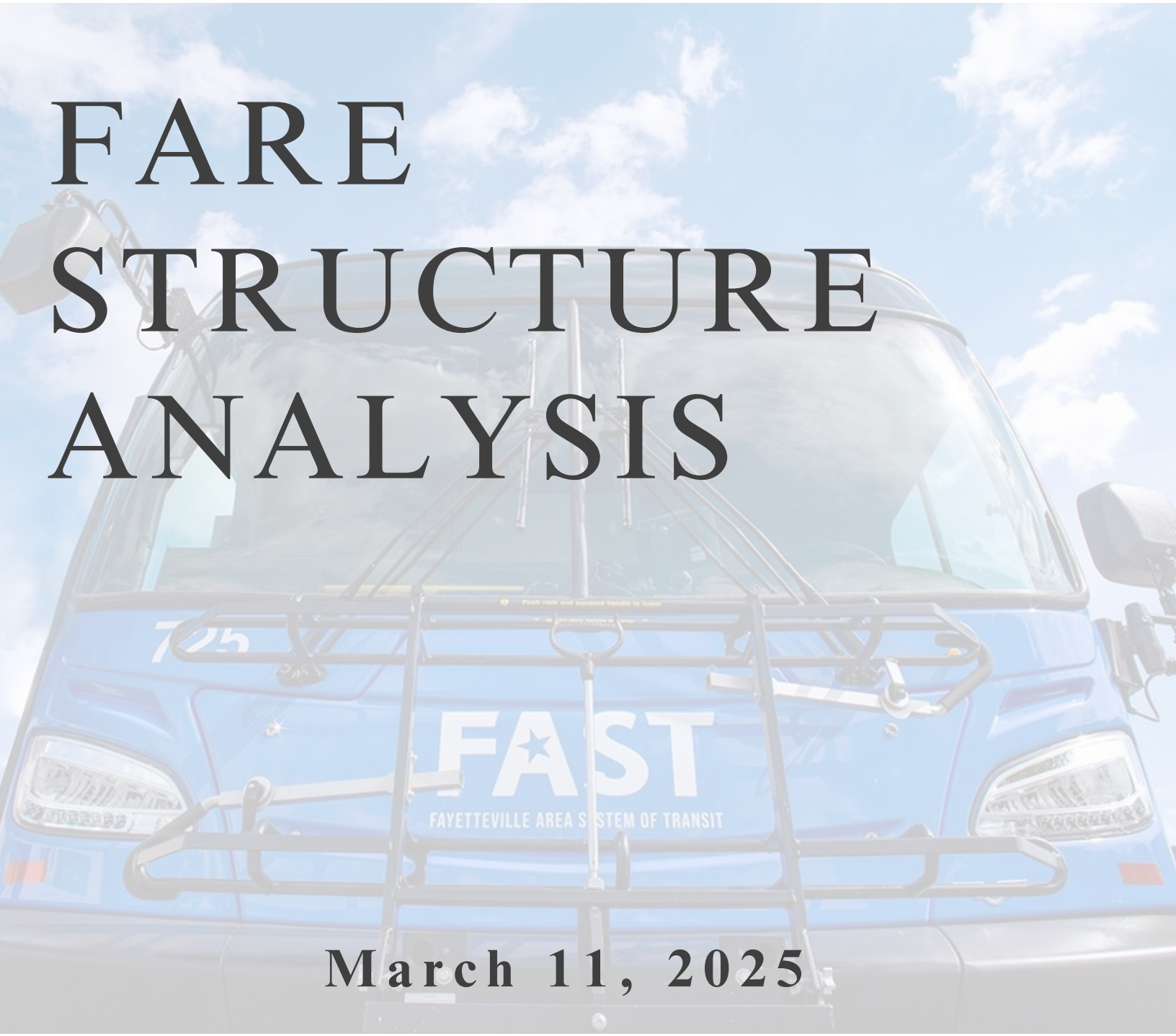
FAYETTEVILLE AREA SYSTEM OF TRANSIT

TITLE VI EQUITY ANALYSIS

FARE STRUCTURE ANALYSIS



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Report prepared by RLS & Associates, Inc. and Benesch

FAST FAYETTEVILLE AREA SYSTEM OF TRANSIT

RLS & Associates, Inc.

benesch

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Fare Structure Analysis

Introduction

The analysis of the Fayetteville Area System of Transit (FAST) fare structure was developed to assist FAST with planning for modifications, including different fare types and prices that could be offered starting in Calendar Year 2025 to benefit passengers and maximize farebox revenue recovery for the transit system while minimizing ridership loss. FAST's Fare Policy Recovery Goal (2020) is included as an attachment to this report (Appendix A).

Methodology

The fare structure analysis process examined ridership trends for each type of FAST fare, excluding contract service, and overall fare revenue trends by month. FAST provided data for the analysis. The projected relationship between fare changes and potential ridership gains/losses, as well as the potential trade-off between revenue and ridership, are based on the data provided by FAST. No trend analysis was conducted for previous years because FAST has not changed its fare structure in recent history (since April 2013), and therefore, there are no prior ridership or revenue changes to evaluate.

A peer group comparison was also conducted of the fare media types and price structures of other transit systems serving communities of similar population size and demographics. The peers selected are consistent with the peers identified in FAST's Transit Development Plan (TDP). The peer group comparison included in this report illustrates the price point differences for general public fares, student fares, and passes in other communities.

Three alternative fare structure options are recommended for consideration by FAST leadership based on the results of the statistical analysis and peer group comparison. Each recommendation includes a justification and the potential advantages and disadvantages of the new fare structure. FAST leadership should consider implementing the option(s) that will most effectively lead the organization toward the goal of making transit available to the most people.

