Triennial Performance Audit

of

Fairfield and Suisun Transit (FAST)

Fiscal Years 2015/16, 2016/17 and 2017/18

FINAL AUDIT REPORT

prepared for the

METROPOLITAN TRANSPORTATION COMMISSION

by

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June 2019

NOTE:

All exhibits in this report are presented at the end of the associated discussion in each section.

EXECUTIVE SUMMARY

This executive summary highlights the findings from the performance audit of Fairfield and Suisun Transit (FAST). In California, a performance audit must be conducted every three years of any transit operator receiving Transportation Development Act (TDA) Article 4 funds, to determine whether the operator is in compliance with certain statutory and regulatory requirements, and to assess the efficiency and effectiveness of the operator's services. The two service modes operated by FAST, bus, and paratransit, are the prime focus of this performance audit. The audit period is Fiscal Years 2016 through 2018 (from July 1, 2015 through June 30, 2018).

Performance Audit and Report Organization

The performance audit was conducted for MTC in accordance with its established procedures for performance audits. The final audit report consists of these sections:

- An assessment of data collection and reporting procedures;
- A review of performance trends in TDA-mandated indicators and component costs;
- A review of compliance with selected PUC requirements;
- An evaluation of FAST's actions to implement the recommendations from the last performance audit;
- An evaluation of functional performance indicator trends; and
- Findings, conclusions, and recommendations to further improve FAST's performance based on the results of the previous sections.

Comments received from FAST and MTC staff regarding the draft report have been incorporated into the final report. Highlights from the key activities are presented in this executive summary.

Results and Conclusions

Review of TDA Data Collection and Reporting Methods - The purpose of this review is to determine if FAST is in compliance with the TDA requirements for data collection and reporting. The review is limited to the data items needed to calculate the TDA-mandated performance indicators. This review has determined that FAST is in compliance with the data collection and reporting requirements for these performance indicators. In addition, the statistics collected over the six-year review period appear to be consistent with the TDA definitions, and indicate general consistency in terms of the direction and magnitude of the year-to-year changes across the statistics.

Performance Indicators and Trends – FAST's performance trends for the five TDA-mandated indicators were analyzed by mode. A six-year analysis period was used for all the indicators. In addition, component operating costs were analyzed.

- Bus Service – The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2013 through FY2018:

  - There was an average annual increase in the operating cost per hour of 2.2 percent over the six years, which amounts to a decrease of 0.6 percent in inflation adjusted dollars. The largest annual increase occurred in FY2018, the most recent year, when operating costs increased by nearly ten percent while vehicle service hours decreased slightly.

  - The cost per passenger increased on average by 4.7 percent per year, which amounted to an average annual increase of 1.8 percent in

constant FY2013 dollars, as passenger levels decreased in the last three years.

– Passenger productivity declined, with passengers per vehicle service hour decreasing by 2.4 percent per year overall, and passengers per vehicle service mile decreasing by 2.9 percent annually.

The following is a brief summary of the component operating costs trend highlights for the bus service between FY2013 and FY2018:

– Large increases in FY2015 in the labor, fringe benefits, and other costs categories were offset by reduced services costs -- all driven by NTD-required reporting changes which altered the distribution of costs. Total operating costs increased on average by three percent per year.

– Higher cost allocation charges by the City to Transportation in FY2015 than in the previous years also impacted reported labor and fringe benefits costs.

– Services costs contributed about 30 percent of total costs until FY2015, when this was reduced to 15 percent or less with the NTD reporting changes. Most other component cost shares increased at the same time.

– Purchased transportation costs were reduced in FY2015 as a result of a new operating contract. They continued to represent the largest portion of the total costs, over 40 percent.

– In-house fringe benefits costs increased by nearly 60 percent in FY2018, even as labor costs increased by less than three percent. This appears to reflect further changes in NTD operating cost reporting protocols, specifically the addition of separate "paid time off" line items.

- Paratransit – The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2013 through FY2018:

- Cost efficiency was slightly improved overall, with an average annual decrease in the operating cost per hour of 0.1 percent (2.9 percent in inflation adjusted dollars).

- The operating cost per passenger achieved an annual decrease of 1.5 percent when normalized in FY2013 dollars. Operating costs increased by about three percent per year over the period (in current dollars), while passenger levels increased by nearly two percent per year.

- Passenger productivity declined moderately, with passengers per hour and passengers per mile both decreasing by about 1.5 percent per year on average.

The following is a brief summary of the component operating costs trend highlights for paratransit between FY2013 and FY2018:

- Similar to FAST's bus service, NTD-required reporting changes resulted in substantial cost redistributions among component cost categories as of FY2015. Total operating costs increased on average by three percent per year.

- In-house labor costs increased by 6.1 percent annually, on average, while fringe benefits costs increased at nearly triple that rate. Labor costs decreased by 23 percent in FY2018, even as fringe benefits costs increased by 14.5 percent compared to FY2017. However, the latter appears to reflect further changes in NTD operating cost reporting protocols.

- Purchased transportation costs were reduced in FY2015 as a result of a new operating contract. They continued to represent the largest portion of the total costs, at 45 percent or more.

- Casualty and liability costs increased by 18 percent in FY2015, mostly due to higher health care premiums, and remained virtually constant through the remainder of the period. Materials/supplies costs increased overall by 9.3 percent annually.

Compliance with Statutory Requirements – FAST is in compliance with the sections of the state PUC that were reviewed as part of this performance audit. The sections reviewed included requirements concerning CHP safety inspections, labor contracts, reduced fares, Welfare-to-Work, revenue sharing, and evaluation of passenger needs.

Status of Prior Audit Recommendations – Two of the three recommendations have been implemented. First, FAST's efforts to improve performance in the preventable accident rate for its bus service have resulted in the rate decreasing in each recent year, by about 25 percent overall during the current audit period. Then second, a new outreach plan for new and current paratransit riders addresses noted increases in trip cancellations and passenger no-shows, offering specialized training for individuals on how to schedule and cancel paratransit trips. During the current audit period, passenger no-shows decreased by 21 percent, while the trip cancellation rate remained well below the levels recorded in the prior audit period, and late cancellations remained at less than two percent of total ADA trips.

Implementation is in progress for the remaining recommendation. In acknowledgment of the noted high rate of mechanical failures on its buses, FAST staff cited the aging vehicle fleet, and a fleet replacement schedule was developed. However, any improvements ensuing from fleet replacement will be in the future. Audit period maintenance results for FAST's bus service showed vehicle maintenance costs increasing by nearly 30 percent, a consistently high 30 percent spare ratio, and continued noticeably deteriorating mechanical failure rates.

Functional Performance Indicator Trends - To further assess FAST's performance over the past three years, a detailed set of systemwide and modal functional area performance indicators was defined and reviewed.

- Systemwide (All Modes) – The following is a brief summary of the systemwide functional trend highlights between FY2016 and FY2018:
  - Administrative costs increased in FY2018 to one third of total operating costs and almost $40 per vehicle service hour.
  - Marketing costs increased overall compared to total administrative costs and passenger trips.
  - The systemwide farebox recovery ratio decreased over the period from 23.5 percent to 19.4 percent.

- Bus Service – The following is a brief summary of the bus service functional trend highlights between FY2016 and FY2018:
  - Service Planning results showed an overall 18 percent increase in the cost per passenger mile, farebox recovery down from 25.7 to 21.1 percent, TDA recovery down from 33.2 to 27.3 percent, consistently 93 percent or more vehicle miles and hours in service, and passengers per vehicle service mile and hour both down by seven percent.
  - Operations results showed some decrease vehicle operations costs as a portion of total operating costs, but an increase in vehicle operations costs per hour. Schedule adherence results were not available but there were almost no missed trips. At the same time, the rate of complaints increased slightly overall.
  - Maintenance results showed some net increase in total maintenance costs as a portion of total operating costs. At the same time, vehicle maintenance costs increased by nearly 30 percent, the vehicle spare ratio remained at 30 percent, and there were noticeably deteriorating mechanical failure rates.

- Safety results showed preventable accidents decreasing in each audit year, by 25 percent overall.

- Paratransit – The following is a brief summary of the paratransit functional trend highlights between FY2016 and FY2018:

  - Service Planning results showed an overall 9.3 percent increase in the cost per passenger mile, farebox recovery down from 8.6 to 7.9 percent, TDA recovery down overall from 9.4 to 8.5 percent, at least 91 percent of vehicle miles and hours in service (and increasing), and steady rates for passengers per vehicle service mile and hour.

  - Operations results showed some decrease vehicle operations costs as a portion of total operating costs, but a slight increase in vehicle operations costs per hour. All trips were within the on-time window and there were no missed trips or ADA trip denials. After an increase in FY2017, the complaint rate dropped significantly in the last year. Passenger no-shows decreased by 21 percent, while the trip cancellation rate rose slightly but remained well below the levels recorded in the prior audit period, and late cancellations went up noticeably in FY2018 but remained at less than two percent of total ADA trips.

  - Maintenance results showed total maintenance costs relatively steady at 17 to 20 percent of total operating costs. At the same time vehicle maintenance costs per mile increased by 30 percent, while the spare ratio was reduced from 35 percent. Mechanical failure rates increased by more than 50 percent in FY2018.

  - Safety results showed net improvement in the preventable accident rate during the audit period.

Recommendations

1. EXAMINE MAINTENANCE ACTIVITIES AND ADDRESS THE RECENTLY INCREASING MECHANICAL FAILURE RATES ON THE BUS AND PARATRANSIT SERVICES.
[Reference Sections: V. Status of Prior Audit Recommendations; VI. Functional Performance Indicator Trends]

Prior audit period maintenance results for FAST's bus service showed vehicle maintenance costs increasing by nearly 20 percent, but also a high spare ratio which grew to 35 percent in FY2015, and noticeably deteriorating mechanical failure rates. The mean distance between major failures declined overall by nearly 25 percent, and when looking at all failures, there was a steady decline through the period, especially in FY2015. It was suggested that efforts be made by FAST to improve its maintenance function to increase vehicle reliability and reduce the growing rates of mechanical failures on its bus and service.

In acknowledgment of the noted high rate of mechanical failures on its buses, FAST staff cited the aging vehicle fleet, and a fleet replacement schedule was developed. However, any improvements ensuing from fleet replacement will be in the future. Current audit period maintenance results for FAST's bus service showed vehicle maintenance costs increasing by nearly 30 percent, a consistently high 30 percent spare ratio, and continued noticeably deteriorating mechanical failure rates.

In addition, during the current audit period, paratransit vehicle maintenance costs increased by 30 percent, with mechanical failure rates increasing by more than 50 percent in FY2018.

Expanded efforts should be made by FAST to increase current vehicle fleet reliability and reduce the growing rates of mechanical failures on its bus and paratransit services until the full anticipated fleet replacement can be realized.

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List of Exhibits

I. INTRODUCTION

Public Utilities Code (PUC) Section 99246 requires that a performance audit be conducted every three years of each public transit operator in California. The audit requirement pertains to recipients of Transportation Development Act (TDA) funds, and is intended to assure that the funds are being used efficiently. The substance and process of the performance audit is defined by the Regional Transportation Planning Agency (RTPA).

In the San Francisco Bay Area, the Metropolitan Transportation Commission (MTC) has been designated the RTPA and has this responsibility. By statute, the audit must be conducted in accordance with the U.S. Comptroller General's "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions" (the "yellow book"). The performance audit is a systematic review to determine the extent to which a transit operator has complied with pertinent laws and regulations, and conducted operations in an efficient and economical manner. Relative to system compliance testing, all findings are reported regardless of materiality.

This report has been prepared as part of the performance audit of Fairfield and Suisun Transit (FAST). The two service modes operated by FAST, bus, and paratransit, are the prime focus of this performance audit. The audit period is Fiscal Years 2016 through 2018 (from July 1, 2015 through June 30, 2018).

An overview of FAST is provided in Exhibit 1. This is followed by a current agency organization chart in Exhibit 2, which reflects the basic in-house organizational structure. The only change to this structure during the audit period was the addition of Federal Compliance Transportation Planner position during FY2017.

Performance Audit and Report Organization

This performance audit of FAST was conducted for MTC in accordance with its established procedures for performance audits. The audit consisted of two discrete steps:

1. Compliance Audit – Activities in this phase included:
   - An overview of data collection and reporting procedures for the five TDA performance indicators;
   - Analysis of the TDA indicators; and
   - A review of compliance with selected state Public Utilities Code (PUC) requirements.

2. Functional Review – Activities in this phase included:
   - A review of actions to implement the recommendations from the prior performance audit;
   - Calculation and evaluation of functional performance indicator trends; and
   - Findings, conclusions, and the formulation of recommendations.

This report presents the findings from both phases. Comments received from FAST and MTC staff regarding the draft report have been incorporated into this final report.

Exhibit 1: System Overview

Location 2000 Cadenasso Drive, Fairfield, CA 94533

Establishment The City of Fairfield initiated its general public dial-a-ride service in 1975. Fixed-route service began in 1980 with one route, and subsequently expanded in stages. The separate Fairfield and Suisun City transit systems consolidated into the Fairfield/Suisun Transit System (FST) in 1989. In the following year, FST began participating in Solano County's intercity service along the I-80 corridor as well. In 2008, the City changed the name of the service again to Fairfield and Suisun Transit (FAST).

Board FAST policy is guided by the Fairfield City Council, which has four members and an elected Mayor, for five total members.

Facilities FAST offices are located in the Fairfield Transportation Center (FTC), located on Cadenasso Drive in Fairfield. FAST operates two Park and Ride facilities in Fairfield and at the Fairfield-Vacaville Train Station (Capital Corridor service). The Fairfield-Vacaville Train Station began service in November 2017.

Service Data FAST contracts with MV Transportation, Inc. to operate fixed-route service, which includes nine local and four intercity/commuter routes. The system is based on "timed transfers" that occur at the FTC and Solano Town Center, located in the City of Fairfield. Local fixed routes and intercity Routes 20 and 30 operate on weekdays and Saturdays; the remaining intercity routes operate weekdays only. The fixed-route fleet consists of 48 vehicles.

Local cash fares as of June 30, 2015 are $1.75 for adults, $1.50 for youth, and $0.85 for seniors age 65 or above and persons with disabilities. Fares on the intercity routes range from $1.35 to $5.75, depending on the destination and passenger category (Adult, Youth, or Senior/Medicare/Disabled). Unlimited-ride 31-day passes are available for all fare categories; ten-ride passes are available for local routes. FAST local transfers are valued at the current local fare and must be used within a 60-minute time frame. These allow a passenger to transfer to a local route for free. FAST also has transfer arrangements with connecting transit operators.

FAST also contracts with MV to operate a local origin to destination dial-a-ride service known as DART. DART provides local ADA paratransit service within Fairfield and Suisun to passengers who qualify through the ADA eligibility process. DART is operated using thirteen vehicles. Passengers must qualify through an ADA-eligibility application process. Fares are $3.50 per local ride within Fairfield and Suisun and $5.50 each way for intercity trips to Vacaville.

FAST is involved in three other demand-responsive programs that are addressed only peripherally in this audit:

1) The Reduced Fare Taxi program, featuring half-fare local taxi rides for individuals who are eligible based on age and residency.
2) The Adult Recreation Center Taxi program, which operates through the local taxi service and provides rides within Fairfield/Suisun to the Adult Recreation Center (formerly the Fairfield Senior Center). One-way fares are $2.00.
3) The Solano County Intercity Taxi Scrip Program, which provides service at a reduced fare to eligible ADA paratransit certified riders.

Recent Changes

July 1, 2015: New Route 9 began service to the new Suisun Walmart, and Route 5 service was changed to serve the Suisun City Hall.

February 1, 2016: Added new Route 40 midday service and new Route 90 Saturday service (pilot service).

January 29, 2018: Realigned Routes 2 and 4, and combined Routes 6 and 9 into a new Route 6 (eliminating Route 9).

July 2, 2018: Solano Express Routes 20, 30, and 40 become the Blue Line, and Route 90 became the Green Express (GX).

Purchased nine new MCI commuter coaches that entered service in FY2019.

Received two FTA grants (LoNo and Bus and Bus Facilities grants) for the infrastructure needed to transition the fleet to electric buses, and also for the purchase of up to three electric buses.

