. The City of Suisun City (Suisun City) initially participated in this initiative, but its City Council has since decided to separately develop and implement other transportation options for its residents beginning January 1, 2023. One of *FAST Forward*'s major recommendations to its post-pandemic recovery was to continue fixed route on major corridors but also phase implementation of a new service model called microtransit that would better serve Fairfield residents. *FAST Forward*'s recommendations were approved by the Fairfield City Council on September 6, 2022.

Microtransit is a form of Demand Responsive Transit (DRT). These transit services offer flexible routing and/or flexible scheduling of vehicles, typically booked through a smartphone application. Microtransit providers build routes to match demand (trip) and supply (driven vehicle) and extend the efficiency and accessibility of the transit service. Possible pick up/drop off stops are restricted, usually within a geofenced area. Vehicle type can vary, but microtransit is often operated with a van or minibus. Conceptually, microtransit fits somewhere between private individual transportation (cars or taxicabs) and public mass transit (bus). Trips are typically subsidized by a city government or transit agency. Microtransit improves access to mobility by offering high-quality service where

fixed-route buses can't operate efficiently, by upgrading dial-a-ride and paratransit services, or by providing critical first-mile/last-mile connections to fixed-route transit.

When customers request a ride using a smartphone application or by calling a dispatcher, a vehicle is dynamically routed to pick up a rider near their location and take them to their destination, while picking up and dropping off other passengers along the way, balancing rider convenience and overall service efficiency.

Microtransit services that are run through partnerships with transit authorities and municipal governments address the equity, accessibility, and environmental needs of the public more comprehensively than private ride pooling services operated by transportation network companies (TNCs) such as Uber or Lyft. Microtransit is purpose-built for seamless sharing at scale and designed to provide the following benefits:

- More efficient sharing reduces congestion and CO2 emissions
- Accessible vehicles are available for people with mobility challenges
- Riders without smartphones can dial into a dispatch number or book online
- People without credit cards can pay with cash

According to *FAST Forward's* guiding principles, deploying microtransit would provide increased citywide transportation coverage as microtransit operates on-demand rather than on a fixed schedule. Microtransit would connect residents to more areas within Fairfield and would also increase connectivity with SolanoExpress and Amtrak. By adding a microtransit component, FAST would also address equity, access, real-world travel patterns, and traffic, while improving wait and travel times. Microtransit would also allow increased flexibility for Americans with Disabilities Act (ADA) riders by offering more frequent and direct service at a lower cost as microtransit would utilize existing smaller paratransit vehicles and carry more passengers per hour than a traditional paratransit service.

The Metropolitan Transportation Commission (MTC) has been emphasizing increased county and regional connectivity and coordination post-pandemic. Suisun City choosing to discontinue coordination with FAST limits the intercity connectivity and coordination that existed for more than thirty years between the two cities. This will have the added adverse impact of reducing ease of travel between the two cities for both Fairfield and Suisun City residents. FAST will look for other intracity and intercity partnering opportunities to demonstrate to MTC that Solano County services are becoming more and not less integrated.

## LOOKING AHEAD

To better plan for an uncertain future, the Metropolitan Transportation Commission (MTC), asked its transportation agencies to complete a five-year Short Range Transit Plan (SRTP) covering FY 2023-FY 2028. As part of completing the SRTP, MTC asked agencies to consider how the following three potential scenarios would impact their services over the next five years:

1. **Robust Recovery** – full recovery of revenue and ridership with modest annual increases.
2. **Revenue Recovery with Fewer Trips** – full recovery of operations assistance revenue, but a sluggish ridership recovery.
3. **Some Progress** – slightly decreased operations assistance revenue with slow ridership recovery.

FAST believes **Scenario 2** is the most likely outcome for this small operator to experience during this Short Range Transit Plan (SRTP) period. **Scenario 2** would result in FAST receiving reduced farebox revenue while ridership slowly recovers, but it would precipitate FAST's return to pre-pandemic operational levels.

The MTC forecasts provided for the purposes of evaluating this scenario would allow FAST to provide reconfigured and focused fixed route and ADA paratransit services, while also dedicating fixed route revenue savings to implementing a microtransit program. Microtransit would initially be piloted in two areas of Fairfield in early 2023. In the second phase, the program would be expanded citywide to areas where there is currently no fixed route transit.

As proposed, this scenario would include significant changes to the existing fixed route system. Plans for Phase I starting in early 2023 would see microtransit rolled out to the two pilot areas located in Cordelia/Green Valley and Southeast Fairfield/Travis Air Force Base. Simultaneously, Routes 2, 4, and 8 would cease operating as local routes to provide the necessary funding for the microtransit pilot. This change is projected to reduce travel time and improve quality of service for riders.

Phase II would see the realignment of Routes 1 and 3 to offer improved connectivity for riders. Routes 6 and 7 would also be condensed into a realigned and improved Route 6. The microtransit program would be expanded to provide citywide coverage and allow connections to the new local route system at well-used transfer points.

As currently proposed, the system would add approximately 1,470 revenue hours per year on average. However, ridership is projected to increase 20% over the same period, resulting in a service productivity increase of an average of 3% per year during the five-year SRTP period. These increases are expected due to the improved service quality that riders would experience through reduced wait times and more direct trips.

While the success of these initiatives will need to be evaluated over the next several years, these changes will likely be revolutionary to FAST and local residents. This reimagined service model will provide important data that will hopefully assist other similar size transit agencies nationwide reinvent and right size their services.

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# PRE-PANDEMIC STATE OF SERVICE

## SERVICE LEVELS

In FY 2019, **Figure 1** shows FAST operated 185 weekday and 77 Saturday local revenue hours. FAST operated 134 SolanoExpress weekday revenue hours and 31 Saturday revenue hours. Service miles were significantly higher on SolanoExpress (see **Figure 2**).

Figure 1 - Pre-Pandemic Fixed-Route Service Hours

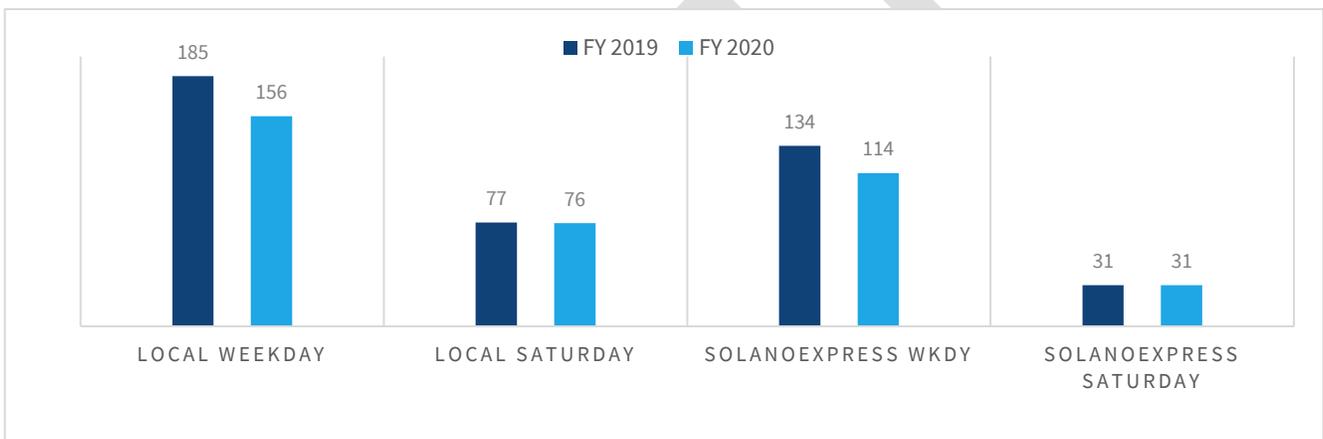
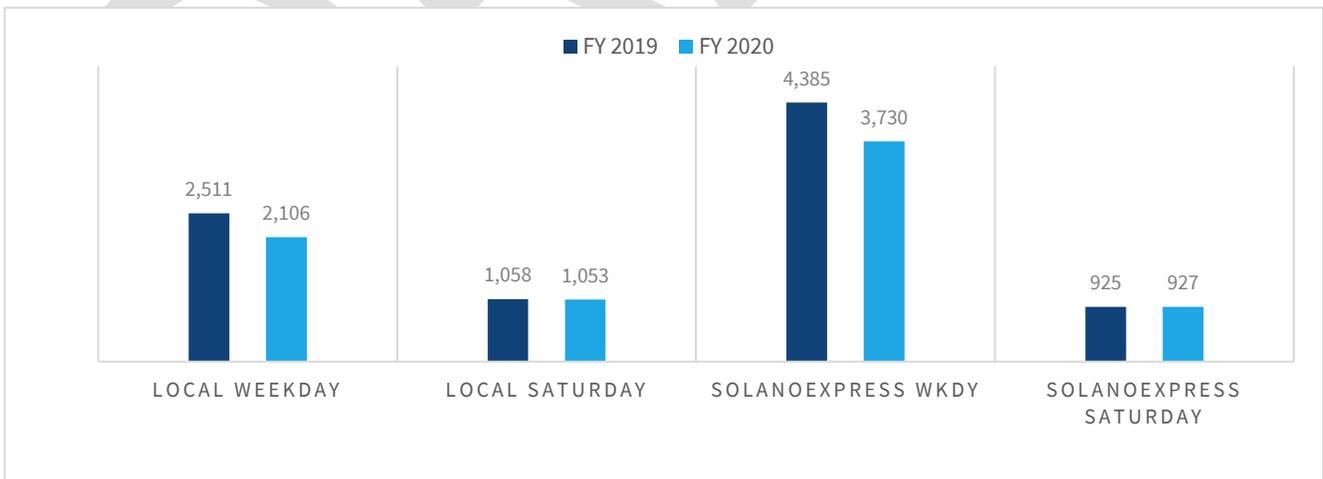


Figure 2 - Pre-Pandemic Fixed-Route Service Miles

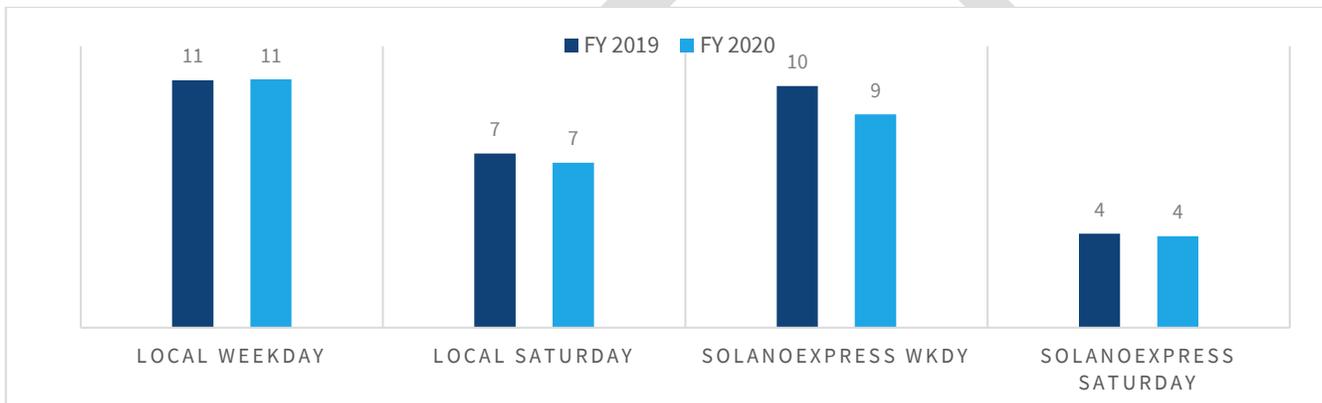


## SERVICE EFFICIENCY AND EFFECTIVENESS

The measures in this section reviewed the network’s productivity, cost efficiency, and subsidies (farebox recovery ratio, revenue per revenue hour, cost per unlinked passenger, and subsidy per passenger) required during FY 2019 and FY 2020. Network data was used for productivity while route level data was used for productivity, farebox recovery ratio, cost per unlinked passenger, and subsidy per passenger.

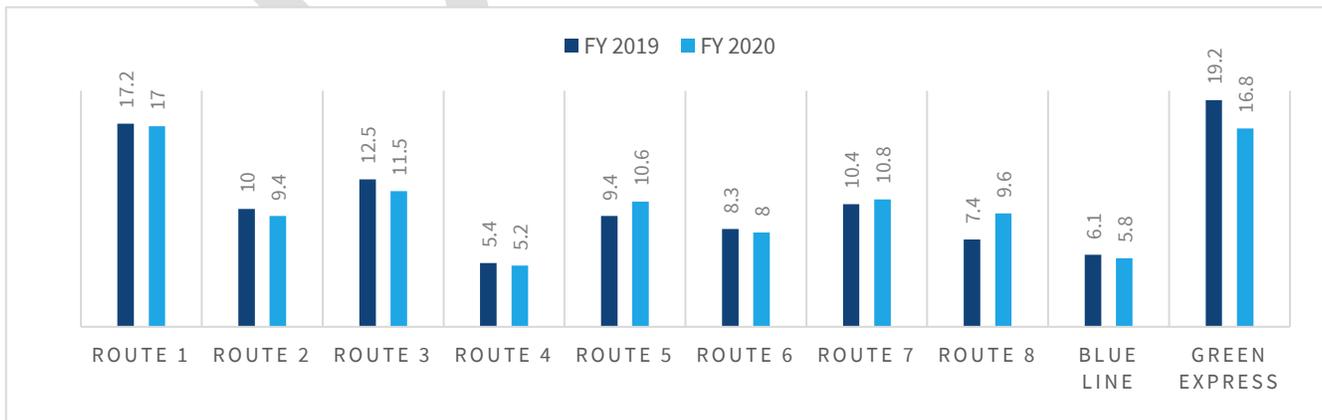
Productivity measures how many passengers on average use the service each revenue hour. The goal is to have higher productivity numbers as it correlates with greater use of the services. As **Figure 3** below reflects, local weekday service had the highest fixed route use pre-pandemic.

Figure 3 - Pre-Pandemic Fixed-Route Productivity



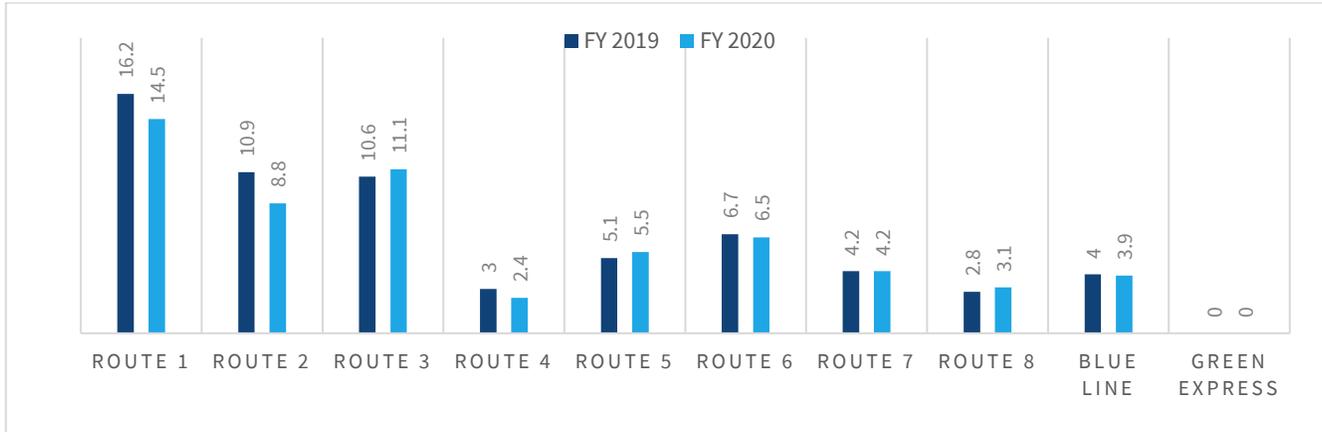
At the weekday route level, **Figure 4** highlights the Green Express (commuter) and Route 1 (local) were the most productive routes in the FAST network. Route 4 (local) and the Blue Line (commuter) were the least productive.

Figure 4 - Pre-Pandemic Fixed-Route Weekday Productivity by Route



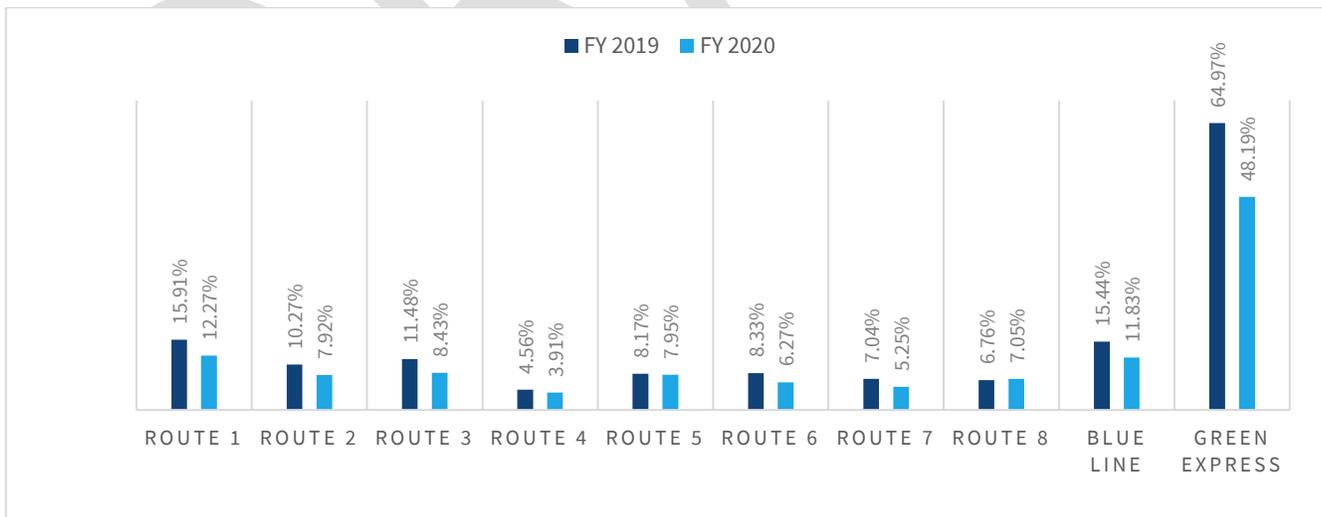
On Saturday, **Figure 5** reflects Routes 1, 2, and 3 were the most productive routes in the FAST network. Routes 4, 8, and the Blue Line (commuter) were the least productive. Similar to weekdays, Route 8 increased its passenger productivity from FY 2019 to FY 2020. The Green Express did not operate on Saturday.

Figure 5 – Pre-Pandemic Fixed-Route Saturday Productivity



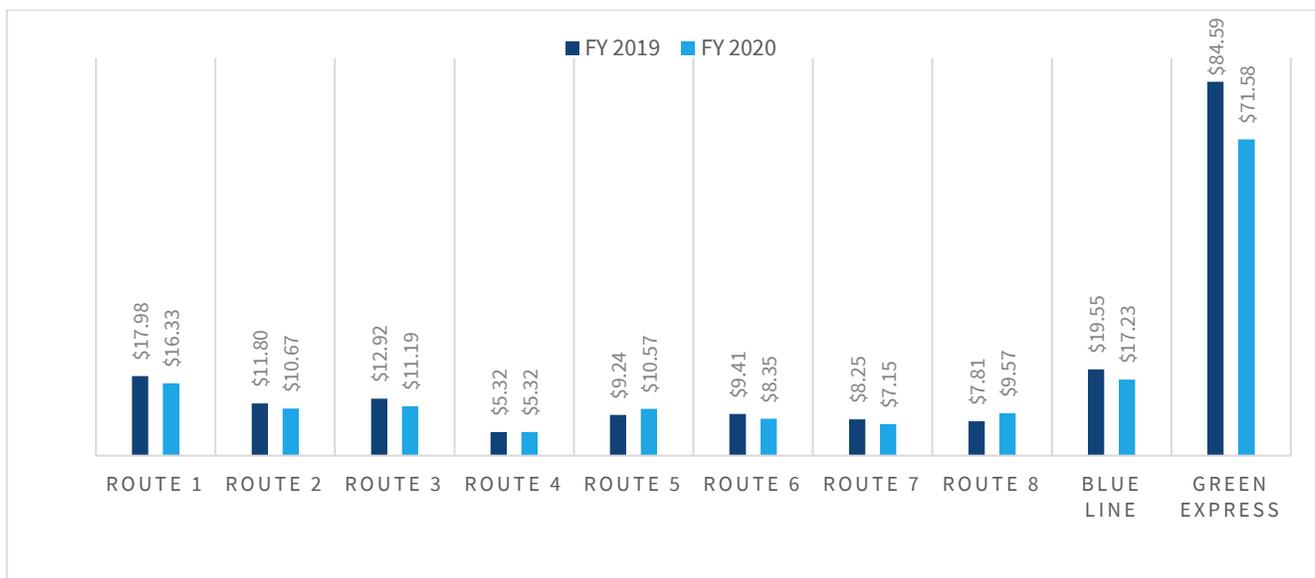
Farebox Recovery Ratio (FBR) measures how much of FAST’s operating costs are paid from passenger fares. A higher ratio means the service is less reliant on subsidies to operate. **Figure 6** demonstrated the Green Express had the highest farebox recovery ratio in the fixed-route system, partly due to its higher \$5.75 per trip fare. Route 1 had the second highest overall ridership and the highest local FBR.

Figure 6 – Pre-Pandemic Farebox Recovery Ratio



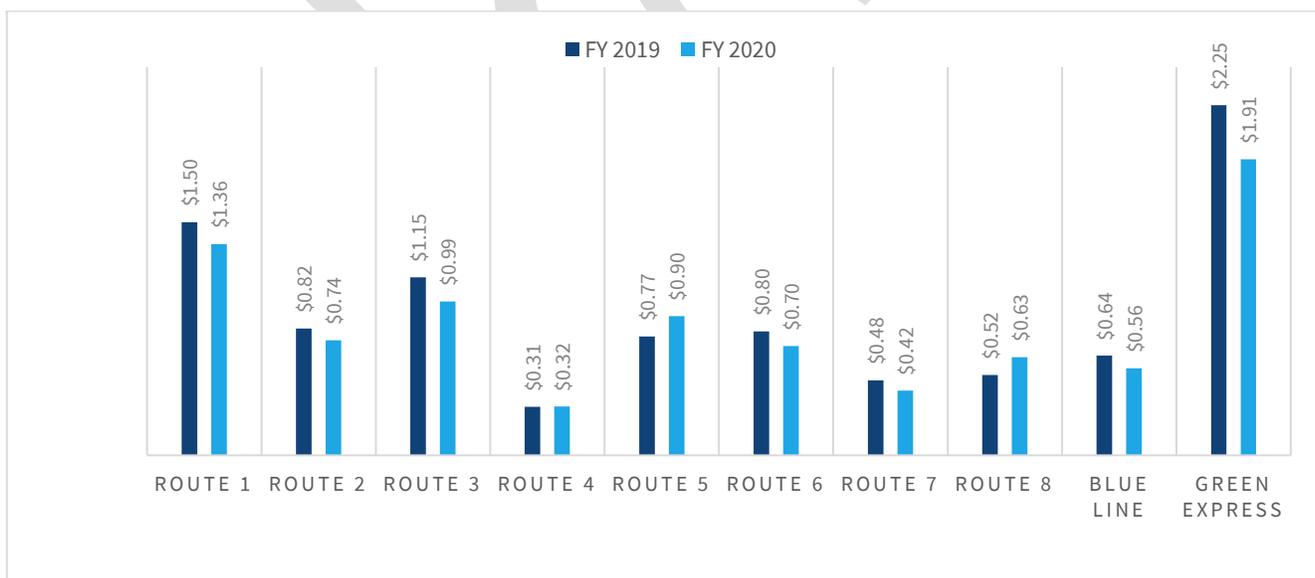
Revenue per revenue hour measures the amount of fare revenue FAST collects for every revenue hour of service. As shown in **Figure 7**, the Green Express, with a \$5.75 fare and higher average productivity had the highest revenue per revenue hour. Route 1 generated the highest revenue for local routes.

Figure 7 – Pre-Pandemic Revenue Per Revenue Hour



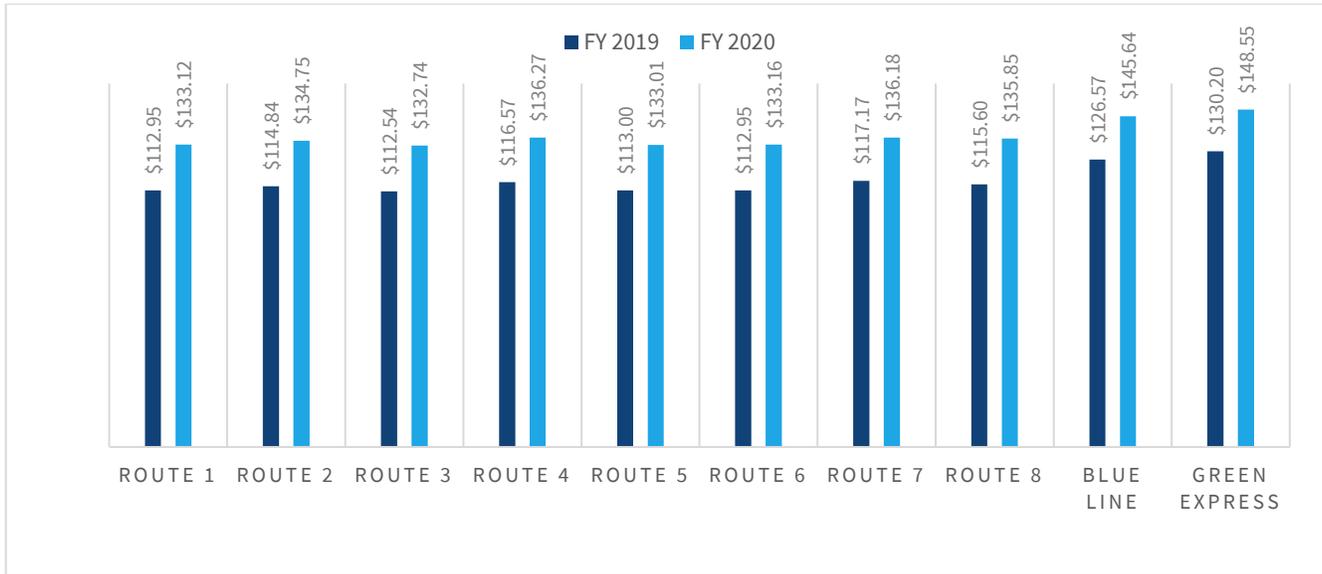
Revenue per revenue mile measures the amount of fare revenue FAST collects for every revenue mile of service (see **Figure 8**). The Green Express, with its higher average fare and higher ridership, had the highest revenue per revenue mile. Route 1 had the second highest revenue per revenue mile overall and the highest for the local routes.

Figure 8 - Pre-Pandemic Revenue Per Revenue Mile



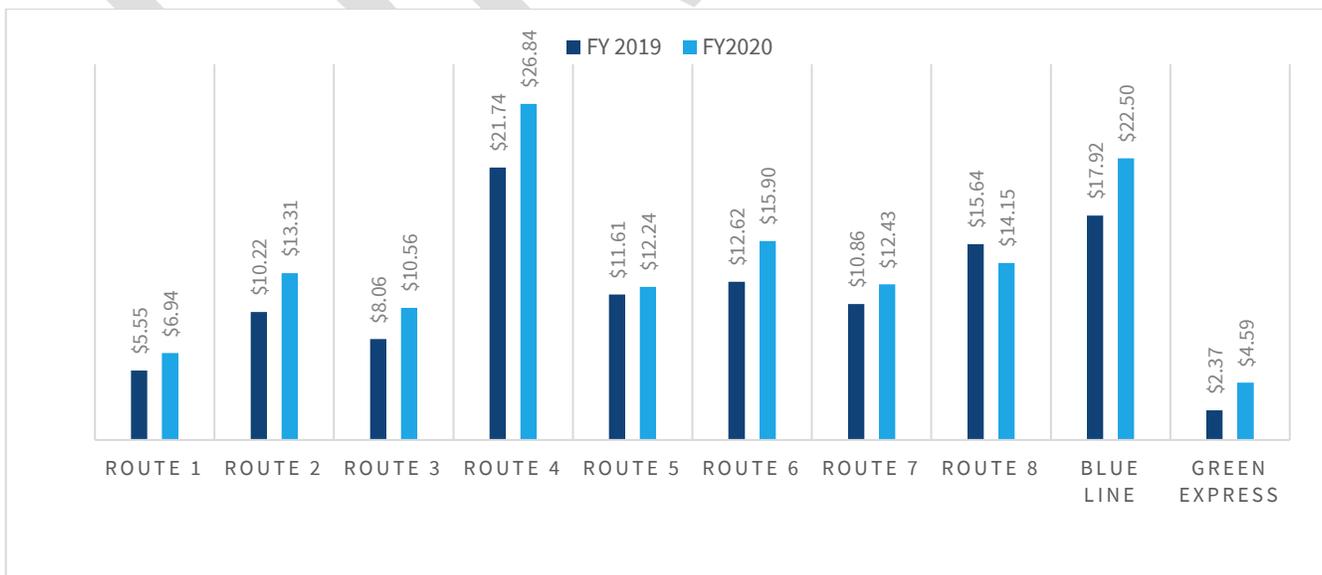
Cost per revenue hour measures the cost of operating each revenue hour on FAST’s services. **Figure 9** shows SolanoExpress had the highest cost per revenue hour, while Route 7 had the highest local cost per revenue hour.