Background Information

The price for an adult or youth to ride FAST is $1.25. Elderly and disabled passengers riding fixed route pay a half-price fare of $0.50. There are also a range of options to purchase a one-day pass, 5-day pass, 30-day pass. During certain months, the Summer Fun Pass is available for youth to ride at a discount. Additionally, FAST offers a Semester Pass for students enrolled in Fayetteville Technical Community College (FTCC), Fayetteville State University (FSU), Methodist University (MU) and Miller-Motte College (MMC) through their mobile ticketing app, Token Transit. A valid Student ID is required to utilize the Semester Pass.

FAST also offers passes for FAST*Trac!* eligible riders who use the Americans with Disabilities Act (ADA) paratransit service. Table 1 below outlines the FAST fare structure.

Table 1. FAST Fare Structure

Fares & Passes	Adult	Discount	Youth
Base Fare One trip from the time you board the bus until it reaches the end of its route.	$1.25	$0.50	$1.25
One Day Pass Unlimited trips in a 24-hour period starting at the time of activation.	$3.00	$1.50	$2.00
5 Day Pass Unlimited trips for 5 days starting at the time of activation.	$11.00	$5.50	$11.00
30 Day Pass Unlimited trips for 30 days starting at the time of activation.	$40.00	$17.00	$30.00
Semester Pass For Participating Educational Institutions	$55.00 Fall/ Spring and $40.00 Summer	N/A	N/A
Summer Fun Pass Unlimited trips from June 1st until August 31st for youth ages 18 or younger.	N/A	N/A	$15.00
FAST*Trac!* 1 Ride Pass	N/A	$2.00	N/A
FAST*Trac!* 10 Ride Pass	N/A	$17.50	N/A
FAST*Trac!* 20 Ride Pass	N/A	$35.00	N/A

Source: www.fayettevillenc/gov/City-Departments/Transit/Fares-and-Passes

Analysis of ridership by fare type indicated that the most commonly used fare types are as follows:

- One Ride
- One Day Pass
- 30-Day Pass
- One-Day Discounted Pass
- 30-Day Discounted Pass

Table 2 illustrates estimated ridership percentage by fare type in Fiscal Year 2024.

Table 2: Fare Type by Ridership, Fiscal Year 2024

Fare Type	Percent of Fixed-Route Ridership in Fiscal Year 2024 (not including Semester Pass Riders)
Adult One Ride	10.2%
Discount One Ride	0.2%
Youth One Ride	0.8%
One Day Pass	39.3%
Discount One Day Pass	8.7%
Youth One Day Pass	1.8%
5 Day Pass	2.7%
Discount 5 Day Pass	0.2%
Youth 5 Day Pass	2.0%
30 Day Pass	15.5%
Discount 30 Day Pass	12.6%
Youth 30 Day Pass	2.0%
FAST*Trac!* Passes	2.5%

Source: FAST Monthly GFI Reports

Summary of Pass Usage

In Fiscal Year 2024, approximately 39 percent of annual ridership used the One-Day Pass ($3.00). The passenger saves money if they take more than two one-way trips in a day. The breakeven point is 2.4 trips. This pass was the most popular pass among passengers. Provided its popularity, it is likely that a FAST passenger is someone who makes multiple trips in a day but rides FAST less than three days per week. If a passenger rides more than three days per week on a regular basis, they would be advantaged to purchase the 30-Day Pass. The popularity of the One Day Pass may also align with income limitations where passengers may ride several times per week throughout the month but do not have available funds to purchase a $40.00, 30-Day Pass.

Approximately 15 percent of annual ridership uses the 30-Day Pass ($40.00). Passengers must take at least 32 one-way trips/16 round trips per month to break even. Therefore, daily passengers break even by mid-month and ride free the rest of the month. Or, passengers that ride three to four days per week during a single month will break even by the end of the month.

Only 2.73 percent of riders use the five-day pass ($11.00). Passengers must take at least nine one-way rides in five days to break even. Therefore, the passenger who makes a round trip at least five days a week on the bus saves money. This pass is not a cost savings for passengers that ride less than five days per week.

Impact of Pricing Relationships on FAST Ridership

Fare structure changes include changing the pricing relationships among current fare categories, altering the basis on which fares are charged, and introducing new fare categories. These three options in relation to FAST ridership and revenue impacts are discussed in the following paragraphs.

Changing the Pricing Relationship

Changing the level of discount offered for payment of fares is one way to alter the relationship between fare options. This method seeks to change the relationship between the base fare for a single ride and the discounted fares offered with pre-purchased passes. Examples of discounted, pre-purchased passes at FAST include the 30-Day Pass for $40.00, the 5-Day Pass for $11.00, the 1-Day Pass for $3.00, the Summer Fun Pass, and the Semester Pass, which offers unlimited rides for students of participating educational institutions for $55.00 or $40.00 per semester.

Raising fares across the board would more than likely create an immediate increase in farebox revenue but could also have a negative impact on ridership. The impact on ridership would likely be short-term and most significantly impact riders who have no other transportation options. Whereas, offering a deeper discount for certain passes, along with that fare increase may result in a more gradual positive impact on revenue while sustaining or improving ridership and resulting in a long-term increase in revenue.

If FAST were to improve the discount on an unlimited ride pass, it would have the effect of surcharging riders who do not (or cannot) take advantage of the savings opportunities and continue to pay the cash base fare. In Fiscal Year 2024, ridership from cash fares was more than 10 percent of the overall annual ridership. Therefore, such a surcharge effect would impact at least 10 percent of the ridership.

Ridership Response to Changing the Relationship between Fare Categories

A common rule to measure the aggregate relationship response to bus fare changes is loosely based on the Simpson & Curtin formula. The formula describes the ratio relationship, not an elasticity relationship, and estimates ridership changes as follows (Curtin, 1968):

Y=0.80 + 0.30X

Where:

Y = Percent loss in ridership as compared to the prior (before the change) ridership

X = Percent increase in fare as compared to prior (before the change) fare

The following example applies the Simpson & Curtin formula to a 10 percent increase in fares:

Percent loss in ridership = 0.80 + (0.30*10)

= 0.80 + 3.00

= 3.8 percent loss in ridership as a result of the 10 percent increase in fares.