Planned Changes

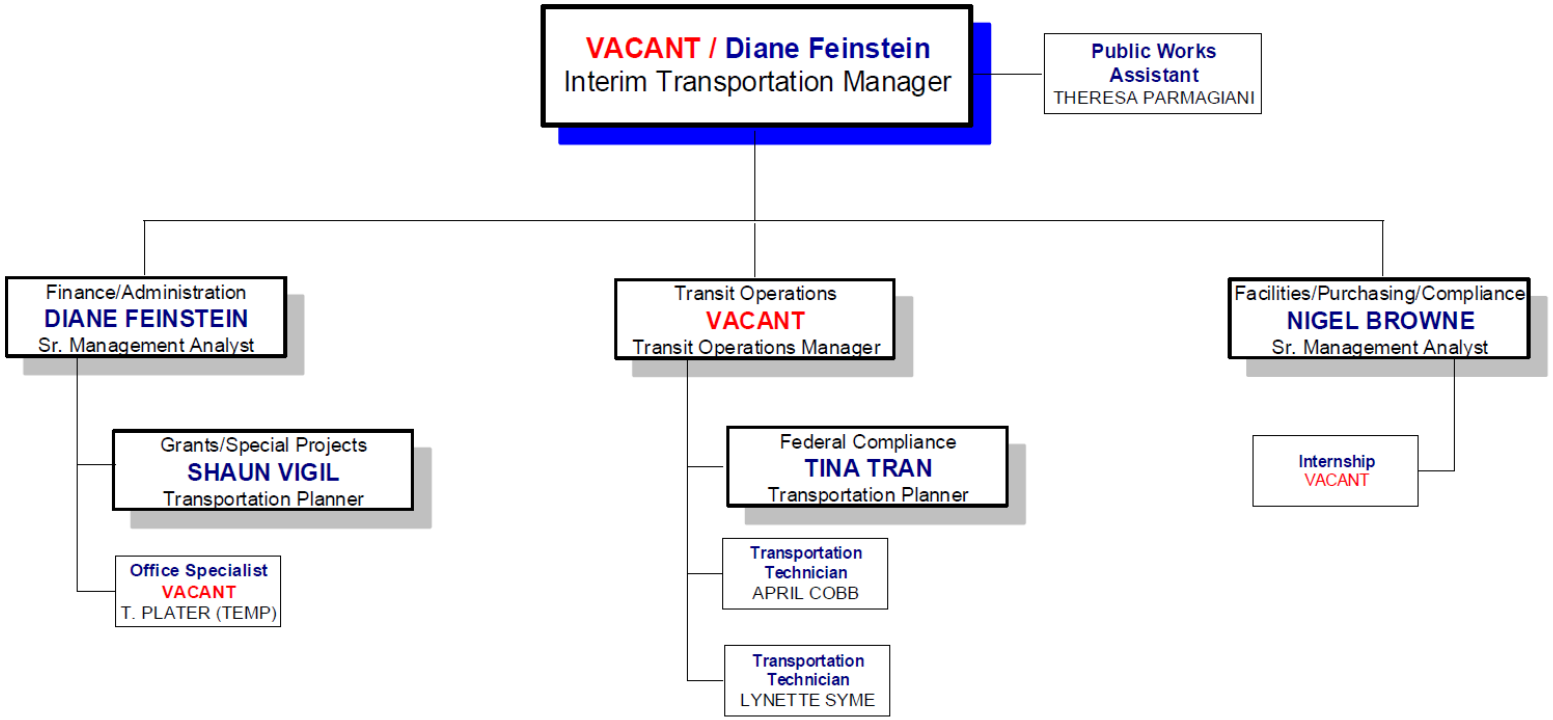
Parking fee program at the FTC is under development.

A Comprehensive Operational Analysis (COA) of the local routes will be conducted during FY2020. This will be the first such analysis completed by FAST.

Staff

The City of Fairfield Department of Public Works, Transportation Division has overall responsibility for FAST daily operations. The system is administered by the Transportation Manager, with assistance from a staff of nine City employees in the Public Works/Transportation Division. Operations, dispatch, training, information services, and reservations are provided by MV Transportation, Inc.

Exhibit 2: Current Organization Chart



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II. REVIEW OF TDA DATA COLLECTION AND REPORTING METHODS

This section focuses on the five performance indicators required by TDA law. These indicators have been defined by the state PUC to evaluate the transit operator's efficiency, effectiveness and economy. The purpose of this review is to determine if FAST is compliance with the data collection and reporting requirements necessary to calculate the TDA performance indicators. The review is limited to the data items needed to calculate the indicators:

- Operating costs
- Vehicle service hours
- Vehicle service miles
- Unlinked passengers
- Employees (full-time equivalents)

The TDA indicator analysis is based on these operating and financial statistics in the National Transit Database (NTD) reports submitted annually to the Federal Transit Administration (FTA). The information reported by FAST covering the audit period has been reviewed. FAST's NTD reports include its bus and paratransit services. However, consistent with FTA reporting requirements, FAST does not submit employee hour information for purchased transportation service to the NTD.

Compliance with Requirements

To support this review, FAST provided a copy of the Data Collection Section of its Operations and Procedure Manual, which documents the procedures for completing reports required by other agencies (federal, state and local), and defines the various statistics used and how they are obtained. FAST also provided information to confirm

its data collection and reporting procedures as described in the prior performance audit, with some minor updates. The staff indicated that the definitions and procedures used to derive the TDA statistics generally are consistent with those used for the NTD reporting system.

Based on the information provided, as shown in Exhibit 3.1, FAST is in compliance with the data collection and reporting requirements for the TDA statistics.

Consistency of the Reported Statistics

The resulting TDA statistics for FAST's bus and paratransit services are shown in Exhibits 3.2 and 3.3, respectively. Included are statistics covering each fiscal year of the three-year audit period, plus the immediately preceding three fiscal years, resulting in a six-year trend. It should be noted that employee work hour/FTE data are not included since FAST service is provided by a private contractor.

The statistics collected over the period appear to be consistent with the TDA definitions. Further, they indicate general consistency in terms of the direction and magnitude of the year-to-year changes across the statistics. For example, increases or decreases in annual operating costs are for the most part relatively proportional to increases or decreases in annual vehicle service hours and miles. However, there was an increase in bus service operating costs of nearly ten percent in FY2018 compared to FY2017, even as hours and miles decreased somewhat. FAST staff explained that this resulted from renegotiating the operating contract to make it more competitive for hiring and retaining employees given the current tight labor market.

Exhibit 3.1: Compliance with TDA Data Collection and Reporting Requirements

TDA Statistic	TDA Definition	Compliance Finding	Verification Information
Operating Cost	"Operating cost" means all costs in the operating expense object classes exclusive of the costs in the depreciation and amortization expense object class of the uniform system of accounts and records adopted by the Controller pursuant to Section 99243, and exclusive of all subsidies for commuter rail services operated under the jurisdiction of the Interstate Commerce Commission and of all direct costs for providing charter services, and exclusive of all vehicle lease costs.	In Compliance	• Statistics for NTD reporting supplied by City Finance/Accounting Division, via the TDA quarterly report. • Data sources include Transit Division Budget, Maintenance Division Reports, Performance Summary Spreadsheet Report (with input from operating contractor's Monthly Report), and Ridership/Interagency Expense Share Summary Spreadsheet. • Operating cost includes all line items except depreciation. The City's overhead is calculated using a cost allocation plan.
Vehicle Service Hours	"Vehicle service hours" means the total number of hours that each transit vehicle is in revenue service, including layover time.	In Compliance	• Statistics for NTD reporting based on information provided by the contract operator. • Vehicle service hours recorded by drivers on driver run sheets. Data from the run sheets for each vehicle entered into the daily service log and rolled up for inclusion in the Monthly Report.
Vehicle Service Miles	"Vehicle service miles" means the total number of miles that each transit vehicle is in revenue service.	In Compliance	• Statistics for NTD reporting based on information provided by the contract operator. • Vehicle service miles (odometer readings) recorded by drivers on driver run sheets. Data from the run sheets for each vehicle entered into the daily service log and rolled up for inclusion in the Monthly Report. Vehicle service miles are also tracked by the City's Vehicle Maintenance Division.

TDA Statistic	TDA Definition	Compliance Finding	Verification Information
Unlinked Passengers	"Unlinked passengers" means the number of boarding passengers, whether revenue producing or not, carried by the public transportation system.	In Compliance	• Statistics for NTD reporting are based on information provided by the contract operator. • Passengers are counted by fare type and recorded by Genfare (GFI) fareboxes, with daily results rolled up for inclusion in the Monthly Report.
Employee Full-Time Equivalents	2,000 person-hours of work in one year constitute one employee.	In Compliance	• City's definition corresponds with TDA definition. • Most activities related to FAST's service provision are contracted out to a private operator. • Contractor tracks driver work hours separately for fixed-route and paratransit.

Exhibit 3.2: TDA Statistics – Bus Service

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Operating Cost (Actual $)	$8,549,418	$8,726,332	$8,497,799	$8,399,918	$9,052,367	$9,915,219
Annual Change	- -	*2.1%*	*-2.6%*	*-1.2%*	*7.8%*	*9.5%*
Vehicle Service Hours	79,775	79,540	79,984	82,213	84,183	82,867
Annual Change	- -	*-0.3%*	*0.6%*	*2.8%*	*2.4%*	*-1.6%*
Vehicle Service Miles	1,603,548	1,627,572	1,634,970	1,687,360	1,741,598	1,707,753
Annual Change	- -	*1.5%*	*0.5%*	*3.2%*	*3.2%*	*-1.9%*
Unlinked Passengers	1,049,232	1,068,994	1,070,652	1,027,426	992,616	965,949
Annual Change	- -	*1.9%*	*0.2%*	*-4.0%*	*-3.4%*	*-2.7%*
Employee Full-Time Equivalents	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*
Annual Change	- -	- -	- -	- -	- -	- -

Sources: FY2013 through FY2015 - Prior Performance Audit Report (FY2015 draft results confirmed per NTD Database)
FY2016 through FY2018 - NTD Reports (FY2018 NTD not closed out yet)

(a) Not applicable as FAST service is provided by private contractor

Exhibit 3.3: TDA Statistics – Paratransit

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Operating Cost (Actual $)	$1,219,908	$1,294,361	$1,234,129	$1,287,472	$1,406,445	$1,424,365
Annual Change	- -	*6.1%*	*-4.7%*	*4.3%*	*9.2%*	*1.3%*
Vehicle Service Hours	11,849	12,611	13,492	13,710	14,558	13,914
Annual Change	- -	*6.4%*	*7.0%*	*1.6%*	*6.2%*	*-4.4%*
Vehicle Service Miles	193,741	214,521	218,599	230,894	236,479	229,706
Annual Change	- -	*10.7%*	*1.9%*	*5.6%*	*2.4%*	*-2.9%*
Unlinked Passengers	23,174	24,696	25,667	25,184	25,461	25,324
Annual Change	- -	*6.6%*	*3.9%*	*-1.9%*	*1.1%*	*-0.5%*
Employee Full-Time Equivalents	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*
Annual Change	- -	- -	- -	- -	- -	- -

Sources: FY2013 through FY2015 - Prior Performance Audit Report (FY2015 draft results confirmed/adjusted per NTD Database)
FY2016 through FY2018 - NTD Reports (FY2018 NTD not closed out yet)

(a) Not applicable as FAST service is provided by private contractor

III. TDA PERFORMANCE INDICATORS AND TRENDS

The performance trends for FAST's bus and paratransit service modes are presented in this section. Performance is discussed for four of the five TDA-mandated performance indicators:

- operating cost per vehicle service hour
- passengers per vehicle service hour
- passengers per vehicle service mile
- operating cost per passenger

The performance results in these indicators were developed from the information in the NTD reports filed with the FTA for the three years of the audit period. FAST's NTD reports were the source of all operating and financial statistics utilized.

Performance results for the fifth TDA-mandated indicator, vehicle service hours per full-time equivalent employee (FTE), were deemed not applicable since FAST's services are provided by a private contractor.

In addition to presenting performance for the three years of the audit period (FY2016 through FY2018), this analysis features two enhancements:

- Six-Year Time Period – While the performance audit focuses on the three fiscal years of the audit period, six-year trend lines have been constructed for FAST's service to provide a longer perspective on performance and to clearly present the direction and magnitude of the performance trends. In this analysis, the FY2016 to FY2018 trend lines have been combined with those from the prior audit period (FY2013 through FY2015) to define a six-year period of performance.

- Normalized Cost Indicators for Inflation – Two financial performance indicators (cost per hour and cost per passenger) are presented in both constant and current dollars to illustrate the impact of inflation in the Bay Area. The inflation adjustment relies on the All Urban Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for the San Francisco Metropolitan Area. The average CPI-W percent change for each fiscal year has been calculated based on the bi-monthly results reported on the U.S. Department of Labor – Bureau of Labor Statistics website. The CPI-W is used since labor is the largest component of operating cost in transit. Since labor costs are typically controlled through labor contracts, changes in normalized costs largely reflect those factors that are within the day-to-day control of the transit system.

The following discussion is organized to present an overview of FAST's performance trends in the four included TDA performance indicators. The discussion is organized by service mode -- bus service is discussed first, followed by paratransit. The analysis is also expanded to include a breakdown of the various component costs that contributed to the total and hourly operating costs during the last six years.

Bus Service Performance Trends

This section provides an overview of the performance of FAST's bus service over the past six years. The trends in the TDA indicators and input statistics are presented in Exhibit 4. The six-year trends are illustrated in Exhibits 4.1 through 4.3.

- Operating Cost per Vehicle Service Hour (Exhibit 4.1)

  - A key indicator of cost efficiency, the cost per hour of bus service increased an average of 2.2 percent annually during the six-year review period.

  - The cost per hour ranged from a low of $102.17 in FY2016 to a high of $119.65 in the last year (FY2018). There were increases in most years; the largest (more than 11 percent) occurring in FY2018, when operating

costs increased by nearly ten percent while vehicle service hours decreased slightly.

- In FY2013 constant dollars, there was actually an average annual decrease in this indicator of 0.6 percent.

- Passengers per Vehicle Service Hour (Exhibit 4.2)

  - A key indicator of passenger productivity, passengers per hour decreased an average of 2.4 percent annually during the six-year period.

  - The decrease reflects a small overall increase in vehicle service hours combined with a larger decrease in passengers carried.

  - Passengers per hour decreased overall from about 13.2 in FY2013 to 11.7 in FY2018.

- Passengers per Vehicle Service Mile (Exhibit 4.2)

  - Similar to passengers per hour, passengers per mile decreased by 2.9 percent annually on average.

  - There were about 0.65 passengers per mile in the first three years, compared with 0.57 in the most recent years.

- Operating Cost per Passenger (Exhibit 4.3)

  - A key measure of cost effectiveness, cost per passenger was near $8.00 in the first four years of the review period.

  - The cost per passenger then increased by about 12 percent in both subsequent years, reaching to $10.26 by FY2018, as operating costs increased notably while passenger levels declined.

  - Overall, the cost per passenger increased by 4.7 percent per year over the six years.

  - With the impact of inflation removed from the cost side (normalization), the six-year result was an average annual increase of 1.8 percent in the cost per passenger.

* * * * *

The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2013 through FY2018:

- There was an average annual increase in the operating cost per hour of 2.2 percent over the six years, which amounts to a decrease of 0.6 percent in inflation adjusted dollars. The largest annual increase occurred in FY2018, the most recent year, when operating costs increased by nearly ten percent while vehicle service hours decreased slightly.

- The cost per passenger increased on average by 4.7 percent per year, which amounted to an average annual increase of 1.8 percent in constant FY2013 dollars, as passenger levels decreased in the last three years.

- Passenger productivity declined, with passengers per vehicle service hour decreasing by 2.4 percent per year overall, and passengers per vehicle service mile decreasing by 2.9 percent annually.