Figure 9 - Pre-Pandemic Cost Per Revenue Hour



Subsidy per passenger measures how much additional subsidy is required for what is not covered by passenger fares. The goal is to have a lower subsidy as it signifies a self-sustaining route. **Figure 10** reflects the Green Express had the lowest subsidy among all routes. Route 1 had the lowest subsidy per passenger for local routes. Route 4 has the highest overall subsidy per passenger.

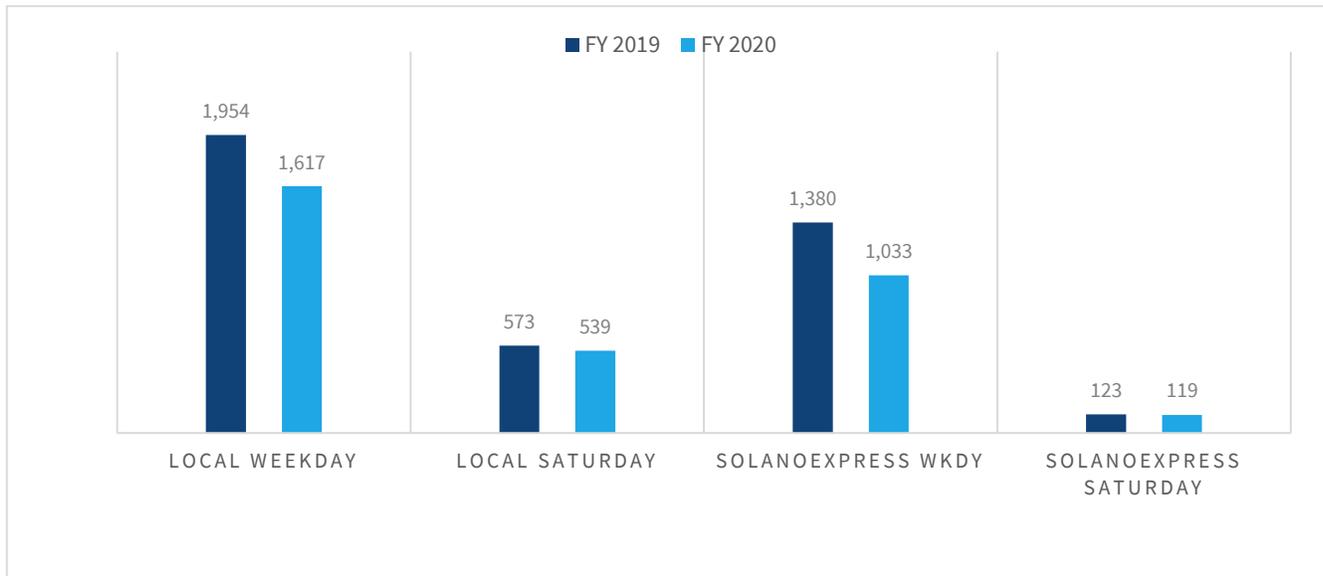
Figure 10 - Pre-Pandemic Subsidy per Passenger



## RIDERSHIP

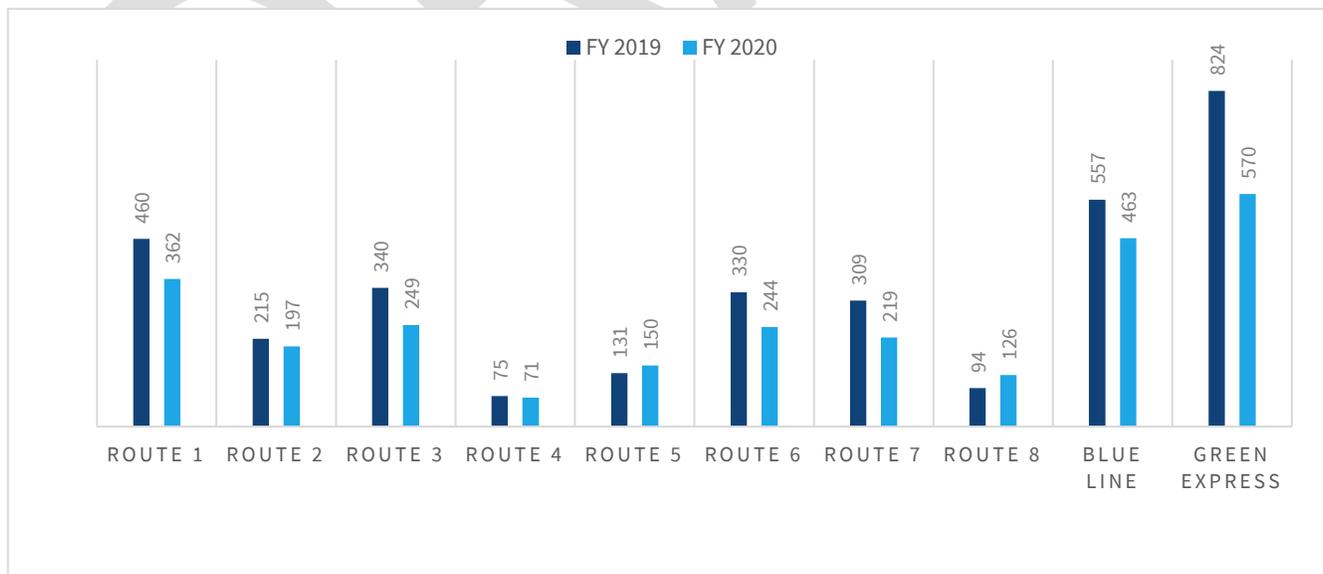
This section covers ridership, which measures the total number of trips taken by customers on FAST’s network. **Figure 11** shows total local ridership exceeded total commuter ridership both on weekdays and on Saturday.

Figure 11 - Pre-Pandemic Fixed-Route Daily Ridership



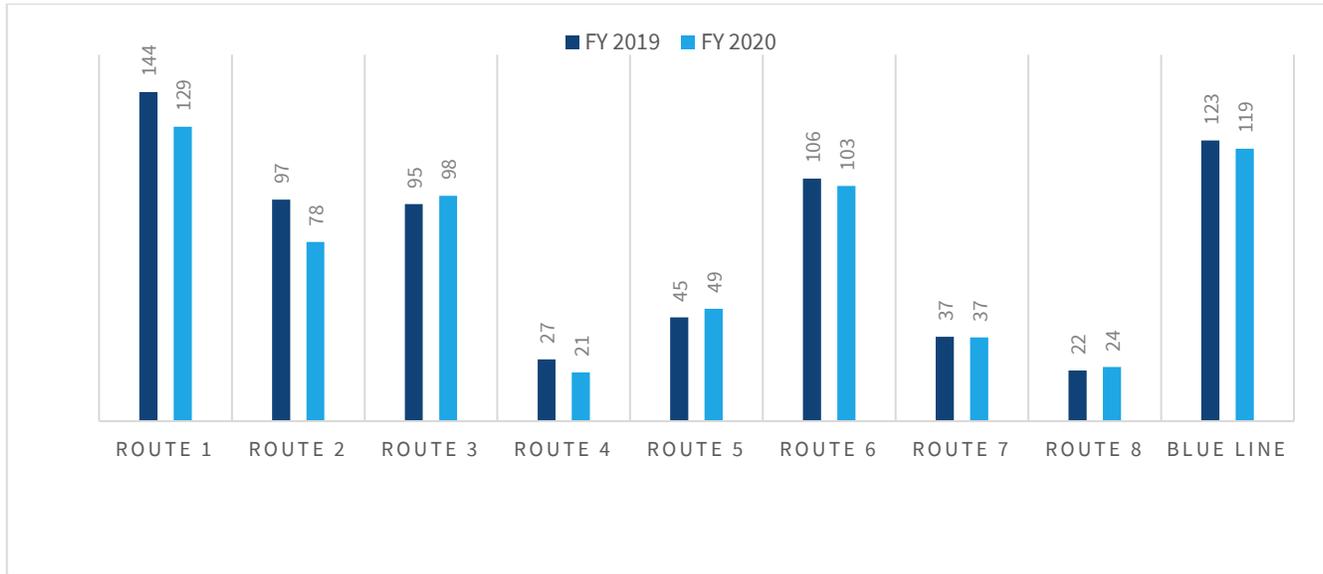
Before FY 2021, **Figure 12** demonstrates the highest weekday ridership by route were the Green Express and Blue Line with Route 1 having the highest local ridership.

Figure 12 -Pre-Pandemic Fixed-Route Weekday Ridership by Route



On Saturday, **Figure 13** shows Route 1 consistently had the highest ridership, followed by the Blue Line and Routes 3 and 6. These four routes totaled over 50% of the network’s Saturday ridership. Routes 4 and 8 had the lowest system ridership. The Green Express does not operate on Saturday.

Figure 13 - Pre-Pandemic Fixed-Route Saturday Ridership by Route



## SERVICE QUALITY

The measures in this section review the service quality from the customer’s perspective. The specific indicators measured are travel time, on-time performance, and load factor. These three indicators measure a customer’s experience and willingness to return to using the service. Customers who have had a better experience would be more likely to trust the FAST brand when new services are developed and implemented.

Because on-time performance per route was being measured during a depressed ridership period, and Fairfield and Suisun City were recovering from a pandemic, the **Figure 14** data collected in winter and spring 2021 for *FAST Forward* did not necessarily reflect real-world performance. Despite this caveat, FAST’s fixed routes in 2021 operated mostly on time with no observed early departures when looking at scheduled route travel time to actual route travel time. For example, Route 1, had a scheduled travel time of 26.5 minutes. The actual travel time observed was 25.9 minutes indicating an on-time performance of 97% (25.9/26.5).

Figure 14 - On-time Performance by Route

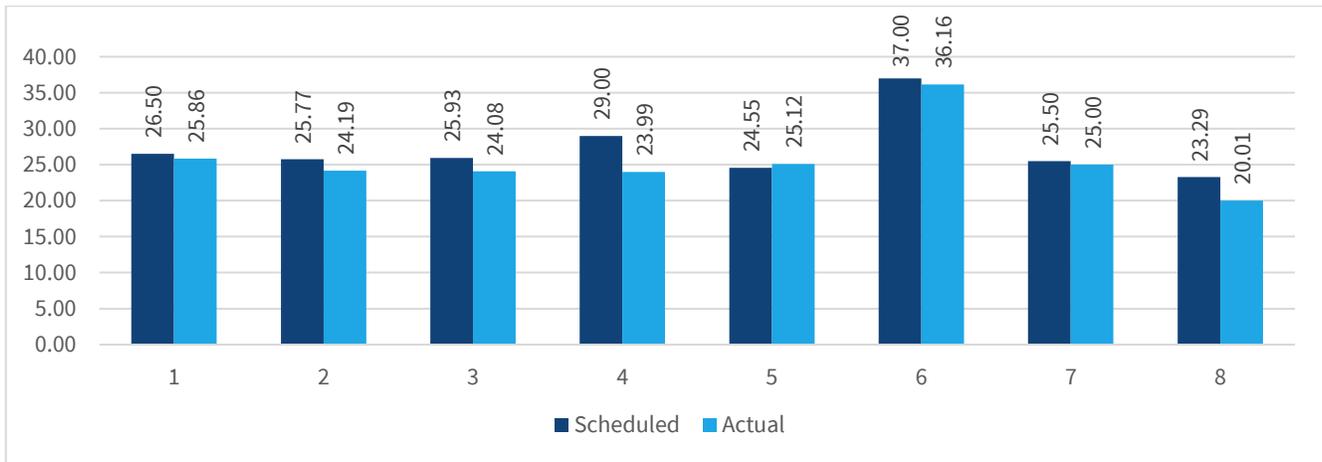


Figure 15 outlines the average time riders spent traveling on local routes. Customers using FAST’s local services traveled 3.32 miles per trip and spent an average of 12 minutes on the bus.

Figure 15 - Average Travel Time per Route

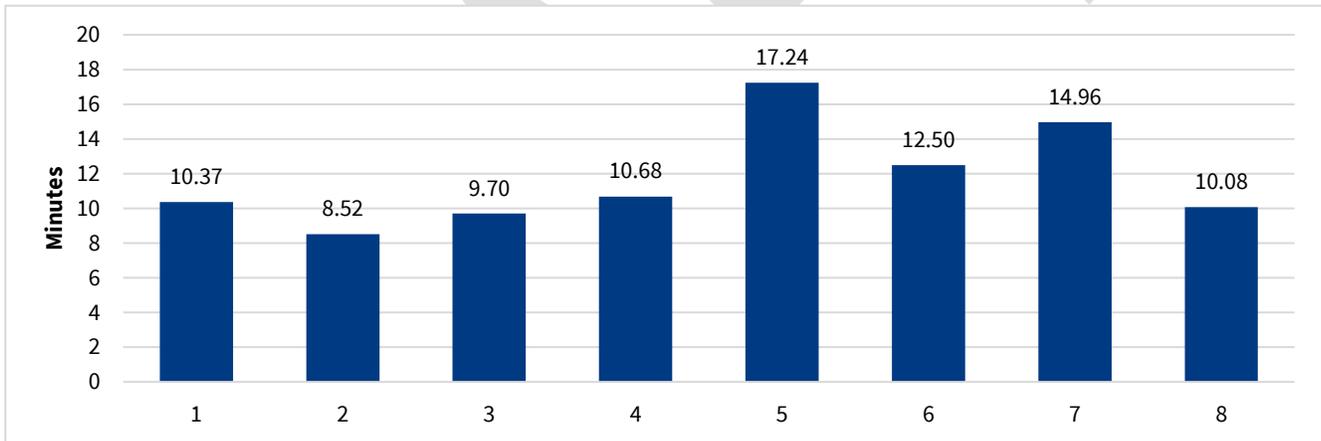


Table 1 demonstrates 50% of all Fairfield trips in 2019 occurred between the hours of 10 am and 8 pm. The large number of midday trips supported Fairfield’s perception as a hub in addition to being a spoke to the Bay Area and Sacramento. 78% of all trips originated or traveled to central Fairfield.

Table 1 - 2019 Travel Patterns by Time Period

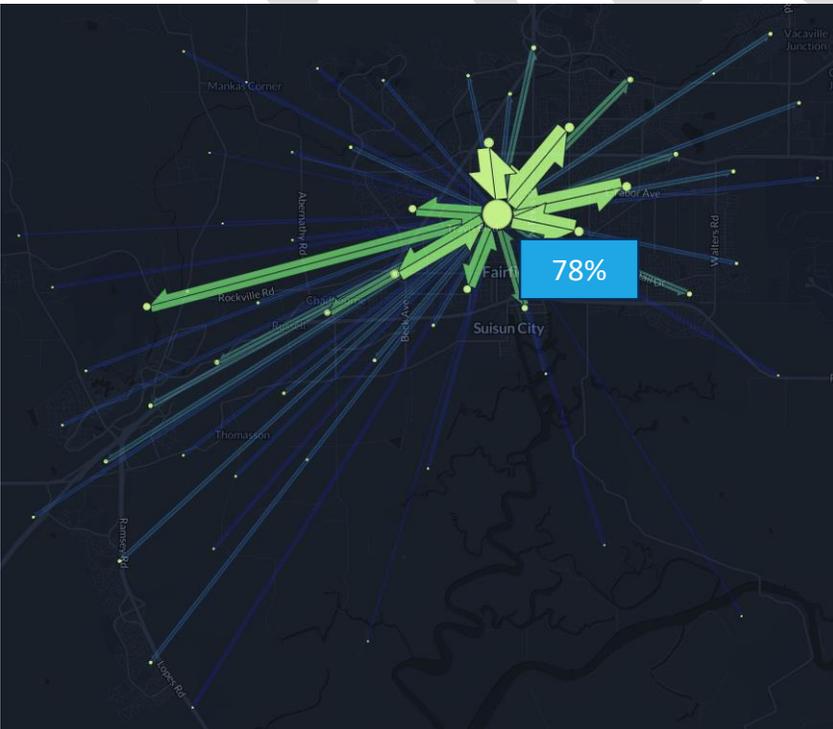
Time Period	Trips per Hour	Average Trip Distance	Average Travel Time
Early AM	4,265	3.9	9.0
AM Peak	4,606	4.0	9.1
Midday	6,376	4.2	9.5
PM Peak	10,852	4.1	9.3
Late Night	9,026	3.9	9.2

Figure 16 - 2019 Travel Patterns



**Figure 16** shows overall travel demand in 2019 took place in the central part of Fairfield. New developments in Green Valley and Cordelia) also saw travel demand growth.

Figure 17 - 2019 Trip Distribution



**Figure 17** shows 78% of all travel in 2019 occurred within central Fairfield. Trips within this area were shorter than the remaining 22% travel demand indicating that transit would continue being viable post-pandemic.

Figure 18 - Pre-Pandemic Hourly Trip Distribution



As **Figure 18** shows, pre-pandemic trips started later in the day. Early evening trips peaked at 8 pm and then gradually dropped off at the end of the day. This pre-pandemic information provided insight and a baseline to evaluate how travel patterns have changed as a result of the COVID-19 pandemic.

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## CURRENT STATE OF SERVICE

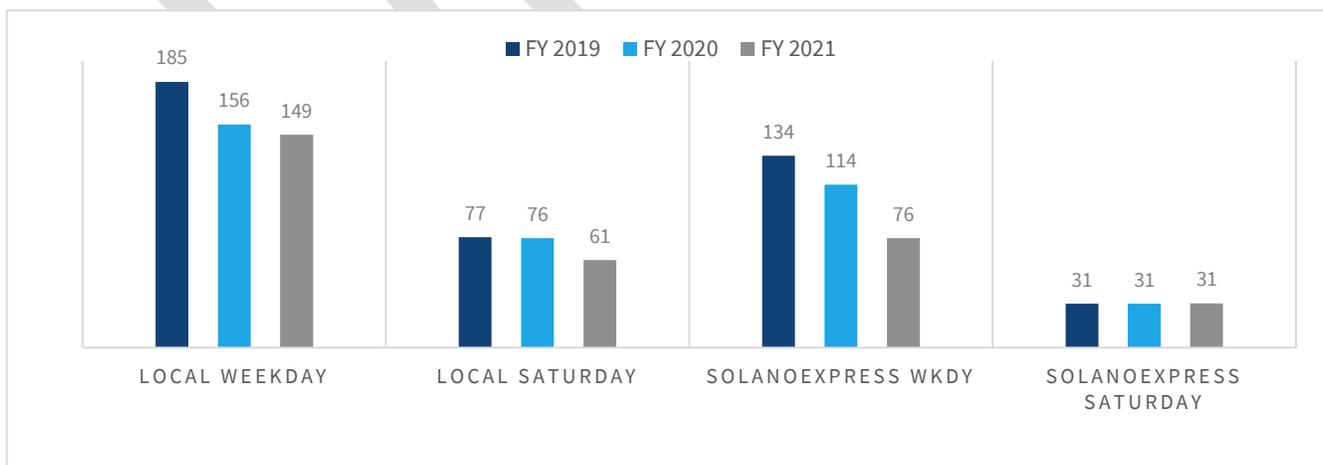
During FY 2020 service was suspended on several routes throughout the network, resulting in fewer revenue hours operated for both local and SolanoExpress routes. In FY 2021 (starting July 6, 2020), FAST partially restored service levels on both local and SolanoExpress commuter routes. Other changes in service occurred in August 2021 and in 2022 when FAST transitioned operation of two commuter routes to SolTrans. SolTrans began operating the Green Express in April 2022 and the Blue Line in August 2022.

**Figure 19** reflects that during the pandemic FAST reduced its fixed-route service hours by 26%. Local routes in FY 2021 had 19% fewer weekday revenue hours and 21% fewer Saturday revenue hours than FY 2019. SolanoExpress routes in FY 2021 had 43% fewer weekday revenue hours and 33% less Saturday revenue hours than in FY 2019.

Although service hours were partially restored in July 2020, Solano Express ridership has not significantly rebounded due to residents still avoiding non-essential transit interactions and travel. Many residents have also continued to work at home or chosen to drive if they have returned to work.

As described and visually reflected in **Figures 11 and 12**, the COVID-19 pandemic has had significant impact on FAST’s local ridership. On local routes, FAST service was temporarily suspended on Routes 2, 4, 5, and 8 between March and June 2020 due to depressed ridership. Since the pandemic’s onset, Route 1 has continued having the highest overall ridership with Routes 4 and 8 consistently having the lowest ridership.

Figure 19 - Current Revenue Hours by Day

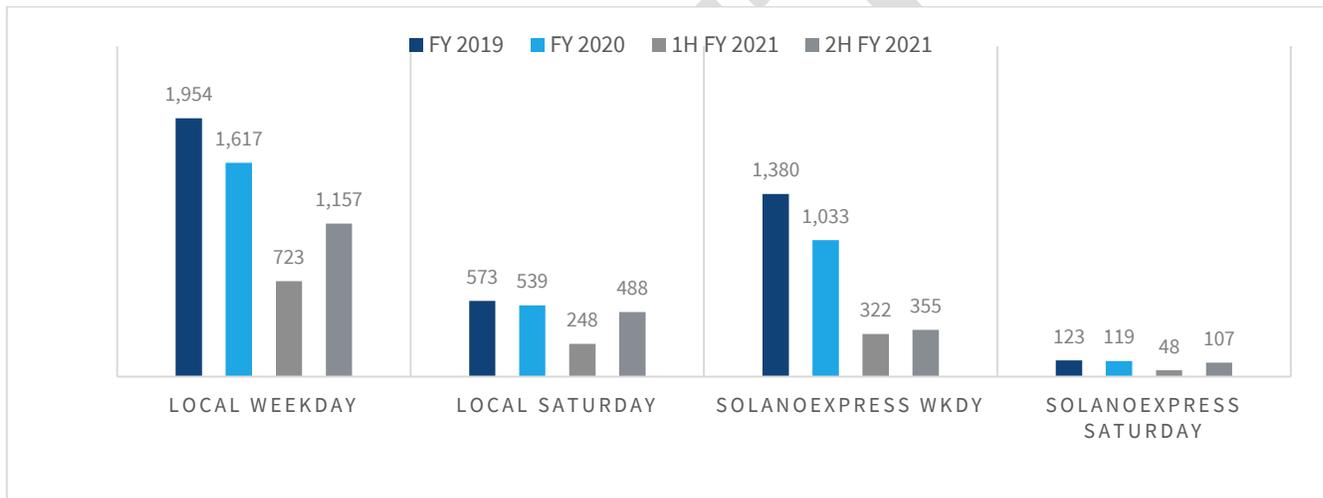


**Figure 20** shows SolanoExpress ridership was even more significantly impacted by the COVID-19 pandemic than local routes. Even though the Blue Line operated more service hours, the Green Express continued having the highest overall ridership during the pandemic

FAST provided free fares on local and DART service beginning March 25, 2020. Free fares were initiated on April 1, 2020, for the Reduced Local Taxi Program. Fares were not reinstated until June 1, 2021.

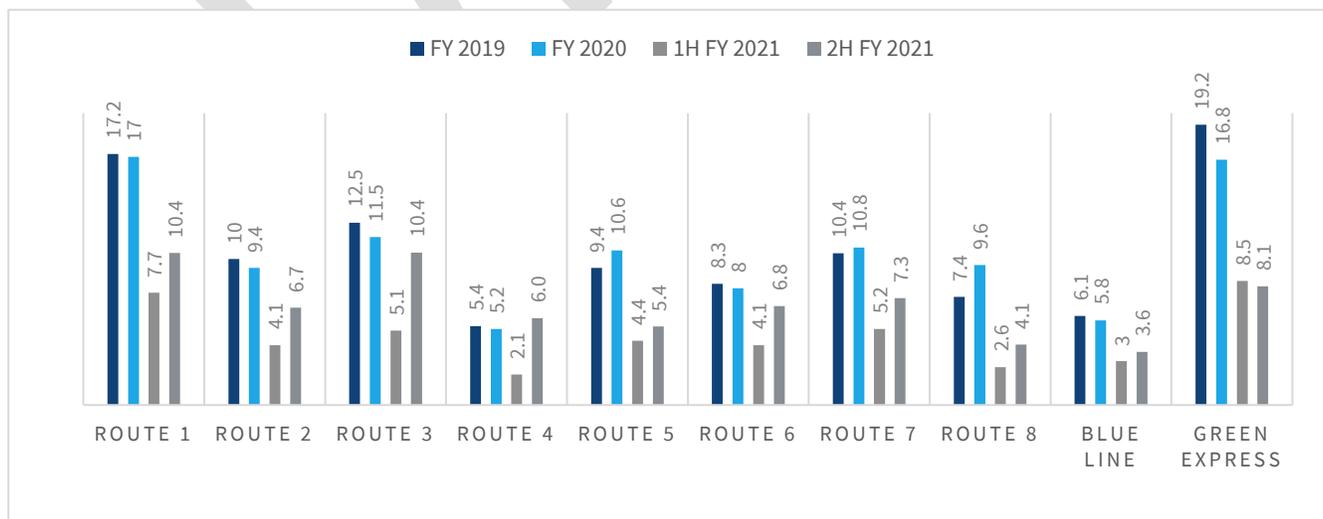
SolanoExpress provided free fares until June 15, 2020, and then resumed regular fare collection.

Figure 20 - Fixed-Route Ridership



As shown in **Figure 21**, the Green Express, Blue Line, and Route 1 totaled over 50% of the network’s weekday ridership. The APC data collected in Winter 2021 reflected a consistent rebound in ridership as more riders returned to the system.

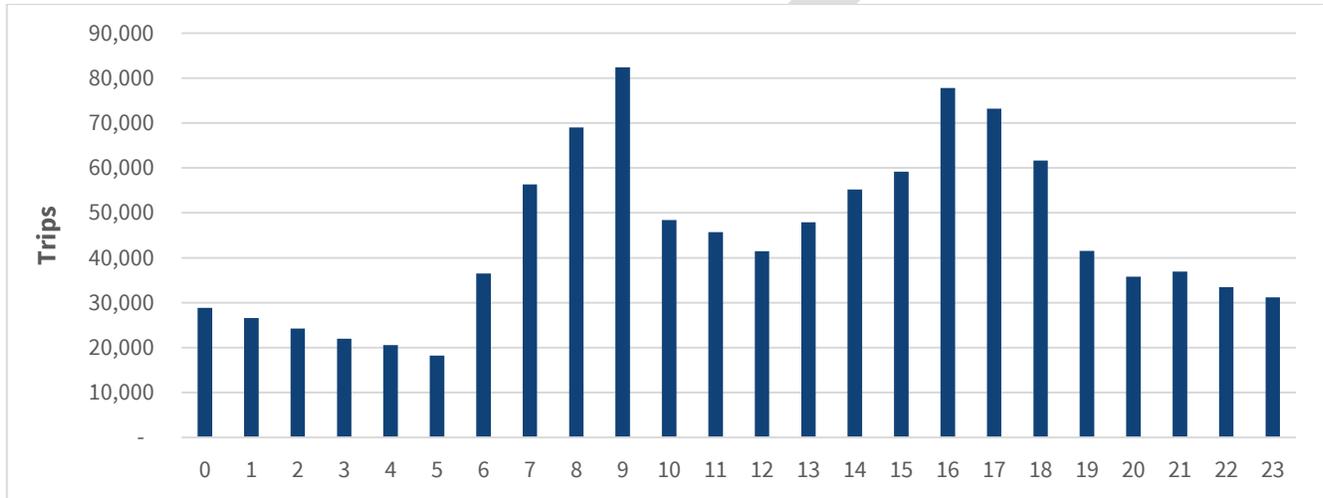
Figure 21 – Ridership by Route



## CURRENT POPULATION TRAVEL PATTERNS

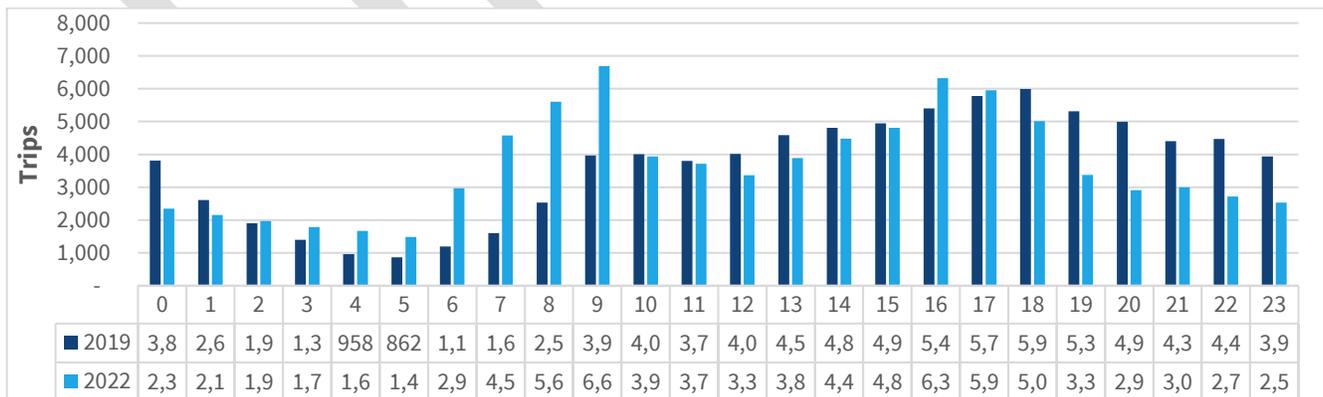
Current travel patterns reflect changes that started taking hold during the pandemic. With a higher work from home population, it is expected that the peak seen in 2019 will shift. As shown in **Figure 22**, travel patterns are now more intense all day. FAST’s SRTP observed 31% more regional trips were taken in 2022 versus 2019.

