

LIVERMORE AMADOR VALLEY TRANSIT AUTHORITY

STAFF REPORT

SUBJECT: Fare Policy Discussion

FROM: Christy Wegener, Director of Planning and Operations

DATE: May 23, 2017

Action Requested

None – Information only

Background

Notwithstanding the projected growth in fixed route ridership as a result of the cost-neutral changes implemented as a part of the Comprehensive Operations Analysis, as well as the new revenues that will flow from SB1, staff remains cautious and expects operating costs to likely outpace revenues in the future. Additionally, as more and more discretionary funds are being tied to a healthy farebox recovery ratio (>20%), it is imperative that the agency maintain a competitive cost per hour and average passenger fare.

The following table summarizes the past 16 years of cash fare amounts and categories:

History of the Wheels Bus Fares

Fare Category	2001-2006	August 2006	August 2007	March 2009	Clipper Nov 2015
Regular cash fare	\$1.25	\$1.50	\$1.75	\$2.00	\$2.00
Discount “Fare Buster” ticket	\$0.75	\$1.15	\$1.40	\$1.60	N/A
Day Pass	N/A	N/A	N/A	N/A	\$3.75
Regular monthly pass	N/A	\$45.00	\$53.00	\$60.00	\$60.00
Senior/disabled cash fare	\$0.40	\$0.65	\$0.85	\$1.00	\$1.00
Senior/disabled monthly pass	\$8.00	\$12.00	\$16.00	\$18.00	\$18.00
BART transfer fare	--	--	\$0.85	\$1.00	\$1.00
Paratransit (Dial A Ride)	\$1.25	\$1.75* *(2007)	\$2.50** **(2008)	\$3.50	N/A
Transfers	One (1 hr)	Unlimited (2 hrs)	Unlimited (2 hrs)	Unlimited (2 hrs)	One (2 hrs)

The most current fares for cash and Clipper® were codified in Resolution 27-2015 (Attachment 1).

Discussion

As a part of LAVTA's 2016 Comprehensive Operational Analysis (COA), the planning team completed a fare study (Attachment 2) to evaluate LAVTA's current fare policy and make recommendations for potential adjustments. The report includes 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. Included in the review was a comparison to other Bay Area transit properties of similar size and operating condition.

A peer review chart taken from the report (Figure 5-2, page 5-3) is included as Attachment 2. As noted in the chart, the current Wheels base cash fare of \$2.00 remains in-line with the majority of Bay Area transit agencies. LAVTA is also aligned with the 50% discount offered for senior and disabled fares, and offers very affordable monthly pass products. Unlike many other agencies, LAVTA has a lower paratransit fare at \$3.50 (only 1.5x the base fare of \$2). The Federal Transit Administration (FTA) states that agencies can charge up to 2x their base fare for paratransit, which most transit agencies do.

Potential Fare Modifications

As a part of the study, specific fare changes have been analyzed for impacts to revenue and ridership. The fare changes analyzed do not consider any modifications to Clipper® fares or fare policies. The following fare changes have been included as a part of the fare study:

- 1) Eliminate Transfers and Replace with a Day Pass
- 2) Eliminate Farebusters and Replace with a Day Pass
- 3) Monthly Pass price increase - senior/disabled
- 4) Implement Youth Fare (\$1)
- 5) Modify the Regional Express Fare
- 6) Modify Transfer Policy (to one transfer every 2 hours)
- 7) Demand Response: Increase Paratransit Fare to \$4

Each potential fare change has associated ridership and revenue impacts, some of which can be mitigated. In cases where there are fare increases or fare policy changes that tend to have a negative impact on riders, the cumulative impacts of the fare changes can be more significant. Careful attention must be paid to the impact on sensitive groups and populations.

The following table is a chart of the package/scenarios of fare changes that were analyzed as a part of the study, as well as their impacts on revenue and ridership:

	Change in Annual Ridership	Ridership Percent Change	Change in Annual Revenue	Revenue Percent Change
Scenario 1A: Eliminate Transfers and Add Day Pass (\$3.75)	-2,700	-0.2%	\$531,300	26.5%
Scenario 1B: Eliminate Transfers and Add Day Pass (\$4.00)	-7,600	-0.5%	\$519,600	25.9%
Scenario 1C: Eliminate Transfers and Add Day Pass (\$4.50)	-17,300	-1.1%	\$496,300	24.7%
Scenario 1D: Eliminate Transfers and Add Day Pass (\$5.00)	-27,100	-1.6%	\$473,000	23.6%
Scenario 2: Eliminate FareBuster Tickets and Add Day Pass	-48,500	-2.9%	-\$2,300	-0.1%
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%

	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%

Staff is particularly sensitive to ridership losses at this point in the COA implementation, so would not recommend the Board consider anything that is significantly impactful to the ridership without proper mitigation. For whatever changes may be considered, a phased-approach to implementation may be appropriate.

Monthly Pass Price Increase

The multiplier for regular monthly passes is currently 30x the base fare of \$2.00, 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, at 18x the current base fare of \$1.00.

Transfers and Day Pass Discussion: Currently, the Agency policy is to allow for an unlimited number of transfers within a two hour window of first boarding. Older buses are equipped with a paper tear-sheet transfers that operators remit to passengers when requested. The transfer slips are stamped with the date and have an adjustable time stamp that operators use for authentication. Newer buses dispense transfers from the farebox; these transfers are imprinted with the date and time, and include a magnetic stripe that can be swiped in the farebox reader for authentication. Shifting away from transfers and incorporating a day pass is something many transit agencies are moving to, and it is something LAVTA staff has been discussing for some time. The study modeled different day pass prices, and each price has associated ridership and revenue impacts.

For any scenario that adds in a day pass, it must be noted that the agency currently does not have the capability to dispense day passes onboard the buses. Currently, the LAVTA day pass is only available on Clipper and is available as an accumulator (so, once a passenger pays \$3.75 in fares on a given day, they automatically get a day pass and ride free the rest of that day). No such cash option currently exists, which is important for low-income riders. The Wheels bus fleet has a mix of farebox technology; the newest buses (2016 and upcoming 2017 bus order) will have the upgraded fareboxes that can dispense day passes. The remaining fleet (20 buses) have antiquated fareboxes that would need to be upgraded; a farebox retrofit is programmed in the FY2018 budget.

Eliminating transfers and implementing a day pass at \$4.00 would result in a 0.5% decrease in ridership and a 25.9% increase in revenue. The Clipper® day pass would remain at \$3.75 to encourage the switch to electronic fare media.

Until the fleet can be upgraded, one idea would be to consider a first step of going to a one-transfer within a two hour window, and then a full elimination of transfers/day pass implementation when the farebox upgrade is complete. Currently, the breakdown of transfers among LAVTA ridership are: 45% of passengers don't transfer at all; 35% of passengers transfer once; 16% transfer twice; and 4% transfer three or more times. Moving to a one-transfer policy with no day pass was modeled as a part of the study (Scenario 6, above), and results in a 1.7% decrease in ridership, and a 6% increase in revenue.

Farebusters and Day Passes

Eliminating Farebusters and replacing with a Day Pass results in a significant decrease in ridership (-2.9%) and a slight decrease in revenue (-0.1%). The decrease in revenue is because passengers are expected to shift to pass products (monthly or day pass) where less revenue is ultimately collected across the same or greater number of trips. There may be options to consider raising the farebuster price from \$1.60 to \$1.80 per ticket; or holding off on any changes until the fareboxes can be fully upgraded. The ridership appears to be very sensitive to this fare product.

Youth Fare Discussion

For the past several years, there have been numerous inquiries as to whether the Agency should (or will ever) offer a discounted youth fare. Offering a youth discount is more common than not among transit agencies, and LAVTA is out of alignment in that sense. The study team modeled a youth fare discount of 50% discount, which results in an increase in ridership of 1.9% and a significant loss in revenue of over 14%. It should also be noted that many of the school tripper routes serving some of the schools in Pleasanton and Dublin do not have capacity for more students; additional buses would need to be deployed as overflow service to safely transport students, which could become a constraint with the fleet. In fiscal year 2017, LAVTA piloted two different student pass programs in Livermore. The following paragraphs describe the pilots:

Alameda County Measure BB Affordable Student Transit Pass: The first pass pilot is administered by Alameda County Transportation Commission (ACTC) and is funded through Measure BB. The Affordable Student Transit Pass Pilot (ASTPP) has been rolled out throughout the county in partnership with ACTC, numerous schools and schools districts, and the three

county bus operators (LAVTA, AC Transit, and Union City). In the Tri-Valley, the ASTPP includes two Livermore schools – East Avenue Middle and Livermore High. For the first year of the pilot, students who receive free or reduced-price lunches were given access to a free Wheels pass, and the remaining study body was offered 50% discount on a Wheels pass. The pass was administered quarterly, so students who were taking advantage of the discount had to pay \$120 a quarter. Ridership has been lower than expected, and feedback from students/parents and schools indicate that the cost remains to be a barrier for those who want to use the bus as an occasional option.

After comprehensive mid-year program evaluations were completed by Alameda County Transportation Commission (Attachment 3), it was recommended that, for the second year of the pilot (2017/2018), the pass model would be expanded to *free and universal pass* model: every student at the pilot schools would have access to a free yearly pass on Wheels. For the 2017/18 year, the pilot pass is also being converted from a flash student ID pass to Clipper® card, which will be administered by LAVTA. A shift to Clipper® will result in improved accuracy of data available for program evaluation. Additionally, the Alameda County Transportation Commission recently approved expanding the ASTPP to two additional schools for the second pilot year: Christensen Middle School and Del Valle Continuation High School in Livermore. This will bring the total number of students with access to a free Wheels pass to approximately 3,200 for the upcoming year.

Las Positas Easy Pass and Livermore Valley Charter Prep: The second pilot launched in fiscal year 2017 are Easy Pass pilots: The Las Positas College Easy Pass and the Livermore Valley Charter Prep (LVCP) Easy Pass. This is a LAVTA-sponsored pilot where free Wheels passes are available for all students enrolled in the 2016/17 academic year. Both passes are being administered as a student ID flash pass.

The Las Positas Easy Pass has resulted in ridership gains of over 75% from pre-COA levels at the College and currently there are nearly 450 trips taken per day on school day weekdays. Feedback from student riders is extremely positive. LAVTA staff has been developing a relationship with key members of the school administration and student body to facilitate a student vote on long-term funding within the next academic year. Accordingly, LAVTA staff has recommended funding the pilot one additional year through LAVTA's Low-Carbon Transit Operations (LCTOP) fund allocation of approximately \$144,000, as well as through \$25,000 from the Las Positas College student association. The pilot costs an estimated \$180,000 per year.

The LVCP pass has been less successful at an average use of 40 trips per day, and the school administration has not expressed an interest in funding the pass a second year.

Express Fare Discussion

Many transit agencies offer a premium fare for express services that travel outside the base service area. An express fare would apply to LAVTA's Route 70X, which provides peak service on the I-680 corridor between Dublin/Pleasanton BART, Walnut Creek BART, and Pleasanton Hill BART. The fare study modeled an express fare of \$3.50 (from the current \$2 fare), which results in a ridership loss of 0.8% and an increase in fare revenue of 1.7%. A more modest

express fare of \$2.25 or \$2.50 may make more sense initially. It should be noted that there may be implications to the Agency's monthly pass policies (paper pass and Clipper) with moving to a higher express fare that will need to be considered.

Demand Response Fare Increase:

Staff is recommending that the paratransit fare increase to \$4.00 not be considered at this time. The paratransit fare increase will be considered as a part of the Tri-Valley Comprehensive Paratransit Assessment and weighed against other programmatic changes through the course of that study later in 2017.

Preliminary Recommendations

For discussion purposes, staff is recommending the Committee provide feedback on the following potential fare changes:

- 1) Increase in the Senior/Disabled Monthly Pass from \$18 to \$20 or \$25
- 2) Implementing a two-phased modification in the transfer policy: The first phase would include a shift to a one-transfer per two hour policy; the second phase would be to eliminate transfers and implement a cash day pass at \$4.00 when the fareboxes are upgraded.
- 3) Increasing the farebuster price to \$1.80.
- 4) Increasing the express fare on Route 70X to \$2.25 or \$2.50.

Next Steps

After receiving the Committee's feedback, staff will finalize draft recommendations and will prepare a staff report for the June Committee and July Board meetings. Staff will be presenting the draft fare recommendations to the Wheels Accessible Advisory Committee at their July 5th meeting.

Recommendation

None –Information Only

Attachment:

1. Resolution 27-2015 Fare Amounts and Categories
2. LAVTA Fare Study Draft Report
3. Peer Review Chart
4. ACTC Staff Report

RESOLUTION NO. 27-2015

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
LIVERMORE AMADOR VALLEY TRANSIT AUTHORITY
UPDATING THE CONSOLIDATED FARE SCHEDULES
AND TRANSFER AGREEMENTS FOR PASSENGERS**

WHEREAS, the Board of Directors of the Livermore Amador Valley Transit Authority adopted Resolution No. 2-2015 to consolidate existing fare schedules and transfer agreements for Fixed Route and Dial-A-Ride Paratransit Service passengers effective February 2, 2015; and

WHEREAS, the Board of Directors of the Livermore Amador Valley Transit Authority finds it desirable and necessary to add the Clipper Card Fares and the Clipper Card Day Pass Accumulator fare media to LAVTA's fare policy in anticipation of the Clipper Card Implementation.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Livermore Amador Valley Transit Authority updates fare schedules and agreements with upcoming Clipper Card fares as shown below:

FARE SCHEDULE**I. FIXED ROUTE SERVICE – Effective March 22, 2009****(i) Regular one-way fare including unrestricted transfers between Wheels buses within two hours of fare payment of:**

(a)	Adults	\$2.00
(b)	Youths between ages 6 and 18	\$2.00
(c)	Senior Citizens age 65 and over	\$1.00
(d)	Disabled Persons	\$1.00
(e)	Children under age 6 when accompanied by a fare paying passenger	FREE
(f)	Americans with Disabilities Act (ADA) Certified persons (with RTC Card)	\$1.00
(g)	Eligible employees and family members/ dependents with applicable ID*	FREE

(ii) The following paper passes will be available for passengers:

(a)	Adults and Youths ages 6 through 18 Monthly 10 Ride Book/Script	\$16.00
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(b)	Regular Monthly (Calendar) Unlimited Rides Pass	\$60.00
(c)	Senior Citizens Monthly (Calendar) Unlimited Rides Pass	\$18.00
(d)	Disabled Persons Monthly (Calendar) Unlimited Rides Pass	\$18.00

II. CLIPPER CARD - FIXED ROUTE SERVICE – Effective Fall 2015 (when Clipper Card fully implemented)

(i) Regular one-way fare including unrestricted transfers between Wheels buses within two hours of fare payment of:

(a)	Adults	\$2.00
(b)	Youths between ages 6 and 18	\$2.00
(c)	Senior Citizens age 65 and over	\$1.00
(d)	Disabled Persons	\$1.00
(e)	Children under age 6 when accompanied by a fare paying passenger	FREE
(f)	Americans with Disabilities Act (ADA) Certified persons (with RTC Card)	\$1.00

(iii) The following electronic Clipper Card passes will be available for passengers:

(a)	Regular Monthly (Rolling 31 Day) Unlimited Rides Pass	\$60.00
(b)	Senior Citizens Monthly (Rolling 31 Day) Unlimited Rides Pass	\$18.00
(c)	Disabled Persons Monthly (Rolling 31 Day) Unlimited Rides Pass	\$18.00
(d)	Day Pass Accumulator Regular	\$ 3.75
(e)	Day Pass Accumulator Senior/Disabled	\$ 1.75

III. DIAL-A-RIDE PARATRANSIT SERVICE – Effective March 22, 2009

(a)	Fare per Ride	\$3.50
(b)	Eligible employees with applicable ID	Free**

REGIONAL TRANSFER POLICIES

All passes and transfers from transit systems with a reciprocal agreement (shown below) will be accepted by LAVTA at intersecting points, transit centers, and BART stations. Agencies that have reciprocal agreements with LAVTA:

Fixed Route:

- Free – To and from Wheels - City of Pleasanton, Downtown Pleasanton Route (DTR)
- Free – To and from Wheels - County Connection (CCCTA) within two hour period of boarding
- Free – From San Joaquin Regional Rail Commission (SJRRRC) aka Altamont Corridor Express (ACE) to Wheels
- \$1.00 – From BART to Wheels

Dial-A-Ride:

- Free – interagency paratransit transfers from East Bay Paratransit
- Free – interagency paratransit transfers to and from County Connection Links

WHEELS CLASS PASS PROGRAM

A class pass is a free bus ride for up to 25 passengers (includes children, teachers and adult supervisors) from a school to any Tri-Valley destinations that WHEELS fixed routes currently serve. Teachers may request up to two (2) class passes per school year.