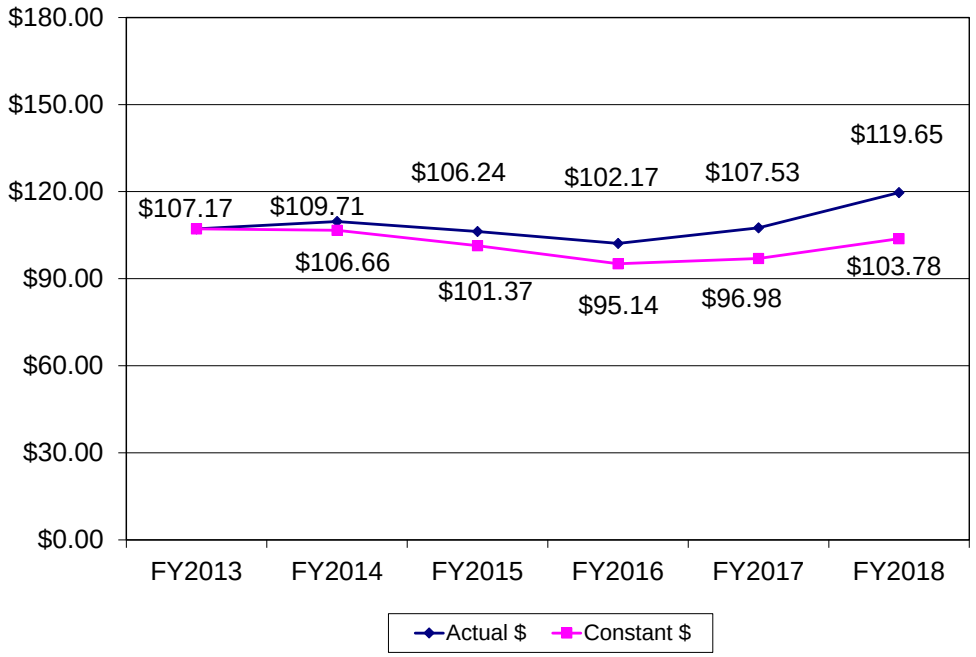
Exhibit 4: TDA Indicator Performance – Bus Service

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	*Av. Ann. Chg.*
Performance Indicators							
Op. Cost per Vehicle Svc. Hour (Actual $)	$107.17	$109.71	$106.24	$102.17	$107.53	$119.65	- -
Annual Change	- -	*2.4%*	*-3.2%*	*-3.8%*	*5.2%*	*11.3%*	*2.2%*
Op. Cost per Vehicle Svc. Hour (Constant $)	$107.17	$106.66	$101.37	$95.14	$96.98	$103.78	- -
Annual Change	- -	*-0.5%*	*-5.0%*	*-6.1%*	*1.9%*	*7.0%*	*-0.6%*
Passengers per Vehicle Service Hour	13.15	13.44	13.39	12.50	11.79	11.66	- -
Annual Change	- -	*2.2%*	*-0.4%*	*-6.6%*	*-5.6%*	*-1.1%*	*-2.4%*
Passengers per Vehicle Service Mile	0.65	0.66	0.65	0.61	0.57	0.57	- -
Annual Change	- -	*0.4%*	*-0.3%*	*-7.0%*	*-6.4%*	*-0.8%*	*-2.9%*
Op. Cost per Passenger (Actual $)	$8.15	$8.16	$7.94	$8.18	$9.12	$10.26	- -
Annual Change	- -	*0.2%*	*-2.8%*	*3.0%*	*11.5%*	*12.6%*	*4.7%*
Op. Cost per Passenger (Constant $)	$8.15	$7.94	$7.57	$7.61	$8.22	$8.90	- -
Annual Change	- -	*-2.6%*	*-4.6%*	*0.5%*	*8.0%*	*8.3%*	*1.8%*
Vehicle Service Hours per FTE	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	- -
Annual Change	- -	- -	- -	- -	- -	- -	- -
Input Data							
Operating Cost (Actual $)	$8,549,418	$8,726,332	$8,497,799	$8,399,918	$9,052,367	$9,915,219	- -
Annual Change	- -	*2.1%*	*-2.6%*	*-1.2%*	*7.8%*	*9.5%*	*3.0%*
Operating Cost (Constant $)	$8,549,418	$8,483,393	$8,108,030	$7,821,777	$8,163,750	$8,600,109	- -
Annual Change	- -	*-0.8%*	*-4.4%*	*-3.5%*	*4.4%*	*5.3%*	*0.1%*
Vehicle Service Hours	79,775	79,540	79,984	82,213	84,183	82,867	- -
Annual Change	- -	*-0.3%*	*0.6%*	*2.8%*	*2.4%*	*-1.6%*	*0.8%*
Vehicle Service Miles	1,603,548	1,627,572	1,634,970	1,687,360	1,741,598	1,707,753	- -
Annual Change	- -	*1.5%*	*0.5%*	*3.2%*	*3.2%*	*-1.9%*	*1.3%*
Unlinked Passengers	1,049,232	1,068,994	1,070,652	1,027,426	992,616	965,949	- -
Annual Change	- -	*1.9%*	*0.2%*	*-4.0%*	*-3.4%*	*-2.7%*	*-1.6%*
Employee Full-Time Equivalents	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	- -
Annual Change	- -	- -	- -	- -	- -	- -	- -
Bay Area CPI - Annual Change	- -	2.9%	1.9%	2.5%	3.3%	4.0%	- -
- Cumulative Change	- -	2.9%	4.8%	7.4%	10.9%	15.3%	*2.9%*

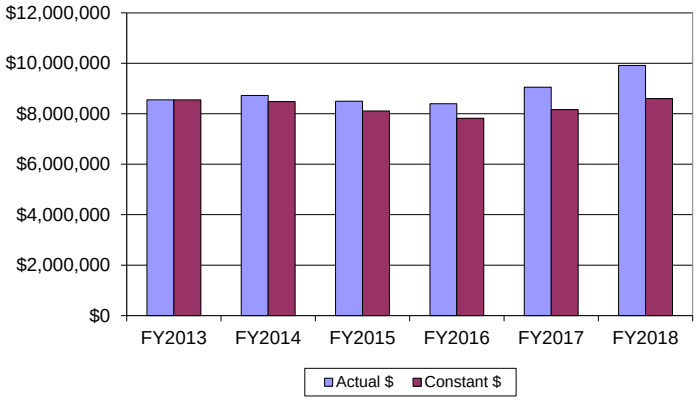
Sources: *FY2013 through FY2015 - Prior Performance Audit Report (FY2015 draft results confirmed per NTD Database)*
FY2016 through FY2018 - NTD Reports (FY2018 NTD not closed out yet)
CPI Data - U.S. Department of Labor, Bureau of Labor Statistics

(a) Not applicable as FAST service is provided by private contractor

Exhibit 4.1: Operating Cost per Vehicle Service Hour – Bus Service



Operating Cost



Vehicle Service Hours

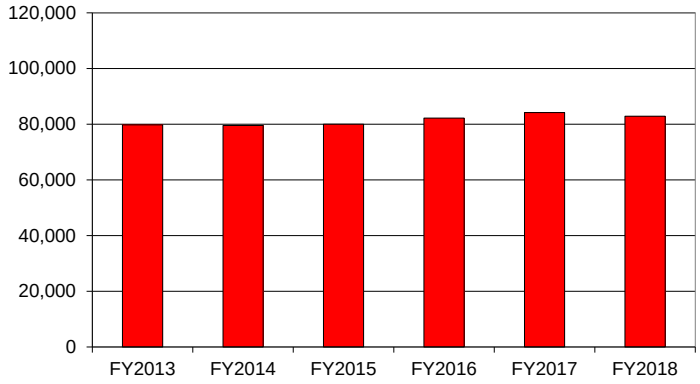
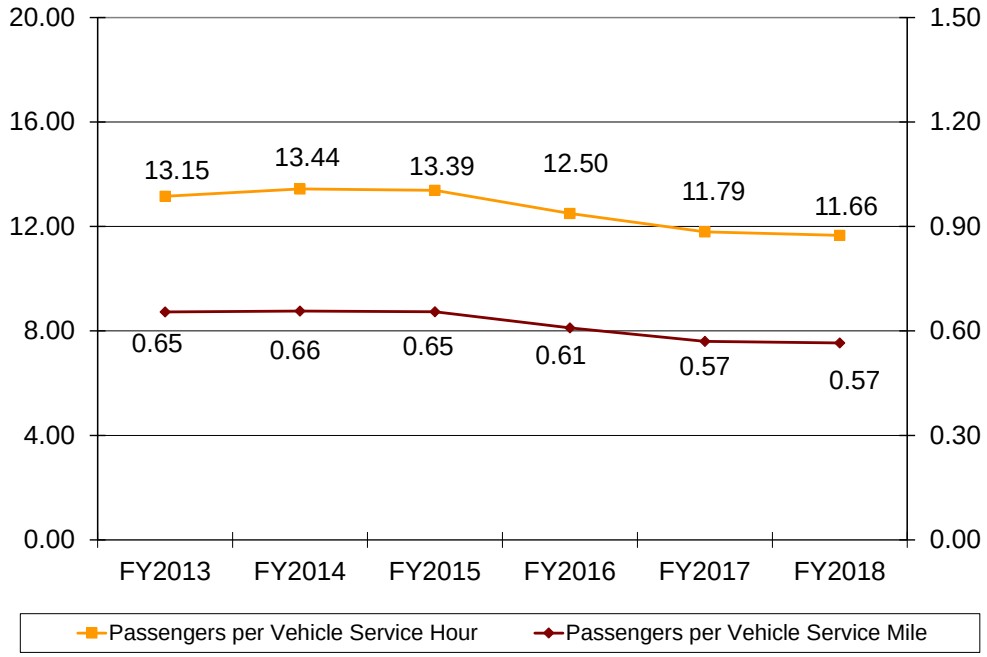
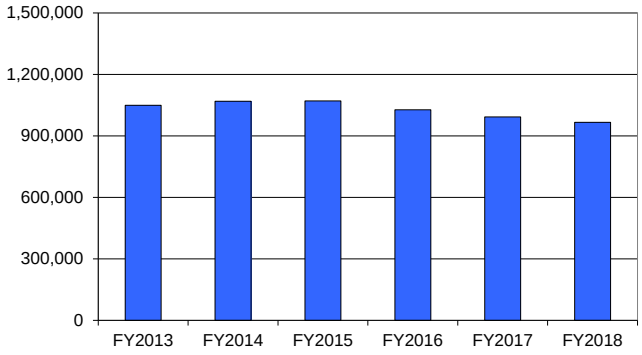


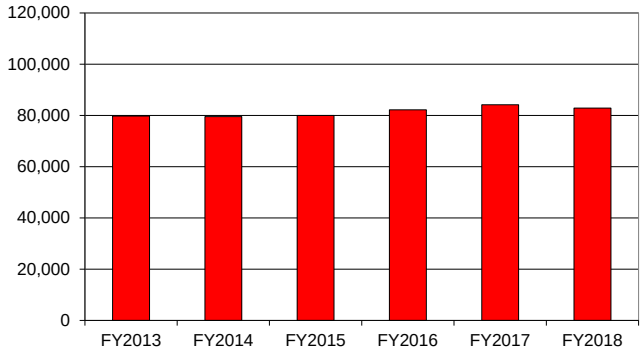
Exhibit 4.2: Passengers per Hour and per Mile – Bus Service



Unlinked Passengers



Vehicle Service Hours



Vehicle Service Miles

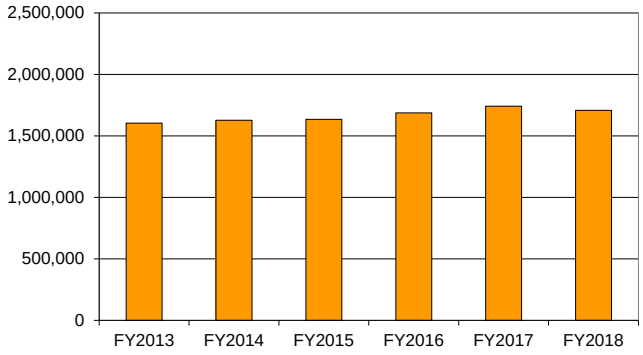
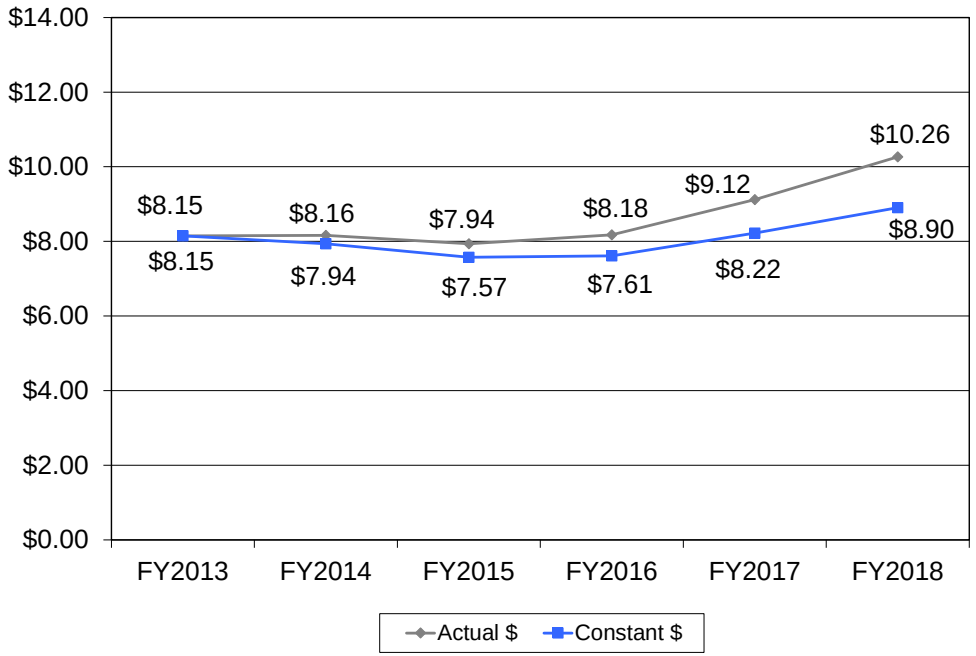
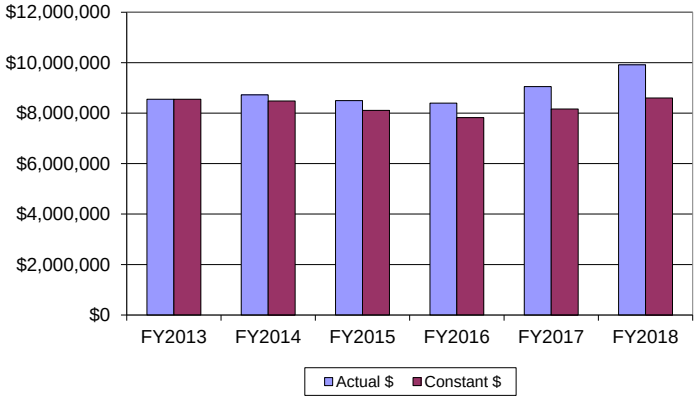


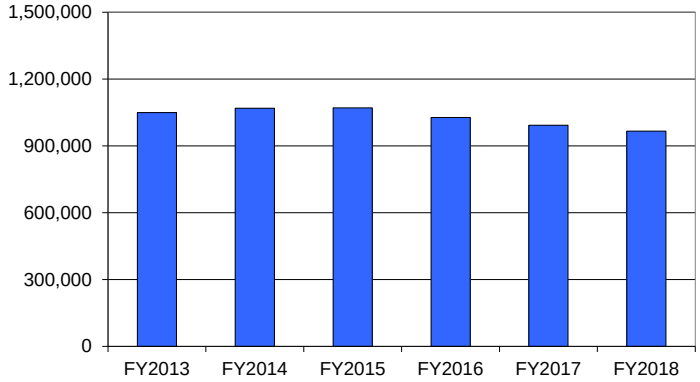
Exhibit 4.3: Operating Cost per Passenger – Bus Service



Operating Cost



Unlinked Passengers



Bus Service Component Costs

Year-to-year changes in selected operating cost categories over the past six years are presented in Exhibit 4.4. Examining components of operating costs (e.g., labor, fringes, fuel, and casualty/liability) may determine what particular components had the most significant impacts on the operating costs. Exhibit 4.4 also shows the concurrent changes in vehicle service hours and Exhibit 4.5 illustrates the portion of the cost per bus service hour that can be attributed to each included cost component.

