

# Triennial Performance Audit

*of the*

## Alameda-Contra Costa Transit District (AC Transit)

Fiscal Years 2013/14, 2014/15 and 2015/16

### FINAL AUDIT REPORT

*prepared for the*



METROPOLITAN  
TRANSPORTATION  
COMMISSION

*by*



Pierlott & Associates, LLC  
Management Consulting

May 2017

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NOTE:

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

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## **EXECUTIVE SUMMARY**

This executive summary highlights the findings from the performance audit of Alameda-Contra Costa Transit District (AC Transit). 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. AC Transit operates local and express bus service in the East Bay, and Transbay bus service into San Francisco. The audit period is Fiscal Years 2014 through 2016 (from July 1, 2013 through June 30, 2016).

AC Transit meets its requirements for providing ADA complementary paratransit service through the East Bay Paratransit Consortium (EBPC). A performance audit of EBPC is included as an appendix to this report, since it is a shared responsibility of both BART and AC Transit.

### **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 AC Transit'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 AC Transit's performance based on the results of the previous sections.

Comments received from AC Transit 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 AC Transit is in compliance with the TDA requirements for data collection and reporting. The review is limited to the five data items needed to calculate the TDA-mandated performance indicators. This review has determined that AC Transit is in compliance with the data collection and reporting requirements for all five 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.

It was noted that the FY2016 operating costs as reported to the NTD rose by 22 percent compared with the previous year while vehicle service hours and miles rose by only about five percent. Part of this increase was due to AC Transit ramping up for its Service Expansion Plan (AC Go), which included the hiring of additional operators and mechanics in the months prior to implementing the first phase of the expansion plan in June 2016.

In addition, AC Transit staff have indicated that a significant portion of these new costs (about \$32 million) are construction-related costs for the new Transbay Terminal that are passed through AC Transit (\$24.4 million), as well as the Line 51 improvement project (\$7.6 million). AC Transit included these costs with operating expenses since they do not consider them to be capital costs because these are pass-through expenses and no equity is retained by the District. Such projects are essentially a net zero on the District books as expenses are matched with revenues during the period, outside of any timing differences. As such, for comparison purposes and evaluation of operating expenses, these costs were excluded from the TDA trend analysis and the functional performance review.

Performance Indicators and Trends – AC Transit’s bus service performance trends for the five TDA-mandated indicators were analyzed. A six-year analysis period was used for all the indicators. In addition, component operating costs were analyzed.

The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2011 through FY2016:

- There was an average annual increase in the operating cost per hour of 3.5 percent, or 0.9 percent in inflation adjusted dollars. A six percent annual increase occurred in FY2016, largely attributed to costs associated with ramping up for AC Transit’s Service Expansion Plan (AC Go).
- The cost per passenger increased on average by 5.9 percent per year, which amounted to an average annual increase of 3.3 percent in constant FY2011 dollars. Again, this was driven by a major increase in reported operating costs in FY2016, reflecting costs associated with ramping up for AC Go.
- Passenger productivity showed somewhat negative trends, with passengers per vehicle service hour decreasing by 2.3 percent per year overall, and passengers per vehicle service mile decreasing by 1.5 percent.

- Employee productivity increased an average 2.6 percent per year.

The following is a brief summary of the component operating costs trend highlights for the bus service between FY2011 and FY2016:

- Labor costs went up by two percent per year, but their share of total costs was reduced from 38 to 34 percent.
- Fringe benefit costs went up by more than six percent per year, significantly higher than labor costs, and remained the largest cost component at 40 percent of total costs or more. A number of significant factors impacted the fringe benefits costs in FY2015 and FY2016, such as medical insurance and pension related increases, and actuarial-driven increases.
- There were moderate changes overall in most other component costs. However, casualty/liability costs increased by nearly 40 percent per year, primarily a reflection of increases in insurance premiums due to unfavorable settlements and actuarial results in the last two years.

PUC Compliance – AC Transit 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 – There were no recommendations made in AC Transit's prior performance audit.

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

- Systemwide – The following is a brief summary of the systemwide functional trend highlights between FY2014 and FY2016:
  - Administrative costs remained at about one fourth of total operating costs, while increasing overall to \$46 per vehicle service hour.
  - Marketing costs decreased overall compared to total administrative costs but increased compared to passenger trips.
  - The systemwide farebox recovery ratio decreased from 20 to 19 percent, while the TDA recovery ratio (reflecting local support and operating cost exclusions) rose from 75 to 79 percent.
- Bus Service – The following is a brief summary of the bus service functional trend highlights between FY2014 and FY2016:
  - Service Planning results showed steady scheduled operator pay to platform hours, operating cost per passenger mile increasing by nearly ten percent, farebox recovery decreasing from 21 to 20 percent, and consistently 84 percent vehicle miles and 92 percent vehicle hours in service.
  - Operations results showed vehicle operations costs per service hour increasing steadily but reduced in FY2016 compared to total costs, steady operator absence and actual pay to platform hour trends, some improvement in schedule adherence to 70 percent, some overall increase in complaints received, and very few missed trips.
  - Maintenance results showed maintenance costs steady at 20 percent of total costs but vehicle maintenance costs per service mile up by 5.5 percent, mechanic pay hours down slightly compared to service hours, steady maintenance employee scheduled absence rates but a reduction in unscheduled absences, consistent 20 percent vehicle spare ratio, and improvement in the mechanical failure rates.
  - Safety results showed a steady rate of preventable accidents, but sharp increases in the casualty/liability cost rates resulting from increases in insurance premiums due to unfavorable settlements and actuarial results. There was also an overall 12.5 percent increase in

lost days due to industrial accidents, but a noticeable improvement in FY2016 compared to FY2015.

## **Recommendations**

No recommendations are suggested for AC Transit based on the results of this triennial performance audit.

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## 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 Alameda-Contra Costa Transit District (AC Transit). AC Transit operates local and express bus service in the East Bay, and Transbay bus service into San Francisco. The audit period is Fiscal Years 2014 through 2016 (from July 1, 2013 through June 30, 2016).

AC Transit meets its requirement for providing ADA complementary paratransit service through the East Bay Paratransit Consortium (EBPC), which was established by BART and AC Transit. The consortium contracts with a broker, who executes and

administers contracts with several service providers for the consortium. EBPC's performance is also included in this performance audit. The EBPC report is included as an appendix, since it is a shared responsibility of both BART and AC Transit.

An overview of AC Transit is provided in Exhibit 1. This is followed by a recent organization chart in Exhibit 2, which reflects the basic organizational structure during the audit period and beyond.

## **Performance Audit and Report Organization**

This performance audit of AC Transit 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 AC Transit and MTC staff regarding the draft report have been incorporated into this final report.

## Exhibit 1: System Overview

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<b>Location</b>	Headquarters: 1600 Franklin Street, Oakland CA 94612
<b>Establishment</b>	AC Transit was established in 1956 by voters in Alameda and Contra Costa Counties. It was funded through approval of a bond issue in 1959 and began operating service in 1960.
<b>Board</b>	AC Transit is governed by a seven-member, elected Board of Directors. Five directors are elected from specific wards; two are elected at-large. Day-to-day operations of the District are the responsibility of the General Manager, who reports to the Board of Directors.
<b>Facilities</b>	In addition to the administrative office building in downtown Oakland, AC Transit has four bus operating divisions. The East Oakland, Emeryville and Hayward divisions are currently active, and the Richmond division is under renovation and scheduled for reactivation in 2017. The Central Maintenance Facility is located in Oakland and includes facilities and equipment for heavy duty bus maintenance activities and a warehouse for storage and distribution of replacement parts. The Emeryville bus operating division houses the Central Dispatch Center, and the Hayward bus operating division includes the Training and Education Center.
<b>Service Data</b>	AC Transit's service area is located on the eastern shore of the San Francisco Bay. The District operates two main types of service: East Bay local service and Transbay/Express service. East Bay local service is provided with 79 local routes including several express/commute period-only routes and destination-based community routes. Transbay service consists of 30 routes that connect various points in the East Bay to San Francisco.  In addition, the Dumbarton Express service to the San Mateo Peninsula is administered and governed by AC Transit, with oversight by the Dumbarton Bridge Regional Operations Consortium (DBROC), and operated and maintained under contract by MV Transportation. This service is only peripherally included in the performance audit.
	Most East Bay local routes are operated seven days a week, generally from early morning to at least early evening. Reduced service is provided in the evening and on Saturdays and Sundays. Typical headways are seven to 30 minutes during peak hours and 30 to 60 minutes or better at other times. East Bay route 72R is a Rapid bus line using leading-edge technology and on-street improvements to reduce travel time. Transbay bus service is concentrated in weekday peak periods. There are five All Nighter lines.
	The current fare structure went into effect in July 2014. The cash fare for East Bay local and express bus routes is \$2.10 for adults and \$1.05 for children, senior citizens and people with disabilities. The Clipper fare for East Bay local and express bus routes is \$2.00 for adults and \$1.00 for children, senior citizens and people with disabilities. A \$5.00 day pass is available both from the farebox on

buses and on the Clipper smart card. Basic Transbay cash fares are \$4.20 for adults and \$2.10 for children, senior citizens and people with disabilities. Passengers also can purchase bus-to-BART transfers. Beginning in 2012, AC Transit's Senior/Disabled monthly pass became available on the Senior Clipper card.

AC Transit provides ADA-mandated complementary paratransit within its service area through a partnership with BART. Known as the East Bay Paratransit Consortium (EBPC), this service is administered and operated through a broker, with several contracted service providers.

During the audit period, AC Transit's bus fleet consisted of 602 vehicles, including 371 standard 40-foot models, 85 60-foot articulated models, 46 45-foot commuter coaches, 90 30-foot feeder buses, and 10 24-foot cutaway buses. The bus fleet was projected to increase to 620 after the audit period.

#### **Recent Changes**

The Transbay Terminal closed in August 2010 and was subsequently demolished. AC Transit is currently operating out of a Temporary Transbay Terminal, during construction of new terminal complex under the direction of the Transbay Joint Powers Authority (TJPA), which includes AC Transit as a member agency.

*NextBus*, a real-time bus arrival information system, currently provides bus arrival times for passengers on the entire bus system. A contract was awarded in 2015 for replacement of the Computer Aided Dispatching and Automated Vehicle Location system on all AC Transit buses, which will result in enhancement of the real-time bus arrival information system.

In September 2015, Michael Hursh became the General Manager of AC Transit. He replaced David Armijo, who had been the General Manager since March 2012.

In November 2014, the voters in Alameda County approved Measure BB, which provided an additional half cent sales tax with dedicated funding for public transit. The additional funding allowed for AC Transit to initiate a service expansion plan, known as AC Go, the most significant expansion of service in the District's history. Included are new buses, newly redesigned routes, and more frequent service. AC Go represents a nearly 14 percent overall service increase and is being implemented in phases. The first phase was initiated in June 2016 and primarily focused on improving bus frequency and the length of the operating day. Particular attention was paid to the longest bus routes, which transport the largest number of riders. The second and third phases, which expanded the number of bus routes involved, were implemented in December 2016 and March 2017, respectively.

#### **Planned Changes**

A further AC Go service enhancement programmed for the coming months will also target improving on-time performance and reliability. The District will invest \$25.4 million annually to support the full contingency of AC Go service enhancements, including recruitment of additional bus operators and journey-level mechanics.

AC Transit entered into a contract for construction of a Bus Rapid Transit (BRT) line down International Boulevard. The new BRT line will replace rapid bus Line 1R (International Rapid) which operates between Oakland and San Leandro. Bus-

only lanes will be constructed along much of the former Line 1R route, and traffic signals will provide preference to buses. Bus stations with elevated medians will allow for quick passenger loading. AC Transit anticipates opening the new BRT line in 2018.

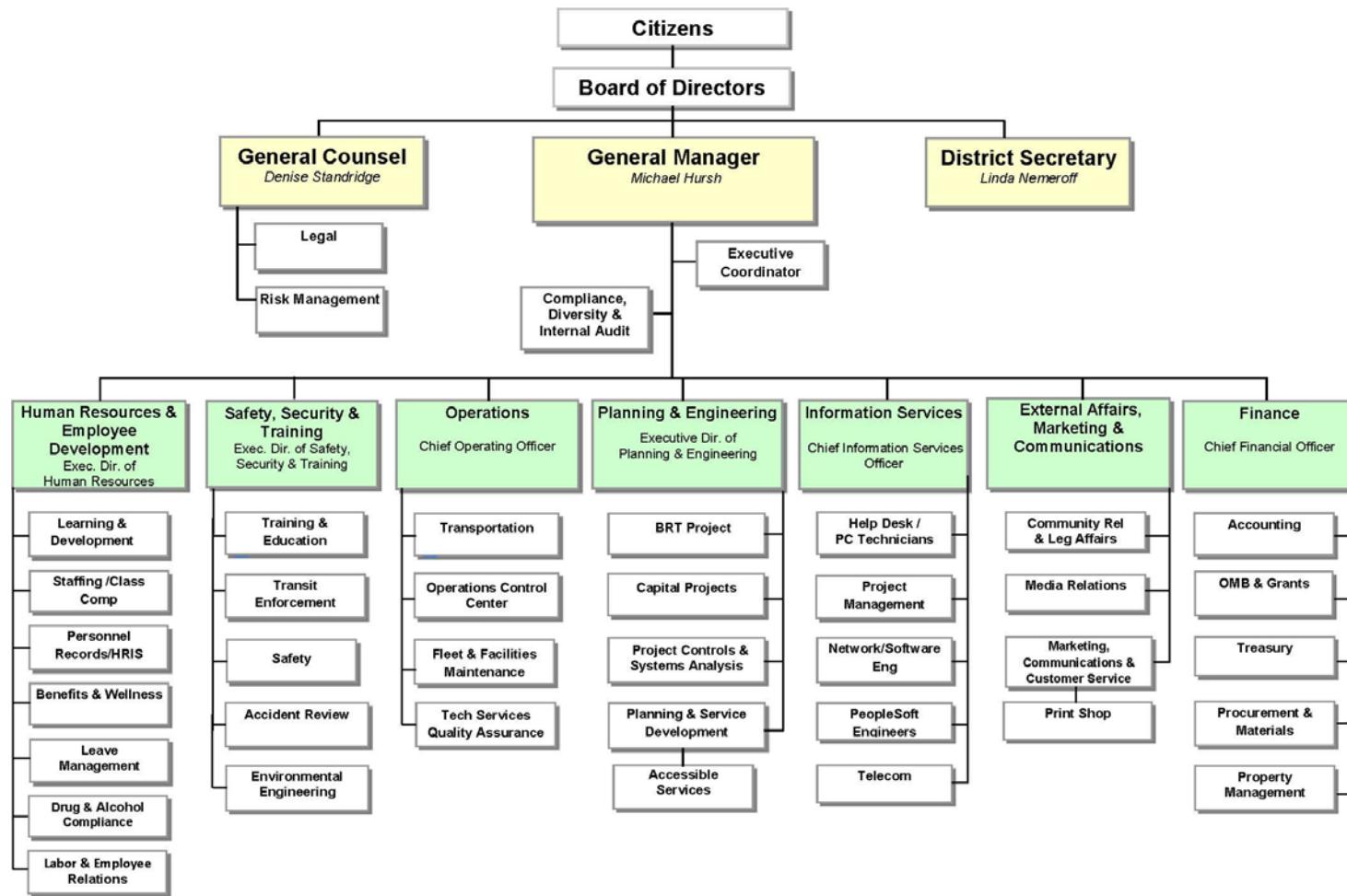
A general fare increase is slated to take effect in July 2017. This will be the first such increase since August 2011, though there were some interim changes in the fare policy. Another fare increase is planned for July 2018.

#### **Staff**

The AC Transit workforce has increased from approximately 2,100 employees in FY2010 to over 2,200 in FY2017, to provide adequate staffing for the AC Go service expansion. The budgeted workforce for FY2017 was divided into the following categories:

District Secretary	3
Finance	86
General Manager	46
Human Resources	41
Information Services	36
General Counsel	14
Operations	1943
Planning & Engineering	45
Retirement	4
Safety, Security, and Training	<u>25</u>
<b>TOTAL</b>	<b><u>2,243</u></b>

## Exhibit 2: Organization Chart



As of July 1, 2016

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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 AC Transit is compliant 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 AC Transit covering the audit period has been reviewed.

