

STAFF REPORT

SUBJECT: Proposed Fare Policy Changes

FROM: Tony McCaulay, Director of Planning and Marketing
Cyrus Sheik, Senior Transit Planner

DATE: June 25, 2018

Action Requested

Staff recommends the Projects and Services Committee forward the proposed fare policy changes to the Board of Directors for consideration, and recommends that the Board open a public comment and review period and direct staff to hold three public hearings, one each in Dublin, Pleasanton and Livermore in September 2018. After consideration of public input, a final staff recommendation will be brought to the Board of Directors in October with an anticipated implementation date of January 1, 2019.

Background

In 2016, LAVTA launched a Fare Study, conducted by Nelson\Nygaard Consulting Associates Inc. The fare study included an analysis of agency trends, a snapshot of the current fare breakdown, an examination of potential fare policy adjustments and associated ridership/revenue impacts, and a package of recommendations. Also in the review was a comparison with other Bay Area transit properties of similar size and operating conditions.

The study findings were presented to the Projects and Services Committee and the Finance and Administration Committee in May 2017 as an informational item. At that time, the committees expressed a desire to not make any changes and to instead revisit the fare policies at a later date.

Following this, Staff asked the Consultant to update the fare study with one additional scenario compared with the original report. In addition, new fareboxes are being deployed fleet-wide in the LAVTA system, which bring additional functionality enabling new fare options that weren't previously feasible, and which may help mitigate the impact of changes in fare rules.

Discussion

The Fare Study used the following goals as key factors in the development of fare structure scenarios, which were then modeled for ridership and financial impact:

- Reviewing current fare pricing for different fare categories
- Determining distribution of ridership and utilization by fare category
- Aligning fare policies with Clipper's fare policy

- Studying current pass programs and evaluating pass and transfer policies, including inter-operator transfers

Following the Consultant's analysis, Staff reviewed the scenarios (some of which are combinable and some of which are mutually exclusive) with an eye toward the following objectives:

- Maximizing revenue without incurring a substantial loss in ridership
- Having a simple fare structure that easy for customers to understand
- Having fare policies and instruments that are consistent with a safe and timely bus operation

Based on the above and on the analysis from the Fare Study, Staff is proposing the following fare modifications:

Eliminate transfers and replace with day pass. Currently, upon depositing payment, LAVTA passengers receive a 2-hour window of unlimited boardings at no extra charge. This is primarily intended for transferring from one route to another, but may also be used for short roundtrip or trip-chaining purposes within the allotted time window.

The day pass is already available as a fare payment option for passengers using the Clipper Card and is priced at \$3.75 (\$1.75 senior/disabled/Medicare), which is less than the cost of two cash fares. Further, it applies automatically with the second boarding of the day and caps the daily fare at this amount. Staff's proposal would expand the access to the day pass, making it available for cash purchase at the farebox upon boarding, by issuing a magnetic-stripe card as fare medium for this purpose.

It is proposed that the current free two-hour transfer be discontinued and that the current Clipper day pass option priced at \$3.75 (\$1.75 senior/disabled/Medicare) be extended to also be available with a cash purchase onboard at the farebox.

Eliminate 10-ride tickets and replace with a Youth Clipper Card fare at the same rate. Currently, LAVTA sells its FareBuster-branded tickets in paper sheets of 10 tickets for \$16.00 for Adults and Youth. This fare type is popular with parents of students who ride to school because they can dispense them to their children on a day-to-day basis.

These tickets, however, cannot be accepted by the new fareboxes that the agency is deploying fleet-wide. As an interim solution, FareBuster tickets are collected manually into a pouch by the bus driver, who then turns it in at the end of the shift. This procedure is not ideal from a loss prevention and fraud perspective and needs to be discontinued.

Given this, it is proposed to discontinue the 10-ride FareBuster paper ticket and replace it with a \$1.60 (value equivalent to each individual FareBuster ticket) youth fare. This discounted fare would be available only on Clipper, and the youth fare discount would not apply to any other fare category, such as cash, the day pass cap or the monthly pass. Youth Clipper Cards are

available free of charge. During the Fall 2018 semester, LAVTA staff would work closely with area schools to assist students in the transition from Farebusters to Clipper Cards.

LAVTA also currently sells 10-ride tickets for Senior/Disabled/Medicare riders for \$10.00, which provides no discount compared to cash fare. It is proposed to discontinue selling these 10-ride tickets and encourage the transition to Clipper Card. Senior/Disabled Clipper Cards offer the incentive of the discounted Day pass when two or more rides are taken in a day.

If this proposal is approved, 10-ride tickets would no longer be sold beginning December 31, 2018. Staff proposes that 10-ride tickets continue to be accepted through December 2020 to allow riders the opportunity to use previously purchased tickets. An education campaign would be implemented to remind passengers to use their remaining inventory.

Raise monthly senior/disabled pass price to 50% of the full-fare monthly pass. The monthly pass provides for unlimited rides on the buses of LAVTA and three of the other small East Bay-based operators of County Connection, WestCat, and Tri-Delta Transit. It is available as a flash pass by calendar month, as well as on the Clipper card for a rolling 31-day period that starts with the day of the first boarding.

Currently, the price for an unlimited-ride monthly regular Adult/Youth monthly pass is \$60.00, while the price for a Senior/Disabled/Medicare monthly pass is \$18.00 – a 70% discount over the regular price. This differs from LAVTA's other fare options, where the Senior/Disabled/Medicare discount is 50%.

In order to bring the pricing of the Senior/Disabled/Medicare monthly pass in line with the agency's other fare types (and common industry practice), it is proposed to gradually raise the price of the Senior/Disabled/Medicare monthly pass to 50% of the regular Adult/Youth pass. Recognizing that implementing this increase all at once would represent a significant increase and that many of the riders in this category are on fixed, limited incomes, it is proposed that this modification be implemented in annual steps as follows:

Current - \$18.00

Proposed January 1, 2019- \$22.00

Proposed January 1, 2020 - \$26.00

Proposed January 1, 2021 - \$30.00

Raise the paratransit fare to be double that of the fixed-route fare. Due to its nature of on-demand, curb-to-curb service, the LAVTA paratransit service is expensive to provide. Whereas the average subsidy in FY2017 per fixed-route passenger was \$7.66, the corresponding number for paratransit was \$27.40. The current fare the LAVTA paratransit service is \$3.50.

As a recipient of Federal funds, LAVTA cannot impose an unlimited charge on its paratransit riders; the Federal rules allow a charge of up to double the amount of the full fixed-route fare. Based on the agency's current full fare of \$2.00 for fixed route, the paratransit fare cap would be \$4.00.

Given the high cost of providing the paratransit service, and to encourage the use of fixed routes, it is proposed that the paratransit fare be raised to \$4.00. Recognizing that many of the riders in this category are on fixed, limited incomes, it is proposed that this increase be implemented in two steps:

Current - \$3.50

Proposed January 1, 2019 - \$3.75

Proposed January 1, 2020 - \$4.00

The table below summarizes the results from the modeling in terms of impact to revenue and ridership of the staff recommended fare policy modifications.

Staff Recommendation Annual Ridership and Revenue Impacts

	Change in Annual Ridership	Ridership Percent Change	Change in Annual Revenue	Revenue Percent Change
Eliminate Transfers and Add Day Pass (\$3.75)	-22,100	-1.3%	\$315,800	15.7%
Eliminate FareBuster Tickets and Add Day Pass	-21,300	-1.3%	\$62,700	3.1%
Modify Senior/Disabled Monthly Pass Price (\$20)	-2,300	-0.1%	\$4,300	0.2%
Modify Senior/Disabled Monthly Pass Price (\$25)	-7,900	-0.5%	\$14,000	0.7%
Modify Senior/Disabled Monthly Pass Price (\$30)	-13,600	-0.8%	\$22,000	1.1%
Paratransit Fare (\$4.00)	-1,200	-2.3%	\$27,100	11.7%
Year one impact: Eliminate Transfers, Add Day Pass (\$3.75/\$1.75), Eliminate FareBuster Tickets (except Youth), Modify Senior/Disabled Monthly Pass Price (\$22)	-51,000	-3.1%	\$280,200	14.0%
Full implementation impact: Eliminate Transfers, Add Day Pass (\$3.75/\$1.75), Eliminate FareBuster Tickets (except Youth), Modify Senior/Disabled Monthly Pass Price (\$30)	-60,000	-3.6%	\$293,900	14.6%

Note: In FY16, Wheels annual fixed-route ridership was 1,648,604, and passenger fare revenue was \$2,007,023.

Next Steps

During the public comment and review period, LAVTA Staff will publish a notice regarding the nature of the proposed changes and the public comment process in the following publications: The Pleasanton Weekly and The Independent.

Staff will also solicit passenger input via the following channels: a press release, signage on all buses and posts on the wheelsbus.com website.

Recommendation

Staff recommends the Projects and Services Committee forward the proposed fare policy changes to the Board for consideration, and recommends that the Board open the public comment period and direct staff to hold three public hearings, one each in Dublin, Pleasanton and Livermore in September 2018.

Attachments:

1. Current and Proposed Fares
2. LAVTA Fare Study

Current and Proposed Fares

Fixed Route Single Ride Cash	Current Fare	Proposed Fare
Adult – Ages 19 - 64	\$2.00	\$2.00
Youth – Ages 6 - 18	\$2.00	\$2.00
Senior – Ages 65 and over	\$1.00	\$1.00
Disabled/Medicare – with ID	\$1.00	\$1.00
Children – Under age 6 accompanied by fare paying passenger	FREE	FREE
Eligible LAVTA employees/family members	FREE	FREE
Fixed Route Paper Pass Products	Current Fare	Proposed Fare
Adult/Youth FareBuster 10-ride tickets	\$16.00	discontinue
Senior/Disabled/Medicare 10-ride tickets	\$10.00	discontinue
Transfers	FREE	discontinue
Adult/Youth East Bay Monthly Pass	\$60.00	\$60.00
Senior/Disabled/Medicare Monthly Pass	\$18.00	\$22.00*
Clipper Card Products	Current Fare	Proposed Fare
Adult single ride	\$2.00	\$2.00
Adult Day Pass (caps automatically)	\$3.75	\$3.75
Senior/Disabled/Medicare single ride	\$1.00	\$1.00
Senior/Disabled/Medicare Day Pass	\$1.75	\$1.75
Youth single ride	\$2.00	\$1.60
Adult Monthly Pass (rolling 31 days)	\$60.00	\$60.00
Senior/Disabled/Medicare Monthly Pass	\$18.00	\$22.00
Paratransit	Current Fare	Proposed Fare
Cash Fare	\$3.50	\$3.75**
Companions accompanying passenger	\$3.50	\$3.75**
Paratransit 10-ride tickets	\$35.00	\$37.50***

*Proposed to increase to \$26.00 January 2020 and \$30.00 January 2021

**Proposed to increase to \$4.00 January 2020

***Proposed to increase to \$40.00 January 2020



LAVTA Fare Study

Draft Report

May 2018

This page intentionally left blank.

Table of Contents

1	Introduction.....	1-1
	Goals and Objectives.....	1-1
2	Service Overview	2-1
	Service Changes.....	2-2
3	Existing Fare Structure	3-1
	Fare Categories.....	3-1
	Fare Products.....	3-3
	Fare Technology.....	3-13
4	Revenue and Ridership Trends	4-1
	Performance Trends	4-1
	Ridership and Fare Payment Type.....	4-5
5	Peer Review.....	5-1
	Fare Structure	5-6
	Fare Policies.....	5-11
	Innovative Fare Policies	5-13
	Paratransit.....	5-20
	Summary of Peer Findings	5-27
6	Fare Concepts	6-1
7	Fare Scenarios	7-1
	Fare Model.....	7-1
	Fare Scenarios.....	7-2
	Fare Scenario Summary	7-8
	Demand Response Fare Scenario.....	7-11
8	Fare Recommendations	8-1
	Organizational Policies	8-1
	Fare Programs.....	8-2
	Fare Products and Pricing	8-4
	Summary of Recommendations	8-8

Table of Figures

Figure 2-1	Frequency and Span of Service by Route (Effective February 12, 2018).....	2-3
Figure 2-2	System Map (Effective February 12, 2018).....	2-4
Figure 2-3	LAVTA Service Area Transit Service (FY 2016).....	2-5
Figure 3-1	Wheels Fare Products.....	3-3
Figure 3-2	Single Ride Fares.....	3-4
Figure 3-3	One-Way Ride Tickets	3-4
Figure 3-4	Wheels Transfers	3-6
Figure 3-5	Pass Products Summary	3-7
Figure 3-6	Paper Passes – Monthly Unlimited Ride Passes.....	3-8
Figure 3-7	Annual Unlimited Ride Passes.....	3-9
Figure 3-8	Dial-A-Ride Paratransit Fares	3-10
Figure 3-9	Fare Media Outlets.....	3-11
Figure 4-1	LAVTA Fixed-Route Transit Performance Data 2013-2017.....	4-2
Figure 4-2	Service Level Trends.....	4-2
Figure 4-3	Ridership and Productivity Trends.....	4-3

Figure 4-4	Operating Cost Per Passenger and Average Fare Trends.....	4-3
Figure 4-5	Fare Recovery and Farebox Recovery Ratio.....	4-4
Figure 4-6	Fare Recovery and Costs	4-4
Figure 4-7	Ridership by Fare Type (FY 15-16) Including Transfers.....	4-5
Figure 4-8	Ridership by Fare Type (Excluding Transfers)	4-6
Figure 4-9	Cash Fare Ridership (FY 15-16).....	4-6
Figure 4-10	Distribution of Pass Products (Boardings, Absolute Number)	4-7
Figure 4-11	Distribution of Pass Products.....	4-8
Figure 4-12	Transfers (Boardings)	4-8
Figure 4-13	2016 Pass Sales (All Pass Products, Absolute Numbers)	4-9
Figure 4-14	Location Where Transit Pass was Obtained (Absolute Numbers).....	4-10
Figure 4-15	Location Where Transit Pass was Obtained in Detail (Absolute Numbers)	4-10
Figure 5-1	Demographic Information.....	5-2
Figure 5-2	Fixed-Route Operating Statistics.....	5-3
Figure 5-3	Operating Cost per Revenue Hour	5-4
Figure 5-4	Operating Cost per Passenger	5-4
Figure 5-5	Farebox Recovery Ratio (Fixed-Route Services).....	5-5
Figure 5-6	Average Fare per Passenger.....	5-5
Figure 5-7	Fare Structure	5-7
Figure 5-8	Monthly Pass Multiplier Rates.....	5-10
Figure 5-9	Recent Fare Changes	5-12
Figure 5-10	AC Transit EasyPass and Class Pass	5-14
Figure 5-11	CoCo Pass	5-14
Figure 5-12	AC Transit EasyPass Pricing Structure.....	5-15
Figure 5-13	Denver RTD Business EcoPass Pricing Structure	5-16
Figure 5-14	Sonoma County Transit Free Pilot Program Promotion	5-17
Figure 5-15	FAST SolanoExpress Promotion.....	5-18
Figure 5-16	FAST School Supply Drive Promotion.....	5-18
Figure 5-17	FAST BOGO 31-Day Pass Promotion.....	5-19
Figure 5-18	Wheels Dial-a-Ride Operating Costs FY 2008 - FY 2015	5-20
Figure 5-19	Paratransit Operating Statistics.....	5-22
Figure 5-20	Demand Response Fare Structure.....	5-23
Figure 5-21	Cost per Revenue Hour - Demand Response.....	5-24
Figure 5-22	Cost per Passenger - Demand Response	5-25
Figure 5-23	Passengers per Revenue Hour - Demand Response	5-25
Figure 5-24	Farebox Recovery Ratio - Demand Response	5-26
Figure 5-25	Average Fare per Passenger - Demand Response	5-26
Figure 7-1	Scenario 1 Evaluation Fare Structure	7-2
Figure 7-2	Day Pass Price Modeling	7-3
Figure 7-3	Scenario 2 Evaluation Fare Structure	7-3
Figure 7-4	Scenario 3 Evaluation Fare Structure	7-4
Figure 7-5	Senior/Disabled Monthly Pass Price Modeling	7-4
Figure 7-6	Scenario 4 Evaluation Fare Structure	7-5
Figure 7-7	Scenario 5 Evaluation Fare Structure	7-6
Figure 7-8	Scenario 6 Evaluation Fare Structure	7-7

Figure 7-9	Scenario Annual Ridership and Revenue Impacts.....	7-8
Figure 7-10	Scenario Annual Ridership and Revenue Impacts (Actual Change).....	7-9
Figure 7-11	Scenario Annual Ridership and Revenue Impacts (Percent Change).....	7-10
Figure 7-12	Demand Response Evaluation Fare Structure.....	7-11
Figure 7-13	Scenario Annual Ridership and Revenue Impacts.....	7-11
Figure 7-14	Demand Response Scenario Annual Ridership and Revenue Impacts (Actual Change)	7-12
Figure 7-15	Demand Response Scenario Annual Ridership and Revenue Impacts (Percent Change)	7-12
Figure 8-1	Phased Approach to Implementing Larger Fare Changes.....	8-1
Figure 8-2	Illustrative ECO Pass Pricing Structure.....	8-3
Figure 8-3	Recommended Fare Products and Pricing	8-6
Figure 8-4	Recommended Fixed-Route Fare Structure Annual Ridership and Revenue Impact Summary	8-7
Figure 8-5	Recommended Fixed-Route Fare Structure Annual Ridership and Revenue Impacts (Actual Change).....	8-7
Figure 8-6	Recommended Fixed-Route Fare Structure Annual Ridership and Revenue Impacts (Percent Change)	8-7
Figure 8-7	Fare Recommendations Summary.....	8-8

1 INTRODUCTION

The Livermore Amador Valley Transit Authority (LAVTA) fare study is a comprehensive evaluation of LAVTA's existing fare structures and policies. The study offers an in-depth analysis of the current fare program, peer review of LAVTA's fare policies with other agencies, and evaluation of potential future fare alternatives. The fare study was conducted as part of LAVTA's Comprehensive Operations Analysis (COA), which aims to improve the effectiveness and efficiency of the existing LAVTA Wheels service as well as provide a roadmap for future service investments.

GOALS AND OBJECTIVES

A comprehensive evaluation of LAVTA's existing fare structures and policies is opportune in light of this year's Clipper implementation, as well as the current COA study. Goals for the fare study include:

- **Reviewing current fare pricing for different fare categories.** Operating costs are increasing, while fares have remained the same for six years. A fresh look at fare structures and policies is worthwhile.
- **Determining distribution of ridership and utilization by fare category.** A clear understanding of how current transit riders are using the system by fare media is paramount to enhancing the transit experience.
- **Aligning fare policies with Clipper's fare policy.** With the implementation of Clipper to LAVTA and the East Bay transit group, there are opportunities to align policies with other major transit agencies to make transit in the Bay Area easier and more convenient for all riders.
- **Studying current pass programs and evaluating pass and transfer policies, including inter-operator transfers.** Opportunities exist to improve upon existing programs and policies.

These goals are used as a reference throughout the project and are key factors in the development of fare structure scenarios and policy recommendations.

2 SERVICE OVERVIEW

As of FY 2018, the LAVTA Wheels current fixed-route bus system includes a network of 14 routes serving the Dublin, Pleasanton, and Livermore area. Routes operate with headways ranging from 15 minutes to 60 minutes depending on the day and time period. Seven routes provide all day service and operate on weekends. Some routes operate only during peak times, while others operate from 4:30 a.m. to 1:00 a.m. LAVTA also operates 15 school-focused routes and Dial-A-Ride service in compliance with the Americans with Disabilities Act (ADA).

Service frequencies and spans for each route are shown in Figure 2-1, and Figure 2-2 shows LAVTA's systemwide routes effective as of February 12, 2018.

Figure 2-3 shows the service network with connecting agency routes as of FY 2016. Service is strongly oriented toward connections to BART service, including providing connections to the East and West Dublin/Pleasanton stations. Several routes also serve Altamont Corridor Express (ACE) stations, providing rail connections all the way to San Jose to the south and Stockton to the northeast. Several County Connection bus routes also serve the LAVTA service area in Dublin and Pleasanton, while LAVTA Route 70X serve Walnut Creek BART and Pleasant Hill BART in Contra Costa County.

Route Categories

LAVTA's categories of routes as of FY 2018 are as follows:

- **Rapid:** *Route 10R and 30R. Rapid routes operate every 15 minutes on weekdays with timed connections to BART.*
- **Express:** *Route 20X, 70X, 580X. Regional Express service operates at 30-minute headways during peak periods. This is specifically a peak hours-only service to connect people to multiple BART stations in the service area.*
- **Local:** *Route 1, 2, 3, 8, 9, 11, 14, 15, 51, 53, and 54. Local routes serve smaller geographic areas and may operate with limited spans of service, with the exception of route 15, which operates regularly throughout the day.*
- **School:** *Route 501, 502, 503, 504, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611. School routes operate Monday through Friday and are intended to help area students get to and from school. Service is always open to the general public.*

SERVICE CHANGES

LAVTA implemented service changes between 2016-2018, the most recent effective on February 12, 2018.

FY 2016 Changes

- Route and schedule changes to majority of routes
- Elimination of Routes 8A, 8B, 9, 12, 12X, 51, 70XV, 401, 402, and 403
- Conversion of Route 10 to Route 10R, a new Rapid service
- Addition of Route 505

FY 2017 Changes

- Running time modifications to multiple routes
- Route 1 midday frequency increase route extension to the new East County Hall of Justice
- Route 14 un-interlined from Route 1 and increases to Route 14 base frequency
- Added overflow capacity, modified alignment, and added trips to multiple school tripper routes
- Extended alignment and added PM trip on two Pleasanton School Tripper routes

Student Pass Pilot Program

In FY 2017, LAVTA incorporated four new student transit passes as part of a pilot program to allow students at selected schools to ride Wheels for free, including the following:

- **Livermore Valley Charter Prep (LVCP):** LVCP's new High School Campus opened in August 2016 and is located on North Canyons in Livermore (on the new 30R). All LVCP students are able to ride Wheels by flashing their ID card when boarding the bus.
- **Las Positas College:** All students enrolled at Las Positas College are able to ride Wheels for free by flashing their student ID.
- **Livermore High School:** Some Livermore High School Students also have a bus pass. Those who have the pass have a sticker on their ID card that changes color each semester. For the fall semester, the sticker is Red with an expiration date 12/2016. Students flash their ID card when boarding the bus. If there is no sticker, they need to pay for their trip.
- **East Avenue Middle School:** Some East Avenue Middle School Students also have a bus pass. Similar to Livermore High School, those who have the pass have a sticker on their ID card that changes color each semester. Students flash their ID card when boarding the bus; if there is no sticker, they need to pay for their trip.