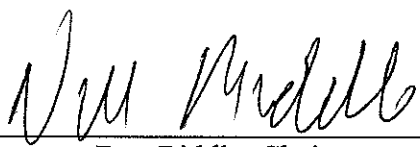
*LAVTA Employees and contracted employees, as well as “eligible family members/dependents” defined below shall be issued picture identification cards that will be good for a period not to exceed one year. LAVTA staff and dependents, and contractor staff may be issued a picture ID upon date of hire, but contractor dependents are not eligible for an ID until 90 days after the employee’s hire date. At the beginning of each fiscal year, July 1, a new annual sticker will be issued to each employee and eligible dependent in order to ride Fixed Route transit. Board Members and their dependents are eligible for an ID; however retirees of the agency are not.

“Eligible Family Member/Dependent” is defined as a person who is claimed by the employee on their tax returns; or in the event no tax return is filed, then 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 and signed statement documenting that the identified person would meet the requirements of “dependent” as defined by within the parameters of a tax return or health benefit election.

LAVTA’s maintenance and operations contractor will be responsible for collecting employee and family member ID cards upon the termination of employment for one of their employees and returning these ID cards to LAVTA.

** Free rides on Dial-A-Ride will be available only for Authority direct or contracted employees (no dependents), who are certified eligible for participation in the ADA paratransit program, and only for work related trips. Fraudulent use of the issued IDs, whether by a Wheels employee or their dependent, will result in rescinding the employee’s free ride privileges as well as the privileges of the employee’s dependents.

PASSED AND ADOPTED this 14th day of September 2015.



Don Biddle, Chair

ATTEST:

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Michael Tree, Executive Director

APPROVED AS TO FORM:

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Michael Conneran, Legal Counsel



LAVTA Fare Study

Draft Report

December 2016

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Table of Contents

1	Introduction.....	1-1
	Goals and Objectives.....	1-1
2	Service Overview	2-1
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	8-7

Table of Figures

Figure 2-1	Frequency and Span of Service by Route.....	2-7
Figure 2-2	Existing Routes	2-8
Figure 2-3	LAVTA Service Area Transit Service	2-4
Figure 2-4	Average Annual Boardings by Route	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 2008-2013.....	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 14-15) Including Transfers.....	4-5
Figure 4-8	Ridership by Fare Type (Excluding Transfers)	4-6
Figure 4-9	Cash Fare Ridership (FY 14-15).....	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	2014 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 7 Evaluation Fare Structure	Error! Bookmark not defined.
Figure 7-10	Scenario Annual Ridership and Revenue Impacts.....	7-8
Figure 7-11	Scenario Annual Ridership and Revenue Impacts (Actual Change).....	7-9
Figure 7-12	Scenario Annual Ridership and Revenue Impacts (Percent Change).....	7-10
Figure 7-13	Demand Response Evaluation Fare Structure.....	7-11
Figure 7-14	Scenario Annual Ridership and Revenue Impacts.....	7-11
Figure 7-15	Demand Response Scenario Annual Ridership and Revenue Impacts (Actual Change)	7-12
Figure 7-16	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	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 2016, the LAVTA Wheels bus system includes a network of 33 routes serving the Dublin, Pleasanton, and Livermore area, including one Rapid route and 16 school-focused routes. LAVTA also operates Dial-A-Ride service in compliance with the Americans with Disabilities Act (ADA).

Routes operate with headways ranging from 15 minutes to 120 minutes depending on the day and time period. Eight routes provide all day service. Some routes operate only during peak times, while others operate from 4:00 a.m. to 2:00 a.m. Service frequencies and spans for each FY 2016 route are shown in Figure 2-1. Six routes operate on Saturdays, and five operate on Sundays.

Figure 2-2 shows the LAVTA's systemwide routes in FY 2016, and Figure 2-3 shows the service network with connecting agency routes. 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 routes 70X and 70XV serve Walnut Creek BART and Pleasant Hill BART in Contra Costa County.

Route Categories

LAVTA's categories of routes as of FY 2016 are as follows:

- **Primary:** *Route 10, 12/12X, 20X, and Rapid.* Primary routes operate between the municipalities in the service area. With the exception of Route 20X, which only operates during peak hours, primary routes generally operate all day with regular frequencies, usually at least half hourly or hourly service.
- **Regional Express:** *Route 70X/70XV.* Regional Express service is the 70X/70XV and 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.
- **Neighborhood Feeder:** *Route 1, 2, 3, 8A/8B, 9, 11, 14, 15, 51, 53, and 54.* Neighborhood Feeder 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 401, 402, 403, 501, 502, 503, 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.

Figure 2-4 illustrates total annual boardings by route for the different categories, excluding school routes. For more information about system performance, please see the COA report.

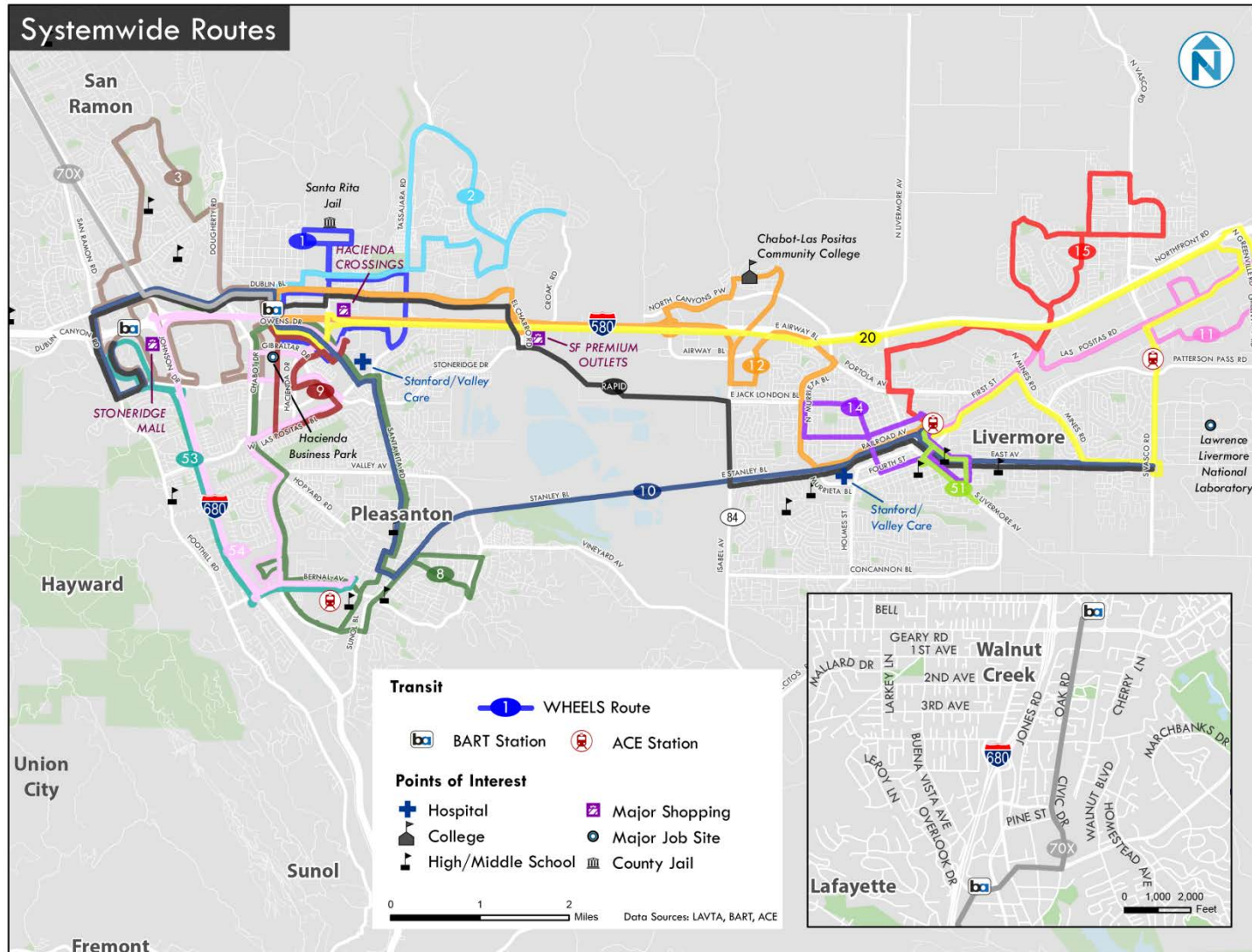
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Figure 2-1 Frequency and Span of Service by Route (FY 2016)

Route	Frequency of Service					Span of Service		
	AM	Midday	PM	Saturday	Sunday	Weekday	Saturday	Sunday
Route 1	30	30	30	30	30	6:00 a.m. – 8:55 p.m.	8:01 a.m. – 9:25 p.m.	8:01 a.m. – 9:25 p.m.
Route 2	60	-	60	-	-	6:30 a.m. – 9:20 a.m. 3:20 p.m. – 6:48 p.m.	-	-
Route 3	30	-	30	60	-	5:55 a.m. – 9:20 a.m., 3:30 p.m. – 8:50 p.m.	9:01 a.m. – 5:51 p.m.	-
Route 8A	60	60	60	-	-	6:15 a.m. – 7:02 p.m.	-	-
Route 8B	60	60	60	-	-	6:45 a.m. – 8:32 p.m.	-	-
Route 8	-	-	-	50-60	40	-	8:01 a.m. – 11:11 p.m.	9:01 a.m. – 2:18 p.m.
Route 9	15-30	-	15	-	-	6:30 a.m. – 9:19 a.m. 3:30 p.m. – 6:19 p.m.	-	-
Route 10	30	30	40	16-48	40	4:12 a.m. – 1:44 a.m.	4:57 a.m. – 1:14 a.m.	5:17 a.m. – 1:14 a.m.
Route 11	45	-	45	-	-	6:42 a.m. – 8:48 a.m. 4:12 p.m. – 6:18 p.m.	-	-
Route 12	15-30	60	15-60	60	120	5:58 a.m. – 10:42 p.m.	9:01 a.m. – 9:47 p.m.	9:02 a.m. – 8:47 p.m.
Route 14	30	30	30	-	-	6:42 a.m. – 8:06 p.m.	-	-
Route 15	30-60	30-60	30-60	60	60	5:12 a.m. – 11:58 p.m.	6:02 a.m. – 11:48 p.m.	7:08 a.m. – 8:43 p.m.
Route 20X	45	-	45	-	-	6:15 a.m. – 9:54 a.m. 3:52 p.m. – 6:36 p.m.	-	-
Route 51	-	-	30	-	-	3:12 p.m. – 6:57 p.m.	-	-
Route 53	25-75	-	60	-	-	5:33 a.m. – 8:41 a.m. 3:55 p.m. – 7:31 p.m.	-	-
Route 54	65 – 75	-	60	-	-	5:33 a.m. – 8:23 a.m. 3:47 p.m. – 6:28 p.m.	-	-
Route 70X/70XV	30	-	30			5:43 a.m. – 8:53 a.m. 4:00 p.m. – 6:41 p.m.	-	-
Rapid	12-18	15	15	-	-	5:16 a.m. – 8:04 p.m.	-	-

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Figure 2-2 System Map (FY 2016)



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

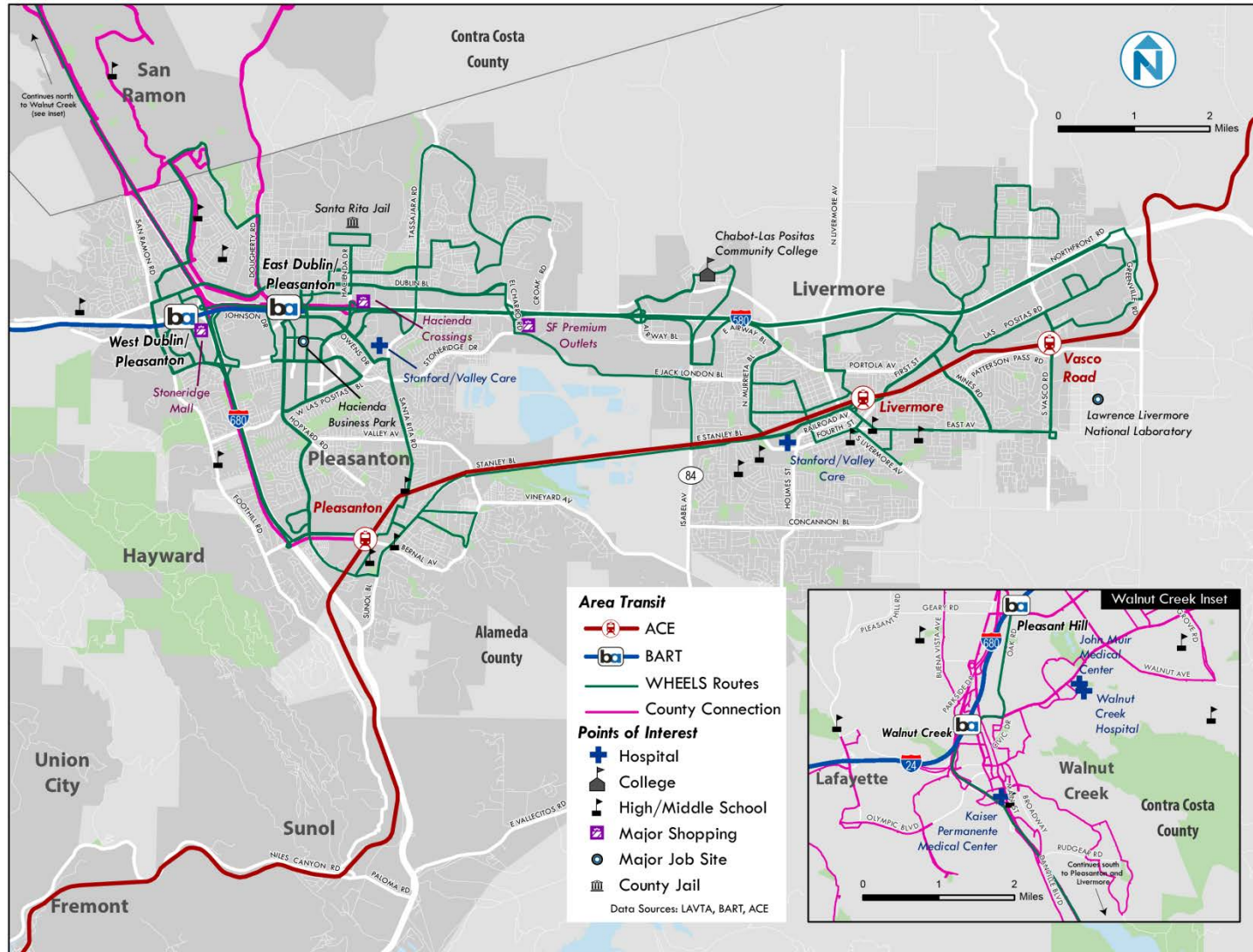
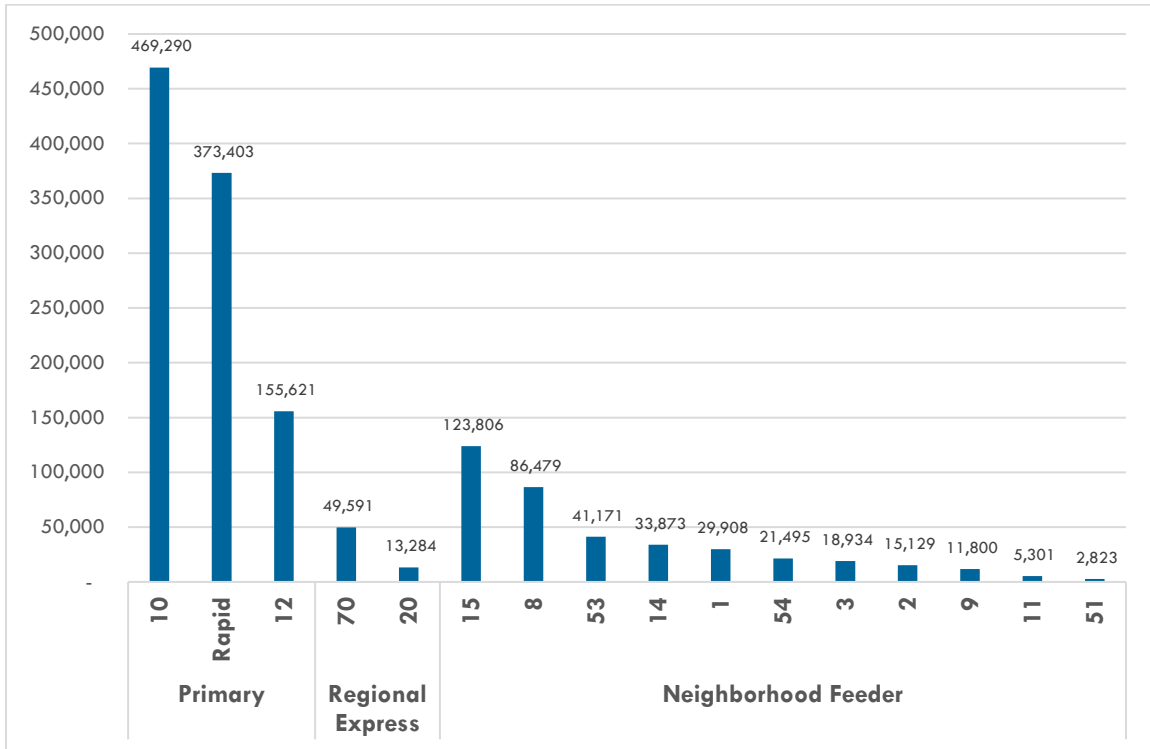


Figure 2-4 Total Annual Boardings by Route (FY 2016)



FY 2017 SERVICE CHANGES

LAVTA implemented service changes effective on August 13, 2016. As a result of these service changes, the 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.