### Compliance with Requirements

To support this review, AC Transit staff confirmed that most of the data collection and reporting procedures remain unchanged from those described in the prior performance audit. The only changes were updates in the reporting of unlinked passengers -- AC Transit has continued transitioning from a manual on-board passenger counting process to one based on automatic passenger counters (APC). In FY2013, AC Transit first utilized the APC sampling methodology to calculate unlinked passenger

trips. The methodology was examined by a statistician and found to be accurate at the 95 percent confidence level and 10 percent confidence interval. The definitions and procedures used to derive the input data for the TDA indicators are consistent with those used for the NTD reporting system. For the last three years, AC Transit has continued reporting unlinked passengers using established APC methodology, with an annual APC maintenance plan that validates APCs against a sample of manual counts.

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

#### Consistency of the Reported Statistics

The resulting TDA statistics for AC Transit's bus service are shown in Exhibit 3.2. 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. 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 relatively proportional to increases or decreases in annual vehicle service hours and miles.

It was noted that the FY2016 operating costs as reported to the NTD rose by 22 percent compared with the previous year while vehicle service hours and miles rose by only about five percent. Part of this increase was due to AC Transit ramping up for its Service Expansion Plan (AC Go), which included the hiring of additional operators and mechanics in the months prior to implementing the first phase of the expansion plan in June 2016.

In addition, AC Transit staff have indicated that a significant portion of these new costs (about \$32 million) are construction-related costs for the new Transbay Terminal that are passed through AC Transit (\$24.4 million), as well as the Line 51 improvement project (\$7.6 million). AC Transit included these costs with operating expenses since they do not consider them to be capital costs because these are pass-through expenses and no equity is retained by the District. Such projects are essentially a net zero on the District books as expenses are matched with revenues during the period, outside of any timing differences. As such, for comparison purposes and evaluation of operating expenses, these costs were excluded from the TDA trend analysis and the functional performance review.

## 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. Also excluded are all subsidies for commuter rail services operated on railroad lines under the jurisdiction of the Federal Railroad Administration, all direct costs for providing charter services, all vehicle lease costs, and principal and interest payments on capital projects funded with certificates of participation.	In Compliance	<ul style="list-style-type: none"> <li>Financial statistics are gathered and monitored by the Accounting and Budget Departments, which are responsible for preparing reports on a regular basis for internal distribution to the Board.</li> <li>Operating costs have been defined as the total expenses reported in the quarterly financial statements, excluding depreciation.</li> <li>Input data are tracked based on approved procedures from the NTD Uniform System of Accounts.</li> </ul> <p><i>Note: The FY2016 operating cost as shown in the following exhibit (3.2) excludes pass-through expenditures identified by AC Transit staff.</i></p>
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	<ul style="list-style-type: none"> <li>Vehicle service hours are tracked through the operator timekeeping system and electronic farebox reports.</li> <li>Operators' time is accumulated on monthly reports (OTS 370). The report separates the pay categories to facilitate creation of vehicle hours.</li> <li>The Accounting Department produces a monthly summary of hours, miles and operator pay. Hours calculations are rooted in the <i>Hastus</i> scheduling system.</li> </ul>

TDA Statistic	TDA Definition	Compliance Finding	Verification Information
Vehicle Service Miles	“Vehicle service miles” means the total number of miles that each transit vehicle is in revenue service.	In Compliance	<ul style="list-style-type: none"> <li>AC Transit reports actual rather than scheduled service miles for TDA reporting and internal performance measures.</li> <li>The process for determining vehicle miles begins in the Schedule Department, and relies on the <i>Hastus</i> software system.</li> </ul>
Unlinked Passengers	“Unlinked passengers” means the number of boarding passengers, whether revenue producing or not, carried by the public transportation system.	In Compliance	<ul style="list-style-type: none"> <li>Since 1984, AC Transit had applied a manual sampling method for NTD ridership reporting following procedures defined by the FTA. Traffic checkers collected approximately 250 annual on-board boarding and alighting samples for this purpose.</li> <li>During the prior audit period, the District began to transition to an Automatic Passenger Counter (APC) system. In all three audit years, ridership counting methodologies were validated using the approved manual on-board counting process in parallel with APCs.</li> <li>Since 2010, the portion of the bus fleet equipped with APCs rose from 20% to about half. To ensure adequate sampling of APC ridership data, a rotational plan was developed in which APC-equipped buses are used on different run assignments each day.</li> <li>For the FY2013 NTD, AC Transit received approval to report unlinked passengers based solely on APCs. This followed a statistician’s report that the estimates are within the FTA statistical sampling requirements of 95% confidence level and 10% confidence interval.</li> <li>For FY2014 through FY2016, AC Transit continued reporting unlinked passengers using established APC methodology. Procedures and processes</li> </ul>

TDA Statistic	TDA Definition	Compliance Finding	Verification Information
			were reviewed and in compliance with FTA sampling requirements of 95% confidence +/- 10% precision. The APC maintenance plan validates APCs against a sample of manual counts.
Employee Full-Time Equivalents	2,000 person-hours of work in one year constitute one employee.	In Compliance	<ul style="list-style-type: none"> <li>• For NTD reporting, AC Transit arrived at an FTE count by dividing the number of labor hours by 2,080 hours.</li> <li>• For state reporting, AC Transit counted its FTEs consistent with the TDA definition of 2,000 annual person work hours.</li> </ul>

## Exhibit 3.2: TDA Statistics – Bus Service

TDA Statistic	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Operating Cost (Actual \$)	\$284,897,127	\$294,245,623	\$292,493,053	\$300,279,426	\$316,438,967	\$354,656,154
<i>Annual Change</i>	- -	3.3%	-0.6%	2.7%	5.4%	12.1%
Vehicle Service Hours	1,685,688	1,614,080	1,605,972	1,630,320	1,675,481	1,768,582
<i>Annual Change</i>	- -	-4.2%	-0.5%	1.5%	2.8%	5.6%
Vehicle Service Miles	19,203,332	18,247,759	18,045,817	18,176,112	18,409,516	19,333,451
<i>Annual Change</i>	- -	-5.0%	-1.1%	0.7%	1.3%	5.0%
Unlinked Passengers	57,333,196	53,642,880	54,929,401	55,739,738	54,987,132	53,562,747
<i>Annual Change</i>	- -	-6.4%	2.4%	1.5%	-1.4%	-2.6%
Employee Full-Time Equivalents	1,699.2	1,688.7	1,591.6	1,473.5	1,528.0	1,568.3
<i>Annual Change</i>	- -	-0.6%	-5.8%	-7.4%	3.7%	2.6%

Sources: FY2011 through FY2013 - Prior Performance Audit Report

FY2014 through FY2016 - NTD Reports, except FY2016 Operating Cost excludes \$31,993,322 in pass throughs for construction projects (per AC Transit staff)

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### III. TDA PERFORMANCE INDICATORS AND TRENDS

The performance trends for AC Transit's bus service are presented in this section. A similar discussion of the paratransit service provided by EBPC is provided in an appendix to this report. Performance is discussed for each 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
- vehicle service hours per full-time equivalent employee (FTE)

The performance results in these indicators generally were developed from the information in the NTD reports filed with the FTA for the three years of the audit period. AC Transit's NTD reports were the source of all operating and financial statistics except for pass-through construction items identified by AC Transit staff that were deducted from the FY2016 operating costs.

In addition to presenting performance for the three years of the audit period (FY2014 through FY2016), 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 AC Transit'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 FY2014 to FY2016 trend lines have been combined with those from the prior audit period (FY2011 through FY2013) 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 AC Transit's performance trends in each of the five TDA performance indicators. 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 AC Transit'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 4.4.

- 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 3.5 percent annually during the six-year review period.
  - The cost per hour ranged from a low of \$169.01 in FY2011 to a high of \$200.53 in FY2016. There were increases in every year except FY2013; the largest (nearly eight percent) occurring in FY2012.

- AC Transit staff indicated that a six percent annual increase in FY2016 was largely due to ramping up for its Service Expansion Plan (AC Go), which included hiring additional operators and mechanics in the months prior to beginning any new service in June 2016.
  - In FY2011 constant dollars, there was an average annual increase in this indicator of 0.9 percent.
- Passengers per Vehicle Service Hour (Exhibit 4.2)
  - A key indicator of passenger productivity, passengers per hour decreased an average of 2.3 percent annually during the six-year period.
  - Decreases reflect a modest overall decline in passengers combined with a smaller increase in service hours.
  - Passengers per hour decreased overall from 34.0 in FY2011 to 30.3 in FY2016.
- Passengers per Vehicle Service Mile (Exhibit 4.2)
  - Similar to passengers per hour, passengers per mile decreased overall, but by only 1.5 percent annually on average.
  - There were about three passengers per mile in all years except the most recent year (FY2016), when this was reduced to 2.77 passengers.
- Operating Cost per Passenger (Exhibit 4.3)
  - A key measure of cost effectiveness, the cost per passenger was \$4.97 in the first year of the review period followed by an increase in the next year to \$5.49.
  - The cost per passenger exhibited a general increasing trend through the rest of the period, to \$6.62 per passenger in FY2016 (increasing on average by 5.9 percent annually).
  - The most significant annual increase was 15 percent in FY2016, when a 12 percent increase in operating costs was coupled with a 2.6 percent decrease in ridership. As noted previously, the FY2016 operating cost

increase largely reflects costs associated with ramping up for AC Transit's Service Expansion Plan (AC Go).

- With the impact of inflation removed from the cost side (normalization), the six-year result was an average annual increase of 3.3 percent in the cost per passenger.
- Vehicle Service Hours per Employee (FTE) (Exhibit 4.4)
  - A measure of employee productivity, this indicator increased by an average 2.6 percent per year over the six years.
  - Hours per FTE increased overall from just under 1,000 in the first review year to 1,128 in the last year.
  - Annual FTEs decreased while vehicle service hours increased modestly overall during the period.

\* \* \* \*

The following is a brief summary of the bus service TDA performance trend highlights over the six-year period of FY2011 through FY2016:

- There was an average annual increase in the operating cost per hour of 3.5 percent, or 0.9 percent in inflation adjusted dollars. A six percent annual increase occurred in FY2016, largely attributed to costs associated with ramping up for AC Transit's Service Expansion Plan (AC Go).
- The cost per passenger increased on average by 5.9 percent per year, which amounted to an average annual increase of 3.3 percent in constant FY2011 dollars. Again, this was driven by a major increase in reported operating costs in FY2016, reflecting costs associated with ramping up for AC Go.
- Passenger productivity showed somewhat negative trends, with passengers per vehicle service hour decreasing by 2.3 percent per year overall, and passengers per vehicle service mile decreasing by 1.5 percent.
- Employee productivity increased an average 2.6 percent per year.

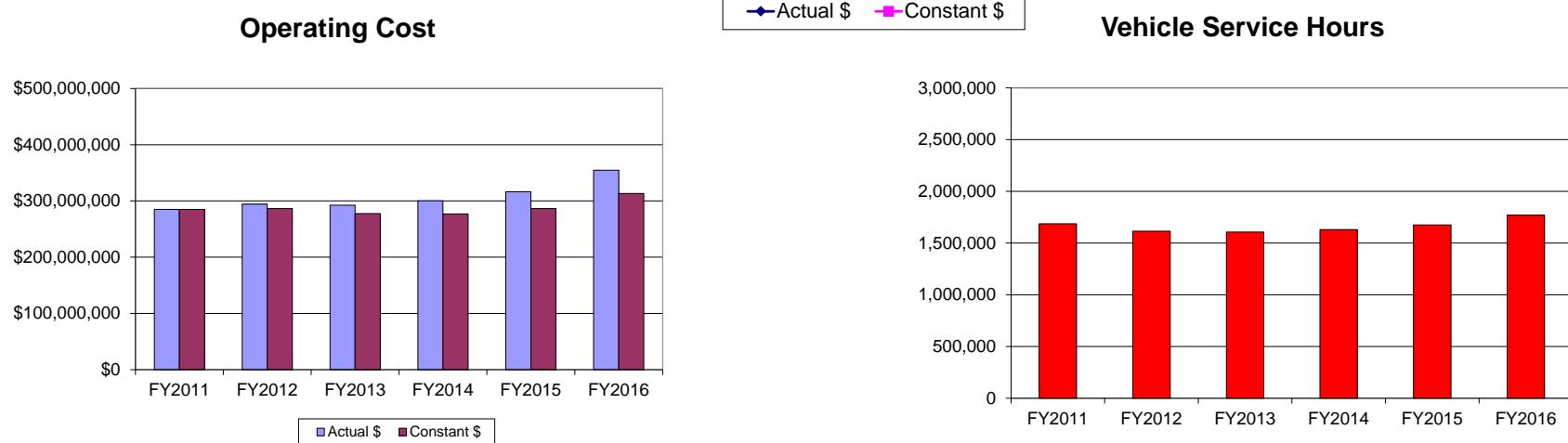
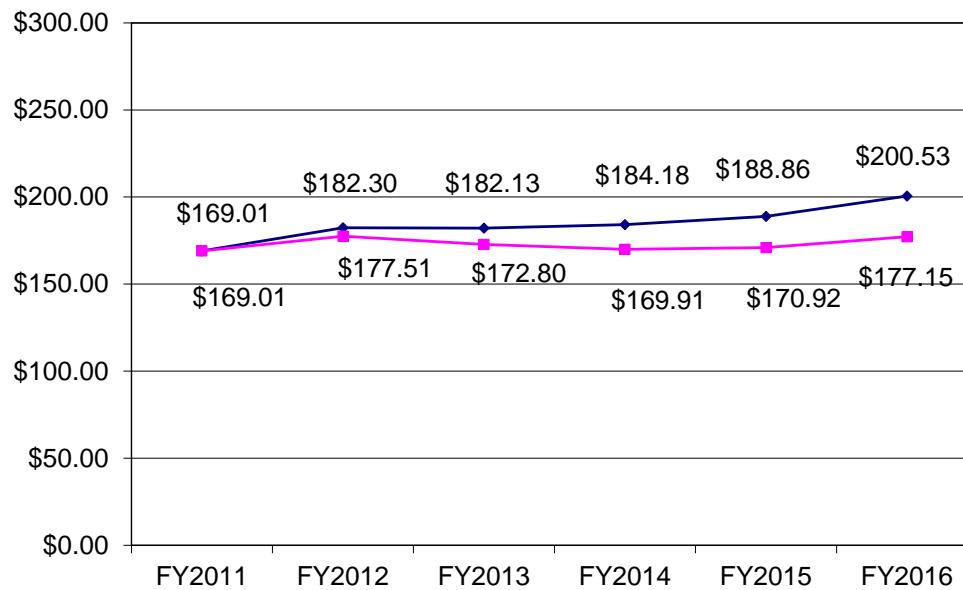
## Exhibit 4: TDA Indicator Performance – Bus Service

	<b>FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>FY2016</b>	<b>Av. Ann. Chg.</b>
<b>Performance Indicators</b>							
Op. Cost per Vehicle Svc. Hour (Actual \$)	\$169.01	\$182.30	\$182.13	\$184.18	\$188.86	\$200.53	- -
Annual Change	- -	7.9%	-0.1%	1.1%	2.5%	6.2%	3.5%
Op. Cost per Vehicle Svc. Hour (Constant \$)	\$169.01	\$177.51	\$172.80	\$169.91	\$170.92	\$177.15	- -
Annual Change	- -	5.0%	-2.7%	-1.7%	0.6%	3.6%	0.9%
Passengers per Vehicle Service Hour	34.0	33.2	34.2	34.2	32.8	30.3	- -
Annual Change	- -	-2.3%	2.9%	0.0%	-4.0%	-7.7%	-2.3%
Passengers per Vehicle Service Mile	2.99	2.94	3.04	3.07	2.99	2.77	- -
Annual Change	- -	-1.5%	3.5%	0.7%	-2.6%	-7.2%	-1.5%
Op. Cost per Passenger (Actual \$)	\$4.97	\$5.49	\$5.32	\$5.39	\$5.75	\$6.62	- -
Annual Change	- -	10.4%	-2.9%	1.2%	6.8%	15.1%	5.9%
Op. Cost per Passenger (Constant \$)	\$4.97	\$5.34	\$5.05	\$4.97	\$5.21	\$5.85	- -
Annual Change	- -	7.5%	-5.4%	-1.6%	4.8%	12.3%	3.3%
Vehicle Service Hours per FTE	992	956	1,009	1,106	1,097	1,128	- -
Annual Change	- -	-3.7%	5.6%	9.6%	-0.9%	2.8%	2.6%
<b>Input Data</b>							
Operating Cost (Actual \$)	\$284,897,127	\$294,245,623	\$292,493,053	\$300,279,426	\$316,438,967	\$354,656,154	- -
Annual Change	- -	3.3%	-0.6%	2.7%	5.4%	12.1%	4.5%
Operating Cost (Constant \$)	\$284,897,127	\$286,509,857	\$277,507,640	\$277,010,541	\$286,370,106	\$313,300,489	- -
Annual Change	- -	0.6%	-3.1%	-0.2%	3.4%	9.4%	1.9%
Vehicle Service Hours	1,685,688	1,614,080	1,605,972	1,630,320	1,675,481	1,768,582	- -
Annual Change	- -	-4.2%	-0.5%	1.5%	2.8%	5.6%	1.0%
Vehicle Service Miles	19,203,332	18,247,759	18,045,817	18,176,112	18,409,516	19,333,451	- -
Annual Change	- -	-5.0%	-1.1%	0.7%	1.3%	5.0%	0.1%
Unlinked Passengers	57,333,196	53,642,880	54,929,401	55,739,738	54,987,132	53,562,747	- -
Annual Change	- -	-6.4%	2.4%	1.5%	-1.4%	-2.6%	-1.4%
Employee Full-Time Equivalents	1,699.2	1,688.7	1,591.6	1,473.5	1,528.0	1,568.3	- -
Annual Change	- -	-0.6%	-5.8%	-7.4%	3.7%	2.6%	-1.6%
Bay Area CPI - Annual Change	- -	2.7%	2.6%	2.9%	1.9%	2.5%	- -
- Cumulative Change	- -	2.7%	5.4%	8.4%	10.5%	13.2%	2.5%