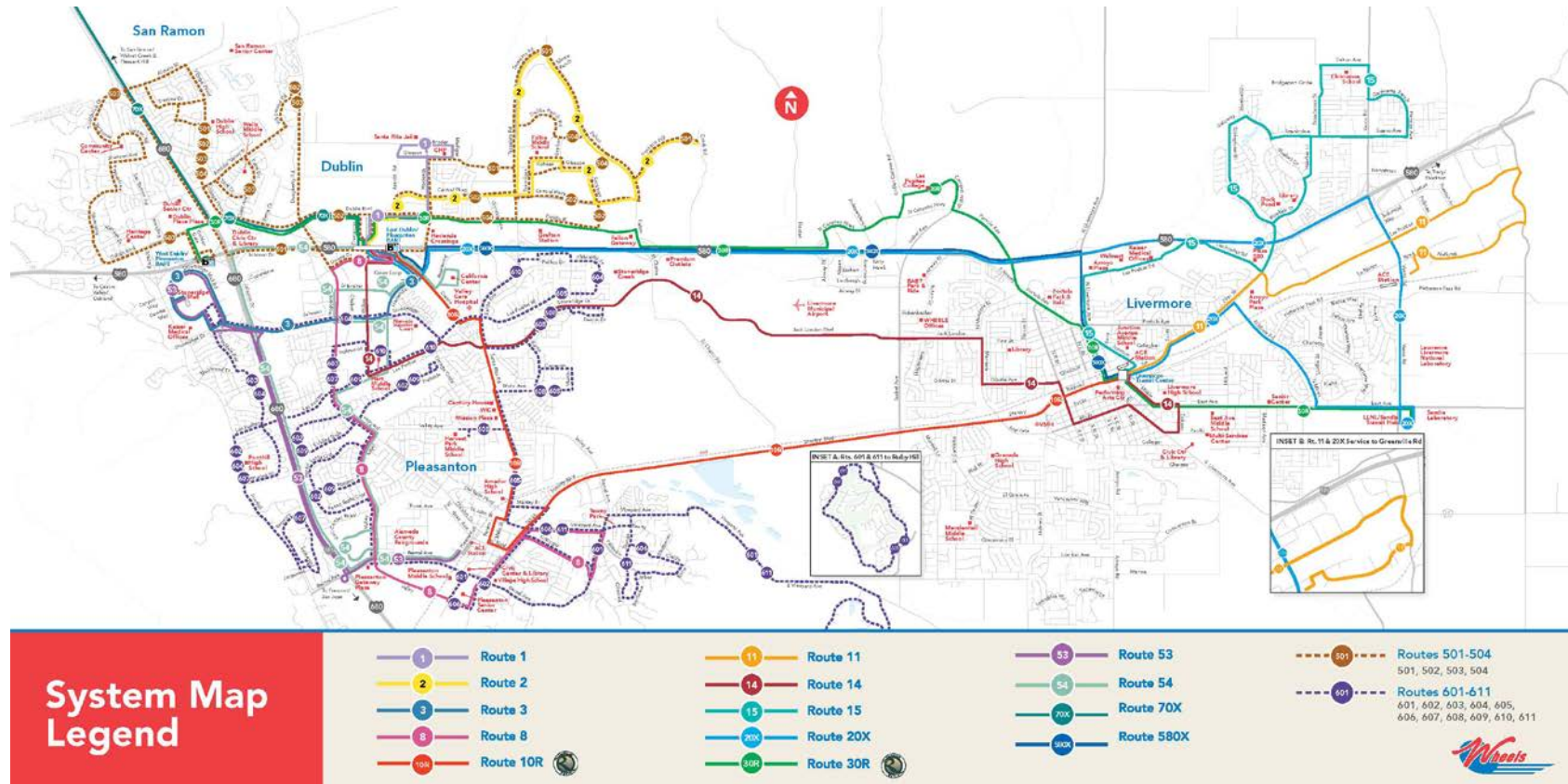
LAVTA COA | FARE STUDY
Livermore Amador Valley Transit Authority

Figure 2-1 Frequency and Span of Service by Route (Effective February 12, 2018)

Route	Frequency of Service					Span of Service		
	AM	Midday	PM	Saturday	Sunday	Weekday	Saturday	Sunday
Route 1	30	30	30	30	30	6:03 a.m. – 8:33 p.m.	7:40 a.m. – 8:40 p.m.	7:40 a.m. – 8:40 p.m.
Route 2	60	-	60	-	-	6:18 a.m. – 8:33 a.m. 3:21 p.m. – 6:33 p.m.	-	-
Route 3	30	30	30-60	40-60	40-60	6:35 a.m. – 12:41 a.m.	8:22 a.m. – 12:40 a.m.	8:22 a.m. – 12:40 a.m.
Route 8	30	60	30	60	60	6:03 a.m. – 8:03 a.m.	8:02 a.m. – 8:02 p.m.	8:02 a.m. – 8:02 p.m.
Route 10R	15	15	15-60	30-60	30-60	4:33 a.m. – 1:09 a.m.	6:02 a.m. – 1:08 a.m.	6:02 a.m. – 1:08 a.m.
Route 11	45-60	-	60	-	-	6:08 a.m. – 8:32 a.m. 4:08 p.m. – 6:34 p.m.	-	-
Route 14	30	45-60	30	-	-	6:23 a.m. – 9:23 p.m.	7:51 a.m. – 9:02 a.m.	7:51 a.m. – 9:02 a.m.
Route 15	30	30	30-60	60	60	5:08 a.m. – 10:43 p.m.	5:49 a.m. – 8:49 p.m.	5:49 a.m. – 8:49 p.m.
Route 20X	60	-	60	-	-	7:33 a.m. – 8:33 a.m. 4:43 p.m. – 5:43 p.m.	-	-
Route 30R	15-30	15	15-60	30-60	30-60	5:02 a.m. – 11:45 p.m.	5:09 a.m. – 11:49 p.m.	5:09 a.m. – 11:49 p.m.
Route 51	-	-	30	-	-	3:12 p.m. – 6:57 p.m.	-	-
Route 53	25-60	-	60	-	-	5:33 a.m. – 8:26 a.m. 3:55 p.m. – 6:39 p.m.	-	-
Route 54	60	-	60	-	-	6:51 a.m. – 7:56 a.m. 3:48 p.m. – 5:18 p.m.	-	-
Route 70X	30	-	30			5:43 a.m. – 7:33 a.m. 4:03 p.m. – 6:33 p.m.	-	-
Route 580X	30-60	-	30-60	-	-	5:59 a.m. – 7:03 p.m.	-	-

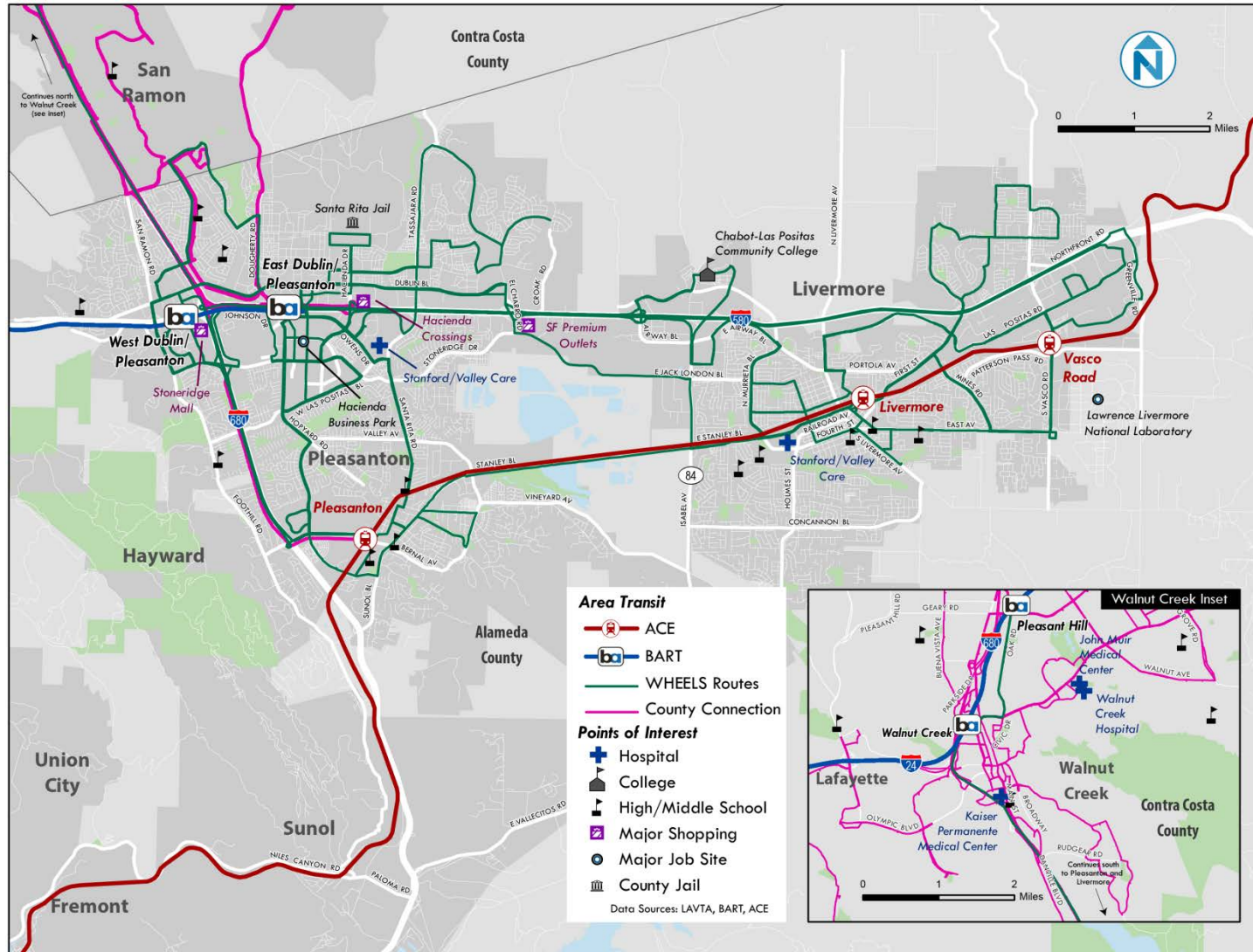
LAVTA COA | FARE STUDY
Livermore Amador Valley Transit Authority

Figure 2-2 System Map (Effective February 12, 2018)



LAVTA COA | FARE STUDY
Livermore Amador Valley Transit Authority

Figure 2-3 LAVTA Service Area Transit Service (FY 2016)



3 EXISTING FARE STRUCTURE

FARE CATEGORIES

There are six main categories for Wheels fare products: adult, youth, children, senior citizens or disabled persons, Americans with Disabilities Act (ADA) certified persons for paratransit, and eligible employees and family members. Each is described below:

Adult

Adult fares are a full-fare category and do not require any additional identification beyond valid fare payment.

Youth

While LAVTA lists a youth fare for passengers between the ages of 6 and 18 as part of the overall fare structure, the fare is the same as the fare for adults and does not require additional identification beyond valid payment.

Children

Children under the age of 6 ride free with a paying adult.

Senior Citizens/Disabled Persons

Discounted fares are available to seniors (ages 65 and older), disabled persons, and Medicare recipients. To qualify for the Senior/Disabled fare, passengers must present one of the following:

- Valid Medicare card. Photo identification must be shown.
- DMV disabled license plate registration
- DMV disabled parking placard printout
- Regional Transit Connection (RTC) discount card, which allows reduced fare rides across all Bay Area transport systems. Individuals must apply to a central office for review. If eligible and application is approved, participants receive a RTC photo ID card within 21 days. The Bay Area Partnership Transit Coordination Committee (PTCC) administers the program.

ADA-Certified Persons for Paratransit

Wheels offers a Dial-A-Ride service that provides accessible door-to-door paratransit service for people with disabilities in Livermore, Dublin, Pleasanton, and surrounding unincorporated areas of Alameda County. The service is available wherever and whenever fixed-route service is

operating. As an exception, service is also provided to and from the San Ramon Medical Center if one end of the trip is in Livermore, Dublin, or Pleasanton.

A person must be eligible for paratransit under ADA to be eligible for Wheels Dial-A-Ride. A person can be found to be ADA paratransit eligible for some or all of their transit trips depending on the individual's specific condition(s). The guiding principle for paratransit eligibility is the inability to independently use the fixed-route transit due to a disability or health-related condition. Individuals must fill out an application with Wheels, and processing of eligibility occurs within 21 days. Once the individual is ADA-certified, the person may then reserve a paratransit trip one to seven days before the ride is needed.

Eligible Employees and Family Members

LAVTA employees and contract employees, as well as eligible family members and dependents, are granted free rides on Wheels through a picture identification card and annual sticker showing eligibility. Picture IDs are issued upon date of hire for a period not to exceed one year. Annual stickers are issued to each employee and eligible dependent at the beginning of each fiscal year, which is July 1. In addition to LAVTA staff and dependents and contractor staff, Board Members and their dependents are eligible for an ID. Contractor dependents are not eligible for an ID until 90 days after the employee's hire date. Retirees of the agency are not eligible for the ID.¹

Eligible family member or dependent is defined as a person who is claimed by the employee on their tax return, or a person who is covered on the employee's health benefits. If no tax return is filed and the employee does not elect health benefits, then a notarized statement documenting a dependent would be required.

Dial-A-Ride trips are free for LAVTA and contracted employees who are also eligible for participation in the ADA Paratransit program. These trips must be work related, and dependents are not eligible for complementary Dial-A-Ride trips.

¹ Resolution No. 27-2015, "A Resolution for the Board of Directors of the Livermore Amador Valley Transit Authority Updating the Consolidated Fare Schedules and Transfer Agreements for Passengers."

FARE PRODUCTS

Wheels offers several fare products by category. Figure 3-1 summarizes key products for single rides, passes, and paratransit. A detailed description of fare products, fare changes, and Clipper Card integration follows below.

Figure 3-1 Wheels Fare Products

Fixed Route Single Ride Products	Fare
Adults	\$2.00
Youths 6 years and over	\$2.00
Senior citizens age 65 and over	\$1.00
Disabled Persons or Americans with Disabilities Act (ADA) Certified persons (with RTC Card)	\$1.00
Children under age 6 when accompanied by a fare paying passenger	FREE
Eligible employees and family members/dependents with applicable ID	FREE
Fixed Route Pass Products	Fare
FareBuster 10-ride tickets (Adults and Youths aged 6 through 18 Monthly 10 Ride Book/Script)	\$16.00
East Bay Monthly Pass (Regular Monthly (Calendar) Unlimited Rides Pass)	\$60.00
Senior Monthly Pass (Senior Citizens Monthly (Calendar) Unlimited Rides Pass)	\$18.00
Disabled Monthly Pass (Disabled Persons Monthly (Calendar) Unlimited Rides Pass)	\$18.00
Dial-A-Ride Paratransit	Fare
Cash fare	\$3.50
Companions accompanying passenger	\$3.50
Dial-A-Ride 10 tickets	\$35.00
Personal Care Attendants (PCA) traveling with fare paying passenger	FREE

Source: LAVTA and Resolution No. 27-2015, "A Resolution for the Board of Directors of the Livermore Amador Valley Transit Authority Updating the Consolidated Fare Schedules and Transfer Agreements for Passengers"

Single Rides

Single-ride cash fares are \$2 for adults or youth, and \$1 for senior citizens or disabled persons. Children under age 6 and eligible employees and family members can ride for free. Figure 3-2 summarizes single ride fares for fixed route service, and Figure 3-3 shows examples of special one-way ride tickets.

Figure 3-2 Single Ride Fares

Single Ride Products	Fare
Adults	\$2.00
Youths between ages 6 and 18	\$2.00
Senior Citizens age 65 and over	\$1.00
Disabled Persons or Americans with Disabilities Act (ADA) Certified persons (with RTC Card)	\$1.00
Children under age 6 when accompanied by a fare paying passenger	FREE
Eligible employees and family members/dependents with applicable ID	FREE

Source: Resolution No. 27-2015, "A Resolution for the Board of Directors of the Livermore Amador Valley Transit Authority Updating the Consolidated Fare Schedules and Transfer Agreements for Passengers"

Figure 3-3 One-Way Ride Tickets

Senior/Disabled Ticket	Promotional Ticket	FareBuster Ticket
		
<ul style="list-style-type: none"> ▪ \$1 ticket used by seniors or disabled, used with proof of age or disability ▪ Not valid on Dial-A-Ride 	<ul style="list-style-type: none"> ▪ "Free Ride" Tickets are given as a courtesy for complaints and marketing campaigns ▪ Rides must be used prior to expiration date stamped in the middle. 	<ul style="list-style-type: none"> ▪ Example of individual FareBuster ticket bought in a ride book/script

Source: LAVTA (2016)

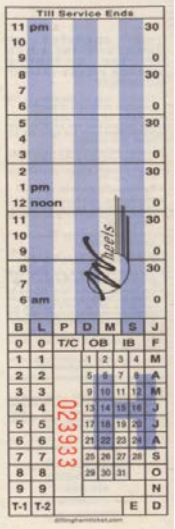
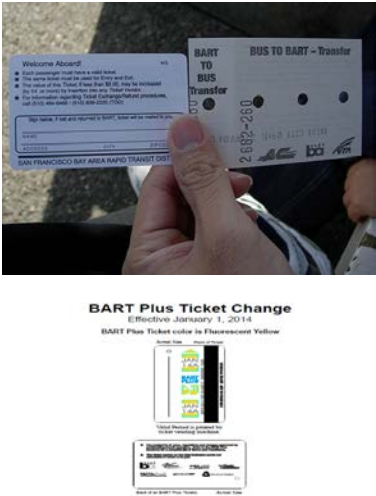

Transfers

There are more than two dozen transit agencies that serve the San Francisco Bay Area. As such, several trips that begin or end with Wheels may require transfers. The following agencies have reciprocal agreements with LAVTA:

- **City of Pleasanton, Downtown Pleasanton Route (DTR).** Transfer to and from Wheels is free.
- **County Connection (CCCTA).** Transfer to and from Wheels is free within a two hour period of boarding.
- **San Joaquin Regional Rail Commission (SJRRRC) aka Altamont Corridor Express (ACE).** Transfer to Wheels is free. No discount is available from Wheels service.
- **Bay Area Rapid Transit (BART).** \$1 transfer from BART to Wheels. No discount is available from Wheels service.
- **East Bay Paratransit.** Free interagency paratransit transfers to Wheels service. Free interagency paratransit transfers are not available from Wheels service.
- **County Connection Links.** Free interagency paratransit transfers to and from Wheels.

Transfers among different Wheels routes are also free within two hours from the time of fare payment. With the integration of Clipper—the Bay Area’s transit smart card—on Wheels service and other East Bay providers, transfers are expected to be easier and more seamless for the rider. With a Clipper card, only one transfer will be allowed within a two-hour window. Figure 3-4 provides more detail about local transfers.

Figure 3-4 Wheels Transfers

County Connection	BART	ACE
 <p>THIS TRANSFER IS SUBJECT TO THE RULES OF THE LIVERMORE AMADOR VALLEY TRANSIT AUTHORITY</p> <ul style="list-style-type: none"> Transfers must be requested by the passenger at the time of boarding. Transfers will be honored only on the day issued and are valid on any Wheels fixed route bus within two (2) hours after boarding. Wheels accepts County Connection transfers with no additional fare. BART transfers require an additional \$1.00 fare. No transfers to the BART system. Transfers are void if improperly used, and will not be accepted if ripped, mutilated, torn or if the information is not readable. Transfers may not be shared with another passenger. <p>Política de Tráspados</p> <ul style="list-style-type: none"> Los tráspados deben ser solicitados por el pasajero al abordar el autobús. Los tráspados son sólo válidos el día en que fueron y son aceptados en cualquiera de las rutas fijas de los autobuses Wheels durante dos (2) horas después de abordar el autobús. Wheels acepta tráspados de County Connection y no cobra una tarifa adicional. Los tráspados de BART requieren una tarifa de \$1.00 adicionales. No hay tráspados hacia el sistema de BART. Los tráspados serán anulados si se usan incorrectamente. Los tráspados no serán aceptados si están arrugados, mutilados o rotos o si no se puede leer la información. Los tráspados no pueden ser compartidos con otro pasajero. <p>THANK YOU FOR RIDING WHEELS 455-7500 www.wheelsbus.com dl@hghumoticket.com</p>	 <p>BART TO BUSES Transfer 2.682-260</p> <p>BART Plus Ticket Change Effective January 1, 2014 BART Plus Ticket color is Fluorescent Yellow</p>	
<ul style="list-style-type: none"> Free transfer to and from County Connection Transfers are given only when paid fare has been received. Transfers may be retained for a two-hour window. When two hours has expired, another fare must be paid to ride. Transfers are not given to yearly or monthly pass holders, only to East Bay Value monthly pass holders. 	<ul style="list-style-type: none"> \$1 transfer from BART to Wheels May be obtained at vending machines at foot of escalators at BART stations 	<ul style="list-style-type: none"> Free transfer from ACE to Wheels ACE tickets come in variety of colors and corridor pricings. ACE tickets must be validated in order to transfer to Wheels. Ticket validating machines are located at all ACE stations. Tickets are only valid for current day and are accepted as general fare.

Source: LAVTA (2016)

Pass Products

LAVTA offers numerous transit pass options including multiple-ride and unlimited-ride products. Figure 3-5 summarizes current paper pass products through FY 2016 and future pass products available with the integration of Clipper. Figure 3-6 provides additional details on current paper pass offerings.

Figure 3-5 Pass Products Summary

	Pass Products	Fare
Paper Passes	FareBuster 10-ride tickets (Adults and Youths aged 6 through 18 Monthly 10 Ride Book/Script)	\$16.00
	East Bay Monthly Pass (Regular Monthly (Calendar) Unlimited Rides Pass)	\$60.00
	Senior Monthly Pass (Senior Citizens Monthly (Calendar) Unlimited Rides Pass)	\$18.00
	Disabled Monthly Pass (Disabled Persons Monthly (Calendar) Unlimited Rides Pass)	\$18.00
Clipper Card passes	Regular Monthly (Rolling 31 Day) Unlimited Rides Pass	\$60.00
	Senior Citizens Monthly (Rolling 31 Day) Unlimited Rides Pass	\$18.00
	Disabled Persons Monthly (Rolling 31 Day) Unlimited Rides Pass	\$18.00
	Day Pass Accumulator Regular	\$3.75
	Day Pass Accumulator Senior/Disabled	\$1.75

Source: Resolution No. 27-2015, "A Resolution for the Board of Directors of the Livermore Amador Valley Transit Authority Updating the Consolidated Fare Schedules and Transfer Agreements for Passengers"




In addition to official pass products offered by LAVTA and Clipper, LAVTA accepts BART Plus² tickets, BART's "flash pass" for area transit operators. The BART Plus ticket is good on BART, Wheels, County Connection, Rio Vista Delta Breeze, Tri Delta Transit, Union City Transit, and WestCAT. The BART Plus ticket comes in eight different denominations, and includes stored BART value along with unlimited local bus rides for the various agencies. BART Plus tickets range from \$43 to \$76, with stored BART values ranging from \$15 to \$50.

The BART Plus ticket works in the BART fare gate like a regular ticket and is valid for a half month period as a "flash pass" to bus operators, where ticket holders are granted unlimited local bus rides during a half month period. BART Plus ticket Part A covers the first half of the month (21st to 5th of the month), while Part B covers the second half of the month (6th to 20th of the month).

The BART Plus ticket is valid on all Wheels routes. Restrictions may apply for the other agencies. BART Plus tickets may only be purchased from ticket vending machines at the following BART stations: Concord, Dublin/Pleasanton, El Cerrito del Norte, Lafayette, North Concord, Orinda, Pittsburg/Bay Point, Pleasant Hill, Union City, Walnut Creek, and West Dublin/Pleasanton.

² BART Plus was eliminated on Dec 31, 2015

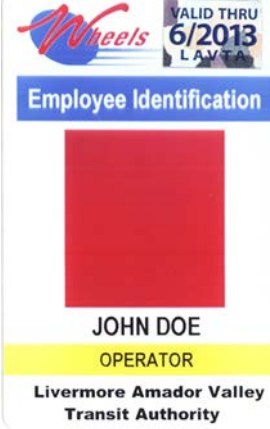
Figure 3-6 Paper Passes – Monthly Unlimited Ride Passes

East Bay Monthly Pass	Senior Monthly Pass	Disabled Monthly Pass
 <p>The East Bay Value Pass is a green and blue pass. It features the 'EAST BAY' logo, 'Wheels' logo, 'The County Connection' logo, 'TRI DELTA TRANSIT' logo, and 'WESTCAT' logo. It includes a calendar grid for months JAN through DEC and years 2009, 2010, and 2011.</p>	 <p>The Senior Monthly Pass is a blue and white pass. It features the 'Wheels' logo, 'SENIOR MONTHLY PASS' text, a bus image, and a calendar grid for months JAN through DEC and years 2008, 2009, and 2010. The pass number 001400 is visible.</p>	 <p>The Disabled Monthly Pass is a red and white pass. It features the 'Wheels' logo, 'DISABLED MONTHLY PASS' text, a bus image, and a calendar grid for months JAN through DEC and years 2008, 2009, and 2010. The pass number 001000 is visible.</p>
<ul style="list-style-type: none"> ▪ \$60 ▪ Pass is used for general fare. ▪ Pass can be used on all East Bay group agencies – Wheels, County Connection, Tri Delta Transit, and WestCat. ▪ Pass must have the correct month and year punched, and is invalid if punched more than twice. ▪ Pass is valid from 1st of the current month until end of month 	<ul style="list-style-type: none"> ▪ \$18 ▪ Must be 65 years or older ▪ Pass must have the correct month and year punched, and is invalid if punched more than twice. ▪ Pass is valid from 1st of the current month until end of month ▪ 3-day grace period is given to purchase a new pass 	<ul style="list-style-type: none"> ▪ \$18 ▪ Must show proof of disability to use (Dial-A-Ride ID card, RTC card, physician's letter, DMV placard, etc.) ▪ Pass must have the correct month and year punched, and is invalid if punched more than twice. ▪ Pass is valid from 1st of the current month until end of month ▪ 3-day grace period is given to purchase a new pass

Source: LAVTA (2016)

In addition to the pass products offered to the public, LAVTA offers annual unlimited ride passes to eligible employees and family members. Employees of LAVTA and MV Transportation, which operates the fixed-route services, receive unlimited rides. Additionally, members of the Wheels Accessible Advisory Committee (WAAC) and the Ambassador Program receive a pass. Figure 3-7 shows the annual unlimited ride passes issued to eligible employees and members.

Figure 3-7 Annual Unlimited Ride Passes

MV/LAVTA Pass	WAAC/Ambassador Pass
 <p>The image shows an employee identification pass for John Doe. At the top left is the 'Wheels' logo. To its right is a small rectangular sticker that says 'VALID THRU 6/2013' and 'LAVTA'. Below the logo is a blue box with the text 'Employee Identification'. Underneath that is a large red square, presumably a placeholder for a photo. Below the red square, the name 'JOHN DOE' is printed in bold, followed by 'OPERATOR' on a yellow background. At the bottom, it says 'Livermore Amador Valley Transit Authority'.</p>	 <p>The image shows a WAAC member pass for Jane Doe. It features the 'Wheels' logo on the left. To the right of the logo is a red box with the text 'WAAC MEMBER'. Below the logo is a photo of Jane Doe. To the right of the photo, the name 'JANE DOE' is printed. Below the photo is a blue box with the text 'Expiration Date: 06/30/2011'. At the bottom left of the pass is the number '01000126'.</p>

Source: LAVTA (2015)

Dial-a-Ride Paratransit Service

LAVTA offers Wheels Dial-A-Ride, a door-to-door shared ride transportation service for ADA paratransit eligible passengers. Dial-A-Ride service operates during the same days and hours as Wheels fixed route service—weekdays from 4:30 a.m. to 1:30 a.m. and weekends from 5:00 a.m. to 1:30 a.m. Figure 3-8 details fares for paratransit rides.