- Total operating costs increased on average by three percent per year. Several categories of the component cost trends were driven by NTD-required reporting changes in FY2015, which substantially altered the distribution of costs.

- Vehicle maintenance costs, which had been previously reported to the NTD as a service, needed to be broken out as applicable into other salaries and wages, fringe benefits, services, and other materials and supplies.

- In addition, the City levied a higher cost allocation charge to Transportation in FY2015 than in the previous years, primarily impacting the reported labor and fringe benefits costs in FY2015.

- The largest average annual increases were in the in-house labor and fringe benefits categories (about 32 and 45 percent, respectively). In-house fringe benefits costs increased by nearly 60 percent in FY2018, even as labor costs increased by less than three percent. However, this appears to reflect further changes in NTD operating cost reporting protocols, specifically the addition of separate "paid time off" line items which have been included with fringe benefits costs for this review.

- Services costs went down by 13 percent per year on average. Prior to the NTD reporting changes in FY2015, services costs represented about a 30 percent share, but this was reduced to 15 percent or less subsequently.

- Purchased transportation costs were reduced by five percent in FY2015, as a result of a new contract with MV Transportation, Inc. Purchased

transportation costs represented the largest portion of the total costs, ranging between 40 and 44 percent during the review period.

- Casualty and liability costs increased by 3.5 percent on average per year, with the City paying higher health care premiums starting in FY2015.

- There were increases in the shares of most other cost categories in FY2015, also generally reflecting the NTD reporting changes.

* * * * *

The following is a brief summary of the component operating costs trend highlights between FY2013 and FY2018:

- Large increases in FY2015 in the labor, fringe benefits, and other costs categories were offset by reduced services costs -- all driven by NTD-required reporting changes which altered the distribution of costs. Total operating costs increased on average by three percent per year.

- Higher cost allocation charges by the City to Transportation in FY2015 than in the previous years also impacted reported labor and fringe benefits costs.

- Services costs contributed about 30 percent of total costs until FY2015, when this was reduced to 15 percent or less with the NTD reporting changes. Most other component cost shares increased at the same time.

- Purchased transportation costs were reduced in FY2015 as a result of a new operating contract. They continued to represent the largest portion of the total costs, over 40 percent.

- In-house fringe benefits costs increased by nearly 60 percent in FY2018, even as labor costs increased by less than three percent. This appears to reflect further changes in NTD operating cost reporting protocols, specifically the addition of separate "paid time off" line items.

Exhibit 4.4: Component Cost Trends – Bus Service

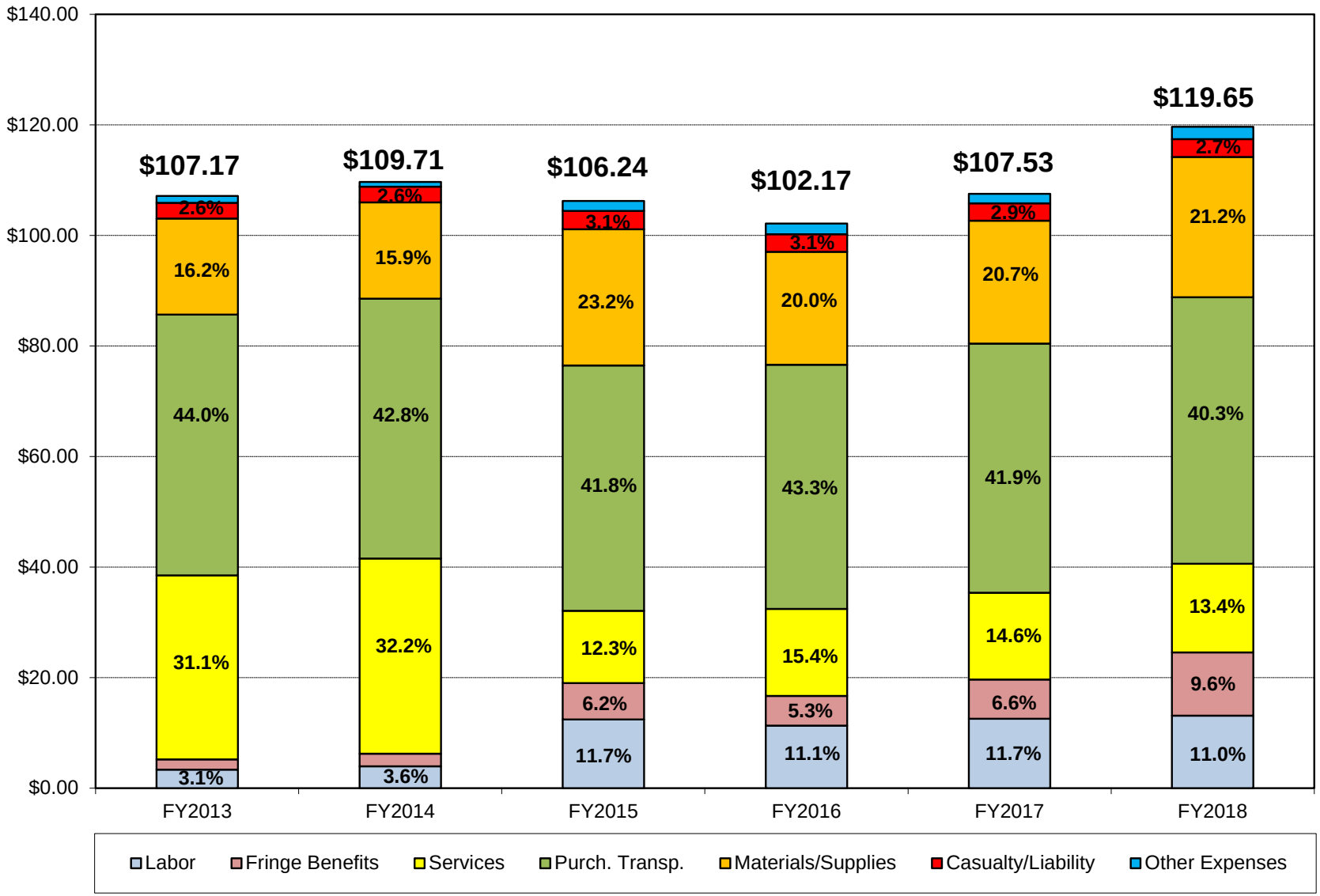
	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	*Av. Ann. Chg.*
COST CATEGORIES							
Labor (Salaries, Wages)	$267,417	$315,277	$993,249	$930,419	$1,058,290	$1,086,878	- -
Annual Change	- -	*17.9%*	*215.0%*	*-6.3%*	*13.7%*	*2.7%*	*32.4%*
Fringe Benefits	$149,211	$179,615	$526,462	$441,730	$596,561	$948,102	- -
Annual Change	- -	*20.4%*	*193.1%*	*-16.1%*	*35.1%*	*58.9%*	*44.7%*
Services	$2,655,754	$2,810,656	$1,046,350	$1,292,521	$1,322,194	$1,330,073	
Annual Change	- -	*5.8%*	*-62.8%*	*23.5%*	*2.3%*	*0.6%*	*-12.9%*
Purchased Transportation	$3,763,799	$3,738,037	$3,551,623	$3,635,232	$3,793,661	$3,996,644	- -
Annual Change	- -	*-0.7%*	*-5.0%*	*2.4%*	*4.4%*	*5.4%*	*1.2%*
Materials/Supplies *(a)*	$1,386,852	$1,386,610	$1,970,744	$1,676,635	$1,873,494	$2,103,276	- -
Annual Change	- -	*0.0%*	*42.1%*	*-14.9%*	*11.7%*	*12.3%*	*8.7%*
Casualty/Liability	$224,960	$224,960	$264,902	$263,774	$265,427	$267,100	- -
Annual Change	- -	*0.0%*	*17.8%*	*-0.4%*	*0.6%*	*0.6%*	*3.5%*
Other Expenses *(b)*	$101,425	$71,177	$144,469	$159,607	$142,740	$183,146	- -
Annual Change	- -	*-29.8%*	*103.0%*	*10.5%*	*-10.6%*	*28.3%*	*12.5%*
Total	$8,549,418	$8,726,332	$8,497,799	$8,399,918	$9,052,367	$9,915,219	- -
Annual Change	- -	*2.1%*	*-2.6%*	*-1.2%*	*7.8%*	*9.5%*	*3.0%*
OPERATING STATISTICS							
Vehicle Service Hours	79,775	79,540	79,984	82,213	84,183	82,867	- -
Annual Change	- -	*-0.3%*	*0.6%*	*2.8%*	*2.4%*	*-1.6%*	*0.8%*

(a) Includes fuel/lubricants, tires/tubes and other materials/supplies
(b) Includes utilities, taxes and miscellaneous expenses

Sources: FY2013 through FY2015 – Prior Performance Audit Report; FY2016 through FY2018 - NTD Reports

Exhibit 4.5: Distribution of Component Costs – Bus Service

Operating Cost per Vehicle Service Hour



Paratransit Performance Trends

This section provides an overview of the performance of FAST's paratransit service over the six year analysis period. The trends in the TDA indicators and input data are presented in Exhibit 5. The six-year trends are illustrated in Exhibits 5.1 through 5.3.

- Operating Cost per Vehicle Service Hour (Exhibit 5.1)
  - FAST's paratransit cost per hour decreased through the first three years, from $102.95 in FY2013 to $91.47 in FY2015, followed by increases in each of the last three years, up to $102.37 in FY2018.
  - Overall, the cost per hour decreased an average of 0.1 percent per year over the six years.
  - With the effects of inflation removed, cost per hour exhibited an average annual decrease of 2.9 percent.
- Passengers per Vehicle Service Hour (Exhibit 5.2)
  - Passengers per vehicle service hour decreased through most years of the review period, from 1.96 passengers in FY2013 and FY2014 to 1.75 in FY2017.
  - There was some improvement in FY2018, for an average annual decrease of 1.4 percent over the six years as service hours increased at a higher rate than passengers overall.
- Passengers per Vehicle Service Mile (Exhibit 5.2)
  - Similar to passengers per hour, performance in passengers per vehicle service mile declined overall.
  - Passengers per mile posted an average annual decrease of 1.6 percent over the six-year period.

- Operating Cost per Passenger (Exhibit 5.3)

  - Cost effectiveness declined by 1.3 percent per year on average through the review period, with the cost per passenger beginning at $52.64 in FY2013 and ending at $56.25 in FY2018.

  - Operating costs increased by 3.1 percent per year over the period, while passenger levels increased by 1.8 percent per year.

  - With the impact of inflation removed, the result was an average annual decrease in cost per passenger of 1.5 percent.

* * * * *

The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2013 through FY2018:

- Cost efficiency was slightly improved overall, with an average annual decrease in the operating cost per hour of 0.1 percent (2.9 percent in inflation adjusted dollars).

- The operating cost per passenger achieved an annual decrease of 1.5 percent when normalized in FY2013 dollars. Operating costs increased by about three percent per year over the period (in current dollars), while passenger levels increased by nearly two percent per year.

- Passenger productivity declined moderately, with passengers per hour and passengers per mile both decreasing by about 1.5 percent per year on average.

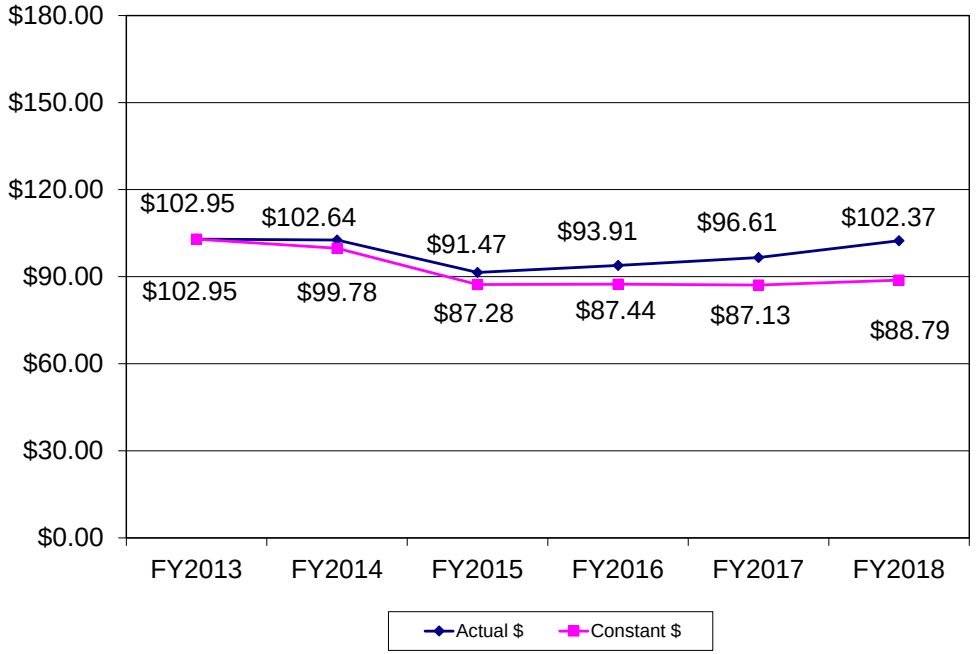
Exhibit 5: TDA Indicator Performance – Paratransit

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	*Av. Ann. Chg.*
Performance Indicators							
Op. Cost per Vehicle Svc. Hour (Actual $)	$102.95	$102.64	$91.47	$93.91	$96.61	$102.37	- -
Annual Change	- -	*-0.3%*	*-10.9%*	*2.7%*	*2.9%*	*6.0%*	*-0.1%*
Op. Cost per Vehicle Svc. Hour (Constant $)	$102.95	$99.78	$87.28	$87.44	$87.13	$88.79	- -
Annual Change	- -	*-3.1%*	*-12.5%*	*0.2%*	*-0.4%*	*1.9%*	*-2.9%*
Passengers per Vehicle Service Hour	1.96	1.96	1.90	1.84	1.75	1.82	- -
Annual Change	- -	*0.1%*	*-2.9%*	*-3.4%*	*-4.8%*	*4.1%*	*-1.4%*
Passengers per Vehicle Service Mile	0.12	0.12	0.12	0.11	0.11	0.11	- -
Annual Change	- -	*-3.8%*	*1.7%*	*-6.8%*	*-1.3%*	*2.4%*	*-1.6%*
Op. Cost per Passenger (Actual $)	$52.64	$52.41	$48.08	$51.12	$55.24	$56.25	- -
Annual Change	- -	*-0.4%*	*-8.3%*	*6.3%*	*8.1%*	*1.8%*	*1.3%*
Op. Cost per Passenger (Constant $)	$52.64	$50.95	$45.88	$47.60	$49.82	$48.79	- -
Annual Change	- -	*-3.2%*	*-10.0%*	*3.8%*	*4.6%*	*-2.1%*	*-1.5%*
Vehicle Service Hours per FTE	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	- -
Annual Change	- -	- -	- -	- -	- -	- -	- -
Input Data							
Operating Cost (Actual $)	$1,219,908	$1,294,361	$1,234,129	$1,287,472	$1,406,445	$1,424,365	- -
Annual Change	- -	*6.1%*	*-4.7%*	*4.3%*	*9.2%*	*1.3%*	*3.1%*
Operating Cost (Constant $)	$1,219,908	$1,258,326	$1,177,523	$1,198,859	$1,268,383	$1,235,444	- -
Annual Change	- -	*3.1%*	*-6.4%*	*1.8%*	*5.8%*	*-2.6%*	*0.3%*
Vehicle Service Hours	11,849	12,611	13,492	13,710	14,558	13,914	- -
Annual Change	- -	*6.4%*	*7.0%*	*1.6%*	*6.2%*	*-4.4%*	*3.3%*
Vehicle Service Miles	193,741	214,521	219,227	230,894	236,479	229,706	- -
Annual Change	- -	*10.7%*	*2.2%*	*5.3%*	*2.4%*	*-2.9%*	*3.5%*
Unlinked Passengers	23,174	24,696	25,667	25,184	25,461	25,324	- -
Annual Change	- -	*6.6%*	*3.9%*	*-1.9%*	*1.1%*	*-0.5%*	*1.8%*
Employee Full-Time Equivalents	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	*(a)*	- -
Annual Change	- -	- -	- -	- -	- -	- -	- -
Bay Area CPI - Annual Change	- -	2.9%	1.9%	2.5%	3.3%	4.0%	- -
- Cumulative Change	- -	2.9%	4.8%	7.4%	10.9%	15.3%	*2.9%*