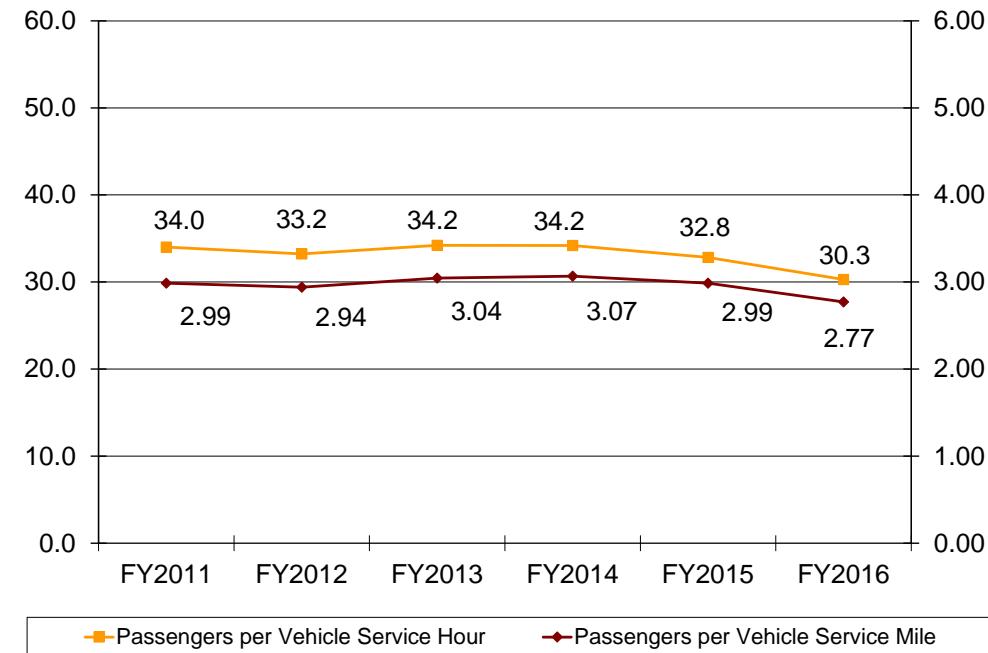
Sources: FY2011 through FY2013 - Prior Performance Audit Report

FY2014 through FY2016 - NTD Reports, except FY2016 Operating Cost excludes staff-identified construction project pass-throughs  
CPI Data - U.S. Department of Labor, Bureau of Labor Statistics

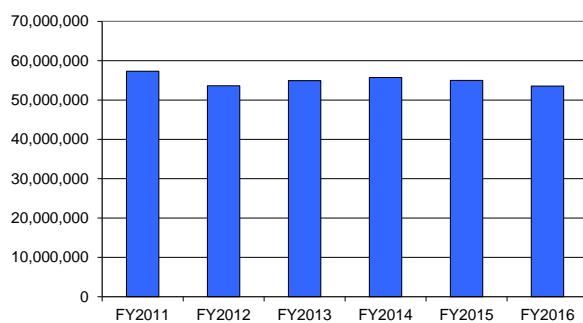
## Exhibit 4.1: Operating Cost per Vehicles Service Hour – Bus Service



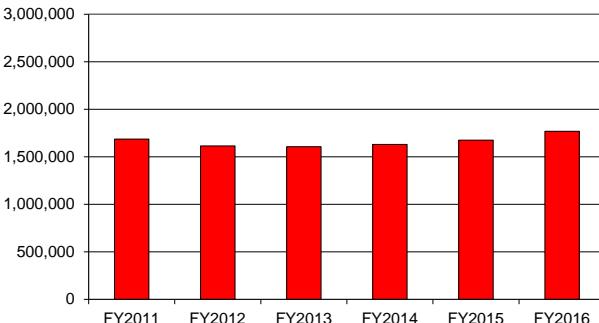
## Exhibit 4.2: Passengers per Hour and per Mile – Bus Service



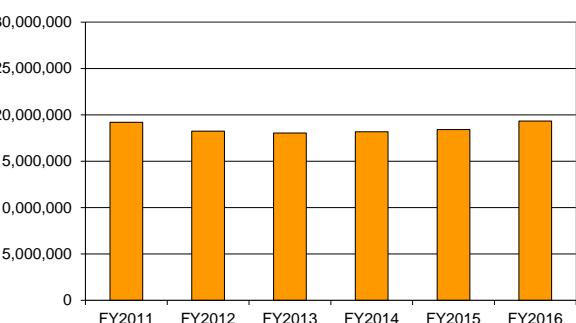
**Unlinked Passengers**



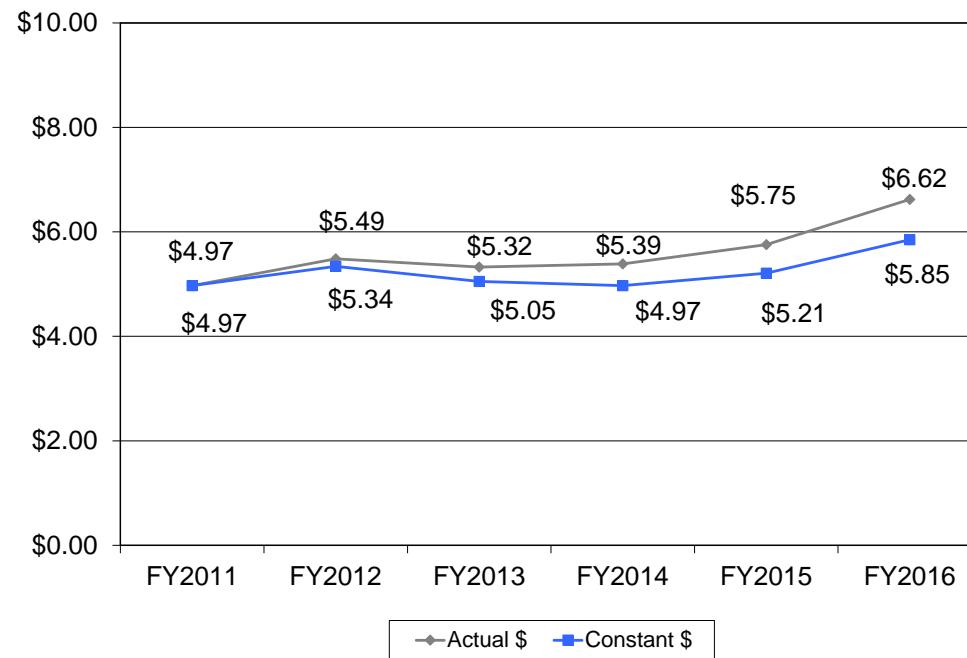
**Vehicle Service Hours**



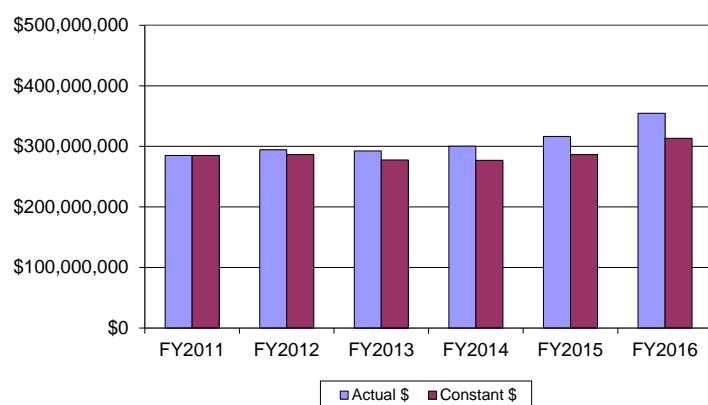
**Vehicle Service Miles**



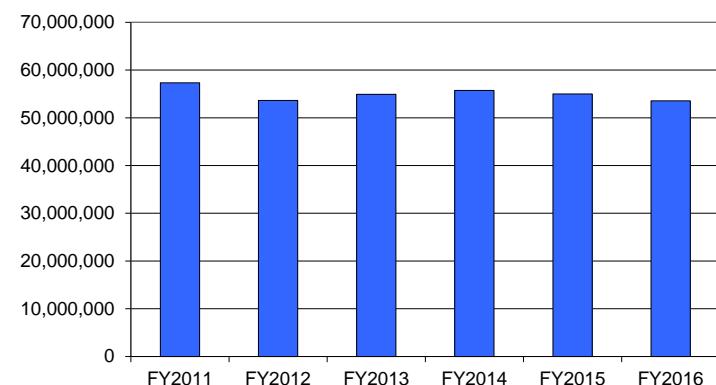
### Exhibit 4.3: Operating Cost per Passenger – Bus Service



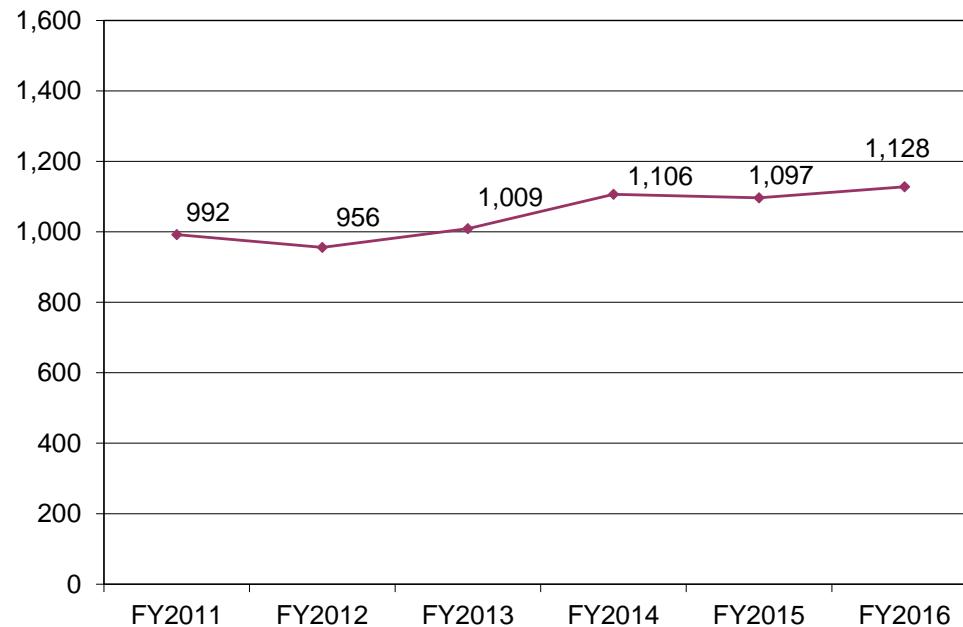
**Operating Cost**



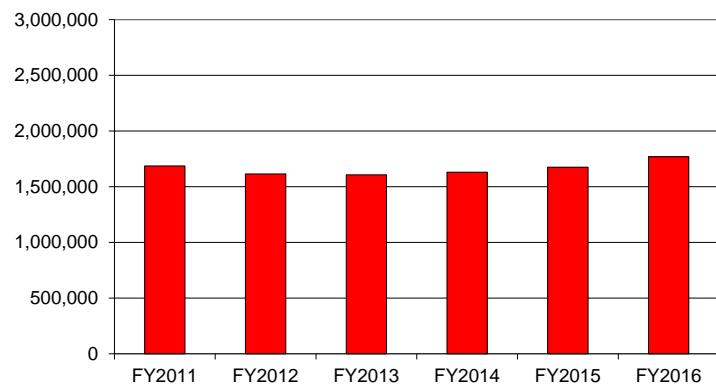
**Unlinked Passengers**



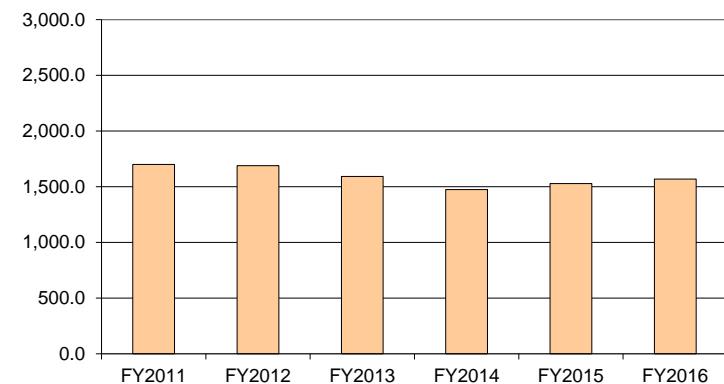
### **Exhibit 4.4: Vehicle Service Hours per FTE – Bus Service**



**Vehicle Service Hours**



**Full-time Equivalents**



## Bus Service Component Costs

Year-to-year changes in selected operating cost categories over the past six years are presented in Exhibit 4.5. 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 4.5 also shows the concurrent changes in vehicle service hours, and Exhibit 4.6 illustrates the portion of the cost per bus service hour that can be attributed to each included cost component.

- There was a large increase in annual fringe benefits costs in the last three years, and especially in the last year (FY2016). The increasing trend is significantly higher than the corresponding trend in labor costs. Staff reported that significant factors influencing the FY2015 fringe benefits costs included medical/dental insurance increases of \$2.7 million, OPEB (Other Postemployment Benefits) related expense increases of \$1.3 million, workers compensation increases due to actuarial results of \$1.7 million, and increases in paid leaves of \$1.5 million. Significant factors in FY2016 included medical insurance increases of \$2.8 million, pension expense increases of \$20.6 million --half due to a GASB (Governmental Accounting Standards Board) Statement-68 related non-cash expense, and about \$10 million based on actuarial results.
- Over the six years, labor costs increased annually on average by 2.2 percent, but fringe benefits costs increased annually by 6.5 percent.
- Services costs went up by nearly five percent per year on average.
- Casualty and liability costs increased by nearly 40 percent on average per year, with significant increases in every year except FY2014. The increases in the last two years were primarily a reflection of increases in insurance premiums due to unfavorable settlements, and increases in property liability/property damage insurance due to actuarial results.
- Overall decreases were posted in the fuel/lubricants and materials/supplies cost areas.

- Fringe benefits costs represented the largest portion of the total cost per vehicle service hour in all years, at 40 percent or more. This was followed closely by labor costs, which decreased overall from 38 percent in FY2011 to 34 percent by FY2016.
- Other cost categories generally contributed shares of six percent or less in all years.

\* \* \* \*

The following is a brief summary of the bus service component operating costs trend highlights between FY2011 and FY2016:

- Labor costs went up by two percent per year, but their share of total costs was reduced from 38 to 34 percent.
- Fringe benefit costs went up by more than six percent per year, significantly higher than labor costs, and remained the largest cost component at 40 percent of total costs or more. A number of significant factors impacted the fringe benefits costs in FY2015 and FY2016, such as medical insurance and pension related increases, and actuarial-driven increases.
- There were moderate changes overall in most other component costs. However, casualty/liability costs increased by nearly 40 percent per year, primarily a reflection of increases in insurance premiums due to unfavorable settlements and actuarial results in the last two years.