Figure 3-8 Dial-A-Ride Paratransit Fares

Dial-A-Ride Paratransit	Fare
Cash fare	\$3.50
Companions accompanying passenger	\$3.50
Dial-A-Ride 10 tickets	\$35.00
Inbound (Wheels receiving) interagency transfers from County Connection Links or East Bay Paratransit	FREE
Personal Care Attendants (PCA) traveling with fare paying passenger	FREE

Source: LAVTA (2016)

Customers may reserve a ride one to seven days before the ride is needed. Reservations are taken seven days a week from 8:30 a.m. to 5:00 p.m. Passengers are given an approximate 30-minute pick-up window time. For repeated trips, passengers may set a standing order, which is an ongoing reservation for a trip that has the same starting and ending location and the same pick-up day and time.

Wheels Dial-A-Ride coordinates trips with East Bay Paratransit and County Connection LINK. The designated transfer point between Dial-A-Ride and neighboring paratransit services is the East Dublin/Pleasanton BART station. When Dial-A-Ride receives a passenger from East Bay Paratransit or County Connection LINK, a fare is not collected for the second part of the trip.

Fare Changes

Fares have not changed in approximately six years, while operating costs are increasing. The implementation of Clipper on Wheels and the East Bay group in 2015 accounts for the most significant fare change in recent history. Most notably, LAVTA is introducing the day pass accumulator, a new fare media that is only available through the use of the Clipper card. LAVTA currently does not have a day pass, unlike its peers WestCat and Tri Delta. Current fareboxes on Wheels do not have the ability to print day passes.

The Clipper Day Pass Accumulator acts as an unlimited day pass, where Wheels riders pay a maximum of \$3.75 per day. For example, riders who ride on Wheels and use Clipper would get \$2 deducted on their first trip. On their return trip, they would get \$1.75 deducted instead of \$2 regular fare because the maximum of \$3.75 has been reached. In other words, adult and youth passengers may make unlimited local bus trips for \$3.75 per day; seniors and disabled passengers pay a maximum of \$1.75 per day.

Fare Distribution

Fare media is distributed throughout the Wheels service area. Figure 3-9 details current locations where different fare media are sold.

As of November 2015, Clipper is sold at Wheels Administrative Offices, Livermore Transit Center, Whole Foods in Dublin (5200 Dublin Boulevard), Walgreens in Livermore (1620 First Street), Walgreens in Pleasanton (1763 Santa Rita Road), and BART stations in the LAVTA service area. Clipper can also be purchased at many retail locations in the Bay Area, as well as online.

Figure 3-9 Fare Media Outlets

	Location	FareBuster	East Bay Value Pass	Senior Monthly Pass	Disabled Monthly Pass	Senior/Disabled Single Ticket	Dial-A-Ride Ticket
D u b l i n	Safeway Market (7499 Dublin Boulevard)	X	X	X	X		X
	Safeway Market (4440 Tassajara Road)	X	X	X	X		
	Wells Middle School (6800 Penn Street)	X					
L i v e r m o r e	Wheels Administrative Offices (1362 Rutan Drive, Ste 100)	X	X	X	X	X	X
	Livermore Transit Center (2500 Railroad Avenue)	X	X	X	X	X	X
	Contreras Market (861 Rincon Avenue)	X					
	Hidalgo Little Market (106 North K Street)	X					
	Lucky Market (2000 Portola Avenue)	X	X				
	Las Positas College Book Store	X					
	Livermore City Hall (1110 S Livermore Avenue)	X	X	X	X		
	Livermore Senior Center (inside the Community Center; 4444 East Avenue)						X
	Safeway Market (Livermore Arcade Shopping Center, 1554 First Street)	X	X	X	X		
	Safeway Market Place (4495 First Street)	X		X	X		
P l e a s a n t o n	Lucky Market (Las Positas Boulevard/Hopyard Road)	X	X				
	Pleasanton Senior Center (5353 Sunol Boulevard)	X	X	X	X	X	X
	Safeway Market (1701 Santa Rita Road)	X	X	X	X		
	Safeway Market (6790 Bernal Avenue)	X	X	X	X		

Source: Wheels Ticket Outlets <http://www.wheelsbus.com/index.aspx?page=55>; accessed October 9, 2015.

Fare Programs and Promotions

ECO Pass³

An ECO Pass is offered to employees within the Hacienda Business Park, or residents who live in one of the Hacienda residential communities (Anton Hacienda, Avila, Park Hacienda, Siena, or Verona). The ECO Pass is issued as an annual flash pass sticker and valid for unlimited rides on Wheels service. Photo identification for verification may be required.

Established in 1989 and funded by Hacienda, the ECO Pass represents an excellent longstanding public-private partnership. In 2015, Wheels Bus and Hacienda recognized more than 5 million passenger trips utilizing the free ECO Pass program.

Ambassador Program⁴

Since 2007, LAVTA offers an “Ambassador Program” to train helpers to assist others in learning how to travel and understand the routes, maps, and all fixed route service on Wheels. Trainers help promote public transit and support other passengers, giving them the best travel options to suit their needs. The Ambassador Program recruits two high school students from each Dublin, Pleasanton, and Livermore high school, and targets helping students navigate the Wheels system.

Participants attend a minimum two hour classroom training, two hours of onboard training, and one hour of staff observation at the transit center. Ambassadors work with at least 8 new riders each year, and spend at least one hour a month on board buses talking to passengers and offering assistance. In return for the service, ambassadors are granted a yearly pass valued at \$720.

Class Program⁵

LAVTA offers a Wheels class pass program, which offers a free bus ride for up to 25 passengers, including children, teachers, and adult supervisors from a school to any Tri-Valley destinations that Wheels currently serves. Teachers may request up to two (2) class passes per school year.

Try Transit to School Promotion⁶

Since 2000, Wheels offers a special promotion during the beginning of the school year to encourage middle and high school students to ride transit. The “Try Transit to School” promotion ran September 7-18 in 2015 and allowed students to ride Wheels to and from school and other destinations for free. During the promotion, Wheels carried approximately 400 more students per day on their school routes, for a total daily ridership of 1,600 students.

³ Details about the Hacienda Business Park and ECO Pass program eligibility available online: <http://www.hacienda.org/form/details/wheels%20eco%20pass>; accessed October 12, 2015.

⁴ Ambassador program overview and application available online: <http://wheelsbus.com/index.aspx?page=267>; accessed October 12, 2015.

⁵ Resolution No. 27-2015, “A Resolution for the Board of Directors of the Livermore Amador Valley Transit Authority Updating the Consolidated Fare Schedules and Transfer Agreements for Passengers.”

⁶ Try Transit to School Promotion information available online: <http://wheelsbus.com/index.aspx?recordid=243&page=33>; accessed October 12, 2015.

FARE TECHNOLOGY

Fareboxes

LAVTA currently uses the SPX Genfare GFI CENTSaBill farebox. In the future, LAVTA is looking at updating its fareboxes to have both a magnetic TRiM reader and WiFi.

Clipper Card Integration

Public transit in the San Francisco Bay Area is arguably the most complex in the United States, with more than two dozen unique transit agencies serving the area. Clipper is the all-in-one transit smart card that allows ease of payment and supports transfers across multiple Bay Area agencies. Clipper is overseen and sponsored by Metropolitan Transportation Commission (MTC), the Bay Area's metropolitan planning organization. First introduced as Translink in 2002, Clipper was rebranded to its current form in 2010. Implementation rolled out beginning with the largest Bay Area transit agencies—BART, Muni, AC Transit, SamTrans, Caltrain, Golden Gate Transit, and VTA. As of early 2015, Clipper is available at 13 agencies and can be used to pay for parking in select San Francisco garages.

To become integrated into the Clipper program, transit agencies execute a Memorandum of Understanding (MOU) outlining roles and responsibilities. MTC is responsible for centralized planning, contracting with the vendor (Cubic), initial capital costs of equipment, and maintenance of data. Transit agencies are responsible for coordinating with MTC and Cubic, and paying a share of operating expenses based on share of revenue and transactions handled.

In March 2014, MTC's Operations Committee approved expanding Clipper to the East Bay Group, which includes LAVTA, County Connection, Tri Delta, and WestCAT by the end of 2015. By Spring of 2016, Clipper will expand to Santa Rosa City Bus, Sonoma County Transit, Cloverdale Transit, Petaluma Transit, and Healdsburg Transit in Sonoma County.⁷

The East Bay group will issue reports and handle revenue disbursements and expenses as one agency. LAVTA's role among the four agencies will be to act as Treasurer. LAVTA is responsible for receiving financial information, paying MTC's invoice, and distributing Clipper revenues on behalf of the four agencies. County Connection is the lead on IT infrastructure and equipment installation. WestCat represents the East Bay group in the Planning Committee, Tri Delta represents the group in the Steering Committee, and County Connection represents the group in the Executive Committee.⁸

Clipper has long been requested by riders, so the implementation of this technology on Wheels service will be an added value. Clipper will allow LAVTA to reduce future printing costs and avoid continued printing of monthly passes, FareBuster tickets, senior/disabled passes, and similar fare media. Clipper is also expected to reduce fare evasion on the system.

⁷ Metropolitan Transportation Commission's Clipper Information Page. <http://www.mtc.ca.gov/services/clipper/>

⁸ LAVTA Staff Report from March 25, 2014 to approve the Clipper MOU and authorize the Executive Director to sign it.

4 REVENUE AND RIDERSHIP TRENDS

PERFORMANCE TRENDS

Figure 4-1 shows performance trends from 2012-2017 using data available from the National Transit Database (NTD). Figures 4-2 to 4-7 visually display this data to show service level, ridership, fare, and cost trends. Analysis of this data reveals a couple important trends for LAVTA's fixed-route service:

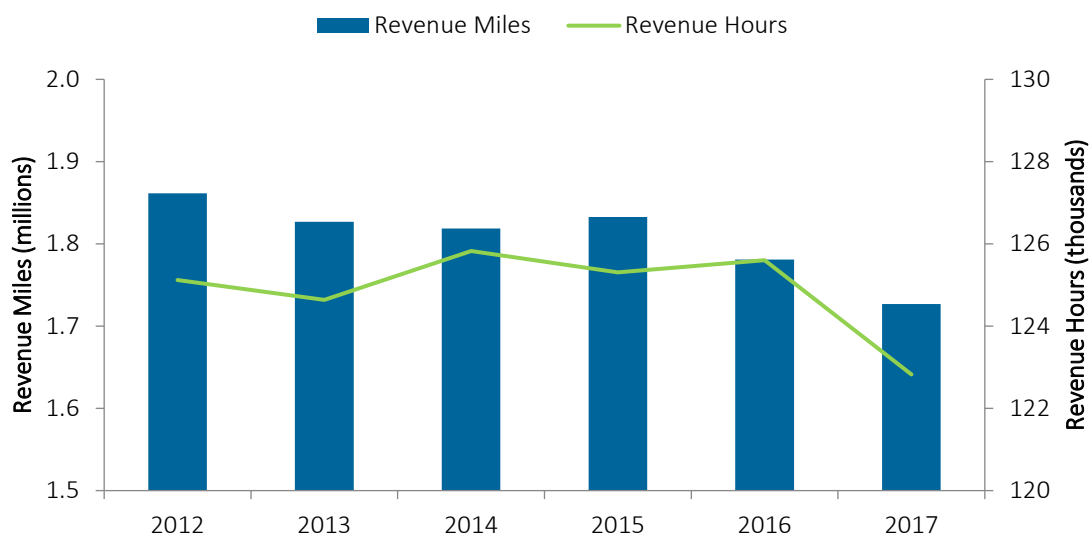
- **Declining ridership:** Total passenger trips declined from 1.75 million in 2012 to 1.54 million in 2017, a decline of about 12%. Passenger trips declined most dramatically from 2016 to 2017. Passenger boardings per revenue hour, a measure of service efficiency, declined by 11% in the same time period, from 14 trips to 12.5 trips per hour.
- **Increasing operating costs per passenger trip:** Farebox recovery has fluctuated over the 2012-2017 period. Operating expense per passenger trip rose to \$8.88 in 2017 from \$7.20 in 2013, an increase of 23%. Similarly, the subsidy per passenger trip has also increased, from an average of \$6.03 in 2013 to \$7.52 in 2017.
- **Restoring revenue hours, miles, and ridership:** In 2010, when transit systems across the country were slashing service because of funding shortfalls surrounding the economic recession, LAVTA cut 27% of its revenue vehicle hours and 26% of its revenue miles from 2009 levels. This decrease in service amounted to a drop in operating costs of only 12.7%. As the economy improved, LAVTA restored its revenue hours and revenue miles to previous levels. However, ridership levels have not been restored to the same levels as in 2008 and continues to decline into 2017. Additionally, despite the significant amount of hours allocated to Rapid service, ridership has not picked up as quickly as expected.

Figure 4-1 LAVTA Fixed-Route Transit Performance Data 2013-2017

Performance Data							
	2012	2013	2014	2015	2016	2017	Percent Change
Passenger Trips	1,751,211	1,727,085	1,652,151	1,650,388	1,648,811	1,536,084	-12%
Revenue Miles	1,861,569	1,826,997	1,818,649	1,832,721	1,780,948	1,726,726	-7%
Revenue Hours	125,119	124,635	125,826	125,311	125,604	122,825	-2%
Total Operating Expense	12,603,331	12,333,360	13,062,559	12,733,073	13,555,486	13,646,760	8%
Farebox Revenue	\$2,044,038	\$2,309,008	\$2,206,694	\$2,253,853	\$2,239,549	\$2,100,641	3%
Passenger Trips Per Revenue Hour	14.0	13.9	13.1	13.2	13.1	12.5	-11%
Operating Expense Per Revenue Hour	\$100.73	\$98.96	\$103.81	\$101.61	\$107.92	\$111.11	10%
Operating Expense Per Passenger Trip	\$7.20	\$7.14	\$7.91	\$7.72	\$8.22	\$8.88	23%
Average Fare per Passenger	\$1.17	\$1.34	\$1.22	\$1.24	\$1.22	\$1.37	17%
Subsidy per Passenger Trip	\$6.03	\$5.80	\$6.69	\$6.48	\$7.00	\$7.52	25%
Farebox Recovery %	16.2%	18.7%	15.4%	16.1%	14.8%	15.4%	-5%

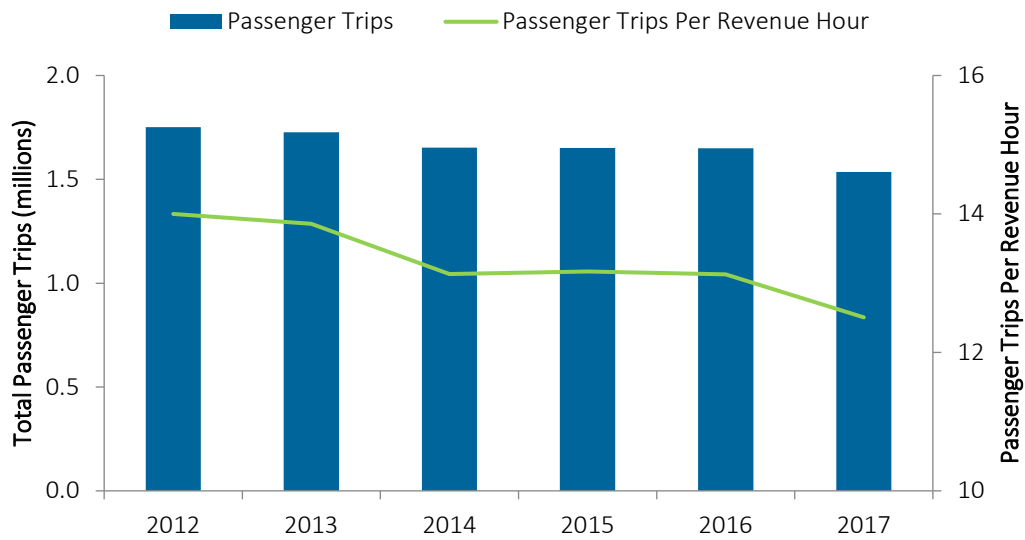
Source: National Transit Database

Figure 4-2 Service Level Trends



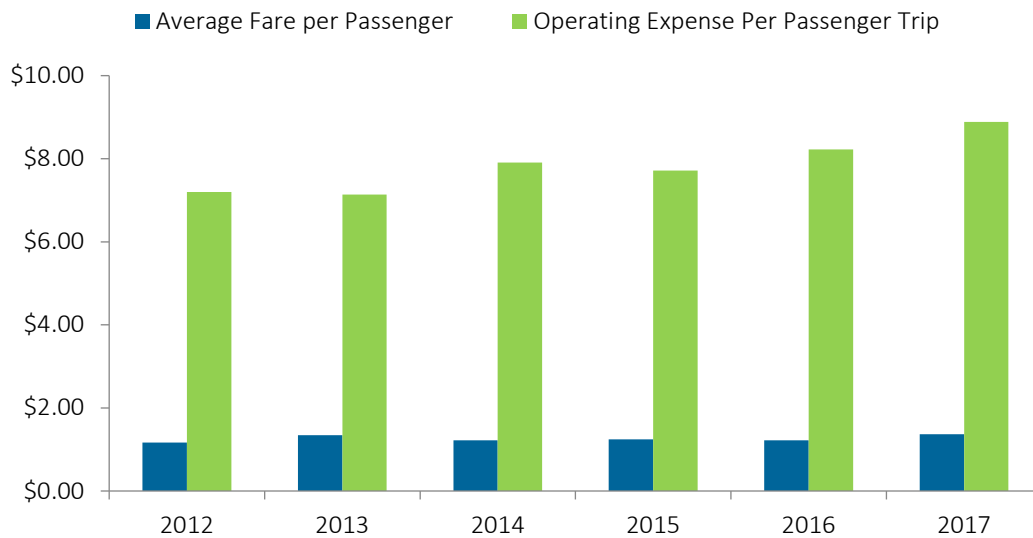
Source: National Transit Database

Figure 4-3 Ridership and Productivity Trends



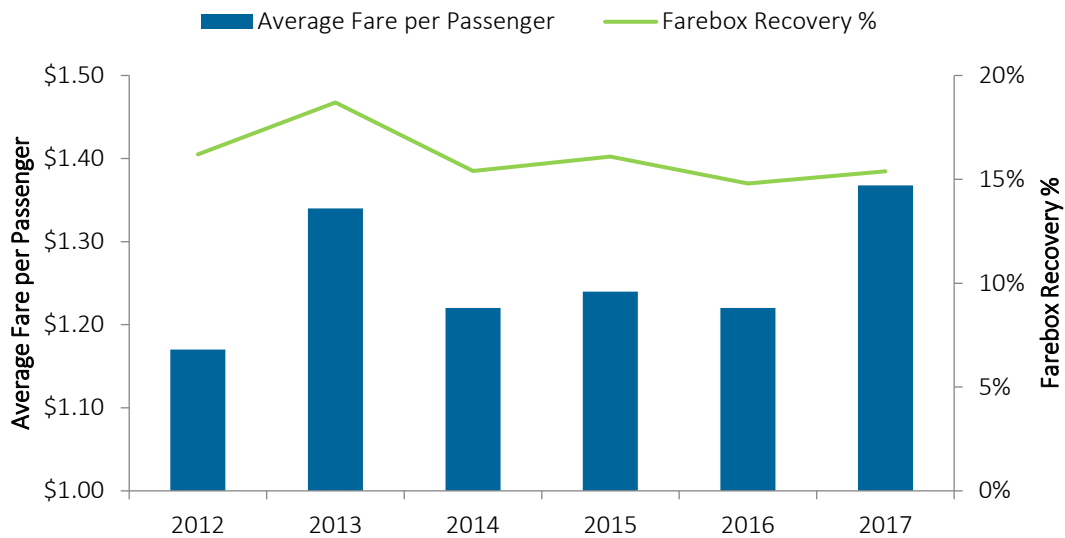
Source: National Transit Database

Figure 4-4 Operating Cost Per Passenger and Average Fare Trends



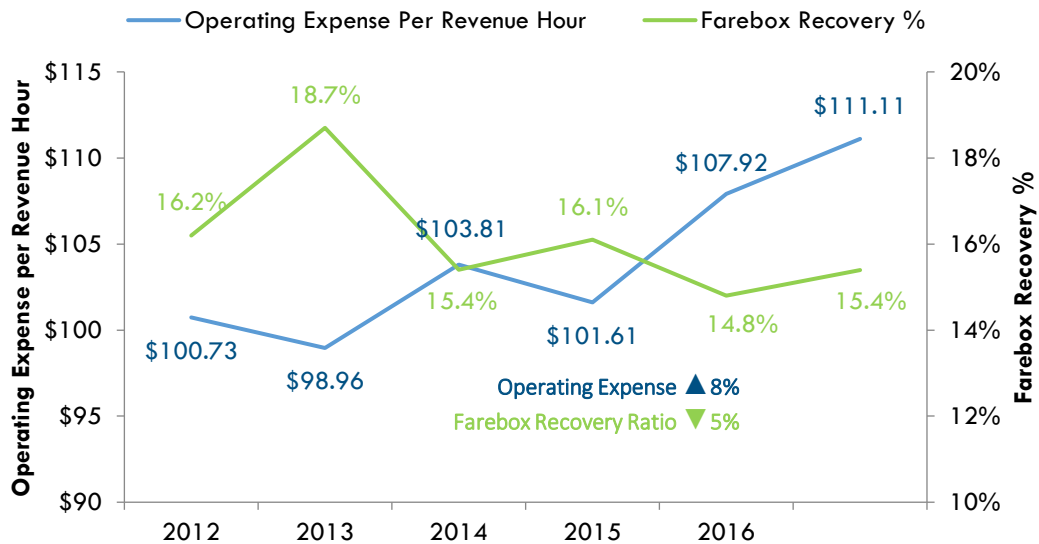
Source: National Transit Database

Figure 4-5 Fare Recovery and Farebox Recovery Ratio



Source: National Transit Database

Figure 4-6 Fare Recovery and Costs



Source: National Transit Database

Summary

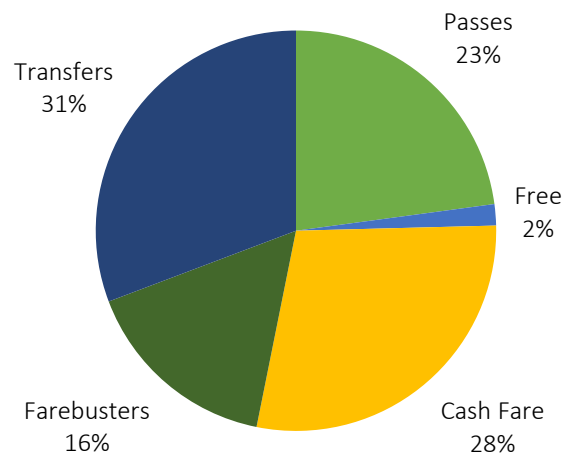
Based on the performance trends, it has been a challenging time period for LAVTA. Ridership has been steadily declining. While LAVTA has restored most of the service cut during the economic recession, ridership has not been restored to similar levels. Despite the hours allocated to the Rapid service, ridership has not picked up as quickly as expected. Additionally, operating costs per passenger trip is increasing.

RIDERSHIP AND FARE PAYMENT TYPE

The information in the following section is based on FY 2016 data collected from LAVTA and describes how current fare products are used on the system.

In terms of overall boardings, nearly a third (28%) of riders pay with cash, followed by 31% who pay with transfers. Twenty-three percent pay with passes, which includes the Hacienda Business Park ECO Pass, BART Plus pass, monthly pass, and senior/disabled monthly pass. Transfers include those who transfer within Wheels, or from BART, ACE, and County Connection. The high percentage of transfers reflects the system's high reliance on transfers to complete a trip. The information is shown in Figure 4-7.

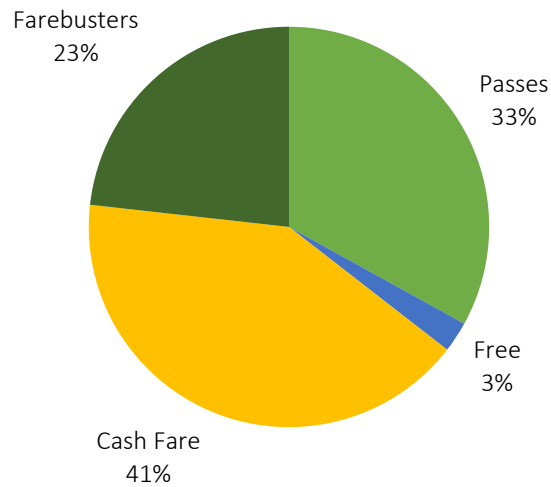
Figure 4-7 Ridership by Fare Type (FY 15-16) Including Transfers



Source: LAVTA (2016)

When eliminating transfers from the ridership, which allows for focus on the payment method at the start of the trip, cash is the most common fare media at 41%, followed by passes at 33%. This composition is shown in Figure 4-8.

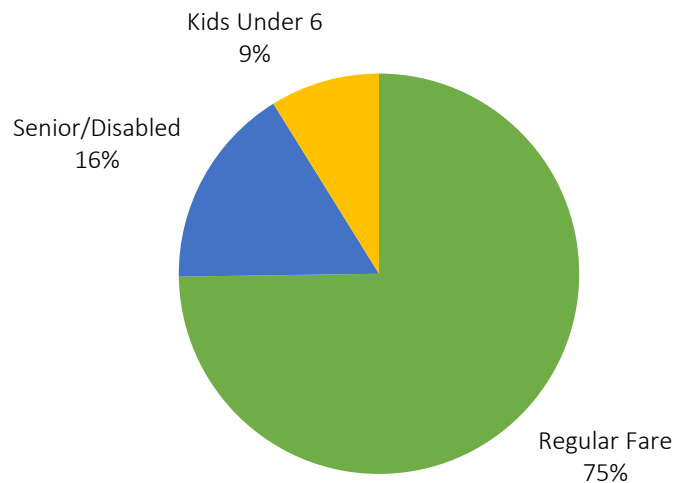
Figure 4-8 Ridership by Fare Type (Excluding Transfers)



Source: LAVTA (2016)

Figure 4-9 shows a breakdown of cash fare ridership by fare type. Of those that pay cash, the majority (75%) are adult fares. Senior/disabled fares account for 16%, while children under 6 who ride for free with paying fare account for 9%.