Service frequencies and spans for each route are shown in Figure 2-5, and Figure 2-6 shows LAVTA's systemwide routes effective as of August 13, 2016.

Student Pass Pilot Program

LAVTA also 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.

The remainder of this document describes service and fare structure in place through FY 2016.

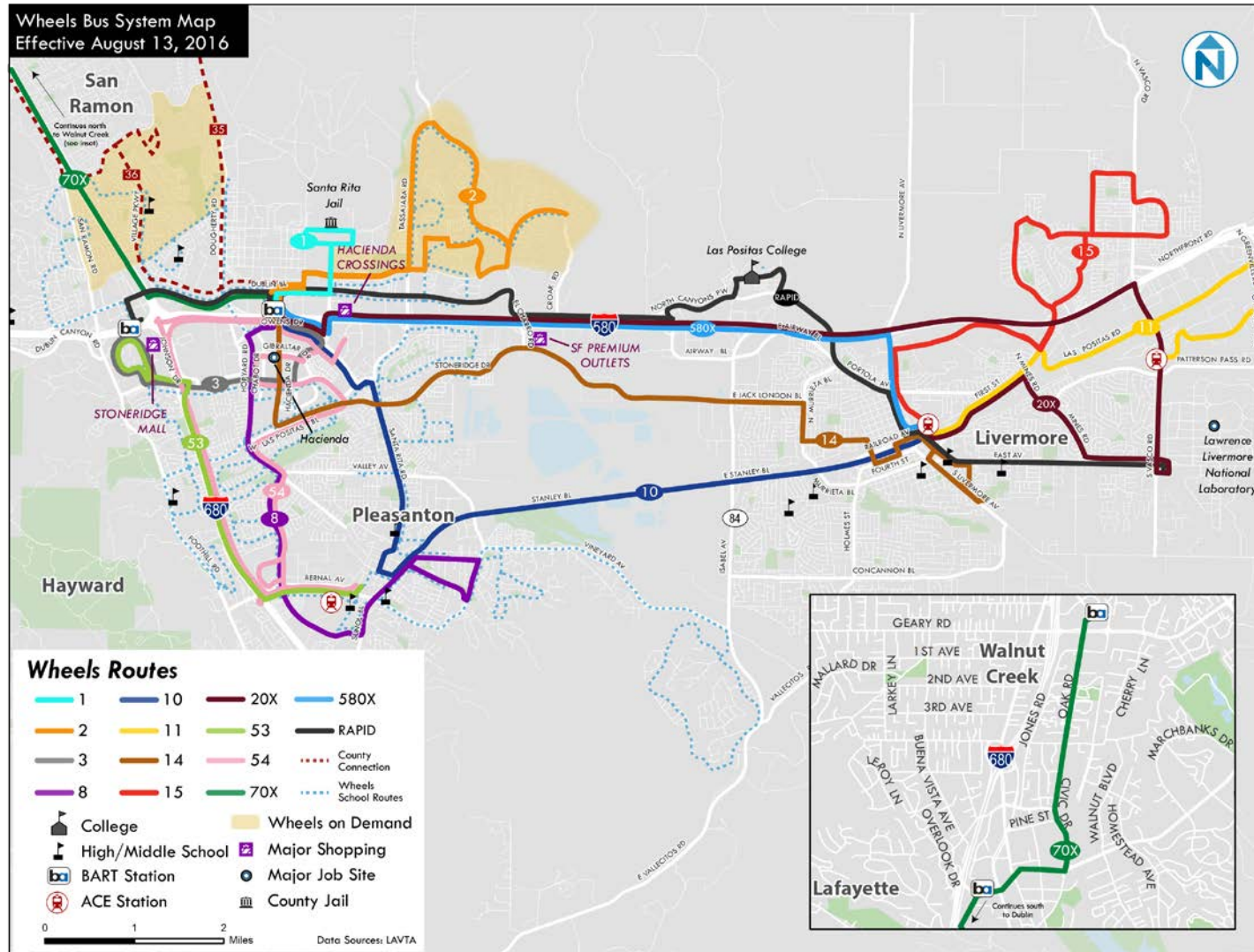
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Livermore Amador Valley Transit Authority

Figure 2-5 Frequency and Span of Service by Route (Effective August 13, 2016)

Route	Frequency of Service						Span of Service		
	AM Peak	Midday	PM Peak	Evening	Sat	Sun	Weekday	Saturday	Sunday
Route 1	30	60	30	60	60	60	6:00 a.m. – 9:00 p.m.	8:00 a.m. – 9:00 p.m.	8:00 a.m. – 9:00 p.m.
Route 2	60	-	60	-	-	-	6:30 a.m. – 9:20 a.m. 3:20 p.m. – 6:48 p.m.-	-	-
Route 3	45	45	45	45-60	45-60	45-60	6:00 a.m. – 1:00 a.m.	8:00 a.m. – 1:00 a.m.	8:00 a.m. – 1:00 a.m.
Route 8	30	60	30	60	60	60	6:00 a.m. – 9:00 p.m.	8:00 a.m. – 9:00 p.m.	8:00 a.m. – 9:00 p.m.
Route 10	15	15	15	30-60	30-60	30-60	4:30 a.m. – 1:00 a.m.	5:30 a.m. – 1:00 a.m.	6:00 a.m. – 1:00 a.m.
Route 11	60	-	60	-	-	-	6:00 a.m. – 9:00 a.m. 4:00 p.m. – 7:00 p.m.	-	-
Route 14	30	60	30	60	60	60	6:00 a.m. – 10:00 p.m.	8:00 a.m. – 10:00 p.m.	8:00 a.m. – 10:00 p.m.
Route 15	30	30	30	60	60	60	5:00 a.m. – Midnight	6:00 a.m. – Midnight	7:00 a.m. – 9:00 p.m.
Route 20X	2 trips	-	2 trips	-	-	-	7:30 a.m. – 9:10 a.m. 4:45 p.m. – 6:20 p.m.-	-	-
Rapid	15	15	15	30-60	60	60	5:15 a.m. – Midnight	5:15 a.m. – Midnight	5:15 a.m. – Midnight
Route 53	25-75	-	60	-	-	-	5:30 a.m. – 8:30 a.m. 4:00 p.m. – 7:30 p.m.	-	-
Route 54	2 trips	-	3 trips	-	-	-	6:50 a.m. – 8:30 a.m. 3:45 p.m. – 6:30 p.m.	-	-
Route 70X/70XV	30	-	30	-	-	-	5:30 a.m. – 9:00 a.m. 4:00 p.m. – 7:00 p.m.	-	-
Route 580X	30	-	30	-	-	-	6:00 a.m. – 8:30 a.m. 4:30 p.m. – 7:30 p.m.	-	-

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Figure 2-6 System Map (Effective August 13, 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)

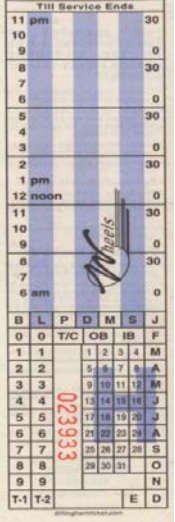
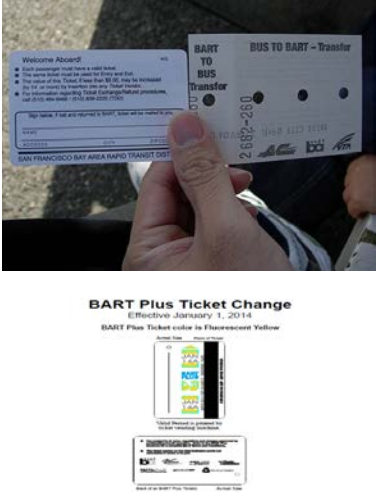

Transfers

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 folded, 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 empujados, 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 dlivingston@wheels.com</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

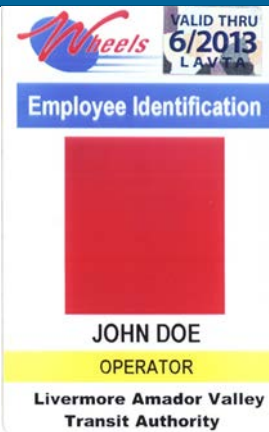

Figure 3-6 Paper Passes – Monthly Unlimited Ride Passes

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 logos for Wheels, The County Connection, Tri Delta Transit, and WestCat. 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, a picture of a bus, and the number 001400. It includes a calendar grid for months JAN through DEC and years 2008, 2009, and 2010.</p>	 <p>The Disabled Monthly Pass is a red and white pass. It features the Wheels logo, a picture of a bus, and the number 001000. It includes a calendar grid for months JAN through DEC and years 2008, 2009, and 2010.</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. It features the 'Wheels' logo at the top left, a 'VALID THRU 6/2013' sticker at the top right, and a blue 'Employee Identification' banner. Below is a red rectangular placeholder for a photo. 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 at the top left, a red 'WAAC MEMBER' banner at the top right, and a photo of Jane Doe. To the right of the photo is the name 'JANE DOE'. Below the photo is the 'Expiration Date: 06/30/2011' and a card number '01000126' at the bottom.</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 2008-2013 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:

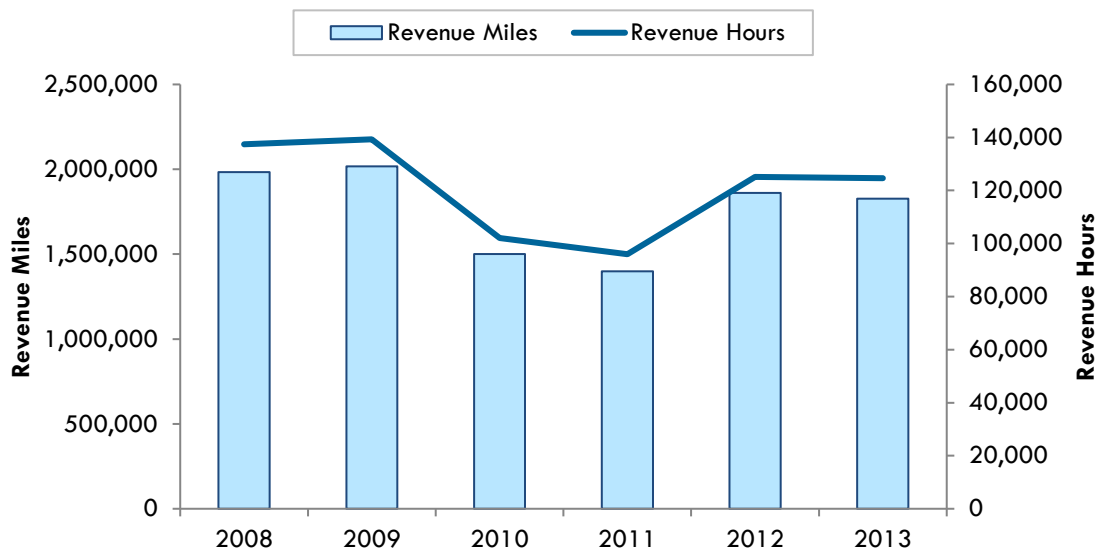
- **Declining ridership:** Total passenger trips declined from 2.2 million in 2008 to 1.7 million in 2013, a decline of more than 20%. Passenger trips declined most dramatically from 2009 to 2010. Passenger boardings per revenue hour, a measure of service efficiency, declined by 15% in the same time period, from 16.25 trips per hour to 13.86 trips per hour.
- **Increasing operating costs per passenger trip:** Farebox recovery has fluctuated over the 2008-2013 period. Operating expense per passenger trip rose to \$7.14 in 2013 from \$5.52 in 2008, an increase of 29%. Similarly, the subsidy per passenger trip has also increased, from an average of \$4.51 in 2008 to \$5.80 in 2013.
- **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. 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 2008-2013

Performance Data							
	2008	2009	2010	2011	2012	2013	Percent Change 2008-2013
Passenger Trips	2,234,210	2,195,408	1,740,297	1,566,723	1,751,211	1,727,085	-23%
Revenue Miles	1,983,822	2,017,218	1,500,165	1,398,076	1,861,569	1,826,997	-8%
Revenue Hours	137,452	139,304	102,047	95,980	125,119	124,635	-9%
Total Operating Expense	\$12,336,377	\$12,764,264	\$11,143,305	\$9,935,086	\$12,603,331	\$12,333,360	0%
Farebox Revenue	\$2,245,507	\$2,318,884	\$2,118,803	\$1,766,537	\$2,044,038	\$2,309,008	3%
Passenger Trips Per Revenue Hour	16.25	15.76	17.05	16.32	14	13.86	-15%
Operating Expense Per Revenue Hour	\$89.75	\$91.63	\$109.20	\$103.51	\$100.73	\$98.96	10%
Operating Expense Per Passenger Trip	\$5.52	\$5.81	\$6.40	\$6.34	\$7.20	\$7.14	29%
Average Fare per Passenger	\$1.01	\$1.06	\$1.22	\$1.13	\$1.17	\$1.34	33%
Subsidy per Passenger Trip	\$4.51	\$4.75	\$5.18	\$5.21	\$6.03	\$5.80	29%
Farebox Recovery %	18.2%	18.2%	19.0%	17.8%	16.2%	18.7%	3%