In more recent studies, including dozens of case studies, the range of ridership loss experienced by a small urban community was between 3.0 and 4.0 percent for every 10 percent increase in fares.

The Simpson-Curtin Rule must be applied as a guide and not a stand-alone rule because the economy has changed since the rule was created, and there are many more typical transportation options today that can impact the transportation mode choice for any passenger. Today, the response to changing fares is impacted by economic conditions in the service area, such as the price of gasoline, traffic congestion, and availability of other transportation options. For these reasons, the Simpson and Curtin formula can only be used as one of several measures of the cost and benefit of implementing a fare change.

The impact of changing the pricing relationship applies to the potential for FAST to raise the price of its fare type options by differing percentages. For example, it may increase fares by 100 percent but introduce a new fare option that would change the relationship between the overall pricing structure. This option is discussed in the next chapter.

Altering the Basis on which Fares are Charged

Altering the basis on which fares are charged, in this scenario, includes applying a standard percentage increase to all fare media.

This option may also include the implementation of fare capping so that riders are capped at intervals when they reach certain utilization levels. With available technology, fare capping can provide affordable alternatives for passengers. The passenger would be charged based on actual usage. An example fare structure is presented in Table 3 below.

Table 3: Example Fare Structure

Fare Type*	Fare Cap Price
One Ride	$1.50
Day Pass	$3.60
Weekly Pass	$15.00
31-Day Pass	$40.00

**Discount rates will also be implemented for eligible passengers.*

Using the sample fare structure above, when a passenger rides the first two, one-way trips, they are charged $1.50 each trip (for a total of $3.00). When they board for the third time in the same day, they are charged just the additional $0.60, and there is no charge for any other rides that day. If that passenger continues to ride 10 times during the same week, the $3.60 they paid on the first day counts toward the total of $15.00 (for the equivalent of a Weekly Pass). If the passenger makes 27 trips or more within a month of their first ride, their total monthly bill for all trips will not exceed $40.00.

Changing Fare Categories

The third relevant fare structure option is the introduction of a new fare category, such as a 7-Day Pass, and/or withdrawal of another type of fare payment method, such as the 5-Day Pass. Several transit industry studies indicate that when a new fare category, such as a Weekly Pass, is introduced, a revenue loss relative to not having the pass usually occurs.

The introduction of a new pass category is sometimes used as a method for softening the impact of a base fare increase because it gives passengers who ride more frequently a new option.

Fare Structure Alternatives and Prices for FAST

Each of the following options has merit in terms of maximizing revenue and minimizing ridership loss.

- Option 1 alters the basis on which fares are charged by increasing fares by a standard percentage across the board.
- Option 2 enhances the base fare and also replaces the 5-Day Pass with a 7-Day Pass
- Option 3 implements a fare increase with fare capping

Fare Option 1: Increasing Base Fares and Passes by a Standard Percentage

Cash/Base Fare Changes

Fare Option 1 considers across-the-board fare increases by seven different increments. Table 4 outlines the resulting price for each incremental increase.

Table 4: Incremental Fare Price Increases

Fare Type	Current Fare	Percent Increase 3%	Percent Increase 10%	Percent Increase 20%	Percent Increase 30%	Percent Increase 40%	Percent Increase 50%	Percent Increase 60%
1 Ride Adult	$ 1.25	$ 1.29	$ 1.38	$ 1.50	$ 1.63	$ 1.75	$ 1.88	$ 2.00
1 Ride Discount	$ 0.50	$ 0.52	$ 0.55	$ 0.60	$ 0.65	$ 0.70	$ 0.75	$ 0.80
1 Ride Youth	$ 1.25	$ 1.29	$ 1.38	$ 1.50	$ 1.63	$ 1.75	$ 1.88	$ 2.00
1 Day	$ 3.00	$ 3.09	$ 3.30	$ 3.60	$ 3.90	$ 4.20	$ 4.50	$ 4.80
1 Day Discount	$ 1.50	$ 1.55	$ 1.65	$ 1.80	$ 1.95	$ 2.10	$ 2.25	$ 2.40
1 Day Youth	$ 2.00	$ 2.06	$ 2.20	$ 2.40	$ 2.60	$ 2.80	$ 3.00	$ 3.20
5 Day	$ 11.00	$ 11.33	$ 12.10	$ 13.20	$ 14.30	$ 15.40	$ 16.50	$ 17.60
5 Day Discount	$ 5.50	$ 5.67	$ 6.05	$ 6.60	$ 7.15	$ 7.70	$ 8.25	$ 8.80
5 Day Youth	$ 11.00	$ 11.33	$ 12.10	$ 13.20	$ 14.30	$ 15.40	$ 16.50	$ 17.60
30 Day	$ 40.00	$ 41.20	$ 44.00	$ 48.00	$ 52.00	$ 56.00	$ 60.00	$ 64.00
30 Day Discount	$ 17.00	$ 17.51	$ 18.70	$ 20.40	$ 22.10	$ 23.80	$ 25.50	$ 27.20
30 Day Youth	$ 30.00	$ 30.90	$ 33.00	$ 36.00	$ 39.00	$ 42.00	$ 45.00	$ 48.00
Semester Pass Summer	$ 40.00	$ 41.20	$ 44.00	$ 48.00	$ 52.00	$ 56.00	$ 60.00	$ 64.00