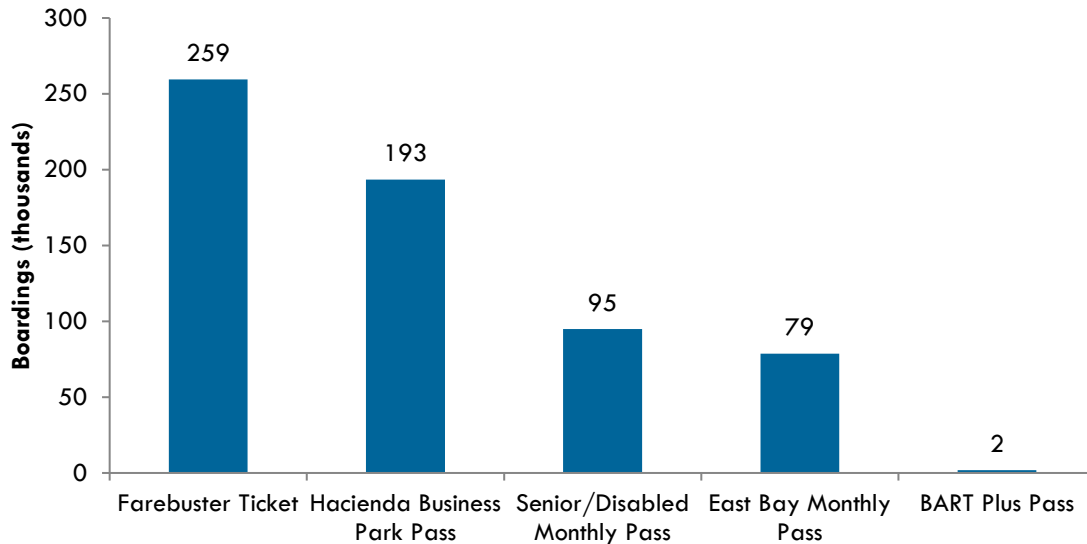
Figure 4-9 Cash Fare Ridership (FY 15-16)



Source: LAVTA (2016)

Figure 4-10 shows the distribution of pass ridership, including FareBuster tickets, a collection of discounted tickets. The highest ridership fare types were FareBuster tickets (41%), followed by the Hacienda Business Park ECO pass (31%).

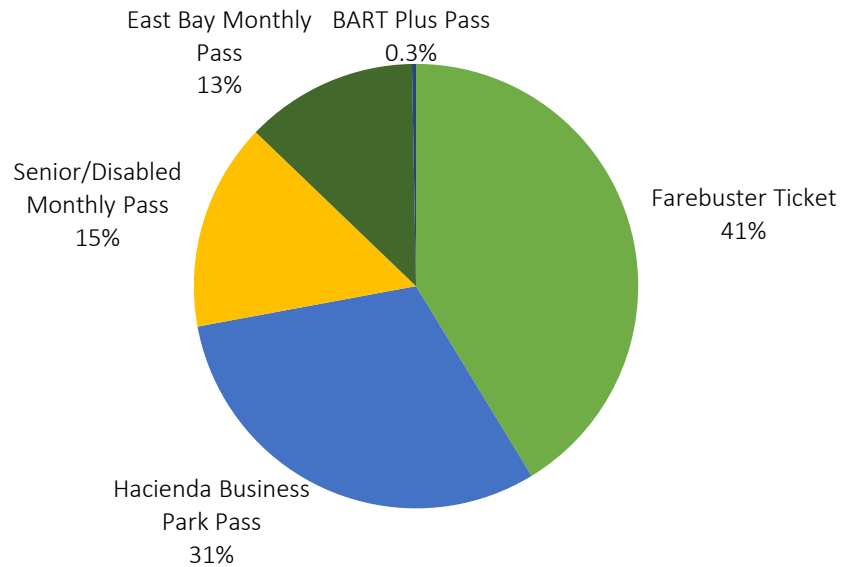
Figure 4-10 Distribution of Pass Products (Boardings, Absolute Number)



Source: LAVTA (2016)

Of all the pass products sold, the FareBuster tickets are the most attractive, likely because they offers a fixed discount as opposed to time-limited passes, which may not provide a discount if fewer trips than expected are made. FareBuster tickets are also offered in some development agreements. The Hacienda Business Park ECO Pass is also popular, given low costs. The current cost is based on the annual number of revenue hours in the business park, rather than the number of employees or residents. The agreement generated \$176,381 in fare revenue in FY 2017—an average fare of \$0.91 per rider. Figure 4-11 shows the distribution of pass products as a percentage.

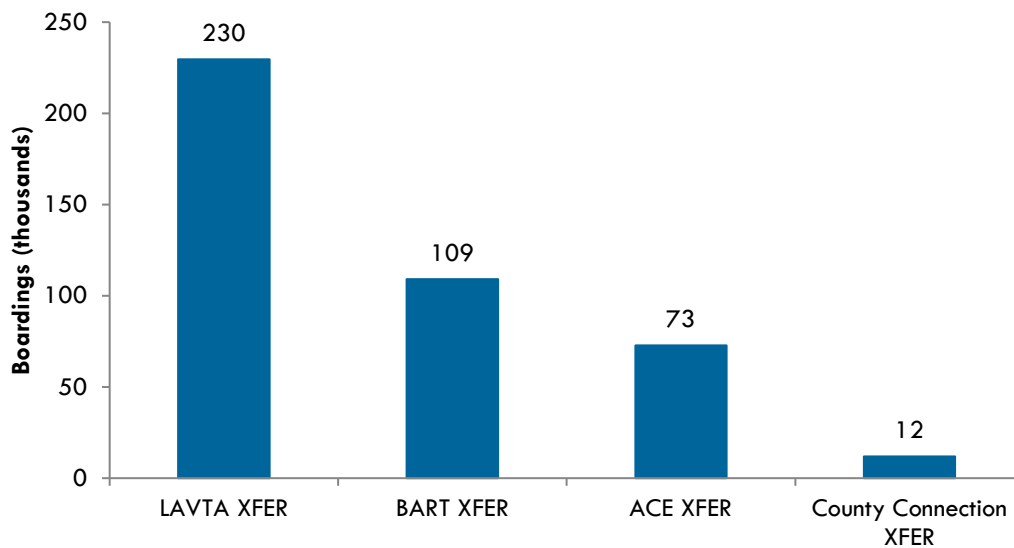
Figure 4-11 Distribution of Pass Products



Source: LAVTA (2016)

Figure 4-12 focuses on boardings through transfers. Based on the ridership data, the majority of transfers occur from one Wheels route to another. A number of riders also transfer from BART and ACE.

Figure 4-12 Transfers (Boardings)

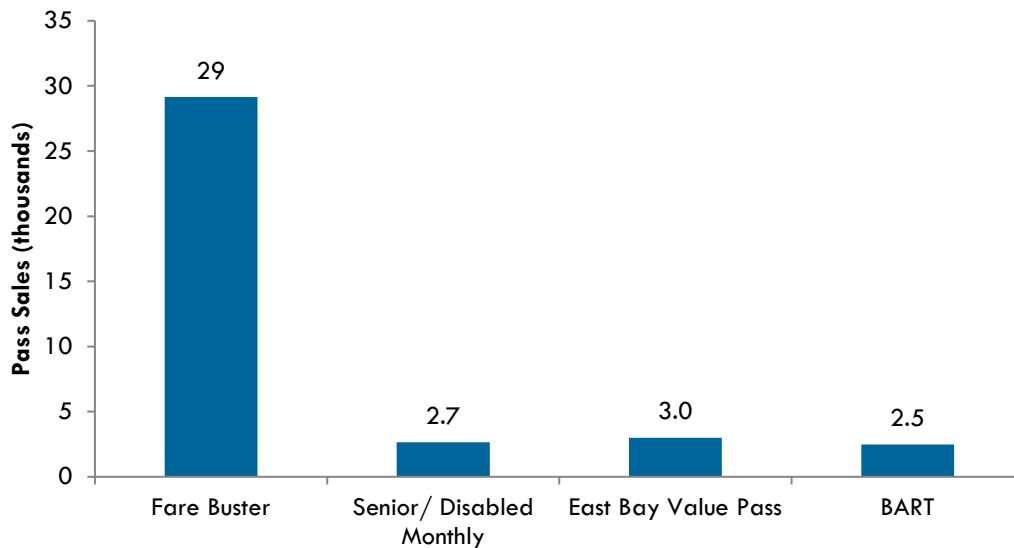


Source: LAVTA (2016)

Pass Sales

The previous section focuses on boardings (ridership) by fare type. However, another lens to investigate fare usage is to review pass sales. Figure 4-13 highlights pass sales from FY 2015-2016, including FareBuster tickets and excluding the Hacienda Business Park pass. Considering FareBuster tickets account for the majority of ridership using passes (41%), it follows that FareBuster tickets account for the largest quantity of passes sold.

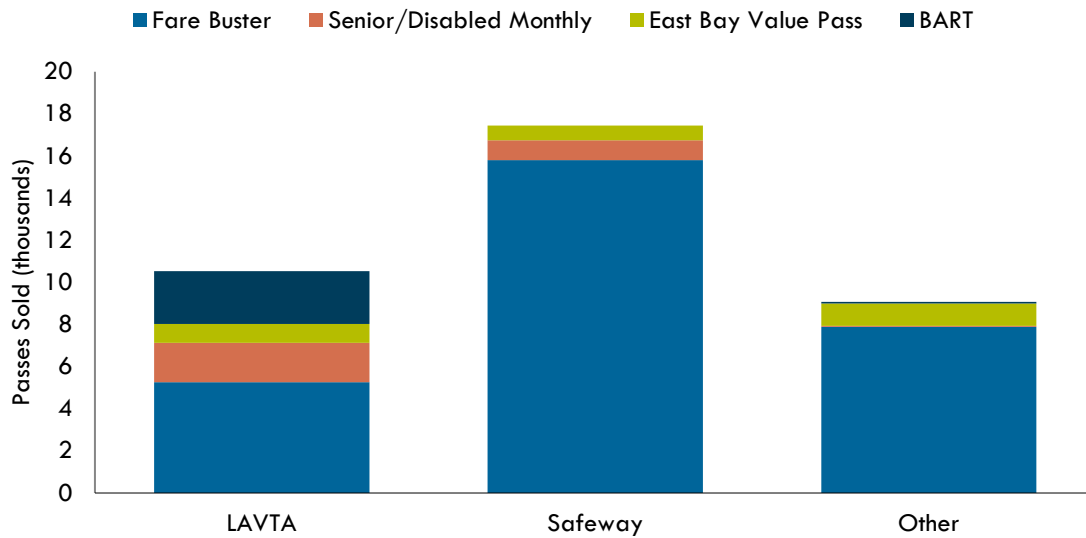
Figure 4-13 2016 Pass Sales (All Pass Products, Absolute Numbers)



Source: LAVTA (2016)

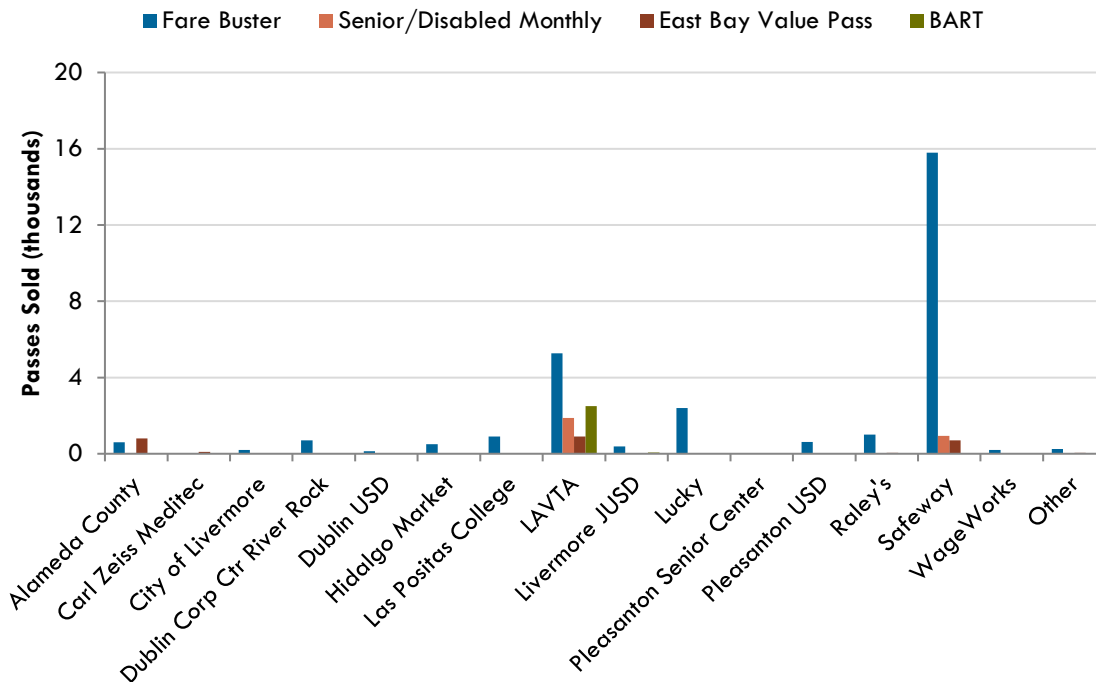
The majority of pass products are sold by Safeway, followed by the Transit Center and other LAVTA facilities, as shown in Figure 4-14 and Figure 4-15.

Figure 4-14 Location Where Transit Pass was Obtained (Absolute Numbers)



Source: LAVTA (2015)

Figure 4-15 Location Where Transit Pass was Obtained in Detail (Absolute Numbers)



Source: LAVTA (2015)

5 PEER REVIEW

Peer reviews are a useful technique to understand the “state of the practice” with regard to fare levels, structures, and policies. A peer review was conducted for this fare study and includes a comprehensive evaluation of other transit agencies comparable in size and scope to LAVTA. This chapter presents the results of this peer review.

The purpose of this peer review is to provide current and accurate information about fare structures and policies at other comparable transit agencies around the region. The peer agencies were selected based on various attributes, including service area, service population, operating characteristics, and feedback from LAVTA staff.

The six agencies in this peer review are:

- Sonoma County Transit (Santa Rosa, CA)
- Fairfield and Suisun Transit (Fairfield, CA), referred to as FAST
- Monterey-Salinas Transit (Monterey, CA), also known as MST
- Central Contra Costa Transit Authority (Concord, CA), referred to as County Connection
- San Mateo County Transit District (San Carlos, CA), referred to as SamTrans
- Alameda-Contra Costa Transit District (Oakland, CA), referred to as AC Transit

This peer review was conducted through an iterative process of data collection, confirmation, and conversation to better understand the qualitative aspects of fare policy at each agency. Data was collected from a number of sources including the most recently-available data from NTD (2013), agency websites, and other agency-related materials⁹.

The six agencies selected for this peer review are all in Northern California, with the majority operating in the San Francisco Bay Area. The agencies serve populations ranging from 119,112 in Fairfield and Suisun City to 1,425,275 in Alameda and Contra Costa County. The service coverage areas range from 41 square miles for FAST and 524 square miles for AC Transit. As a comparison, Wheels covers 40 square miles and serves 197,289 people.

Compared to its peer markets, Wheels serves a smaller service area and population. However, Wheels has comparable population density with Sonoma County Transit and MST. Additionally, Wheels serves a comparable urban area population to County Connection. LAVTA also has a comparable operating budget to Sonoma County Transit and FAST. Demographic information for LAVTA and its peer agencies is presented below in Figure 5-1.

⁹ LAVTA's costs for fixed-route and paratransit service have increased in FY14 and FY15 compared with the 2013 numbers provided in this chapter.

Figure 5-1 Demographic Information

	Wheels	Sonoma County Transit	FAST	Monterey-Salinas Transit	County Connection	SamTrans	AC Transit
Service Area (square miles)	40	390	41	280	143	97	524
Service Population	197,289	493,285	119,122	421,898	516,000	737,100	1,425,275
Service Area Density*	4,932	1,265	2,905	1,507	3,608	7,599	2,720
Largest Incorporated City	Livermore, CA	Santa Rosa, CA	Fairfield, CA	Monterey, CA	Concord, CA	San Carlos, CA	Oakland, CA

Sources: NTD Database.

*Density is population per square mile. With the exception of FAST, Wheels has a notably smaller service area size than peer agencies, leading to a high ranking in terms of service area density. In contrast, AC Transit operates in considerably more dense areas than Wheels, but the large service area size leads to a lower overall service area density, according to NTD calculations.

Figure 5-2 describes the operating statistics for each of the agencies, including LAVTA. The various agencies each provide a range of fixed route service levels. FAST operates the least number of revenue hours at approximately 80,000, while AC Transit operates the most at approximately 1,630,000 hours. Wheels operates approximately 125,000 revenue hours. In terms of productivity, Wheels operates 13.86 passengers per revenue hour, which is low among peer agencies. County Connection carries 15.43 passengers per revenue hour, and AC Transit carries 33.87 passengers per revenue hour.

Wheels' cost on an hourly and per passenger basis is among the lowest of its peer agencies. Operating costs per revenue hour are the highest for SamTrans at \$206.94, and among the lowest at \$107.17 for FAST. In comparison, Wheels operating cost per revenue hour is \$98.96¹⁰. Operating costs per passenger range from \$5.34 for AC Transit, \$7.14 for Wheels, and \$8.15 for FAST. Operating details are illustrated below in Figure 5-2.

¹⁰ Since the 2013 NTD submission, Wheels' fare per revenue hour has increased to \$114.67 (as of 2014).

LAVTA COA | FARE STUDY
Livermore Amador Valley Transit Authority

Figure 5-2 Fixed-Route Operating Statistics

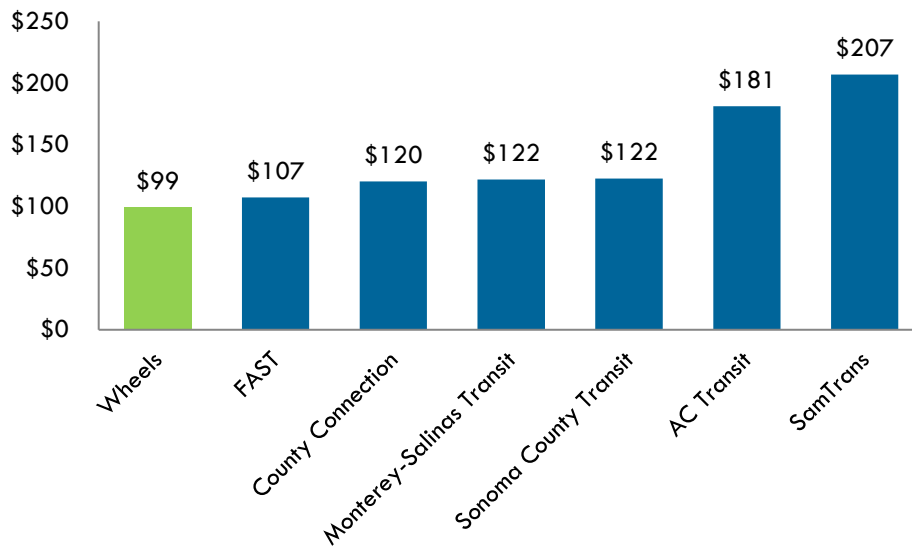
	Wheels	Sonoma County Transit	FAST	Monterey- Salinas Transit	County Connection	SamTrans	AC Transit
Peak Vehicles (by mode)	51	41	36	87	88	265	507
Annual Revenue Hours	124,635	87,343	79,775	236,008	213,624	487,756	1,630,579
Annual Revenue Miles	1,826,997	1,458,064	1,603,548	3,862,717	2,384,645	6,633,233	18,472,330
Annual Boardings	1,771,826	1,403,656	1,072,406	4,074,483	3,451,708	13,040,485	55,951,572
Annual Operating Cost	\$12,333,360	\$10,695,944	\$8,549,418	\$28,758,286	\$25,676,872	\$100,937,586	\$295,218,519
Annual Passenger Fares	\$2,309,008	\$2,046,435	\$2,095,877	\$7,105,987	\$4,641,248	\$18,585,794	\$58,809,413
Farebox Recovery Ratio	19%	19%	25%	25%	18%	18%	20%
Cost/Revenue Hour	\$98.96	\$122.46	\$107.17	\$121.85	\$120.20	\$206.94	\$181.05
Cost/Passenger	\$7.14	\$7.84	\$8.15	\$7.25	\$7.79	\$7.92	\$5.34
Passengers/Revenue Hour	13.86	15.62	13.15	16.82	15.43	26.13	33.87
Subsidy/Passenger	\$5.80	\$6.35	\$6.15	\$6.07	\$6.38	\$6.36	\$3.87
Average Fare/Passenger	\$1.34	\$1.49	\$2.00	\$1.18	\$1.41	\$1.56	\$1.47

Source: National Transit Database, 2013, <http://www.ntdprogram.gov/ntdprogram/data.htm>

The following figures compare each of the peer transit agencies, given the 2013 operating statistics data acquired from NTD. Of the peer agencies, Wheels has the lowest operating cost per revenue hour at \$98.96, while SamTrans averaged \$206.94 in 2013 (See Figure 5-3). The median cost among the agencies is MST at \$121.85. Since the 2013 NTD submission, Wheels' cost per revenue hour has increased to \$114.67 as of 2014.

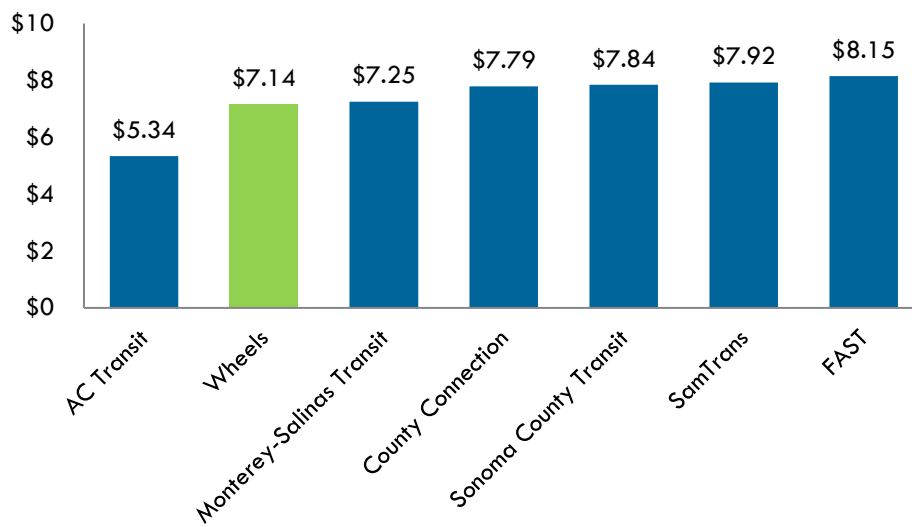
Figure 5-4 shows the operating cost per passenger for each of the agencies. FAST has the highest operating cost per passenger among the peer agencies at \$8.15, while AC Transit has the lowest at \$5.34. Wheels has the second-lowest operating cost per passenger, at \$7.14.

Figure 5-3 Operating Cost per Revenue Hour



Source: National Transit Database (2013)

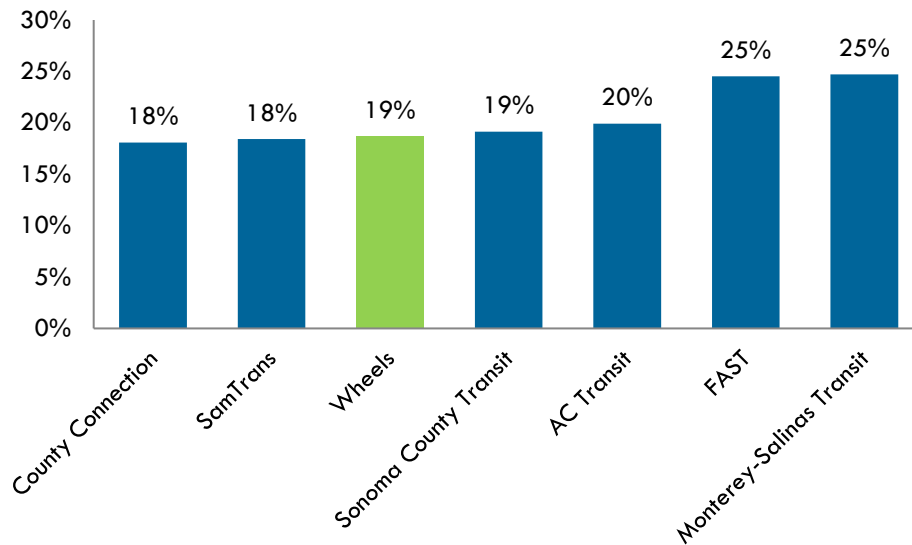
Figure 5-4 Operating Cost per Passenger



Source: National Transit Database (2013)

Figure 5-5 illustrates the farebox recovery ratios for each of the six peer agencies. The average farebox recovery ratio for transit agencies ranges from 15% to 25% for fixed-route systems. Each of the peer systems is within this range for fixed-route service, with FAST and MST having the highest recovery ratio (25%) and SamTrans and County Connection with the lowest recovery ratio (18%). Wheels' farebox recovery ratio is 19%, roughly near the median of its peers. It should be noted that Wheels' farebox recovery ratio decreased in 2014 to 15%.