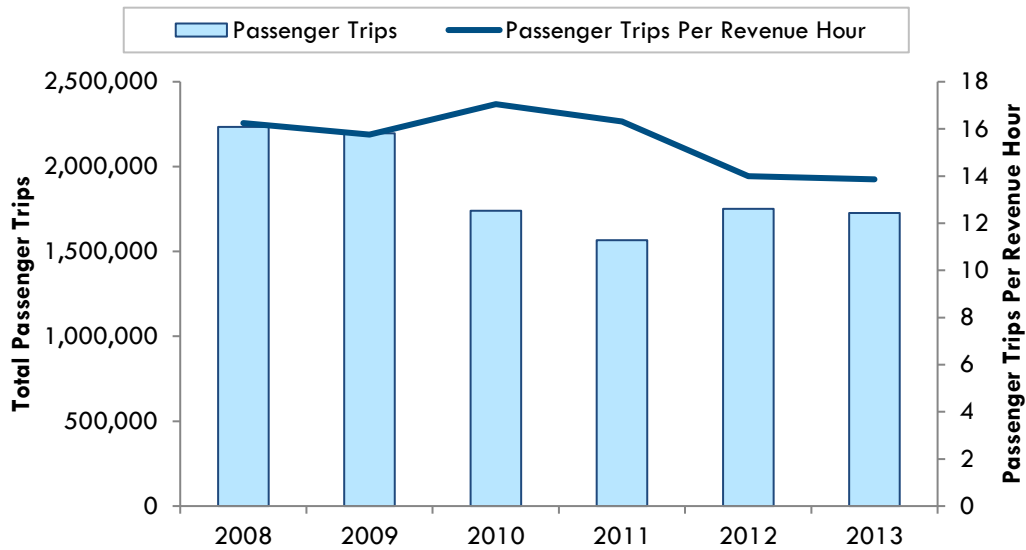
Source: National Transit Database

Figure 4-2 Service Level Trends



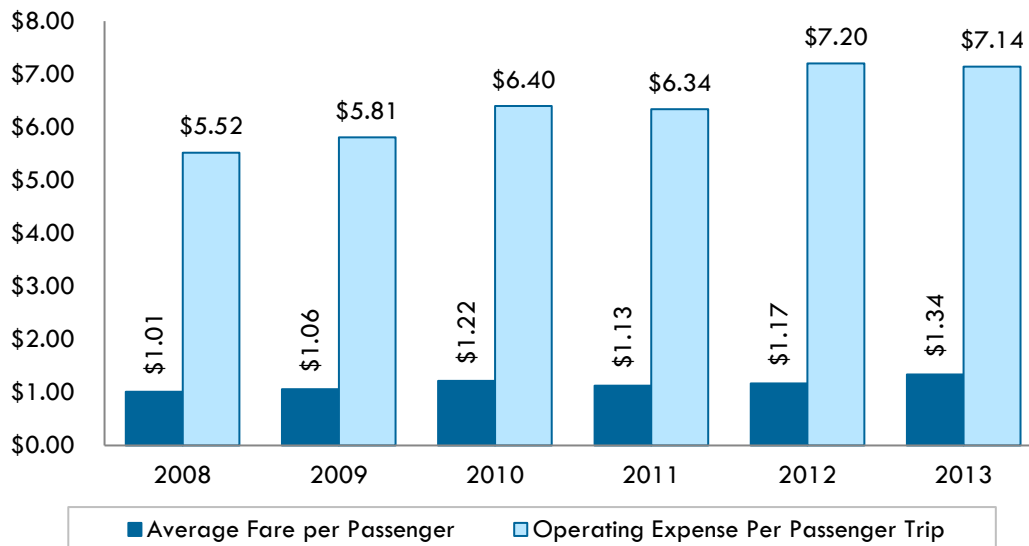
Source: National Transit Database

Figure 4-3 Ridership and Productivity Trends



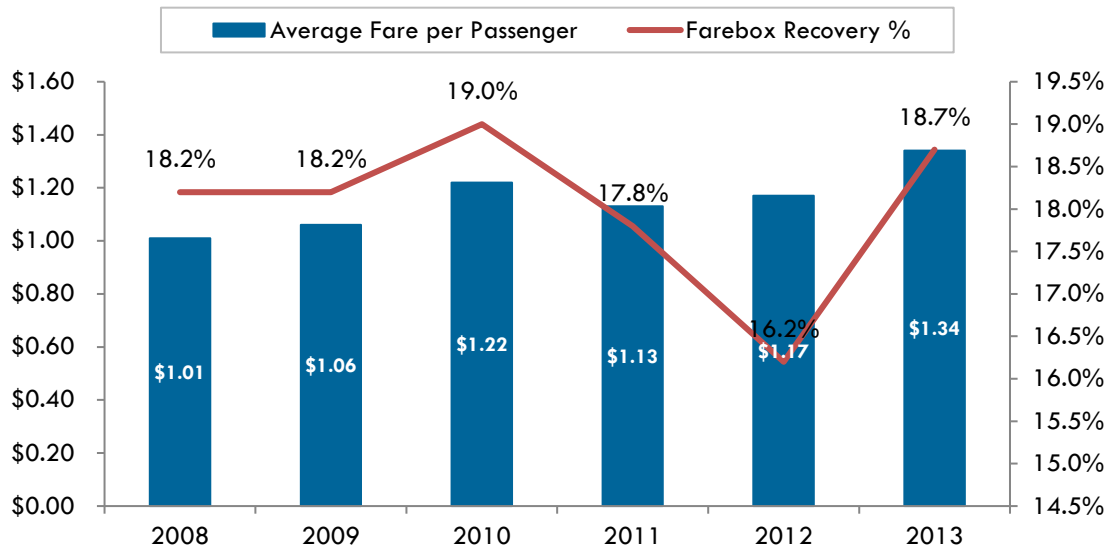
Source: National Transit Database

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



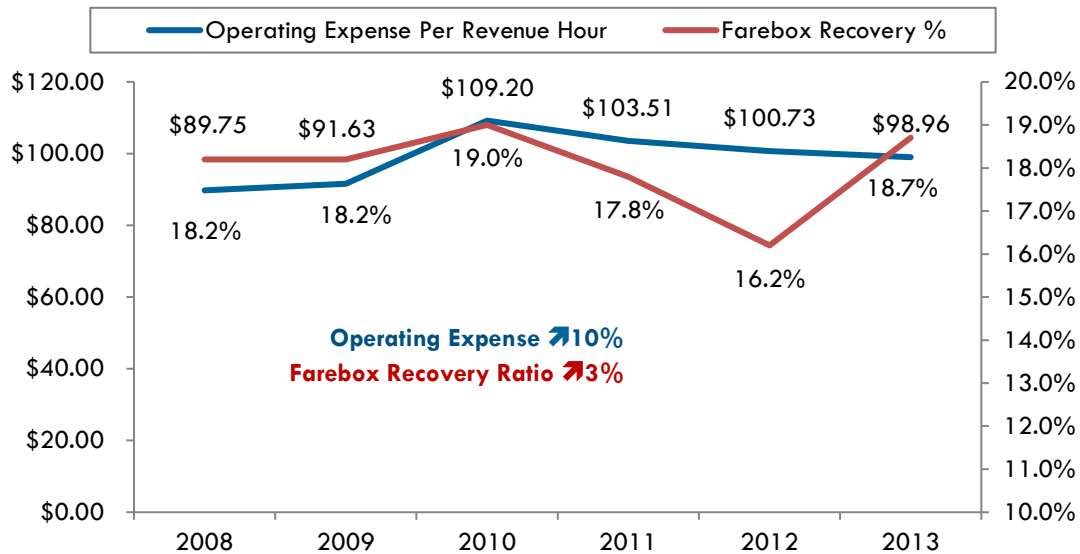
Source: National Transit Database

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

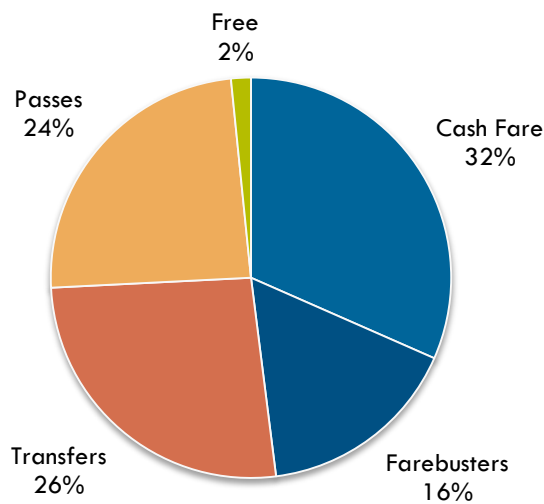
Based on the performance trends, it has been a challenging time period for LAVTA. Ridership has been steadily declining. While LAVTA has restored most of the service cut during the economic recession, ridership has not been restored to similar levels. Despite the hours allocated to the Rapid service, 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 2014-2015 data collected from LAVTA and describes how current fare products are used on the system.

In terms of overall boardings, nearly a third (32%) of riders pay with cash, followed by 26% who pay with transfers. Twenty-four 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.

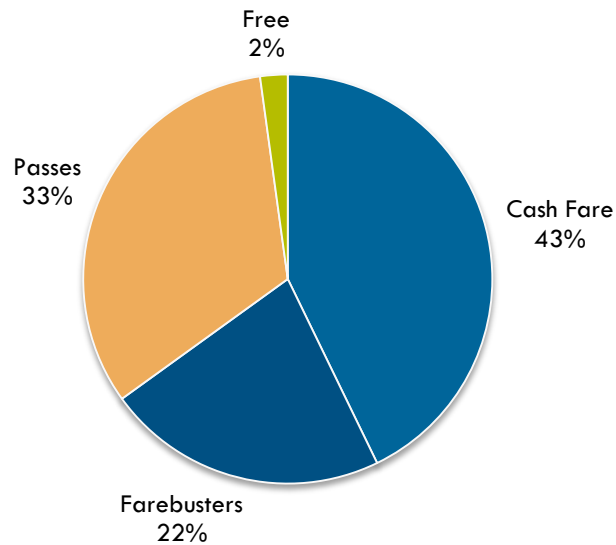
Figure 4-7 Ridership by Fare Type (FY 14-15) Including Transfers



Source: LAVTA (2015)

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 43%, followed by passes at 33%. This composition is shown in Figure 4-8.

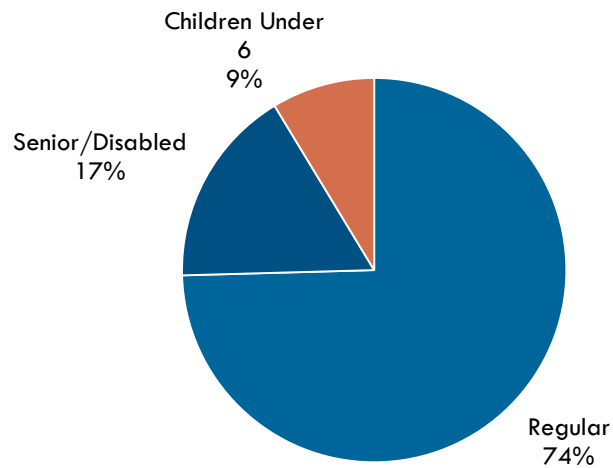
Figure 4-8 Ridership by Fare Type (Excluding Transfers)



Source: LAVTA (2015)

Figure 4-9 shows a breakdown of cash fare ridership by fare type. Of those that pay cash, the majority (74%) are adult fares. Senior/disabled fares account for 17%, while children under 6 who ride for free with paying fare account for 9%.

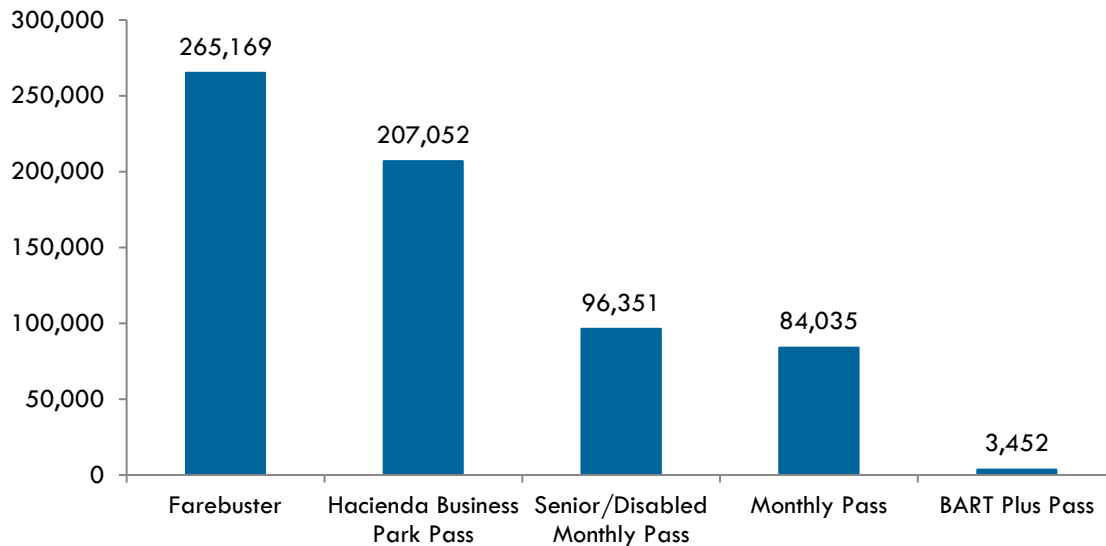
Figure 4-9 Cash Fare Ridership (FY 14-15)



Source: LAVTA (2015)

Figure 4-10 shows the distribution of pass ridership in numbers and percentages, including FareBuster tickets, a collection of discounted tickets. The highest ridership fare types were FareBuster tickets (40%), followed by the Hacienda Business Park ECO pass (32%).

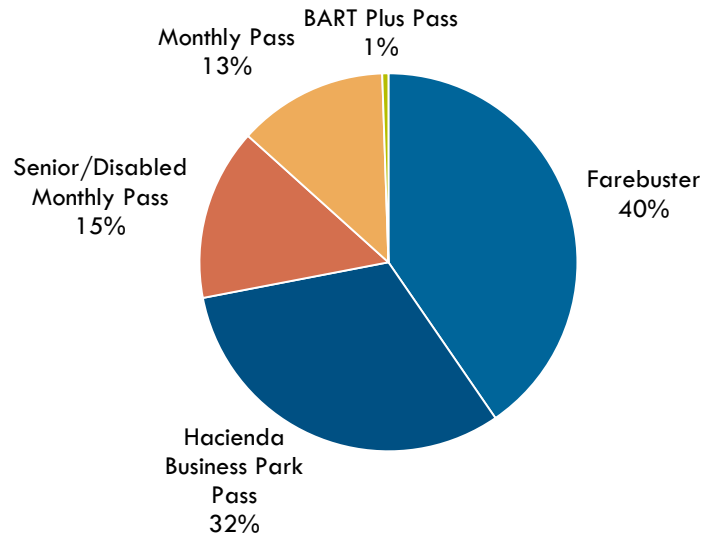
Figure 4-10 Distribution of Pass Products (Boardings, Absolute Number)



Source: LAVTA (2015)

Of all the pass products sold, the FareBuster tickets are the most attractive, likely because it 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 \$165,866 in fare revenue in FY 2015—an average fare of \$0.80 per rider. Figure 4-11 shows the distribution of pass products as a percentage.

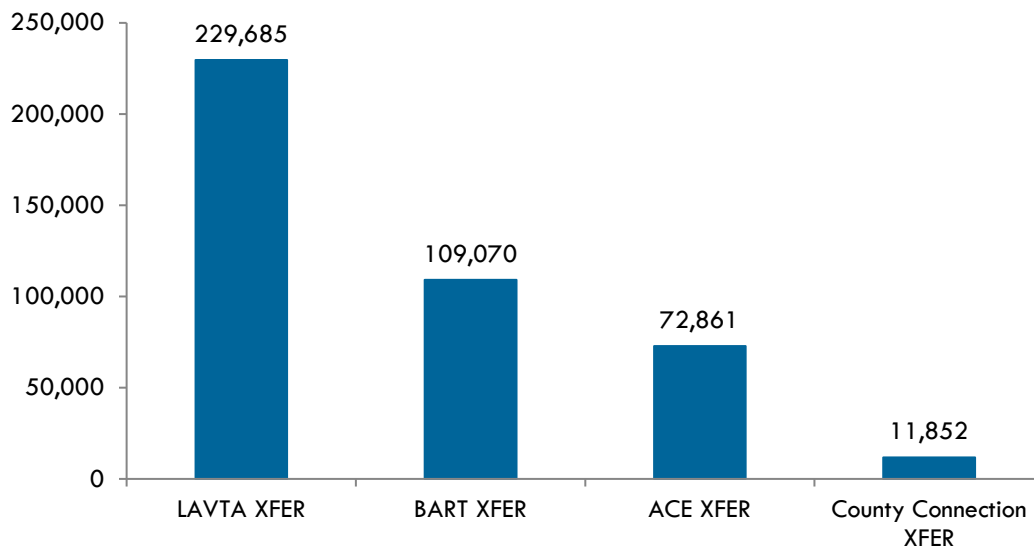
Figure 4-11 Distribution of Pass Products



Source: LAVTA (2015)

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)

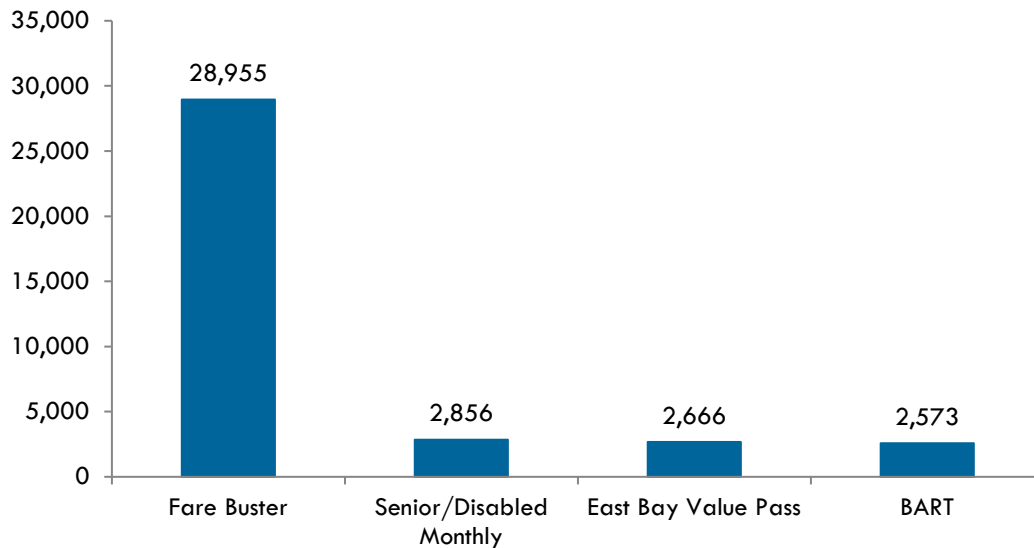


Source: LAVTA (2015)

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 2014-2015, including FareBuster tickets and excluding the Hacienda Business Park pass. Considering FareBuster tickets account for the majority of ridership using passes (40%), it follows that FareBuster tickets account for the largest quantity of passes sold.