Fare Type	Current Fare	Percent Increase 3%	Percent Increase 10%	Percent Increase 20%	Percent Increase 30%	Percent Increase 40%	Percent Increase 50%	Percent Increase 60%
Semester Pass Fall/Spring	$ 55.00	$ 56.65	$ 60.50	$ 66.00	$ 71.50	$ 77.00	$ 82.50	$ 88.00
Summer Fun Pass	$ 15.00	$ 15.45	$ 16.50	$ 18.00	$ 19.50	$ 21.00	$ 22.50	$ 24.00
FAST*Trac!* 1 Ride Pass	$ 2.00	$ 2.06	$ 2.20	$ 2.40	$ 2.60	$ 2.80	$ 3.00	$ 3.20
FAST*Trac!* 10 Ride Pass	$ 17.50	$ 18.03	$ 19.25	$ 21.00	$ 22.75	$ 24.50	$ 26.25	$ 28.00
FAST*Trac!* 20 Ride Pass	$ 35.00	$ 36.05	$ 38.50	$ 42.00	$ 45.50	$ 49.00	$ 52.50	$ 56.00

Source: RLS & Associates, Inc.

The side-by-side tables presented in Table 5 below illustrate the impact if the Simpson and Curtin Rule is not applied (no loss in ridership) compared to the application of the Rule with a 3.3 percent loss in ridership for every 10 percent increase in price. The actual ridership and revenue impact is likely somewhere between the two scenarios.

The calculations on the left side of the chart assume no negative impact on ridership would result from the increase in price for cash fares. In other words, a 50 percent increase in cash fare price would result in a 50 percent increase in revenue from cash fares.

The calculations on the right side of the chart apply the Simpson and Curtin Rule to each cash fare price increase. For example, a 50 percent increase in the cash fare price would be balanced with a 15 percent decrease in ridership from riders that pay the cash fare. As a result, the increase in revenue generated from the price increase would be reduced from 50 percent to 27 percent. The same scenario is applied for incremental increases in fare price up to 150 percent of the current price.

Assuming there will be a negative impact on ridership for any increase in the price of the base fare, an increase of 60 percent to $2.00 ($0.80 Elderly and Disabled discounted price) would yield the strongest increase in revenue from the base fare category (31.2 percent).

Table 5: Comparison of Base Fare Ridership and Revenue Impacts

Revenue Impact **without** Potential Projected Ridership Loss

Fare Category	Base Price	Discount	Youth
One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (10% increase)	**$1.38**	**$0.55**	**$1.38**
New Trips (0% decrease)	106,444	2,328	8,022
New One Ride Total Revenue	$146,892.72	$1,280.40	$11,070.36
Change in Annual Revenue	$13,837.72	$116.40	$1,042.86
Percent Increase in Base Fare Revenue	10%		

Revenue Impact with Potential Projected Ridership Loss

Fare Category	Base Price	Discount	Youth
One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (10% increase)	**$1.38**	**$0.55**	**$1.38**
New Trips (3% decrease)	103,251	2,258	7,781
New One Ride Total Revenue	$142,485.94	$1,241.99	$10,738.25
Change in Annual Revenue	$9,430.94	$77.99	$710.75
Percent Increase in Base Fare Revenue	7%		

Fare Category	Base Price	Discount	Youth
Current One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (20% increase)	**$1.50**	**$0.60**	**$1.50**
New Trips (0% decrease)	106,444	2,328	8,022
New One Ride Total Revenue	$159,666.00	$1,396.80	$12,033.00
Change in Annual Revenue	$26,611.00	$232.80	$2,005.50
Percent Increase in Base Fare Revenue	20%		

Fare Category	Base Price	Discount	Youth
Current One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (20% increase)	**$1.50**	**$0.60**	**$1.50**
New Trips (6% decrease)	100,057	2,188	7,541
New One Ride Total Revenue	$150,086.04	$1,312.99	$11,311.02
Change in Annual Revenue	$17,031.04	$148.99	$1,283.52
Percent Increase in Base Fare Revenue	12.80%		

Fare Category	Base Price	Discount	Youth
Current One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (30% increase)	**$1.63**	**$0.65**	**$1.63**
New Trips (0% decrease)	106,444	2,328	8,022
New One Ride Total Revenue	$173,503.72	$1,513.20	$13,075.86
Change in Annual Revenue	$40,448.72	$349.20	$3,048.36
Percent Increase in Base Fare Revenue	30%		

Fare Category	Base Price	Discount	Youth
Current One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (30% increase)	**$1.63**	**$0.65**	**$1.63**
New Trips (9% decrease)	96,864	2,118	7,300
New One Ride Total Revenue	$157,888.39	$1,377.01	$11,899.03
Change in Annual Revenue	$24,833.39	$213.01	$1,871.53
Percent Increase in Base Fare Revenue	18.66%		

Fare Category	Base Price	Discount	Youth
Current One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (40% increase)	**$1.75**	**$0.70**	**$1.75**
New Trips (0% decrease)	106,444	2,328	8,022
New One Ride Total Revenue	$186,277.00	$1,629.60	$14,038.50
Change in Annual Revenue	$53,222.00	$465.60	$4,011.00
Percent Increase in Base Fare Revenue	40%		

Fare Category	Base Price	Discount	Youth
Current One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (40% increase)	**$1.75**	**$0.70**	**$1.75**
New Trips (12% decrease)	93,671	2,049	7,059
New One Ride Total Revenue	$163,923.76	$1,434.05	$12,353.88
Change in Annual Revenue	$30,868.76	$270.05	$2,326.38
Percent Increase in Base Fare Revenue	23.20%		

Fare Category	Base Price	Discount	Youth
Current One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (50% increase)	**$1.88**	**$0.75**	**$1.88**
New Trips (0% decrease)	106,444	2,328	8,022
New One Ride Total Revenue	$200,114.72	$1,746.00	$15,081.36
Change in Annual Revenue	$67,059.72	$582.00	$5,053.86
Percent Increase in Base Fare Revenue	50%		