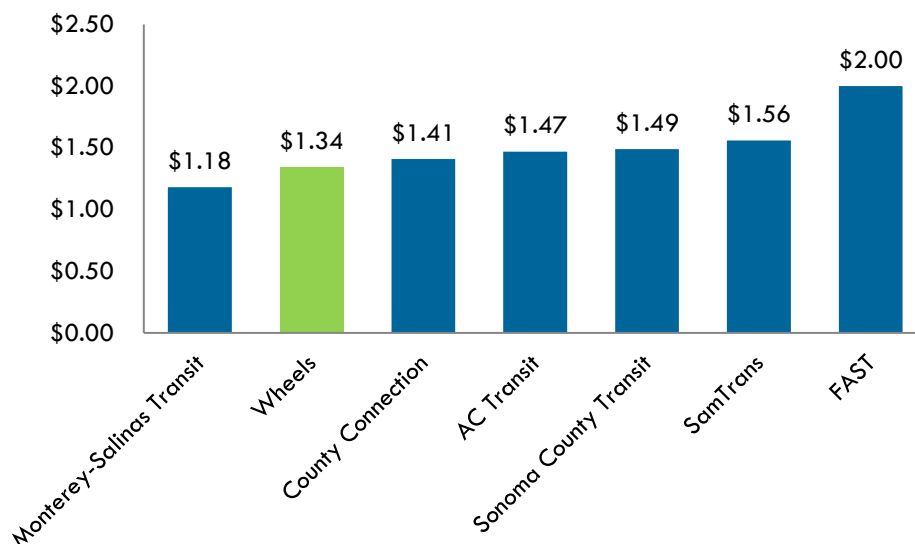
Figure 5-5 Farebox Recovery Ratio (Fixed-Route Services)



Source: National Transit Database (2013)

Figure 5-6 highlights the average fare per passenger for each for the peer systems. As of 2013, Wheels' performance was among the lowest for its peers at \$1.34 per passenger.

Figure 5-6 Average Fare per Passenger



Source: National Transit Database (2013)

FARE STRUCTURE

Figure 5-7 compares the fixed-route fare structure for Wheels and its peer agencies. In addition, the cash fare for all passenger categories and all pre-paid fare instruments (including various passes and other special features of each agency's fare structure) are also described.

All of the peer transit agencies in this study have a standard cash adult fare and a reduced cash fare for seniors and disabled populations. In addition, most transit agencies offer a discount for students or youth. All systems allow children under the age of five to ride free when accompanied by a paying adult.

Notably, Wheels offers a flat \$2 cash fare among all its routes. All other peer agencies offer different fares depending on service. Sonoma County Transit, due to its larger service area size, offers distance-based pricing based on zones. All other peer agencies offer a "local" fare and an "express" fare depending on the service. The lowest cash fare is offered by Sonoma County Transit for \$1.25 within the same zone. The highest cash fare is offered by MST, at \$12 for some commuter routes.

Monthly passes are available for all seven systems presented, with prices ranging from \$60 for all Wheels and local FAST routes, to \$165 for all routes offered by SamTrans. Monthly pass costs differ for local routes only versus those that include both local and express routes. Most peer agencies offer discounts for seniors and persons with disabilities.

Only one agency offers a weekly or seven day passes. Two agencies offer daily passes in lieu of transfers (SamTrans and AC Transit). Four agencies offer discounts for 10 or 12 rides, while two offer discounts for 20 rides. Figure 5-7 outlines the fare structure for each of the peer agency systems.

Figure 5-7 Fare Structure

	Wheels	Sonoma County Transit	FAST	Monterey-Salinas Transit	County Connection	SamTrans	AC Transit
Cash Fares							
Adult	\$2.00	\$1.25 - \$3.65 (depends on zone)	\$1.75 for local; \$2.75-\$5.75 for express	\$1.50 for local; \$2.50 for primary; \$3.50 for regional; \$12.00 for commuter	\$2.00 for regular; \$2.25 for express	\$2.00 for local; \$4.00 for routes 292 and 397; \$5.00 for KX Express	\$2.10 for local; \$4.20 for transbay**
Senior/Disabled	\$1.00	\$0.60 - \$1.80 (depends on zone)	\$0.85 for local; \$1.35-\$2.85 for express	\$0.75 for local; \$1.25 for primary; \$1.75 for regional; \$6.00 for commuter	\$1.00 for regular or express; free between 10 a.m. – 2 p.m. daily	\$1.00 for local; \$2.00 for routes 292 and 397; \$2.50 for KX Express	\$1.05 for local; \$2.10 for transbay**
Student/Youth	\$2.00	\$1.05 - \$3.25 (depends on zone)	\$1.50 for local; \$2.00-\$4.75 for express		\$2.00 for regular; \$2.25 for express	\$1.25 for local; \$2.50 for routes 292 and 397; \$2.50 for KX Express	
Child (under 5)	Free	Free	Free	Free	Free	Free	Free
Transfers	Free for 2 hours with Wheels, County Connection, and ACE; \$1 from BART to Wheels	Free for 2 hours. Multi- zone transfers \$0.60 for adults, \$0.55 for students, \$0.30 for seniors/ disabled	Free for 60 minutes.	None between routes. Free to Santa Cruz METRO; MST passes valid for local fare credit on VTA. Some restrictions apply.	Free for 2 hrs on weekdays. Free for 3 hrs on weekend. \$1 Adult/Youth BART transfer; \$0.50 Senior/Medicare BART transfer	None on SamTrans. AC Transit 31-day, Caltrain monthly, Dumbarton Express 31-day, VTA monthly receive local credit.	None on AC Transit. \$0.50 discount to/from BART within 90 minutes on Clipper.
Agency partnerships	ACE, County Connection, Downtown Pleasanton Route, BART	Santa Rosa CityBus; Petaluma Transit; Golden Gate Transit		Santa Cruz METRO; VTA; Caltrain	BART, Wheels	AC Transit; Caltrain; Dumbarton Express; VTA	BART
Passes							
Monthly or 31-Day							
Adult	\$60.00	\$62.50	\$60 for local; \$70-\$130 for express	\$190 for all MST routes; \$95 for primary and local routes	\$60 for regular; \$70 for express	\$64 for local; \$96 for local/SF; \$165 on all routes	\$75.00 for local; \$151.20 for transbay
Senior/Disabled	\$18.00	\$31.25	\$30 for local; \$35-\$65 for express	\$95 for all MST routes; \$47 for primary and local routes	N/A	\$25.00	\$20.00
Student/Youth	N/A	\$47.00	\$50 for local; \$50-\$109 for express		N/A	\$36.00	
Weekly or 7-Day							
Adult	N/A	N/A	N/A	\$50.00	N/A	N/A	N/A
Senior/Disabled	N/A	N/A	N/A	\$25.00	N/A	N/A	N/A
Daily							
Adult	\$3.75*	N/A	N/A	\$10.00	N/A	\$5.00	\$5.00
Senior/Disabled	\$1.75*	N/A	N/A	\$5.00	N/A	\$2.50	\$2.50
Student/Youth	N/A	N/A	N/A		N/A	\$3.00	
10-Ride							
Adult	\$16.00	N/A	\$17.50 for local	N/A	\$20 for 12-Ride local; \$23 for 12- Ride express	\$16.00	N/A
Senior/Disabled	N/A	N/A	\$8.50 for local	N/A	N/A	N/A	N/A
Student/Youth	N/A	N/A	\$15.00 for local	N/A	N/A	N/A	N/A
20-Ride							
Adult	N/A	\$25 - \$73	N/A	N/A	\$40	N/A	N/A
Senior/Disabled	N/A	\$12 - \$36	N/A	N/A	\$15	N/A	N/A
Student/Youth	N/A	\$21 - \$65	N/A	N/A	N/A	N/A	N/A
Paratransit							
Cash Fare	\$3.50	\$2.50 first zone; \$1.15 additional zones	\$3.50 for local; \$5.50 for intercity	\$3 for < 2.7 mi; \$5 for 2.7–19.7 mi; \$7 for >19.7 mi	\$4.00	\$3.75	\$4 for < 12 mi; \$6 for 12-20 mi; \$7 for > 20 mi
Dial-A-Ride 10 tickets	\$35.00	N/A	\$35.00	Ticket books available at no discount (\$30-50)	N/A	\$37.50	N/A

Source: Agency websites, 2015. * Wheels Day pass accumulator available only on Clipper starting 2016. ** Discounts for Clipper apply for AC Transit.

Transfers and Transfer Policies

Currently, four of the agencies, including Wheels, offer a transfer product that allows for a connecting bus trip without paying twice or more for the fare. Two agencies (SamTrans and AC Transit) offer a day pass in lieu of a transfer, while MST only offers a transfer from Santa Cruz Metro or for Hartnell College students. Transfer policies for each peer agency are complex given the complexity of Bay Area transit overall and unique geographies of each area. As the revenue and ridership trends chapter showed, many trips are made with transfers. Some transit trips also require connections among two or more transit agencies.

For Sonoma County Transit, riders can transfer to any other bus within the zone for free up to two hours. Riders must ask the driver for a transfer slip. With a valid transfer from a one-zone trip, passengers can upgrade to a multi-zone transfer for an additional fee per additional zone. For adults, this is 60 cents; for students, the fee is 55 cents; and for seniors or persons with disabilities, the transfer fee is 30 cents. Passengers transferring from Santa Rosa CityBus, Petaluma Transit, or Golden Gate Transit receive a 25 cent fare credit on a Sonoma County bus.

On FAST, transfers between local buses, as well as transfers to local buses from intercity buses, are free for up to 60 minutes. Transfers to intercity buses from local buses are valued at the local bus fare.

County Connection offers free bus to bus transfer for up to two hours on weekdays, and for three hours on weekends. Passengers are entitled to up to two transfers on County Connection during this time for free. Passengers transferring from BART to County Connection pay a \$1 regular fee.

SamTrans and AC Transit do not offer free transfers within their systems and opt in favor of day passes. The day pass allows for unlimited rides in a 24 hour period. Some unique transfer policies apply for Clipper. On AC Transit, a free local-to-transbay transfer applies only on Clipper.

MST does not offer transfers between MST buses except for Hartnell College students. However, MST does offer several transit connections with varying transfer policies and agreements for each agency. MST has the following transfer policies with Santa Cruz Metropolitan Transit District (METRO):

- METRO passengers transferring to MST:
 - METRO transfers or day passes shall not be applied toward the purchase of any MST fare media
 - MST will accept a free valid METRO transfer as payment for passengers who board lines 26, 27, 28, and 29 at the Watsonville Transit Center, or line 78 at the Santa Cruz METRO Center. MST does not accept transfers issued from the METRO Amtrak Thruway Hwy 17 route
 - MST will accept the METRO senior/disabled discount photo ID for travel on any MST route along with the appropriate discount fare
 - MST does not honor METRO monthly passes
- MST passengers transferring to METRO:
 - METRO will accept free valid MST transfers for one-way travel within the METRO service area as far as Santa Cruz Metro Center. There is no additional fare to travel to Santa Cruz when boarding with an MST transfer.

- A MST transfer will be issued on line 78 for free travel on any one METRO bus with the exception of the METRO Amtrak Thruway Hwy 17 route
- METRO accepts MST senior and disabled discount photo ID
- MST GoPasses are not honored by METRO¹¹

MST also has transfer policy agreements with Santa Clara Valley Transportation Authority (VTA), where MST passengers transferring to VTA receive local fare credit on VTA services. Several restrictions apply depending on the fare media. Notably, MST does not honor the Clipper card. Additionally, MST operates from three bus transit centers and coordinates schedules to allow for timed transfers between routes at these major transit centers:

- Jules Simoneau Plaza (Monterey Transit Plaza), a transfer center for all routes serving the Monterey Peninsula;
- Salinas Transit Center, serving Salinas routes
- Watsonville Transit Center

MST also serves the Gilroy Intermodal Station, where passengers can transfer to the Caltrain as well as VTA buses.

Pass Types

The following section discusses passes including monthly, weekly, and daily passes, as well as ticket books.

Monthly

All agencies offer a monthly pass at the adult rate. The cost of these passes range from \$60 (Wheels, FAST Transit, and County Connection) to \$165 (SamTrans). Monthly pass prices range between 17 to 82 times the base fare. Wheels' monthly pass price is approximately 30 times the base fare, which is on the lower side but overall comparable among peers.

All agencies except County Connection offer a discounted monthly pass for seniors or persons with disabilities. Of these agencies, Wheels offers the monthly pass at the lowest cost, at \$18 a month. Other agencies offer senior/disabled monthly passes ranging from \$20 (AC Transit) to \$95 (MST).

Three agencies (Sonoma County Transit, FAST, and SamTrans) offer a discounted monthly pass for students/youth that is higher in cost than passes for seniors but less expensive than regular adult passes.

Value of monthly passes varies depending on usage, particularly for certain routes. Figure 5-8 describes the monthly pass multiplier for each of the peer systems for adult passes.

¹¹ Policies available online at <http://mst.org/riders-guide/transit-connections/>, accessed October 20, 2015.

Figure 5-8 Monthly Pass Multiplier Rates

	Wheels	Sonoma County Transit	FAST	Monterey-Salinas Transit	County Connection	SamTrans	AC Transit
Adult Cash Fare	\$2.00	\$1.25 - \$3.65 (depends on zone)	\$1.75 for local; \$2.75-\$5.75 for express	\$1.50 for local; \$2.50 for primary; \$3.50 for regional; \$12.00 for commuter	\$2.00 for regular; \$2.25 for express	\$2.00 for local; \$4.00 for routes 292 and 397; \$5.00 for KX Express	\$2.10 for local; \$4.20 for transbay**
Monthly Pass Cost	\$60.00	\$62.50	\$60 for local; \$70-\$130 for express	\$190 for all MST routes; \$95 for primary and local routes	\$60 for regular; \$70 for express	\$64 for local; \$96 for local/SF; \$165 on all routes	\$75.00 for local; \$151.20 for transbay
Monthly Pass Multiplier	30	17-50	34 for local; ~23-25 for express	38-63 for local; 15-54 for all	30 for regular; 31 for express	32 for local; 33-82 for all routes	36 for local and transbay

Source: Agency websites, 2015. ** Discounts for Clipper apply for AC Transit.

Weekly, 10-Ride, and 20-Ride Products

Only one peer agency, MST, offers a weekly or 7-day pass. Four agencies (Wheels, FAST, County Connection, and SamTrans) offer a 10 or 12-Ride discounted fare product, and two agencies (Sonoma County Transit and County Connection) offer a 20-Ride discount fare product. Weekly passes are often a similar or redundant fare product to 10-Ride or 20-Ride fare products. With the exception of County Connection and AC Transit, all peer agencies offer a weekly or 10-Ride or 20-Ride product.

Wheels' 10-Ride product is the popular FareBuster ticket book, where each ticket is valued at \$1.60 instead of \$2.00 cash. This is a 20% savings off regular cash fare.

Day

Three agencies currently offer day passes (MST, SamTrans, and AC Transit). For SamTrans and AC Transit, day passes provide unlimited number of trips per day and act in lieu of transfers. With the adoption of Clipper, Wheels and County Connection also offer a day pass product in the form of the day pass accumulator. Passengers riding Wheels pay a maximum of \$3.75 per day regardless of the number of trips taken.

FARE POLICIES

This section discusses how each peer agency addresses several different fare policies of interest to LAVTA.

Clipper Integration

Clipper is the all-in-one transit smart card that allows ease of payment and supports transfers across multiple Bay Area agencies. Clipper is overseen and sponsored by Metropolitan Transportation Commission (MTC), the Bay Area's metropolitan planning organization. Implementation rolled out beginning with the largest Bay Area transit agencies—BART, Muni, AC Transit, SamTrans, Caltrain, Golden Gate Transit, and VTA. As of early 2015, Clipper is available on 13 agencies and can be used to pay for parking in select San Francisco garages.

At the time this review was conducted, Clipper was available to three peer agencies (AC Transit, SamTrans, and FAST). In addition to Wheels, Clipper went live at two other peer agencies in November 2015 (County Connection and Sonoma County Transit). Recently in 2014, when Clipper was expanded to Solano County, FAST underwent new fare restructuring. In particular, their 10-ride passes were eliminated, and exchanges were offered for the 31-day pass. FAST also added a youth fare to align with the Clipper system.

Clipper and contactless transit smart cards more generally are preferred to other forms of fare media including cash, paper passes, and magnetic striped fare cards, because smart cards reduce boarding times and eliminate transfer fraud. Additionally, contactless transit smart cards often provide rich transit data, such as location and time of trips, that may not be captured in other types of fare media.

Fare Evasion

Fare evasion is a concern at all transit agencies, although it is very difficult to determine what percentage of fares are not properly paid. Strategies vary on how to minimize fare evasion.

Transfer tickets and paper passes are often prone to abuse due to ease of duplicating fare material. Additionally, paper transfer tickets are often made of low quality material and require operators to either punch or rip the time of transfer. These “low-tech” operations lend themselves to abuse of the transfer system, with several riders taking multiple or round trips with the same transfer ticket or card, rather than taking one or two buses for a one-way trip. Conflicts also arise between drivers and riders who insist that their transfer be accepted.

In lieu of transfers, transit agencies such as SamTrans and AC Transit have adopted day use passes. Day use passes reduce fraud with transfers, and encourage a shift towards the Clipper card system. In 2014, AC Transit successfully eliminated transfers in favor of a \$5 day pass. The pass is a good deal for people who make more than a single round-trip in a day. However, some proponents argue the loss of transfers acts essentially as a fare increase, disproportionately affecting low-income individuals who often rely on multiple transfers for a trip.

Industry standard generally favors a shift away from paper products, such as transfer tickets or paper passes, towards contactless cards to address fare evasion.

Fare Increases

The following table describes the most recent fare increase at each of the agencies. Many of the fare increases were a result of accommodating for inflation, justifying paratransit fare increases, and increasing revenues. Figure 5-9 below provides the percentage increases for each of the agencies.

Figure 5-9 Recent Fare Changes

Transit Authority	Date of Fare Change	Adult Cash (Former)	Adult Cash (Current)	Percentage Increase
Wheels			\$2.00	
Sonoma County Transit	2007	\$1.10	\$1.25	14%
FAST	2014	\$1.50	\$1.75	17%
Monterey-Salinas Transit	2011	Changed from 11-zone to a distance-based system comprised of four categories: local (\$1.50), primary (\$2.50), regional (\$3.50), and commuter (\$12) fares		
County Connection	2009	\$1.75	\$2.00	14%
SamTrans	2010	\$1.75	\$2.00	14%
AC Transit	2011	\$2.00	\$2.10	5%

Source: Agency websites, 2015; Fairfield and Suisun Transit (FAST) Fare Changes Information, 2014; Central Contra Costa Transit Authority's Short Range Transit Plan FY 2011-12 through FY 2020-21

INNOVATIVE FARE POLICIES

In addition to the traditional tickets and passes, peer agencies also offer several other innovative fare media and policies which are discussed below.

Employer Discount Programs

Employer discount programs are intended to be geared towards bulk pass or fare product sales to help encourage ridership and provide employers options for expanding employee transportation benefits. LAVTA has expressed particular interest in employer discount programs and refining their current pass program in Hacienda Business Park. AC Transit, SamTrans, and County Connection all offer an employer discount program.

AC Transit's EasyPass offers transit discounts for employers, residential communities, and colleges and universities. The following entities currently have agreements with AC Transit: Berkeley Chamber of Commerce, City of Berkeley, Fourth & U, goBerkeley, Ironhorse, Mills College, Northwestern Polytechnic University, Park Alameda, Peralta colleges, Safeway #691, and University of California, Berkeley. Each entity has a slightly different agreement, but most EasyPasses are delivered in the form of a special Clipper card with his or her name and photo printed.

Employer EasyPass prices are determined by number of program participants, as well as the level of transit service—a measure of the frequency and concentration of commuter bus service available within a quarter mile of the community. Residential EasyPass prices are determined by the number of units in the community, with a minimum requirement of 100 units of any size, as well as the level of transit service. Annual prices range from \$43 to \$121 per participant. Figure 5-10 shows the EasyPass that is delivered as a Clipper card, as well as the Class Pass, which is a sticker affixed to the university's photo identification card.



Case Study: AC Transit EasyPass

AC Transit's EasyPass program is a bulk employer program that has three specific markets: employers, residential communities, and colleges. The program offer a discounted group rate compared to regular AC Transit bus fares with increasing levels of discounts based on participation levels.

The EasyPass works like an insurance plan by paying for a large group of program participants; the per-participant costs are shared. By sharing in the costs, all the group's participants have an opportunity to use their EasyPass—whether they're daily AC Transit riders, use the service occasionally, or use it for the first time. The EasyPass works in conjunction with the Clipper regional fare card.

The EasyPass program requires that a participating organization:

- Have at least 100 participants - employees, residents or households
- Identify a site coordinator for communication and coordination with AC Transit.

The EasyPass Program provides a strong incentive for existing and prospective tenants or buyers who want to live in a place that offers discounted passes and enables tenants to forgo a second car. For employers it offers an employee benefit, recruitment, and retention tool.

A study of UCLA's universal transit pass program similar to the EasyPass found that a new parking space costs more than 3 times as much as a free transit pass (\$223/month versus \$71/month).

For more information, please see <http://www.actransit.org/rider-info/easypass/>

Figure 5-10 AC Transit EasyPass and Class Pass



Source: (Left) EasyPass from AC Transit, 2015; (Right) UC Berkeley Class Pass, 2014

SamTrans offers the “Way2Go Pass,” which allows companies and residential complexes to purchase an annual unlimited ride pass for all eligible employees or residents. Participants pay an annual fee for every eligible employee or resident, regardless of usage. Eligible residents include all residents five years and older, and eligible employees include those who work more than 20 hours per week, excluding contractors, consultants, interns, and temporary employees. Companies or residential complexes pay the greater of \$125 per eligible employee or resident, or \$12,500. Costs are pro-rated if participant joins the program for less than a full year.

County Connection’s employer discount program is the “CoCo Pass”, which allows employees or residents to ride transit for free. Any employer or residential community with more than 50 employees or residents can purchase passes for less than \$12 a month, or approximately \$140 per year per participant. Participation in the CoCo Pass program fulfills employer requirements to offer commute benefits, as well as helping developers qualify for green certification.

Once an agreement is signed, County Connection conducts a photo registration event for all eligible participants and creates individualized CoCo passes. Employers or residential communities must provide passes for all employees or one pass per housing unit, regardless of current or anticipated usage. County Connection helps implement and maintain the program, including conducting a baseline survey, preparing personalized passes, and supporting the program through marketing and promotions. Figure 5-11 displays an example of the CoCo pass.

Figure 5-11 CoCo Pass



Source: County Connection (2015)

Employer Discount Program Pricing

The structure of employer pass programs varies throughout the U.S. Two examples—AC Transit and Denver Regional Transportation District (RTD)—offer best practices for pricing of pass programs.

AC Transit

AC Transit defines its EasyPass program as being established for a defined employee pool—for example, all full-time employees or all employees who live in AC Transit’s service district. According to AC Transit policy, employers must provide passes for all employees in the defined pool regardless of current or anticipated usage, and EasyPass is not refundable or transferable to anyone else. Pricing of EasyPass is based on a tiered system that factors in the size of the participant pool and level of transit service (Figure 5-12). Employers pay an annual per-participant price based on the matrix shown below. Employers can choose to subsidize the cost of the pass (in part or in whole) or to pass the cost on to employees as a group benefit.

Figure 5-12 AC Transit EasyPass Pricing Structure

Level of Transit Service	Annual Price Per Participant by Number of Program Participants				
	100-500	501-1,000	1,001-5,000	5,001-10,000	10,001+
1	\$121	\$103	\$86	\$68	\$51
2	\$108	\$93	\$78	\$64	\$48
3	\$93	\$82	\$69	\$58	\$45
4	\$81	\$70	\$62	\$53	\$43

Source: AC Transit

Note: Level of Transit Service is a numerical score that reflects the frequency and concentration of commuter bus service available within the ¼ mile of worksite(s). Scores range from 1-4 with 1 representing the highest level of service and 4 the lowest. Only peak-hour service is considered when calculating a score, and adjustments are made for gaps in service, impediments to pedestrian access, and whether the lines in the immediate vicinity provide service to and from San Francisco or the Peninsula.

Denver RTD

Denver RTD’s Business EcoPass provides unlimited usage of RTD services and is an annual transit pass purchased by a company and its employees or a collection of residences. Similar to AC Transit’s policy, companies purchase the EcoPass for all full-time employees with an option to include part-time employees. Transit service levels are also accounted for through a two-tier pricing structure (Figure 5-13). Pricing for businesses is determined by two factors—location of the business and total number of full-time employees or total number of full/part-time employees on the payroll. Contract minimum rates apply for businesses with a per-person rate that equals less than the contract minimum.

Additionally, Boulder County offers a multi-year EcoPass discount (60% off of the first year’s purchase price, 30% off of the second year’s contract price) to all businesses and neighborhoods signing up for their initial EcoPass contract. EcoPass is also tax deductible to employers and tax free to employees.