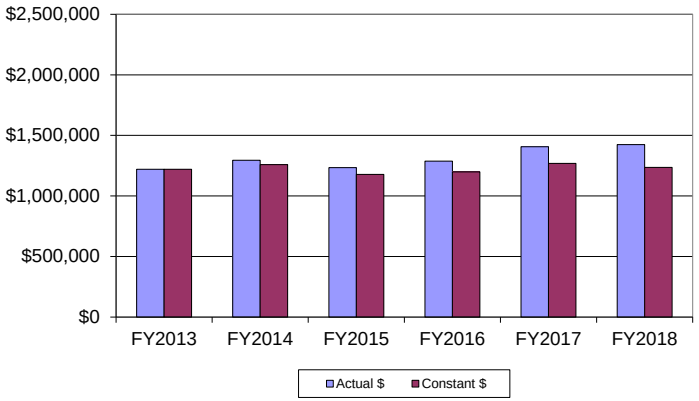
Sources: *FY2013 through FY2015 - Prior Performance Audit Report (FY2015 draft results confirmed/adjusted per NTD Database)*
FY2016 through FY2018 - NTD Reports (FY2018 NTD not closed out yet)
CPI Data - U.S. Department of Labor, Bureau of Labor Statistics

(a) Not applicable as FAST service is provided by private contractor

Exhibit 5.1: Operating Cost per Vehicle Service Hour – Paratransit



Operating Cost



Vehicle Service Hours

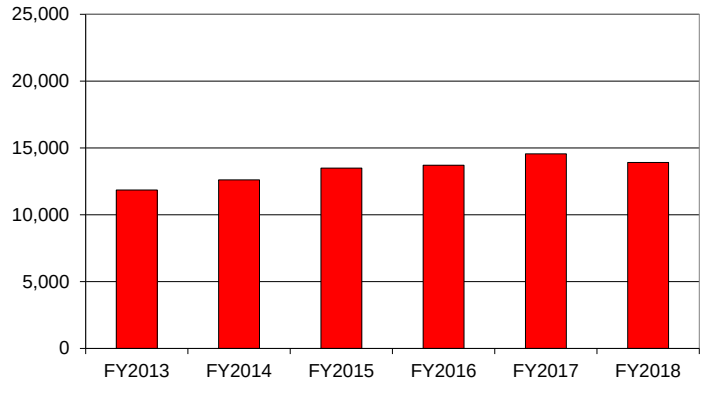
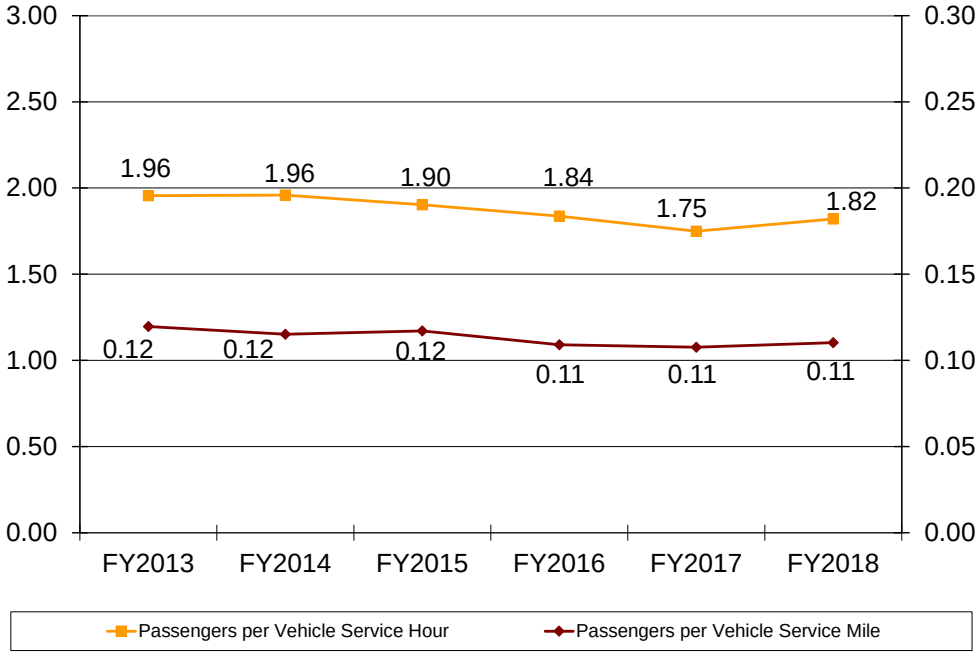
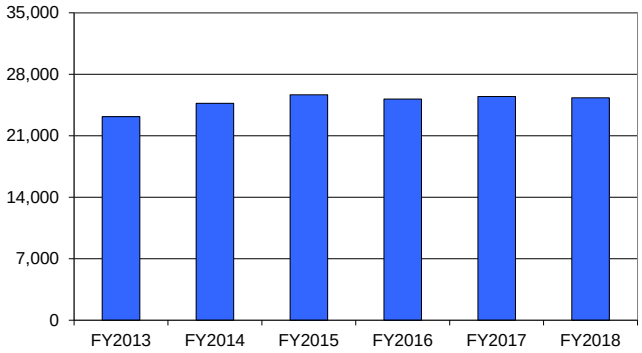


Exhibit 5.2: TDA Indicator Performance – Paratransit

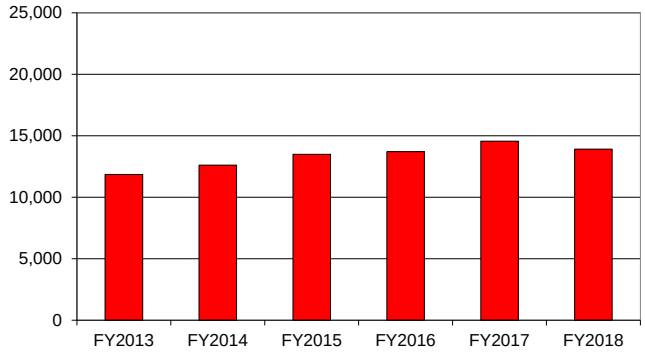
Passengers per Hour and per Mile



Unlinked Passengers



Vehicle Service Hours



Vehicle Service Miles

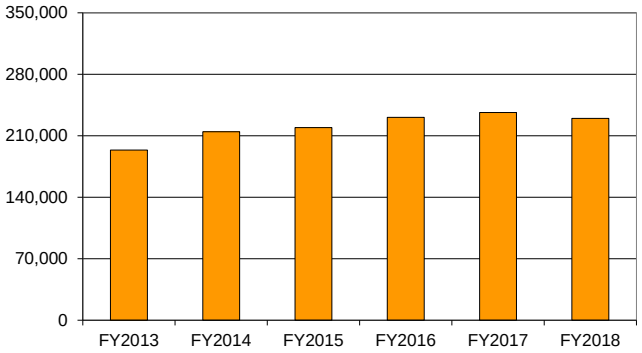
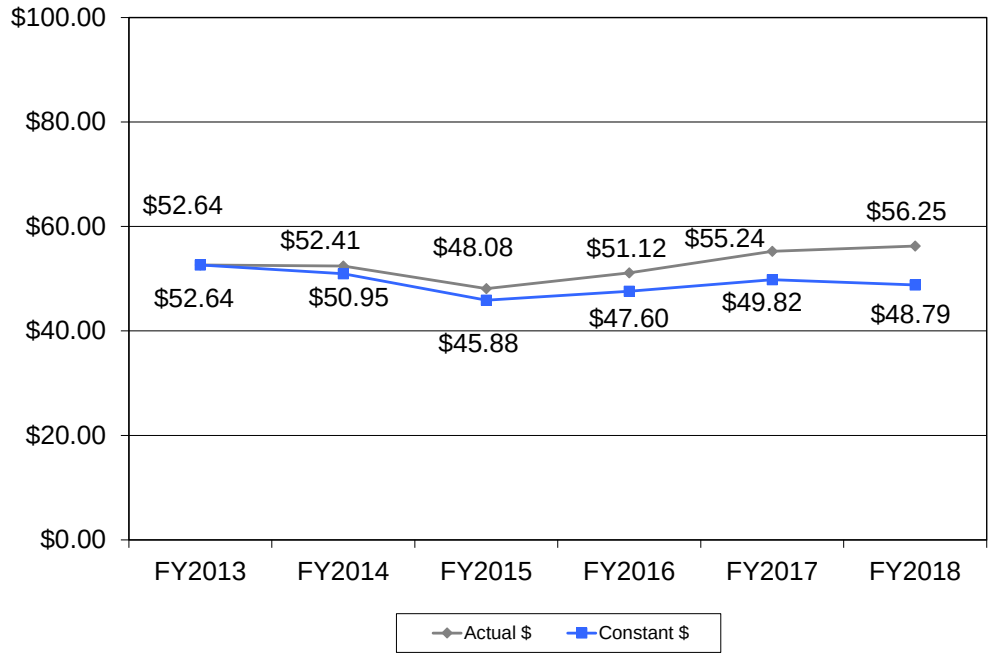
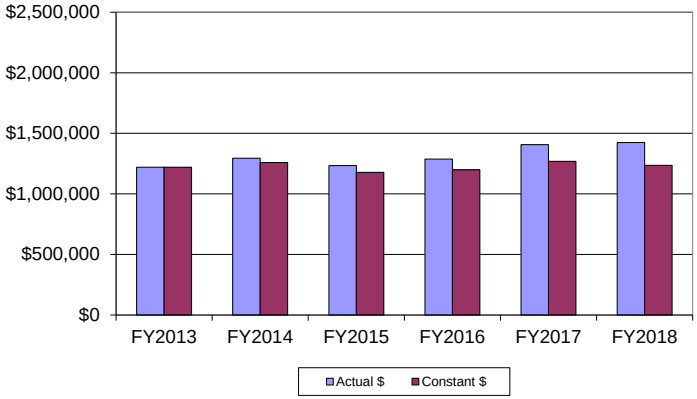


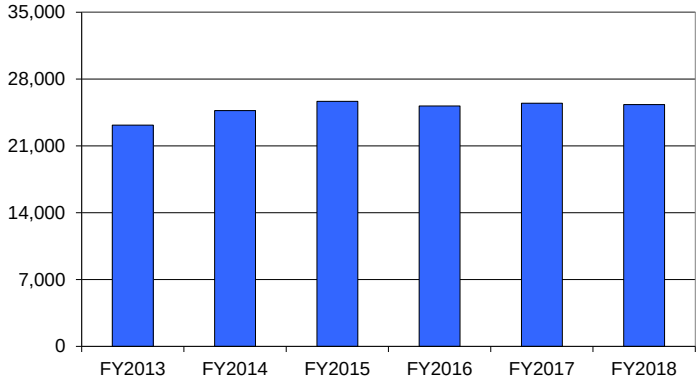
Exhibit 5.3: Operating Cost per Passenger – Paratransit



Operating Cost



Unlinked Passengers



Paratransit Component Costs

The year-to-year changes in selected operating cost categories are presented in Exhibit 5.4, along with the concurrent changes in vehicle service hours. The portions of the cost per vehicle service hour that can be attributed to each included cost component are shown in Exhibit 5.5.

- Between FY2013 and FY2018, the total annual costs increased by about three percent on average. Similar to the bus service, the changes in costs were driven by NTD-required reporting changes in FY2015.

- Reflecting this reallocation, there were compensatory increases in FY2015 in several of the remaining component cost categories, most notably labor, fringe benefits, and other costs.

- In addition, there were increases in the portions of total costs attributed to labor, fringe, and other costs in FY2015, also generally reflecting the NTD reporting changes.

- The most significant change in the component costs during the period was a 16.5 percent average annual increase in in-house fringe benefits. This was about triple the rate of labor cost increases (6.1 percent).

- After rising in every year through FY2017, labor costs decreased by 23 percent in FY2018. However, fringe benefits costs increased in FY2018 as well, and by 14.5 percent compared FY2017. The latter appears to reflect further changes in NTD operating cost reporting protocols as noted above regarding the bus service component cost trends.

- Purchased transportation costs represented the largest portion of the total costs, ranging between 45 and 50 percent during the review period. Purchased transportation costs were reduced by 7.5 percent in FY2015, mainly as a result of a new contract with MV Transportation, Inc.

- The second largest share was comprised of services costs, ranging between a 17 and 22 percent share. The highest shares were recorded prior to the NTD reporting changes in FY2015.

- Casualty and liability costs increased by nearly 18 percent in FY2015, mostly due to the City paying higher health care premiums starting in that year.

- Materials/supplies costs increased overall by 9.3 percent annually.

* * * * *

The following is a brief summary of the component operating costs trend highlights between FY2013 and FY2018:

- Similar to FAST's bus service, NTD-required reporting changes resulted in substantial cost redistributions among component cost categories as of FY2015. Total operating costs increased on average by three percent per year.

- In-house labor costs increased by 6.1 percent annually, on average, while fringe benefits costs increased at nearly triple that rate. Labor costs decreased by 23 percent in FY2018, even as fringe benefits costs increased by 14.5 percent compared to FY2017. However, the latter appears to reflect further changes in NTD operating cost reporting protocols.

- Purchased transportation costs were reduced in FY2015 as a result of a new operating contract. They continued to represent the largest portion of the total costs, at 45 percent or more.

- Casualty and liability costs increased by 18 percent in FY2015, mostly due to higher health care premiums, and remained virtually constant through the remainder of the period. Materials/supplies costs increased overall by 9.3 percent annually.