Fare Category	Base Price	Discount	Youth
Current One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (50% increase)	**$1.88**	**$0.75**	**$1.88**
New Trips (15% decrease)	90,477	1,979	6,819
New One Ride Total Revenue	$170,097.51	$1,484.10	$12,819.16
Change in Annual Revenue	$37,042.51	$320.10	$2,791.66
Percent Increase in Base Fare Revenue	27.84%		

Fare Category	Base Price	Discount	Youth
Current One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (60% increase)	**$2.00**	**$0.80**	**$2.00**
New Trips (0% decrease)	106,444	2,328	8,022
New One Ride Total Revenue	$212,888.00	$1,862.40	$16,044.00
Change in Annual Revenue	$79,833.00	$698.40	$6,016.50
Percent Increase in Base Fare Revenue	60%		

Fare Category	Base Price	Discount	Youth
Current One Ride Price	**$1.25**	**$0.50**	**$1.25**
Number of Trips	106,444	2,328	8,022
Current Annual Revenue	$133,055.00	$1,164.00	$10,027.50
New Price (60% increase)	**$2.00**	**$0.80**	**$2.00**
New Trips (18% decrease)	87,284	1,723	5,936
New One Ride Total Revenue	$174,568.16	$1,378.18	$11,872.56
Change in Annual Revenue	$41,513.16	$214.18	$1,845.06
Percent Increase in Base Fare Revenue	31.20%		

Source: RLS & Associates, Inc.

Estimated Revenue and Ridership per Fare Category, including Pass Riders

Assuming the 60 percent fare increase is applied to all fare media, there will be a potential impact on ridership from pass riders as well. Table 6 compares the minimum and maximum range of impact on projected farebox revenue. The minimum impact on revenue assumes no reduction in ridership. The maximum impact on revenue applies the Simpson-Curtin Rule and assumes that with a 60 percent increase in price, ridership will decline by approximately 18 percent which will have a 31.2 percent impact on farebox revenue.

Table 6: Maximum and Minimum Project Farebox Revenue Impact

Totals	Current Farebox Totals	Projected 60% Increase in Price with 0% Decrease in Ridership	Projected 31.2% increase in revenue after an 18% Decrease in Ridership
Farebox Total	**$478,130**	**$765,008**	**$627,307**
Cash Fare Total	$144,247	$230,794	$189,251
Pass Fare Total	$333,884	$534,214	$438,055

Table 7 provides the potential impact on fare revenue by fare type. The projected increase in fare revenue for pass type is based on the current percentage of pass sales for each type and the assumption that the percentage of pass sales by type will remain consistent. The increase in pass price will make the biggest impact when applied to the 30-Day Pass, One Day Pass, and FasT*Trac!* 10 and 20 Ride Passes because those are the most frequently purchased and/or have the highest price.

Table 7: Projected Range of Pass Revenue Increase

Pass Type	% of Total Ridership	# of Passes Sold	2024 Pass Revenue (estimate)	% of Total Pass Fare Revenue	New Price with 60% Increase	New Annual Pass Revenue Max.	New Annual Pass Revenue Min.	Projected Range of Pass Revenue Increase
One Day Pass $3.00	39%		$ 11,614	3%	$4.80	$18,582.86	$15,237.95	$3,624 to $6,987
One Day Discount $1.50	9%		$1,300	0.39%	$2.40	$2,080.00	$1,705.60	$406 to $780
One Day Youth $2.00	2%		$ 300	0.09%	$3.20	$480.00	$ 393.60	$94 to $180

Pass Type	% of Total Ridership	# of Passes Sold	2024 Pass Revenue (estimate)	% of Total Pass Fare Revenue	New Price with 60% Increase	New Annual Pass Revenue Max.	New Annual Pass Revenue Min.	Projected Range of Pass Revenue Increase
30 Day Pass $40.00	15%	984	$38,130	11%	$64.00	$61,008.00	$50,026.56	$11,896 to $22,878
30 Day Half-Fare Pass $17.00	13%	491	$7,733	2%	$27.20	$12,373.20	$10,146.02	$2,413 to $4,640
30 Day Student Pass $30.00	2%	148	$4,255	1%	$48.00	$6,808.00	$5,582.56	$1,328 to $2,553
5 Day Pass $11.00	3%	651	$6,738	2%	$17.60	$10,780.56	$8,840.06	$2,102 to $4,043
5 Day Reduced Pass $5.50	0%	6	$ 44	0%	$8.80	$70.56	$57.86	$14 to $26
Summer Fun Pass $11.00	0.5%	6	$63	0%	$24.00	$101.28	$83.05	$20 to $38
10 Ride FasT*Trac!* $17.50		713	$11,586	3%	$28.00	$18,538.00	$15,201.16	$3,614 to $6,951
20 Ride FAST*Trac!* $35.00		1136	$38,340	11%	$56.00	$61,344.00	$50,302.08	$11,962 to $23,004
Semester Pass		54	$2,550	1%	$88/$64	$4,080.00	$3,345.60	$795 to $1,530

Source: RLS & Associates, Inc.

Fare Option 2: Elevating Fares and Changing the 5-Day Pass to a 7-Day Pass

Base Fare Changes

The same conditions as explained in Fare Option 1 apply to Option 2 in terms of price. However, Option 2 changes the relationship between the fares by offering a discount on what is currently a 5-Day Pass. Option 2 recommends eliminating the 5-Day Pass ($11.00) and replacing it with a 7-Day Pass (proposed cost of $15.00). The 7-Day Pass would be offered at a higher cost point than the 5-Day Pass.

A small percentage of the ridership currently use the 5-Day Pass (about 3 percent). At $11.00 per pass, a passenger must take at least nine one-way rides in five days to break even. By expanding the validity of the pass to include a full 7-day week, the passenger pays a higher price but essentially gains two extra free days of riding FAST. Thereby offering the moderately frequent rider a deeper discount if they choose the 7-Day Pass.