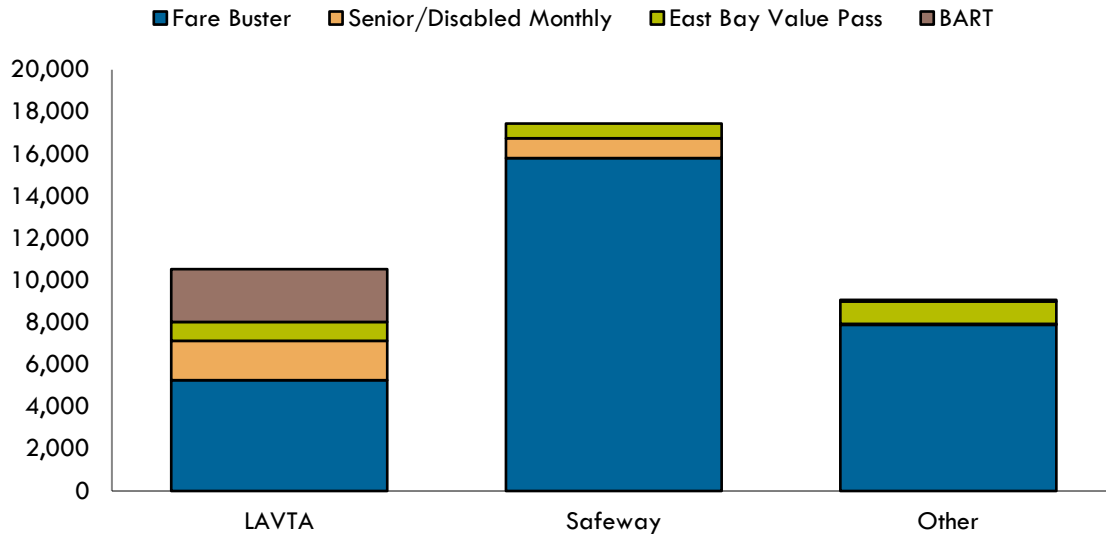
Figure 4-13 2014 Pass Sales (All Pass Products, Absolute Numbers)



Source: LAVTA (2015)

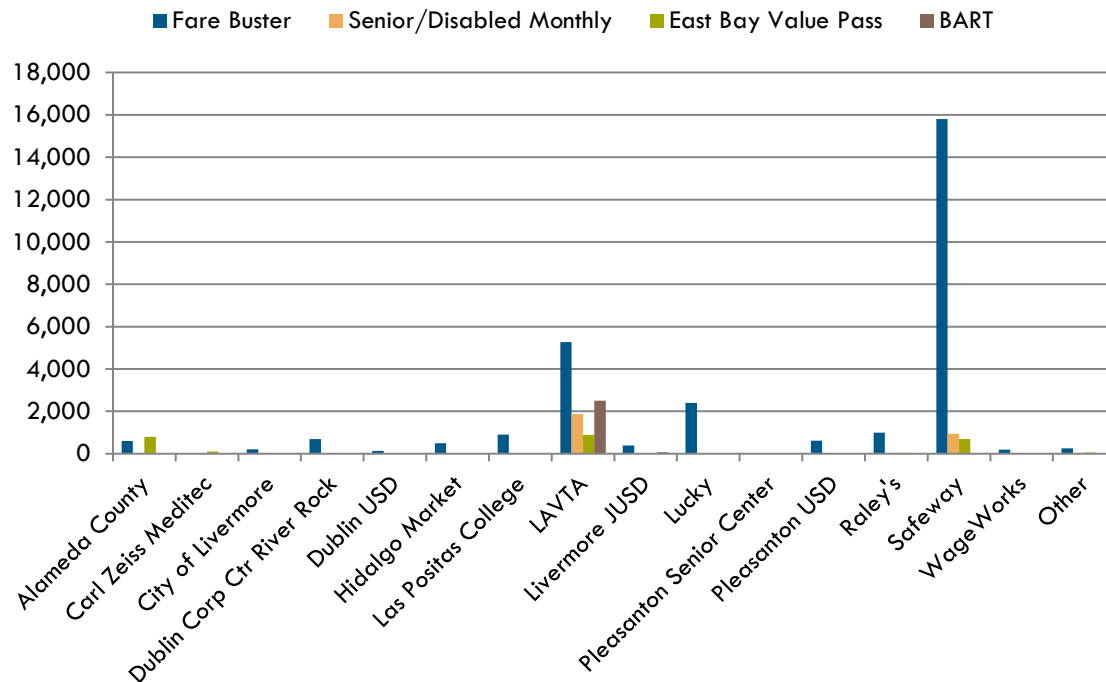
The majority of pass products are sold by Safeway, followed by the Transit Center and other LAVTA facilities, as shown in Figure 4-14 and Figure 4-15.

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

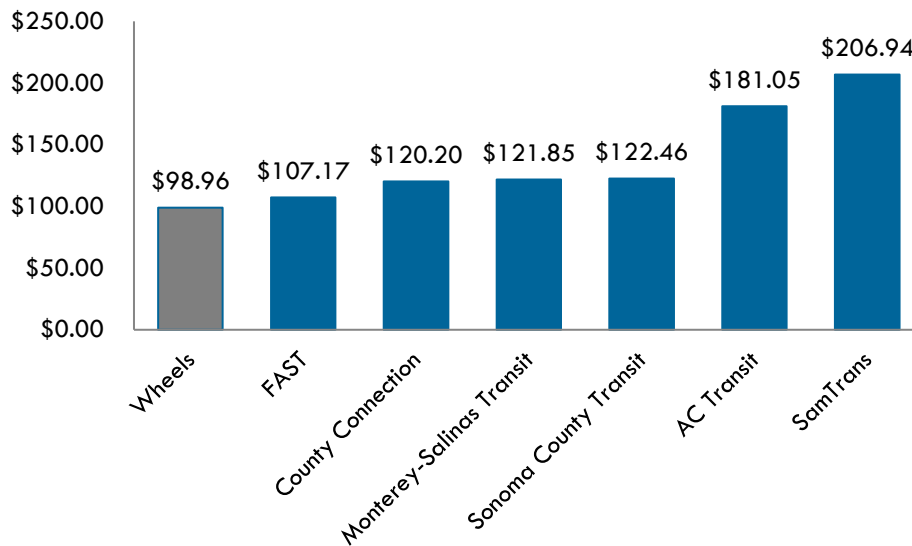
	Wheels	Sonoma County Transit	FAST	Monterey- Salinas Transit	County Connection	SamTrans	AC Transit
Peak Vehicles (by mode)	51	41	36	87	88	265	507
Annual Revenue Hours	124,635	87,343	79,775	236,008	213,624	487,756	1,630,579
Annual Revenue Miles	1,826,997	1,458,064	1,603,548	3,862,717	2,384,645	6,633,233	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.

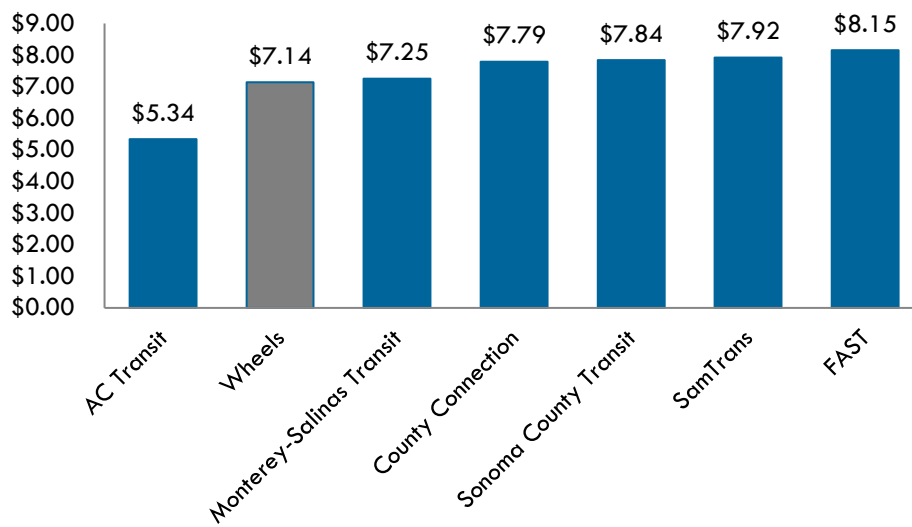
Figure 5-4 shows the operating cost per passenger for each of the agencies. FAST has the highest operating cost per passenger among the peer agencies at \$8.15, while AC Transit has the lowest at \$5.34. Wheels has the second-lowest operating cost per passenger, at \$7.14.

Figure 5-3 Operating Cost per Revenue Hour



Source: National Transit Database (2013)

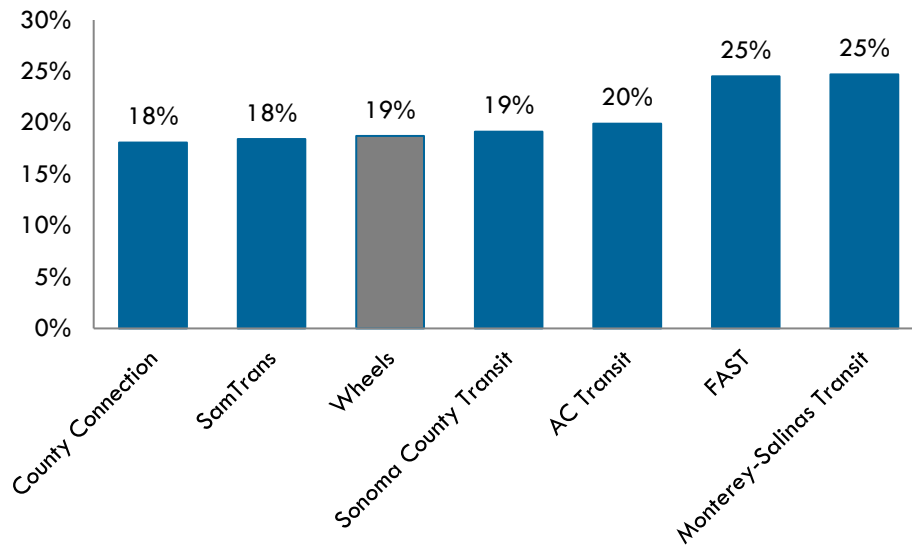
Figure 5-4 Operating Cost per Passenger



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%.

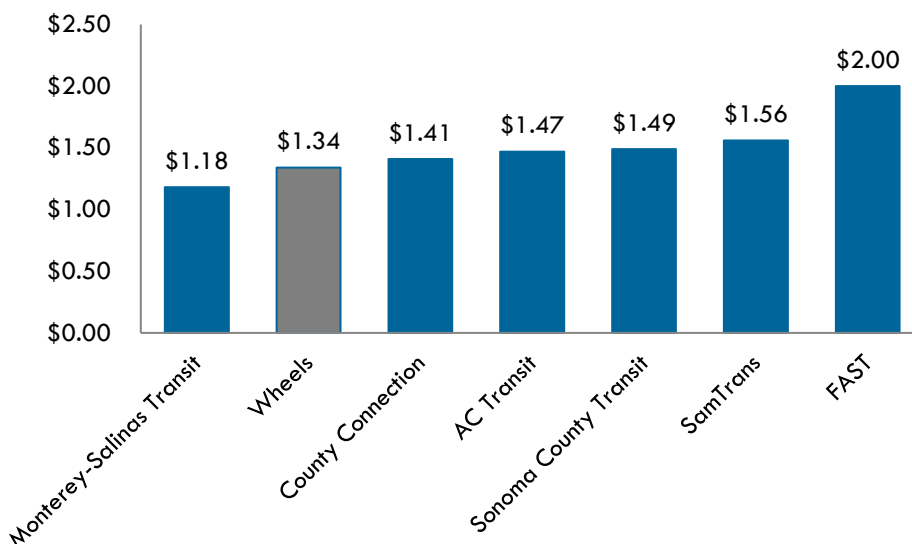
Figure 5-5 Farebox Recovery Ratio (Fixed-Route Services)



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 METRO”¹¹

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 is provided, followed by an image of two 31-day passes for Route 90 and Route 40, both priced at \$130.00 for an adult fare. A note states that the free pass will be in paper form only. Information on where to get applications and the promotion end date (June 30, 2016) is included. At the bottom, logos for SolanoExpress, Bay Area Air Quality Management Fund for Clean Air, Contra Costa Transportation Authority, and STA (Solano Transportation Authority) are shown.

FAST
FAIRFIELD AREA TRANSIT

511 CONTRA COSTA

**BUY ONE
BOGO
GET ONE**

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

SolanoExpress **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	\$1,157,267
2013	\$1,064,120	\$1,205,257
2014	\$1,194,535	\$1,365,572
2015	\$1,480,075	\$1,635,154

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	\$1,205,257	\$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	0.14	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

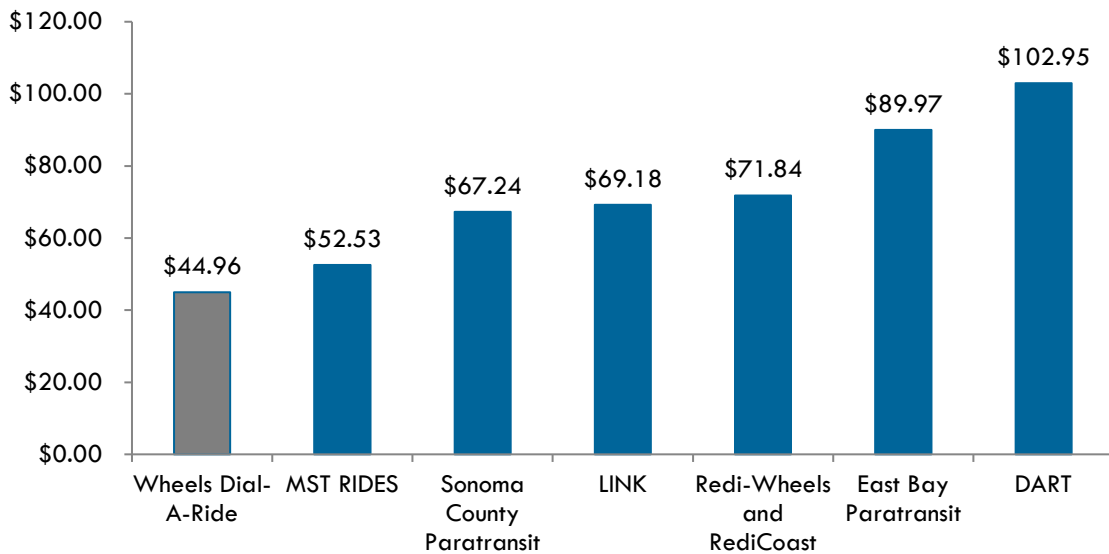
The peer agencies provide a wide range of ADA service levels within their communities. Service ranges from 11,849 revenue hours (DART) to 408,835 revenue hours (East Bay Paratransit) per year. Wheels Dial-A-Ride provides the second-least Paratransit service with 26,809 revenue hours annually.

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.

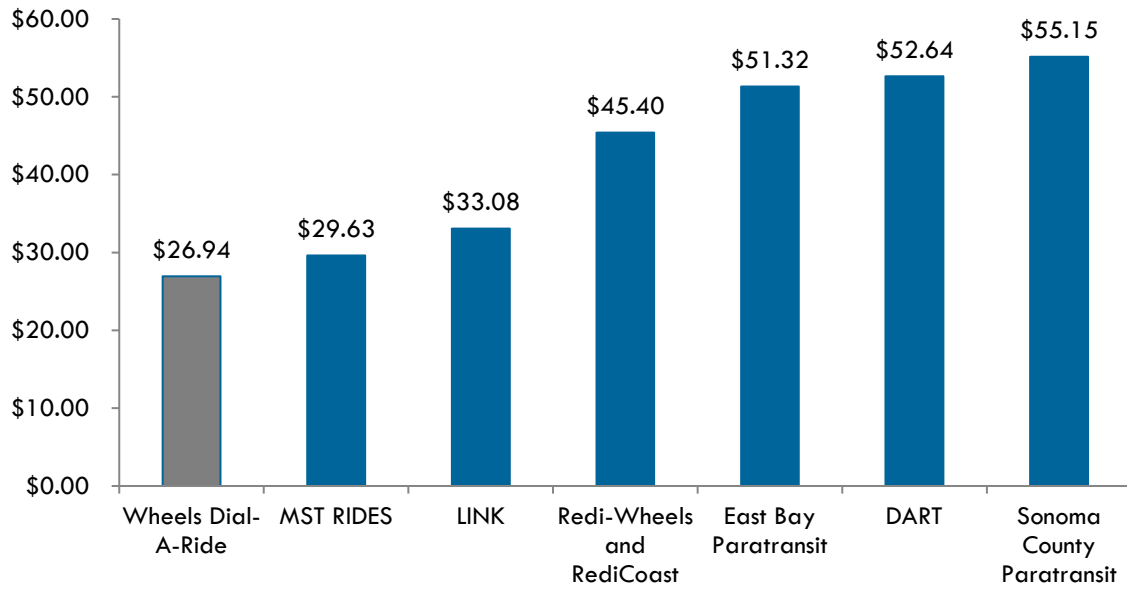
Figure 5-21 to Figure 5-25 detail more performance measures for Wheels Dial-A-Ride and its peer paratransit agencies.