Figure 22 - Current Travel Distribution by Hour



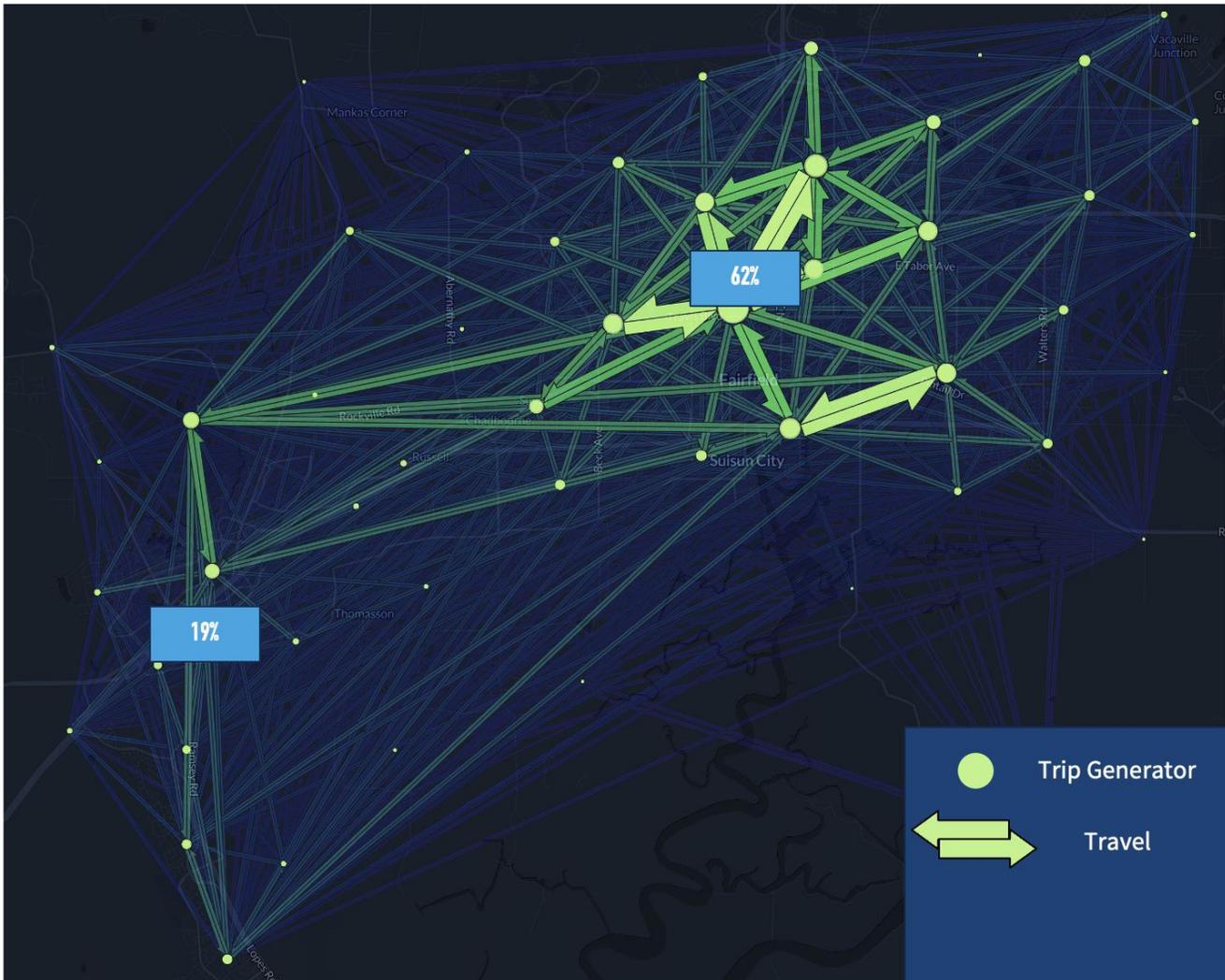
When comparing 2019 to 2022, **Figure 23** demonstrates trips start earlier in the day than prior to the pandemic. There are also more late-night trips, however, this could be a result of abnormal data for the period.

Figure 23 – Pre and Post Pandemic Travel Demand by Hour Compared



**Figure 23** reflects the number of trips per hour by day (000’s). In 2022, almost double the trips (11,500 total versus 5,200) were taken in the early hours (between 6 am and 10 am).

Figure 24 - 2022 Travel Patterns



As shown above in **Figure 24**, 62% of trips taken occurred within central Fairfield with an additional 19% of trips taken in the Cordelia/Green Valley area. Most trips from Cordelia/Green Valley went to central Fairfield.

#### TRAVEL DEMAND BY TIME OF DAY

To understand and identify transit gaps, the City compared transit service trips to travel demand (see results in **Table 2** on the next page). Transit trips are considered those that start or end within ¼ mile of an existing transit route. In addition, average distance and travel time was compared between transit and non-transit trips. Currently, FAST does not operate late evening service or owl service, which is overnight service running midnight to 5 am.

Table 2 - Travel Demand by Time Period Compared

	% Of Trips	Average Distance	Average Time	Transit Potential	Transit Share	Transit Distance	Transit Duration
<b>AM Peak 6am-10am</b>	27%	4.4	10.03	66,726	23%	3.51	17.55
<b>Midday 10am-4pm</b>	23%	4.4	9.98	98,971	40%	3.58	17.91
<b>PM Peak 4pm-8pm</b>	27%	4.55	10.27	75,970	26%	3.66	18.3
<b>Evening 8pm-12am</b>	12%	4.24	9.85	N/A	N/A	N/A	N/A
<b>Owl 12am-6am</b>	10%	4.17	9.75	N/A	N/A	N/A	N/A

**Table 2** shows travel demand was even across the main time periods (AM Peak/Midday/PM Peak), with a slight reduction in midday travel. On average, each trip taken by car within Fairfield was approximately 4.4 miles long and took 10 minutes. Only 30% of all travel demand could be met by existing FAST service. Again, this is measured by trips that start and end within ¼ mile of existing transit. The trips that can be taken on transit were approximately 19% shorter and took almost double the time. These indicators highlight that Fairfield residents have geographic and time constraints that need to be better addressed by FAST.



Travel patterns between time periods did not change dramatically. However, travel patterns did intensify in central Fairfield as the day approached the PM peak period.

The figures above show FAST service was concentrated within central Fairfield and was where most trips start or end. Only 23% of all current trips taken in the City could be completed using FAST service. This was not an indication FAST was providing inadequate service, it was more an indication the population and employment centers in the Fairfield have grown and changed, and FAST through its Comprehensive Operational Analysis process needed to make changes to reflect these factors.

DRAFT

## SCENARIO PLANNING CONCEPTS

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To comply with MTC SRTP guidelines, three scenarios were analyzed to determine how FAST service would be impacted by various reductions in funding. A full cost allocation model was created to comprehensively complete this task.

### COST ALLOCATION MODELING

The first evaluation step was to develop a cost allocation model to properly forecast local service costs, revenues, and ridership. FAST's cost allocation model categorized annual operating expenses as either fixed or variable. Fixed costs represented expenses the City of Fairfield would incur regardless of the level of service operated. Conversely, variable costs ebb and flow based on service levels. Variable costs were categorized as either per hour costs or per mile costs. Evaluating both sets of costs would be an important consideration when evaluating scenarios and developing local service recommendations.

#### FIXED COSTS

The following expense categories listed in **Table 3** are considered fixed costs:

*Table 3 - Fixed Expenses*

Expense Category
SALARIES/WAGES - ADMINISTRATION
FRINGE BENEFITS
SERVICES/MAINT - OPERATIONS
ACCOUNTING
LEGAL
PRINTING/COPYING
MISC SERVICES - ADMIN - Other
OFFICE SUPPLIES
UTILITIES
DUES/SUBSCRIPTIONS
TRAVEL/MEETINGS
ADVERTISING/PROMOTION
MISC EXPENSE

In FY 2022-23, fixed expenses are estimated to account for approximately **\$871,767** or approximately 11% of the City's annual transit operating budget.

## VARIABLE COSTS

The great majority of FAST's operating expenses are variable. As stated previously and reflected below in **Table 4**, variable costs are broken into a per hour cost and a per mile cost. The operating contract represents per hour expenses. Examples of per mile expenses include insurance, fuel, and tires/tubes.

Table 4 - Variable Expenses

Expense	Variable Per Hour	Variable Per Mile
FUEL/LUBRICANTS		X
TIRES/TUBES		X
MATERIALS/SUPPLIES OPERATIONS COVID-19 MATERIALS		X
MATERIALS/SUPPLIES OPERATIONS - ...		X
MATERIALS/SUPPLIES OPERATIONS		X
CONTRACT SERVICES	X	
INSURANCE		X

For FY 2022-23, the City is estimating variable per hour expenses totaling \$5.1 million dollars and \$787,000 in variable per mile expenses.

## SCENARIO PLANNING

As part of this five-year SRTP, the City considered the following three financial scenarios for local transit services.

- **Scenario 1 – Robust Recovery:** There is adequate funding to return overall revenue to 100% of pre-pandemic levels, with escalation. This would not assume proportionate recovery across all revenue sources.
- **Scenario 2 – Revenue Recovery with Fewer Riders:** Federal relief funds are eventually exhausted, although other funds recover to pre-pandemic levels. However, farebox revenue remains stagnant (20-50% below pre-pandemic levels, depending on current status) for the next five years.
- **Scenario 3 – Some Progress:** Federal relief funds are eventually exhausted and total revenue available to the agency is 15% below pre-pandemic levels for the next five years.

The cost allocation model outlined in **Tables 3 and 4** evaluated FAST’s current circumstances and was able to reasonably estimate each scenario’s impact on future ridership. The model also allowed for consideration of important questions such as:

- ✓ If revenue levels dropped, what would be the resulting hours of service?
- ✓ How much would ridership drop due to reduced service hours?

Besides addressing critical questions, the model considered the following additional sub-scenarios based on non-transit market factors that could influence the City’s decision making over the next decade.

- Service Increases and Decreases
- Fare Changes
- Population Changes
- Employment Changes
- Gas Price Increase or Decrease
- Work From Home Changes
- Quality of Service Improvements
- Income Changes

Each of the sub-scenarios are also known variables that impact transit ridership.

Year 1			
Assumptions			
Revenue	7%		
Gas Prices	-5%		
Economy	-5%		
Work From Home	-2%		
Service Levels	5%		
Service Quality	4%		
	Per Hour	Per Mile	
Fixed Route	\$ 81.04	\$ 1.18	
Dial-A-Ride	\$ 77.11	\$ 1.08	
Variables	Hours	Miles	Passengers
Fixed Route	54,901	578,023	553,197
Dial-A-Ride	13,567	148,986	24,170
<b>Total</b>	<b>68,468</b>	<b>727,009</b>	<b>577,367</b>
<b>Service Level +/-</b>	<b>3,255</b>	<b>5%</b>	
<b>Cost per Hour</b>	<b>\$ 106.19</b>	<b>1.9%</b>	
<b>Productivity</b>	<b>8.43</b>	<b>5.1%</b>	

Figure 25 - Scenario Planning Example

## ASSUMPTIONS

For each scenario planning assumptions considered in **Figure 25**, the City built three market level conditions into its projections to consider as major drivers for reduced and/or lost transit ridership:

1. **The increased number of employees working from home.** As the City will not operate commuter service beyond August 2022, this service driver will not have as significant of an impact as it would to a system that only operated commuter service.
2. **Increased gas prices do impact the choice to use transit.** Gas prices in 2022 are between 30-50% higher than at any point in the last 5 years. However, for potential riders to make the switch to transit, a third criteria must be considered.

**3. The importance of service quality.** Service quality must be aligned with where and when riders want to go. For each scenario, a focus will be made not just on increasing service but improving service quality.

Additionally, the City has had to consider other market factors such as inflation. For example, increases in consumer prices have impacted contractor wage negotiations with its drivers. The City's operations contractor manages all wage-related collective bargaining so it is not expected that the City will be impacted in Year 1 of the plan. The current four-year contract began in FY 2020-21 and has three one-year extensions. However, it is anticipated the operations contract will need to be amended and renegotiated during FY 2022-23 to account for revenue hour changes due not only to the loss of commuter service but also due to the implementation of a new mode called microtransit.

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## SCENARIO 1 – ROBUST RECOVERY

### How would priorities and goals change with revenue constraints? What would inform or trigger service change decisions?

Under Scenario 1, the City is assuming federal revenues would continue at consistent levels. The City is further assuming state revenue would not be significantly impacted by a worldwide recession, and annual increases would at a minimum offset inflation. Finally, farebox revenues would not return to pre-pandemic levels in Year 1, however it is assumed revenues would resume to pre-pandemic levels by the end of the five-year SRTTP period.

The additional service afforded by increased funding would result in an estimated 5% increase in ridership per year during the SRTTP period.

### How much service would be available?

Figure 26 - Additional Service Hours by Year



Under Scenario 1, **Figure 26** shows the City would add an average of 960 service hours per year, resulting in 12% more hours compared to current service.

### How would the deployment of service change by mode? Geography or route? and Time of Day?

#### PRIORITY 1 – INCREASE SERVICE TO BETTER MEET DEMAND

In a robust recovery scenario, the City can better meet demand throughout the day. As shown below, demand has spiked in the early morning and mid-evening. While many routes start early, service does not extend to the mid-evening period/late night.



For FAST, the MVI examined a number of socio-economic indicators and weighted them based upon historical information to determine what portions of the service area would most be impacted by changes to the public transit system.

This data was also used to determine impacts of congestion and where the community has education and food deserts. Finally, when looking at this data, it was seen as critically important these community voices were heard during the recommendation phase of this project. The MVI illustrated the concentration of communities and individuals who are more vulnerable to changes in transportation so that transit agencies can connect with these communities directly to ensure they provide proper feedback on any service changes.

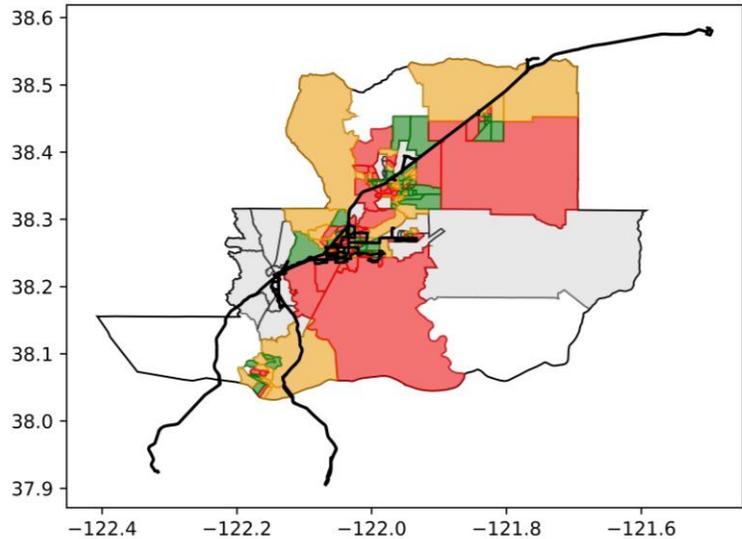


Figure 29 - Mobility Vulnerability

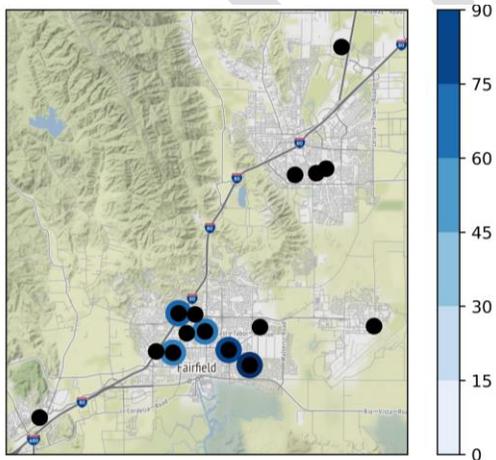


Figure 30 - Travel Time for Equity Priority Communities

The average travel time for FAST users to major trip destinations in the City was over 60 minutes. When factoring wait time and transfer times, the average transit user would spend over 2 hours a day traveling less than 10 miles round trip on public transit.

As shown in **Figure 30**, increased service in Paradise Valley and Cordelia/Green Valley would directly benefit vulnerable populations in these regions.

### **How would these revenue constraints impact staffing and budgeting?**

Under Scenario 1 there would be no anticipated changes to staffing and/or budgeting.

### **How would different service levels impact fleet requirements or spare ratios?**

The existing fleet would be able to complete the proposed additional service hours without expansion. The City would adhere to its current fleet replacement ratio.

DRAFT

## SCENARIO 2 – REVENUE RECOVERY/FEWER TRIPS

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### How would priorities and goals change with revenue constraints? What would inform or trigger service change decisions?

Scenario 2 would allow the City to redesign its transit services to gradually bring back riders. As stated above, the goal for Scenario 2 would be for FAST to focus on service quality, while keeping service hours and budget relatively similar to what has been outlined for FY 2022-23 (accounting for inflation). This would be accomplished through FAST introducing and implementing microtransit as a new and innovative service mode.

#### **The City's Service Quality Improvement Plan is as follows:**

In June 2021, Fairfield City Council held a study session to provide feedback and direction to FAST staff and Innovate Mobility on initial recommendations and community outreach completed from the Comprehensive Operational Strategy initiated in December 2020. At this meeting, City Council directed staff to look at options to continue utilizing a contract operator (currently MV Transportation) to implement microtransit and continue reducing fixed-route service to areas where ridership and connectivity would be maximized.

A transit network redesign traditionally requires effort from both passengers and the transit agency. Updating a network to introduce a new mode and a shift in approach to providing fixed-route service will be an adjustment for staff and riders. FAST recognizes people are most comfortable with what they know. However, FAST also recognizes the more important need for network modernization to ensure long-term sustainability.

To ensure a smooth transition, service recommendations would be implemented in two phases. Adjustments would be considered and implemented as needed to service hours to ensure service was operated within available financial resources. New performance metrics would also be developed to regularly evaluate and adjust services during the ten-year period.

## PHASE I – FEBRUARY 2023

Replace Routes 2, 4, and 8 with microtransit services in Southeast Fairfield and Cordelia/Green Valley.

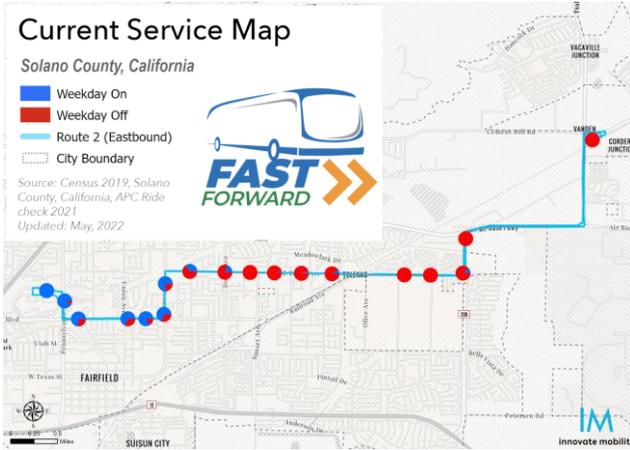


Figure 31 - Route 2 Eastbound

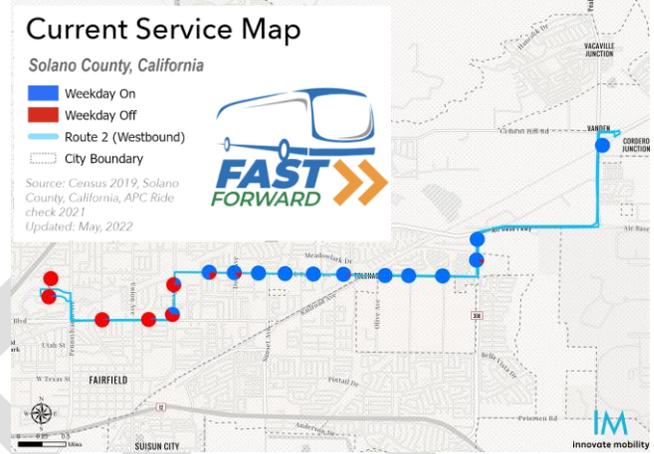


Figure 32 - Route 2 Westbound

### REPLACE ROUTE 2 WITH MICROTRANSIT

Route 2 is a local route primarily running on Travis Boulevard and East Tabor Avenue, serving Solano Town Center, Kaiser Permanente Medical offices, Fairfield-Suisun Adult School, Lee Bell Park, Food4Less (formerly FoodMaxx), Tabor Park, additional various schools, and the Fairfield-Vacaville Hannigan Train Station. Route 2 operates Monday through Saturday.

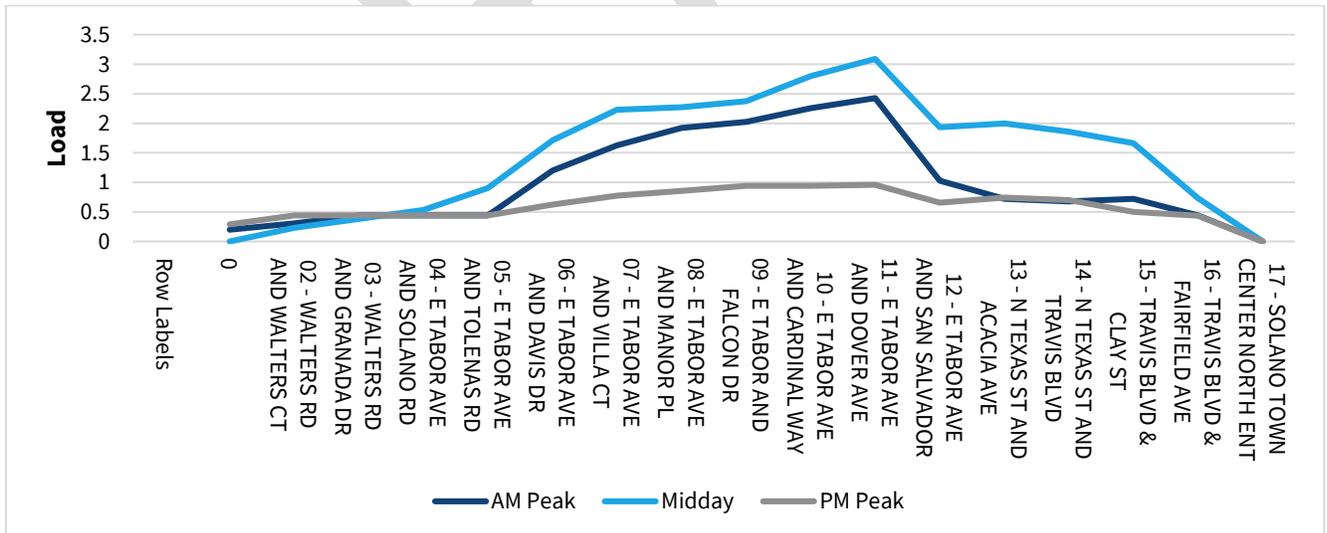


Figure 33 - Route 2 Passenger Load per Stop

Route 2’s major boarding locations are along East Tabor Avenue, with riders exiting the bus along Travis Boulevard to the Solano Town Center. Riders on Route 2 spend the least amount of time on the bus, averaging 8.5 minutes per ride. Route 2 ridership remains 30% below pre-pandemic levels.

Replacing Route 2 with an expanded microtransit zone would provide more frequent opportunities for riders to access zone services (e.g., faster trips to the Solano Town Center and to locations along the Texas Street corridor).

**REPLACE ROUTE 4 WITH MICROTRANSIT**

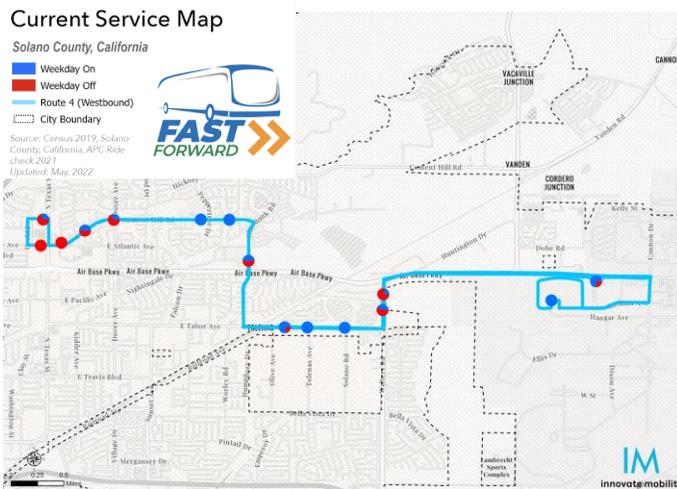


Figure 34 - Route 4 Westbound

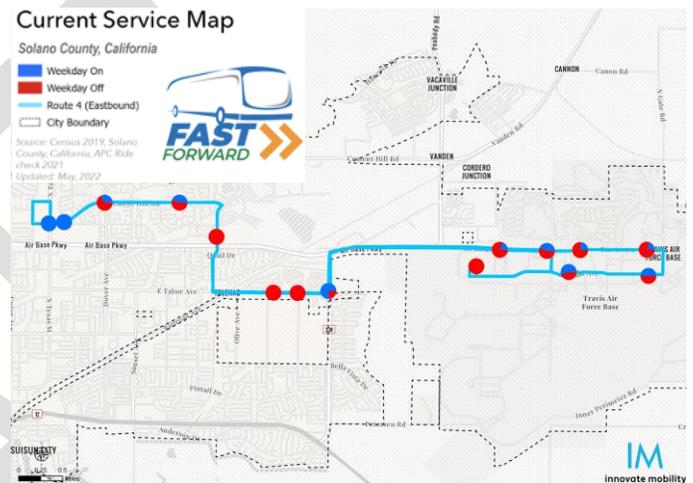


Figure 35 - Route 4 Eastbound

Route 4 is a local route primarily serving Cement Hill Road, Air Base Parkway, and North Texas Street. Route 4 serves Fairfield Walmart, Smart & Final, Fairfield High School, Laurel Creek Park, the Solano County Special Education Center, Travis Air Force Base (TAFB), and David Grant United States Air Force Medical Center (David Grant Medical Center). On weekdays, Route 4 operates only during peak periods. Effective August 6, 2022, the Route 4 no longer operates on Saturdays due to a lack of ridership.

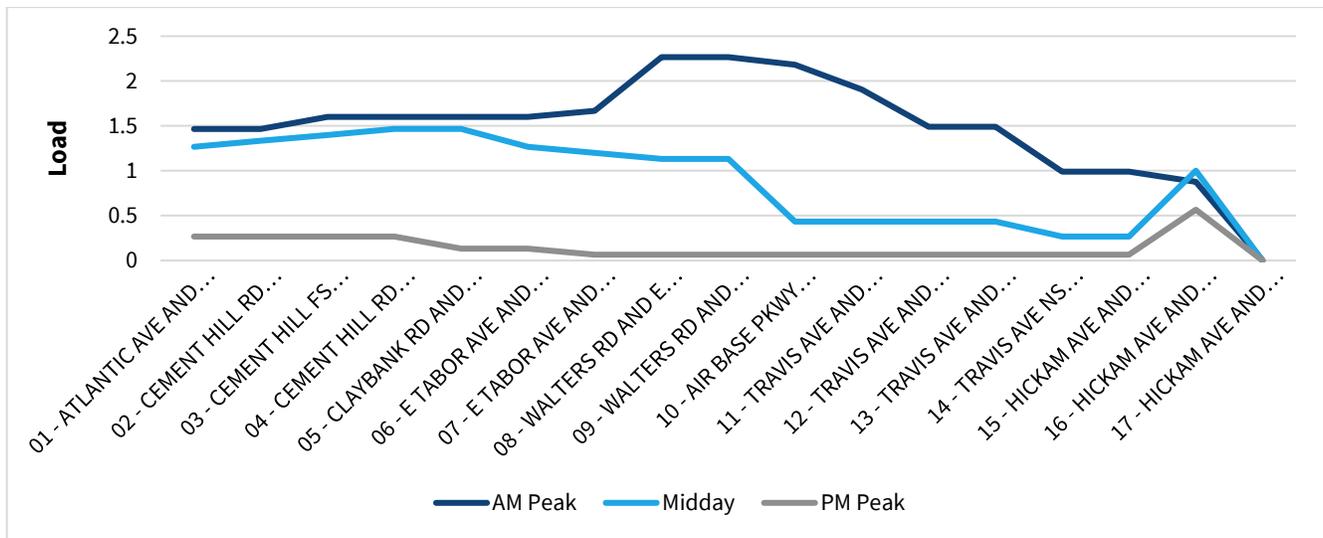


Figure 36 - Route 4 Load by Stop

Route 4 riders spend approximately 11 minutes on the bus per trip. Except for Route 8, Route 4 is the least productive route FAST operates on weekdays and is the lowest performing route on Saturdays. Route 4 ridership remains 40% below pre-pandemic levels.

New microtransit service would expand options for riders of this route by:

- Creating the ability to transfer to Routes 1, 3, and 6,
- Improving access for residents living along Travis Boulevard, and
- Dropping passengers off at the TAFB Main Gate using a smaller, more cost-efficient shuttle vehicle versus current use of a larger, mostly empty bus needing to pass through base security.

There have already been discussions initiated with TAFB personnel to work through any negative impacts from FAST no longer providing service on TAFB. FAST vehicles would still enter a side gate entrance to drop passengers off at David Grant Medical Center.