The expansion of the pass to include all days of operation may attract more riders on weekends.

Table 8: Breakeven Point Comparison of the 5-Day and 7-Day Pass

Fare Type	Current Price	New Price (60% Increase)
1-Ride	$1.25	$2.00
1-Day	$3.00 (breakeven after 2 trips)	$4.80 (breakeven after 2 trips)
5-Day Pass	$11.00 (breakeven after 8 trips with cash or 3 day passes)	$17.60 (breakeven after 9 cash trips in 5 days)
7-Day Pass	N/A; proposed price of $15.00 (breakeven after 5 day passes)	$24.00 (breakeven after 12 cash trips in 7 days)
30-Day	$40.00 (breakeven after 32 trips)	$64.00 (breakeven after 32 trips)

Fare Option 3: Elevating Fares and Implementing Fare Capping

Fare Option 3 builds off of any of the previously mentioned options but incorporates fare capping at intervals when riders reach certain utilization levels. With available technology, fare capping can provide affordable and flexible alternatives for passengers. The passenger would be charged based on their actual use. Fare capping can be especially beneficial to passengers with limited incomes who may be frequent riders but cannot afford the price of a 30-Day Pass all at once. With fare capping, frequent passengers will pay as they go but will not be charged once they reach the breakeven point for the 30-Day Pass.

An example fare structure is presented under Table 9 below.

Table 9: Example Fare Structure with Fare Capping Under New Price (60% Increase)

Fare Type	Fare Cap Price
1-Ride	$2.00
1-Day	$4.80
5-Day	$17.60
7-Day (Proposed)	$24.00
30-Day	$64.00

The fare capping also applies to fixed-route discounted rates for eligible riders.

When a passenger rides the first two one-way trips, they are charged $2.00 each trip (for a total of $4.00). When they board for the third time in the same day, they are charged just the additional $0.80 and then there are no additional charges for any rides that day. If that passenger continues to ride eight times during the same week, the $4.80 they paid on the first day counts toward the total of $17.60 for the equivalent value of a 5-Day Pass. If the passenger makes 23 rides or more per month, their total monthly bill for all trips will not exceed $64.00.

Fare capping is a successful strategy with mobile fare payment options. However, the option to purchase a cash fare or the paper pass media should not be eliminated if the option to use fare capping is implemented. If the ultimate decision from FAST is to implement fare capping and eliminate cash fare as an option, the distribution of locations to use cash to purchase a fare card (i.e., vending machines and local businesses) will need to be implemented equitably throughout the FAST service area to ensure equal access to minority, non-minority and passengers with low incomes.

Peer Analysis

Peer Group Fare Review

A peer review is a common tool used by transit agencies to compare and evaluate how systems within a similar environment or with similar characteristics are operating, which can help inform the decision-making process. This fare study included a comparative analysis of transit systems similar to FAST to assist in determining the appropriateness of specific fare policies and fare media structures. FAST identified ten peer agencies in 2022 through their Transit Development Plan (TDP) process. These peers can be found in Table 10 and were used in this analysis.

Table 10: Selected Peer Systems

Peer System	Location
National Peers	
Fort Wayne Public Transportation Corporation	Fort Wayne, IN
Tri-State Transit Authority	Huntington, WV
Wave Transit System	Mobile, AL
Regional Peers	
Asheville Transit System	Asheville, NC
Clarksville Transit System	Clarksville, TN
Metropolitan Transit System	Columbus, GA
GoDurham	Durham, NC
High Point Transit System	High Point, NC
Cape Fear Public Transportation Authority	Wilmington, NC
Winston-Salem Transit Authority	Winston-Salem, NC
Geographic Peers	
Go Raleigh^	Raleigh, NC
Go Triangle^	Durham, NC
Greensboro Transit Agency^	Greensboro, NC

Source: Benesch, FAST 2022 TDP

^ Not a TDP peer agency, but since they are area providers, the information is provided for context/reference.

Peer Fixed-Route and ADA Fare Structure Comparison

Information on each system's fare policy and fare structures was collected directly from the transit agency's website. Table 2 summarizes the fare structure and fares for each peer transit agency compared to FAST, the peer group mean, and the percentage of FAST's fare from the peer group mean. It should be noted that GoDurham is currently fare-free through June 2025.

As seen in Table 11, the average base single ride fare for fixed route services for the peer group is $1.40. The average cost of the day pass is $3.64 for the peer group. The average cost of a monthly pass is $47.58 for the peer group. The average paratransit fare for the peer group is $2.63. From these results, the following observations are made:

- FAST's base fare, 5-day pass, and 30-day pass are all less than the peer mean at 11%,15%, and 16% less, respectively. Only FAST's daily pass is higher than the peer mean (7% greater).
- FAST's ADA fare at $2.00 is 24% below the peer mean ADA fare of $2.63.

Peer Fare Media Structure Comparison

When comparing fare media and distribution methods, Table 12 shows that most peer agencies are still accepting cash on their bus to purchase bus fare. However, these agencies offer additional fare media options, such as using phone apps, reloadable swipe cards, and online purchasing. Some agencies also offer incentives to those who choose to use these alternative payment methods. These incentives include fare capping and allowing free transfers.

To provide further context of this area, three additional local agencies were added to this analysis: GoRaleigh, GoTriangle, and Greensboro Transit Agency. All three of these agencies accept cash fare on buses, but offer Umo Smartcard and Ump all as additional fare payment options. These options allow for fare capping when used instead of cash.