Figure 5-21 Cost per Revenue Hour - Demand Response



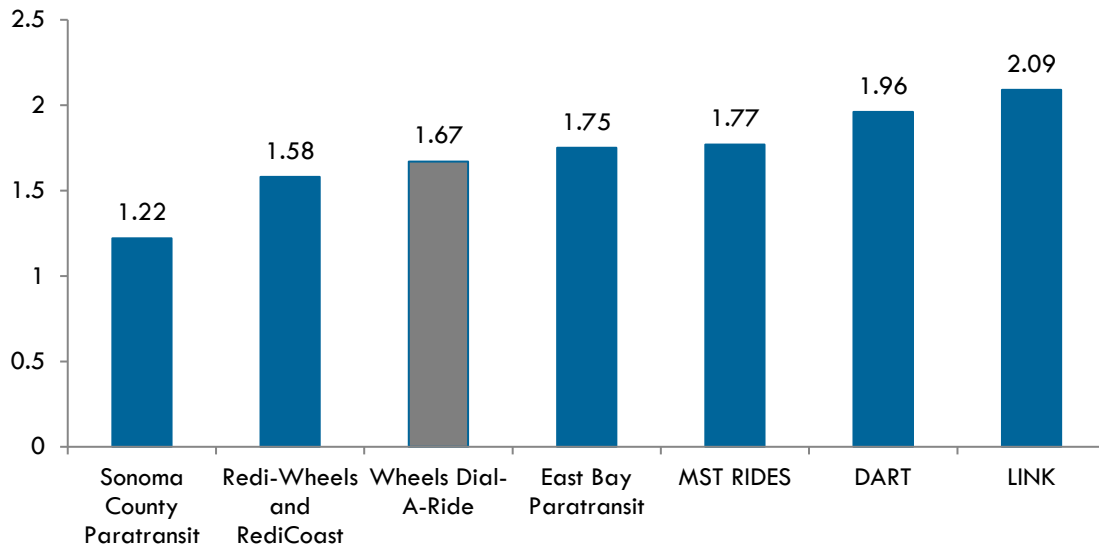
Source: LAVTA and National Transit Database (2013)

Figure 5-22 Cost per Passenger - Demand Response



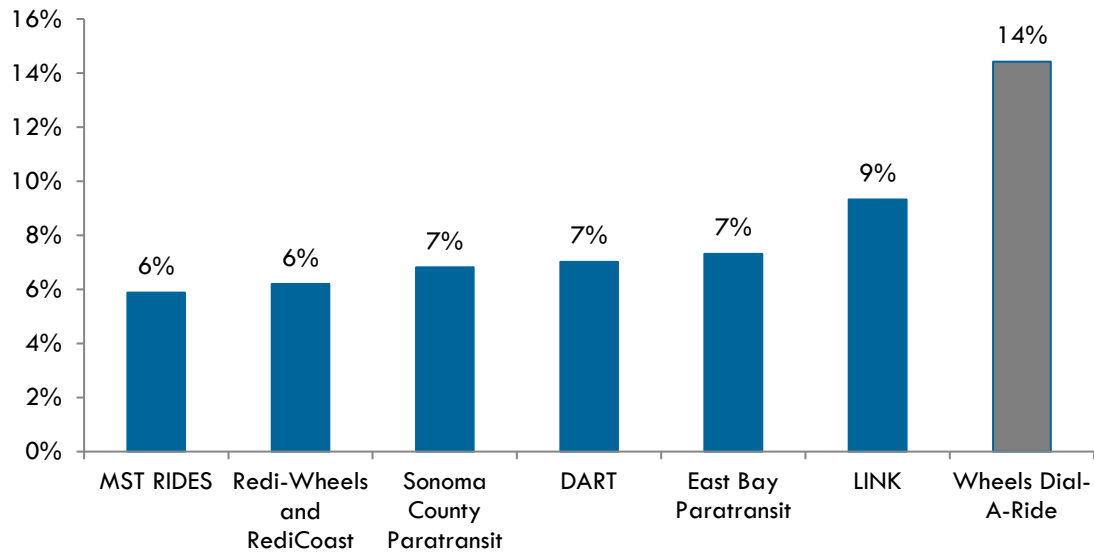
Source: LAVTA and National Transit Database (2013)

Figure 5-23 Passengers per Revenue Hour - Demand Response



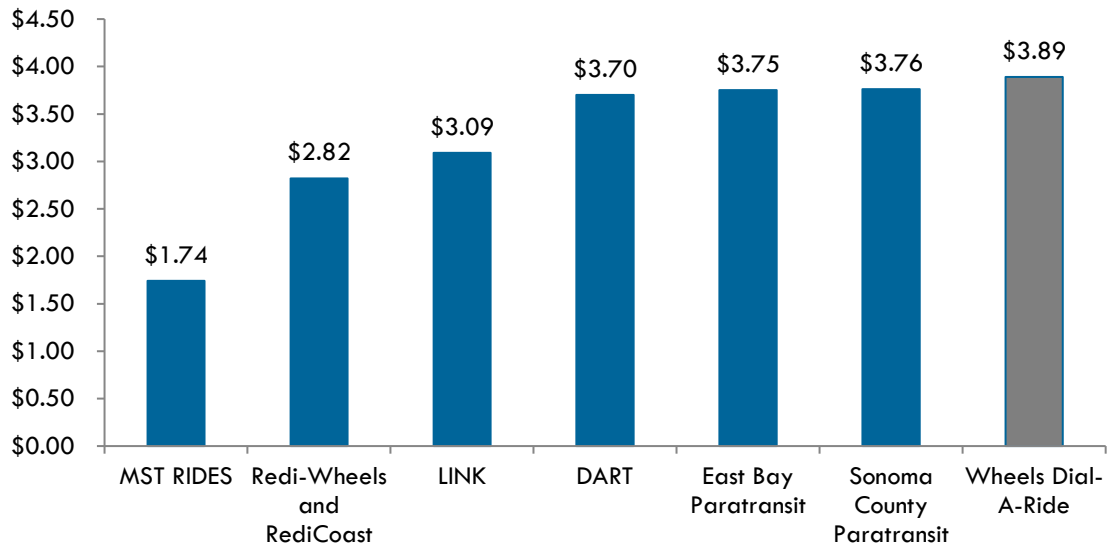
Source: LAVTA and National Transit Database (2013)

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

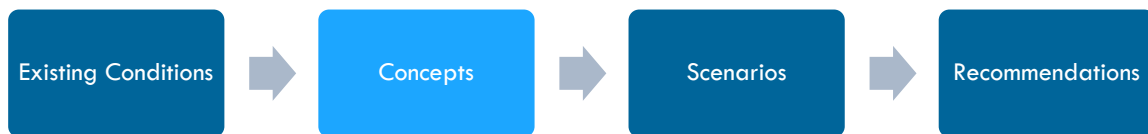
This chapter provides an in-depth review of key fare policies and findings from six transit agencies serving Northern California, with the majority operating in the San Francisco Bay Area. The peer agencies were selected based on various attributes, including service area, service population, operating 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.
- **Align Transfer Policy with Clipper.** There are several opportunities to align current Wheels fare policies with Clipper, including removal unlimited transfers during a two-hour period.
- **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.
- **Add Regional Express Fare Category.** Wheels could consider a separate category for premium regional express service on Route 70X and 70XV.
- **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.

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 2%, depending on price level. Revenue increases are anticipated to range from 24% to 27%. 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	-2,700	-0.2%	\$531,300	26.5%
\$4.00	-7,600	-0.5%	\$519,600	25.9%
\$4.50	-17,300	-1.1%	\$496,300	24.7%
\$5.00	-27,100	-1.6%	\$473,000	23.6%

Findings

Scenario 1 represents the greatest potential opportunity for revenue increases (up to 27%) but may result in a decrease in existing ridership of up to 2%. 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 -2.9% and results in a 0.1% decrease 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/70XV 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 7-10, Figure 7-11, and Figure 7-12 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

	Change in Annual Ridership	Ridership Percent Change	Change in Annual Revenue	Revenue Percent Change
Scenario 1A: Eliminate Transfers and Add Day Pass (\$3.75)	-2,700	-0.2%	\$531,300	26.5%
Scenario 1B: Eliminate Transfers and Add Day Pass (\$4.00)	-7,600	-0.5%	\$519,600	25.9%
Scenario 1C: Eliminate Transfers and Add Day Pass (\$4.50)	-17,300	-1.1%	\$496,300	24.7%
Scenario 1D: Eliminate Transfers and Add Day Pass (\$5.00)	-27,100	-1.6%	\$473,000	23.6%
Scenario 2: Eliminate FareBuster Tickets and Add Day Pass	-48,500	-2.9%	-\$2,300	-0.1%
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)

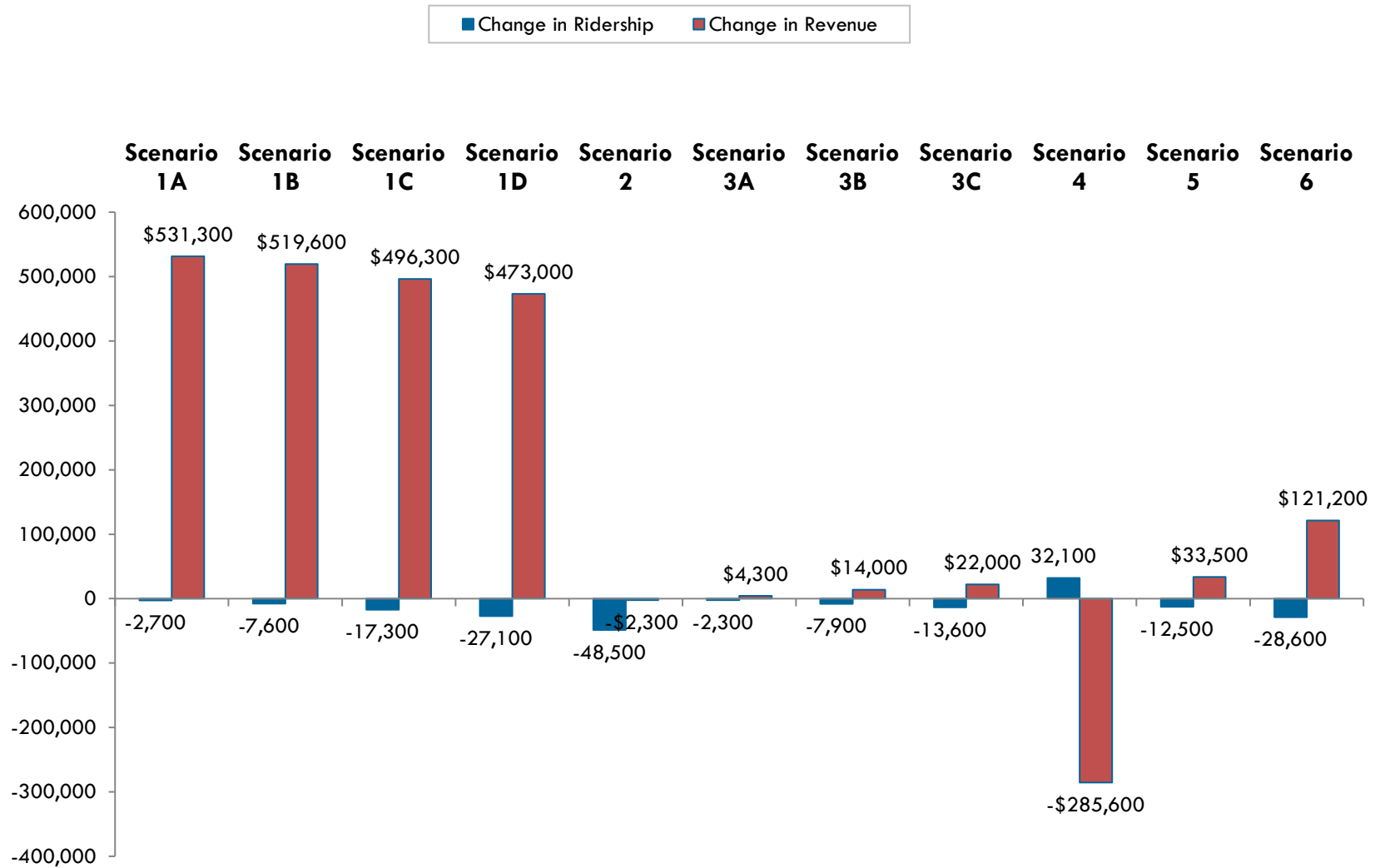
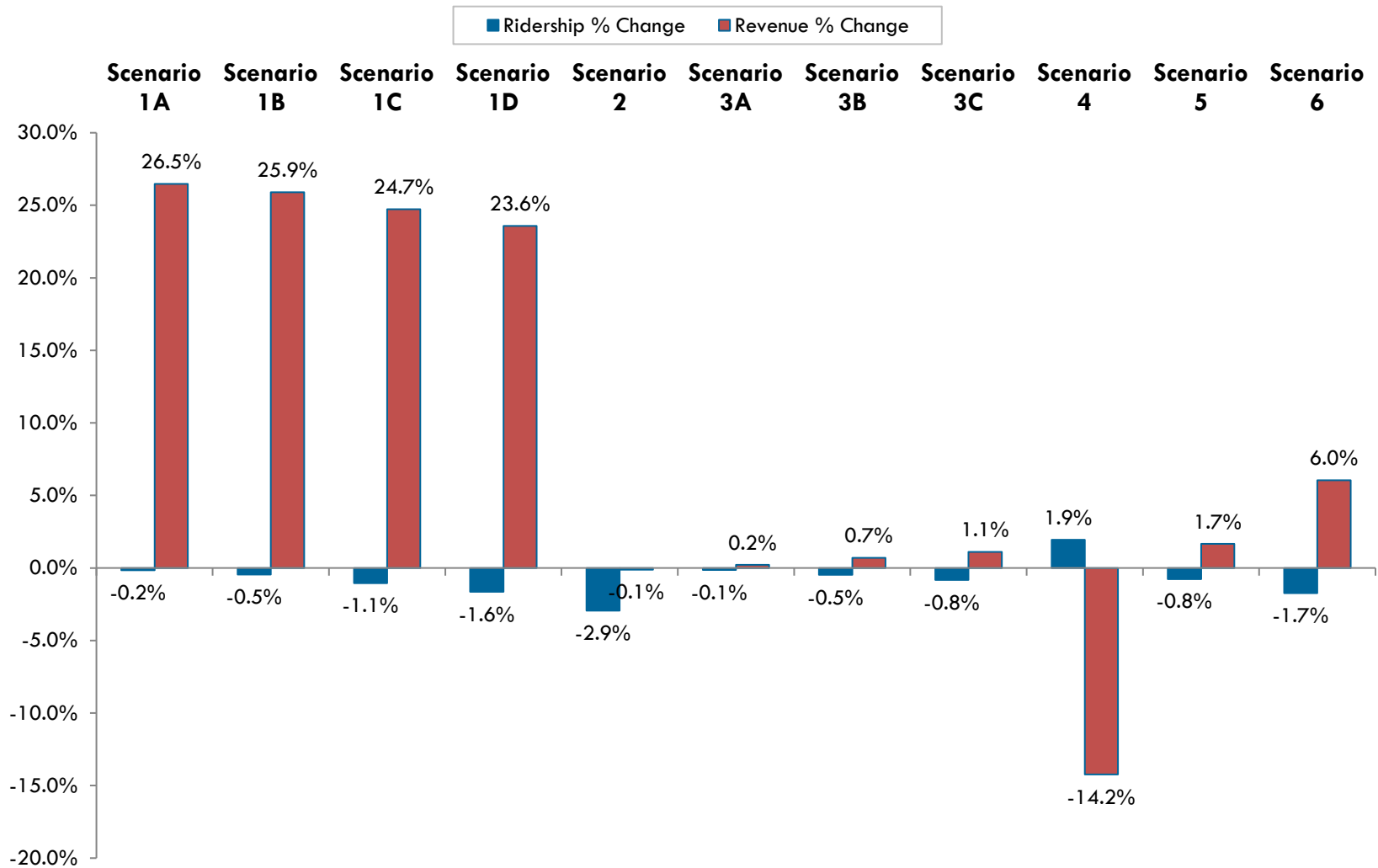


Figure 7-11 Scenario Annual Ridership and Revenue Impacts (Percent Change)



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 7-14, Figure 7-15, and Figure 7-16). 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)