## Exhibit 4.5: Component Cost Trends – Bus Service

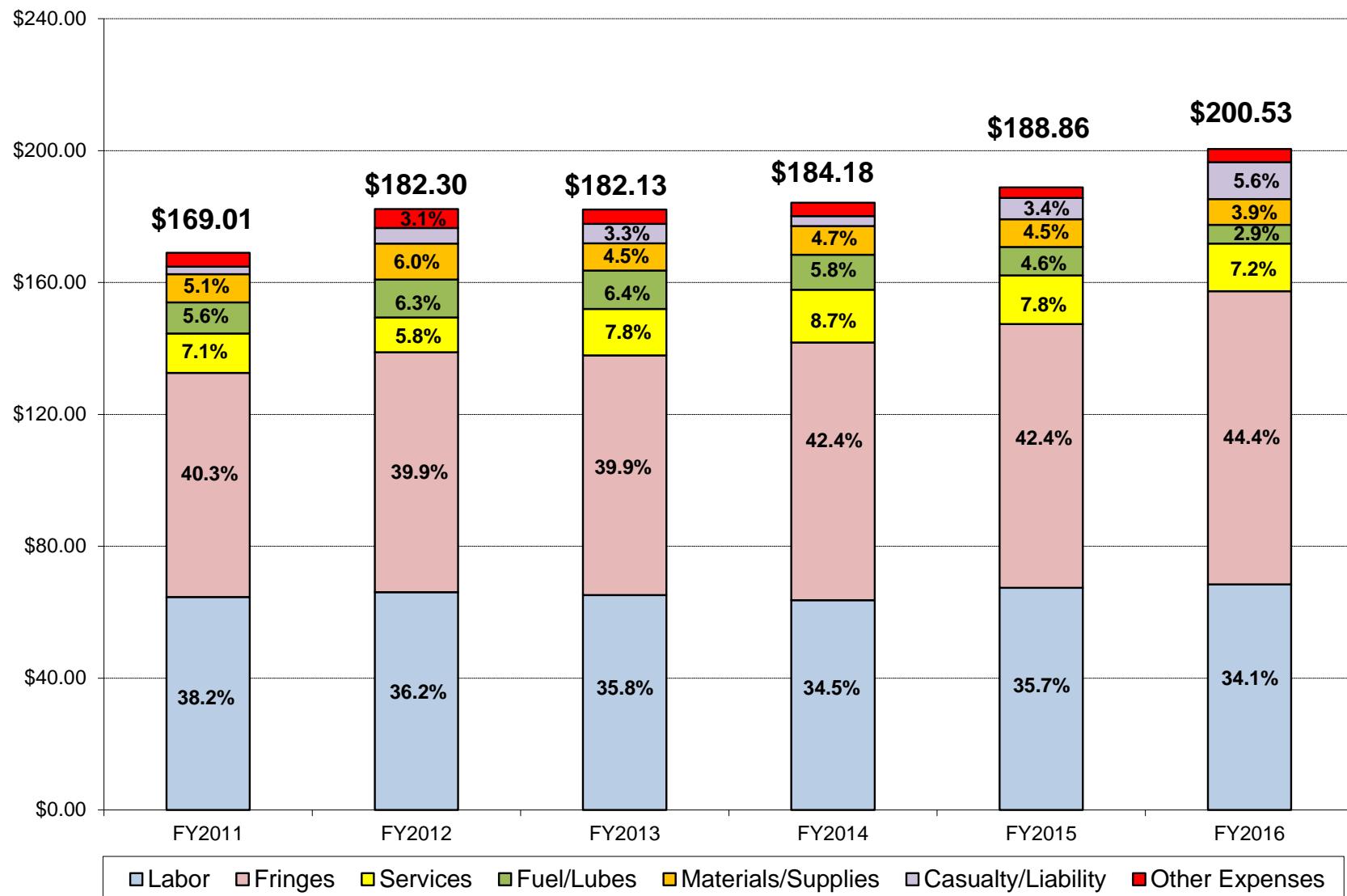
	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Av. Ann. Chg.
COST CATEGORIES							
Labor - (Salaries, Wages)	\$108,825,605	\$106,628,819	\$104,724,665	\$103,734,886	\$112,970,362	\$121,046,733	--
Annual Change	--	-2.0%	-1.8%	-0.9%	8.9%	7.1%	2.2%
Fringe Benefits	\$114,674,010	\$117,520,485	\$116,709,522	\$127,467,012	\$134,061,283	\$157,301,966	--
Annual Change	--	2.5%	-0.7%	9.2%	5.2%	17.3%	6.5%
Services	\$20,120,053	\$16,949,362	\$22,682,611	\$26,015,509	\$24,654,137	\$25,481,997	--
Annual Change	--	-15.8%	33.8%	14.7%	-5.2%	3.4%	4.8%
Fuel/Lubricants	\$15,877,970	\$18,592,006	\$18,613,380	\$17,358,118	\$14,471,724	\$10,117,146	--
Annual Change	--	17.1%	0.1%	-6.7%	-16.6%	-30.1%	-8.6%
Materials/Supplies	\$14,491,213	\$17,600,090	\$13,277,128	\$14,223,557	\$14,103,967	\$13,837,227	--
Annual Change	--	21.5%	-24.6%	7.1%	-0.8%	-1.9%	-0.9%
Casualty/Liability	\$3,858,046	\$7,707,010	\$9,569,799	\$4,849,144	\$10,874,000	\$19,715,570	--
Annual Change	--	99.8%	24.2%	-49.3%	124.2%	81.3%	38.6%
Other Expenses (a)	\$7,050,230	\$9,247,851	\$6,915,948	\$6,631,200	\$5,303,494	\$7,155,515	--
Annual Change	--	31.2%	-25.2%	-4.1%	-20.0%	34.9%	0.3%
<b>Total</b>	<b>\$284,897,127</b>	<b>\$294,245,623</b>	<b>\$292,493,053</b>	<b>\$300,279,426</b>	<b>\$316,438,967</b>	<b>\$354,656,154</b>	--
Annual Change	--	3.3%	-0.6%	2.7%	5.4%	12.1%	4.5%
OPERATING STATISTICS							
Vehicle Service Hours	1,685,688	1,614,080	1,605,972	1,630,320	1,675,481	1,768,582	--
Annual Change	--	-4.2%	-0.5%	1.5%	2.8%	5.6%	1.0%

Sources: FY2011 through FY2013 - Prior Performance Audit Report; FY2014 through FY2016 - NTD Reports, except FY2016 Services costs exclude staff-identified construction project pass through items

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

## Exhibit 4.6: Distribution of Component Costs – Bus Service

*Operating Cost per Vehicle Service Hour*



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## **IV. COMPLIANCE WITH PUC REQUIREMENTS**

An assessment of AC Transit'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 AC Transit's TDA-STA claim application.

The results from this review are detailed by individual requirement in Exhibit 5. AC Transit 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 5: Compliance with State PUC Requirements

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
PUC99251	<u>CHP Certification</u> - 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	<p>Satisfactory Facility Inspections:</p> <ul style="list-style-type: none"> <li>• E. Oakland: 06/14, 06/15, 07/16</li> <li>• Emeryville: 07/14, 01/16</li> <li>• Hayward: 09/14, 10/15, 10/16</li> </ul>
PUC99264	<u>Operator-to-Vehicle Staffing</u> - 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 ATU (AFL CIO) Local 192, effective 07/01/13.
PUC99314.5 (e)(1)(2)	<u>Part Time Drivers and Contracting</u> - Operators receiving STA funds are not precluded by contract from employing part-time drivers or from contracting with common carriers	In Compliance	<ul style="list-style-type: none"> <li>• <u>Part Time Drivers</u> - Section 67.0 (Peak Hour Bus Driver) of Agreement with ATU (AFL CIO) Local 192, effective 07/01/13.</li> <li>• <u>Contracting</u> - AC Transit contracts with MV Transportation to operate the Dumbarton Express bus services, in conjunction with the Dumbarton Bus Regional Operations Consortium. Also, AC Transit's paratransit service is provided by a Broker under contract with the EBPC. The Broker in turn contracts with three private companies for operations and maintenance of the system.</li> </ul>

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
PUC99155	<p><u>Reduced Fare Eligibility</u> - 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</p>	In Compliance	<p><i>Bus Fares &amp; Eligibility</i> and other sections under "Rider Info" on AC Transit's web site.</p>
PUC99155.1 (a)(1)(2)	<p><u>Welfare to Work Coordination</u> - Operators must coordinate 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</p>	In Compliance	<p>AC Transit participates in MTC's Coordinated Human Services Transportation Plan, as East Bay Paratransit.</p> <p>MTC also programs some 5307 formula funds for low-income area supporting services, which AC Transit uses for bus service.</p>

Code Reference	Operator Compliance Requirements	Compliance Finding	Verification Information
PUC99314.7, Govt Code 66516, MTC Res. Nos. 3837, 4073	<u>Joint Revenue Sharing Agreement</u> - 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	<ul style="list-style-type: none"> <li>• Clipper MOU (with Golden Gate Transit, BART, SFMTA, SamTrans, VTA, Caltrain and WETA)</li> <li>• 2005 Dumbarton Bridge Express Service Cooperative Agreement (and 2006 Dumbarton Express Update)</li> <li>• Other valid transfer/revenue sharing agreements with connecting operators: BART, CCCTA, GGBHTD, SamTrans, SFMTA, Union City, Vallejo (assumed by SolTrans), VTA, and WestCAT.</li> </ul>
PUC99246(d)	<u>Process for Evaluation of Passenger Needs</u> - The operator has an established process in place for evaluating the needs and types of passengers being served	In Compliance	<ul style="list-style-type: none"> <li>• Discussions in latest Short Range Transit Plan (FY2014/15 – FY2023/24) of Board Policy 550 (Service Development and Planning); and public outreach/workshops/ surveys related to the Inner East Bay Service Expansion Plan (SEP).</li> <li>• AC Transit Title VI Program, September 2014</li> </ul>

## V. STATUS OF PRIOR AUDIT RECOMMENDATIONS

AC Transit's prior performance audit was completed in May 2014. 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 AC Transit's responses to the recommendations made in the prior performance audit, and whether AC Transit made reasonable progress toward their implementation. However, there were no recommendations made in AC Transit's prior audit.

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## VI. FUNCTIONAL PERFORMANCE INDICATOR TRENDS

To further assess AC Transit'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 AC Transit or for which input data were maintained by AC Transit 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 systemwide and modal (bus service) performance, each followed by an exhibit illustrating the indicators by function as applicable.

### Systemwide

For the purposes of this review, AC Transit's functional indicators relating to Management, Administration and Marketing have been included generally on a systemwide basis. Audit period performance is discussed below and presented in Exhibit 6.

- Administrative costs remained at about 25 percent of total operating costs, trending somewhat upward overall.
- Administrative costs ranged between \$38 and \$46 per vehicle service hour, also trending upward overall.
- The portion of administrative costs attributed to marketing activities decreased overall, but remained near three percent.
- In terms of passenger trips, marketing expenditures increased from \$0.04 to \$0.05 per trip.
- The systemwide farebox recovery ratio declined from about 20 percent in the first two years to 19 percent in FY2016. However, fare increases programmed for July 2017 and July 2018 may positively impact the recovery ratio trend beyond the audit period.
- The systemwide TDA recovery ratio increased over the audit period from 75 percent to 79 percent. For this calculation, farebox revenue is augmented with local support and operating costs reflect various allowable exclusions.

\* \* \* \*

The following is a brief summary of the systemwide functional trend highlights between FY2014 and FY2016:

- Administrative costs remained at about one fourth of total operating costs, while increasing overall to \$46 per vehicle service hour.
- Marketing costs decreased overall compared to total administrative costs but increased compared to passenger trips.
- The systemwide farebox recovery ratio decreased from 20 to 19 percent, while the TDA recovery ratio (reflecting local support and operating cost exclusions) rose from 75 to 79 percent.

## Exhibit 6: Functional Performance Trends - Systemwide

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
<b>MANAGEMENT, ADMINISTRATION &amp; MARKETING</b>			
Administrative Cost/Total Operating Cost	24.4%	22.6%	26.3%
<i>Annual Percent Change</i>	--	-7.3%	16.2%
<i>Three Year Percent Change</i>	--	--	7.8%
Administrative Cost/Vehicle Service Hour	\$39.48	\$37.52	\$45.84
<i>Annual Percent Change</i>	--	-5.0%	22.2%
<i>Three Year Percent Change</i>	--	--	16.1%
Marketing Cost/Total Administrative Cost	3.0%	3.7%	2.7%
<i>Annual Percent Change</i>	--	25.0%	-26.6%
<i>Three Year Percent Change</i>	--	--	-8.2%
Marketing Cost/Unlinked Passenger Trip	\$0.04	\$0.05	\$0.05
<i>Annual Percent Change</i>	--	23.6%	-3.1%
<i>Three Year Percent Change</i>	--	--	19.7%
Farebox Recovery Ratio (Farebox Rev./Oper. Cost)	20.1%	19.8%	19.0%
<i>Annual Percent Change</i>	--	-1.7%	-4.1%
<i>Three Year Percent Change</i>	--	--	-5.7%
TDA Recovery Ratio (a)	75.1%	78.0%	79.4%
<i>Annual Percent Change</i>	--	3.8%	1.8%
<i>Three Year Percent Change</i>	--	--	5.7%

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

## Bus Service

AC Transit'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 7.

- Service Planning

- Scheduled operator pay hours to platform hours remained at about 119 percent.
- Operating costs per passenger mile increased from \$1.43 in the first year to \$1.65 in FY2016 (nearly ten percent).
- The bus service farebox recovery ratio declined from 21.4 percent in FY2014 to 20.0 percent in FY2016. However, as noted previously, fare increases programmed for July 2017 and July 2018 may positively impact the farebox recovery results beyond the audit period.
- About 84 percent of all vehicle miles traveled were in service, as were about 92 percent of all vehicle hours in all three years.

- Operations

- Vehicle operations costs comprised more than 55 percent of total operating costs in the first two years, but decreased to 53 percent in FY2016.
- Vehicle operations costs per service hour increased in each year, from \$101.88 in FY2014 to \$106.38 by FY2016.
- Operator scheduled absences remained at about nine percent of total hours worked, while unscheduled absences ranged between 15 and 16 percent.

- Actual operator pay hours to platform hours remained at about 122 percent.
  - Schedule adherence improved from 67 percent in FY2014 to nearly 70 percent in the last year.
  - The rate of complaints increased overall to 17.7 per 100,000 passenger trips, with the fewest complaints received in the middle year.
  - The incidence of missed trips was 0.2 percent in both FY2014 and FY2016, but just 0.1 percent in FY2015.
- Maintenance
  - Total maintenance costs comprised about 20 percent of total operating costs throughout the period.
  - Vehicle maintenance costs per service mile increased overall from \$2.83 to \$2.98 (5.5 percent).
  - Mechanic pay hours decreased overall from 43 percent of vehicle service hours to 41 percent.
  - Maintenance employee scheduled absences remained above nine percent of total hours worked, while unscheduled absences decreased from 14 to 12 percent.
  - The vehicle spare ratio was just over 20 percent in all three years.
  - The mean distance between major failures improved overall by 12.5 percent. When looking at all failures, there was an overall improvement of 5.3 percent through the period.
- Safety
  - The rate of preventable accidents remained at about 1.8 per 100,000 vehicle miles in all three years.
  - Casualty/liability costs per service hour and mile both increased steadily and significantly, by nearly 300 percent overall. As noted previously,

substantial increases in casualty and liability costs in the last two years were primarily a reflection of increases in insurance premiums due to unfavorable settlements, and increases in property liability/property damage insurance due to actuarial results.

- Lost days due to industrial accidents increased overall by 12.5 percent. However, there was noticeable improvement in FY2016 compared to FY2015.

\* \* \* \*

The following is a brief summary of the bus service functional trend highlights between FY2014 and FY2016:

- Service Planning results showed steady scheduled operator pay to platform hours, operating cost per passenger mile increasing by nearly ten percent, farebox recovery decreasing from 21 to 20 percent, and consistently 84 percent vehicle miles and 92 percent vehicle hours in service.
- Operations results showed vehicle operations costs per service hour increasing steadily but reduced in FY2016 compared to total costs, steady operator absence and actual pay to platform hour trends, some improvement in schedule adherence to 70 percent, some overall increase in complaints received, and very few missed trips.
- Maintenance results showed maintenance costs steady at 20 percent of total costs but vehicle maintenance costs per service mile up by 5.5 percent, mechanic pay hours down slightly compared to service hours, steady maintenance employee scheduled absence rates but a reduction in unscheduled absences, consistent 20 percent vehicle spare ratio, and improvement in the mechanical failure rates.
- Safety results showed a steady rate of preventable accidents, but sharp increases in the casualty/liability cost rates resulting from increases in insurance premiums due to unfavorable settlements and actuarial results. There was also an overall 12.5 percent increase in lost days due to industrial accidents, but a noticeable improvement in FY2016 compared to FY2015.