Figure 5-13 Denver RTD Business EcoPass Pricing Structure

Cost per Employee per Year (2013) ¹²							
Service Level Area	Number of Employees	Contract Minimum Per Year	1-24 Employees	24-249 Employees	250-999 Employees	1,000-1,999 Employees	2,000+ Employees
A: Outer Suburban	1-10	\$972					
	11-20	\$1,944	\$83	\$72	\$63	\$54	\$51
	21+	\$2,915					
B: Transit Centers	1-10	\$1,782					
	11-20	\$3,563	\$177	\$160	\$146	\$135	\$128
	21+	\$5,344					

Source: Denver RTD

Denver RTD also offers a Neighborhood EcoPass program that can be started by any contiguous group of residences (houses, condominiums, apartments, etc.). There is no minimum or maximum size for a neighborhood, and all full-time members of a household are eligible to receive the EcoPass.

Pricing for the Neighborhood EcoPass program is determined by a direct mail RTD survey that looks at the neighborhood's current level of RTD ridership. Based upon the survey results, a per-household rate is determined and ranges from \$80-\$250 per household. The per-household rate is then multiplied by the total number of households to determine a final contract price. Smaller neighborhoods are subject to a contract minimum of \$7,497.

RTD recommends starting the program with 30 to 70 households in the first year and expanding in subsequent years. As with the Business EcoPass program, new Neighborhood EcoPass contracts in their first year are eligible for a 60% subsidy through Boulder County and a 30% subsidy in the second year of the program.

Free Transit Programs

The Sonoma County Board of Supervisors approved a pilot program that permits veterans and Sonoma County college students to ride Sonoma County Transit free during 2015. The program is funded by the Sonoma County general fund, and will examine the effect of a free fare program on the community, ridership, and traffic reduction near college campuses. Veterans must present a Veterans Administration (VA) identification card when boarding. College students must present a student ID. Eligible colleges in Sonoma County include Santa Rosa Junior College (Santa Rosa and Petaluma campuses), Sonoma State University, University of San Francisco (Santa Rosa campus), Empire College, and Bauman College. Figure 5-14 highlights the current promotion.

¹² EcoPass pricing will increase on January 1, 2016

Figure 5-14 Sonoma County Transit Free Pilot Program Promotion



Source: Sonoma County Transit (2015)

MST partners with Hartnell Community College to offer a free fare zone at the Central Salinas campus and Alisal Campus on the east side of the city. The free fare zone enables students to board for free at MST bus stops adjacent to the two campuses. Return trips to the college areas are full fare. As such, students effectively receive a 50% discount to get to and from classes. MST is reimbursed for lost revenue on a per-student basis with revenue generated from student activity fees.

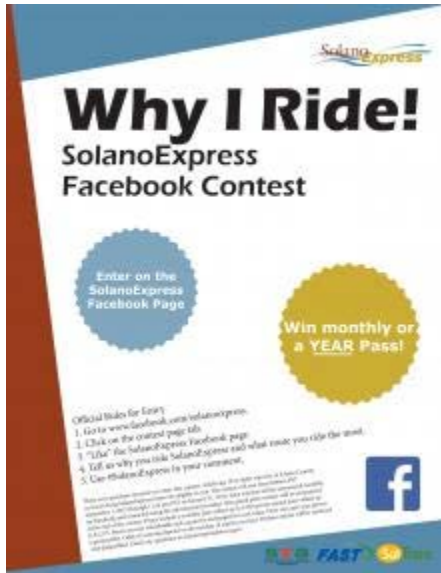
Other Pass Products, Incentives and Promotions

MST partners with California State University-Monterey Bay (CSUMB) for the CSUMB University Pass. The University Pass program funds expanded transit services on campus, including the CSUMB Otter Trolley.

SamTrans offers a 20% discount for groups of 25 guests or more traveling. Parties fill a ticket order form in advance to receive special tickets for their group travel.

FAST offers a number of promotions to incentivize people to ride transit. Figures 5-13 to 5-15 highlight key promotions, including a Facebook contest and Buy-One-Get-One free bus pass offer.

Figure 5-15 FAST SolanoExpress Promotion



Source: FAST (2015)

Figure 5-16 FAST School Supply Drive Promotion



Source: FAST (2015)

Figure 5-17 FAST BOGO 31-Day Pass Promotion



The poster features the FAST logo (Fairfield Area Transit) at the top left and the 511 CONTRA COSTA logo at the top right. In the center is a large circular graphic with the text "BUY ONE BOGO GET ONE". Below this, the text "31-Day Pass" and "SolanoExpress Routes 40 & 90" is displayed. A list of eligibility criteria follows: living or working in Contra Costa County, being 18 years of age or older, and agreeing to complete a questionnaire. To the right of the list are images of the "ROUTE 90 31-DAY" and "ROUTE 40 31-DAY" passes, both priced at \$130.00. A note states that the free pass will be in paper form only. Application information is provided, including the website www.fasttransit.org and the promotion end date of June 30, 2016. At the bottom, logos for Solano Express, Bay Area Air Quality Management Fund for Clean Air, Contra Costa Transportation Authority, and STA (Solano Transportation Authority) are shown.

FAST BUY ONE **BOGO** GET ONE **511 CONTRA COSTA**

31-Day Pass

SolanoExpress Routes 40 & 90

You are eligible to be a participant if you:

- Live or work in Contra Costa County
- Are 18 years of age or older
- Would otherwise drive alone to/from an employment location if SolanoExpress Routes 40 and 90 were not available
- Agree to complete a brief questionnaire to determine the effectiveness of this promotion

Note: Free pass will be in paper form only

If you are eligible, applications are available at:
www.fasttransit.org

Promotion ends June 30, 2016
Please see the application for promotion rules

Solano Express **BAY AREA AIR QUALITY MANAGEMENT FUND FOR CLEAN AIR** **CONTRA COSTA transportation authority** **STA Solano Transportation Authority**

Source: FAST (2015)

PARATRANSIT

Each of the six agencies in the peer review also operates paratransit, or demand-response, services. Figure 5-19 describes the paratransit operating statistics for each of the transit agencies compared to Wheels. The operating statistics do not include information on taxi voucher programs.

The paratransit service offered by the peer agencies requires ADA-eligibility determination. Any resident with disabilities or inability to ride the regular fixed-route buses may apply. For all agencies, riders must pay a fare. Fare structures are described in Figure 5-20.

Service Descriptions

Wheels Dial-A-Ride provides accessible door-to-door paratransit service to eligible people with disabilities in Livermore, Pleasanton, Dublin, and the surrounding unincorporated areas of Alameda County. Dial-A-Ride is a public shared ride transportation and available during the days and times Wheels fixed route bus service is operating. Service in Dublin and Livermore is seven days a week from approximately 4:30 a.m. to 1:30 a.m. Service in Pleasanton is provided by the City of Pleasanton and supplemented by Wheels Dial-A-Ride when Pleasanton paratransit is unable to fulfill trips or is not operating (weekdays from 4:30 a.m. to 8:00 a.m., and 5:00 p.m. to 1:30 a.m., and Sundays and holidays from 4:30 a.m. to 1:30 a.m.). Dial-A-Ride fare is \$3.50 per one-way trip, and Personal Care Attendants travel for free with fare paying customers.

Wheels brokers paratransit service at a substantial cost savings. The following table of paratransit costs from FY 2008-FY 2015 shows how the price changed when LAVTA switched to a brokerage model in FY 2012.

Figure 5-18 Wheels Dial-a-Ride Operating Costs FY 2008 - FY 2015

	Purchased Transportation Operating Cost	Total Dial-A-Ride Operating Cost
2008	\$1,602,840	\$2,131,358
2009	\$1,388,541	\$1,882,773
2010	\$1,282,712	\$1,766,628
2011	\$1,259,448	\$1,719,889
2012	\$1,011,438	\$1,173,171
2013	\$1,064,120	\$1,133,961
2014	\$1,194,535	\$1,276,106
2015	\$1,480,075	\$1,505,505

Source: LAVTA

Sonoma County Paratransit is offered to persons whose disabilities prevent them from using fixed route public transit. Paratransit operators are required by the ADA to service areas within $\frac{3}{4}$ of a mile of their respective public fixed-route service. Service is provided within the incorporated areas of Sonoma County, the greater Santa Rosa Area, and within the following communities: Windsor, Sebastopol, Sonoma, Sonoma Valley, Cotati, Rohnert Park, Rio Nido, Guerneville, Monte Rio, Duncans Mills, and Occidental. The service operates weekdays from 5:00 a.m. to 11:00 p.m., and Saturday and Sunday from 7:00 a.m. to 9:00 p.m. Fares are \$2.50 for the first

zone, and \$1.15 for each additional zone. In addition to paying exact cash fare, passengers may buy tickets online or at the Sonoma County Transit's office.

DART is the ADA paratransit complement to Fairfield and Suisun Transit's (FAST) local fixed routes, and serves the $\frac{3}{4}$ mile surrounding area of public fixed-route service. DART operates during the same hours as FAST, from approximately 6:00 a.m. to 8:30 p.m. on weekdays, and approximately 9:00 a.m. to 6:30 p.m. on Saturday. Fares within Fairfield and Suisun City are \$3.50; fares to and from Vacaville are \$5.50. Personal Care Attendant can travel for free, while other companions must pay regular fare. DART also offers a \$35.00 stored value pass for 10 local one-way trips, which does not provide a discount but provides ease of use.

MST RIDES provides ADA paratransit service to the $\frac{3}{4}$ mile surrounding area of MST's public fixed-route service. MST RIDES ADA Paratransit provides service throughout the Monterey Peninsula, Carmel, Carmel Valley, Salinas, Chualar, Gonzales, Greenfield, Soledad, and King City, and operates the same hours as MST. Fares are \$3 for trips 2.7 miles and less, \$5 for trips between 2.7 miles and 19.7 miles, and \$7 for trips over 19.7 miles. Passengers may pay exact cash fare, or buy ticket books (book of 30 \$1 tickets, or book of 10 \$5 tickets) by phone, mail, online, or three customer service locations.

LINK is County Connection's paratransit service serving the communities of Concord, Pleasant Hill, Martinez, Walnut Creek, and Clayton and operates when fixed route services operate (weekdays from 4:00 a.m. to 11:00 p.m., and weekends from 7:00 a.m. to 10:30 p.m.). Additionally, LINK provides ADA service on behalf of BART during certain hours (Monday-Friday from 4:00 a.m. to 6:00 a.m. and 10:00 p.m. to 12:00 a.m.; Saturday from 6:00 a.m. to 8:30 a.m. and 7:30 p.m. to midnight). One-way fare County Connection LINK trip is \$4.00. LINK offers an advance fare payment system, where individuals may mail a check to County Connection LINK with a minimum of \$50. LINK trips are automatically deducted from the amount in the account. If the balance falls to \$25 or below, the passenger will be notified by telephone or mail.

SamTrans' paratransit services are provided by Redi-Wheels and RediCoast. Redi-Wheels serves the Bayside of San Mateo County and Pacifica, while RediCoast serves the Coastside of San Mateo County south of Pacifica. Redi-Wheels and RediCoast also serve the Stonestown and Highway 101 Corridor of San Francisco and some areas of Palo Alto, including Stanford Medical Center and the Veterans Administration Medical Center. Redi-Wheels operates daily from 5:30 a.m. to midnight, while RediCoast runs daily from 6:00 a.m. to 9:00 p.m. One-way trips are \$3.75. Lifeline fares are available at a reduced fare of \$1.75 for people who receive supplemental security income, general assistance, or Medi-Cal. Participants must fill an application to determine eligibility for Lifeline fares. Paratransit customers can ride all scheduled SamTrans fixed-route buses for free by showing their Redi-Wheels or RediCoast card.

East Bay Paratransit provides services for the AC Transit service area, and runs the same days and times as AC Transit buses or BART trains. Fares are distance based, where trips up to 12 miles are \$4.00, trips between 12 and 20 miles are \$6.00, and trips above 20 miles are \$7.00. East Bay Paratransit also provides service to and from San Francisco, with fares ranging from \$6.00 to \$10.00 depending on the zone. Standing orders can be made as well.

Figure 5-19 Paratransit Operating Statistics

	Wheels Dial-A-Ride	Sonoma County Paratransit	DART	MST RIDES	LINK	Redi-Wheels and RediCoast	East Bay Paratransit
Peak Vehicles (by mode)	16	25	7	27	55	86	189
Annual Revenue Hours	26,809	32,076	11,849	59,768	74,093	159,285	408,835
Annual Revenue Miles	200,561	492,981	193,741	1,031,712	1,208,228	2,105,135	6,396,827
Annual Boardings	44,741	39,109	23,174	105,942	154,945	252,058	716,684
Annual Operating Cost	\$1,133,961	\$2,156,674	\$1,219,908	\$3,139,487	\$5,125,995	\$11,443,670	\$36,781,318
Annual Passenger Fares	\$173,817	\$147,050	\$85,653	\$184,728	\$478,120	\$709,660	\$2,690,478
Farebox Recovery Ratio	0.15	0.07	0.07	0.06	0.09	0.06	0.07
Cost/Revenue Hour	\$44.96	\$67.24	\$102.95	\$52.53	\$69.18	\$71.84	\$89.97
Cost/Passenger	\$26.94	\$55.15	\$52.64	\$29.63	\$33.08	\$45.40	\$51.32
Passengers/Revenue Hour	1.67	1.22	1.96	1.77	2.09	1.58	1.75
Subsidy/Passenger	\$23.05	\$51.39	\$48.94	\$27.89	\$29.99	\$42.58	\$47.57
Average Fare/Passenger	\$3.89 ¹³	\$3.76	\$3.70	\$1.74	\$3.09	\$2.82	\$3.75

Source: LAVTA and National Transit Database (2013) (<http://www.ntdprogram.gov/ntdprogram/data.htm>)

¹³ Wheels average fare per passenger includes revenue received from BART paratransit contract fares. BART paratransit fares are paid based on time on the vehicle rather than per passenger.

Figure 5-20 Demand Response Fare Structure

	Wheels Dial-A- Ride	Sonoma County Paratransit	DART	MST RIDES	LINK	Redi- Wheels and RediCoast	East Bay Paratransit
Paratransit Eligible	\$3.50	\$2.50 for first zone; \$1.15 for additional zones	\$3.50 for local. \$5.50 for intercity.	\$3 for < 2.7 mi. \$5 for 2.7 to 19.7 mi. \$7 for > 19.7 mi.	\$4.00	\$3.75 for one-way. \$1.75 for Lifeline.	\$4 for <12 mi. \$6 for 12-20 mi. \$7 for > 20 mi. Fees range from \$6 to 10 for service to/from SF.
Multiplier of Adult Base Fare	1.75	2 +	1.7 for local. 1-2 for intercity.	Varies	2	Varies, from none to 1.9	Varies, from 2+
Personal Care Attendant	Free	Free	Free	Free	Free	Free	Free
Additional Guests	Same fare as paratransit passenger	Same fare as paratransit passenger.	Same fare as paratransit passenger	Same fare as paratransit passenger	Same fare as paratransit passenger	Same fare as paratransit passenger	Same fare as paratransit passenger
Pass Books							
10 Ride	\$35	N/A	\$35	N/A	N/A	\$37.50	N/A
Discount %	0	N/A	0	N/A	N/A	0	N/A
20 Ride	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Discount %	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other	N/A	N/A	N/A	Book of 30 \$1 tickets or book of 10 \$5 tickets.	N/A	N/A	Book of 10 \$4 tickets or book of 10 \$1 tickets.

Source: Agency websites (2015)

Performance Measures

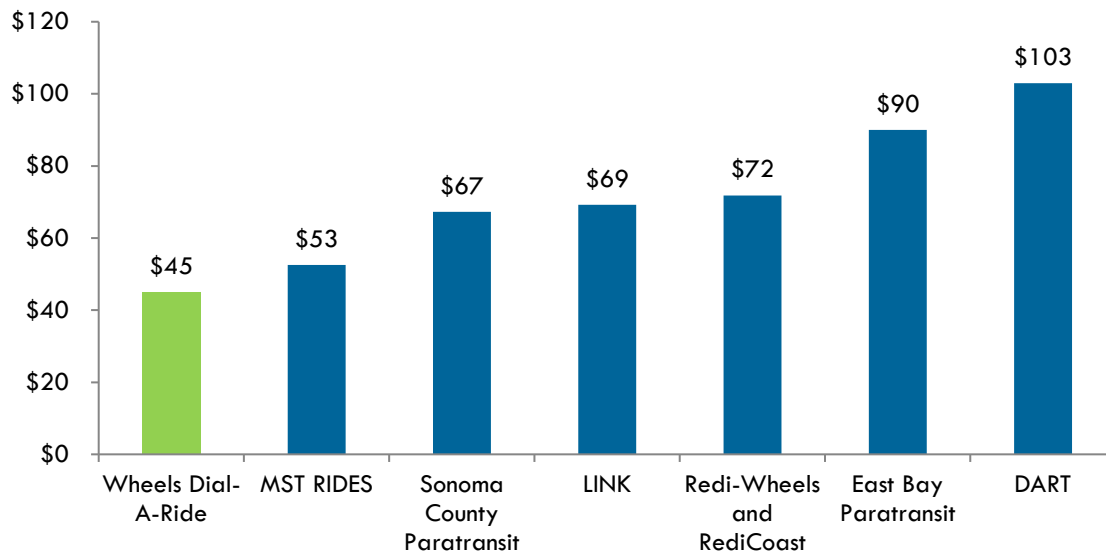
The peer agencies provide a wide range of ADA service levels within their communities. Service ranges from 11,849 revenue hours (DART) to 408,835 revenue hours (East Bay Paratransit) per year. Wheels Dial-A-Ride provides the second-least Paratransit service with 26,809 revenue hours annually.

In terms of operating costs per revenue hour, Wheels Dial-A-Ride is the most cost effective of its peers, at \$44.96 per hour compared to peer systems like LINK at \$69.18 per hour and DART at \$102.95 per hour. Wheels Dial-A-Ride also has the least cost per passenger, at \$26.94 per passenger, compared to the median of \$45.40 per passenger for Redi-Wheels and RediCoast, and \$55.15 per passenger for Sonoma County Paratransit.

It follows that the Wheels Dial-A-Ride has the greatest farebox recovery ratio compared to its peers, at 14%. The median farebox recovery ratio for peer agencies is 7%. Subsidy per passenger for Wheels Dial-A-Ride is also the lowest among peer agencies, at \$23.05.

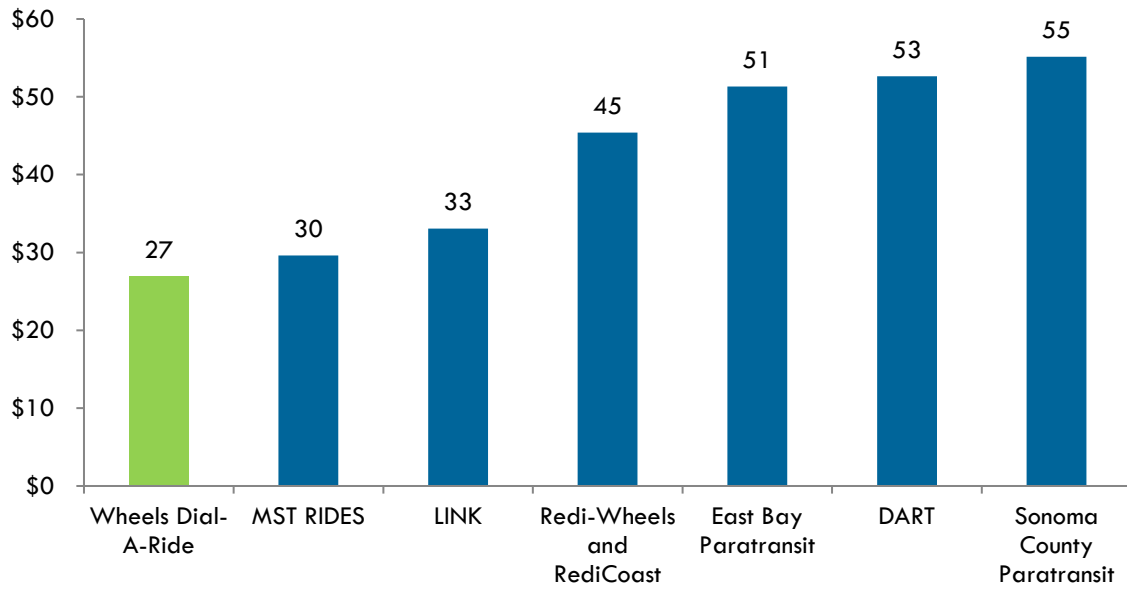
Figure 5-21 to Figure 5-25 detail more performance measures for Wheels Dial-A-Ride and its peer paratransit agencies.

Figure 5-21 Cost per Revenue Hour - Demand Response



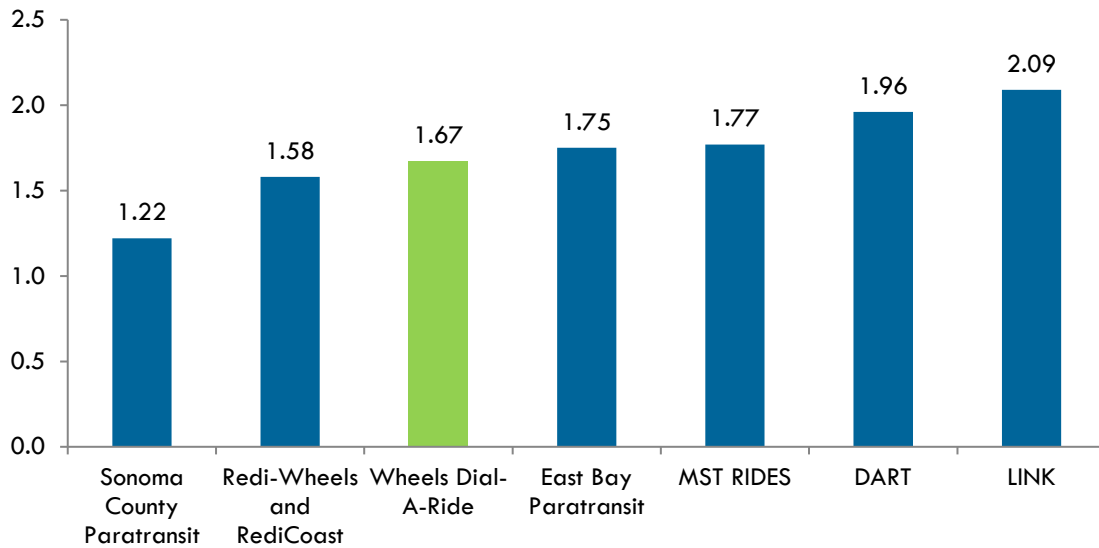
Source: LAVTA and National Transit Database (2013)

Figure 5-22 Cost per Passenger - Demand Response



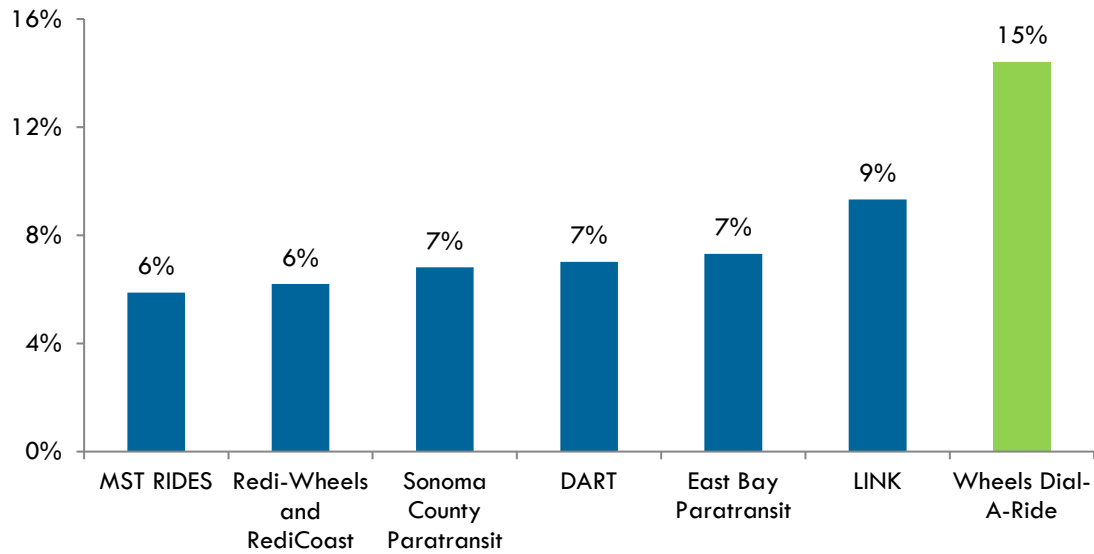
Source: LAVTA and National Transit Database (2013)

Figure 5-23 Passengers per Revenue Hour - Demand Response



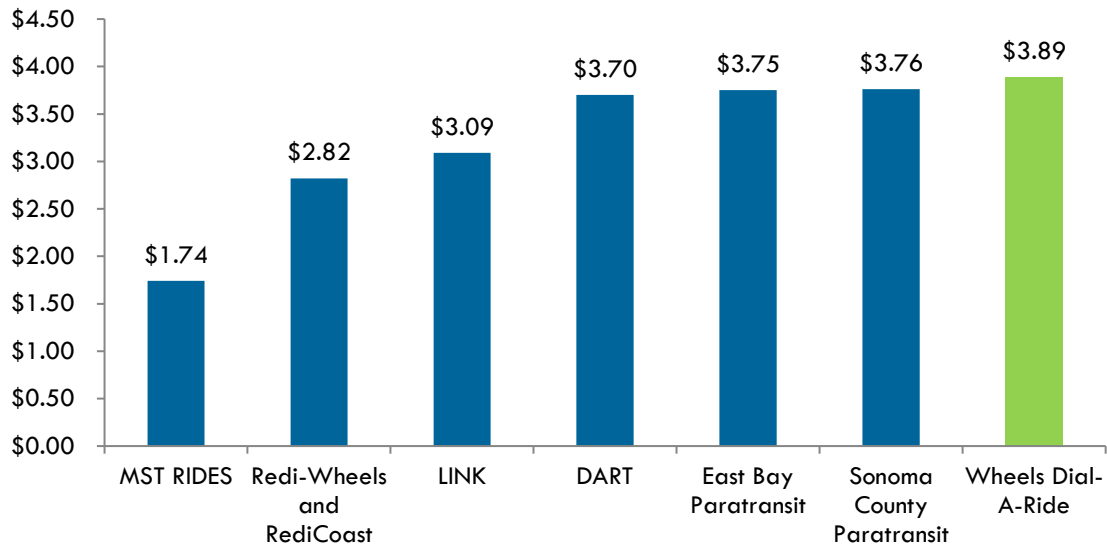
Source: LAVTA and National Transit Database (2013)

Figure 5-24 Farebox Recovery Ratio - Demand Response



Source: LAVTA and National Transit Database (2013)

Figure 5-25 Average Fare per Passenger - Demand Response



Source: LAVTA and National Transit Database (2013)

SUMMARY OF PEER FINDINGS

This chapter provides an in-depth review of key fare policies and findings from six transit agencies serving Northern California, with the majority operating in the San Francisco Bay Area. The peer agencies were selected based on various attributes, including service area, service population, operating characteristics, and feedback from LAVTA staff. The following is a high-level summary of the key findings:

- Wheels is the only transit agency among its peers that operates with a flat fare system for all routes. Other peer agencies offer distance based pricing by zone, or different fare tiers for regular and express or premium services. The distance-based or tiered fare system is likely attributed to large service areas. FAST, SamTrans, and County Connection, which serve smaller areas, all have two fare tiers for their local and premium express or commuter routes. Implementing a fare for similar types of premium service could be an option for LAVTA.
- Wheels' transfer policies are comparable to half of the peer agencies, where local-to-local bus transfers are free for two hours. Other peer agencies have opted for day passes instead of transfers.
- More than two dozen transit agencies operate in the San Francisco Bay Area, making transfers particularly complex. Clipper helps address this by offering one transit smart card. Transfers are still complicated, but most operator-to-operator transfers offer some form of discount or credit.
- Wheels' monthly pass price is approximately 30 times the base fare, which is on the lower side but overall comparable among peers. The Senior/Disabled Monthly Pass is currently priced lowest among peers.
- Most peers provide some form of discounted pass product in the form of a 10-ride, 20-ride, or weekly pass.
- Some, but not all peers, have some type of institutional-level pass such as an employer-focused, residential complex-focused, or college-focused pass product. The pass programs are based on the number of employees, residential units, or students.
- In terms of performance metrics, Wheels has low operating costs compared to its peers. However, Wheels' average fare per passenger is the second lowest among the peer group.
- Wheels Dial-A-Ride is more productive than peer paratransit systems, operating at a much lower cost per passenger and cost per revenue hour. Additionally, Wheels Dial-A-Ride farebox recovery ratio is the highest among peers. At the same time, the multiplier for Wheels Dial-A-Ride fares is lower than peer levels.