Other pertinent findings from the analysis include the following:

- Fort Wayne Public Transportation Corporation received approval from their Board of Directors in March 2024 to install new fare validators on vehicles to replace the Genfare Fareboxes. Automating fare validation with this technology will aid in the agency's goals to improve customer experience, reduce costs of fare collection, and improve dwell time at bus stops.
- The Wave Transit System in Mobile, AL is transitioning to new tap and go fareboxes on vehicles that feature four ways to pay: MyWAVE Card, MyWAVE Mobile App, limited use passes, and cash.
- Prior to GoDurham's fare suspension, all passes could be purchased at the Durham Station with cash or credit card. Passes could also be purchased online and mailed to recipients.
- For all agencies accepting cash on the bus, exact change is required.

Table 11: FAST TDP Peer Agencies, Fare Structure

Transit System	Fixed Route Ridership*	Fixed-Route Fares				ADA Fare (One-Way)
		One-Way Fare (Discounted)	Daily Pass (Discounted)	5-Day/ Weekly Pass (Discounted)	30-Day/ Monthly Pass (Discounted)	
Fayetteville Area System of Transit	**2,125,796**	**$1.25 ($0.50)**	**$3.00 ($1.50)**	**$11.00($5.50)**	**$40.00 ($17.00)**	**$2.00**
Fort Wayne Public Transportation Corporation	1,499,968	$1.25 ($0.60)	$3.00 ($1.50)	-	$45.00 ($22.00)	$2.50
Tri-State Transit Authority	679,536	$1.00 ($0.50)	$4.00	-	$35.00	$2.00
Wave Transit System	502,974	$1.25 ($0.60)	$3.00	$10.00 ($5.00)	$40.00 ($20.00)	$2.50
Asheville Transit System	1,377,810	$1.00 ($0.50)	-	-	$20.00 ($10.00)	$2.00
Clarksville Transit System	483,653	$1.50 ($0.75)	$4.00	$20.00	$50.00 ($25.00)	$2.50
Metropolitan Transit System	636,538	$1.30 ($0.65)	-	$15.50 ($7.75)	$53.00 ($26.50)	$2.50
GoDurham**	5,616,072	-	-	-	-	-
High Point Transit System	513,225	$1.25 ($0.60)	-	-	$40.00 ($20.00)	$2.50
Cape Fear Public Transportation Authority	668,499	$2.00 ($1.00)	-	$20.00 ($10.00)	$80.00 ($40.00)	$4.00
Winston-Salem Transit Authority	1,552,470	$1.00 ($0.50)	-	-	$30.00 ($15.00)	$1.00
Go Raleigh^	4,518,659	$1.25($0.60)	$2.50($1.25)	$12.00 ($6.00)	$40.00($20.00)	$2.50
Go Triangle^	1,504,158	$2.50($1.25)	$5.00($2.50)	$20.00($10.00)	$80.00 ($40.00)	$5.00
Greensboro Transit Agency^	2,091,569	$1.50($0.75)	$4.00($2.00)	-	$58.00 ($29.00)	$2.50
Peer Group Mean	**1,665,010**	**$1.40 ($0.69)**	**$3.64 ($1.81)**	**$12.95 ($7.75)**	**$47.58 ($24.32)**	**$2.63**
FAST % from Mean	**28%**	**-11% (-18%)**	**7% (20%)**	**-15% (-29%)**	**-16% (-30%)**	**-24%**

Source: Benesch

Note: Peer agencies may have other pass options available.

**National Transit Database (NTD), 2023.*

***Fare free through June 2025.*

^ Not a TDP peer agency, but since they are area providers, the information is provided for context/reference.

Table 12: FAST TDP Peer Agencies, Fare Structure

Peer Agency	Cash Accepted on Bus or Counter?	Cashless Incentives	Additional Fare Media
Fayetteville Area System of Transit	**Both**	**None.**	**Passes purchased at FTC and Charlie C's**
Fort Wayne Public Transportation Corporation	Bus*	Change cards no longer issued. Fare capping for passengers using mobile tickets as a price incentive for riders to migrate to Token Transit.	Token Transit App, online purchasing
Tri-State Transit Authority	Both	None.	Token Transit App, loadable "Value Cards"
Wave Transit System	Both	Allows free transfers when using fare types other than cash.	MyWAVE swipe card, MyWAVE App
Asheville Transit System	Both	None.	Ticket book, paper passes
Clarksville Transit System	Both	None.	Paper passes, Token Transit App
Metropolitan Transit System	Both	None.	One-way tickets, swipe cards
GoDurham^	N/A	None.	N/A
High Point Transit System	Both	Allows free transfers when using fare types other than cash.	Umo Smartcard, Umo Mobile App
Cape Fear Public Transportation Authority	Both	None.	RideMICRO App
Winston-Salem Transit Authority	Counter	None.	Paper tickets
GoRaleigh**	Both	Fare capping is applied when paying fares with card or app.	Umo Smartcard, Umo Mobile App
GoTriangle**	Both	Fare capping is applied when paying fares with card or app.	Umo Smartcard, Umo Mobile App
Greensboro Transit Agency**	Both	Fare capping is applied when paying fares with card or app.	Umo Smartcard, Umo Mobile App

Source: Benesch

**Eliminating Genfare Fareboxes from vehicles in 2025.*

***Not a TDP peer agency, but since they are area providers, the information is provided for context/reference.*

^*Fare free through June 2025.*

Implementation Plan

The implementation steps suggested here are not specific. Instead, they focus on general information sharing and employee and consumer education procedures that have proven successful for peer systems. All of the following steps are important measures to reduce ridership loss that might occur due to passenger misperceptions about the fare structure. FAST leadership and personnel should consider additional specific steps after the new fare structure has been finalized and the timeline for implementation confirmed.

Procedures for outreach to the public and employees will be different in terms of the activities and the messages that the management team intends to communicate about fare changes. Regardless of the selected change, it is important that FAST inform all staff of the new fare structure, media, and distribution procedures before they are initiated.