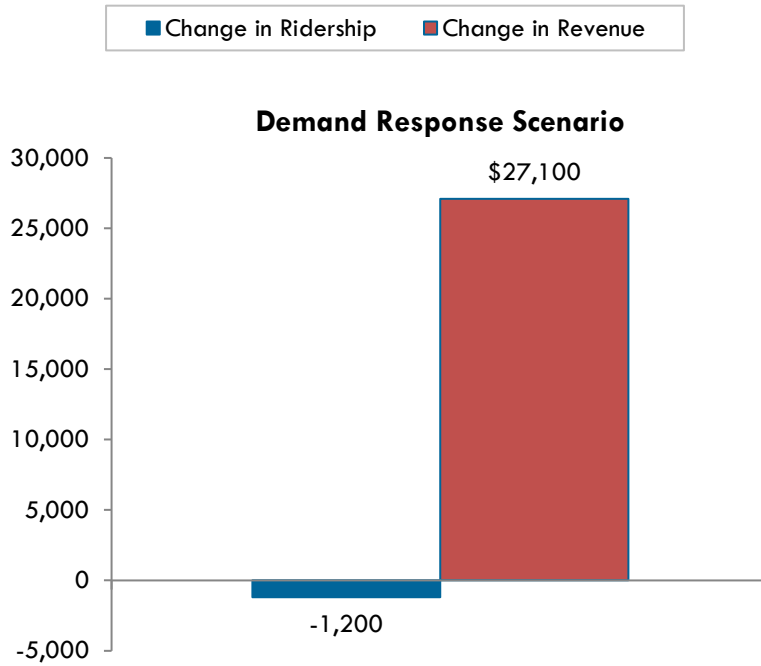
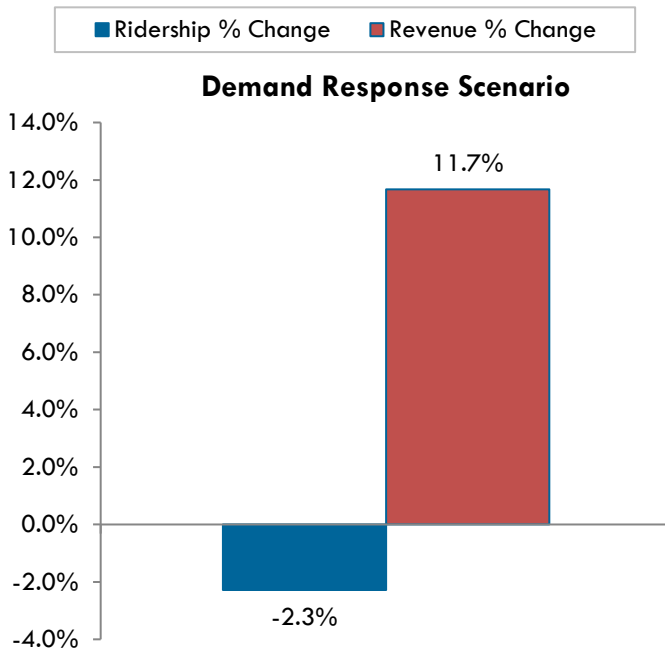


Figure 7-15 Demand Response Scenario Annual Ridership and Revenue Impacts (Percent Change)



8 FARE RECOMMENDATIONS

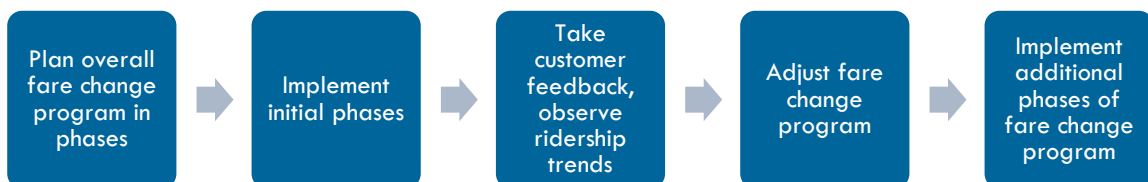
The final chapter culminates the findings—quantitative, qualitative, and from the fare modeling effort—to establish a set of fare policy, pricing and product recommendations for LAVTA. The recommendations come from a combination of the concepts described in Chapter 6 and fare scenarios analyzed in Chapter 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					
	11-20	\$3,000	\$120	\$105	\$90	\$75	\$60
	21+	\$3,600					
Medium	1-10	\$1,200					
	11-20	\$2,400	\$105	\$90	\$75	\$60	\$45
	21+	\$3,000					
Low	1-10	\$900					
	11-20	\$1,800	\$85	\$75	\$65	\$50	\$40
	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. Figure 8-4 and Figure 8-5 provide an overview of ridership and revenue impacts; the recommended fare structure results in approximately 3% ridership loss and an 8% 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.

Align Transfer Policies with Clipper

With a Clipper card, only one transfer is allowed within a two-hour window. To align fare policies with what is available via Clipper, LAVTA should also allow only one transfer within a two-hour window instead of unlimited transfers.

Additionally, 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.

As an incentive to move passengers to increased use of Clipper, LAVTA could also allow transfers using Clipper cards only and eliminate paper transfers, in keeping with industry best practices.

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. 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.

Implement Regional Express Fare

LAVTA offers regional express service on Route 70X/70XV, a peak hour-only service to connect the Tri-Valley with Walnut Creek. Among peer agencies, LAVTA is currently the only transit system without a separate pricing tier for premium service. Fares for premium service at peer agencies range from approximately \$2.25 to \$5.75 per one-way trip.

Because of the premium nature of Route 70X/70XV, a new pricing tier of \$3.50 for regional express service is recommended. Since fewer than 300 passengers currently use Route 70X/70XV each day, existing opportunities for ridership and revenue gains are minimal. However, an increase in fares for regional express routes will allow LAVTA to better align the cost of the service being provided with both revenue and pricing at peer agencies

A new pricing tier will help position LAVTA for the addition of any potential future premium services. Additional premium services offered by LAVTA should be introduced within the new regional express pricing tier.

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
Regional Express Fare	-	\$3.50
Transfers (One Transfer Valid within Two Hours of Initial Fare Payment)	-	FREE
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
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
Disabled Persons Monthly (Rolling 31 Day) Unlimited Rides Pass	\$18.00	\$30.00
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 Impacts (Actual Change)

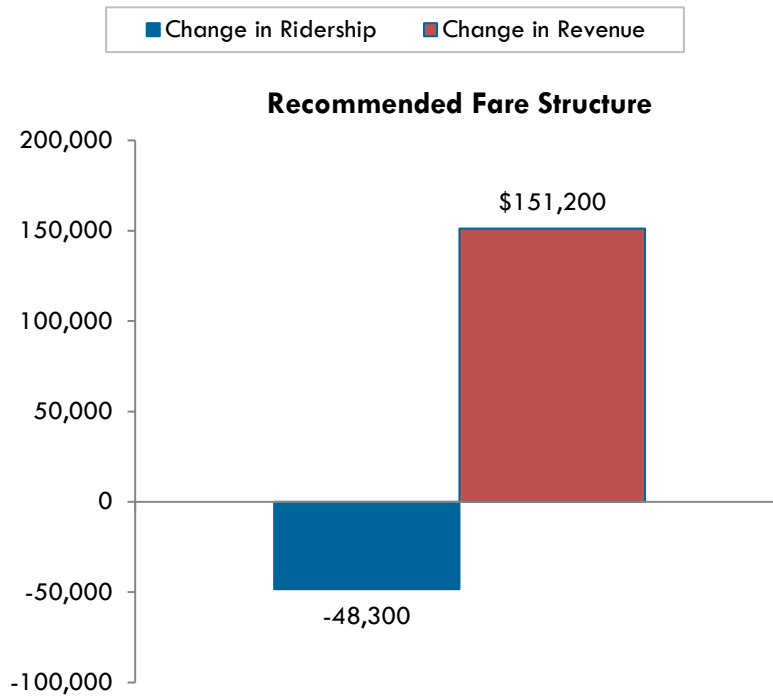
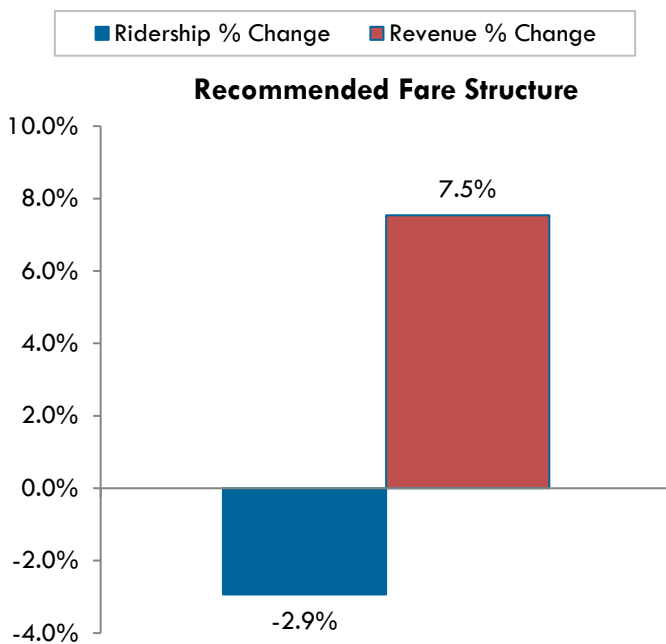


Figure 8-5 Recommended Fixed-Route Fare Structure Annual Ridership and Revenue Impacts (Percent Change)



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, amending transfer policies, as well as price increases for demand response fares, senior/disabled monthly passes, and a new regional express fare. Figure 8-6 provides a summary of recommendations developed as part of the LAVTA fare study.

Figure 8-6 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, aligning transfer policies with Clipper, increasing demand response fare, increasing senior/disabled monthly pass cost, and adding a new fare tier for premium regional express service.

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>



Memorandum

8.2

1111 Broadway, Suite 800, Oakland, CA 94607

• 510.208.7400

• www.AlamedaCTC.org

DATE: March 16, 2017

SUBJECT: Affordable Student Transit Pass Program Recommendations for Pilot Year Two

RECOMMENDATION: Approve the Affordable Student Transit Pass Pilot Program Sites and Parameters for Year Two of the Pilot Program; authorize Alameda CTC staff to enter into all necessary agreements and contracts for program implementation.

Summary

The cost of transportation to school is often cited as a barrier to school attendance and participation in afterschool activities by middle and high school students. In recognition of this issue, the 2014 Transportation Expenditure Plan (TEP) included implementation of an affordable student transit pass pilot program. Its purpose is to test and evaluate different pilot designs of an affordable transit pass program over a three-year horizon to identify successful model programs that could be expanded and sustained with additional funding sources after the pilot program period. Available funding for this initial three-year pilot program as defined in the TEP is \$15 million, including all costs related to transit passes, administration, staffing, direct costs, education and outreach to schools, and student travel training.

In March 2016, the Commission approved a framework to select pilot program schools. In May 2016, the Commission approved the design for Year One of the pilot program, as well as a shortlist of 36 schools as the candidate pool for potential expansion to additional schools in the second and third years of the program. Since then, the Alameda CTC has successfully implemented four pilot programs at nine middle and high schools across Alameda County.

This memorandum recommends schools and parameters for Year Two of the program (2017-2018 school year), in line with the approved site selection framework and initial lessons learned from Year One. Once the Year Two schools and parameters are approved, Alameda CTC staff will enter into and/or adjust agreements and contracts, as necessary, with the applicable transit agencies, Clipper, schools, and school districts to implement the program and will begin work with each of the schools on implementation.

Background

The Alameda CTC has undertaken the development, implementation, and evaluation of an Affordable Student Transit Pass Program (Affordable STPP) which began during the 2016-2017 school year in middle schools and high schools in Alameda County. This pilot program provides a vital opportunity to assess student transportation needs in the county and develop an approach to meet those needs through implementation of a sustainable pass program.

The program provides transit passes that are distributed or sold at a discount to students in selected schools for use on the various public transit providers that serve Alameda County. This pilot program is identified in the 2014 Transportation Expenditure Plan (TEP) and is funded by Measure BB. The TEP specifies that the funds are to be used to implement “successful models aimed at increasing the use of transit among junior high and high school students, including a transit pass program for students in Alameda County.”¹

The Affordable STPP aims to do the following:

- Reduce barriers to transportation access to and from schools
- Improve transportation options for Alameda County middle and high school students
- Build support for transit in Alameda County
- Develop effective three-year pilot programs

Year-One Program Development and Implementation

In March 2016, the Commission approved two program implementation aspects:

- (1) A site selection framework that set forth criteria and protocols for selecting pilot program schools in each of four planning areas of the county and
- (2) An evaluation framework to evaluate the effectiveness of the pilot programs.

In May 2016, the Commission approved nine schools for transit pass distribution and two schools for an education-only program in Year One as well as the shortlist of schools for future potential expansion in subsequent years of the pilot program. The Year One pilot programs were launched in August 2016.

¹ Measure BB Transportation Expenditure Plan, 2014

Figure 1: Affordable STPP Year One Program Design

Parameters	Options Tested	North	Central	South	East
Pass Format	Clipper	X	X	X	
	Flash pass			X	X
Applicability	Universal (all students)	X			X
	Specific grades		X	X	
Pass Cost	Free to students	X	X		X
	Discounted			X	X
Financial Need ²	High	X	X		
	Medium			X	
	Low				X
Transit Service	AC Transit	X	X	X	
	Union City Transit			X	
	LAVTA				X

Year-Two Program Development

The recommendations for Year Two are based on initial lessons learned from implementation and administration of the Year One program, feedback from schools, students and families, and a financial analysis of resources to support on-going implementation of the pilot program and potential expansion. Some factors supporting Year Two recommendations, based upon lessons learned from Year One are:

- Limiting student eligibility to certain grades may be suppressing interest in the program due to families who have students in multiple grades.
- Programs with multiple pass formats within a school site have higher administrative complexity and higher program administrative costs.
- Programs that provide free and universal passes entail the lowest administrative costs, but the highest student enrollment and pass costs.
- Programs that require collecting funds from students entail extra administrative cost and burden on school and program staff.
- In discounted programs, a high up front cost for a transit pass may be limiting student ability to participate in the program.
- A means-based program that provides passes at no cost to lower-income students while allowing all students to purchase a discounted pass seems viable based on limited data to date (this type of program is currently only offered in East County). Expansion to other schools in the county would aid in evaluating the pilot model.

² Financial need as indicated by the percentage of students eligible for Free/Reduced-Priced Meals (FRPM) in the recommended schools. Eligibility for FRPM is often used as a proxy for low-income/poverty.

However, data on eligibility for free and reduced price meals is held by each school district, and is, understandably, kept very private; many school districts do not release the data even to schools, and may not be willing to release or utilize this data for the purposes of the pilot. Alameda CTC staff is currently exploring our ability to implement this pilot model at other schools in Alameda County.

- Expansion of the pilot program within the initial three-year pilot period needs to maintain the integrity of the Commission-approved performance evaluation metrics.

Given that Alameda CTC is currently six months into Year One, the full cost implications of the programs are still being assessed as data on direct costs from transit pass usage are billed to Alameda CTC. Therefore, the recommended expansion for Year Two is modest and allows testing of Commission-approved program parameters with expanded populations while ensuring sufficient resources will be available for the full three years of the pilot, and retaining the integrity of the performance evaluation framework. Additional expansion and changes will be considered for future years of the program as additional data on costs becomes available.

The Commission-approved site selection framework and shortlisted schools serve as the foundation of recommendations for Year Two of the Affordable STPP.³ As previously approved, the site selection process draws upon data related to school needs and transit service availability as well as qualitative information on school site administration readiness. In expanding the program for Year Two, staff reviewed and updated the data on the shortlisted schools including: enrollment, student population eligible for free and reduced-price meals (FRPM), and transit service access.

Recommended Year-Two Model Program Pilots

These recommendations were developed to ensure Alameda CTC can use the adopted performance measures to evaluate each school individually, and also to allow comparison of similar pilot program models in different planning areas of the county to fully understand the effectiveness of each program parameter. The summary of recommended Year 2 program parameters are shown below.

³ Additional information about the site selection process is provided in the memo to the Commission dated May 19, 2016.

Figure 2: Affordable STPP Year-Two Program Design Recommendations

Parameters	Options Tested	North	Central	South	East
Pass Format	Clipper	X	X	X	X*
	Flash pass			X	
Applicability	Universal (all students)	X	X*	X*	X
Pass Cost	Free	X	X*	X*	X*
	Discounted			X	
Financial Need ⁴	High	X	X		
	Medium			X	
	Low				X
Transit Service	AC Transit	X	X	X	
	Union City Transit			X	
	LAVTA				X

*These program elements are new or have changed from Year One. Changes described in detail below.