## REPLACE ROUTE 8 WITH MICROTRANSIT

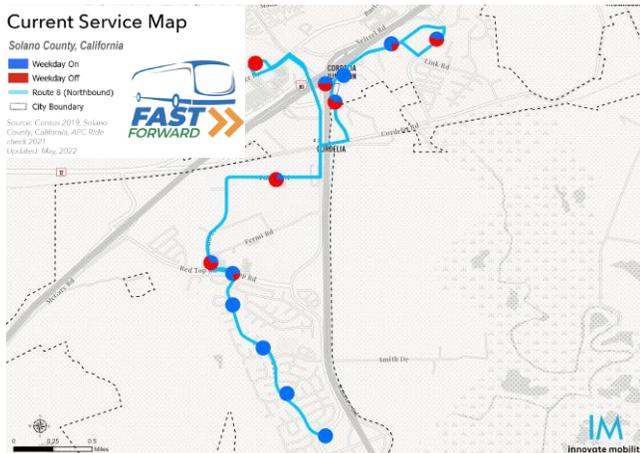


Figure 37 - Route 8 Northbound

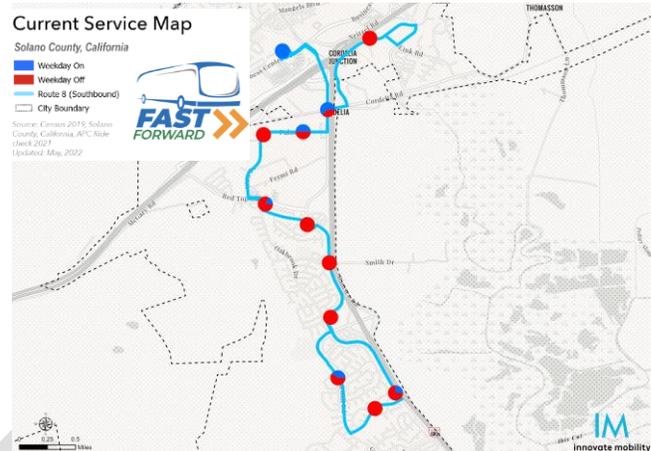


Figure 38 - Route 8 Southbound

Route 8 is a local route, serving the Cordelia area of Fairfield. Route 8 links to the rest of the FAST network via a transfer to Route 7 at the Cordelia Library. Route 8 serves the Cordelia Library, Green Valley Shopping Center, Pittman Road/Central Way Loop, Rodriguez High School, Green Valley Middle School, and the Cordelia Community Park. Route 8 operates Monday through Saturday.

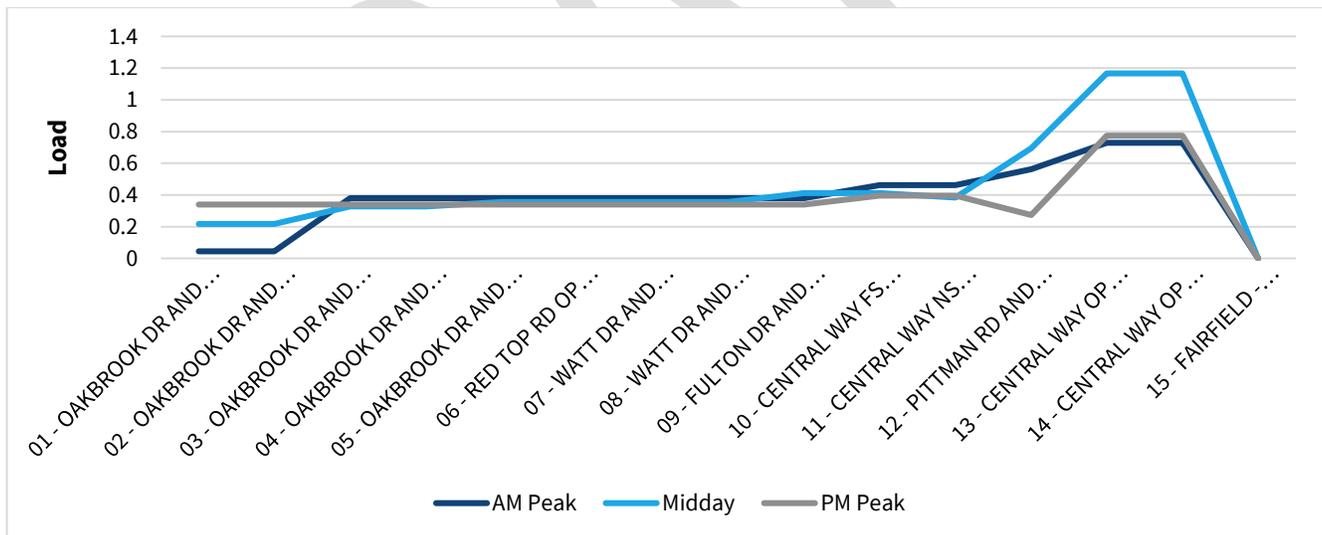


Figure 39 - Route 8 Load by Stop

Route 8 riders spend an average of 10 minutes on board the bus each trip. Ridership on Route 8 is 60% lower than pre-pandemic levels.

Implementing microtransit in this area would make sense, as outside of AM and PM hours when students ride to and from school, Route 8 is the least utilized local route in the FAST network on weekdays. Route 8 is the second least productive route on Saturdays.

## IMPLEMENT MICROTRANSIT SERVICE

FAST would initially deploy microtransit in two zones in Fairfield. Zone 1 would cover Cordelia/Green Valley, and Zone 2 would encompass Southeast Fairfield/Travis Air Force Base. Riders in these areas would receive more consistent, responsive service by trained and screened MV Transportation drivers who would operate city-owned and accessible 12-passenger vehicles. A microtransit technology partner is being identified to assist FAST with determining where boarding and alighting for the on-demand service would be located.

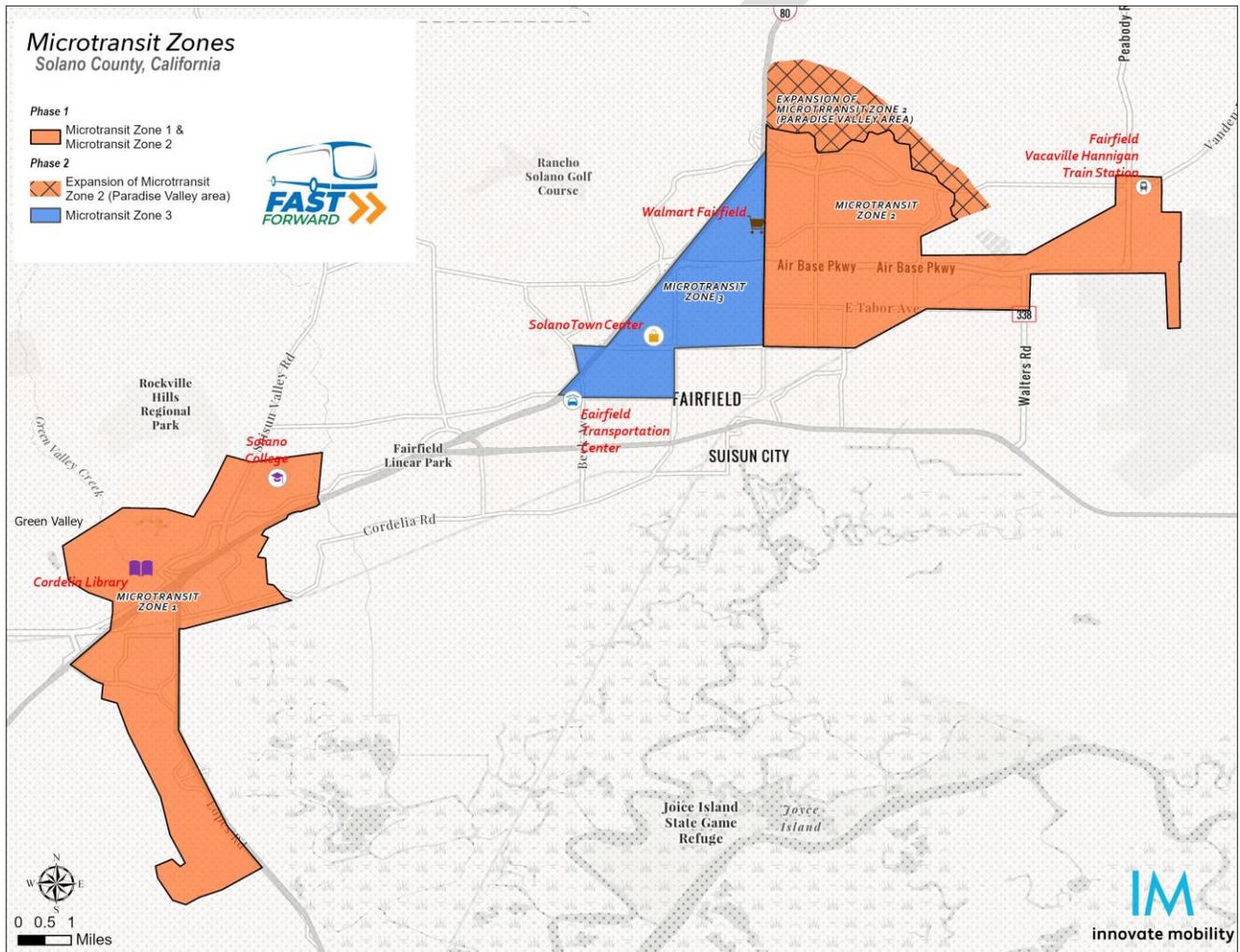


Figure 40 - Proposed Microtransit Zone Map

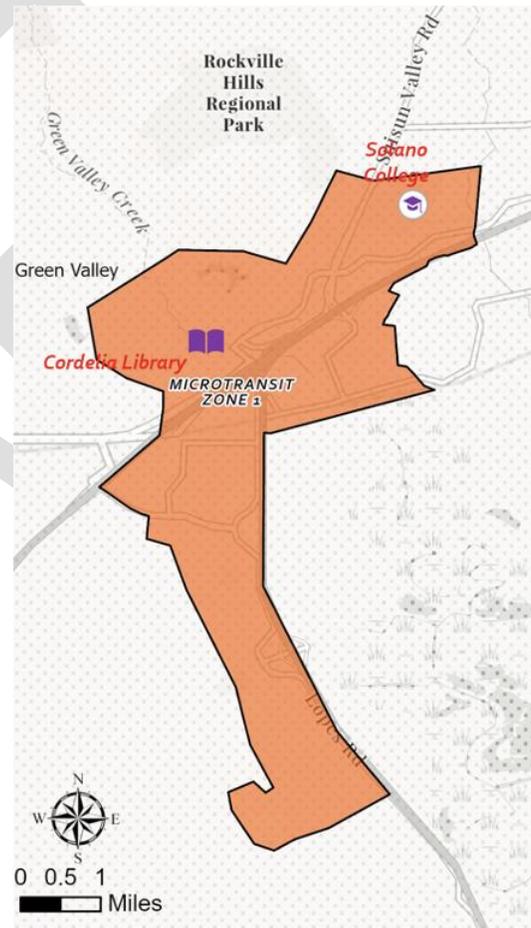
Routes 2, 4, and 8 would no longer operate as local fixed routes. Instead, for travel outside of these two microtransit zones, customers would transfer to FAST local fixed routes at designated stops, such as the Cordelia Library, Solano Town Center, and Smart & Final/Fairfield Walmart.

By implementing microtransit, riders would only wait up to [20 minutes](#) for a microtransit vehicle to arrive rather than the average 60-minute wait on most existing fixed routes. Riders would save an average of 30 minutes per day utilizing microtransit over existing fixed-route service. New service north of Air Base Parkway in Zone 2 and north of the Green Valley Shopping Center in Zone 1 would create additional points of access for residents.

As mentioned previously, FAST would continue its ongoing coordination with TAFB personnel to address the impacts of FAST no longer entering TAFB to pickup and drop-off riders.

### **Zone 1 – Cordelia/Green Valley**

Zone 1 is in the southwest portion of FAST’s service area currently served by Route 8 and is the location of the terminus of Route 7 at the Cordelia Library. Zone 1 would allow for ease of travel within the zone and include connections to the Fairfield Transportation Center (FTC), Solano County Health and Human Services, Solano Town Center, Cordelia Library, and other locations. The existing Route 7 does not provide convenient stop locations to current and future riders. The successful microtransit technology provider would assist FAST with determining where boarding and alighting locations for the on-demand service are best located.



*Figure 41 - Microtransit Zone 1 Map*

### **Service Span**

- 6 am – 8 pm Weekdays
- 8 am – 6 pm Saturdays
- No service on Sundays

### **Estimated Revenue Hours per Day**

- Up to 28.2 on Weekdays
- Up to 20.4 on Saturdays

### **Rider Experience**

- Wait times of less than 20 minutes
- Travel times of less than 30 minutes

As Rodriguez High School in Cordelia is still a major trip generator, and microtransit service cannot support large, simultaneous loads, FAST would continue operating bus tripper service to Rodriguez High School and other Fairfield schools as needed to ensure student travel needs can be accommodated. These trippers would only operate during the school year.

### Zone 2 – Southeast Fairfield/Travis Air Force Base

Zone 2 would replace current Routes 2 and 4 and provide service to Southeast and Central Fairfield, plus on-demand service to the Travis Air Force Base Main Gate, David Grant Medical Center, and the Fairfield-Vacaville Hannigan Train Station. The service would also connect riders to key locations outside the zone such as the Solano Town Center and Fairfield Transportation Center.

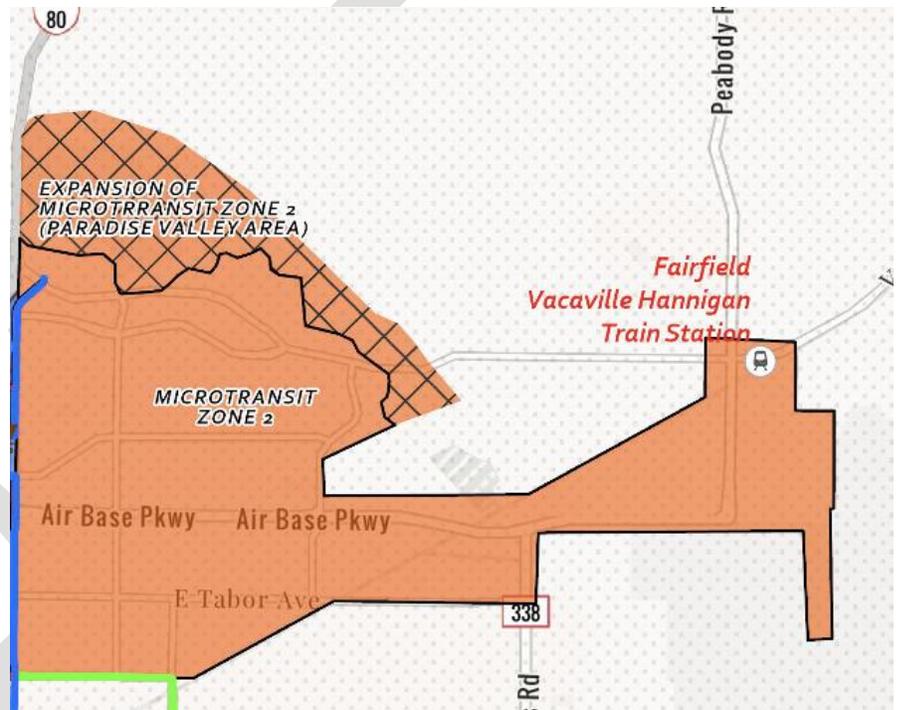


Figure 42 - Microtransit Zone 2 Map

In a later implementation phase, FAST would consider expanding microtransit service north to portions of Paradise Valley and to Paradise Valley Estates. If this occurs, an additional vehicle would be added to manage increased demand.

### Service Span

- 6 am – 8 pm Weekdays
- 8 am – 6 pm Saturdays
- No service on Sundays

### Estimated Revenue Hours per Day

- Up to 28.2 on Weekdays
- Up to 20.4 on Saturdays

## Rider Experience

- Wait times of less than 20 minutes
- Travel times of less than 30 minutes

## OTHER SERVICE RECOMMENDATIONS

### FIRST/LAST MILE PROGRAM

Solano Transportation Authority (STA) is Solano County's congestion management agency. Under its umbrella, STA oversees the First/Last Mile Program (First/Last Mile) contracted through Lyft. First/Last Mile was designed to facilitate a connection with county transit including the ferry building, the two county train stations, and SolanoExpress bus stops. In Fairfield, the program covered transportation to the FTC, Suisun Valley SolanoExpress commuter bus stop, and the Fairfield-Vacaville Hannigan Train Station.

All participants are eligible for 45 rides in one calendar month. Each ride is subsidized 80% of cost per ride up to \$25. Participants must reside or work within the Solano County limits and be over the age of 18. Since Lyft drivers operate as independent contractors, STA is not able to control the availability of drivers, which drivers are chosen to complete the rides participants hail, nor is STA able to control the condition of the car or the conditions that the driver puts on passengers in their car.

In March 2020, due to the COVID-19 pandemic, FAST temporarily suspended service on four local routes (Routes 2, 4, 5, and 8) for three months (March-June 2020). At that time, FAST accepted STA's offer to temporarily expand First/Last Mile to enable those affected by the service reduction to access essential services. The locations covered by the temporary service elimination included David Grant Medical Center, Travis AFB, Food4Less (formerly FoodMaxx), Smart and Final, Fairfield Walmart, and Green Valley Shopping Center. After FAST transit services were restored in July 2020, many of these locations remained geofenced under First/Last Mile. First/Last Mile has also expanded its Fairfield locations to other medical and government facilities (Solano Community College, California Department of Motor Vehicles (DMV), Travis AFB, Solano County Government Center, Sutter Health, NorthBay Medical Center, Kaiser Clinic, OLE Health, DaVita Dialysis, Solano County Health and Human Services, Solano Business Park, and Solano Town Center). All these locations are also served by FAST.

To avoid the perception this service is duplicating and competing with FAST's transit, microtransit, and current 24/7 reduced local taxi program, the City Council's COA approval would authorize the City Manager or his designee to formally notify STA to remove all current First/Last Mile ½ mile

geofencing in the City of Fairfield and limit program services in the City of Fairfield to location to location geofencing that would only drop off or pick up riders at SolanoExpress commuter stops at the Fairfield FTC, Suisun Valley bus stop, and at the Fairfield-Vacaville Hannigan Train Station. This would again make the program consistent with how the program was initially presented and how it is operated in other Solano County cities. This formal request would be made and become effective the month following City Council approval of the COA.

### SUISUN CITY MICROTRANSIT

Beginning in January 2023, Suisun City has requested its new microtransit program be allowed to enter Fairfield’s transit service area to accommodate healthcare needs of Suisun City residents. The City of Fairfield has conversely requested access to the Suisun-Fairfield Train Station and the former Suisun City Senior Center on Merganser Drive for transit and/or microtransit access. Staff from both cities are working through details on how these requests can be accommodated without duplication and competition between FAST current services and COA recommendations and Suisun City’s future microtransit service. These and other service transition points will be incorporated into an agreement for consideration by the City Council of both cities in late 2022

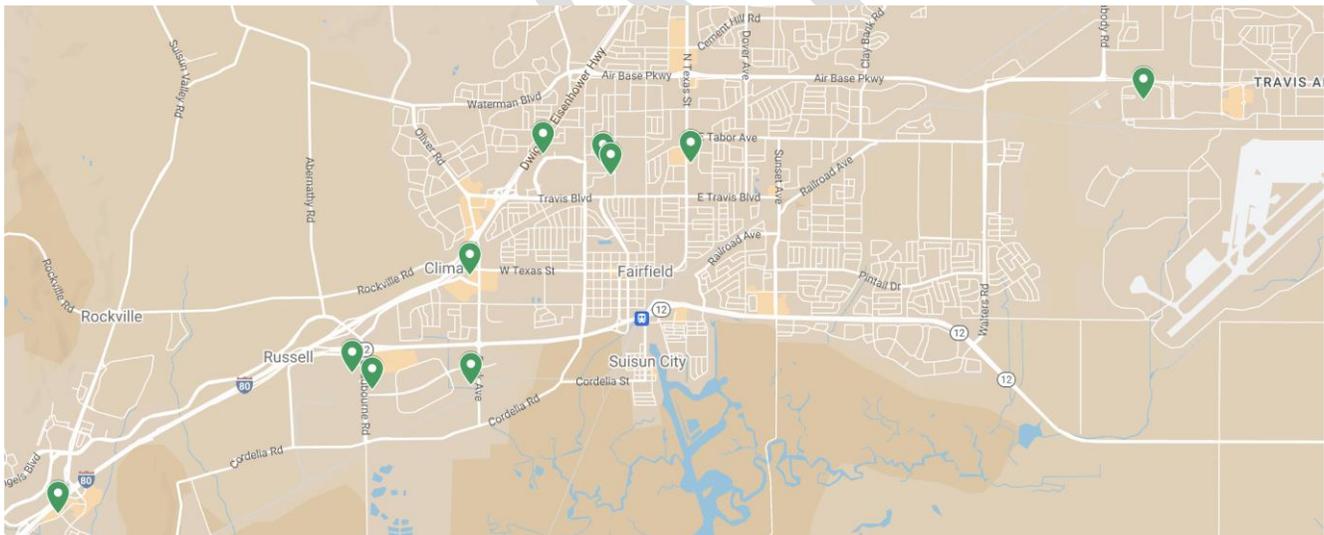


Figure 43 - Suisun City Possible Microtransit Destinations in Fairfield

## PHASE II – JULY/AUGUST 2023

During Phase II, FAST would complete its network evolution with the restructuring of the remaining local routes and continued implementation of microtransit.

Current paratransit vehicles have been converted so Americans with Disabilities (ADA) eligible riders would also utilize accessible on-demand microtransit. Nine new twelve-passenger vehicles were approved for purchase by the Fairfield City Council in April 2022 to replace less efficient 2002 Gillig 35' fixed-route buses.

### ROUTE 1

Route 1 would be extended from Dickson Hill Road north to Manuel Campos Parkway. Current service along Dickson Hill Road and Dover Avenue would be served by the new microtransit service. Wait times in the Dickson Hill Road and Dover Avenue sections of the previous Route 1 would be between 15-20 minutes versus 30-60 minutes currently.

Route 1 would operate every 30 minutes from approximately 5:30 am until 8 pm on weekdays and Saturdays. For sections with overlapping Route 3 service (see page 35), buses would be scheduled to arrive every 15 minutes. These changes are estimated to decrease wait times by up to 50% on weekdays and 75% on Saturdays.

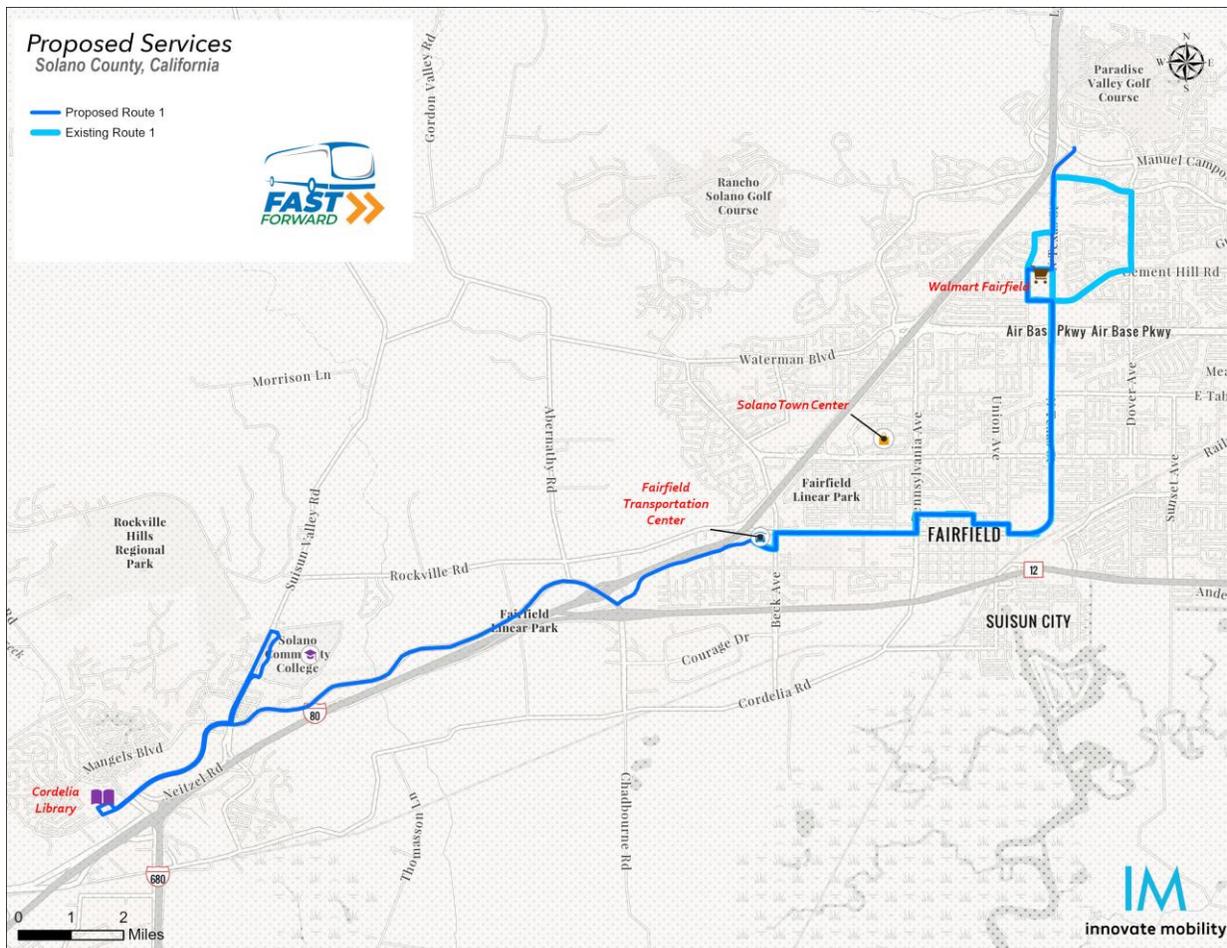


Figure 44 - Proposed Route 1 Map

### ROUTE 3

Texas Street is by far the busiest transit thoroughfare in Fairfield. As shown in Figure 42, more service would be added along Texas Street on Route 1. The proposal for Route 3 is to also run along Texas Street in a staggered fashion with Route 1. In essence, riders would board either Route 1 or Route 3 to reach most destinations along the Texas Street corridor. Like Route 1, Route 3 would be restructured to offer more service along Texas Street to the Solano Town Center, North Bay Medical Center, and Pennsylvania Avenue, which are currently major transit travel destinations.

Riders heading to the Solano Town Center, one of the biggest trip generators in the City, would have a one-seat ride by no longer having to transfer buses.

Route 3's current service between the Solano Town Center and Fairfield Walmart and along Dover Avenue would be replaced with microtransit. These riders would have the ability to request a vehicle at prescribed stops and experience shorter wait and travel times.

Route 3 would operate every 30 minutes from approximately 5:45 am until 8:15 pm on weekdays and on Saturdays. For sections with overlapping Route 1 service, buses would be available every 15 minutes, decreasing wait times by up to 50% on weekdays and 75% on Saturdays.

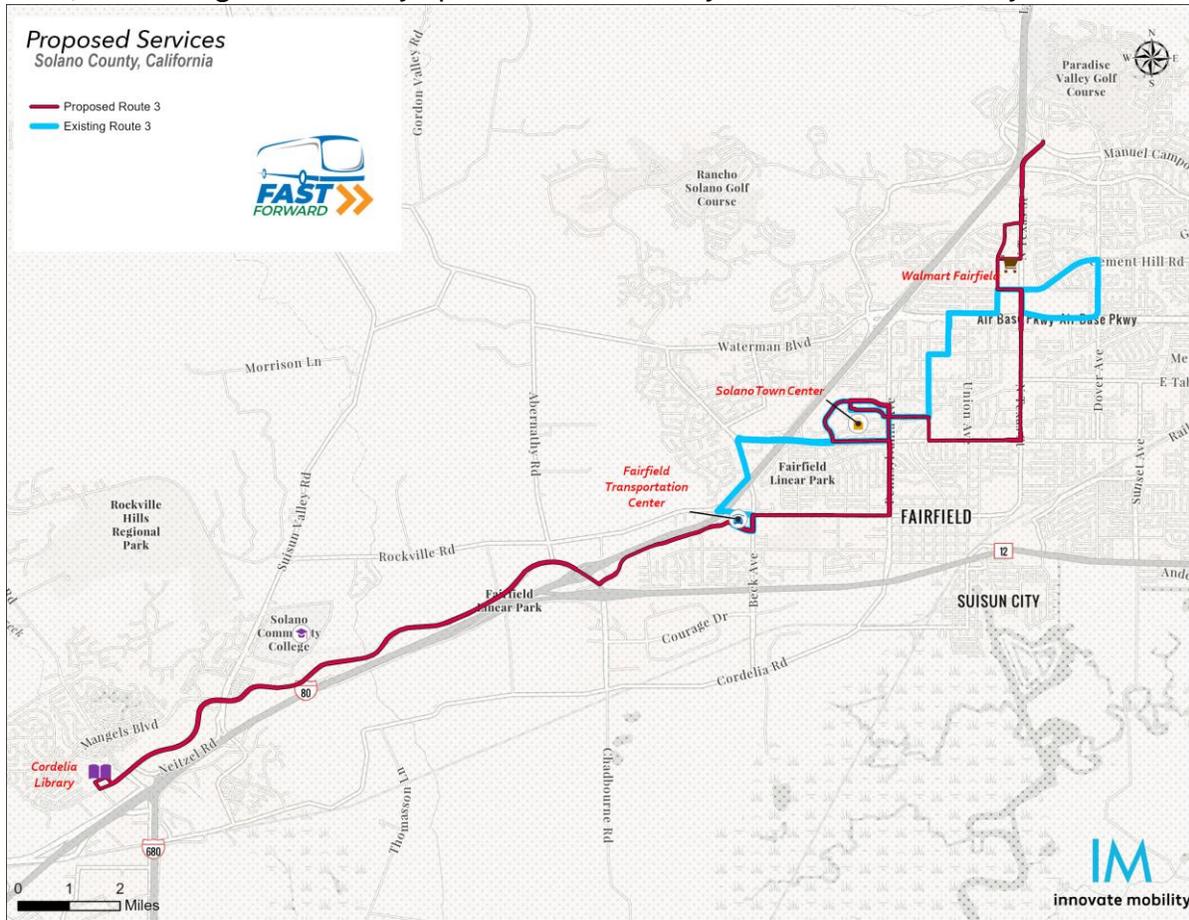


Figure 45 - Proposed Route 3 Map

### ROUTE 6 (FORMERLY ROUTES 6 & 7)

Routes 6 and 7 would be combined to create a new Route 6 - Fairfield-Cordelia crosstown route via Travis Boulevard. The new Route 6 would operate from Travis Boulevard and Sunset Avenue to the Cordelia Library. Route 6 would serve the North Bay Medical Center, Solano Town Center, Fairfield Transportation Center, Suisun Parkway, Business Center Drive, Solano Community College, Green Valley Shopping Center, and the Cordelia Library. Service to the Fairfield Civic Center would be maintained with service provided on Routes 1 and 3.