## Exhibit 7: Functional Performance Trends – Bus Service

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
<b>SERVICE PLANNING</b>			
Operator Pay Hours/Platform Hours - Scheduled	119.1%	119.2%	118.9%
<i>Annual Percent Change</i>	--	0.1%	-0.3%
<i>Three Year Percent Change</i>	--	--	-0.2%
Total Operating Cost/Passenger Mile	\$1.43	\$1.50	\$1.65
<i>Annual Percent Change</i>	--	4.9%	9.9%
<i>Three Year Percent Change</i>	--	--	15.3%
Farebox Recovery Ratio (Farebox Rev./Oper. Cost)	21.4%	21.1%	20.0%
<i>Annual Percent Change</i>	--	-1.8%	-5.2%
<i>Three Year Percent Change</i>	--	--	-6.9%
Vehicle Service Miles/Total Miles	83.6%	83.4%	84.9%
<i>Annual Percent Change</i>	--	-0.3%	1.8%
<i>Three Year Percent Change</i>	--	--	1.5%
Vehicle Service Hours/Total Hours	91.2%	91.0%	92.2%
<i>Annual Percent Change</i>	--	-0.3%	1.4%
<i>Three Year Percent Change</i>	--	--	1.1%
<b>OPERATIONS</b>			
Vehicle Operations Cost/Total Operating Cost	55.3%	55.9%	53.0%
<i>Annual Percent Change</i>	--	1.1%	-5.2%
<i>Three Year Percent Change</i>	--	--	-4.1%
Vehicle Operations Cost/Vehicle Service Hour	\$101.88	\$105.65	\$106.38
<i>Annual Percent Change</i>	--	3.7%	0.7%
<i>Three Year Percent Change</i>	--	--	4.4%
Operator Sched. Absences/Total Hours Worked	9.2%	9.3%	9.0%
<i>Annual Percent Change</i>	--	1.0%	-3.6%
<i>Three Year Percent Change</i>	--	--	-2.6%
Operator Unsched. Absences/Total Hours Worked	16.0%	15.0%	16.0%
<i>Annual Percent Change</i>	--	-6.2%	7.1%
<i>Three Year Percent Change</i>	--	--	0.4%
Operator Pay Hours to Platform Hours - Actual	121.5%	121.5%	122.1%
<i>Annual Percent Change</i>	--	0.0%	0.5%
<i>Three Year Percent Change</i>	--	--	0.5%
Trips On-Time/Total Trips	67.2%	68.2%	69.8%
<i>Annual Percent Change</i>	--	1.6%	2.3%
<i>Three Year Percent Change</i>	--	--	3.9%
Complaints/100,000 Unlinked Passenger Trips	16.7	15.7	17.7
<i>Annual Percent Change</i>	--	-6.0%	12.4%
<i>Three Year Percent Change</i>	--	--	5.6%
Missed Trips/Total Trips	0.2%	0.1%	0.2%
<i>Annual Percent Change</i>	--	-19.9%	53.5%
<i>Three Year Percent Change</i>	--	--	23.0%

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
<b>MAINTENANCE</b>			
Vehicle + Non-Veh. Maint. Cost/Total Operating Cost	20.1%	21.5%	19.9%
<i>Annual Percent Change</i>	--	6.7%	-7.3%
<i>Three Year Percent Change</i>	--	--	-1.0%
Vehicle Maintenance Cost/Vehicle Service Mile	\$2.83	\$3.09	\$2.98
<i>Annual Percent Change</i>	--	9.5%	-3.6%
<i>Three Year Percent Change</i>	--	--	5.5%
Mechanic Pay Hours/Vehicle Service Hours	43.2%	44.0%	41.2%
<i>Annual Percent Change</i>	--	1.8%	-6.2%
<i>Three Year Percent Change</i>	--	--	-4.5%
Maint. Employee Sched. Absences/Hours Worked	9.8%	9.8%	9.4%
<i>Annual Percent Change</i>	--	-0.6%	-4.2%
<i>Three Year Percent Change</i>	--	--	-4.7%
Maint. Employee Unsched. Absences/Hours Worked	14.1%	13.0%	12.0%
<i>Annual Percent Change</i>	--	-7.8%	-7.7%
<i>Three Year Percent Change</i>	--	--	-14.9%
Spare Vehicles/Total Vehicles	20.6%	20.3%	20.3%
<i>Annual Percent Change</i>	--	-1.4%	0.0%
<i>Three Year Percent Change</i>	--	--	-1.4%
Mean Distance between Major Failures (Miles)	8,425	9,389	9,477
<i>Annual Percent Change</i>	--	11.4%	0.9%
<i>Three Year Percent Change</i>	--	--	12.5%
Mean Distance between All Failures (Miles)	5,367	5,898	5,652
<i>Annual Percent Change</i>	--	9.9%	-4.2%
<i>Three Year Percent Change</i>	--	--	5.3%
<b>SAFETY</b>			
Preventable Accidents/100,000 Vehicle Miles	1.79	1.78	1.75
<i>Annual Percent Change</i>	--	-1.1%	-1.6%
<i>Three Year Percent Change</i>	--	--	-2.6%
Casualty & Liability Cost/Vehicle Service Hour	\$2.97	\$6.49	\$11.15
<i>Annual Percent Change</i>	--	118.2%	71.8%
<i>Three Year Percent Change</i>	--	--	274.8%
Casualty & Liability Cost/Vehicle Service Mile	\$0.27	\$0.59	\$1.02
<i>Annual Percent Change</i>	--	121.4%	72.6%
<i>Three Year Percent Change</i>	--	--	282.2%
Lost Days Due to Industrial Accidents	6,614	7,899	7,432
<i>Annual Percent Change</i>	--	19.4%	-5.9%
<i>Three Year Percent Change</i>	--	--	12.4%

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## VII. CONCLUSIONS AND RECOMMENDATIONS

The preceding sections presented a review of AC Transit's transit service performance during the three-year period of FY2014 through FY2016 (July 1, 2013 through June 30, 2016). 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 AC Transit'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 – AC Transit is in compliance with the data collection and reporting requirements for all five 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.

It was noted that the FY2016 operating costs as reported to the NTD rose by 22 percent compared with the previous year while vehicle service hours and miles rose by only about five percent. Part of this increase was due to AC Transit ramping up for its Service Expansion Plan (AC Go), which included the hiring of additional operators and mechanics in the months prior to implementing the first phase of the expansion plan in June 2016.

In addition, AC Transit staff have indicated that a significant portion of these new costs (about \$32 million) are construction-related costs for the new Transbay Terminal that are passed through AC Transit (\$24.4 million),

as well as the Line 51 improvement project (\$7.6 million). For comparison purposes and evaluation of operating expenses, these were determined not to be District operating expenses, per se. They also are not considered as capital assets because no equity is retained in the assets purchased in pass through projects. Such projects are essentially a net zero on the District books as expenses are matched with revenues during the period, outside of any timing differences. Given these circumstances, the identified pass through expenses are deducted from the FY2016 operating expenses.

- TDA Performance Trends

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

The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2011 through FY2016:

- There was an average annual increase in the operating cost per hour of 3.5 percent, or 0.9 percent in inflation adjusted dollars. A six percent annual increase occurred in FY2016, largely attributed to costs associated with ramping up for AC Transit's Service Expansion Plan (AC Go).
- The cost per passenger increased on average by 5.9 percent per year, which amounted to an average annual increase of 3.3 percent in constant FY2011 dollars. Again, this was driven by a major increase in reported operating costs in FY2016, reflecting costs associated with ramping up for AC Go.
- Passenger productivity showed somewhat negative trends, with passengers per vehicle service hour decreasing by 2.3 percent per year overall, and passengers per vehicle service mile decreasing by 1.5 percent annually.
- Employee productivity increased an average 2.6 percent per year.

The following is a brief summary of the component operating costs trend highlights for the bus service between FY2011 and FY2016:

- Labor costs went up by two percent per year, but their share of total costs was reduced from 38 to 34 percent.
  - Fringe benefit costs went up by more than six percent per year, significantly higher than labor costs, and remained the largest cost component at 40 percent of total costs or more. A number of significant factors impacted the fringe benefits costs in FY2015 and FY2016, such as medical insurance and pension related increases, and actuarial-driven increases.
  - There were moderate changes overall in most other component costs. However, casualty/liability costs increased by nearly 40 percent per year, primarily a reflection of increases in insurance premiums due to unfavorable settlements and actuarial results in the last two years.
- PUC Compliance – AC Transit 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 – There were no recommendations made in AC Transit's prior performance audit.
- Functional Performance Indicator Trends

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

Systemwide – The following is a brief summary of the systemwide functional trend highlights between FY2014 and FY2016:

- Administrative costs remained at about one fourth of total operating costs, while increasing overall to \$46 per vehicle service hour.
- Marketing costs decreased overall compared to total administrative costs but increased compared to passenger trips.
- The systemwide farebox recovery ratio decreased from 20 to 19 percent, while the TDA recovery ratio (reflecting local support and operating cost exclusions) rose from 75 to 79 percent.

Bus Service – The following is a brief summary of the bus service functional trend highlights between FY2014 and FY2016:

- Service Planning results showed steady scheduled operator pay to platform hours, operating cost per passenger mile increasing by nearly ten percent, farebox recovery decreasing from 21 to 20 percent, and consistently 84 percent vehicle miles and 92 percent vehicle hours in service.
- Operations results showed vehicle operations costs per service hour increasing steadily but reduced in FY2016 compared to total costs, steady operator absence and actual pay to platform hour trends, some improvement in schedule adherence to 70 percent, some overall increase in complaints received, and very few missed trips.
- Maintenance results showed maintenance costs steady at 20 percent of total costs but vehicle maintenance costs per service mile up by 5.5 percent, mechanic pay hours down slightly compared to service hours, steady maintenance employee scheduled absence rates but a reduction in unscheduled absences, consistent 20 percent vehicle spare ratio, and improvement in the mechanical failure rates.
- Safety results showed a steady rate of preventable accidents, but sharp increases in the casualty/liability cost rates resulting from increases in insurance premiums due to unfavorable settlements and actuarial results. There was also an overall 12.5 percent increase in lost days due to industrial accidents, but a noticeable improvement in FY2016 compared to FY2015.

## **Recommendations**

No recommendations are suggested for AC Transit based on the results of this triennial performance audit.

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**APPENDIX A:**  
**AC TRANSIT - INPUT STATISTICS FOR**  
**FUNCTIONAL PERFORMANCE MEASURES**

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## Functional Performance Inputs – AC Transit Systemwide

Data Item	FY2014	FY2015	FY2016	Source
Total Operating Costs	\$329,389,386	\$346,543,772	\$383,217,216	NTD F-40 (69% of DR) (a)
TDA Cost Exclusions - Depreciation/Amortization	\$39,493,720	\$40,587,177	\$38,479,441	AC Transit Staff
TDA Cost Exclusions - Interest Payments on COPS	\$1,239,902	\$993,134	\$979,584	AC Transit Staff
Administrative Costs	\$80,321,774	\$78,374,214	\$100,729,549	NTD F-40 (69% of DR) (a)
Vehicle Service Hours	2,034,675	2,089,015	2,197,367	NTD S-10 (all modes)
Marketing Costs	\$2,396,574	\$2,924,085	\$2,760,033	AC Transit Staff
Unlinked Passenger Trips	56,446,229	55,714,783	54,294,046	NTD S-10 (all modes)
Farebox Revenue (All Modes)	\$66,253,578	\$68,548,281	\$72,721,440	NTD F-10 (69% of DR)
Local Support - Auxiliary Transp. Revenue	\$1,821,805	\$1,968,587	\$1,776,267	AC Transit Staff
Local Support - Taxes Directly Levied	\$134,074,377	\$149,031,620	\$179,808,581	AC Transit Staff
Local Support - Local Cash Grants/Reimbursements	\$14,741,334	\$15,163,355	\$15,339,359	AC Transit Staff
Local Support - Local Special Fare Assistance	\$0	\$3,240,000	\$3,402,000	AC Transit Staff (b)

(a) Staff-identified construction project pass-throughs removed from FY2016 costs shown

(b) Reflects BART transfer payments (directly from BART starting in FY2015)

## Functional Performance Inputs – AC Transit Bus Service

Data Item	FY2014	FY2015	FY2016	Source
Operator Pay Hours - Scheduled	2,077,896	2,189,581	2,260,556	AC Transit Staff/Hastus
Operator Pay Hours - Actual	2,172,032	2,238,855	2,342,118	AC Transit Staff/OTS 307
Vehicle Service Miles	18,176,112	18,409,516	19,333,451	NTD S-10 MB
Total Vehicle Miles	21,735,432	22,082,930	22,782,056	NTD S-10 MB
Platform Hours - Scheduled	1,744,725	1,836,605	1,901,635	AC Transit Staff/Hastus
Platform Hours - Actual	1,787,276	1,842,089	1,917,613	AC Transit Staff/OTS 307
Vehicle Service Hours	1,630,320	1,675,481	1,768,582	NTD S-10 MB
Total Vehicle Hours	1,787,413	1,842,089	1,917,560	NTD S-10 MB
Unlinked Passenger Trips	55,739,738	54,987,132	53,562,747	NTD S-10 MB
Farebox Revenue	\$64,403,226	\$66,634,791	\$70,792,523	NTD F-10
Total Operating Costs	\$300,279,426	\$316,438,967	\$354,656,154	NTD F-30 MB (a)
Passenger Miles	210,078,402	210,955,678	215,212,614	NTD S-10 MB
Vehicle Operations Costs	\$166,099,933	\$177,011,372	\$188,135,984	NTD F-30 MB
Total Operator Time (Hours)	2,442,119	2,510,827	2,596,821	AC Transit Staff
Operator Scheduled Absences (Hours)	224,603	233,328	232,549	AC Transit Staff/KPI
Operator Unscheduled Absences (Hours)	389,880	375,809	416,130	AC Transit Staff/KPI
Trips On-Time	5,561,301	5,661,653	6,299,200	AC Transit Staff
Total Trips	8,280,259	8,299,933	9,029,370	AC Transit Staff
Complaints	9,330	8,654	9,472	AC Transit Staff/KPI
Missed Trips	14,169	11,383	19,003	AC Transit Staff
Mechanic Pay Hours	703,775	736,446	728,955	AC Transit Staff
Maintenance Employee Time Worked (Hours)	671,301	684,173	685,223	AC Transit Staff/KPI
Maint. Employee Sched. Absences (Hours)	66,000	66,847	64,169	AC Transit Staff/KPI
Maint. Employee Unsched. Absences (Hours)	94,428	88,736	82,026	AC Transit Staff/KPI
Vehicle Maintenance Costs	\$51,362,767	\$56,940,385	\$57,629,998	NTD F-30 MB
Non-Vehicle Maintenance Costs	\$9,139,574	\$11,119,334	\$13,086,562	NTD F-30 MB
Spare Vehicles (Total less Maximum Service)	119	119	119	NTD S-10 MB
Total Vehicles	577	585	585	NTD S-10 MB
Revenue Vehicle Mechanical System Failures - Total	4,050	3,744	4,031	NTD R-20
Revenue Vehicle Mechanical System Failures - Major	2,580	2,352	2,404	NTD R-20
Preventable Accidents	390	392	398	AC Transit Staff/KPI
Casualty/Liability Costs	\$4,849,144	\$10,874,000	\$19,715,570	NTD F-30 MB
Lost Days - Industrial Accidents	6614	7899	7432	AC Transit Staff/OTS

(a) Staff-identified construction project pass-throughs removed from FY2016 costs shown

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## **APPENDIX B**

# **TRIENNIAL PERFORMANCE AUDIT OF THE EAST BAY PARATRANSIT CONSORTIUM (EBPC)**

## **FINAL AUDIT REPORT**

**MAY 2017**

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NOTE:

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

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## **EXECUTIVE SUMMARY**

This executive summary highlights the findings from the performance audit of the East Bay Paratransit Consortium (EBPC), which was formed by AC Transit and BART to meet the requirements for providing ADA-mandated complementary paratransit in their overlapping service areas. 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.