Exhibit 5.4: Component Costs Trends – Paratransit

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	*Av. Ann. Chg.*
COST CATEGORIES							
Labor (Salaries, Wages)	$120,964	$134,141	$160,337	$176,825	$211,293	$162,633	- -
Annual Change	- -	*10.9%*	*19.5%*	*10.3%*	*19.5%*	*-23.0%*	*6.1%*
Fringe Benefits	$60,540	$68,816	$77,685	$97,480	$113,253	$129,719	- -
Annual Change	- -	*13.7%*	*12.9%*	*25.5%*	*16.2%*	*14.5%*	*16.5%*
Services	$249,860	$286,143	$204,399	$212,014	$244,423	$238,045	- -
Annual Change	- -	*14.5%*	*-28.6%*	*3.7%*	*15.3%*	*-2.6%*	*-1.0%*
Purchased Transportation	$612,758	$623,575	$576,794	$585,957	$630,852	$649,039	- -
Annual Change	- -	*1.8%*	*-7.5%*	*1.6%*	*7.7%*	*2.9%*	*1.2%*
Materials/Supplies *(a)*	$113,804	$124,155	$109,860	$148,932	$140,340	$177,732	- -
Annual Change	- -	*9.1%*	*-11.5%*	*35.6%*	*-5.8%*	*26.6%*	*9.3%*
Casualty/Liability	$42,850	$42,850	$50,458	$50,244	$50,557	$50,876	- -
Annual Change	- -	*0.0%*	*17.8%*	*-0.4%*	*0.6%*	*0.6%*	*3.5%*
Other Expenses *(b)*	$19,132	$14,681	$54,596	$16,020	$15,727	$16,321	- -
Annual Change	- -	*-23.3%*	*271.9%*	*-70.7%*	*-1.8%*	*3.8%*	*-3.1%*
Total	$1,219,908	$1,294,361	$1,234,129	$1,287,472	$1,406,445	$1,424,365	- -
Annual Change	- -	*6.1%*	*-4.7%*	*4.3%*	*9.2%*	*1.3%*	*3.1%*
OPERATING STATISTICS							
Vehicle Service Hours	11,849	12,611	13,492	13,710	14,558	13,914	- -
Annual Change	- -	*6.4%*	*7.0%*	*1.6%*	*6.2%*	*-4.4%*	*3.3%*

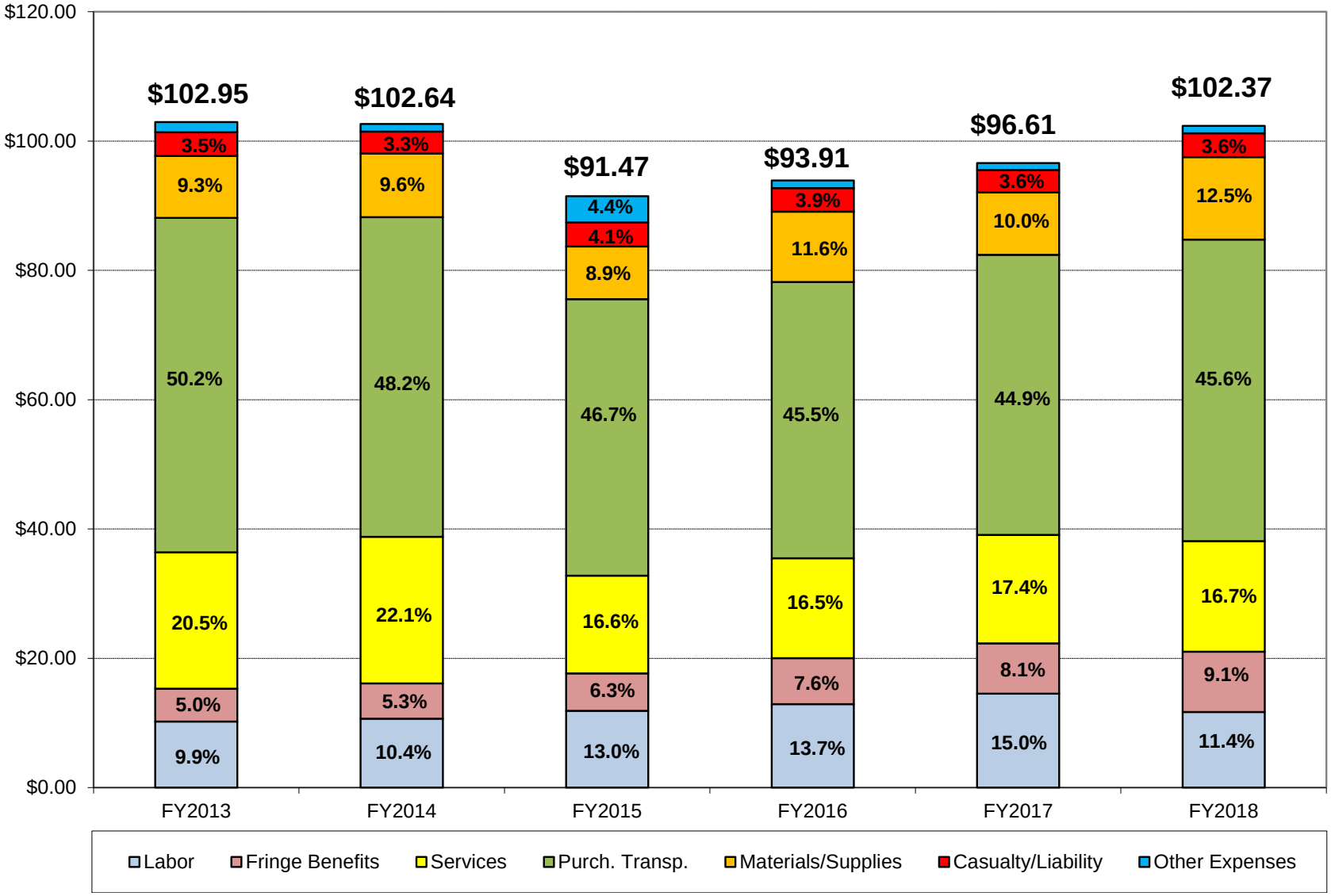
(a) Includes fuel/lubricants, tires/tubes and other materials/supplies

(b) Includes utilities, taxes and miscellaneous expenses

Sources: FY2013 through FY2015 – Prior Performance Audit Report; FY2016 through FY2018 - NTD Reports

Exhibit 5.5: Distribution of Component Costs – Paratransit

Operating Cost per Vehicle Service Hour



IV. COMPLIANCE WITH PUC REQUIREMENTS

An assessment of FAST's compliance with selected sections of the state Public Utilities Code (PUC) has been performed. The compliance areas included in this review are those that MTC has identified for inclusion in the triennial performance audit. Other statutory and regulatory compliance requirements are reviewed by MTC in conjunction with its annual review of FAST's TDA-STA claim application.

The results from this review are detailed by individual requirement in Exhibit 6. FAST is in compliance with each of the seven sections of the state PUC that were reviewed as part of this performance audit. These sections included requirements concerning CHP terminal safety inspections, labor contracts, reduced fares, Welfare-to-Work, revenue sharing, and evaluating passenger needs.

Exhibit 6: Compliance with State PUC Requirements

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
PUC99251	CHP Certification - The CHP has, within the 13 months prior to each TDA claim submitted by an operator, certified the operator's compliance with Vehicle Code Section 1808 following a CHP inspection of the operator's terminal	In Compliance	Satisfactory Inspections: • FY2016: 01/26/2016 • FY2017: 01/30/2017 • FY2018: 02/01/2018
PUC99264	Operator-to-Vehicle Staffing - The operator does not routinely staff with two or more persons public transportation vehicles designed to be operated by one person	In Compliance	No provision for excess staffing in Agreement with MV Transportation, Inc. for Fixed-Route and Paratransit Services - 07/01/14-06/30/17, nor in Amendment No. 1 - extension effective 07/01/17.
PUC99314.5(e)(1)(2)	Part-Time Drivers and Contracting - If the operator receives STA funds, the operator is not precluded by contract from employing part-time drivers or from contracting with common carriers.	In Compliance	FAST contracts with MV Transportation, Inc. for its fixed-route and paratransit service provision.
PUC99155	Reduced Fare Eligibility - For any operator who received TDA Article 4 funds, if the operator offers reduced fares to senior citizens and disabled persons, applicant will honor the federal Medicare identification card, the California Department of Motor Vehicles disability ID card, the Regional Transit Connection Discount Card, or any other current identification card issued by another transit operator that is valid for the type of transportation service or discount requested; and if the operator offers reduced fares to senior citizens, it also offers the same reduced fare to disabled patrons	In Compliance	Fare information on FAST website notes acceptable reduced fare eligibility media.

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
PUC99155.1(a)(1)(2)	Welfare-to-Work - The operator coordinates with county welfare departments in order to ensure that transportation moneys available for purposes of assisting recipients of aid are expended efficiently for the benefit of that population; if a recipient of CalWORKs program funds by the county, the operator shall give priority to the enhancement of public transportation services for welfare-to-work purposes and to the enhancement of transportation alternatives, such as, but not limited to, subsidies or vouchers, van pools, and contract paratransit operations, in order to promote welfare-to-work purposes.	In Compliance	FAST coordinates with numerous Solano County Departments as well as agencies within Solano County to purchase single ride passes to accommodate their clients. FAST does not normally sell single ride tickets but makes the exception for these agencies. FAST also provides transportation to the Department of Health and Social Services via fixed route and paratransit operations.
PUC99314.7, Govt Code 66516, MTC Res. Nos. 3837, 4073	Joint Revenue Sharing Agreement - The operator has current joint fare revenue sharing agreements in place with transit operators in the MTC region with which its service connects, and submitted copies of agreements to MTC	In Compliance	• 2016 Amended and Restated Clipper® Memorandum of Understanding (MOU), by and among MTC and the transit operators participating in the Clipper® program. • 2016 MOU for Intercity Paratransit Services (Solano County). • 2012 Intercity Transit Funding Agreement (Solano County). • 2005 Passenger Transfer Agreement between the City of Fairfield and the City of Rio Vista. • (Undated) Intercity ADA Taxi Scrip Program Agreement (Solano County).
PUC99246(d)	Process for Evaluation of Passenger Needs - The operator has an established process in place for evaluating the needs and types of passengers being served	In Compliance	• Short Range Transit Plans (most recent June 2016 and August 2013) -- discussions of fixed-route and paratransit performance trends, transit demands, goals and objectives, passenger demographics, system overview, community input, service

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
			plans, operating and capital budget plans and passenger surveys. • Public Outreach Plans for Proposed Service and Fare Changes. • Customer Satisfaction Surveys (June 2017 and June 2016). • On-Board Survey 2017.

V. STATUS OF PRIOR AUDIT RECOMMENDATIONS

FAST's prior performance audit was completed in June 2016. Generally, MTC has used the audit recommendations as the basis for developing the Productivity Improvement Program (PIP) projects the operator is required to complete. MTC tracks PIP project implementation as part of its annual review of the operator's TDA-STA claim application. This section provides an assessment of actions taken by TDA-STA recipients toward implementing the recommendations advanced in the prior audit. This assessment provides continuity between the current and prior audits, which allows MTC to fulfill its obligations where the recommendations were advanced as PIP projects.

This review addresses FAST's responses to the recommendations made in the prior performance audit, and whether FAST made reasonable progress toward their implementation. There were three recommendations made in FAST's prior audit. A summary of the recommendations and the actions taken by FAST in response is presented in Exhibit 7. A determination of the status of the recommendation also is provided, using one of the following four evaluation categories:

- Implemented – appropriate actions have been taken and the issue has been sufficiently addressed.

- Implementation in Progress – actions have been taken to address the issue, but the recommendation remains open until further actions are completed.

- Not Implemented – no actions have been taken to address the issue, and the recommendation remains open.

- Closed – no actions have been taken to address the issue, but changes in circumstances have impacted the need to implement the recommendation.

Two of the three recommendations have been implemented. First, FAST's efforts to improve performance in the preventable accident rate for its bus service have resulted in the rate decreasing in each recent year, by about 25 percent overall during the current audit period. Then second, a new outreach plan for new and current paratransit riders addresses noted increases in trip cancellations and passenger no-shows, offering specialized training for individuals on how to schedule and cancel paratransit trips. During the current audit period, passenger no-shows decreased by 21 percent, while the trip cancellation rate remained well below the levels recorded in the prior audit period, and late cancellations remained at less than two percent of total ADA trips.

Implementation is in progress for the remaining recommendation. In acknowledgment of the noted high rate of mechanical failures on its buses, FAST staff cited the aging vehicle fleet, and a fleet replacement schedule was developed. However, any improvements ensuing from fleet replacement will be in the future. Audit period maintenance results for FAST's bus service showed vehicle maintenance costs increasing by nearly 30 percent, a consistently high 30 percent spare ratio, and continued noticeably deteriorating mechanical failure rates.

Exhibit 7: Status of Prior Audit Recommendations

Recommendation	Actions Taken	Evaluation
1. Examine maintenance activities and develop strategies to address reasons for the recently increasing mechanical failure rates on the bus service.	Current audit period maintenance results for FAST's bus service showed vehicle maintenance costs increasing by nearly 30 percent, a consistently high 30 percent spare ratio, and continued noticeably deteriorating mechanical failure rates. On its PIP project progress report dated October 2018, FAST staff attributed the high rate of mechanical failures to the aging vehicle fleet. A fleet replacement schedule was developed in order to manage the spare ratio and reduce the average age of the fleet, to result in decreased mechanical failures. Nine new MCI commuter coaches were delivered in June 2018 and were fully accepted in September 2018, after the audit period. FAST has also received two FTA grants for bus electrification infrastructure and purchase of electric buses. Planned initial implementation is Fall 2020.	Implementation in Progress
2. Continue efforts to improve performance in the preventable accident rate for FAST's bus service.	FAST recently installed DriveCam video technology to improve the monitoring and investigation of incidents. This has led to improved safety training by focusing on topics that appear to be recurring throughout the operation. On its PIP project progress report dated October 2018, FAST staff noted an improved training program that includes more comprehensive operator training to reduce	Implemented

Recommendation	Actions Taken	Evaluation
	the preventable accident rate and ensure it remains at a reduced level. Contract management procedures were adopted in July 2016 that include quarterly review and assessment of preventable accidents, and accident review with the operations contractor. FAST now works even more closely with the contractor to improve and incentivize drivers to reduce these occurrences. Preventable accidents are tracked and reviewed monthly with the contractor. The rate of preventable accidents decreased in each recent year, by about 25 percent overall during the current audit period.	
3. Develop and implement strategies to reduce trip cancellations and passenger no-shows on the paratransit service.	On its PIP project progress report dated October 2018, FAST staff noted it had implemented an outreach plan for new and current paratransit riders, offering specialized training for individuals on how to schedule and cancel paratransit trips. One-on-one specialized training is utilized as needed. An outreach presentation was also made to the Solano County Paratransit Coordinating Council in July 2016 to educate providers on FAST's no-show/cancellation policy. During the current audit period, passenger no-shows decreased by 21 percent, while the trip cancellation rate rose slightly but remained well below the levels recorded in the prior audit period, and late cancellations went up noticeably in FY2018 but remained at less than two percent of total ADA trips.	Implemented

VI. FUNCTIONAL PERFORMANCE INDICATOR TRENDS

To further assess FAST's performance over the past three years, a detailed set of functional area performance indicators was defined. This assessment consists of a three-year trend analysis of the functions in each of the following areas:

- Management, Administration and Marketing
- Service Planning
- Operations
- Maintenance
- Safety

The indicators selected for this analysis were primarily those that were tracked regularly by FAST or for which input data were maintained by FAST on an on-going basis, such as performance reports, contractor reports, annual financial reports and NTD reports. As such, there may be some overlap with the TDA indicators examined earlier in the audit process, but most indicators will be different. Some indicators were selected from the California Department of Transportation's Performance Audit Guidebook for Transit Operators and Regional Transportation Planning Entities as being appropriate for this evaluation. The input statistics for the indicators, along with their sources, are contained in Appendix A at the end of this report.

The trends in performance are presented over the three-year audit period to give an indication of which direction performance is moving for these indicators. The remainder of this section presents the findings from this review. The discussion presents

the highlights of performance by mode (Systemwide, Bus Service and Paratransit), each followed by an exhibit illustrating the indicators by function as applicable.

Systemwide (All Modes)

For the purposes of this review, FAST's functional indicators relating to Management, Administration and Marketing have been included generally on a systemwide basis. Systemwide audit period performance is discussed below and presented in Exhibit 8.

- Administrative costs increased from about 30 percent of total operating costs in the first two years to almost 34 percent in FY2018.
- Administrative costs increased from about $31 per vehicle service hour in the first two years to almost $40 in FY2018.
- The portion of administrative costs attributed to marketing activities increased overall, but remained below three percent. In terms of passenger trips, marketing costs also increased overall, ending at $0.04 n FY2018.
- The systemwide farebox recovery ratio decreased steadily from 23.5 percent in the first year to 19.4 percent by FY2018.

* * * * *

The following is a brief summary of the systemwide functional trend highlights between FY2016 and FY2018:

- Administrative costs increased in FY2018 to one third of total operating costs and almost $40 per vehicle service hour.

- Marketing costs increased overall compared to total administrative costs and passenger trips.

- The systemwide farebox recovery ratio decreased over the period from 23.5 percent to 19.4 percent.

Exhibit 8: Functional Performance Trends – Systemwide (All Modes)

FUNCTION/Indicator	Actual Performance		
	FY2016	FY2017	FY2018
MANAGEMENT, ADMINISTRATION & MARKETING			
Administrative Cost/Total Operating Cost	30.6%	30.2%	33.6%
Annual Percent Change	- -	*-1.3%*	*11.4%*
Three Year Percent Change	- -	- -	*10.0%*
Adminstrative Cost/Vehicle Service Hour	$30.87	$31.96	$39.40
Annual Percent Change	- -	*3.5%*	*23.3%*
Three Year Percent Change	- -	- -	*27.6%*
Marketing Cost/Total Administrative Cost	0.8%	2.6%	1.1%
Annual Percent Change	- -	*228.2%*	*-57.5%*
Three Year Percent Change	- -	- -	*39.3%*
Marketing Cost/Unlinked Passenger Trip	$0.02	$0.08	$0.04
Annual Percent Change	- -	*261.6%*	*-47.3%*
Three Year Percent Change	- -	- -	*90.5%*
Farebox Revenue/Operating Cost	23.5%	22.2%	19.4%
Annual Percent Change	- -	*-5.5%*	*-12.4%*
Three Year Percent Change	- -	- -	*-17.2%*

Bus Service

FAST's bus service functional area trends represent areas of cost efficiency, safety, productivity and service reliability. Audit period performance is discussed below and presented in Exhibit 9.