The new Route 6 would provide service to Solano County Health and Human Services, Courage Drive, and Chadbourne Road where it would allow riders to connect with Cordelia/Green Valley microtransit vehicles.

Route 6 would operate every 30 minutes from approximately 6 am until 7:30 pm on weekdays and on Saturdays. Riders on Route 6 would have 30-50% shorter wait times than on today's Routes 6 and 7.

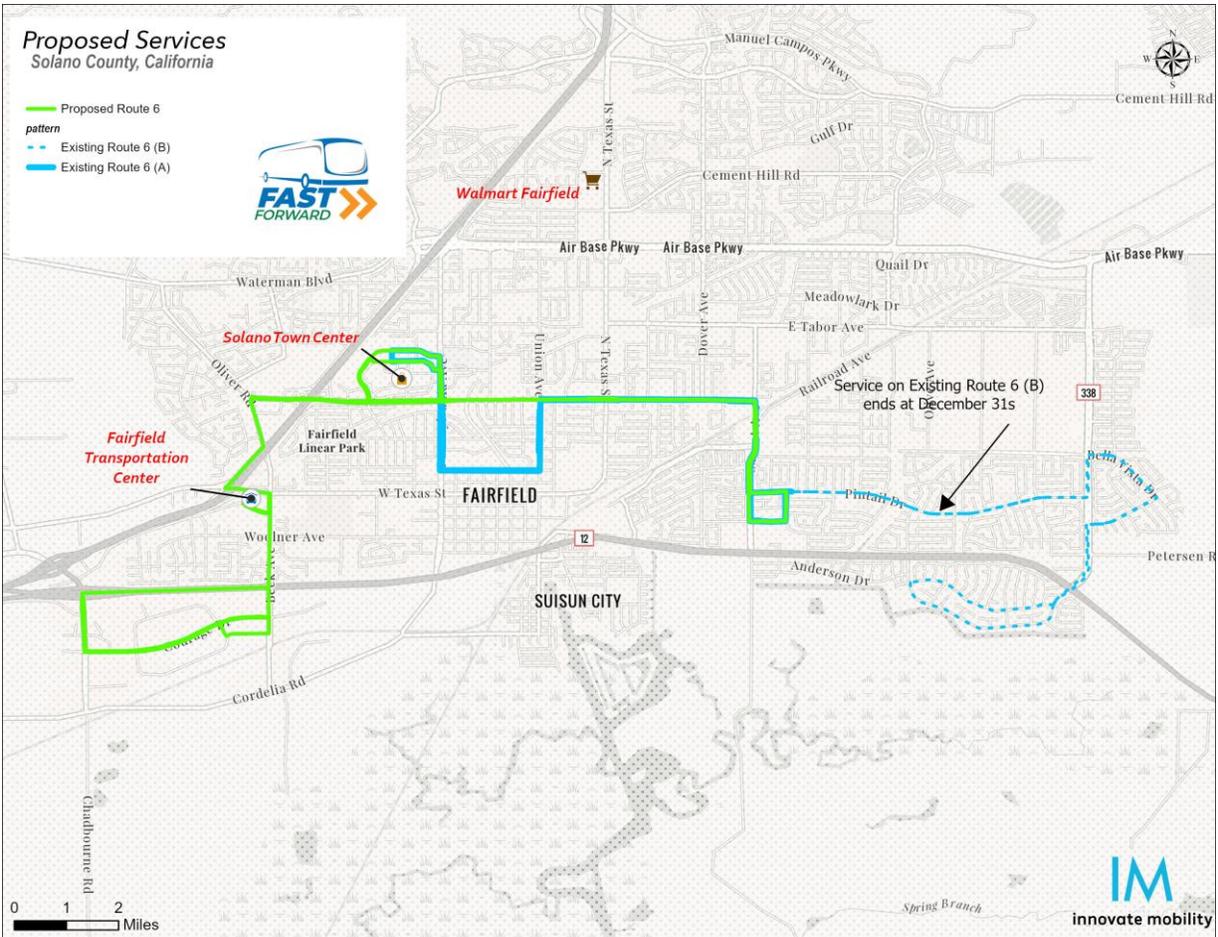


Figure 46 - Proposed Route 6 Map

It is recommended that new Routes 1, 3, and 6 be renumbered or rebranded altogether as part of the Phase II changes. For example, Route 3 could be renamed “Texas St via Civic Center” to better identify the corridor where the route primarily travels.

## REPLACE PARATRANSIT AND TAXI WITH CITYWIDE MICROTRANSIT

The final recommended change in Phase II of *FAST Forward* is to replace all existing taxi and paratransit service with microtransit, effectively expanding the new on-demand service across the entire City. Currently, paratransit service is the most expensive per rider for FAST to operate. The City would financially benefit from lowering costs per paratransit trips.

Paratransit customers would notice almost no difference in how they currently reserve trips and interact with the service. Instead, these riders would gain added convenience by having return trips operate on-demand versus having to wait for a scheduled return trip pickup as occurs now.

Paratransit customers would also receive scheduling priority over regular microtransit customers in booking and travel time to ensure their trips are completed in accordance with ADA guidelines.

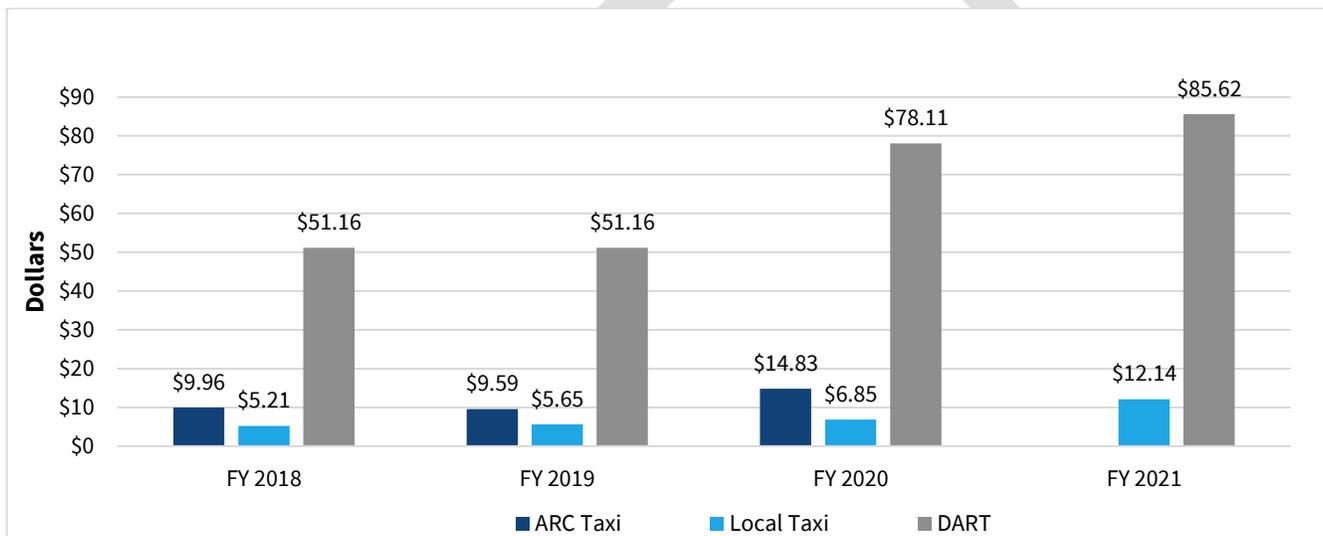


Figure 47 - Paratransit Subsidy per Passenger

Based on the adjacent activity map, paratransit customers would gain benefits during Phase I of *FAST Forward* as most paratransit trips are made in the Cordelia/Green Valley and Southeast Fairfield/TAFB areas. Under Phase II, with microtransit service expanding to Central Fairfield, paratransit customers would experience reduced wait and travel times along with greater convenience booking trips.

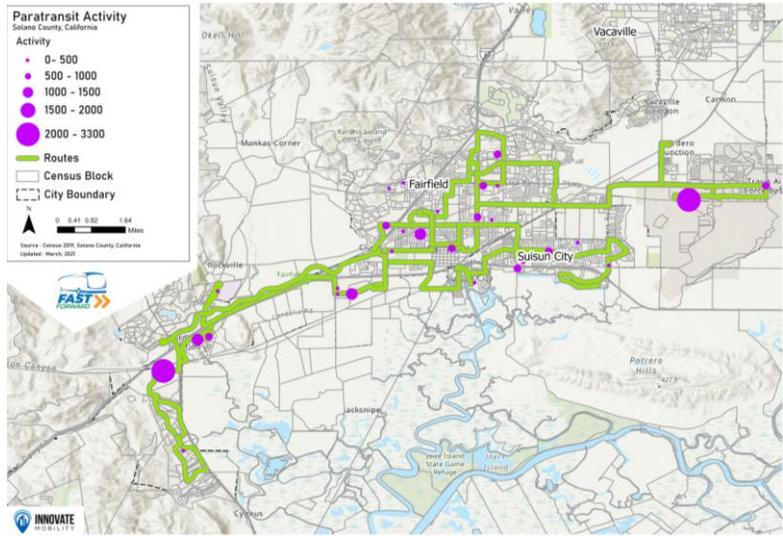


Figure 48 - Paratransit Activity Map

### PROPOSED PHASE II SERVICE MAP

When the COA is fully implemented, FAST would operate faster, more frequent service along its most widely used corridors and replace underperforming routes and expensive paratransit service with microtransit. These changes would result in FAST serving major trip generators in the City of Fairfield more frequently. For example, residents from Cordelia/Green Valley could take microtransit directly to locations within the established zone and would also allow riders to easily transfer to fixed-route service being provided more frequently on Routes 1, 3, or 6.



## RECOMMENDED SERVICE HOURS

After implementing all recommended changes, FAST would evaluate returning weekday service levels to pre-pandemic levels and whether increased service on Saturdays was needed to better address resident travel needs. These combined changes address the guidelines presented earlier in this document.

FAST would expect to see a savings of **\$100k-\$150k** per year in paratransit operating costs from 2019 levels when Phase II of *FAST Forward* is deployed. This 10-15% savings would occur due to the reduction in paratransit per trip costs and from better, more efficient vehicle utilization.

Overall local service hours would increase over pandemic era FY 2020-21 and 2022 levels. This would be especially evident on Saturdays. Microtransit would also take the place of paratransit and local taxi as part of Phase II, which accounts for the larger increase in hours shown below in Table 5.

Table 5 - Proposed Service Plan Daily Hours

		Hours	2019	2021	Phase I	Phase II
<b>Fixed Route</b>	Weekday	Revenue	185.4	152.1	90.2	124.9
		Platform	191.5	158.0	93.2	126.6
	Saturday	Revenue	77.1	61.6	36.3	90.4
		Platform	80.1	65.0	38.1	94.7
<b>Paratransit</b>	Weekday	Revenue	43.2	14.1	28.2	0
		Platform	45.9	15.3	30.6	0
	Saturday	Revenue	13.3	5.9	11.8	0
		Platform	14.3	6.6	13.2	0
<b>Microtransit</b>	Weekday	Revenue	0	0	56	98
		Platform	0	0	61	106.8
	Saturday	Revenue	0	0	28	42
		Platform	0	0	30	46
<b>Total</b>	Weekday	Platform	237.4	173.3	184.8	233.4
	Saturday	Platform	94.4	71.6	81.3	140.7

## RIDER BENEFITS

When fully implemented, transit riders could expect to see a time travel savings of up to 30 minutes per day. As shown in Table 3 below, riders would also experience shorter wait times and increased single seat rides.

Table 6 - FAST Forward Journey Time Savings

Destination	Origin	Current		Proposed Changes		Savings	
		Journey Time*	Transfers	Journey Time	Transfers	Journey Time	Transfers
<b>Solano Community College</b>	E Travis Blvd./ Sunset Ave.	82	1	65	1	-17	0
	Marigold Dr./ N. Texas St.	70	1	51	0	-19	-1
	Heath Dr. & Brenton Dr.	59	1	58	1	-1	0
<b>Solano County Health &amp; Human Services</b>	E Travis Blvd./ Sunset Ave.	69	1	50	0	-19	-1
	Marigold Dr./ N. Texas St.	57	1	45	1	-12	0
	Heath Dr. & Brenton Dr.	57	1	41	1	-16	0
<b>Green Valley Shopping Center</b>	E Travis Blvd./ Sunset Ave.	98	2	75	1	-23	-1
	Marigold Dr./ N. Texas St.	84	1	68	0	-16	-1
	Heath Dr. & Brenton Dr.	73	1	63	1	-10	0

<b>Travis Blvd/ Oliver Rd</b>	E Travis Blvd./ Sunset Ave.	57	1	34	0	-23	-1
	Marigold Dr./ N. Texas St.	61	1	44	1	-17	0
	Heath Dr. & Brenton Dr.	32	0	18	1	-14	1
<b>Solano Town Center</b>	E Travis Blvd./ Sunset Ave.	38	0	30	0	-8	0
	Marigold Dr./ N. Texas St.	44	1	23	0	-21	-1
	Heath Dr. & Brenton Dr.	21	0	13	0	-8	0

\* Journey time is defined as roundtrip travel time plus waiting, including transfers.

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## FARE RECOMMENDATIONS

Under the proposed fare structure, the single ride local and microtransit fare would increase from \$1.75 to \$2.00. This is in line with similar sized systems with comparable service offerings. Please see the Fare Review section for more details.

Discounts for youth and seniors would adjust in line with the existing fare structure. Microtransit service would not have any discounts for youth or senior riders. The federal half-fare rules require that cash fares on local service be discounted 50% for certain riders. Microtransit service is not required to observe the federal half-fare rule.

The 31-day pass would increase to \$80. This represents a 40 multiplier, which is higher than the existing multiplier. A multiplier is defined as the number of rides a passenger will make on average. This is derived by dividing the pass price by the single ride fare. For FAST's 31-day pass, the proposed multiplier (\$80/\$2.00) represents a multiplier of 40. Currently, the multiplier is 34. DART fares would increase in line with local service to \$4.00 for a single ride and \$40 for a 10-ride pass. Paratransit customers using microtransit would access in-advance scheduling and curb-to-curb service for a \$4.00 fare.

Table 7 - Proposed Fare Structure

Fare Type	Adult (19-64)	Youth (6-18)	Senior (65+/Disabled/Medicare)
<b>Microtransit Single Ride (Cash)</b>	\$2.00	\$2.00	\$2.00
<b>Fixed-Route Single Ride (Cash)</b>	\$2.00	\$1.75	\$1.00
<b>Microtransit/Fixed-Route 31-Day Pass</b>	\$80.00	\$70.00	\$40.00
<b>Paratransit Single Ride</b>	\$4.00	N/A	N/A
<b>Paratransit 10-Ride Pass</b>	\$40.00	N/A	N/A

## RIDERSHIP AND REVENUE MODELING

The Simpson-Curtin Elasticity Model was used to estimate future ridership and revenue. The model estimates that when fares are increased by 10%, there would be a corresponding 3% ridership drop. Further information on the modeling undertaken for *FAST Forward* can be found in the Fare Review section of this report.

Under the proposed fare structure, fares would increase approximately 14.3%. A 4% ridership drop could occur should rider elasticity peak. However, when comparing ridership across the peer systems in California who have also increased fares, a smaller 0.95% drop occurred. Based on these factors, it is reasonable to conclude the rider elasticity drop would initially be between 0.95% (Low) - 4% (High). As the new service options are marketed and seen as a convenient affordable option, it is expected ridership will again increase.

Using Table 7’s proposed fare structure, **Table 8** outlines the projected key financial indicators.

Table 8 - Ridership and Revenue Projections

Mode	Average Fare	Farebox Recovery		Ridership		Fare Revenue		Subsidy per Passenger	
		Low	High	Low	High	Low	High	Low	High
<b>Local</b>	\$1.40	13%	14%	503,625	521,164	\$705,075	\$729,629	\$8.84	\$9.20
<b>DART</b>	\$2.80	10%	11%	20,960	21,960	\$60,733	\$58,689	\$22.17	\$23.04
<b>Micro</b>	\$1.80	12%	12%	48,000	50,000	\$86,400	\$90,000	\$12.84	\$13.33

Based on the above projections, initial farebox recovery would increase to between 13%-13.5%, which would be an increase of 14%-16% over 2019 levels (including the upcoming loss of Suisun City transit ridership). The ridership drop on the low end would be negligible versus 2019 levels.

Based on the microtransit system peer review completed as part of *FAST Forward*, this report recommends a **\$2.00** fare for microtransit with no discounts for youth and Senior/Disabled/Medicare (SDM) eligible riders. The average fare for microtransit is higher than that for local service because there would be no discounts for youth and SDM riders. This fare consistency would also minimize complications when riders transfer between the fixed-route system and the microtransit system.

### How would the deployment of service change by mode? Geography or route? And Time of Day?

As shown above, service would be added to the key areas where demand has increased since the pandemic began. Additionally, service would be added along the major arterials that connect most of the City to provide faster, more frequent travel throughout the city.

### **How would equity priority communities be considered under each scenario?**

As shown above, the changes in Scenario 2 are targeted at improving equity and access in central Fairfield and priority communities that connect to there.

### **How would these revenue constraints impact staffing and budgeting?**

As with Scenario 1, no changes in staffing or budgeting are expected under this scenario. Essentially, with service levels staying flat, and ridership increasing due to improved service quality, as long as funding levels can stay in line with inflation, the City should not face any sort of reductions in staffing.

### **How would different service levels impact fleet requirements or spare ratios?**

The City is already procuring vehicles for the new microtransit service and will retire vehicles as per their fleet replacement plan. No impacts to fleet requirements or spare ratios are expected.

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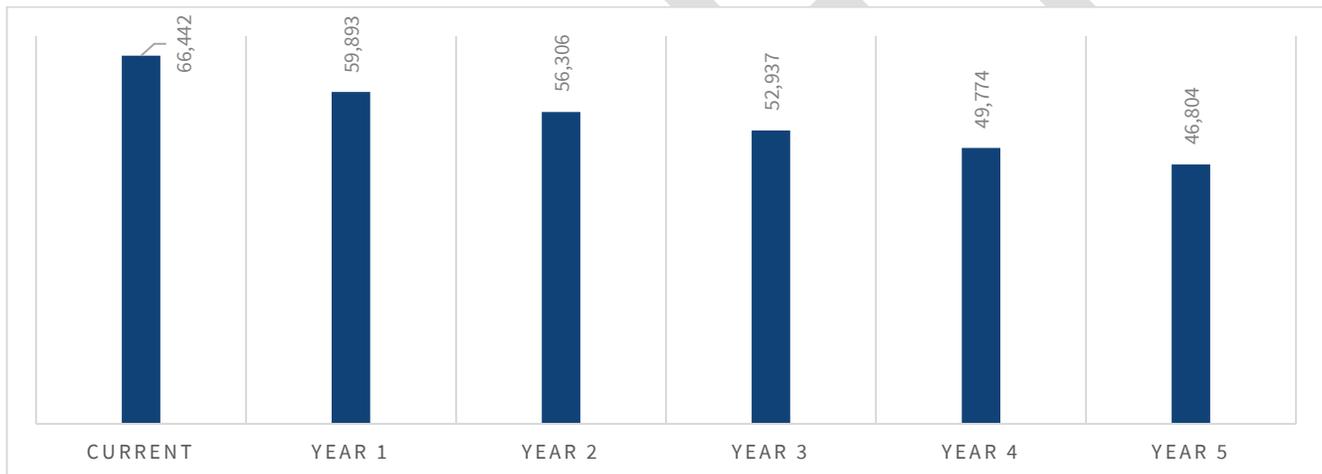
## SCENARIO 3 – SOME PROGRESS

### How would priorities and goals change with revenue constraints? What would inform or trigger service change decisions?

Under this scenario, FAST's operating costs would exceed what is forecasted in the City budget. Under Scenario 3, the City would need to consider all options to maintain high quality service for its riders. In this scenario, ridership is projected to drop from pandemic level lows. Service levels would need to contract as well, albeit at a less than 1% per year. The key issue with Scenario 3 is that the City would be unable to enact its service quality improvement plan referenced in Scenario 2.

### How much service would be available?

Figure 50 – Service Hour Changes by Year



Service is estimated to contract an average of 1% per year due to rising costs related to inflation and the City's operating contract. While this is a small change, the larger impact is that no additional service would be added to growing areas around the City.

### How would the deployment of service change by mode? Geography or route? And by Time of Day?

Deployment of service would not radically change. The general construct of the current routes would stay intact. Headways would remain at current levels.

### **How would equity priority communities be considered under each scenario?**

Equity priority communities would not receive any additional services. However, as shown in Figure 30, the majority of the communities are currently served, however, no additional service would be added to Cordelia/Green Valley.

### **How would these revenue constraints impact staffing and budgeting?**

No changes to staffing or budgeting would be expected under this scenario.

### **How would different service levels impact fleet requirements or spare ratios?**

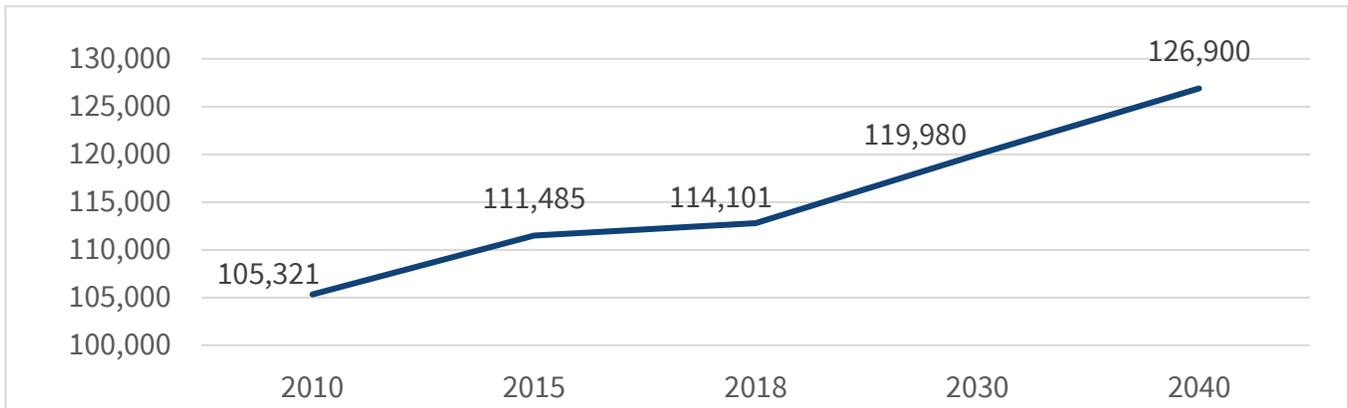
There would be no impact to spare ratios, and the City would adhere to its current fleet replacement plan.

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## APPENDIX 1 POPULATION AND DEMOGRAPHICS

The City of Fairfield is in Solano County California. It is also the county seat for the County. Reaching its highest population of 118,043 in 2021, it is the 55th largest city in California and the 248th largest city in the United States. The City is currently growing at a rate of 0.39% annually, and its population has increased by 12.08% since the most recent census, which recorded a population of 105,321 in 2010. Spanning over 41 square miles, Fairfield has a population density of 2,866 people per square mile and approximately 38,000 housing units as of 2020.

Figure 51 - Fairfield Project Population Growth



Plan Bay Area 2040 projects 33% of Solano County’s job growth from 2010 to 2040 will be in Fairfield. It is projected Fairfield will gain nearly 8,000 additional employed residents and 10,000 additional jobs by 2040. The jobs will be concentrated in healthcare, education, recreation, information, government, and construction.