Communicating Changes to FAST Employees

FAST employees are the font-line of the organization and the only direct interaction that most customers have with the system. Therefore, it is critical that all employees understand the reasons behind the fare structure changes and the benefits to the passenger. It is equally important that all employees understand new fare collection procedures and can easily recognize any new fare media that is introduced. The following activities will ensure that the critical elements of employee communication are deployed.

Employee Workshops

A series of workshops spanning one week should be conducted prior to deploying the new fare structure. Each workshop will be scheduled for up to two hours and the discussion will focus on a particular group of employees. For example, workshops could be set up for the following employee groups:

1. Operators
2. Customer Support Employees
3. Dispatchers and Operations Managers
4. Administrative and Planning Staff

Discussions at each workshop will focus on the benefits of the new fare structure; distribution methods; how to use new passes; relationship between different fare options in the entire fare structure; and tips for explaining the fare structure to customers.

Printed Materials for Employees

Printed materials and instructions should be provided to each employee during the workshop. It is important that printed materials include a brief outline and justifications for the new passes, along with sample frequently asked questions and appropriate responses to inquiring passengers. Printed materials must also include a picture of new fare media and pictorial illustrations on how to use the ticket.

Farebox or New Technology

If FAST elects to implement fare structure changes that involve new technology or distribution points, all employees must be trained on the new equipment. A hands-on demonstration with the new distribution and collection procedures associated with the fare media provides the most successful training results. All FAST employees represent the system to the public, and therefore, should participate in the hands-on training even if they do not interact with passengers on a daily basis. Training 100 percent of the employees will ensure that when any employee is in public, they will be able to accurately represent the new procedures.

Communicating Changes to the General Public and Current Consumers

FAST should work in consultation with the City's Marketing Department to promote the new fare structure throughout the service area to the general public, passengers and local officials using its normal print and electronic media formats. Some additional outreach and public education suggestions are included in the following paragraphs.

Public Hearing

A public hearing is required prior to implementation of a fare change. In addition to the opportunity to announce the new fare structure, a hearing can also be an ideal time to explain the benefits of the fare structure.

Printed Materials

All printed materials must be available in alternative formats including for individuals with visual and/or hearing impairments, and for whom English is a second language if that language meets the threshold for translation according to Title VI of the Civil Rights Act.

"How To" Fliers

Printed materials for the public should be shorter than those provided to employees. Peer transit systems have discovered that a single page, step-by-step description of how to purchase and use the new pass is most effective. Pictures next to the printed directions are also very useful in the communication process. More than a page is usually too much information.

Fliers in newsletters, on vehicles, and at stops and hubs are also recommended. Human service agencies, schools, churches, and homeless shelters may also be willing to help distribute the "How To" fliers to their consumers, students, and patrons.

Notices

FAST, in consultation with the City's Marketing Department, should distribute newspaper notices in frequently used media outlets.

Notices in community newsletters such as apartment buildings and other older adult communities, college/university campus papers, and newsletters distributed by human service agencies are also recommended. Printed notices should focus on the benefits of the new fare structure and a step-by-step process for purchasing and using the new fare media.

Electronic Notices and Video Tutorials

In today's world, nearly every website has a video tutorial of some kind. Tutorials are easy and affordable to create. They are especially appealing to consumers who prefer not to read the directions.

A video is a quick way for FAST staff to express the intended consumer benefits and justifications for the new fare structure as well as a step-by-step demonstration of purchasing and using new media. A video tutorial that demonstrates a person buying a pass and boarding a vehicle will not only demonstrate the ease of the new pass, but also show potential passengers how simple it is to ride FAST!

Video tutorials can be included on the FAST website and social media pages, and made available for websites of local newspapers, schools, the Chamber of Commerce, Visitor Center, and any organization with consumers or patrons that utilize FAST.

On-Board Announcements

The new fare structure should be announced to riders while in transit using the on-board announcement capability. The information provided should be brief but include details on how to secure additional detailed information.

Television and Radio

FAST should utilize local television and radio stations for advertising the new fare structure.

Appendix A: FAST Fare Policy Recovery Goal (2020)

- The Fare Policy Recovery Goal is:

  Recovery of operating costs: Customer fares or user fees should help support the business costs related to providing quality public transportation services. The City Council may establish a goal or goals related to cost recovery. Cost recovery is not only determined by adequate fare revenues, but also prudent control of operating costs. It is the goal of FAST to recover a minimum of 20% of transit operating costs with transit system generated revenues, including but not limited to passenger paid and third-party fares by FY 2020.

  The 20% goal by 2020 includes passenger fares, and other system generated revenues such as leases, advertising, other miscellaneous revenues and third-party route subsidies.

  - When this policy goal was established in 2013, the operating recovery was 17%. Fares alone recovered 15.5%.
  - Based on original fiscal year 2020, year end projections, the operating recovery rate was projected to be 12.25%. With potential COVID-19 impacts, this may decline to 9.7% by year end.

- Based on the recommended budget for fiscal year 2021, it is estimate that this measure will be 11.88%. The Fare Policy Recovery Goal is:

  Recovery of operating costs: Customer fares or user fees should help support the business costs related to providing quality public transportation services. The City Council may establish a goal or goals related to cost recovery. Cost recovery is not only determined by adequate fare revenues, but also prudent control of operating costs. It is the goal of FAST to recover a minimum of 20% of transit operating costs with transit system generated revenues, including but not limited to passenger paid and third-party fares by FY 2020.

  The 20% goal by 2020 includes passenger fares, and other system generated revenues such as leases, advertising, other miscellaneous revenues and third-party route subsidies.

  - When this policy goal was established in 2013, the operating recovery

rate was 17%. Fares alone recovered 15%.

- Based on original fiscal year 2020 year end projections, the operating recovery rate was projected to be 12.25%. With potential COVID-19 impacts, this may decline to 9.7% by year end.
- Based on the recommended budget for fiscal year 2021, it is estimate that this measure will be 11.88%.