Since EPBC is a shared responsibility of both BART and AC Transit, EBPC's performance audit is being included in the performance audits of both operators, as an appendix. The audit covers the period of Fiscal Years 2014 through 2016 (from July 1, 2013 through June 30, 2016).

### **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;
- An evaluation of EBPC'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 EBPC's performance based on the results of the previous sections.

Comments received from AC Transit, BART 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 EBPC is in compliance with the TDA requirements for data collection and reporting. The review is limited to the five data items needed to calculate the TDA-mandated performance indicators. This review has determined that EBPC is in compliance with the data collection and reporting requirements for all five 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.

Performance Indicators and Trends – EBPC's performance trends for four of the five TDA-mandated indicators were analyzed. The fifth indicator, vehicle service hours per employee, was not analyzed since FTEs were not reported for this service, which is provided by multiple contractors. A six-year analysis period was used for all the indicators. In addition, component operating costs were analyzed.

- The following is a brief summary of EBPC's TDA performance trend highlights over the six-year period of FY2011 through FY2016:
  - There was an average annual increase in the operating cost per hour of 1.5 percent, which amounted to an annual decrease of one percent

in inflation adjusted dollars. After a generally increasing trend through FY2015, a notable reduction was achieved in the last year.

- The cost per passenger increased on average by 2.9 percent per year, or 0.4 percent in constant FY2011 dollars.
  - Passenger productivity showed somewhat negative trends, with passengers per vehicle service hour decreasing by 1.4 percent per year overall, and passengers per vehicle service mile decreasing by 1.2 percent.
- The following is a brief summary of the component operating costs trend highlights for the bus service between FY2011 and FY2016:
  - Total annual costs increased by 2.3 percent on average, but there was significant variation reported within certain component cost areas. This was principally traced to NTD reporting protocol, wherein all component costs except “Purchased Transportation” represent costs allocated from AC Transit operations to EBPC. The NTD has periodically adjusted the reporting requirements related to these allocations.
  - FY2016 especially saw major increases in some component costs, with substantial reductions in other areas. Driven by the FY2016 results, labor and fringe benefits costs both increased on average by 25 percent annually through the period.
  - No casualty/liability costs or “other expenses” were reported in the first year, and only very minor amounts in FY2016. In the interim, much more significant amounts were reported, with casualty/liability costs contributing four to five percent shares of total costs in those years. Otherwise, all cost categories except purchased transportation contributed just minimally.
  - Purchased transportation costs increased on average by 2.1 percent annually, and retained well over a 90 percent share of the total cost per vehicle hour in all six years.

Status of Prior Audit Recommendations – There were no recommendations made in EBPC’s prior performance audit.

Functional Performance Indicator Trends - To further assess EBPC’s performance over the past three years, a detailed set of functional area performance indicators was defined and reviewed. The following is a brief summary of the functional trend highlights between FY2014 and FY2016:

- Service Planning results showed operating cost per passenger mile decreasing slightly, with the farebox recovery ratio increasing slightly to 7.4 percent in FY2016, and consistently 82 percent or more vehicle miles and hours in service.
- Operations results showed vehicle operations costs steady at \$64 per hour but increasing from 68 to 73.5 percent of total costs. Schedule adherence decreased but remained above 90 percent, while there was an overall decrease in the rate of complaints. The missed trip rate increased but remained very low. There were trip denials in each year – up to 0.05 percent of scheduled trips in FY2016. Most were “scheduled” denials, where the rider accepted an alternate trip time, and EBPC reports recent scheduling software changes resulting in a decrease in denials in FY2017. Trip cancellations decreased slightly, but late trip cancellations and passenger no-shows both increased by more than ten percent.
- Maintenance results showed total maintenance costs increasing from 7.9 to 8.5 percent of total costs and vehicle maintenance costs increasing from \$0.44 per service mile to \$0.47 per service mile. The spare ratio decreased from a high of 35 percent in FY2014 (when many older vehicles were replaced during the year) to less than 15 percent in subsequent years. There was overall worsening in the mechanical failure rates, especially in FY2016.
- Safety results showed the preventable accident rate worsened significantly, especially in FY2016 when there was an influx of new drivers.

## **Recommendations**

### **1. CONTINUE EFFORTS TOWARD ELIMINATING TRIP DENIALS.**

*[Reference Section: VI. Functional Performance Indicator Trends]*

It was found that there were trip denials in each audit year -- increasing from 0.04 percent of total trips scheduled in the first two years to 0.05 percent in FY2016. This represented several hundred service denials per year, with the number growing larger each year. Most of the denials reported were scheduled denials, meaning the rider accepted an alternate trip which was outside the one hour window from the originally requested pick up time. However, there also were a small number of capacity denials, where the rider did not receive the requested trip and did not accept an alternate time. EBPC had a total of 59 capacity denials during the audit period, but with annual totals steadily decreasing.

EBPC reports its scheduling software has recently been under rigorous review, with systematic changes being implemented that have led to a decrease in denials in FY2017. Further, there does not appear to be any operational pattern or practice that significantly limits the availability of service to ADA paratransit eligible persons (as defined in the Code of Federal Regulations – 49 CFR 37.131). Nonetheless, EBPC should continue striving to eliminate all service denials, in order to better meet the needs of its constituency and to comply with the federal ADA goal of zero service denials.

2. INVESTIGATE ADDITIONAL STRATEGIES TO REDUCE LATE TRIP CANCELLATIONS AND PASSENGER NO-SHOWS.

*[Reference Section: VI. Functional Performance Indicator Trends]*

The rates of late trip cancellations (less than one hour before scheduled pick-up time) and passenger no-shows both increased by more than ten percent over the period, to 3.4 and 4.5 percent of total trips scheduled, respectively. Late cancellations and passenger no-shows have the potential to create capacity constraints on the ADA paratransit service. Such constraints can impede an operator's ability to successfully schedule trips, resulting in denials of service. Although EBPC has a policy which includes sanctions passengers for late cancellations and no-shows, it is unclear how this policy is being implemented considering the rise in late cancellations and no-shows during the audit period.

In order to provide service more effectively and decrease the likelihood of capacity constraints, EBPC should expand its efforts toward reducing the occurrences of late cancellations and passenger no-shows. These efforts should include providing additional outreach and education for paratransit passengers.

3. EXAMINE MAINTENANCE ACTIVITIES AND DEVELOP ADDITIONAL STRATEGIES TO ADDRESS THE RECENTLY INCREASING MECHANICAL FAILURE RATES.

*[Reference Section: VI. Functional Performance Indicator Trends]*

Audit period maintenance results for EBPC showed that the mean distance between major failures declined in each year, especially in FY2016, when it dropped below 30,000 miles traveled. The mean distance between major failures declined overall by 44 percent. When looking at all failures, there was also a

generally negative trend, with a 22 percent overall decline and less than 20,000 miles between failures in FY2016.

EBPC cites an aging fleet with replacement vehicles not acquired as quickly as desired, and degrading road conditions in the service area. In response, enhancements to the preventive maintenance function are being programmed. Further, a number of new vehicles are being delivered, and early results in FY2017 indicate some improvement in the failure rate. Additional efforts should be made by EBPC to improve its maintenance function to increase vehicle reliability and reduce the incidence of mechanical failures on its services.

4. DEVELOP A PLAN TO IMPROVE PERFORMANCE IN THE PREVENTABLE ACCIDENT RATE.

*[Reference Section: VI. Functional Performance Indicator Trends]*

It was found that the rate of preventable accidents increased in each year, and more than doubled in FY2016 compared to FY2015. There were 1.83 preventable accidents per 100,000 vehicle miles traveled in FY2016, comparing unfavorably with 0.68 in FY2015 and 0.48 in FY2014. EBPC staff attributes the FY2016 results to difficulties in driver recruitment, followed by an influx of new drivers in that year. This points to a safety issue which EBPC should address in coordination with its service providers. EBPC indicated that as part of the next five-year contract option extension, the Broker will be instructed to thoroughly review driver safety and training programs from the service providers, and review the content and percentage of classroom and behind the wheel training. This plan should include strategies to improve operator training and enhance monitoring activities to ensure that safety issues are identified and corrected.

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## I. INTRODUCTION

The East Bay Paratransit Consortium (EBPC) was formed by AC Transit and BART to meet the requirements for providing ADA-mandated complementary paratransit in their overlapping service areas. Both AC Transit and BART have been instrumental in the creation of the Consortium and its subsequent operation. Both agencies provide oversight of the consortium. Passengers are Consortium passengers; they are not identified as AC Transit or BART passengers. Similarly, both agencies share responsibility for performance results and the implementation of any recommendations that would arise.

In light of the organizational arrangement, the review is being conducted separate from the concurrent AC Transit and BART performance audits. This appendix is being included in the performance audit reports for both AC Transit and BART. The audit period is also Fiscal Years 2014 through 2016 (from July 1, 2013 through June 30, 2016).

An overview of EBPC is provided in Exhibit B-1. This is followed by an organization chart in Exhibit B-2, which reflects the basic organizational structure and typical functions during the audit period and beyond.

### **Performance Audit and Report Organization**

This performance audit of EBPC was conducted for MTC in accordance with its established procedures for performance audits. The audit included mostly similar steps as the AC Transit and BART performance audits, consisting 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; and
  - Analysis of the TDA indicators.
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 AC Transit, BART and MTC staff regarding the draft report have been incorporated into this final report.

## Exhibit B-1: System Overview

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<b>Location</b>	Headquarters: 1750 Broadway, Oakland CA 94612
<b>Establishment</b>	EBPC was formed in 1994 by AC Transit and BART through a Joint Exercise of Powers agreement (JPA). It was formed to provide paratransit service to fulfill both agencies' ADA obligations in their joint service areas.
<b>Board</b>	EBPC is governed by the Boards of Directors of BART and AC Transit, with direction from a Service Review Committee (SRC) that includes the General Managers of both agencies. The SRC receives guidance from a Service Review Advisory Committee (SRAC), comprised of riders and social service providers. Oversight of EBPC's activities is led jointly by Program Managers from both agencies. In addition, a contracted Program Coordinator's Office (PCO) was established in the JPA to serve as a neutral, central point of contact between AC Transit and BART, and to fulfill certain administrative and contract monitoring activities for the two member agencies.
<b>Service Data</b>	EBPC provides ADA paratransit service to eligible riders in Alameda County and the western part of Contra Costa County, and to and from San Francisco. EBPC operates through a brokerage system. Transdev Services, Inc. is the contracted broker, handling eligibility certifications, reservations, schedules, customer service, and contracts with service providers. Transdev contracts in turn with three private operators for the actual provision of vehicles and drivers.
	EBPC operates during the same hours as the regular AC Transit buses and BART trains. Service is limited to areas within $\frac{3}{4}$ mile of an operating bus route or BART station. Phone reservations are required. Trips can be arranged up to seven days in advance. Trips must be scheduled by 5:00 p.m. the day before traveling. Standing orders are accepted, based on availability, from riders who want to take the same trip on a regular basis. Trip cancellations must be made at least one hour before the pick-up time, or the passenger will be considered a "no-show/late cancellation".
	Fares are based on the distance traveled, and range from \$4.00 to \$10.00. These fares represent rates in effect since January 2011. San Francisco trips that go beyond BART's service area require an additional \$2.25 charge collected on behalf of SFMTA Paratransit. Ten-trip ticket books are available in denominations of \$4.00 and \$1.00. Each rider may bring one companion (more can be added on the day of service if there is room), who must pay the same fare as the rider. A required Personal Care Attendant (PCA) can accompany a certified rider at no extra charge.
<b>Recent Changes</b>	In May 2016, EBPC implemented new IVR (Interactive Voice Response) software which calls riders not traveling on a standing order, the night before the day of service to remind them about their trip. On the day of service, all riders are called when the vehicle is about ten minutes away.
	EBPC completed a Paratransit Emergency Plan in 2014. It has continued to implement recommendations from the plan by holding regular training exercises,

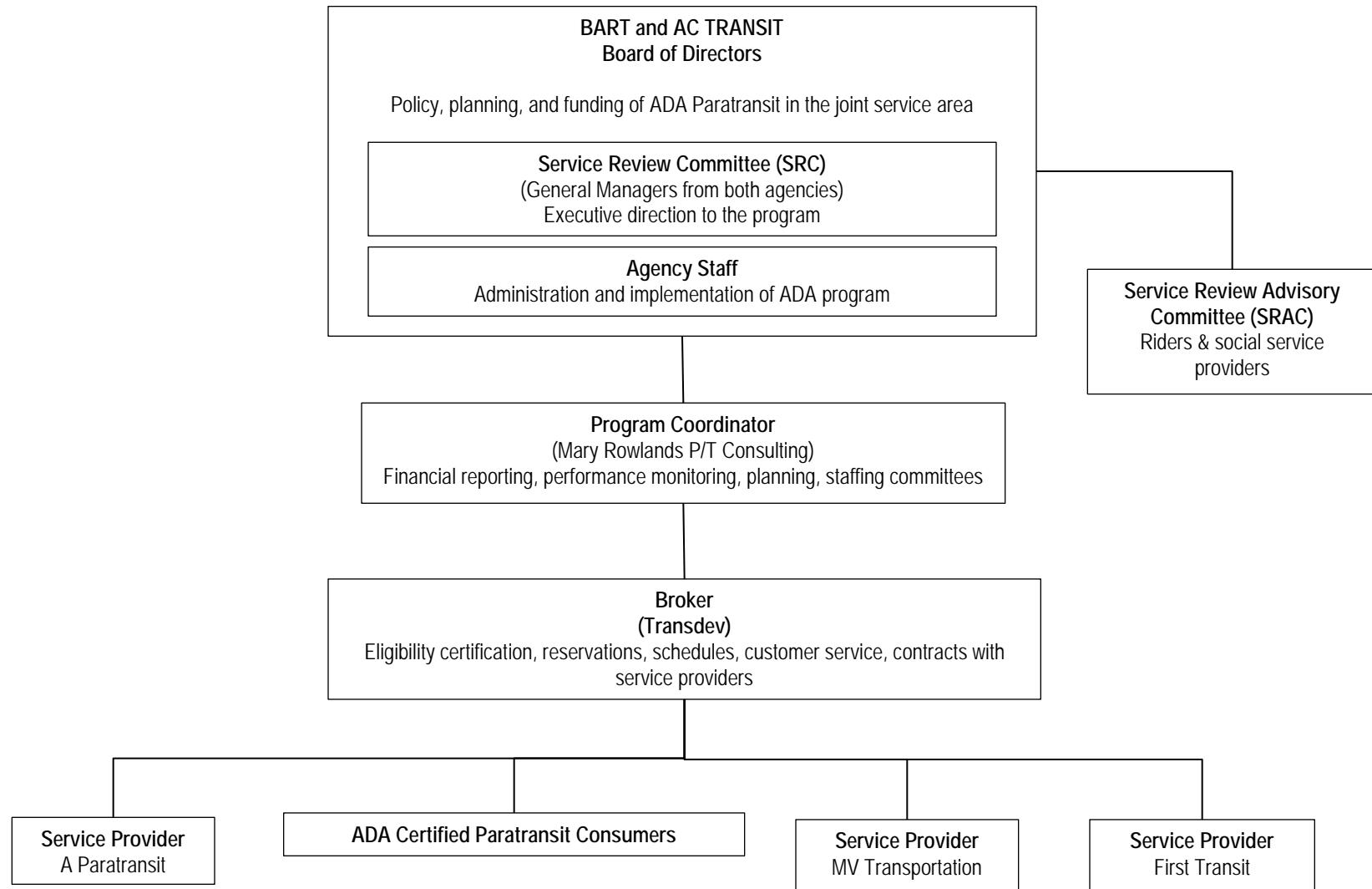
monitoring of emergency supplies, and preparing and distributing outreach materials to the riders and service providers.

In December 2016, EBPC modified its website to allow for fare ticket purchases using a credit card. Previously riders mailed in an order form plus a check, or came directly to the main office with their check or with cash to buy tickets. In addition to the new online ordering, a kiosk has been installed at the main office for ticket purchases, which also accepts credit cards.

**Planned Changes** Over the next year and one-half, EBPC plans to continue Emergency Preparedness training for the paratransit Broker staff and the Service Providers, especially the drivers.

**Staff** In addition to AC Transit and BART staff time, the contracted Program Coordinator assigns 1.0 FTEs to EBPC management and oversight activities, and the Broker assigns about 82 FTEs to its various duties.