Figure 52 - Fairfield Projected Job Growth

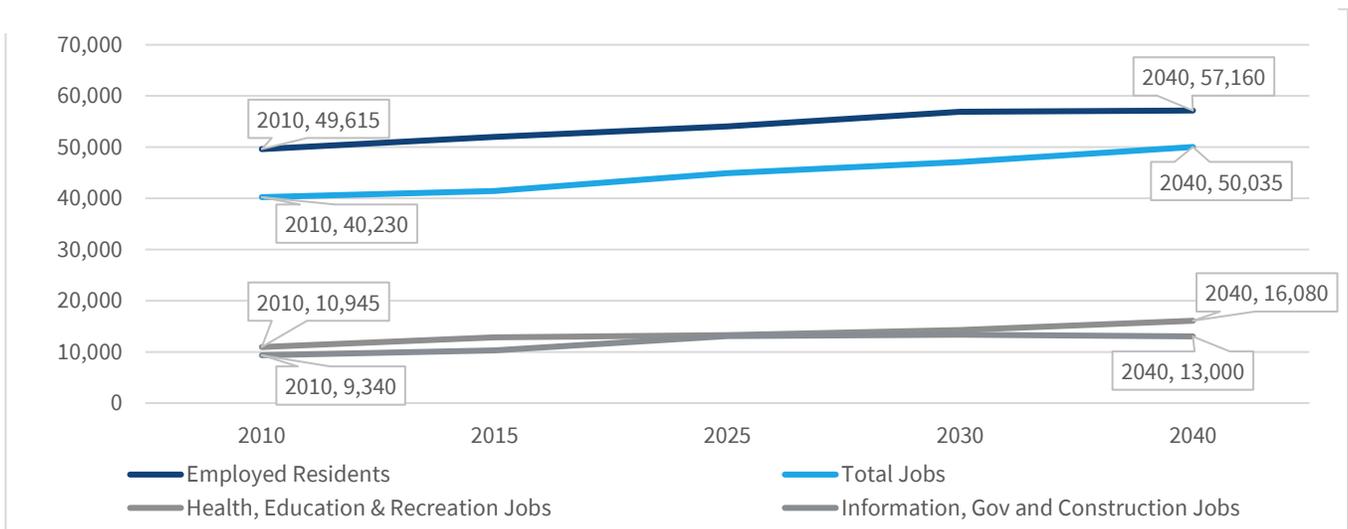
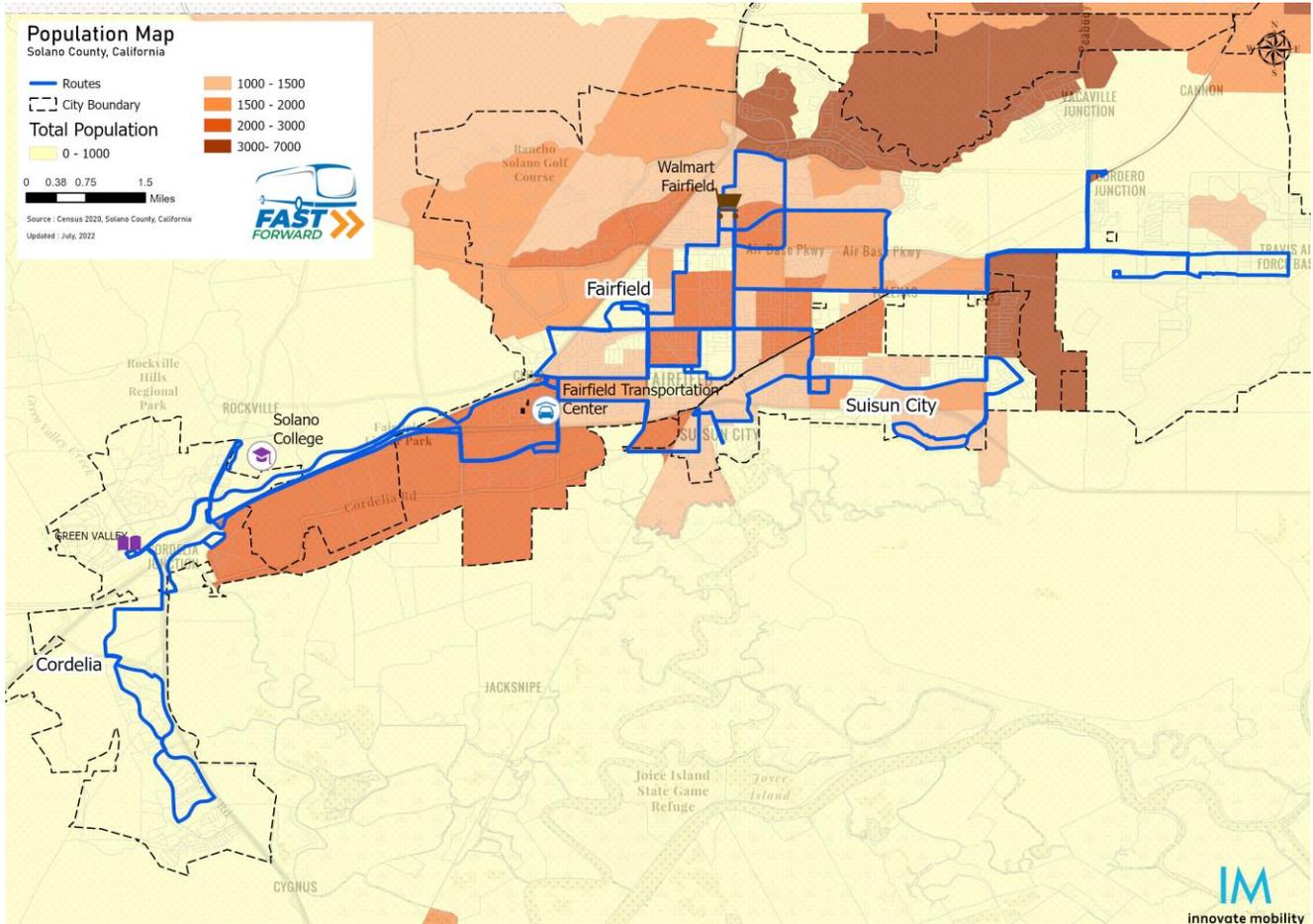


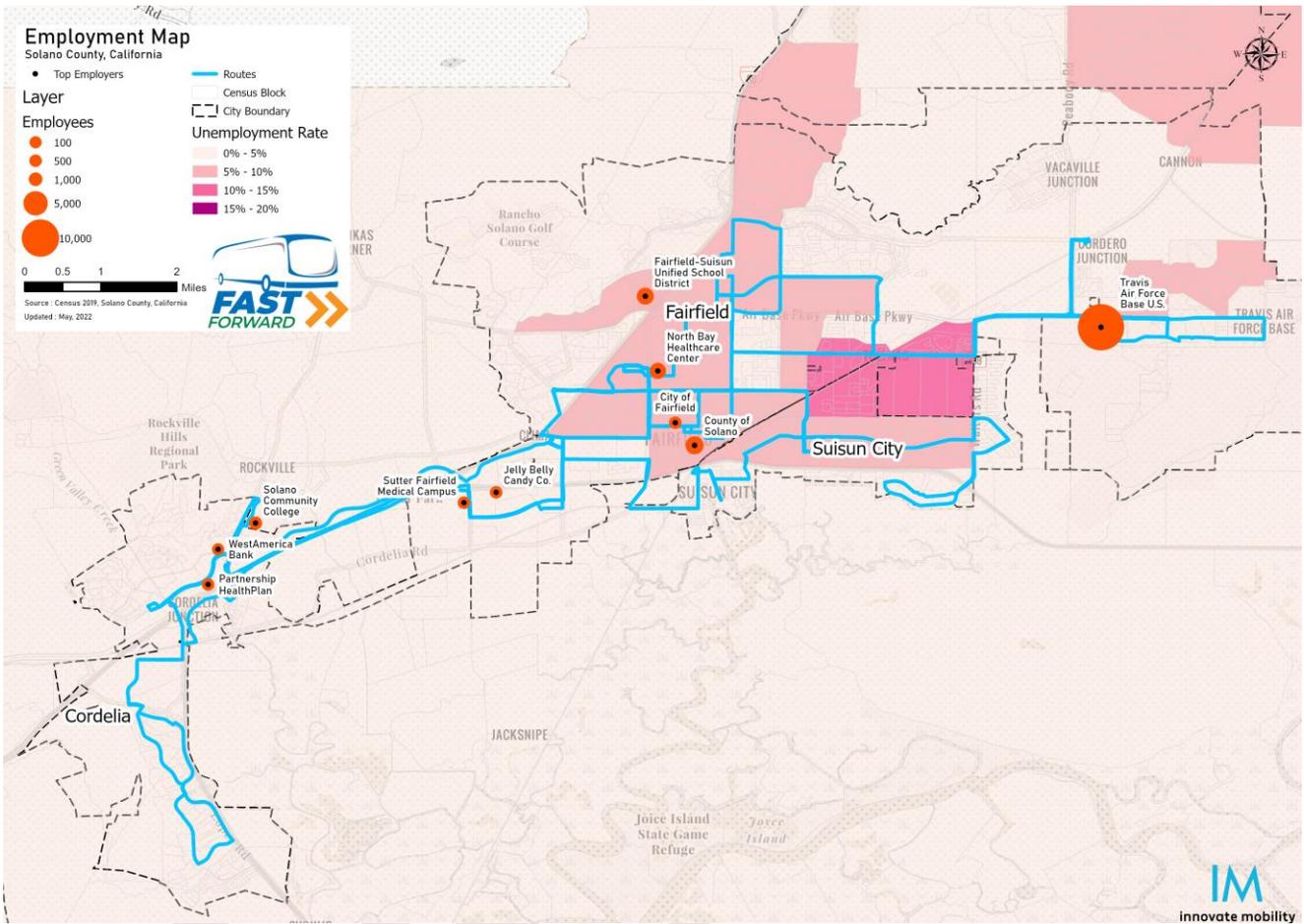
Figure 53 - Regional Population Map



## POPULATION

Fairfield and Suisun City's population is concentrated in the core of the service area, centered on both Texas Street and Pintail Drive. There are concentrations of development towards Vacaville as well as in the Cordelia and Green Valley areas of Fairfield.

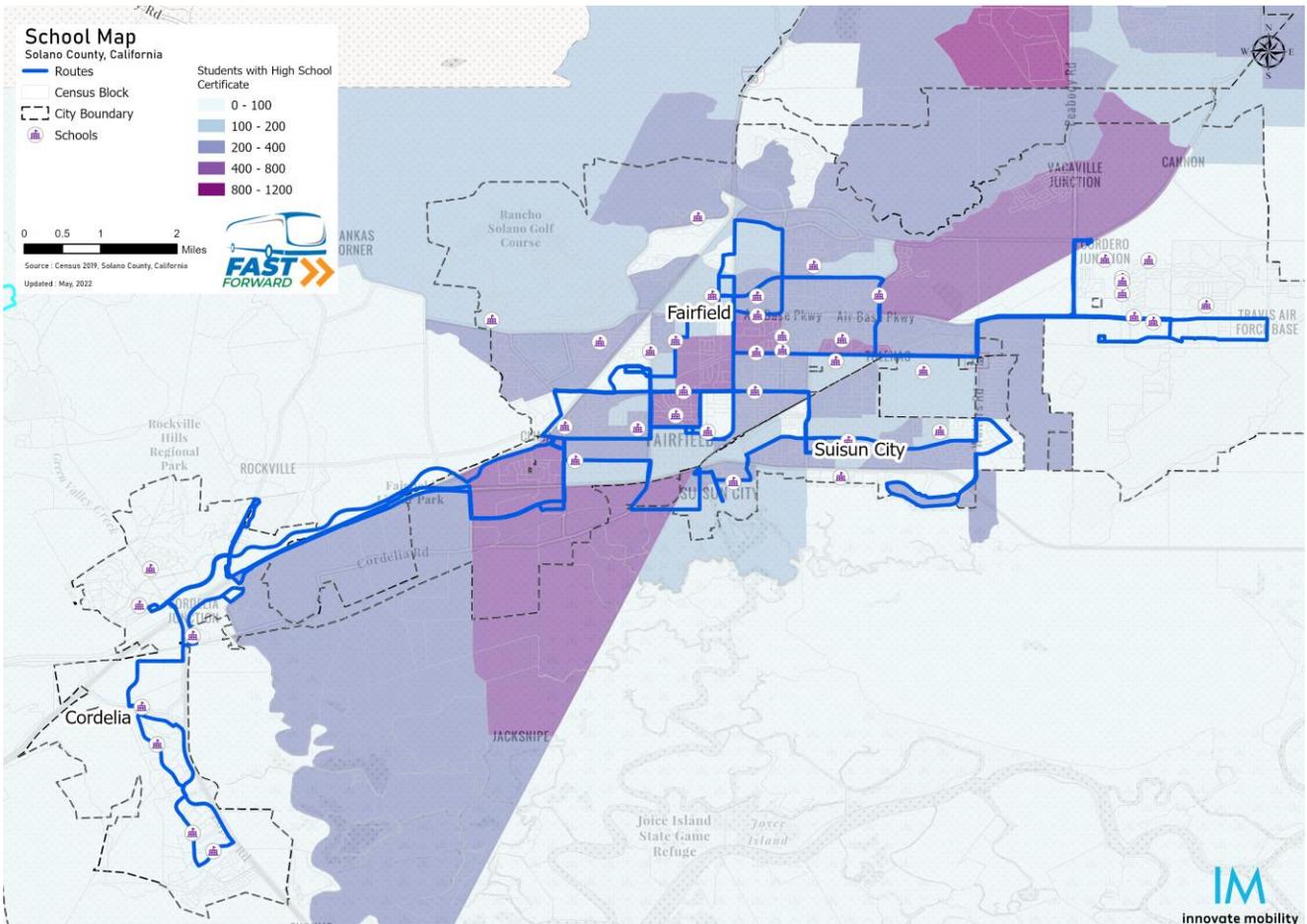
Figure 54 - Regional Employment Map



## EMPLOYMENT

Fairfield and Suisun City’s employment sector is largely concentrated in Fairfield. The area’s largest employers are located on an existing FAST local route except for the main offices of the Fairfield-Suisun Unified School District. Travis Air Force Base is the largest employer in Fairfield and Suisun City.

Figure 55 - Regional School Map



## DEMOGRAPHICS

73% of Fairfield residents identify as a race other than white alone, which is above Solano County’s 65% who identify as the same. The population in Fairfield also has 2% higher median income than Solano County and 10% higher than California. 8.6% of residents live below the poverty line, and an additional 17% live below the annual median income of just over \$86,000.

Table 9 - Population and Demographics

Population and Demographics	California	Solano County	Fairfield
<b>Total Population</b>	39,237,836	451,716	119,881
<b>Age</b>			
<b>Under 18</b>	8,828,513	99,378	29,970
<b>Over 65</b>	5,807,200	73,630	15,704
<b>Commuting</b>			
<b>Drive Alone</b>	13,146,038	172,752	44,432
<b>Take Public Transit</b>	843,498	6,471	1,195
<b>No Vehicles Available</b>	2,746,649	7,537	1,946
<b>Disabled Population</b>	6,734,666	52,311	13,682
<b>Ethnicity</b>			
<b>White Alone (not Hispanic)</b>	14,321,810	168,038	35,844
<b>Black Alone</b>	2,550,459	66,854	20,020
<b>Asian Alone</b>	6,081,865	73,178	19,421
<b>Hispanic Alone</b>	15,459,707	123,318	35,725
<b>Two or more races</b>	1,569,513	32,072	12,827
<b>Housing</b>			
<b>Total Housing Units</b>	14,366,336	160,366	40,539
<b>Housing Units in multi-unit structures</b>	4,527,186	36,079	9,520
<b>Average household size</b>	2.94	2.87	3.12
<b>Owner-occupied housing units</b>	7,420,725	99,587	23,918
<b>Income</b>			
<b>Median Household Income</b>	\$ 78,672	\$ 84,638	\$ 86,204
<b>Individuals living below the poverty line</b>	4,512,351	42,010	10,310
<b>Less than \$20,000</b>	744,552	13,790	3,058
<b>\$20,001-\$50,000</b>	1,707,621	27,956	7,073
<b>\$50,001-\$100,000</b>	3,623,861	47,547	11,639
<b>&gt;\$100,000</b>	5,201,713	67,204	16,356

# APPENDIX 2 SERVICE OVERVIEW

Figure 56 - Route Overview and Span of Service

2019 Route Structure and Span of Service			Weekdays		Saturday		Headway	
	Route	Major Locations and Destinations Served	Start	End	Start	End	Peak	Off-Peak
Local	1	FTC/Armijo High School/Walmart	6:00 AM	7:54 PM	9:00 AM	5:54 PM	Every 30 minutes	Every 30-60 mins
		Solano Town Center/ Grange Middle School/ TAFB Connection/ Fairfield-Vacaville Hannigan Train Station	6:15 AM	8:11 PM	9:45 AM	6:41 PM	Every 30 minutes	Every 30-60 mins
	2		6:00 AM	7:54 PM	9:00 AM	5:54 PM	Every 30 minutes	Every 30-60 mins
	3	FTC/Solano Town Center/Fairfield Walmart	6:25 AM	8:24 PM	9:25 AM	6:24 PM	Every 60 minutes	Every 60 minutes
	4	Fairfield Walmart/TAFB/David Grant Med Center	5:31 AM	7:54 PM	9:00 AM	5:54 PM	Every 60 minutes	Every 60 minutes
	5	FTC/Amtrak/Suisun Senior Center	6:00 AM	8:17 PM	9:00 AM	5:47 PM	Every 30 minutes	Every 45 minutes
	6	Solano Town Center/Adult Recreation Center/Central Suisun City/Suisun City Walmart/Lawler Ranch	6:00 AM	7:22 PM	9:00 AM	5:52 PM	Every 30 minutes	Every 30-60 mins
	7	FTC/Solano College/Cordelia Library	6:30 AM	7:19 PM	9:30 AM	5:19 PM	Every 60 minutes	Every 60 minutes
Solano Express	Blue Line	Sacramento-Davis-Dixon-Vacaville-Fairfield-Benicia- Pleasant Hill BART	4:19 AM	8:31 PM	8:00 AM	7:39 PM	Every 30-60 mins	Every 1-2 hours
	Green Express	Suisun City- Fairfield- El Cerrito del Norte BART	4:10 AM	9:22 AM	No Service		Every 20-30 mins	No Service
Demand Response			1:56 PM	8:22 PM	No Service		Every 20-30 mins	No Service
	DART	Fairfield/Suisun City area and within 3/4 of a mile up to and surrounding the Ulatis Cultural Center and Kaiser in Vacaville	5:31 AM	8:24 PM	9:00 AM	6:41 PM	On Demand	On Demand
	Taxi Program	Local: Within Fairfield-Suisun City	24 hours		24 hours		On Demand	On Demand
	ARC Taxi Program	Fairfield/ Suisun City Area- Adult Recreation Center	During ARC Hours Only	On Demand	On Demand			

2020 Route Structure and Span of Service			Weekdays		Saturday		Headway	
	Route	Major Locations and Destinations Served	Start	End	Start	End	Peak	Off-Peak
Local	1	FTC/Armijo High School/Walmart	6:00 AM	7:54 PM	9:00 AM	4:54 PM	Every 30 minutes	Every 30-60 mins*
		Solano Town Center/ Grange Middle School/ TAFB Connection/ Fairfield-Vacaville Hannigan Train Station	6:15 AM	7:11 PM	9:45 AM	4:41 PM	Every 30 minutes	Every 30-60 mins
	2		6:00 AM	7:54 PM	9:00 AM	4:54 PM	Every 30 minutes	Every 30-60 mins
	3	FTC/Solano Town Center/Fairfield Walmart	6:25 AM	11:24 AM	10:25 AM	4:24 PM	Every 60 minutes	Every 60 minutes
	4	Fairfield Walmart/TAFB/David Grant Med Center	2:25 PM	6:24 PM			Every 60 minutes	Every 60 minutes
	5	FTC/Amtrak/Suisun Senior Center	5:31 AM	7:43 PM	9:31 AM	4:27 PM	Every 60 minutes	Every 60 minutes
	6	Solano Town Center/Adult Recreation Center/Central Suisun City/Suisun City Walmart/Lawler Ranch	6:15 AM	7:32 PM	9:15 AM	4:32 PM	Every 45 minutes	Every 45 minutes
	7	FTC/Solano College/Cordelia Library	6:00 AM	6:52 PM	10:00 AM	4:25 PM	Every 60 minutes	Every 60 minutes
Solano Express	Blue Line	Sacramento-Davis-Dixon-Vacaville-Fairfield-Benicia- Pleasant Hill BART	6:30 AM	6:54 PM	9:51 AM	4:19 PM	Every 60 minutes	Every 60 minutes
	Green Express	Suisun City- Fairfield- El Cerrito del Norte BART	4:25 AM	8:31 PM	8:25 AM	7:40 PM	Every 30-60 mins	Every 1-2 hours
Demand Response			4:10 AM	8:25 AM	No Service		Every 40-60 mins	No Service
	DART	Fairfield/Suisun City area	2:45 PM	7:25 PM	No Service		Every 60 minutes	No Service
	Taxi Program	Local: Within Fairfield-Suisun City	5:31 AM	7:54 PM	9:00 AM	4:54 PM	On Demand	On Demand
	ARC Taxi Program	Fairfield/ Suisun City Area- Adult Recreation Center	During ARC Hours Only	On Demand	On Demand			

## TRANSIT SERVICES PROVIDED

### LOCAL FIXED ROUTE

**Route 1** begins at the Fairfield Transportation Center (FTC) at 2000 Cadenasso Drive near I-80 on the west side of the City of Fairfield. It heads east, serving the Fairfield Civic Center Library, Fairfield City Hall, and Armijo High School. It then heads north to serve various retail, Fairfield Walmart, and Fairfield High School before heading south back to the FTC via a symmetrical route.

**Route 2** starts at the Solano Town Center mall which is also near Kaiser Permanente Medical Offices and NorthBay Medical Center. The route then heads east following Travis Boulevard and East Tabor Avenue, servicing the Fairfield-Suisun Adult School, various retail and grocery stores, and a large area of residential homes. The route then proceeds to the Fairfield-Vacaville Hannigan Train Station which offers connections to Amtrak's Capitol Corridor train service. Route 2 then returns west back to the Solano Town Center mall via a symmetrical route.

**Route 3** begins at the FTC. It then heads northeast, servicing the Solano Town Center mall and nearby medical offices. It then proceeds to service the Smart & Final grocery store, Fairfield Walmart, and Fairfield High School. The route then turns back and heads southwest along a similar route to end back at the FTC.

**Route 4** starts at the Smart & Final grocery store, adjacent to Fairfield Walmart. The route heads east via Cement Hill Road, providing service to residential areas and Laurel Creek Park. It then turns south onto Clay Bank Road, serving numerous Solano County services including Solano County Special Education. The route serves the residential areas along East Tabor Avenue, then heads northeast to serve Travis Air Force Base, the Air Force Inn, and David Grant US Air Force Medical Center. Route 4 then heads back west along a symmetrical route back to the Smart & Final grocery store.

**Route 5** begins at the FTC. It heads east, servicing Allan Witt Park, industrial warehouses and retail, and a residential area before heading southeast to Suisun City. The route then has stops at the Suisun-Fairfield Train Station, with connections to Amtrak's Capitol Corridor trains, before continuing on to Suisun City City Hall. Route 5 continues on to serve Crystal Middle School before turning around at the Suisun Senior Center near Heritage Park, Sunset Center, and the Suisun City Post Office. The route then follows a symmetrical route back to the FTC.

**Route 6** starts at the Solano Town Center mall near Kaiser Permanente Medical Offices and NorthBay Medical Center. It heads south to the City of Fairfield’s Adult Recreation Center then heads east towards the Fairfield Civic Center Library and Fairfield City Hall. The route then turns north and heads east on Travis Boulevard, serving numerous retail and residential areas. The route then heads south to serve the Suisun Senior Center. The route then returns along a symmetrical route to Solano Town Center.

On weekdays limited service is extended from the Suisun Senior Center on to Suisun City residential areas, the Salvation Army Kroc Community Center, Montebello Vista Park, Suisun City Walmart, and Lawler Ranch Park.

**Route 7** provides service to the west from the FTC. The route first heads south to Solano County Health and Social Services, various commercial and industrial businesses along Courage Drive, and the Sutter Fairfield Medical Campus. It then heads southwest parallel to I-80. Route 7 then stops at the Solano Community College before ending at Cordelia Library near Costco and other retail. The route then heads east back to the FTC via a symmetrical route.

**Route 8** begins at the Cordelia Library near Costco and the Green Valley Shopping Center. It then serves the commercial buildings, hotels, and medical offices on Central Way adjacent to I-80 before heading south to Fulton Drive, Watt Drive, and Rodriguez High School. The route then heads further south to serve the neighborhoods around Oakbrook Elementary School and Cordelia Hills Elementary School. At this point it returns back to the Cordelia Library via a slightly different route through the neighborhoods for better coverage.

#### **DART ADA PARATRANSIT**

DART is the complementary ADA paratransit service provided by FAST for transit users with disabilities that prevent them from using FAST’s fixed routes. DART operates during the same hours as FAST’s local service.

Riders can call DART to schedule an origin-to-destination shared ride trip anywhere within ¾ mile of a fixed route. Rides can be booked from one to seven days in advance and same day trips may be available if capacity allows.

To become eligible, riders must apply for the paratransit service via the Solano County Paratransit Eligibility Center. The application consists of an in-person eligibility assessment and must be completed before riding.

## APPENDIX 3 FARE STRUCTURE

### FY 2019

Prior to the COVID-19 pandemic, FAST's local fares were \$1.75 for an Adult fare. A more detailed description of FY 2019 fares is outlined in **Figure 57**.

FAST operated the SolanoExpress Green Express, with a single-ride fare of \$5.75. In April 2022, the Green Express began being operated by SolTrans, the route was renamed the Green Line, and the fare decreased to \$5.

FAST also operated the SolanoExpress Blue Line. A Blue Line single ride fare was \$5. In August 2022, the Blue Line began being operated by SolTrans.

Figure 57 - Fare Structure

Cash Fares (Single Ride)	Adult (19-64)	Youth (6-18)	Senior (65+ / Disabled / Medicare)
FAST Local	\$1.75	\$1.50	\$0.85
Blue Line- Within Solano County	\$2.75	\$2.00	\$1.35
Blue Line- Outside Solano County	\$5.00	\$4.00	\$2.50
Green Express	\$5.75	\$4.75	\$2.85
Day Pass	Adult (19-64)	Youth (6-18)	Senior (65+ / Disabled / Medicare)
Blue Line- Within Solano County	\$5.50	\$4.00	\$2.75
Blue Line- Outside Solano County	\$10.00	\$8.00	\$5.00
Solano Express- Green Express	\$11.50	\$9.50	\$5.75
31-Day Pass	Adult (19-64)	Youth (6-18)	Senior (65+ / Disabled / Medicare)
FAST Local	\$60.00	\$50.00	\$30.00
Blue Line- Within Solano County	\$70.00		\$35.00
Blue Line- Outside Solano County	\$114.00		\$57.00
Green Express	\$130.00		\$65.00
10- Ride Pass	Adult (19-64)	Youth (6-18)	Senior (65+ / Disabled / Medicare)
FAST Local	\$17.50	\$15.00	\$8.50
DART Paratransit			
Local	\$3.50		
Stored Value (10 rides)	\$35.00		

### FY 2020-2021

At the beginning of the COVID-19 pandemic, FAST, along with other regional operators and providers across the world, ceased fare collection to limit interaction between drivers and passengers.

FAST's local fixed route and DART service operated zero-fare from March 25, 2020, to June 1, 2021. The SolanoExpress Blue and Green Express lines were fare-free from March 25, 2020, to June 15, 2020.

### FY 2022

#### LOCAL FIXED ROUTE

FAST offered three fare categories with three price levels for each category. As shown in Table 10.

Adults paid either \$1.75 for a single ride, \$17.50 for a 10-ride pass, or \$60 for a 31-day pass.

Youth aged 6 to 18 paid either \$1.50 for a single ride, \$15 for a 10-ride pass, or \$50 for a 31-day pass. Up to two children ages 5 and under could ride free with a paying adult.

Seniors (ages 65 and up), disabled, and Medicare passengers paid either \$0.85 for a single ride, \$8.50 for a 10-ride pass, or \$30 for a 31-day pass. To qualify for this reduced fare, a passenger must show the driver a qualifying ID at time of purchase and when boarding.

Table 10 – Current Fixed-Route Fares

Passenger Type	Single Pass	10-Ride Pass	31-Day Pass
<b>Adult</b>	\$1.75	\$17.50	\$60
<b>Youth (ages 6-18)</b>	\$1.50	\$15	\$50
<b>Reduced*</b>	\$0.85	\$8.50	\$30
<b>* Seniors (ages 65 and up), Disabled, and Medicare passengers are eligible.</b>			

Effective August 6, 2022, FAST no longer offers single-ride or 10-ride paper passes for local fixed route. However, these fare types may still be purchased using FAST’s Token Transit mobile application.

**DART PARATRANSIT**

FAST’s DART paratransit service offers a fixed fare of \$3.50 per ride. DART riders also have the option of purchasing a \$35 Stored Value paper pass (10 single ride trips).

**SOLANO EXPRESS**

In FY 2023, SolanoExpress passengers still have the ability to purchase passes on Clipper at the Fairfield Transportation Center for travel Outside Solano County. These Outside Solano County Clipper passes work on the Blue, Yellow, Red, and Green Lines. The chart below outlines the current fare categories.

Using the one transfer available on Clipper, SolanoExpress passengers may also transfer to FAST local service with no additional fee being charged.

Table 11 – Current SolanoExpress Fares

Passenger Type	Single Ride (In County)	Single Ride (Outside County)	Day Pass (In County)	Day Pass (Outside County)	31-Day Pass (In County)	31-Day Pass (Outside County)
<b>Adult</b>	\$2.75	\$5.00	\$5.50	\$10.00	\$70.00	\$114.00
<b>Youth (ages 6-18)</b>	\$2.00	\$4.00	\$4.00	\$8.00	N/A	N/A
<b>Reduced*</b>	\$1.35	\$2.50	\$2.75	\$5.00	\$35.00	\$57.00
<b>* Seniors (ages 65 and up), Disabled, and Medicare passengers are eligible.</b>						

**CLIPPER CARD**

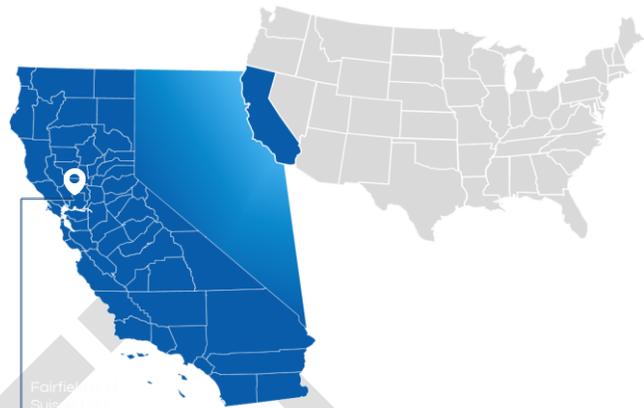
Clipper Card is the electronic fare payment system utilized by the majority of transit agencies in the nine-county San Francisco Bay region. Clipper is either used as a physical card or added to a mobile wallet and used through on a mobile phone.

FAST uses Clipper Cards as a tap and pay option of paying for cash fares. A 31-day pass option is also available through the Clipper Card. The Card also allows for one free transfer to other FAST routes within one hour of initial boarding.

## APPENDIX 4 PEER REVIEW

A Peer Review is a process used to evaluate the performance of a transit system against agencies with similar operating environments.

Peer agencies were selected based on a range of criteria including population, service area size, ridership, and annual service hours and miles. All ten peer agencies came from the state of California and share geographic similarities to FAST.



Fairfield and City of Suisun City

Each Key Performance Indicator (KPI) was reviewed and compared to FAST's fixed route and paratransit service types provided by FAST.

Data was pulled from the 2019 National Transit Database archives. A special COVID-19 impacts section is listed at the end of the report.

### PEER SELECTION

FAST's service and performance was compared to similarly sized transit agencies including:

- Modesto Area Express (MAX) – Modesto, CA
- Yolo County Transportation District (YCTD) – Woodland, CA
- Napa County Transportation and Planning Agency (NCTPA) – Napa, CA
- Transit Joint Powers Authority for Merced County (The Bus) – Merced, CA
- Livermore/Amador Valley Transit Authority (LAVTA) – Livermore, CA
- The Eastern Contra Costa Transit Authority (Tri Delta) – Antioch, CA
- Santa Clarita Transit (SCT) – Santa Clarita, CA
- Solano County Transit (SolTrans) – Vallejo, CA

All agencies in the peer group operated some form of fixed route service.

FAST operates **67% fewer** hours than its peers.

The UZA population of the Fairfield and Suisun City region is 505,849, which is twice the median of 252,000.