All model programs include the following characteristics:

- The program team and transit agency partners provide information and training for students on using transit and the applicable passes.
- All passes are valid year round. Use is not limited by day or time.
- A designated on-site administrator is assigned at each school. He or she receives training associated with the applicable pass program.

North County. *Programs will test utilization of free and universal passes and the sustained impact of passes during transition from middle to high school.*

- **Format:** Free and universal (all students) AC Transit pass on Clipper to be provided to three high schools and two middle schools with a feeder relationship.
 - **Changes:** The information-only program format was discontinued due to lack of responsiveness by the participating schools. The program team recommends replacing these schools with two new schools in North County from the approved shortlist and transitioning from an education-only program to one where passes are offered.
 - **Rationale:** Per Commission direction, a free and universal pass is provided in a planning area demonstrating the greatest need (lowest incomes). The pass is provided on Clipper for necessary data collection, program evaluation, and transit agency preference. This program will allow the evaluation of the transition of program participants from middle to high school. Although a means-based program was considered for the schools recommended for

⁴ Financial need as indicated by the percentage of students eligible for Free/Reduced-Priced Meals (FRPM) in the recommended schools. Eligibility for FRPM is often used as a proxy for low income/poverty.

inclusion in Year Two, the eligible schools had a high enough percentage of FRPM-eligible students that it does not make sense to limit free passes only to FRPM-eligible students as any costs savings gained by this limitation would be outweighed by higher administrative costs.

o **Participating schools:**

- Continued from Year One unchanged:
 - Fremont High, Oakland
 - Castlemont High, Oakland
 - Frick Middle School, Oakland
- Recommended for inclusion for Year Two:
 - McClymonds High, Oakland
 - o 318 students (85% FRPM eligible)
 - o Transit service: served by 6 AC Transit routes within ¼ mile
 - Westlake Middle, Oakland
 - o 455 students (93% FRPM eligible)
 - o Transit service: served by 9 AC Transit routes within ¼ mile
 - o Participates in Safe Routes to Schools program

Central County – *Programs will test utilization of free and universal passes, a free pass for FRPM-eligible students at two new schools (pending confirmation from the school district), and the sustained impact of passes during transition from middle to high school.*

- **Format:** Free and universal (all students) AC Transit pass on Clipper at Year 1 schools and a free pass for FRPM-eligible students at one new high school and one new middle school.
 - o **Changes:** The program at Year One participating schools was previously limited to 8th through 10th graders with the original intent of being able to track student usage from middle to high school with a full student cohort through the end of the three-year pilot program. The recommended changes for Year Two will now open the program to students in all grades at the existing schools. An expansion to one additional high school and middle school with a feeder relationship from the shortlist is also recommended under a model where free passes are offered to FRPM-eligible students.
 - o **Rationale:** A free pass is appropriate for a planning area with high level of need. A pass is provided on Clipper for necessary data collection, program evaluation, and transit agency preference. The recommended extension of the program to all grades is based on the desire to increase participation in the program; participation in the grade-limited program was lower than in the free and universal programs, in spite of being free. School, family, and student

feedback and usage data indicate several causal factors: 11th and 12th graders are typically higher users of the program, and families with students in multiple grades prefer that their children travel together rather than via different modes. For example, the limitation on grades disallowed some families with students in both eligible and ineligible grades to have their children travel together to school. Addition of a means-based program is recommended for inclusion in Year Two at two schools in Hayward.

- o **Participating schools:**
 - Continued from Year One, expanding to all grade levels:
 - San Leandro High, San Leandro
 - John Muir Middle, San Leandro
 - Recommended for inclusion in Year Two for a free pass for FRPM – eligible students, pending full confirmation from the Hayward Unified School District:
 - Hayward High, Hayward
 - o 1,580 students (75% FRPM eligible)
 - o Transit access: served by 3 high-frequency AC Transit routes within ¼ mile, Hayward BART within a mile
 - Bret Harte Middle, Hayward
 - o 632 students (69% FRPM eligible)
 - o Transit access: served by 9 AC Transit routes, Hayward BART within one mile
 - o Participates in Safe Routes to Schools program

South County – Program will test a discounted model using two transit agencies in one area. Staff also recommends exploring with the school district the opportunity to implement a free pass program for FRPM-eligible students.

- **Format:** All students have access to a discounted transit pass which can be used on either AC Transit or Union City Transit. Low-income students can get pass for free while others get a discount, pending school district approval.
 - o **Changes:** In Year One, the program was limited to 8th through 10th graders and will be expanded to allow participation by all grades. The current discount will be increased to provide a lower up-front cost to students. Those students eligible for free and reduced price meals will now be eligible to receive passes for free, pending school district approval. Steps will be taken to simplify the administration of the program with two transit providers.
 - o **Rationale:** The pass medium will include Clipper and flash passes and will be designed to maximize ease of administration and student access to the program. The program will be extended to all grades based on findings that

the grade-limited program may be suppressing participation due to families having students in multiple grades (similar to Central County). The discount will be increased to further remove barriers to participation and students on the free and reduced price meal program will be eligible for the passes for free, pending approval from the school district. No additional schools are added at this time due to the size of currently participating schools and the potential cost implications of the recommended program changes.

- **Participating schools:**
 - Continued from Year One with changed parameters as described above:
 - James Logan High, Union City
 - Cesar Chavez Middle, Union City

East County – Program will test utilization of free and universal passes and the impact of an “eco-pass” payment model with the transit agency.

- **Format:** All students will have access to a free LAVTA/Wheels transit pass on Clipper.
 - **Changes:** The program will transition to an eco-pass model where all students are given transit passes for free and Alameda CTC will pay the transit agency a lump sum for enrollment of all students at the schools. Transit passes will now be available on Clipper rather than in flash pass format due to LAVTA's ability to provide institutional passes via Clipper for Year Two. The program will be expanded to the two additional schools on the shortlist that are in Livermore Valley Joint Unified School District.
 - **Rationale:** From a student perspective, this pilot is similar to the free and universal programs in North and Central County. From an agency-payment perspective, Alameda CTC will pay LAVTA a single bulk payment for each school, at a deeply discounted rate on a per pass basis. This creates a known and reliable income stream for the transit agency, provides Alameda CTC with a deep discount for each pass purchased, and allows all students to have access to a free transit pass. Changing from a flash pass to Clipper will also test whether the pass format influences the student participation/utilization level.
 - **Participating schools:**
 - Continuing from Year One with an eco-pass model:
 - Livermore High, Livermore
 - East Avenue Middle, Livermore
 - Recommended for inclusion in Year Two with an eco-pass model:
 - Del Valle Continuation High, Livermore
 - 132 students (52% FRPM eligible)

- Transit access: served by 2 LAVTA/Wheels routes
- Andrew N. Christensen Middle, Livermore
 - 615 students (20% FRPM eligible)
 - Transit access: 1 LAVTA/Wheels route)
 - Participates in Safe Routes to Schools program

Pilot Program Estimated Costs

The three-year Affordable Student Transit Pass Program has a maximum budget of \$15 million to cover all costs associated with the program, including all costs related to transit passes, administration, staffing, direct costs, education and outreach to schools, and student travel training. The estimated program costs over the three-year pilot program are as follows:

Activity	Estimated costs for three year pilot
Transit agency contract costs for purchase of student transit passes	\$13 million (87% of total costs)
Direct costs for transit pass purchase (cards only, not service), travel training, printing, educational materials, shipping	\$900,000 (6% of total costs)
Program establishment, operations, administration and evaluation (staff and consultant costs for three years)	\$1.1 million (7%) of total costs
Estimated Total	\$15 million

Future Program Expansion Opportunities

The intent of the initial pilot program included in the 2014 TEP was to implement and evaluate different models of affordable pass programs in different areas of the county to identify successful models that could be implemented more broadly after the initial three-year pilot period. During Year Two of the pilot program, staff will continue to research and evaluate the feasibility of the following types of programs, and if possible, assess if they can be added or expanded within the pilot program timeframe:

- **Eco-pass:** This type of program allows an institution to purchase unlimited ride passes on transit for its employees, residents, or students (in the case of many colleges) during specific time periods, guaranteeing funding to transit operators and offering transit access to all eligible pass recipients. These programs assume that while all eligible students, residents, or employees can receive and use a pass,

not all of them do, or that some participants use the passes much less frequently than others.

- An eco-pass program would eliminate the need for programs with means-based eligibility requirements since all students would receive the pass. If broad institutional participation in an eco-pass program is achieved, this type of program would “follow the child” rather than be based on participation in a pass program by a public vs. private school, as expressed by Commissioners at the February 2017 board meeting.
- We will be testing a LAVTA/Wheels eco-pass program this year and will gain a better understanding of the implications of the program during Year 2.
- AC Transit has an existing EasyPass program for use by colleges, businesses, and residential developments that could potentially serve as the basis for implementing a middle and/or high school eco-pass program.
- **Additional models for students eligible for free and reduced price meals:** Assess and evaluate additional school-based and countywide program models that allow students who qualify for free and reduced price meals to get a free transit pass.
- **Travel Training Expansion and Transit Use Evaluation:** Expand travel training to more middle schools to prepare students to use transit and to support parent/student comfort with riding transit. Periodically track and evaluate student usage of transit to assess and remove barriers to transit use and the costs associated with travel training activities. This could potentially become part of middle school Safe Routes to Schools programs, funding permitting.
- **Expand Funding:** Seek grant opportunities to expand the program and create a stronger link with the countywide Safe Routes to Schools program for middle and high school students that encourages green transportation (walking, biking and transit) to reduce congestion and emissions around school sites, particularly for morning and afternoon student drop-offs and pickups.

Next Steps

After Commission approval, Alameda CTC will work with the schools currently participating to incorporate any recommended changes and refine processes for greater efficiency and effectiveness for Year Two. Staff will also begin work with the new schools to integrate them into the program and address any unique needs of each school. Finally, staff will continue to work closely with each of our transit agencies to incorporate new schools and changed parameters for the pass products offered.

The expanded program at schools will be launched in August 2017. Leading up to Year Two of the Affordable STPP, actions will include but not be limited to:

- Finalize pass pricing and administrative costs with the transit operators

- Adjust financial agreements with applicable agencies if necessary
- Enter into MOUs with the new school sites to obtain necessary statistical information, establish any administrative costs, and establish payment mechanisms (applicable only for schools provided with discounted passes); adjust existing MOUs with current school sites if necessary
- Identify and train on-site school administrators at the new school sites
- Develop informational materials for students, including language translation, and distribute to all schools
- Print and distribute passes at all schools
- Gather baseline data at all school sites

Fiscal Impact: The full \$15 million for the Affordable Student Transit Pass Program has already been programmed by the Commission and any approved program expansions/modifications will be implemented within the approved overall program budget. Funds for Year 2 of the Pilot will be included in the FY17/18 budget.

Attachments

- A. Adopted Short List of Potential School Sites

Staff Contact

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[Cathleen Sullivan](#), Principal Transportation Planner

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ATTACHMENT A – Shortlisted Schools Approved by the Commission, May 2016 (data updated February 2017)

	Planning Area	School District	School Name	School Type	Charter	School Level	Grades	Enrollment (2015-2016)	SR2S	Traditional/ Continuation School Day	Existing Bus Stop within 1/4 mile of School	Income Opportunity (percent of FRPM eligible students)	# of Bus Routes
1	North	Berkeley Unified	REALM Charter High*	Traditional	Charter	High	9 - 12	366	No	Yes	Yes	73%	9
2	North	Berkeley Unified	REALM Charter Middle*	Traditional	Charter	Middle	6 - 8	302	No	Yes	Yes	72%	9
3	North	Oakland Unified	Castlemont High*	Traditional	Non-charter	High	9 - 12	564	No	Yes	Yes	81%	8
4	North	Oakland Unified	Fremont High*	Traditional	Non-charter	High	9 - 12	773	No	Yes	Yes	84%	6
5	North	Oakland Unified	McClymonds High	Traditional	Non-charter	High	9 - 12	318	No	Yes	Yes	85%	6
6	North	Oakland Unified	Oakland High	Traditional	Non-charter	High	9 - 12	1,583	No	Yes	Yes	88%	20
7	North	Oakland Unified	Roosevelt Middle	Traditional	Non-charter	Middle	6 - 8	511	No	Yes	Yes	96%	3
8	North	Oakland Unified	Westlake Middle	Traditional	Non-charter	Middle	6 - 8	455	Yes	Yes	Yes	93%	9
9	North	Oakland Unified	Bret Harte Middle	Traditional	Non-charter	Middle	6 - 8	484	No	Yes	Yes	79%	10
10	North	Oakland Unified	Aspire Berkley Maynard Academy	Traditional	Charter	Middle	K - 8	n/a	No	Yes	Yes	n/a	4
11	North	Oakland Unified	Oakland Military Institute	Traditional	Charter	Middle/High	6 - 12	616	No	Yes	Yes	25%	19
12	North	Oakland Unified	Alliance Academy	Traditional	Non-charter	Middle	6 - 8	371	No	Yes	Yes	94%	1
13	North	Oakland Unified	Elmhurst Community Prep	Traditional	Non-charter	Middle	6 - 8	371	No	Yes	Yes	94%	1
14	North	Oakland Unified	Frick Middle*	Traditional	Non-charter	Middle	6 - 8	204	No	Yes	Yes	94%	7
15	North	Oakland Unified	Urban Promise Academy	Traditional	Non-charter	Middle	6 - 8	371	No	Yes	Yes	95%	6
16	Central	San Leandro Unified	San Leandro High*	Traditional	Non-charter	High	9 - 12	2,597	Yes	Yes	Yes	62%	5
17	Central	San Leandro Unified	John Muir Middle*	Traditional	Non-charter	Middle	6 - 8	969	Yes	Yes	Yes	69%	3
18	Central	Hayward Unified	Cesar Chavez Middle	Traditional	Non-charter	Middle	6 - 8	579	Yes	Yes	Yes	86%	5
19	Central	Hayward Unified	Bret Harte Middle	Traditional	Non-charter	Middle	7 - 8	632	Yes	Yes	Yes	69%	9
20	Central	Hayward Unified	Hayward High	Traditional	Non-charter	High	9 - 12	1,580	No	Yes	Yes	75%	3
21	Central	San Lorenzo Unified	Bohannon Middle	Traditional	Non-charter	Middle	6 - 8	834	Yes	Yes	Yes	67%	4
22	Central	San Lorenzo Unified	San Lorenzo High	Traditional	Non-charter	High	9 - 12	1,386	Yes	Yes	Yes	77%	2
23	South	New Haven Unified	Cesar Chavez Middle*	Traditional	Non-charter	Middle	6 - 8	1,284	Yes	Yes	Yes	55%	5
24	South	New Haven Unified	James Logan High*	Traditional	Non-charter	High	9 - 12	3,793	No	Yes	Yes	41%	16
25	South	Newark Unified	Newark Junior High	Traditional	Non-charter	Middle	7 - 8	935	No	Yes	Yes	49%	4
26	South	Newark Unified	Newark Memorial High	Traditional	Non-charter	High	9 - 12	1,767	No	Yes	Yes	42%	8
27	South	Fremont Unified	William Hopkins Junior High	Traditional	Non-charter	Middle	7 - 8	n/a	No	Yes	Yes	n/a	2

	Planning Area	School District	School Name	School Type	Charter	School Level	Grades	Enrollment (2015-2016)	SR2S	Traditional/ Continuation School Day	Existing Bus Stop within 1/4 mile of School	Income Opportunity (percent of FRPM eligible students)	# of Bus Routes
28	South	Fremont Unified	American High	Traditional	Non-charter	High	9 - 12	2,093	Yes	Yes	Yes	22%	6
29	East	Dublin Unified	Wells Middle	Traditional	Non-charter	Middle	6 - 8	873	Yes	Yes	Yes	18%	2
30	East	Dublin Unified	Dublin High	Traditional	Non-charter	High	9 - 12	2,273	Yes	Yes	Yes	9%	2
31	East	Livermore Valley Joint Unified	Del Valle Continuation High	Continuation	Non-charter	High	7 - 12	132	No	Yes	Yes	52%	2
32	East	Livermore Valley Joint Unified	East Avenue Middle*	Traditional	Non-charter	Middle	6 - 8	621	Yes	Yes	Yes	29%	2
33	East	Livermore Valley Joint Unified	Livermore High*	Traditional	Non-charter	High	9 - 12	2,059	No	Yes	Yes	20%	4
34	East	Livermore Valley Joint Unified	Andrew N. Christensen Middle	Traditional	Non-charter	Middle	6 - 8	615	No	Yes	Yes	20%	1
35	East	Pleasanton Unified	Thomas S. Hart Middle	Traditional	Non-charter	Middle	6 - 8	1,167	Yes	Yes	Yes	6%	5
36	East	Pleasanton Unified	Foothill High	Traditional	Non-charter	High	9 - 12	2,085	Yes	Yes	Yes	5%	4

*Schools in Year 1 Pilot Program