- Service Planning
  - Operating costs per passenger mile increased overall from $0.95 in FY2016 to $1.13 in FY2018 (18 percent).
  - The bus service farebox recovery ratio decreased steadily from 25.7 percent in the first year to 21.1 percent by FY2018. At the same time, the TDA recovery ratio, reflecting farebox revenue plus local support less operating cost exclusions, decreased from 33.2 percent to 27.3 percent.
  - About 93 percent of all vehicle miles traveled were in service, as were about 94 percent of all vehicle hours in all three years.
  - Passengers per vehicle service mile and vehicle service hour both declined overall by about seven percent during the audit period.
- Operations
  - Vehicle operations costs decreased from 46.4 percent of total operating costs in FY2016 to 40.7 percent by FY2018.
  - Vehicle operations costs per service hour increased overall by 2.7 percent, to about $49 in FY2018.
  - Schedule adherence results for the audit period were not available; reliable on-time performance data reportedly has been once again obtained starting in FY2019.
  - The rate of complaints regarding the bus service increased in each year, from about five to six per 100,000 passenger boardings.

- The incidence of missed trips remained very low throughout the period, despite some increase in the last year to 0.2 per 10,000 trips.

- Maintenance

  - Total maintenance costs (vehicle plus non-vehicle) increased from 25 to 30 percent of total operating costs in the first two years, followed by leveling off to 27 percent in FY2018.

  - Vehicle maintenance costs per service mile increased over the audit period from $1.07 to $1.38, nearly 30 percent.

  - The vehicle spare ratio remained at just under 30 percent through the audit period.

  - The mean distance between major failures and between all failures both declined significantly between FY2016 and FY2017, followed by additional erosion in the last year. In FY2018, there were 5,642 miles between major failures and 5,094 between all failures, representing declines of 60 percent and 50 percent, respectively, over the period.

- Safety

  - The rate of preventable accidents decreased in each audit year, by about 25 percent overall during the period.

* * * * *

The following is a brief summary of the bus service functional trend highlights between FY2016 and FY2018:

- Service Planning results showed an overall 18 percent increase in the cost per passenger mile, farebox recovery down from 25.7 to 21.1 percent, TDA recovery down from 33.2 to 27.3 percent, consistently 93 percent or more vehicle miles and hours in service, and passengers per vehicle service mile and hour both down by seven percent.

- Operations results showed some decrease vehicle operations costs as a portion of total operating costs, but an increase in vehicle operations costs per hour. Schedule adherence results were not available but there were almost no missed trips. At the same time, the rate of complaints increased slightly overall.

- Maintenance results showed some net increase in total maintenance costs as a portion of total operating costs. At the same time, vehicle maintenance costs increased by nearly 30 percent, the vehicle spare ratio remained at 30 percent, and there were noticeably deteriorating mechanical failure rates.

- Safety results showed preventable accidents decreasing in each audit year, by 25 percent overall.

Exhibit 9: Functional Performance Trends – Bus Service

FUNCTION/Indicator	Actual Performance		
	FY2016	FY2017	FY2018
SERVICE PLANNING			
Total Operating Cost/Passenger Mile	$0.95	$0.89	$1.13
Annual Percent Change	- -	*-7.1%*	*27.4%*
Three Year Percent Change	- -	- -	*18.4%*
Farebox Recovery Ratio (Farebox Rev./Oper. Cost)	25.7%	24.2%	21.1%
Annual Percent Change	- -	*-5.9%*	*-13.0%*
Three Year Percent Change	- -	- -	*-18.1%*
TDA Recovery Ratio *(a)*	33.2%	30.5%	27.3%
Annual Percent Change	- -	*-8.1%*	*-10.5%*
Three Year Percent Change	- -	- -	*-17.7%*
Vehicle Service Miles/Total Miles	93.1%	93.1%	93.1%
Annual Percent Change	- -	*0.0%*	*0.0%*
Three Year Percent Change	- -	- -	*0.0%*
Vehicle Service Hours/Total Hours	94.1%	94.1%	94.0%
Annual Percent Change	- -	*0.0%*	*-0.1%*
Three Year Percent Change	- -	- -	*-0.1%*
Passengers/Vehicle Service Mile	0.61	0.57	0.57
Annual Percent Change	- -	*-6.4%*	*-0.8%*
Three Year Percent Change	- -	- -	*-7.1%*
Passengers/Vehicle Service Hour	12.50	11.79	11.66
Annual Percent Change	- -	*-5.6%*	*-1.1%*
Three Year Percent Change	- -	- -	*-6.7%*
OPERATIONS			
Vehicle Operations Cost/Total Operating Cost	46.4%	41.6%	40.7%
Annual Percent Change	- -	*-10.4%*	*-2.2%*
Three Year Percent Change	- -	- -	*-12.3%*
Vehicle Operations Cost/Vehicle Service Hour	$47.40	$44.71	$48.68
Annual Percent Change	- -	*-5.7%*	*8.9%*
Three Year Percent Change	- -	- -	*2.7%*
Trips On-Time/Total Trips	*(b)*	*(b)*	*(b)*
Annual Percent Change	- -	- -	- -
Three Year Percent Change	- -	- -	- -
Complaints/100,000 Unlinked Passenger Trips	4.9	5.6	6.0
Annual Percent Change	- -	*15.9%*	*6.4%*
Three Year Percent Change	- -	- -	*23.4%*
Missed Trips/10,000 Total Trips	0.1	0.1	0.2
Annual Percent Change	- -	*6.6%*	*186.2%*
Three Year Percent Change	- -	- -	*205.1%*

FUNCTION/Indicator	Actual Performance		
	FY2016	FY2017	FY2018
MAINTENANCE			
Vehicle + Non-Veh. Maint. Cost/Total Operating Cost	25.2%	30.3%	27.3%
Annual Percent Change	- -	*20.0%*	*-9.9%*
Three Year Percent Change	- -	- -	*8.1%*
Vehicle Maintenance Cost/Vehicle Service Mile	$1.07	$1.24	$1.38
Annual Percent Change	- -	*16.2%*	*11.7%*
Three Year Percent Change	- -	- -	*29.8%*
Spare Vehicles/Total Vehicles	29.8%	29.2%	29.2%
Annual Percent Change	- -	*-2.1%*	*0.0%*
Three Year Percent Change	- -	- -	*-2.1%*
Mean Distance between Major Failures (Miles)	14,152	6,404	5,642
Annual Percent Change	- -	*-54.7%*	*-11.9%*
Three Year Percent Change	- -	- -	*-60.1%*
Mean Distance between All Failures (Miles)	10,008	5,649	5,094
Annual Percent Change	- -	*-43.6%*	*-9.8%*
Three Year Percent Change	- -	- -	*-49.1%*
SAFETY			
Preventable Accidents/100,000 Vehicle Miles	1.44	1.34	1.09
Annual Percent Change	- -	*-6.9%*	*-18.4%*
Three Year Percent Change	- -	- -	*-24.0%*

(a) Farebox Revenue plus Local Support/Operating Cost less TDA Allowable Exclusions

(b) Not available

Paratransit

FAST's paratransit functional area trends represent mostly similar areas to the bus service. Audit period performance is discussed below and presented in Exhibit 10.

- Service Planning
  - Operating costs per passenger mile increased from $5.34 in the first year to $5.83 by the last year (9.3 percent increase).
  - The paratransit farebox recovery ratio decreased overall from 8.6 percent in the first year to 7.9 percent by FY2018. The TDA recovery ratio, reflecting farebox revenue plus local support less operating cost exclusions, decreased overall as well, from 9.4 to 8.5 percent.
  - At least 91 percent of all vehicle miles traveled and vehicle hours were in service in all three years, with slight increases in both measures through the period.
  - Passengers per vehicle service mile and vehicle service hour both remained essentially steady during the audit period.
- Operations
  - Vehicle operations costs decreased from 38 percent of total operating costs in FY2016 to less than 36 percent by FY2018.
  - Vehicle operations costs per service hour increased slightly overall, to $36.50 in FY2018.
  - All trips were reported within the 30 minute on-time window throughout the audit period.
  - The rate of complaints regarding the paratransit service increased by nearly 50 percent to 23.6 per 100,000 boardings in FY2017, but then dropped substantially (by 83 percent) to just 3.9 per 100,000 boardings in FY2018.

- There were no missed trips or ADA trip denials reported throughout the audit period.

- The rate of trip cancellations rose by two percent overall, but amounted to only about 13 percent of total ADA trips, compared with 20 percent or higher during the prior audit period.

- Late trip cancellations went up by more than 100 percent in FY2018, after a modest decrease was posted in the prior year. However, late trip cancellations still remained below two percent of total ADA trips.

- Passenger no-shows decreased by 21 percent over the audit period, from more than 11 percent to about nine percent of total ADA trips.

- Maintenance

  - Total maintenance costs (vehicle plus non-vehicle) were in a range of 17 to 20 percent of total operating costs in all three years.

  - Vehicle maintenance costs per service mile increased overall during the audit period from $0.78 to $1.01 (30 percent).

  - The vehicle spare ratio was reduced from 35 percent in FY2016 to 25 percent and then 30 percent in the following years.

  - The mean distance between major failures and between all failures both improved in FY2017 but then declined substantially in FY2018, by more than 50 percent.

- Safety

  - The rate of preventable accidents worsened in FY2017 but then improved to the lowest level during the period in FY2018.

* * * * *

The following is a brief summary of the paratransit functional trend highlights between FY2016 and FY2018:

- Service Planning results showed an overall 9.3 percent increase in the cost per passenger mile, farebox recovery down from 8.6 to 7.9 percent, TDA recovery down overall from 9.4 to 8.5 percent, at least 91 percent of vehicle miles and hours in service (and increasing), and steady rates for passengers per vehicle service mile and hour.

- Operations results showed some decrease vehicle operations costs as a portion of total operating costs, but a slight increase in vehicle operations costs per hour. All trips were within the on-time window and there were no missed trips or ADA trip denials. After an increase in FY2017, the complaint rate dropped significantly in the last year. Passenger no-shows decreased by 21 percent, while the trip cancellation rate rose slightly but remained well below the levels recorded in the prior audit period, and late cancellations went up noticeably in FY2018 but remained at less than two percent of total ADA trips.

- Maintenance results showed total maintenance costs relatively steady at 17 to 20 percent of total operating costs. At the same time vehicle maintenance costs per mile increased by 30 percent, while the spare ratio was reduced from 35 percent. Mechanical failure rates increased by more than 50 percent in FY2018.

- Safety results showed net improvement in the preventable accident rate during the audit period.

Exhibit 10: Functional Performance Trends – Paratransit

FUNCTION/Indicator	Actual Performance		
	FY2016	FY2017	FY2018
SERVICE PLANNING			
Total Operating Cost/Passenger Mile	$5.34	$5.74	$5.83
Annual Percent Change	- -	*7.5%*	*1.7%*
Three Year Percent Change	- -	- -	*9.3%*
Farebox Recovery Ratio (Farebox Rev./Oper. Cost)	8.6%	8.9%	7.9%
Annual Percent Change	- -	*3.4%*	*-11.4%*
Three Year Percent Change	- -	- -	*-8.4%*
TDA Recovery Ratio *(a)*	9.4%	9.7%	8.5%
Annual Percent Change	- -	*2.7%*	*-11.7%*
Three Year Percent Change	- -	- -	*-9.3%*
Vehicle Service Miles/Total Miles	91.3%	92.4%	93.1%
Annual Percent Change	- -	*1.2%*	*0.8%*
Three Year Percent Change	- -	- -	*2.0%*
Vehicle Service Hours/Total Hours	92.0%	93.1%	94.4%
Annual Percent Change	- -	*1.2%*	*1.4%*
Three Year Percent Change	- -	- -	*2.6%*
Passengers/Vehicle Service Mile	0.11	0.11	0.11
Annual Percent Change	- -	*-1.3%*	*2.4%*
Three Year Percent Change	- -	- -	*1.1%*
Passengers/Vehicle Service Hour	1.84	1.75	1.82
Annual Percent Change	- -	*-4.8%*	*4.1%*
Three Year Percent Change	- -	- -	*-0.9%*
OPERATIONS			
Vehicle Operations Cost/Total Operating Cost	38.2%	36.0%	35.7%
Annual Percent Change	- -	*-5.6%*	*-1.0%*
Three Year Percent Change	- -	- -	*-6.6%*
Vehicle Operations Cost/Vehicle Service Hour	$35.86	$34.81	$36.50
Annual Percent Change	- -	*-2.9%*	*4.9%*
Three Year Percent Change	- -	- -	*1.8%*
Trips On-Time (30 minute window)/Total Trips	100.0%	100.0%	100.0%
Annual Percent Change	- -	*0.0%*	*0.0%*
Three Year Percent Change	- -	- -	*0.0%*
Complaints/100,000 Unlinked Passenger Trips	15.9	23.6	3.9
Annual Percent Change	- -	*48.4%*	*-83.2%*
Three Year Percent Change	- -	- -	*-75.1%*
Missed Trips/10,000 Total Trips	0.0	0.0	0.0
Annual Percent Change	- -	- -	- -
Three Year Percent Change	- -	- -	- -

FUNCTION/Indicator	Actual Performance		
	FY2016	FY2017	FY2018
OPERATIONS (continued)			
ADA Trip Denials/Total ADA Trips	0.0%	0.0%	0.0%
Annual Percent Change	- -	- -	- -
Three Year Percent Change	- -	- -	- -
Trip Cancellations/Total ADA Trips	12.9%	13.1%	13.2%
Annual Percent Change	- -	*1.2%*	*0.6%*
Three Year Percent Change	- -	- -	*1.8%*
Late Trip Cancellations/Total ADA Trips	1.0%	0.7%	1.6%
Annual Percent Change	- -	*-27.7%*	*123.4%*
Three Year Percent Change	- -	- -	*61.5%*
No-Shows/Total ADA Trips	11.4%	8.9%	9.0%
Annual Percent Change	- -	*-22.4%*	*1.3%*
Three Year Percent Change	- -	- -	*-21.4%*
MAINTENANCE			
Vehicle + Non-Veh. Maint. Cost/Total Operating Cost	16.9%	20.5%	19.6%
Annual Percent Change	- -	*21.2%*	*-4.7%*
Three Year Percent Change	- -	- -	*15.5%*
Vehicle Maintenance Cost/Vehicle Service Mile	$0.78	$0.81	$1.01
Annual Percent Change	- -	*3.7%*	*25.0%*
Three Year Percent Change	- -	- -	*29.7%*
Spare Vehicles/Total Vehicles	35.7%	25.0%	30.8%
Annual Percent Change	- -	*-30.0%*	*23.1%*
Three Year Percent Change	- -	- -	*-13.8%*
Mean Dist. betw. Major Failures (Miles)	36,128	51,196	17,622
Annual Percent Change	- -	*41.7%*	*-65.6%*
Three Year Percent Change	- -	- -	*-51.2%*
Mean Dist. betw. All Failures (Miles)	36,128	42,663	14,512
Annual Percent Change	- -	*18.1%*	*-66.0%*
Three Year Percent Change	- -	- -	*-59.8%*
SAFETY			
Preventable Accidents/100,000 Vehicle Miles	0.79	2.34	0.41
Annual Percent Change	- -	*196.4%*	*-82.7%*
Three Year Percent Change	- -	- -	*-48.7%*

(a) Farebox Revenue plus Local Support/Operating Cost Less TDA Allowable Exclusions

VII. CONCLUSIONS AND RECOMMENDATIONS

The preceding sections presented a review of FAST's transit service performance during the three-year period of FY2016 through FY2018 (July 1, 2015 through June 30, 2018). They focused on TDA compliance issues including trends in TDA-mandated performance indicators and compliance with selected sections of the state Public Utilities Code (PUC). They also provided the findings from an overview of FAST's data collection activities to support the TDA indicators, actions taken to implement recommendations from the prior performance audit, and a review of selected key functional performance results.