While operating fewer miles and carrying fewer riders, FAST does so just as effectively and efficiently as the peers when looking at revenue and cost figures. The tables below provide the fixed route system peer review for FAST

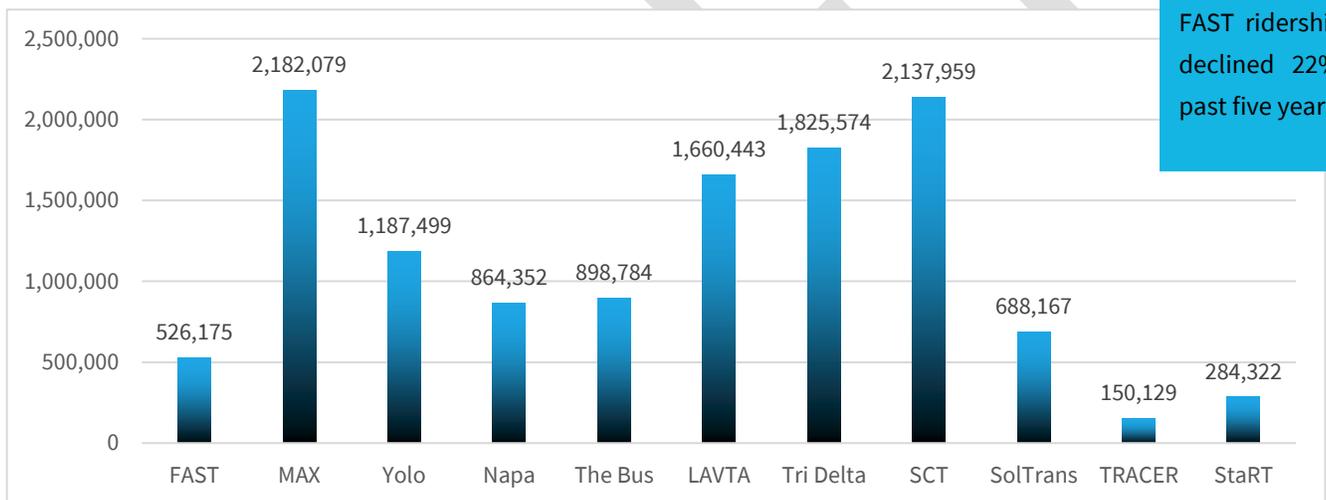
## FIXED ROUTE (LOCAL) SERVICE PEER REVIEW

### EFFECTIVENESS

FAST local fixed-route (Local) services carried over 526,000 passenger trips in 2019, a decrease of 8% from 2018 and that continued a downward trend that began in 2015.

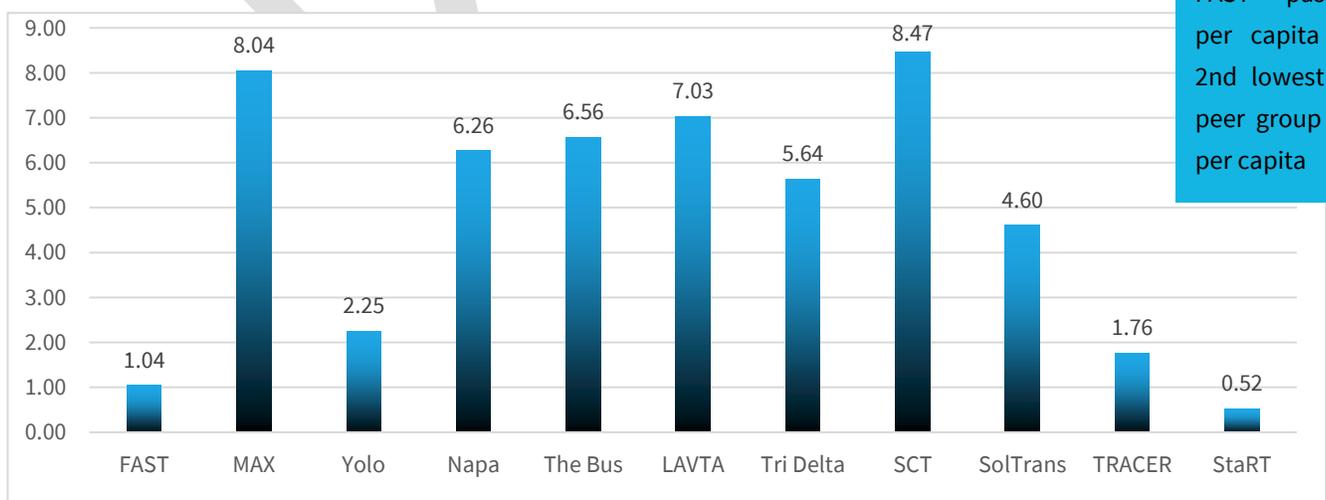
The COA has focused its recommendations on the average passenger trips per capita due to the large size of the UZA. With a UZA population of 505,849 – FAST’s services should carry approximately two times more riders when compared to its peers. This surmises there is a large car culture in the service area, but it also serves as a positive indicator that there is untapped new rider potential.

Figure 58 - Unlinked Passenger Trips



FAST ridership has declined 22% the past five years.

Figure 59 - Unlinked Passenger Trips per Capita



FAST passengers per capita is the 2nd lowest of the peer group at 1.04 per capita

When looking at FAST’s effectiveness, the data highlighted two interesting points. First, FAST is slightly below the average productivity when looking at how many passengers per hour are carried on the local fixed route, and second, the system is appropriately sized to meet the current ridership demands. We glean this by looking at passengers per mile. The fixed route metric of 0.76 is just slightly below the peers.

Figure 60 - Passengers per Revenue Hour

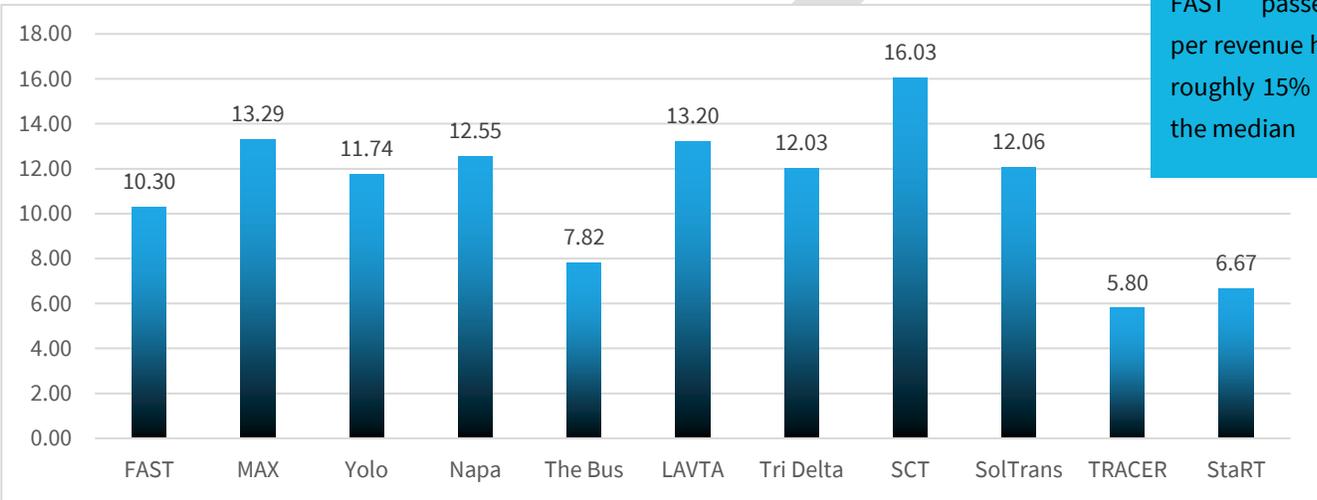
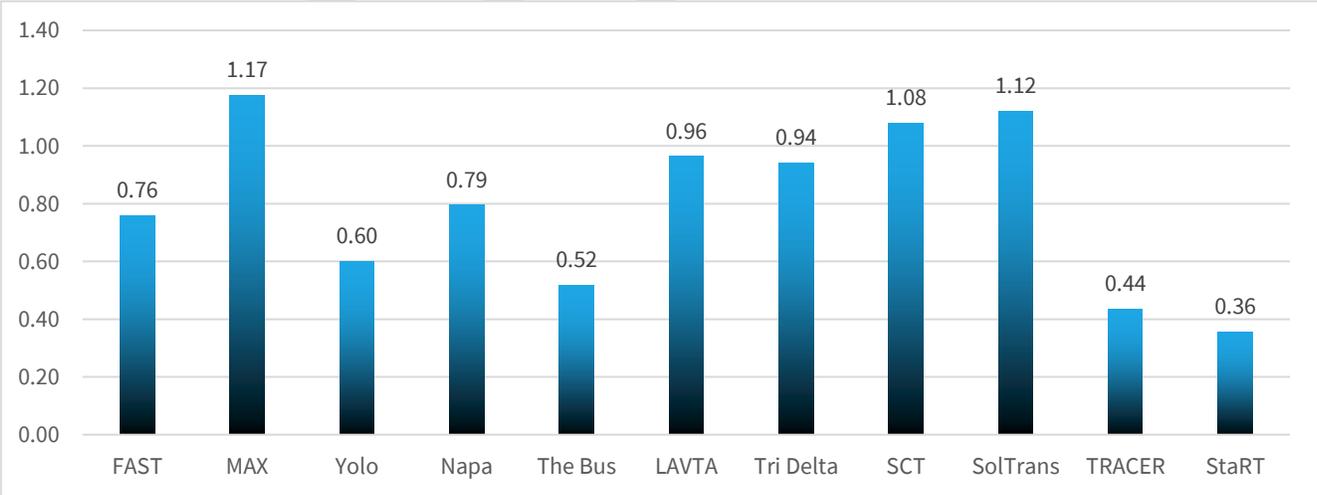


Figure 61 - Passengers per Revenue Hour per Capita



When looking at FAST’s fixed-route operations, we look at miles and hours operated and the overall system speed. Overall, FAST does run one of the smallest operations both in terms of miles and hours operated. When looking at this per capita, FAST operates 80% less service than its peers. One additional area to address in the COA recommendations is system speed, which is defined as the speed at which the vehicles travel when in service. System speed is a key factor in overall passenger travel time. FAST’s fixed routes currently operate 4% slower than its peers on average. Since 2014, system speed has been reduced by 33%. This indicates that growing congestion is a factor for FAST.

Figure 62 - Vehicle Hours

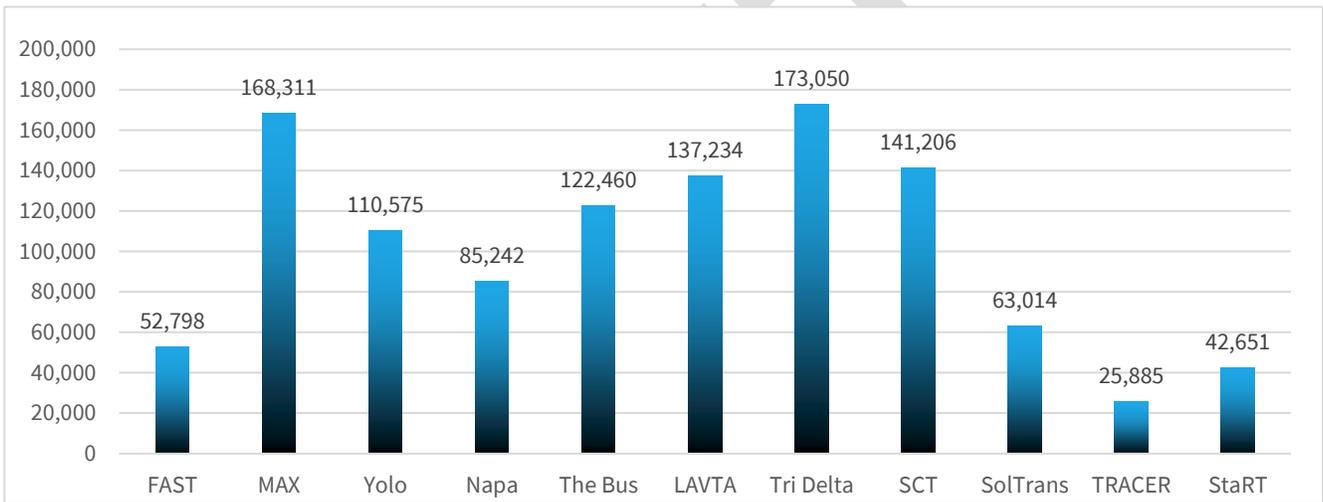
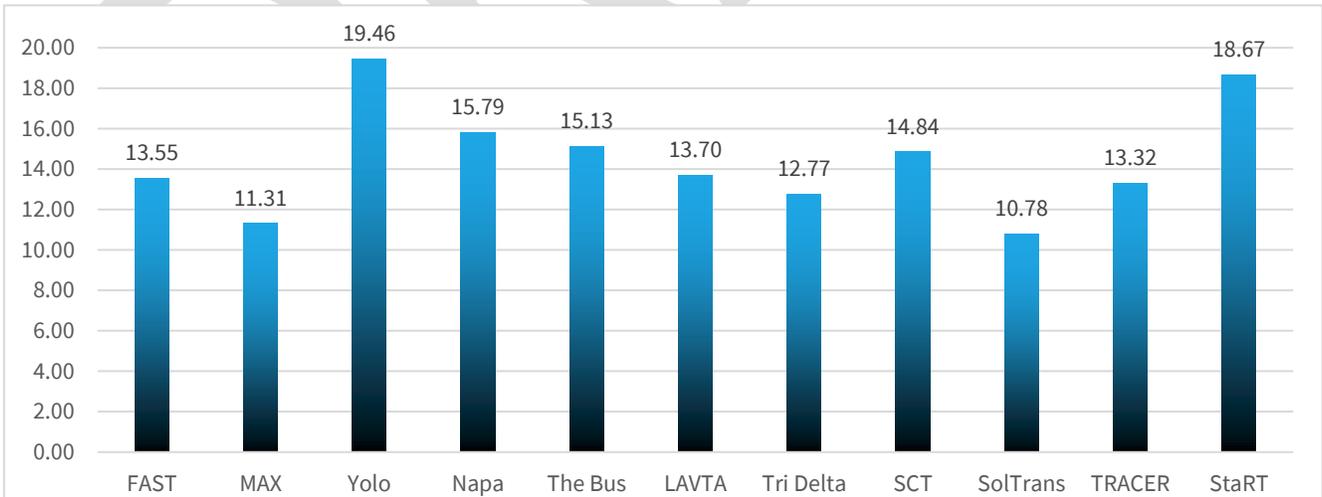


Figure 63 - System Speed (MPH)



## EFFICIENCY

Efficiency is measured by revenue and cost comparisons. When looking at the metrics in Figures 7 and 8, it is clear FAST's fixed-route services operate as it should when compared to its peers.

Figure 64 - Farebox Recovery Ratio

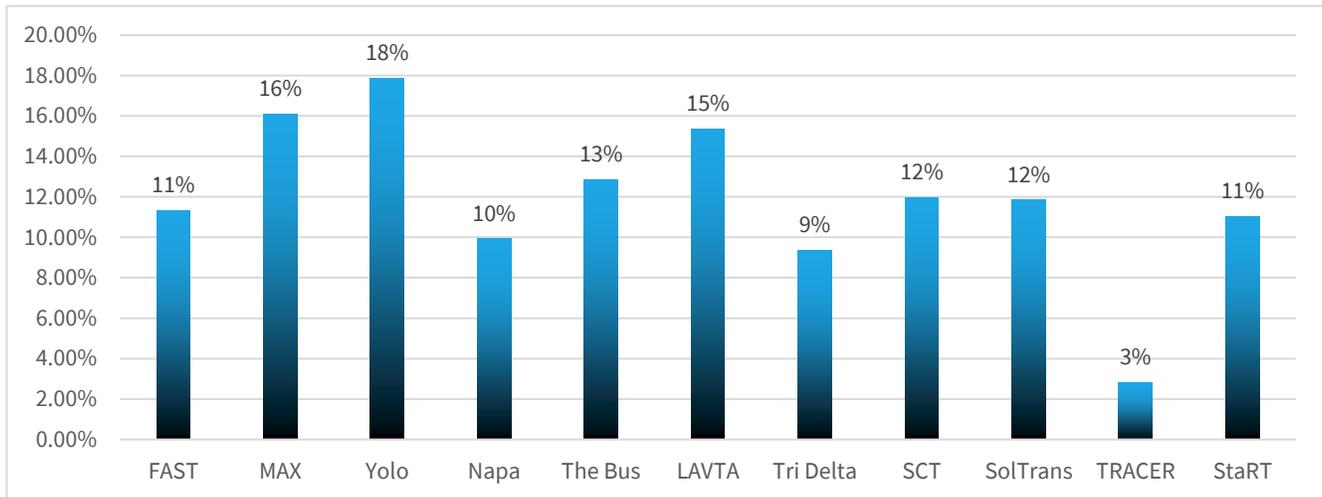


Figure 65 - Cost per Revenue Mile

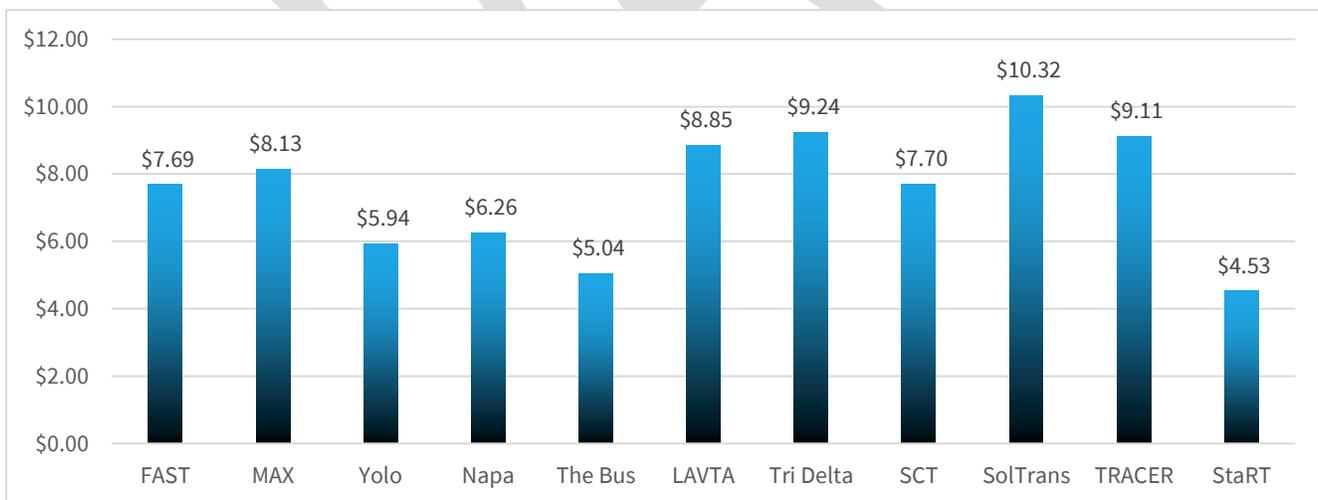


Figure 66 - Subsidy per Passenger

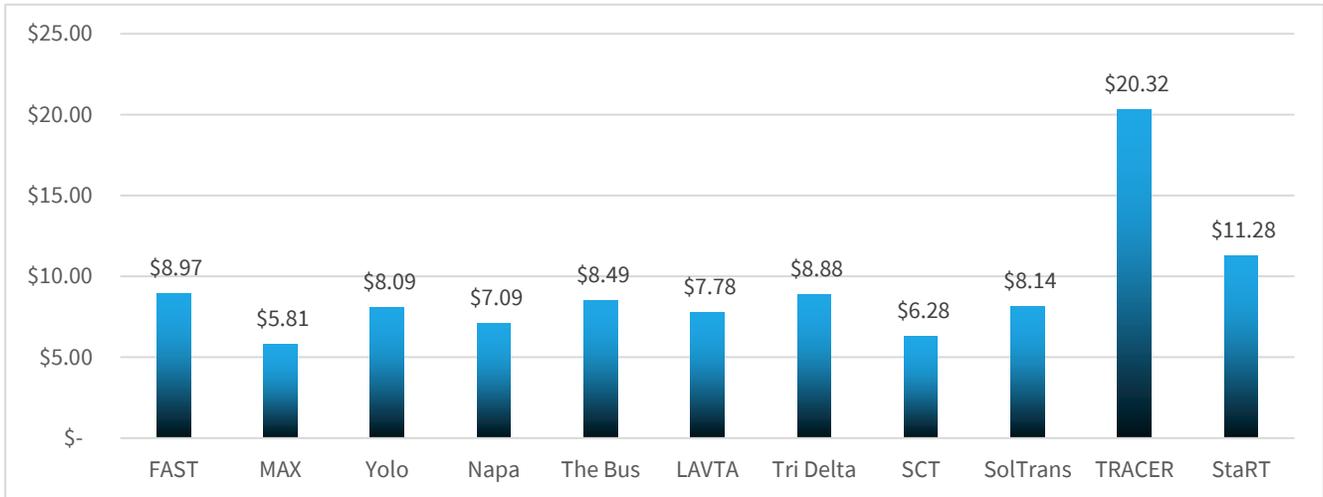


Figure 67 - Cost per Revenue Hour

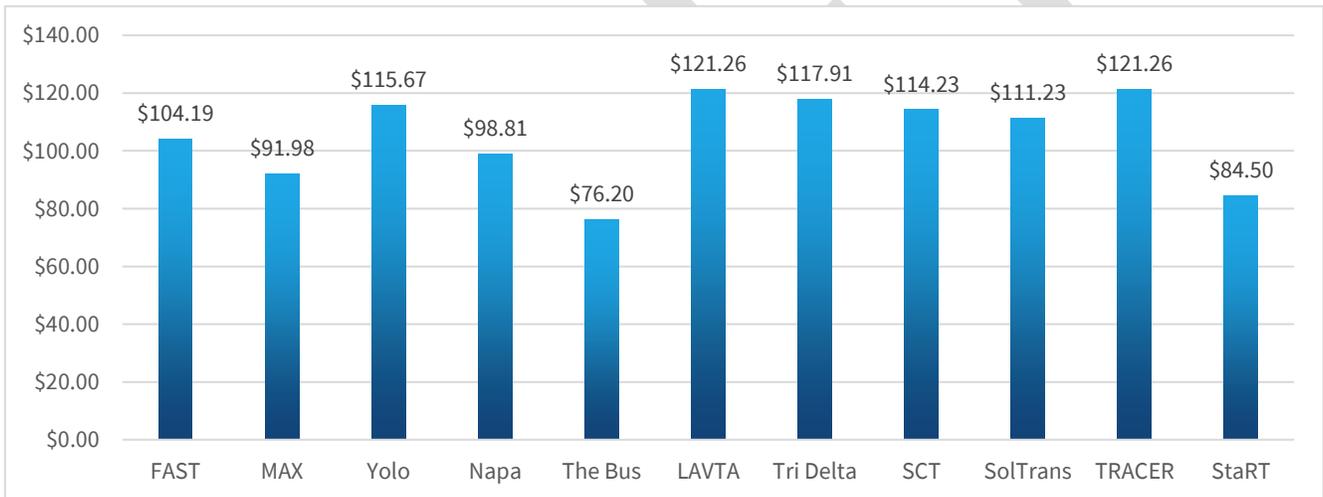
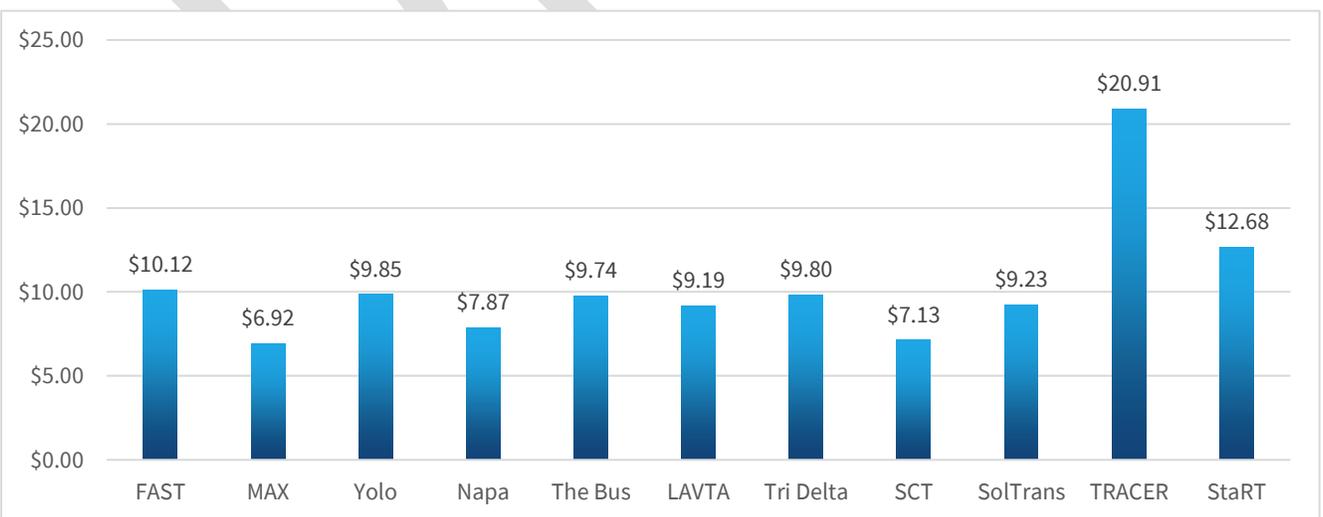


Figure 68 - Cost per Passenger



FAST's overall cost per passenger is just above the average of all the peer agencies. Cost per passenger is an average of total operating costs divided by total passengers.

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## PARATRANSIT SERVICE PEER REVIEW

FAST paratransit service carried nearly 22,000 passenger trips in 2019, a decrease of 13.5% from 2018, and eliminating the ridership growth of 2.5% from 2014 – 2018. All agencies in the peer group saw an average decline of 18% during the pandemic. FAST’s paratransit ridership declined 36%, however, many of the riders used the taxi program instead of FAST’s traditional paratransit option.

Figure 69 - Passenger Trips

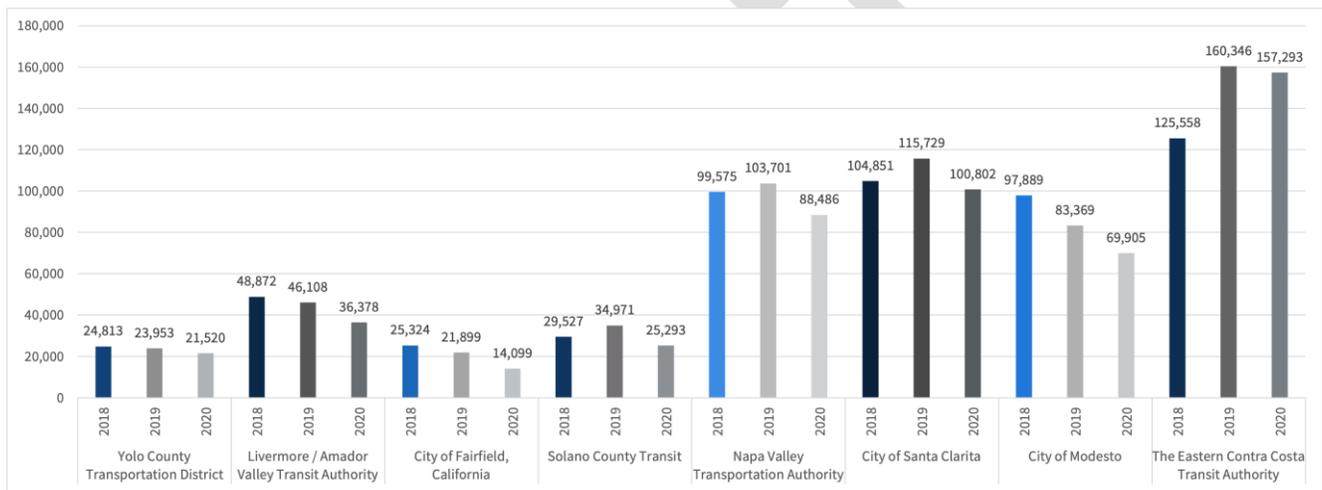
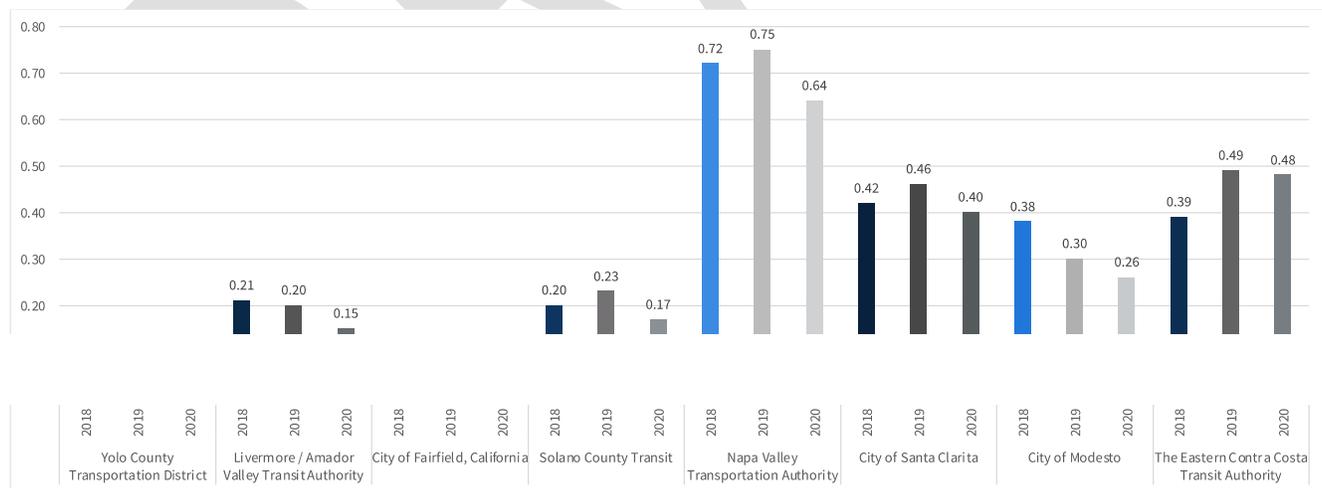


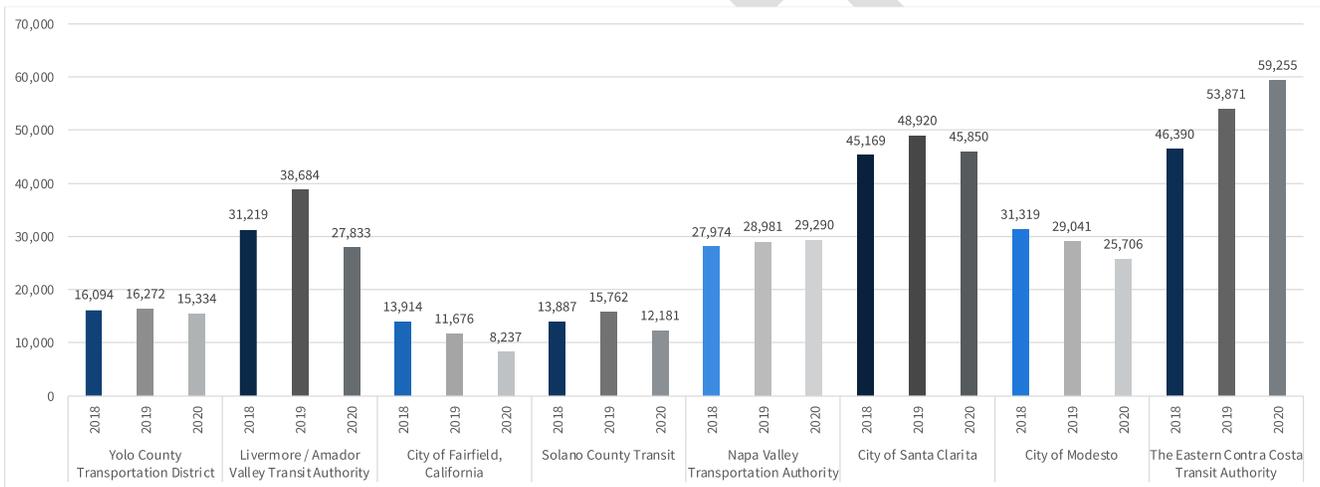
Figure 70 - Passenger Trips per Capita



FAST's service area per the NTD includes portions of the region that are not currently serviced by either fixed route or paratransit and as a result, the trips per capita are artificially deflated. In terms of population, FAST's trips per capita are in line with the peer group.