## Exhibit B-2: 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 EBPC is in 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). AC Transit and BART both submit EBPC data to the NTD. BART submits primarily operating cost data, which is limited to BART's 31 percent share of EBPC costs. This is not in addition to AC Transit's reporting, which reflects 100 percent of all EBPC data. AC Transit submits complete systemwide data for total costs, passengers, hours, and miles, as well as other statistics. The EBPC information reported by AC Transit covering the audit period has been reviewed.

### Compliance with Requirements

To support this review, the EBPC Program Coordinator confirmed that the data collection and reporting procedures remain essentially unchanged from those described

in the prior performance audit. The agreement between the Consortium and the Broker requires that the definitions and procedures conform to TDA and NTD requirements. AC Transit and BART staff members review this as part of their oversight activities.

Based on the information provided, as shown in Exhibit B-3.1, EBPC is in compliance with the data collection and reporting requirements for all five TDA statistics.

#### Consistency of the Reported Statistics

The resulting TDA statistics for EBPC's service are shown in Exhibit B-3.2. 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. 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 relatively proportional to increases or decreases in annual vehicle service hours and miles.

However, it should be noted that the operating cost statistics included for this review represent the totals reported to the NTD by AC Transit covering its demand-response services. Based on the NTD reporting protocol, this includes both the actual EBPC operating costs plus a share of costs allocated from AC Transit operations to EBPC. The NTD has periodically adjusted the allocation formulas and which costs should be included.

## Exhibit B-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. Also excluded are all subsidies for commuter rail services operated on railroad lines under the jurisdiction of the Federal Railroad Administration, all direct costs for providing charter services, all vehicle lease costs, and principal and interest payments on capital projects funded with certificates of participation.	In Compliance	<p>Costs are gathered monthly for all elements of the operation. These include the service providers' expenses net of imposed liquidated damages, fuel, Broker's office, Program Coordinator's Office, incentives/disincentives, and miscellaneous expenses.</p> <p>Costs are invoiced to EBPC with supporting documentation and paid in arrears after invoice review and approval. AC Transit and BART share in the full costs of the service, based on an allocation agreement.</p>
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	<p>Hours are captured from information recorded on the driver's manifest and on-board mobile data computers, and tabulated each month.</p> <p>Drivers report garage pull-out and pull-in times plus first pick-up and last drop-off times. These are entered from the manifest into the scheduling software system at the Broker's office, which calculates total and vehicle service hours.</p> <p>Vehicle service hours include the time between the first passenger pick up and the last drop off, less time for driver breaks or any other time when the vehicle is out of service.</p>

TDA Statistic	TDA Definition	Compliance Finding	Verification Information
Vehicle Service Miles	“Vehicle service miles” means the total number of miles that each transit vehicle is in revenue service.	In Compliance	<p>Miles are captured from information recorded on the driver's manifest and on-board mobile data computers, and tabulated each month.</p> <p>Drivers report garage pull-out and pull-in mileage plus first pick-up and last drop-off mileage. These are entered from the manifest into the scheduling software system at the Broker's office, which calculates total and vehicle service miles.</p> <p>Vehicle service miles include the miles between the first passenger pick up and the last drop off.</p>
Unlinked Passengers	“Unlinked passengers” means the number of boarding passengers, whether revenue producing or not, carried by the public transportation system.	In Compliance	<p>The paratransit scheduling system at the Broker's office is programmed to automatically calculate unlinked passengers.</p> <p>One passenger is defined as one-way trip taken by one individual from one origin to one destination. Total unlinked passengers include escorts and attendants.</p>
Employee Full-Time Equivalents	2,000 person-hours of work in one year constitute one employee.	In Compliance	<p>Hours worked at the Broker's office are tabulated each month and billed at the individual's hourly rate. Service providers are under contract to the Broker. The billing structure of provider services is a comprehensive hourly rate per total vehicle hour. This rate includes salaries, along with vehicles, training, uniforms, insurance, etc. Therefore, EBPC does not report total FTEs.</p>

## Exhibit B-3.2: TDA Statistics

TDA Statistic	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Operating Cost (Actual \$) (a)	\$33,500,787	\$35,959,297	\$36,781,361	\$37,227,663	\$39,229,496	\$37,553,888
Annual Change	--	7.3%	2.3%	1.2%	5.4%	-4.3%
Vehicle Service Hours	411,335	413,890	408,835	404,355	413,534	428,785
Annual Change	--	0.6%	-1.2%	-1.1%	2.3%	3.7%
Vehicle Service Miles	6,365,949	6,374,048	6,396,827	6,470,829	6,524,042	6,579,584
Annual Change	--	0.1%	0.4%	1.2%	0.8%	0.9%
Unlinked Passengers	752,693	753,896	716,684	706,491	727,651	731,299
Annual Change	--	0.2%	-4.9%	-1.4%	3.0%	0.5%
Employee Full-Time Equivalents	(b)	(b)	(b)	(b)	(b)	(b)
Annual Change	--	--	--	--	--	--

(a) Includes both the actual EBPC operating costs plus a share of costs allocated from AC Transit operations to EBPC

(b) Not available

Sources: FY2011 through FY2013 - Prior Performance Audit Report

FY2014 through FY2016 - AC Transit NTD Reports

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### III. TDA PERFORMANCE INDICATORS AND TRENDS

The performance trends for EBPC's service 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

These indicators were calculated using information from AC Transit's NTD reports filed with the FTA, which included the EBPC service for the three years of the audit period. The fifth indicator, vehicle service hours per employee, was not analyzed since FTEs were not reported for this service, which is provided by multiple contractors.

In addition to presenting performance for the three years of the audit period (FY2014 through FY2016), 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 EBPC'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 FY2014 to FY2016 trend lines have been combined with those from the prior audit period (FY2011 through FY2013) 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 EBPC's performance trends in the four included TDA performance indicators. 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.

### EBPC Service Performance Trends

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

- Operating Cost Per Vehicle Service Hour (Exhibit B-4.1)
  - A key indicator of cost efficiency, the cost per hour of EBPC service increased an average of 1.5 percent annually during the six-year review period.
  - The cost per hour ranged from a low of \$81.44 in FY2011 to a high of \$94.86 in FY2015. There were increases in every year except FY2016, when a reduction to \$87.58 per hour was achieved.
  - In FY2011 constant dollars, there was an average annual decrease in this indicator of one percent.
- Passengers per Vehicle Service Hour (Exhibit B-4.2)
  - A key indicator of passenger productivity, passengers per hour decreased an average of 1.4 percent annually during the six-year period.

- Decreases reflect a modest overall decline in passengers combined with a slightly larger increase in service hours.
    - Passengers per hour decreased overall from 1.83 in FY2011 to 1.71 in FY2016.
  - Passengers per Vehicle Service Mile (Exhibit B-4.2)
    - Similar to passengers per hour, passengers per mile decreased overall, but by only 1.2 percent annually on average.
    - There were nearly 0.12 passengers per mile in the first two years, but closer to 0.11 passengers through the remainder of the period.
  - Operating Cost per Passenger (Exhibit B-4.3)
    - A key measure of cost effectiveness, the cost per passenger was \$44.51 in the first year of the review period, followed by increases in the next four years to \$53.91 by FY2015.
    - The cost per passenger went down in FY2016, ending the period at \$51.35
    - Over the six years, the cost per passenger increased on average by 2.9 percent annually.
    - With the impact of inflation removed from the cost side (normalization), the six-year result was an average annual increase of 0.4 percent.
- \* \* \* \*

The following is a brief summary of EBPC's TDA performance trend highlights over the six-year period of FY2011 through FY2016:

- There was an average annual increase in the operating cost per hour of 1.5 percent, which amounted to an annual decrease of one percent in inflation

adjusted dollars. After a generally increasing trend through FY2015, a notable reduction was achieved in the last year.

- The cost per passenger increased on average by 2.9 percent per year, or 0.4 percent in constant FY2011 dollars.
- Passenger productivity showed somewhat negative trends, with passengers per vehicle service hour decreasing by 1.4 percent per year overall, and passengers per vehicle service mile decreasing by 1.2 percent.

## Exhibit B-4: TDA Indicator Performance

	<b>FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>FY2016</b>	<b>Av. Ann. Chg.</b>
<b>Performance Indicators</b>							
Op. Cost per Vehicle Svc. Hour (Actual \$)	\$81.44	\$86.88	\$89.97	\$92.07	\$94.86	\$87.58	--
Annual Change	--	6.7%	3.6%	2.3%	3.0%	-7.7%	1.5%
Op. Cost per Vehicle Svc. Hour (Constant \$)	\$81.44	\$84.60	\$85.36	\$84.93	\$85.85	\$77.37	--
Annual Change	--	3.9%	0.9%	-0.5%	1.1%	-9.9%	-1.0%
Passengers per Vehicle Service Hour	1.83	1.82	1.75	1.75	1.76	1.71	--
Annual Change	--	-0.5%	-3.8%	-0.3%	0.7%	-3.1%	-1.4%
Passengers per Vehicle Service Mile	0.118	0.118	0.112	0.109	0.112	0.111	--
Annual Change	--	0.0%	-5.3%	-2.5%	2.2%	-0.3%	-1.2%
Op. Cost per Passenger (Actual \$)	\$44.51	\$47.70	\$51.32	\$52.69	\$53.91	\$51.35	--
Annual Change	--	7.2%	7.6%	2.7%	2.3%	-4.7%	2.9%
Op. Cost per Passenger (Constant \$)	\$44.51	\$46.44	\$48.69	\$48.61	\$48.79	\$45.36	--
Annual Change	--	4.3%	4.8%	-0.2%	0.4%	-7.0%	0.4%
Vehicle Service Hours per FTE	(a)	(a)	(a)	(a)	(a)	(a)	--
Annual Change	--	--	--	--	--	--	--
<b>Input Data</b>							
Operating Cost (Actual \$)	\$33,500,787	\$35,959,297	\$36,781,361	\$37,227,663	\$39,229,496	\$37,553,888	--
Annual Change	--	7.3%	2.3%	1.2%	5.4%	-4.3%	2.3%
Operating Cost (Constant \$)	\$33,500,787	\$35,013,921	\$34,896,927	\$34,342,863	\$35,501,806	\$33,174,813	--
Annual Change	--	4.5%	-0.3%	-1.6%	3.4%	-6.6%	-0.2%
Vehicle Service Hours	411,335	413,890	408,835	404,355	413,534	428,785	--
Annual Change	--	0.6%	-1.2%	-1.1%	2.3%	3.7%	0.8%
Vehicle Service Miles	6,365,949	6,374,048	6,396,827	6,470,829	6,524,042	6,579,584	--
Annual Change	--	0.1%	0.4%	1.2%	0.8%	0.9%	0.7%
Unlinked Passengers	752,693	753,896	716,684	706,491	727,651	731,299	--
Annual Change	--	0.2%	-4.9%	-1.4%	3.0%	0.5%	-0.6%
Employee Full-Time Equivalents	(a)	(a)	(a)	(a)	(a)	(a)	--
Annual Change	--	--	--	--	--	--	--
Bay Area CPI - Annual Change	--	2.7%	2.6%	2.9%	1.9%	2.5%	--
Cumulative Change	--	2.7%	5.4%	8.4%	10.5%	13.2%	2.5%

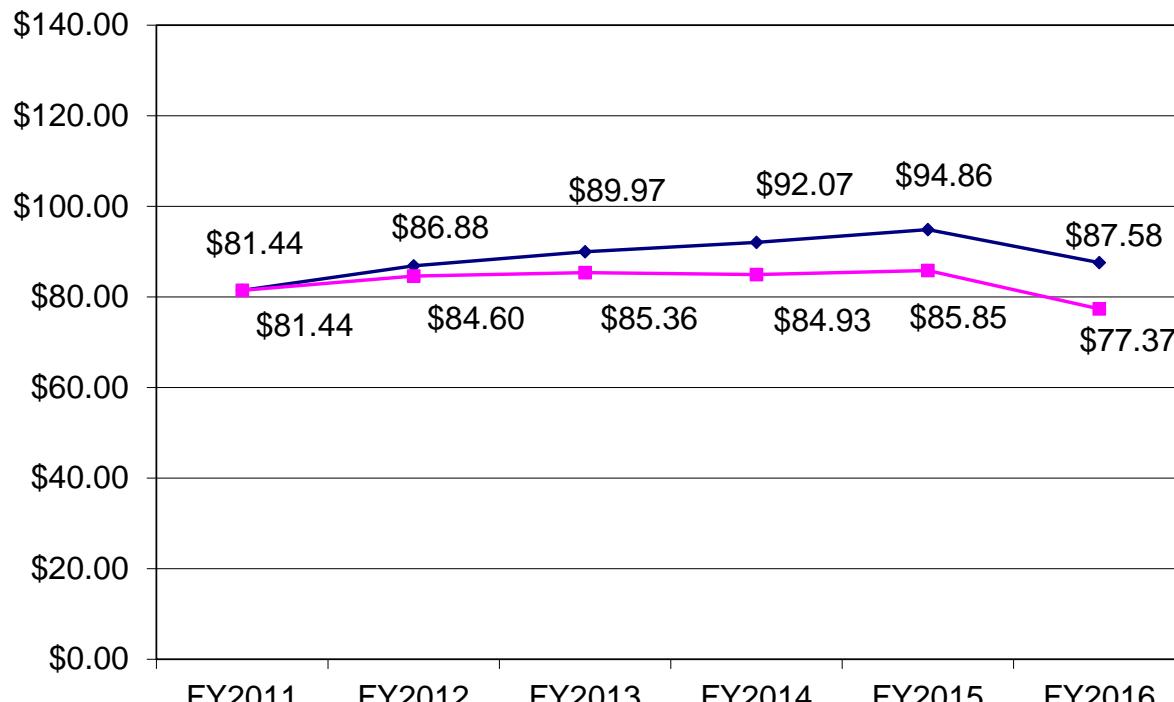
Sources: FY2011 through FY2013 - Prior Performance Audit Report

(a) Not available

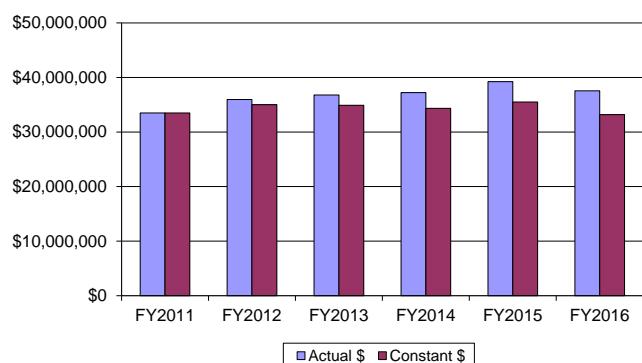
FY2014 through FY2016 - AC Transit NTD Reports