Conclusions

The key findings and conclusions from the individual sections of this performance audit are summarized below:

- Data Collection – FAST is in compliance with the data collection and reporting requirements for the TDA statistics. In addition, the statistics collected over the six-year review period appear to be consistent with the TDA definitions, and indicate general consistency in terms of the direction and magnitude of the year-to-year changes across the statistics.

- TDA Performance Trends

  FAST's performance trends for the five TDA-mandated indicators were analyzed by mode. A six-year analysis period was used for all the indicators. In addition, component operating costs were analyzed.

Bus Service – The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2013 through FY2018:

- There was an average annual increase in the operating cost per hour of 2.2 percent over the six years, which amounts to a decrease of 0.6 percent in inflation adjusted dollars. The largest annual increase occurred in FY2018, the most recent year, when operating costs increased by nearly ten percent while vehicle service hours decreased slightly.

- The cost per passenger increased on average by 4.7 percent per year, which amounted to an average annual increase of 1.8 percent in constant FY2013 dollars, as passenger levels decreased in the last three years.

- Passenger productivity declined, with passengers per vehicle service hour decreasing by 2.4 percent per year overall, and passengers per vehicle service mile decreasing by 2.9 percent annually.

The following is a brief summary of the component operating costs trend highlights for the bus service between FY2013 and FY2018:

- Large increases in FY2015 in the labor, fringe benefits, and other costs categories were offset by reduced services costs -- all driven by NTD-required reporting changes which altered the distribution of costs. Total operating costs increased on average by three percent per year.

- Higher cost allocation charges by the City to Transportation in FY2015 than in the previous years also impacted reported labor and fringe benefits costs.

- Services costs contributed about 30 percent of total costs until FY2015, when this was reduced to 15 percent or less with the NTD reporting changes. Most other component cost shares increased at the same time.

- Purchased transportation costs were reduced in FY2015 as a result of a new operating contract. They continued to represent the largest portion of the total costs, over 40 percent.

- In-house fringe benefits costs increased by nearly 60 percent in FY2018, even as labor costs increased by less than three percent. This appears to reflect further changes in NTD operating cost reporting protocols, specifically the addition of separate "paid time off" line items.

Paratransit – The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2013 through FY2018:

- Cost efficiency was slightly improved overall, with an average annual decrease in the operating cost per hour of 0.1 percent (2.9 percent in inflation adjusted dollars).

- The operating cost per passenger achieved an annual decrease of 1.5 percent when normalized in FY2013 dollars. Operating costs increased by about three percent per year over the period (in current dollars), while passenger levels increased by nearly two percent per year.

- Passenger productivity declined moderately, with passengers per hour and passengers per mile both decreasing by about 1.5 percent per year on average.

The following is a brief summary of the component operating costs trend highlights for paratransit between FY2013 and FY2018:

- Similar to FAST's bus service, NTD-required reporting changes resulted in substantial cost redistributions among component cost categories as of FY2015. Total operating costs increased on average by three percent per year.

- In-house labor costs increased by 6.1 percent annually, on average, while fringe benefits costs increased at nearly triple that rate. Labor costs decreased by 23 percent in FY2018, even as fringe benefits costs increased by 14.5 percent compared to FY2017. However, the latter

appears to reflect further changes in NTD operating cost reporting protocols.

– Purchased transportation costs were reduced in FY2015 as a result of a new operating contract. They continued to represent the largest portion of the total costs, at 45 percent or more.

– Casualty and liability costs increased by 18 percent in FY2015, mostly due to higher health care premiums, and remained virtually constant through the remainder of the period. Materials/supplies costs increased overall by 9.3 percent annually.

- PUC Compliance – FAST is in compliance with the sections of the state PUC that were reviewed as part of this performance audit. These sections included requirements concerning CHP terminal safety inspections, labor contracts, reduced fares, Welfare-to-Work, revenue sharing, and evaluating passenger needs.

- Status of Prior Audit Recommendations – Two of the three recommendations have been implemented. First, FAST's efforts to improve performance in the preventable accident rate for its bus service have resulted in the rate decreasing in each recent year, by about 25 percent overall during the current audit period. Then second, a new outreach plan for new and current paratransit riders addresses noted increases in trip cancellations and passenger no-shows, offering specialized training for individuals on how to schedule and cancel paratransit trips. During the current audit period, passenger no-shows decreased by 21 percent, while the trip cancellation rate remained well below the levels recorded in the prior audit period, and late cancellations remained at less than two percent of total ADA trips.

  Implementation is in progress for the remaining recommendation. In acknowledgment of the noted high rate of mechanical failures on its buses, FAST staff cited the aging vehicle fleet, and a fleet replacement schedule was developed. However, any improvements ensuing from fleet replacement will be in the future. Audit period maintenance results for FAST's bus service showed vehicle maintenance costs increasing by nearly

30 percent, a consistently high 30 percent spare ratio, and continued noticeably deteriorating mechanical failure rates.

- Functional Performance Indicator Trends

To further assess FAST's performance over the past three years, a detailed set of systemwide and modal functional area performance indicators was defined and reviewed.

Systemwide (All Modes) – The following is a brief summary of the systemwide functional trend highlights between FY2016 and FY2018:

– Administrative costs increased in FY2018 to one third of total operating costs and almost $40 per vehicle service hour.

– Marketing costs increased overall compared to total administrative costs and passenger trips.

– The systemwide farebox recovery ratio decreased over the period from 23.5 percent to 19.4 percent.

Bus Service – The following is a brief summary of the bus service functional trend highlights between FY2016 and FY2018:

– Service Planning results showed an overall 18 percent increase in the cost per passenger mile, farebox recovery down from 25.7 to 21.1 percent, TDA recovery down from 33.2 to 27.3 percent, consistently 93 percent or more vehicle miles and hours in service, and passengers per vehicle service mile and hour both down by seven percent.

– Operations results showed some decrease vehicle operations costs as a portion of total operating costs, but an increase in vehicle operations costs per hour. Schedule adherence results were not available but there were almost no missed trips. At the same time, the rate of complaints increased slightly overall.

- Maintenance results showed some net increase in total maintenance costs as a portion of total operating costs. At the same time, vehicle maintenance costs increased by nearly 30 percent, the vehicle spare ratio remained at 30 percent, and there were noticeably deteriorating mechanical failure rates.

- Safety results showed preventable accidents decreasing in each audit year, by 25 percent overall.

Paratransit – The following is a brief summary of the paratransit functional trend highlights between FY2016 and FY2018:

- Service Planning results showed an overall 9.3 percent increase in the cost per passenger mile, farebox recovery down from 8.6 to 7.9 percent, TDA recovery down overall from 9.4 to 8.5 percent, at least 91 percent of vehicle miles and hours in service (and increasing), and steady rates for passengers per vehicle service mile and hour.

- Operations results showed some decrease vehicle operations costs as a portion of total operating costs, but a slight increase in vehicle operations costs per hour. All trips were within the on-time window and there were no missed trips or ADA trip denials. After an increase in FY2017, the complaint rate dropped significantly in the last year. Passenger no-shows decreased by 21 percent, while the trip cancellation rate rose slightly but remained well below the levels recorded in the prior audit period, and late cancellations went up noticeably in FY2018 but remained at less than two percent of total ADA trips.

- Maintenance results showed total maintenance costs relatively steady at 17 to 20 percent of total operating costs. At the same time vehicle maintenance costs per mile increased by 30 percent, while the spare ratio was reduced from 35 percent. Mechanical failure rates increased by more than 50 percent in FY2018.

- Safety results showed net improvement in the preventable accident rate during the audit period.

Recommendations

1. EXAMINE MAINTENANCE ACTIVITIES AND ADDRESS THE RECENTLY INCREASING MECHANICAL FAILURE RATES ON THE BUS AND PARATRANSIT SERVICES.
[Reference Sections: V. Status of Prior Audit Recommendations; VI. Functional Performance Indicator Trends]

Prior audit period maintenance results for FAST's bus service showed vehicle maintenance costs increasing by nearly 20 percent, but also a high spare ratio which grew to 35 percent in FY2015, and noticeably deteriorating mechanical failure rates. The mean distance between major failures declined overall by nearly 25 percent, and when looking at all failures, there was a steady decline through the period, especially in FY2015. It was suggested that efforts be made by FAST to improve its maintenance function to increase vehicle reliability and reduce the growing rates of mechanical failures on its bus and service.

In acknowledgment of the noted high rate of mechanical failures on its buses, FAST staff cited the aging vehicle fleet, and a fleet replacement schedule was developed. However, any improvements ensuing from fleet replacement will be in the future. Current audit period maintenance results for FAST's bus service showed vehicle maintenance costs increasing by nearly 30 percent, a consistently high 30 percent spare ratio, and continued noticeably deteriorating mechanical failure rates.

In addition, during the current audit period, paratransit vehicle maintenance costs increased by 30 percent, with mechanical failure rates increasing by more than 50 percent in FY2018.

Expanded efforts should be made by FAST to increase current vehicle fleet reliability and reduce the growing rates of mechanical failures on its bus and paratransit services until the full anticipated fleet replacement can be realized.

APPENDIX A:
INPUT STATISTICS FOR
FUNCTIONAL PERFORMANCE MEASURES

Functional Performance Inputs - Systemwide (All Modes)

Data Item	FY2016	FY2017	FY2018	Source
Total Operating Costs	$9,687,390	$10,458,812	$11,339,584	NTD F-40
Administrative Costs	$2,961,540	$3,156,240	$3,812,891	NTD F-40
Vehicle Service Hours	95,923	98,741	96,781	NTD S-10 MB/CB/DR
Marketing Costs (coded as Advertising)	$23,095	$80,768	$41,432	City Financial System Reports
Unlinked Passenger Trips	1,052,610	1,018,077	991,273	NTD S-10 MB/CB/DR
Farebox Revenue (All Modes)	$2,273,028	$2,318,115	$2,202,424	NTD F-10

Functional Performance Inputs – Bus Service

Data Item	FY2016	FY2017	FY2018	Source
Vehicle Service Miles	1,687,360	1,741,598	1,707,753	NTD S-10 MB/CB
Total Vehicle Miles	1,811,452	1,869,950	1,833,780	NTD S-10 MB/CB
Vehicle Service Hours	82,213	84,183	82,867	NTD S-10 MB/CB
Total Vehicle Hours	87,332	89,459	88,132	NTD S-10 MB/CB
Unlinked Passenger Trips	1,027,426	992,616	965,949	NTD S-10 MB/CB
Farebox Revenue	$2,161,730	$2,192,450	$2,089,638	NTD F-10
Total Operating Costs	$8,399,918	$9,052,367	$9,915,219	NTD F-30 MB/CB
Passenger Miles	8,802,718	10,208,056	8,773,767	NTD S-10 MB/CB
Vehicle Operations Costs	$3,896,872	$3,763,987	$4,033,733	NTD Database/F-30 MB/CB
Local Support *(a)*	$40,122	$117,247	$226,768	TDA Claim/State Controller Rpt
TDA Oper. Cost Exclusions - PUC 99247 *(b)*	$1,761,911	$1,472,991	$1,426,547	City of Fairfield Audit
TDA Oper. Cost Exclusions - PUC 99268.17 *(c)*	$0	$0	$0	FAST Staff (none qualifying)
Trips On-Time	*(d)*	*(d)*	*(d)*	FAST Staff
Total Trips	142,405	133,598	140,045	FAST Bus & Block Schedules
Complaints	50	56	58	Solutions for Transit Reports
Missed Trips	1	1	3	Solutions for Transit Reports
Vehicle Maintenance Costs	$1,797,282	$2,155,477	$2,361,457	NTD Database/F-30 MB/CB
Non-Vehicle Maintenance Costs	$322,852	$587,302	$344,664	NTD Database/F-30 MB/CB
Spare Vehicles (Total less Maximum Service)	14	14	14	NTD S-10 MB/CB
Total Vehicles	47	48	48	NTD S-10 MB/CB
Revenue Vehicle Mechanical System Failures - Total	181	331	360	NTD R-20
Revenue Vehicle Mechanical System Failures - Major	128	292	325	NTD R-20
Preventable Accidents	26	25	20	MV Monthly Reports

(a) Local Support includes the following (USOA revenue class in parentheses):

- *Auxiliary transportation revenue (406)*
- *Taxes directly levied (408)*
- *Local cash grants and reimbursements (409)*
- *Local special fare assistance (410)*
- *Subsidy from other sectors of operation (440)*
- *Other non-federal/non-state grant funds or other revenues*

(b) Operating expense object classes exclusive of the following pursuant to PUC Section 99247:

- *depreciation and amortization expenses*
- *subsidies for commuter rail services operated on railroad lines under the jurisdiction of the Federal Railroad Administration*
- *costs for providing charter services*
- *vehicle lease costs*
- *principal and interest payments on capital projects funded with certificates of participation*

(c) Operating expense object class exclusions pursuant to PUC Section 99268.17:

- *additional operating costs for federally required ADA paratransit service that exceed prior year costs (CPI adjusted)*
- *cost increases beyond the CPI change for: fuel; alternative fuel programs; power (including electricity); insurance premiums/liability claims payouts; state and federal mandates*
- *start-up costs for new services (not more than two years)*

(d) Not available (on-time performance not tracked during the audit period)

Functional Performance Inputs – Paratransit

Data Item	FY2016	FY2017	FY2018	Source
Vehicle Service Miles	230,894	236,479	229,706	NTD S-10 DR
Total Vehicle Miles	252,899	255,980	246,708	NTD S-10 DR
Vehicle Service Hours	13,710	14,558	13,914	NTD S-10 DR
Total Vehicle Hours	14,899	15,629	14,733	NTD S-10 DR
Unlinked Passenger Trips	25,184	25,461	25,324	NTD S-10 DR
Farebox Revenue	$111,298	$125,665	$112,786	NTD F-10
Total Operating Costs	$1,287,472	$1,406,445	$1,424,365	NTD F-30 DR
Passenger Miles	241,272	245,106	244,149	NTD S-10 DR
Vehicle Operations Costs	$491,630	$506,816	$507,910	NTD Database/F-30 DR
Local Support *(a)*	$1,267	$0	$10	State Controller Report
TDA Oper. Cost Exclusions - PUC 99247 *(b)*	$90,608	$105,498	$102,589	City of Fairfield Audit
TDA Oper. Cost Exclusions - PUC 99268.17 *(c)*	$0	$0	$0	FAST Staff (none qualifying)
Trips On-Time (within 30 minute window)	21,616	24,151	17,441	RouteMatch/FAST Staff
Total Trips	21,616	24,151	17,441	RouteMatch/FAST Staff
Complaints	4	6	1	Solutions for Transit Reports
Missed Trips	0	0	0	Solutions for Transit Reports
Total ADA Trips	21,616	24,151	17,441	RouteMatch
ADA Trip Denials	0	0	0	Solutions for Transit Reports
Trip Cancellations	2,798	3,163	2,298	RouteMatch
Late Trip Cancellations	218	176	284	RouteMatch
No Shows	2,474	2,144	1,568	RouteMatch
Vehicle Maintenance Costs	$179,415	$190,602	$231,485	NTD Database/F-30 DR
Non-Vehicle Maintenance Costs	$38,799	$98,388	$47,444	NTD Database/F-30 DR
Spare Vehicles (Total less Maximum Service)	5	3	4	NTD S-10 DR
Total Vehicles	14	12	13	NTD S-10 DR
Revenue Vehicle Mechanical System Failures - Total	7	6	17	NTD R-20
Revenue Vehicle Mechanical System Failures - Major	7	5	14	NTD R-20
Preventable Accidents	2	6	1	MV Monthly Reports

(a) Local Support includes the following (USOA revenue class in parentheses):

- *Auxiliary transportation revenue (406)*
- *Taxes directly levied (408)*
- *Local cash grants and reimbursements (409)*
- *Local special fare assistance (410)*
- *Subsidy from other sectors of operation (440)*
- *Other non-federal/non-state grant funds or other revenues*

(b) Operating expense object classes exclusive of the following pursuant to PUC Section 99247:

- *depreciation and amortization expenses*
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- *cost increases beyond the CPI change for: fuel; alternative fuel programs; power (including electricity); insurance premiums/liability claims payouts; state and federal mandates*
- *start-up costs for new services (not more than two years)*