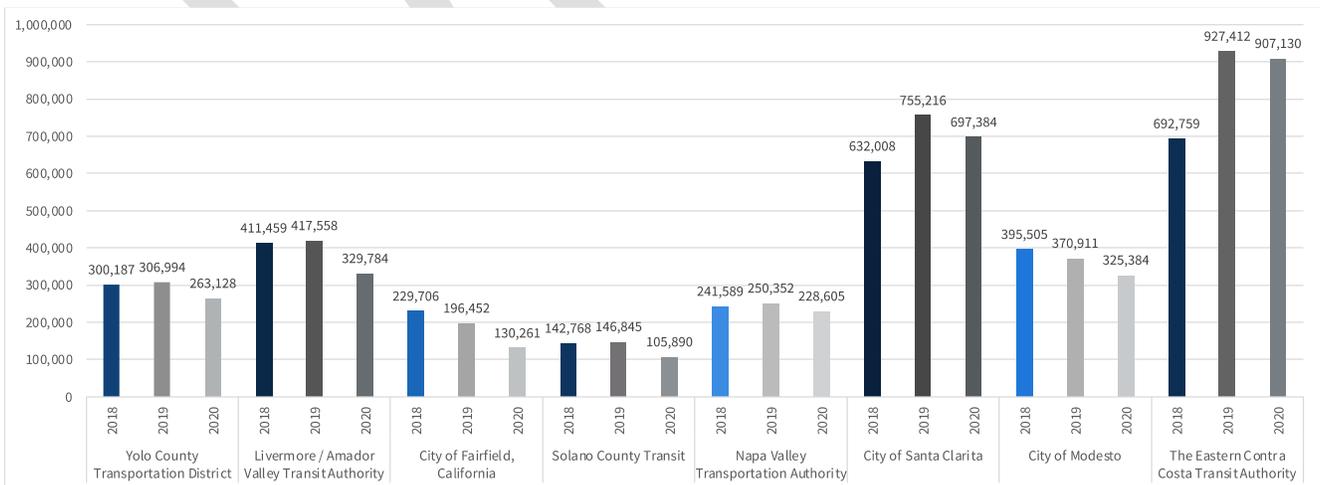
FAST operates approximately 60% fewer revenue hours than the peer group. FAST's annual average of just over 11,000 annual hours compares to the peer group's average of approximately 29,000 annual hours. The peer group reduced service hours by an average of 12% due to the pandemic. FAST reduced service almost 29% during the same time.

Figure 71 – Annual Revenue Hours



FAST operates approximately 53% fewer revenue miles on average compared to the peer group. Much of this has to do with riders who use local taxi and fixed route. On average systems in the peer group reduced revenue miles by 18% due to the pandemic.

Figure 72 – Annual Revenue Miles

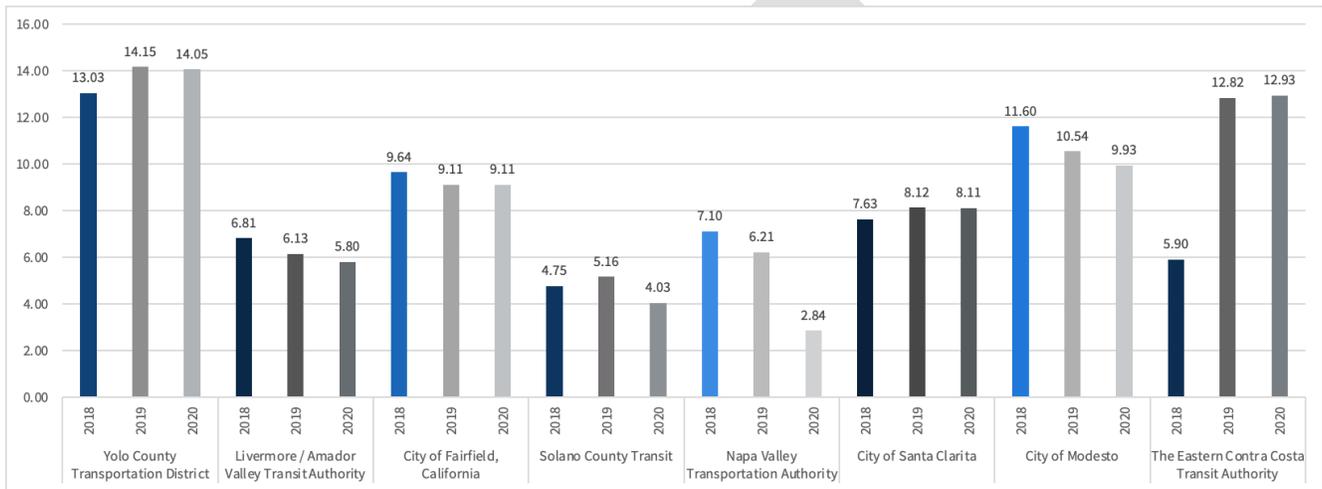


## EFFECTIVENESS

When looking at FAST’s paratransit effectiveness, we look at average trip length, passenger trips per hour and the overall system speed.

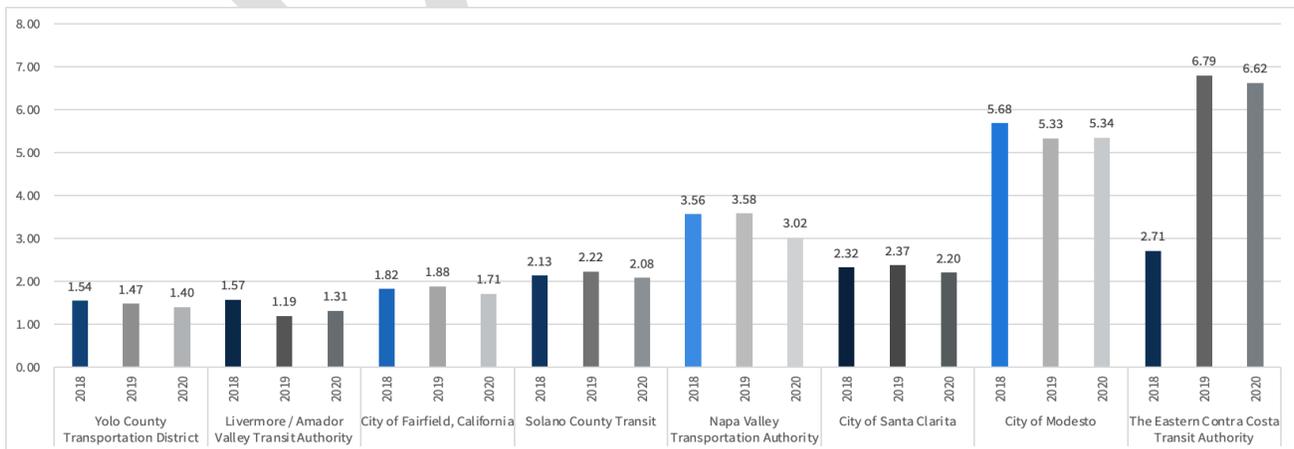
When looking at average trip length, the average trip was approximately 8.6 miles for the peer group. FAST’s trips are 9% longer at almost 9.3 miles per trip. Average trip length dropped by approximately 11% for the peer group during the pandemic.

Figure 73 - Average Trip Length



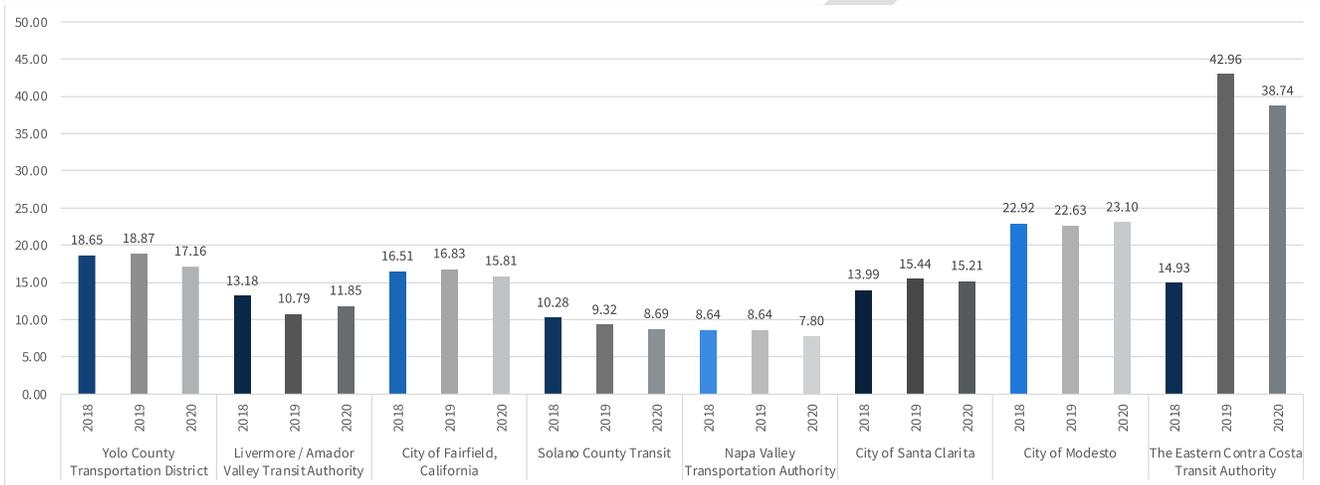
Another measure of effectiveness is productivity which is measured by passenger trips per revenue hour. The average productivity of the peer group is 2.9 passengers per hour. FAST’s productivity is approximately 38% below that at 1.8 passengers per hour. Most systems did not see a significant reduction in productivity due to the pandemic indicating that service hours reduced in proportion to usage.

Figure 74 - Passenger Trips per Revenue Hour



An area of paratransit operations that affects rider experience is system speed. The higher the system speed the shorter wait and travel times are. This is especially critical for in-advance scheduling native to paratransit service. FAST’s average system speed of 16.4 mph is in line with the average of the peer group at 16.8 mph. Overall, the systems in the peer group did see a small decrease in system speed during the pandemic, which was likely due to less travel occurring.

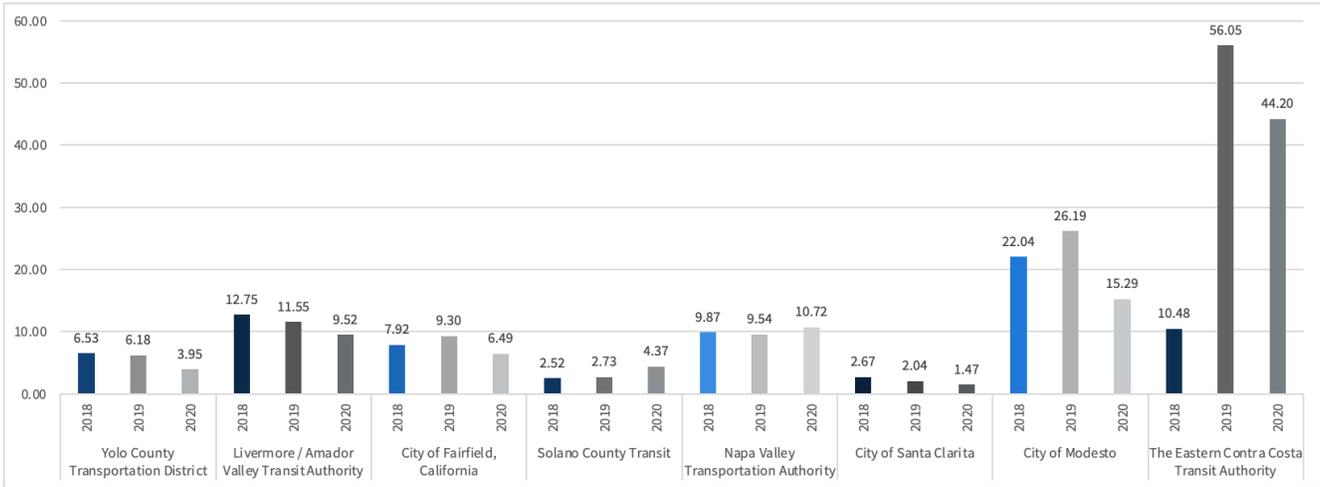
Figure 75 - Average System Speed



## EFFICIENCY

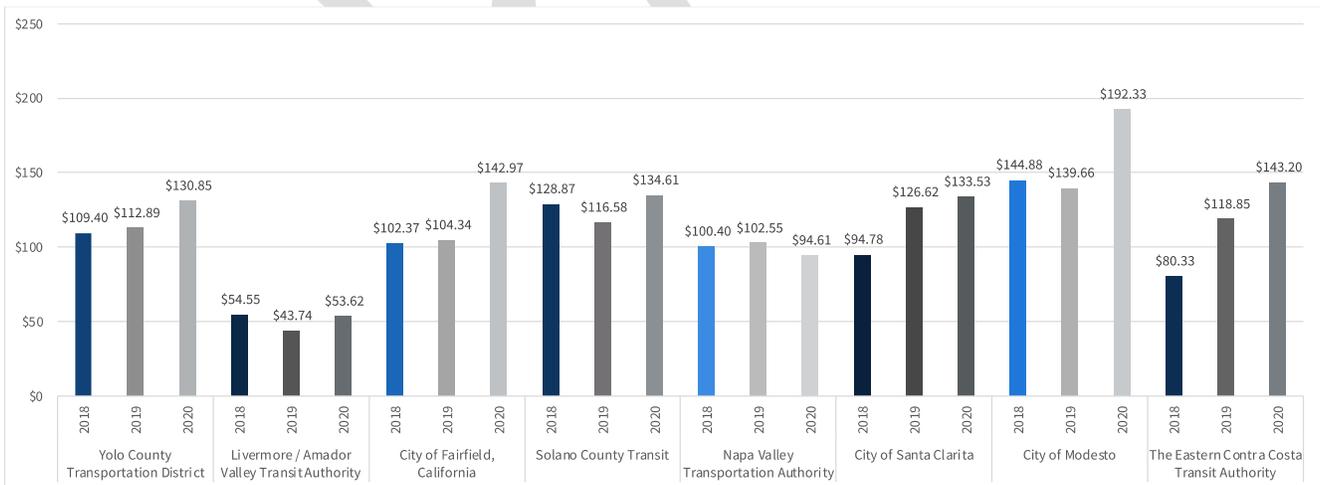
Service efficiency is a measurement of cost compared to benefit and results. The key metrics used to measure paratransit service efficiency are farebox recovery ratio, cost per passenger trip, cost per hour and cost per mile. Farebox recovery ratio is measured by comparing fare revenue to operating costs. Farebox recovery for the peer group was approximately 13%, indicating that 13% of all operating costs are covered by passenger fares. FAST’s farebox recovery averaged 8% over the past three years. It should be noted all the peer agencies did not charge fares for a period of 2020. As a result, the average reduction in farebox recovery due to the pandemic was 13%.

Figure 76 - Farebox Recovery Ratio



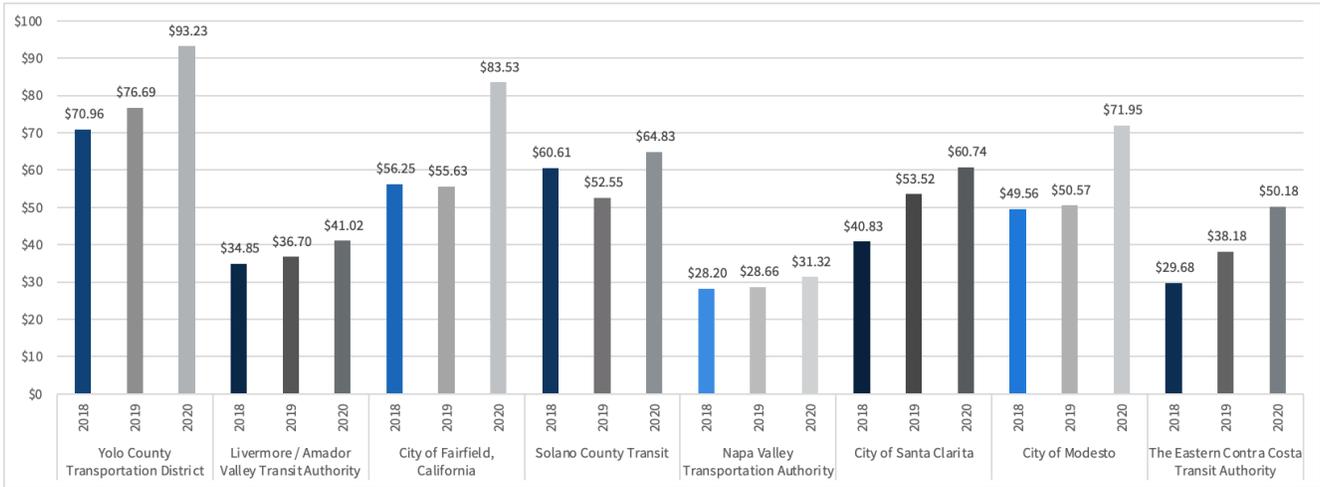
From a cost standpoint the peer group averaged \$113 per hour for their paratransit system. On average this amount increased 18% during the pandemic. This indicates that while the peer group did reduce service, many fixed costs did not decrease, and new costs for items such as PPE or special driver wages drove costs up. For example, FAST’s costs in 2018 and 2019 average \$103 per hour, in 2020, this increased to \$143 per hour. As a result, FAST’s costs were approximately 3% higher per hour than the peer group.

Figure 77 - Cost per Hour



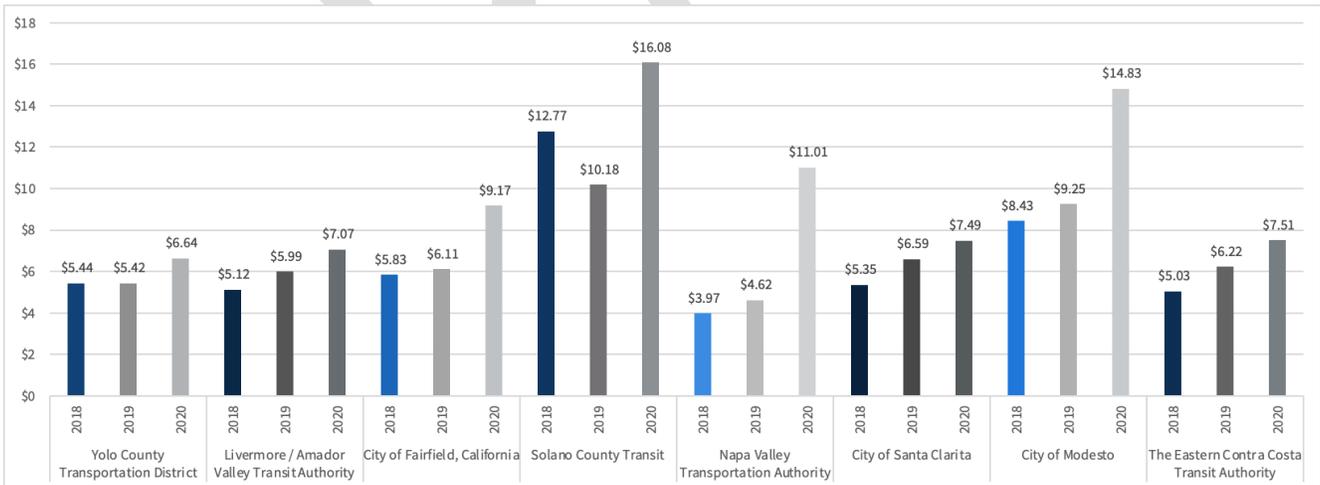
Similarly, to cost per hour, costs per trip for all peer agencies increased an average of 25% during the pandemic. Prior to 2020, the peer group averaged \$48 per trip, this increased to \$60 in 2020. FAST’s cost was approximately 24% higher than the peer group at \$65 per trip. However, much of that increase is due to costs during the pandemic. FAST’s costs prior to 2020 were only \$55 per trip, or 16% higher than the peer group.

Figure 78 - Cost Per Trip



When looking at paratransit service efficiency, reviewing costs per mile is critical as this measure can provide input on how effective AND how efficient the service is. A higher cost per mile combined with longer trips makes for a much more expensive service. FAST's costs are approximately 9% lower than the peer group average at approximately \$7 per mile on average. All systems saw a significant increase due to the pandemic with average costs increasing 48% per mile. FAST's costs increased 50% per mile during this period.

Figure 79 - Cost per Mile



## COVID-19 IMPACTS ON MOBILITY

COVID-19 has had wide ranging impacts on travel patterns, leading to significant drops in ridership on all public transit-related services, and increases in other modes of travel, such as driving and walking. FAST saw drops in ridership on commuter routes (81%), paratransit (82%), and local fixed route (77%), that was roughly in line with what many peer agencies experienced.

Every agency across Solano County has been heavily impacted by COVID-19 and the stay-at-home orders that followed. While much of the riding public is now able to telecommute, we are beginning to understand how COVID 19 has shifted demographics and the pandemic’s overall effect on travel patterns.

When looking at overall mobility trends in Solano County for the past five quarters, travel to work remained approximately 30% below pre-pandemic peak. This was countered by residential travel increasing more than 15%. This indicated work from home continues to be a major variable in commuting patterns. Travel to retail and grocery were all slightly below pre-pandemic levels. Transit usage remained 40% lower than pre-pandemic levels.

Figure 80 - Mobility Trends from 2021-2022

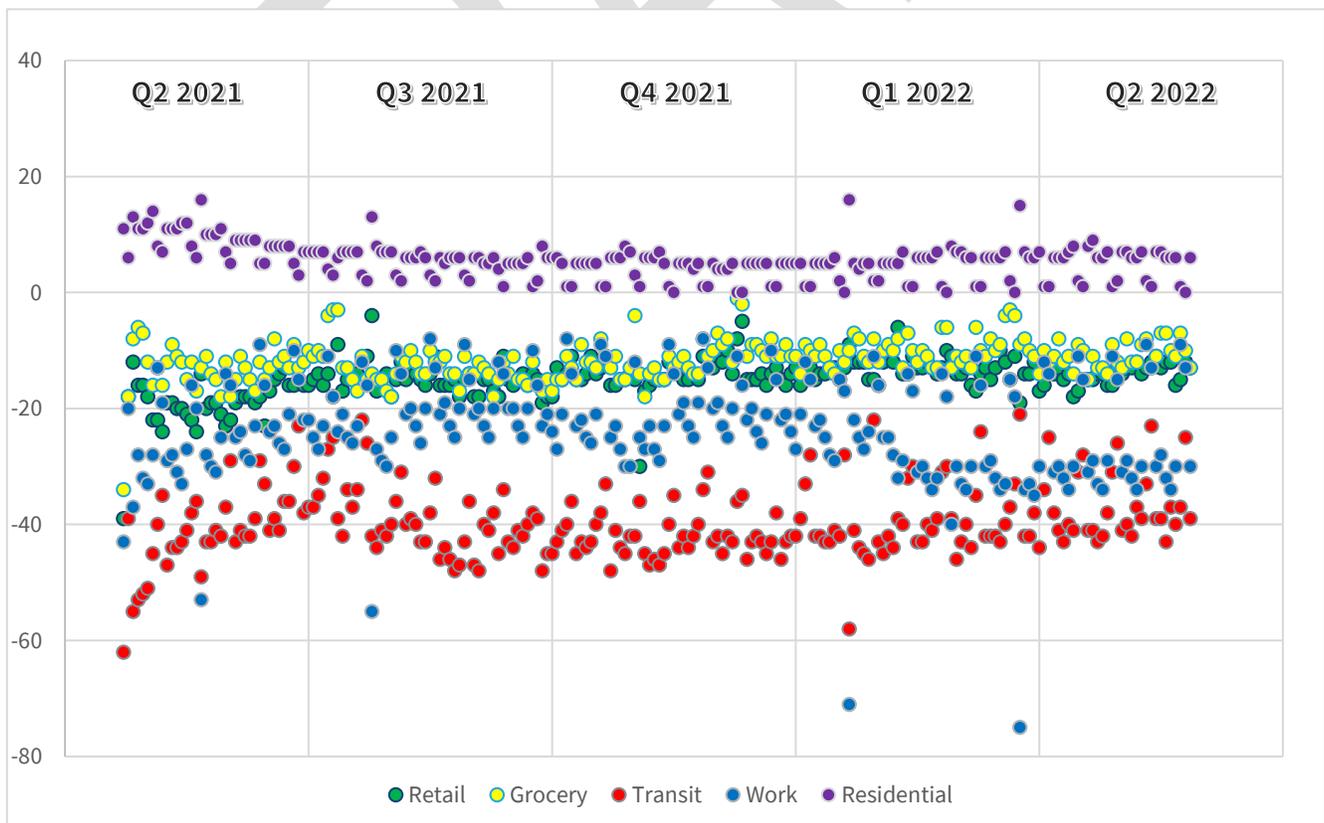
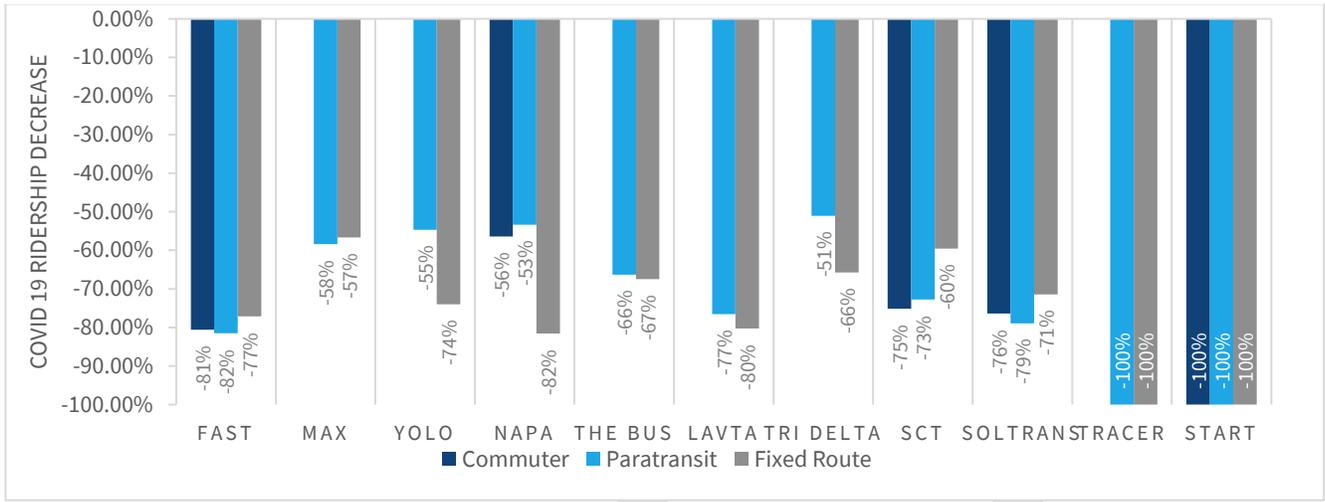


Figure 81 – COVID-19 Ridership Decrease



The changes in ridership and travel patterns post-COVID further support the benefit of FAST pursuing Scenario 2. Scenario 2 will provide the City of Fairfield with an opportunity to modernize its transit system and best respond to the needs of current and future riders.