6 FARE CONCEPTS

The purpose of this chapter is to revisit the key findings from previous chapters and introduce a range of fare concepts for further analysis and review.

Fare concepts are strategies that may be used to meet the goals and objectives described in Chapter 1. However, concepts are preliminary. Some concepts may continue on to be further refined as part of an alternatives package while others will not. **Fare scenarios** are more specific and combine select concepts that can be compared against one another. Chapter 7 describes four specific scenarios that are analyzed against one another. Chapter 8 (Recommendations) brings together various concepts to make a final fare policy and structure recommendation.



The following fare concepts were considered as part of the evaluation process in this study:

- **Encourage Simplicity.** Overall, LAVTA's fare policies should seek to be simple and easy to use for passengers.
- **Implement Day Pass Option with Appropriate Multiplier.** A new day pass option will be offered for \$3.75 as part of Clipper implementation. However, the multiplier for this pass will be less than twice LAVTA's regular cash fare—extremely inexpensive compared to industry practice. In turn, the agency should advocate for a day pass that is priced with a more reasonable multiplier and at least twice the regular adult fare.
- **Eliminate Free Transfers.** The introduction of a day pass eliminates the need for free transfers by providing customers with fare savings on their second trip of the day.
- **Eliminate FareBuster Tickets.** In keeping with industry practice, Wheels could eliminate paper FareBuster tickets and leverage Clipper implementation to move passengers to greater use of fare cards. Clipper cards can be preloaded with cash to provide an equivalent means for pre-paying for rides without having to buy a 30-day pass. As an additional consideration, some systems provide a small discount for loading a large number of trips or amount of cash as an incentive for passengers to move away from cash payments.
- **Revise Bulk Pass Policies.** Wheels should move away from collecting revenue from employers based solely on the level of service provided. The new revenue calculation should include a fee for the number of employees or residents, regardless of usage.
- **Modify Pass Prices.** The multiplier for regular monthly passes is currently 30, which is in line with a monthly pass price offered by peer agencies. Currently, senior and disabled monthly passes are sold at a lower price point than peer agencies. According to Federal

rules, a discount on non-peak period cash fares only is required; additional pass discounts are simply a community benefit. Discounting passes more than cash fares should be evaluated.

- **Increase Demand Response Fare.** While demand response farebox recovery was higher than peer agencies, Wheels could consider increasing the fare for demand response service to twice the regular fixed-route fare in keeping with industry standard. Furthermore, an increase in demand response fares may help shift a proportion of riders to fixed-route service, which is substantially less expensive to operate.
- **Modify Youth/Student Fares.** A number of peer agencies have a discounted youth/student fare in addition to reduced fares for the elderly and people with disabilities. LAVTA currently has a “youth” fare category; however, the single-ride fare is priced the same as the regular adult fare. Introduction of Clipper provides an opportunity to facilitate pass distribution. Furthermore, Alameda County Transportation Commission (Alameda CTC) is currently developing a pilot program to examine student transportation and develop various effective options to meet specific student and school site needs within Alameda County. Integration with this program could be beneficial for LAVTA to better serve student populations.
- **Add Regional Express Fare Category.** Wheels could consider a separate category for premium regional express service on Route 70X.

7 FARE SCENARIOS

Specific concepts related to potential fare structure and pricing changes were developed to evaluate potential impacts to Wheels ridership and revenue. The four scenarios assume no increase to the base fare (\$2) since the existing fare is currently in line with the regular adult fares charged by peer agencies.

FARE MODEL

As a strategy to help understand the potential ridership and revenue impacts of scenarios developed for evaluation, a fare model has been developed providing order of magnitude ridership and revenue estimates for each scenario.

Model Approach and Assumptions

The fare model developed for this project is based on existing ridership and revenue data (FY 2016) and assumptions on average fare per passenger for each LAVTA fare product. This information is then used as a baseline to understand order of magnitude changes to fare revenues as a result of pricing changes.

Consumption of transit, like other goods and services, reacts to cost. Significant research over time has examined the sensitivity of transit ridership to fare increases. In transit, the standard measurement of sensitivity to fare changes means that for every 10% increase in fares, ridership will decrease by 3% (and vice-versa).

As such, elasticity factors are common in fare modeling, as they define the price sensitivity of riders to fare changes. An elastic factor suggests a larger change in ridership relative to a fare change. An inelastic factor suggests a relatively small change in ridership relative to a fare change. The model has been structured to use a relatively inelastic factor (-0.33) which is consistent with industry standards for regular fares. Additionally, the model incorporates a “reduced” elasticity factor (-0.21) to account for observations associated with student, elderly, and disabled patrons. Using these elasticity factors, ridership changes (on a fare product basis) are determined from the proposed fare increase or decrease. A new average fare for each fare product is also calculated from the percentage change in the fare product price. Finally, multiplying the new ridership estimate by the new average fare produces a revenue estimate for that fare product.

It should be cautioned that any estimation model is an approximation based on a set of assumptions and is highly dependent on accurate data inputs to ensure quality outputs. The fare model bases ridership and revenue changes strictly on price variation. Qualitative factors such as customer simplicity or other factors are not considered here, but are certainly factors in reality that influence ridership and revenue levels. Based on the perceived simplicity gains, it is likely that ridership benefits in each alternative are understated. As a result, the findings in this memo

are simply estimates but offer a valuable means to compare different alternatives against one another.

FARE SCENARIOS

Scenario 1

Eliminate Transfers and Replace with Day Pass

In this scenario, all transfer trips (trips requiring more than one bus to reach a final destination) require a passenger to pay per individual boarding, purchase a day pass, or purchase an unlimited-ride pass (such as the East Bay Monthly Pass). This alternative assumes that the day pass is priced at \$3.75. The base fare would remain at \$2, and a set of 10 FareBuster tickets would continue to be available for \$16. In this scenario, it is assumed that 100% of passengers currently utilizing transfers switch to a day pass product. This includes passengers currently using transfers coupled with both cash fares and FareBuster tickets.

Figure 7-1 Scenario 1 Evaluation Fare Structure

	Existing Fare	Proposed Fare
Regular Fare	\$2.00	\$2.00
Senior/Disabled	\$1.00	\$1.00
FareBuster Ticket (Sold as 10 for \$16)	\$1.60	\$1.60
Kids Under 6	Free	Free
LAVTA Transfer	Free	-
Day Pass	-	\$3.75
East Bay Monthly Pass	\$60.00	\$60.00
Senior/Disabled Monthly Pass	\$18.00	\$18.00

Day Pass Price Modeling

For sake of comparison, a review of the implications of different day pass prices was conducted. This scenario still includes removal of transfers. Fare levels were modeled at \$3.75, \$4.00, \$4.50, and \$5.00. As shown in Figure 7-2, ridership losses are estimated at less than 3%, depending on price level. Revenue increases are anticipated to range from 14% to 16%. If LAVTA seeks to move passengers to Clipper rather than paper day pass products, a paper pass price of \$4.00 or more is a potential strategy to encourage use of the Clipper product—per existing local agreement, the Clipper day pass will be priced at \$3.75.

Figure 7-2 Day Pass Price Modeling

Day Pass Cost	Change in Annual Ridership	Ridership Percent Change	Change in Annual Revenue	Revenue Percent Change
\$3.75	-22,100	-1.3%	\$315,800	15.7%
\$4.00	-27,100	-1.6%	\$310,500	15.5%
\$4.50	-36,900	-2.2%	\$299,700	14.9%
\$5.00	-46,700	-2.8%	\$289,000	14.4%

Findings

Scenario 1 represents the greatest potential opportunity for revenue increases (up to 16%) but may result in a decrease in existing ridership of up to 3%. However, it should be noted that the model does not account for potential increases in overall ridership associated with a forced shift to an unlimited pass product. Research suggests that a forced shift from transfers to a day pass can actually produce both ridership and revenue gains.

Scenario 2

Eliminate FareBuster Tickets and Replace with Day Pass

In this scenario, paper FareBuster tickets are eliminated, requiring a passenger to pay per individual boarding, purchase a day pass, or purchase a monthly pass. This alternative assumes that the day pass is priced at \$3.75. The base fare would remain at \$2. Based on the current distribution of fare product usage and transfers, it is assumed that 55% of passengers currently utilizing FareBuster tickets will switch to a regular adult fare, 33% switch to a day pass, and 12% will switch to the East Bay Monthly Pass.

Figure 7-3 Scenario 2 Evaluation Fare Structure

	Existing Fare	Proposed Fare
Regular Fare	\$2.00	\$2.00
Senior/Disabled	\$1.00	\$1.00
FareBuster Ticket (Sold as 10 for \$16)	\$1.60	-
Kids Under 6	\$0.00	\$0.00
LAVTA Transfer	\$0.00	\$0.00
Day Pass	-	\$3.75
East Bay Monthly Pass	\$60.00	\$60.00
Senior/Disabled Monthly Pass	\$18.00	\$18.00

Findings

Based on model outputs for Scenario 2, the change in ridership is a decrease of 1.3% and results in a 3.1% increase in revenue. As with Scenario 1, the model does not account for potential increases

in ridership associated with a forced shift to an unlimited pass product and may result in additional ridership and revenue gains than represented in the model.

Scenario 3

Modify Senior/Disabled Monthly Pass Price

This scenario maintains most elements of the existing fare structure, but modifies the price of the East Bay Monthly Pass and Senior/Disabled Monthly Pass. The East Bay Monthly Pass multiplier is currently 30 times the base fare, which is on the lower side but overall comparable among peers. The Senior/Disabled Monthly Pass is currently priced lowest among peers. In this scenario, the East Bay Monthly Pass would increase in price from \$60 to \$70, for a multiplier of 35. The Senior/Disabled Monthly Pass would increase in price from \$18 to \$25, a multiplier of 25. The base fare would remain at \$2, and the Senior/Disabled cash fare would remain at \$1.

Figure 7-4 Scenario 3 Evaluation Fare Structure

	Existing Fare	Proposed Fare
Regular Fare	\$2.00	\$2.00
Senior/Disabled	\$1.00	\$1.00
FareBuster Ticket (Sold as 10 for \$16)	\$1.60	\$1.60
Kids Under 6	\$0.00	\$0.00
LAVTA Transfer	\$0.00	\$0.00
East Bay Monthly Pass	\$60.00	\$70.00
Senior/Disabled Monthly Pass	\$18.00	\$25.00

Senior/Disabled Monthly Pass Price Modeling

For sake of comparison, the Senior/Disabled Monthly Pass was modeled at three different price points—\$20, \$25, and \$30. In this scenario, it is assumed that the East Bay Monthly Pass pricing remains at the current level (\$60). The results from each fare level are shown in Figure 7-5. Each fare level results in a slight ridership loss. Pricing the Senior/Disabled Monthly Pass at \$20, \$25, or \$30 would generate a small amount of additional annual revenue (approximately 1% or less).

Figure 7-5 Senior/Disabled Monthly Pass Price Modeling

Senior/Disabled Monthly Pass Cost	Change in Annual Ridership	Ridership Percent Change	Change in Annual Revenue	Revenue Percent Change
\$20	-2,300	-0.1%	\$4,300	0.2%
\$25	-7,900	-0.5%	\$14,000	0.7%
\$30	-13,600	-0.8%	\$22,000	1.1%

Findings

Scenario 3 represents minimal ridership and revenue benefits, with an estimated 0.2% increase in fare revenue and 0.1% decrease in ridership based on a Senior/Disabled Monthly Pass priced at

\$20. The relatively muted impacts of this scenario are likely due to low existing monthly pass usage. Thus, any change in price on the fare products would impact few existing riders.

Scenario 4

Modify Youth Fare

This scenario also maintains most elements of the existing fare structure but modifies the price of the youth one-way fare. Currently, youth ages 6 to 18 pay a regular adult fare. In this scenario, the Youth fare category would be grouped with Senior/Disabled fares to create an overall Discounted Fare of \$1. The base fare for adults would remain at \$2. Pass prices would remain the same as the existing cost.

Figure 7-6 Scenario 4 Evaluation Fare Structure

	Existing Fare	Proposed Fare
Regular Fare	\$2.00	\$2.00
Discounted Fare (Youth/Senior/Disabled)	\$2.00	\$1.00
FareBuster Ticket (Sold as 10 for \$16)	\$1.60	\$1.60
Kids Under 6	\$0.00	\$0.00
LAVTA Transfer	\$0.00	\$0.00
East Bay Monthly Pass	\$60.00	\$60.00
Senior/Disabled Monthly Pass	\$18.00	\$18.00

Findings

Scenario 4 represents the greatest reduction in fare revenue, with an estimated 14.2% decrease. Potential ridership gains are estimated at 1.9%. While revenue is not a benefit in this scenario, LAVTA may choose to pursue this policy as an overall benefit to the community.

Scenario 5

Modify Regional Express Fare

LAVTA offers peak-only regional express service on Route 70X to connect passengers to multiple BART stations in the service area. As discussed previously, fares for premium service at peer agencies range from approximately \$2.25 to \$5.75 per one-way trip. This scenario investigates the ridership and revenue implications of increasing the fare on premium regional express service from \$2.00 to \$3.50. This scenario assumes that all passengers pay a regular cash fare and does not account for ridership and revenue associated with pass purchases.

Figure 7-7 Scenario 5 Evaluation Fare Structure

	Existing Fare	Proposed Fare
Regular Fare	\$2.00	\$2.00
Senior/Disabled	\$1.00	\$1.00
FareBuster Ticket (Sold as 10 for \$16)	\$1.60	\$1.60
Regional Express Fare	\$2.00	\$3.50
Kids Under 6	\$0.00	\$0.00
LAVTA Transfer	\$0.00	\$0.00
East Bay Monthly Pass	\$60.00	\$60.00
Senior/Disabled Monthly Pass	\$18.00	\$18.00

Findings

Scenario 5 results in an estimated 0.8% decrease in annual fixed-route ridership and a 1.7% increase in fare revenue due to increasing regional express cash fares from \$2.00 to \$3.50. This fare increase would serve to bring LAVTA's premium service offering in line with pricing at peer agencies.

Scenario 6

Allow One Transfer within a Two-Hour Window

Scenario 6 evaluates the impacts of allowing only one free transfer within a two-hour period as opposed to unlimited transfers within the same timeframe. This scenario assumes that all passengers taking trips that currently require more than one transfer¹⁴ would pay an additional regular one-way cash fare to complete their trip.

It should be noted that time-specific transfer data was not available from the LAVTA on-board survey. Some passengers requiring three or more transfers to complete their trip may already incur a fare as a result of total trip time taking longer than the two-hour transfer window—however, this information was not captured within available data. Therefore, revenue impacts may be somewhat overstated in this scenario.

¹⁴ According to data available from the on-board survey conducted as part of the LAVTA COA

Figure 7-8 Scenario 6 Evaluation Fare Structure

	Existing Fare	Proposed Fare
Regular Fare	\$2.00	\$2.00
Senior/Disabled	\$1.00	\$1.00
FareBuster Ticket (Sold as 10 for \$16)	\$1.60	\$1.60
Kids Under 6	\$0.00	\$0.00
LAVTA Transfer (<u>One</u> within Two-Hour Window)	\$0.00	\$0.00
East Bay Monthly Pass	\$60.00	\$60.00
Senior/Disabled Monthly Pass	\$18.00	\$18.00

Findings

In Scenario 6, it is estimated that requiring additional fare payment for making more than one transfer within a two-hour window would generate an additional 6.0% in annual revenue and a 1.7% decrease in annual fixed-route ridership. However, as discussed previously, revenue benefits may be somewhat overstated due to lack of time-specific transfer data available from the on-board survey.

FARE SCENARIO SUMMARY

Figure 7-9, Figure 7-10, and Figure 7-11 highlight estimated ridership and revenue changes on a monthly basis according to the three scenarios. As discussed previously, Scenario 1 offers the greatest potential for increased revenue.

Figure 7-9 Scenario Annual Ridership and Revenue Impacts

Scenario	Change in Annual Ridership	Ridership Percent Change	Change in Annual Revenue	Revenue Percent Change
Scenario 1A: Eliminate Transfers and Add Day Pass (\$3.75)	-22,100	-1.3%	\$315,800	15.7%
Scenario 1B: Eliminate Transfers and Add Day Pass (\$4.00)	-27,100	-1.6%	\$310,500	15.5%
Scenario 1C: Eliminate Transfers and Add Day Pass (\$4.50)	-36,900	-2.2%	\$299,700	14.9%
Scenario 1D: Eliminate Transfers and Add Day Pass (\$5.00)	-46,700	-2.8%	\$289,000	14.4%
Scenario 2: Eliminate FareBuster Tickets and Add Day Pass	-21,300	-1.3%	\$62,700	3.1%
Scenario 3A: Modify Senior/Disabled Monthly Pass Price (\$20)	-2,300	-0.1%	\$4,300	0.2%
Scenario 3B: Modify Senior/Disabled Monthly Pass Price (\$25)	-7,900	-0.5%	\$14,000	0.7%
Scenario 3C: Modify Senior/Disabled Monthly Pass Price (\$30)	-13,600	-0.8%	\$22,000	1.1%
Scenario 4: Modify Youth Fare	32,100	1.9%	-\$285,600	-14.2%
Scenario 5: Modify Regional Express Fare	-12,500	-0.8%	\$33,500	1.7%
Scenario 6: Allow <u>One</u> Transfer within Two-Hour Window	-28,600	-1.7%	\$121,200	6.0%

Note: In FY16, Wheels annual fixed-route ridership was 1,648,604, and passenger fare revenue was \$2,007,023.

Figure 7-10 Scenario Annual Ridership and Revenue Impacts (Actual Change)

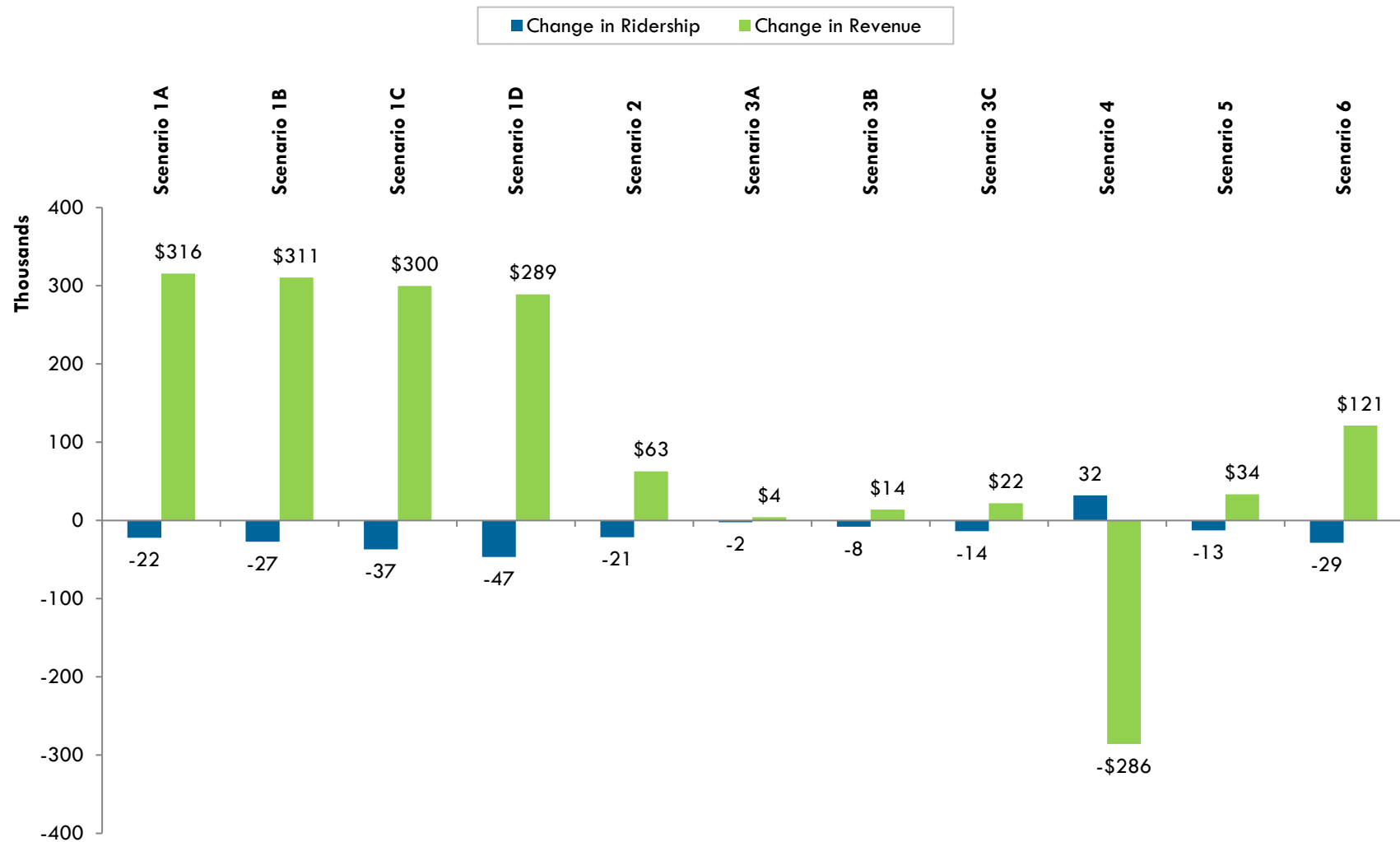
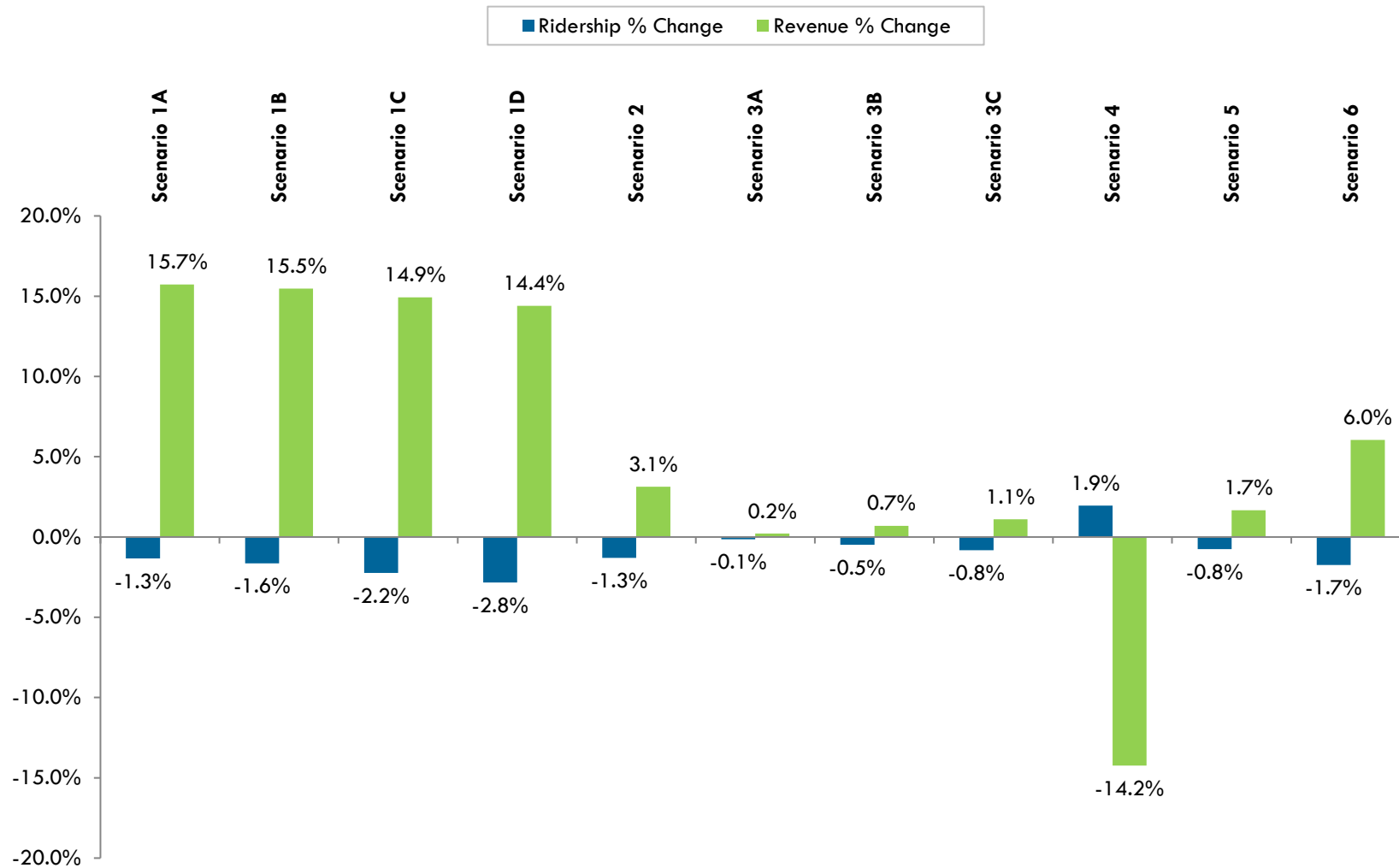


Figure 7-11 Scenario Annual Ridership and Revenue Impacts (Percent Change)



DEMAND RESPONSE FARE SCENARIO

Increase Demand Response Fare

The ridership and revenue impacts of increasing the demand response fare to twice the regular fixed-route fare—in keeping with industry standard—were also analyzed. Existing fares for demand response service are \$3.50, and the proposed fare in this scenario is \$4.00, which is twice the regular cash fare.

It should be noted that the fare elasticity is less for demand response services than fixed-route services because many of these passengers are seniors and/or persons with disabilities who rely heavily on paratransit. As such, these individuals' demand would be considered fare inelastic¹⁵.

Figure 7-12 Demand Response Evaluation Fare Structure

	Existing Fare	Proposed Fare
Demand Response Fare	\$3.50	\$4.00

Findings

The demand response fare scenario accounts for demand response ridership and revenue only. This scenario results in an estimated 2% decrease in annual demand response ridership and an increase in fare revenue of nearly 12% (as shown in Figure 7-13, Figure 7-14, and Figure 7-15). Though demand response service is more price inelastic than fixed-route service, increasing demand response fares may have an additional benefit of helping to shift some passengers to more cost effective fixed-route service.

Figure 7-13 Scenario Annual Ridership and Revenue Impacts

	Change in Annual Ridership	Ridership Percent Change	Change in Annual Revenue	Revenue Percent Change
Demand Response Scenario	-1,200	-2.3%	\$27,100	11.7%

Note: In FY16, demand response ridership and fare revenue were 53,401 and \$232,526, respectively.

¹⁵ A fare elasticity of -0.16 was used as part of the demand response fare analysis, as derived from TCRP Report 95 Chapter 6: Demand Responsive/ADA Traveler Responses to Transportation System Changes, page 6-29.

Figure 7-14 Demand Response Scenario Annual Ridership and Revenue Impacts (Actual Change)

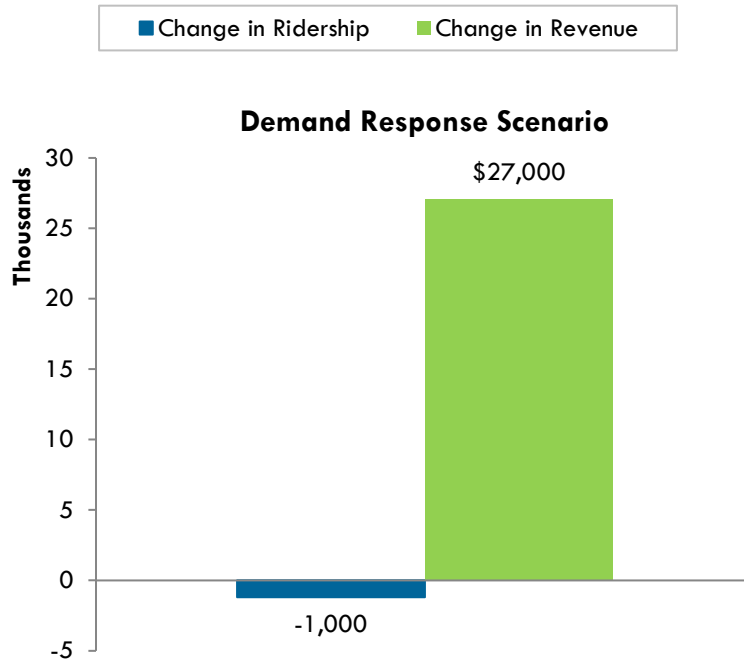
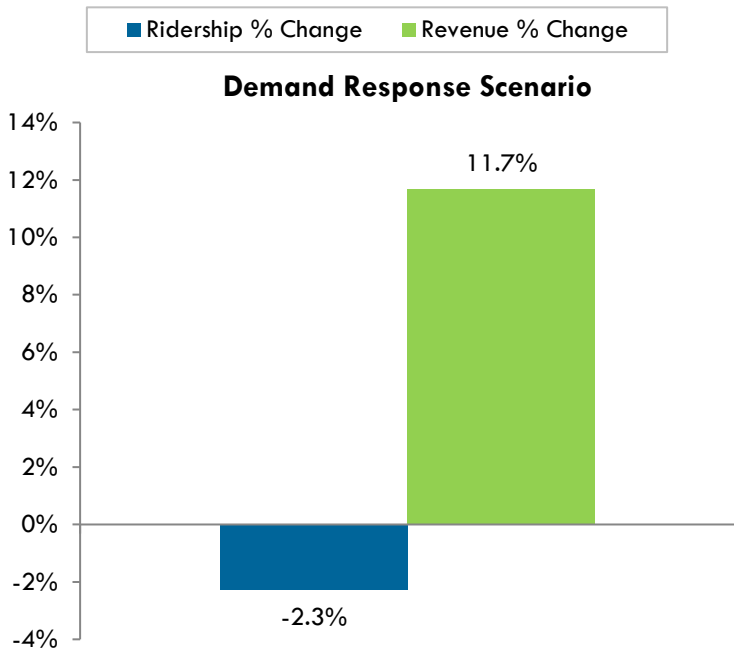


Figure 7-15 Demand Response Scenario Annual Ridership and Revenue Impacts (Percent Change)



8 FARE RECOMMENDATIONS

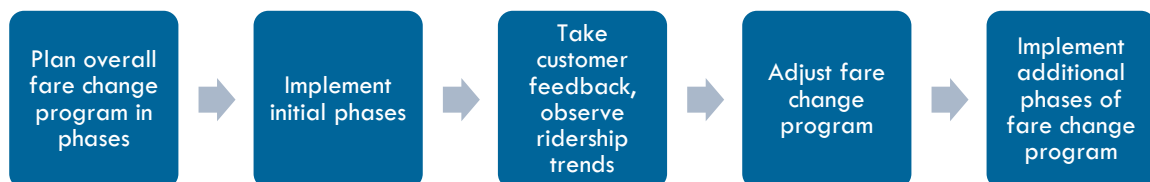
The final chapter culminates the findings—quantitative, qualitative, and from the fare modeling effort—to establish a set of fare policy, pricing and product recommendations for LAVTA. The recommendations come from a combination of the concepts described in Chapter 6 and fare scenarios analyzed in Chapter 7. The recommendations are divided into three general categories:

- **Organizational Policies:** Recommendations relate to internally adopted policies or procedures that relate to fare collection.
- **Fare Programs:** Recommendations pertain to revised or new fare programs such as bulk pass sales and Clipper.
- **Pricing and Fare Products:** Recommendations relate to specific fare products offered to the riding public and pricing of those products.

Phasing of Major Fare Changes

As part of updating existing fare policy and pricing, LAVTA should consider the following approach for implementation (Figure 8-1).

Figure 8-1 Phased Approach to Implementing Larger Fare Changes



ORGANIZATIONAL POLICIES

Establish Guidelines for Fare Increases

Recommendation: Establish and adopt guidelines for fare increases based on fare analysis guidance.

Several factors need to be considered when raising fares, ranging from how fares are perceived by the transit riding public, whether they are “in-line” with peer agencies, to what is the “appropriate” ratio between passenger fares and operating costs. In the future, LAVTA should consider a transparent fare increase policy that enables more regular fare increases to stay in-line with inflation and other revenue related trends.

The following guidelines are provided for LAVTA's consideration:

- On a semi-annual basis, LAVTA should review the average fare and subsidy per passenger, and the farebox recovery ratio for transit services when developing the annual operating budget. If all three ratios are declining and costs to operate the service are increasing, consider a fare adjustment.
- LAVTA should monitor the local consumer price index and if increases are greater than 5% in any given year, consider increasing fares to keep pace with inflation.
- Monitor and track use of all passes and if there is a significant drop in sales with any fare product, consider a fare adjustment for that product. Similar to an underperforming route, underperforming fare products should be evaluated for adjustments or elimination.
- For all future fare increases, pass product prices should be rounded to the nearest dollar. Single-ride prices and/or day pass products should be rounded to the nearest quarter.
- Fuel prices should be considered as part of a fare adjustment policy. However, given the volatility in fuel prices, it may be difficult to use average cost of fuel as a consistent barometer for a fare increase policy.
- "Across the board" fare increases are simple and transparent, but will often create disproportionate impacts. These types of fare increases should be avoided unless supported by evidence that the strategy meets specific goals at the time of evaluation.
- These guidelines assume that service levels would remain constant. Fare increases paired with service level increases may be warranted assuming support exists for both. Fare increases paired with service cuts should be avoided when possible.
- "Premium" services, or services that offer a competitive time or comfort advantage over vehicle or transit alternatives, should continue to be considered for pricing at a higher level to differentiate the product.

FARE PROGRAMS

Implement ECO Pass Programs at Major Institutions

Recommendation: Determine tiered ECO Pass pricing structure based on the number of employees, residential units, or students combined with transit level of service.

An ECO Pass program provides a participating organization free or deeply discounted transit rides for a financial guarantee. These programs are slightly different than pass sales since they often assume that 100% of an organization's members are eligible for the program whether or not they regularly use public transportation. The benefit to major institutions is that a well-designed program provides a simple, packaged solution to help solve transportation access issues to their organization. These types of programs can be implemented in different ways, but the most common financial contribution approaches include the following:

- Contribution determined by current employees, residential units, students, etc. as reported by the participating organization (fee may be different for students, faculty, or staff at a university)
- Contribution determined by ridership

- Annual fixed fee (same price, regardless of institution size or usage)

Depending on institution or city goals, further incentives could be provided to help reduce vehicle congestion in and around the campus/employment area. For institutions that manage internal campus parking or transportation policies, price breaks or further transit discounts could be provided based on an institution's efforts to reduce vehicle trips through parking management and pricing. Similarly, programs like bicycle sharing and carsharing could further reduce vehicle trips and may warrant further transit discounts.

Potential ECO Pass Pricing Structure

LAVTA currently has an agreement in place as part of the Hacienda ECO Pass Program with a fee that is determined by level of service. It is recommended that the existing programs as well as future ECO pass programs shift to determining contributions based on the number of employees, residential units, or students combined with level of service. As discussed previously, examples from AC Transit and Denver RTD offer best practices for structuring employer pass programs, including volume discounts based on employer size. LAVTA should work to develop a pricing structure that can be applied to the entire service area as well as Hacienda Business Park.

A potential pricing structure for ECO Pass is presented below (Figure 8-2). LAVTA will need to conduct additional analysis to determine appropriate price points as well as applicable level of service classifications.

Figure 8-2 Illustrative ECO Pass Pricing Structure

Cost per Employee per Year							
Service Level	Number of Employees	Contract Minimum Per Year	1-24 Employees	24-249 Employees	250-999 Employees	1,000-1,999 Employees	2,000+ Employees
High	1-10	\$1,500	\$120	\$105	\$90	\$75	\$60
	11-20	\$3,000					
	21+	\$3,600					
Medium	1-10	\$1,200	\$105	\$90	\$75	\$60	\$45
	11-20	\$2,400					
	21+	\$3,000					
Low	1-10	\$900	\$85	\$75	\$65	\$50	\$40
	11-20	\$1,800					
	21+	\$2,400					

Note: Illustrative ECO Pass Pricing Structure is derived from peer agency pricing at AC Transit and Denver RTD.

Advocate for Increased Day Pass Pricing

As part of Clipper implementation, a variety of negotiations with neighboring transit agencies determined pricing of a day pass product at \$3.75—less than twice the amount of LAVTA's one-way cash fare. Proposed day pass pricing on Clipper represents a significant discount on the cash fare and monthly fare products. As such, LAVTA should advocate for the ability to set a day pass price that better aligns with the agency's fare structure.

LAVTA currently does not have the ability to print paper (non-Clipper) day passes with its existing fareboxes. If LAVTA updates its fareboxes, it has the ability to price a day pass without needing to coordinate with Clipper partners. However, to reduce the use of paper products and

encourage Clipper use, if a paper pass is introduced, it should be priced higher than the Clipper day pass. A suggested price point would be \$4.00, which is double the cost of a regular cash fare round trip.

Evaluate Success of Student Pass Pilot Program

Families and individuals are increasingly burdened with the growing cost of providing transportation to school. This is due to larger financial and economic circumstances such as reduced funding for student transportation to school, transit fare increases, and changing patterns of student commutes.

LAVTA implemented four new student transit passes as part of an FY 2017 pilot program that allows students at selected schools to ride Wheels for free. At the conclusion of the pilot program, LAVTA should evaluate its success and determine the potential for permanent implementation.

FARE PRODUCTS AND PRICING

This section describes recommendations for modifying existing fare products and pricing. Figure 8-3 provides an overview of the recommended fare structure and a proposed interim option for fare increases. Figure 8-4, Figure 8-5, and Figure 8-6 provide an overview of ridership and revenue impacts. The recommended fare structure results in approximately 4% ridership loss and an 15% increase in revenue, while the interim option results in approximately 3% ridership loss and 14% increase in revenue.

Eliminate FareBuster Tickets

As described previously, paper passes are often prone to abuse due to ease of duplicating fare material. Industry standard generally favors a shift away from paper products towards contactless cards to address fare evasion. In keeping with best practices as well as the fact that LAVTA's recently-purchased fareboxes cannot accept this fare product, LAVTA should eliminate FareBuster tickets as a method to increase fare revenue.

Eliminate Free Transfers

The availability of a regional day pass eliminates the need for LAVTA to provide free transfers. Currently on Clipper, a day pass discount is automatically applied when a customer pays \$3.75 in one day (\$1.75 for senior/disabled riders) and allows them to ride free for the rest of the day.

Two of LAVTA's peer agencies have adopted day use passes in lieu of transfers, which help reduce fraud and encourages a shift towards the Clipper card system. As part of this recommendation, day passes should be available via Clipper and at the farebox.

LAVTA is in the process of upgrading farebox technology to allow for the capability to issue day pass products. As such, implementation of this recommendation will need to be phased to occur in conjunction with the completed installation of new fareboxes.

Increase Demand Response Fare

Demand response service is expensive to operate—according to the peer analysis conducted as part of this study, subsidy per passenger can range from approximately \$20 to \$50. LAVTA currently charges a fare of \$3.50 per trip for paratransit service. In keeping with peers and

industry standards, LAVTA should increase the cost of demand response cash fares to \$4.00 per trip, or twice the cost of the base fare on fixed-route services. Cost for the 10-ride pass book should correspondingly increase to \$40.

According to the fare modeling analysis, there is potential for an increase in demand response fare revenue of nearly 12% and a ridership decrease of approximately 2%. While demand response services are typically less elastic than fixed-route services because many of these passengers are seniors and/or persons with disabilities who rely on these services, increasing demand response fares may have an additional benefit of helping to shift some passengers to less expensive fixed-route service. As such, anticipated ridership decreases serve as a benefit in addition to increased revenue to help offset the high cost of paratransit service.

Increase Senior/Disabled Monthly Pass Cost

LAVTA's Senior/Disabled Monthly Pass is currently priced the lowest among similar products offered by peer agencies. While ridership and revenue benefits are anticipated to be minimal as part of this recommendation (an estimated change of less 1%), it is recommended that LAVTA increase the Senior/Disabled Monthly Pass cost to \$30 to bring the pass multiplier more closely in line with peer agencies. An optional interim fare increase to \$22 dollars could be utilized to lessen the impact of such a large fare increase at once while still raising revenues by an estimated 14% (compared to 14.6% with a \$30 pass). Particularly in conjunction with the increase in demand response fares, it is important for the pass to remain at a price point that is attractive for senior and disabled passengers, especially since some may currently choose to take advantage of more cost effective fixed-route services as opposed to demand response service.

Figure 8-3 Recommended Fare Products and Pricing

Fare Products	Existing Fare	Recommended Fare
Single-Ride Products		
Adults/Youth Regular Fare	\$2.00	\$2.00
Discounted Fare (Senior/Disabled)	\$1.00	\$1.00
Transfers (From Wheels, County Connection or ACE/BART to Wheels)	FREE/\$1.00	-
Children under age 6 when accompanied by a fare paying passenger	FREE	FREE
Eligible employees and family members/dependents with applicable ID	FREE	FREE
Pass Products		
FareBuster 10-ride tickets (Adults and Youths aged 6 through 18 Monthly 10 Ride Book/Script)	\$16.00	-
Day Pass* (One-Day Unlimited Rides Pass)	-	\$4.00
East Bay Monthly Pass (Regular Monthly (Calendar) Unlimited Rides Pass)	\$60.00	\$60.00
Senior/Disabled Monthly Pass (Senior Citizens Monthly (Calendar) Unlimited Rides Pass)	\$18.00	\$30.00 (\$22 interim increase)
Clipper Card Passes		
Regular Monthly (Rolling 31 Day) Unlimited Rides Pass	\$60.00	\$60.00
Senior Citizens Monthly (Rolling 31 Day) Unlimited Rides Pass	\$18.00	\$30.00 (\$22 interim increase)
Disabled Persons Monthly (Rolling 31 Day) Unlimited Rides Pass	\$18.00	\$30.00 (\$22 interim increase)
Day Pass Accumulator Regular*	\$3.75	\$3.75
Day Pass Accumulator Senior/Disabled	\$1.75	\$1.75
Dial-A-Ride		
Cash Fare	\$3.50	\$4.00
Companions accompanying passenger	\$3.50	\$4.00
Dial-A-Ride 10 tickets	\$35.00	\$40.00
Personal Care Attendants (PCA) traveling with fare paying passenger	FREE	FREE

* As mentioned previously, LAVTA should advocate for an increase in day pass pricing to at least twice the regular adult fare.

Figure 8-4 Recommended Fixed-Route Fare Structure Annual Ridership and Revenue Impact Summary

Recommendation	Change in Annual Ridership	Ridership Percent Change	Change in Annual Revenue	Revenue Percent Change
Recommended Option 1: Eliminate Transfers, Add Day Pass (\$3.75/\$1.75), Eliminate FareBuster Tickets (except Youth), Modify Senior/Disabled Monthly Pass Price (\$30)	-60,000	-3.6%	\$293,900	14.6%
Interim Option: Eliminate Transfers, Add Day Pass (\$3.75/\$1.75), Eliminate FareBuster Tickets (except Youth), Modify Senior/Disabled Monthly Pass Price (\$22)	-51,000	-3.1%	\$280,200	14.0%

Figure 8-5 Recommended Fixed-Route Fare Structure Annual Ridership and Revenue Impacts (Actual Change)

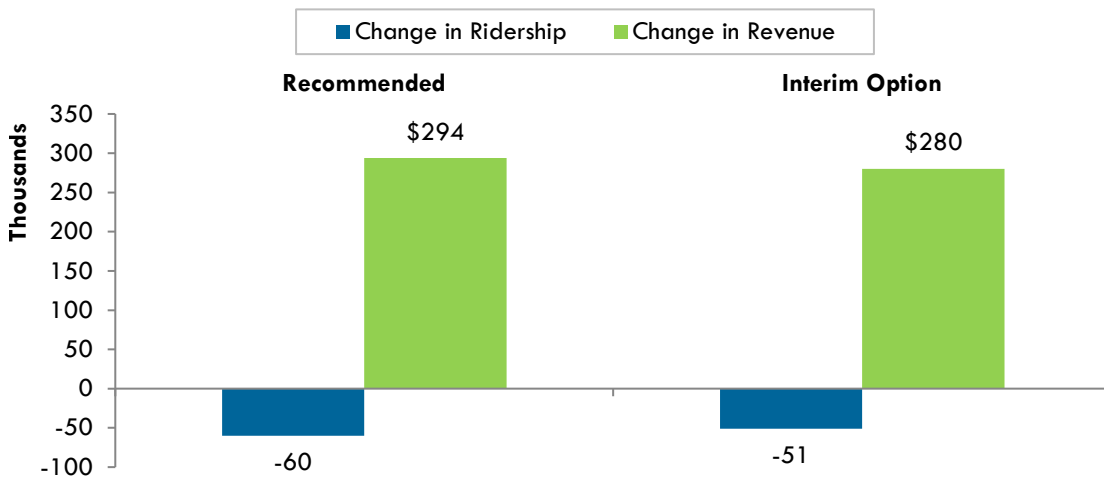
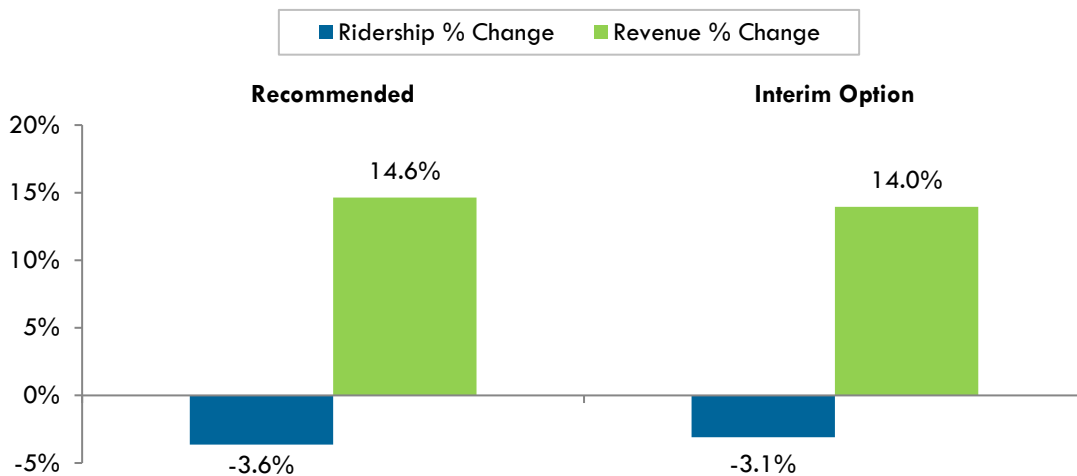


Figure 8-6 Recommended Fixed-Route Fare Structure Annual Ridership and Revenue Impacts (Percent Change)



SUMMARY OF RECOMMENDATIONS

The most significant recommendations for service relate to fare products and pricing. LAVTA should implement the proposed fare structure, including elimination of FareBuster tickets, elimination of free transfers, as well as price increases for demand response fares, senior/disabled monthly passes. Figure 8-7 provides a summary of recommendations developed as part of the LAVTA fare study.

Figure 8-7 Fare Recommendations Summary

Fare Recommendations	
Organizational Policies	Establish and adopt guidelines for fare increases based on fare analysis guidance.
Fare Programs	Implement ECO pass programs at major institutions; determine ECO Pass contributions based on the number of employees, residential units, or students. LAVTA should advocate for an increased cost of day passes to better align with the regular adult fare, as well as evaluating success of the Student Pass Pilot Program.
Pricing and Fare Products	Implement proposed fare structure including eliminating FareBuster tickets, elimination of free transfers, increasing demand response fare, and increasing senior/disabled monthly pass cost.