CPI Data - U.S. Department of Labor, Bureau of Labor Statistics

## Exhibit B-4.1: Operating Cost per Vehicle Service Hour

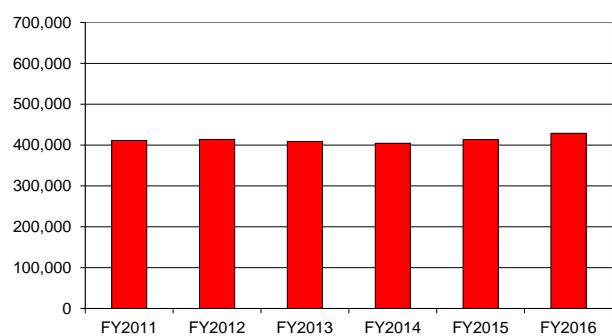


**Operating Cost**

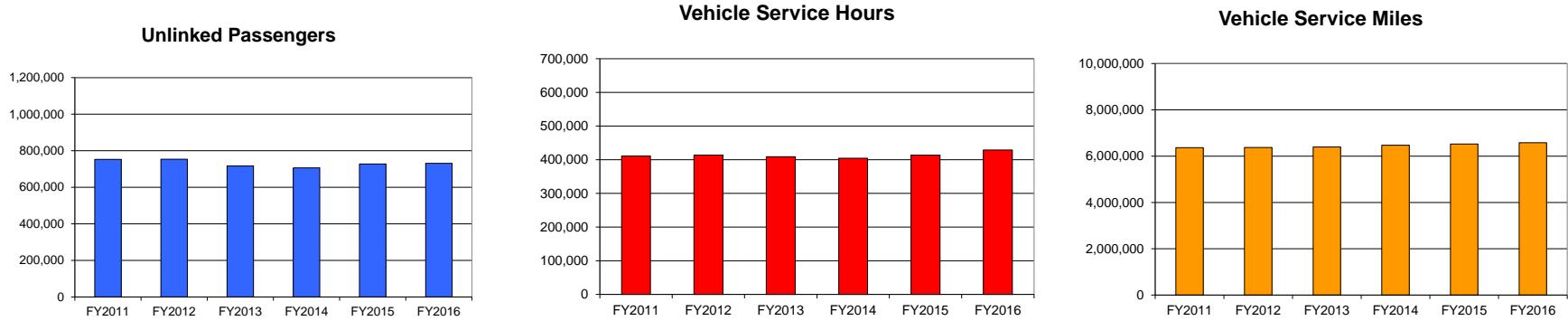
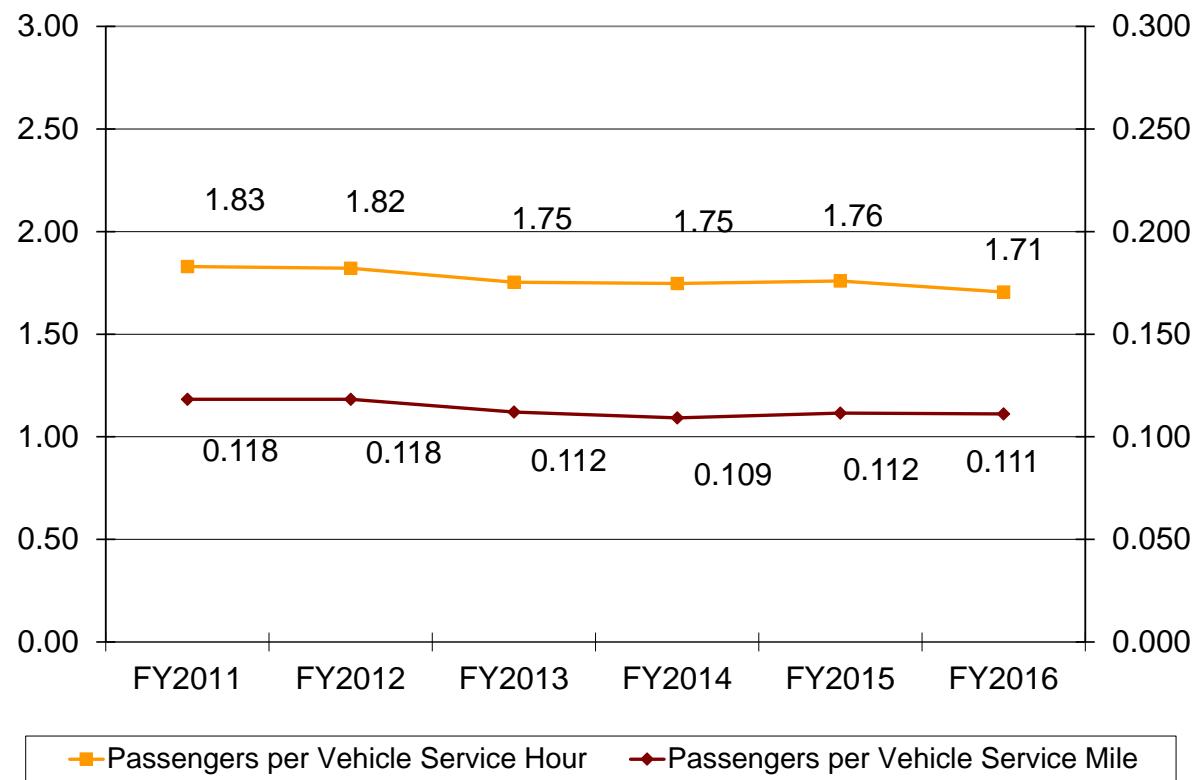


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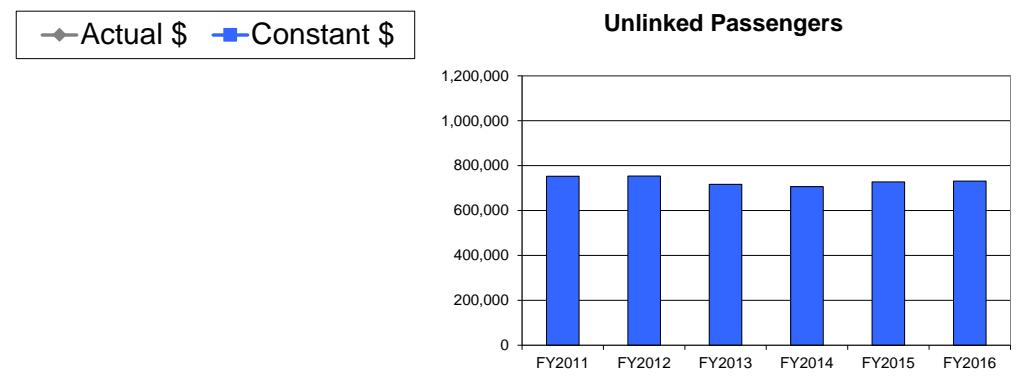
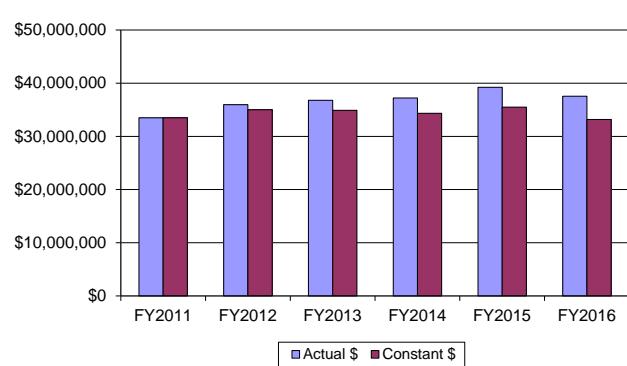
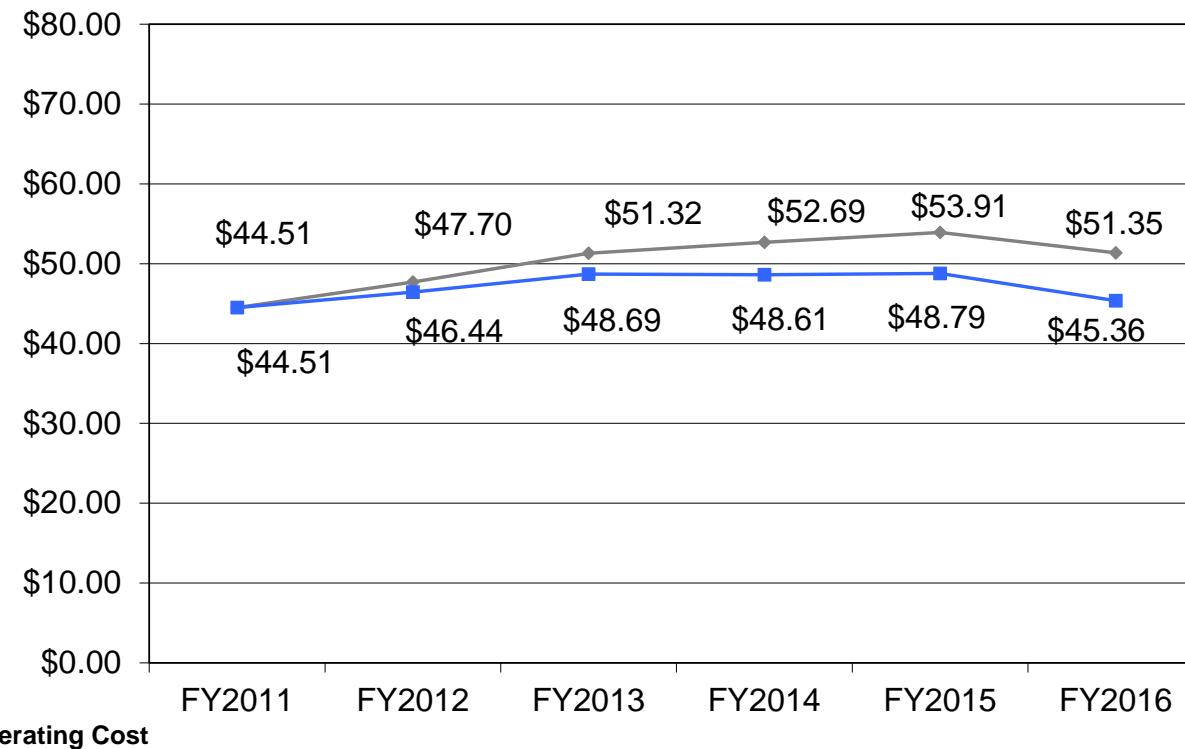
**Vehicle Service Hours**



## Exhibit B-4.2: Passengers per Hour and per Mile



### Exhibit B-4.3: Operating Cost per Passenger



## EBPC Service Component Costs

Year-to-year changes in selected operating cost categories over the past six years are presented in Exhibit B-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 B-4.4 also shows the concurrent changes in vehicle service hours, and Exhibit B-4.5 illustrates the portion of the cost per bus service hour that can be attributed to each included cost component.

- Between FY2011 and FY2016, the total annual costs increased by 2.3 percent on average. However, there was significant variation reported within certain component cost areas. This was principally traced to NTD reporting protocol as directed by the NTD. As noted previously, AC Transit's NTD report filing for EBPC services includes both the actual EBPC operating costs plus a share of costs allocated from AC Transit operations to EBPC. The actual EBPC costs are reported as "Purchased Transportation", while all other component costs reflect amounts allocated from AC Transit. The NTD has periodically changed the presentation of required report submittals as well as the formulas to use and which allocated costs should be added for EBPC.
- Most notably, FY2016 saw major increases in the in-house labor and fringe benefits costs, and there were fuel/lubricants costs for the first time in the period. At the same time, there were substantial reductions in the services, casualty/liability, and "other expenses" categories.
- Driven by the FY2016 results, in-house labor and fringe benefits costs both increased on average by 25 percent annually over the period.
- No casualty/liability costs or "other expenses" were reported in the first year (FY2011), and only very minor amounts were reported in FY2016. In the interim, much more significant amounts were reported, with increases of varying proportions from year to year.
- Purchased transportation costs did not appear impacted by the NTD reporting issues. They increased on average by 2.1 percent annually, and

comprised by far the largest share of total cost per vehicle hour (well over 90 percent) in all years.

- Reported casualty/liability costs contributed four to five percent shares of the total in the four interim years. Otherwise, all cost categories except purchased transportation contributed just minimally.

\* \* \* \*

The following is a brief summary of the component operating costs trend highlights between FY2011 and FY2016:

- Total annual costs increased by 2.3 percent on average, but there was significant variation reported within certain component cost areas. This was principally traced to NTD reporting protocol, wherein all component costs except “Purchased Transportation” represent costs allocated from AC Transit operations to EBPC. The NTD has periodically adjusted the reporting requirements related to these allocations.
- FY2016 especially saw major increases in some component costs, with substantial reductions in other areas. Driven by the FY2016 results, labor and fringe benefits costs both increased on average by 25 percent annually through the period.
- No casualty/liability costs or “other expenses” were reported in the first year, and only very minor amounts in FY2016. In the interim, much more significant amounts were reported, with casualty/liability costs contributing four to five percent shares of total costs in those years. Otherwise, all cost categories except purchased transportation contributed just minimally.
- Purchased transportation costs increased on average by 2.1 percent annually, and retained well over a 90 percent share of the total cost per vehicle hour in all six years.

## Exhibit B-4.4: Component Cost Trends

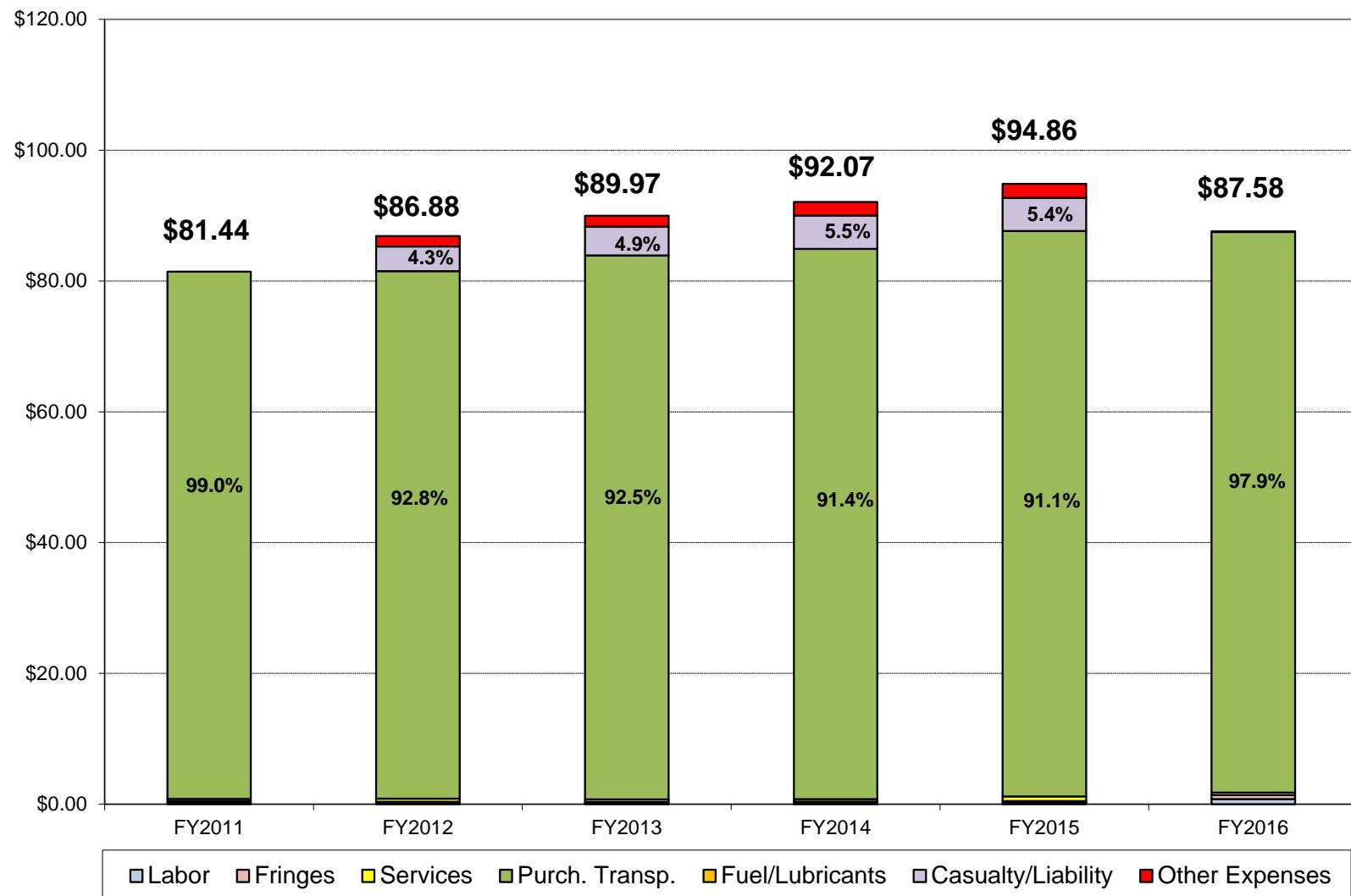
	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	Av. Ann. Chg.
COST CATEGORIES							
Labor - (Salaries, Wages)	\$103,526	\$83,436	\$82,581	\$90,275	\$109,615	\$326,348	--
Annual Change	--	-19.4%	-1.0%	9.3%	21.4%	197.7%	25.8%
Fringe Benefits	\$89,862	\$72,422	\$71,681	\$78,359	\$95,146	\$272,405	--
Annual Change	--	-19.4%	-1.0%	9.3%	21.4%	186.3%	24.8%
Services	\$141,150	\$191,795	\$141,724	\$145,074	\$286,523	\$165,396	--
Annual Change	--	35.9%	-26.1%	2.4%	97.5%	-42.3%	3.2%
Purchased Transportation	\$33,166,249	\$33,387,554	\$34,014,756	\$34,021,782	\$35,745,541	\$36,751,896	--
Annual Change	--	0.7%	1.9%	0.0%	5.1%	2.8%	2.1%
Fuel/Lubricants	\$0	\$0	\$0	\$0	\$0	\$7,953	--
Annual Change	--	--	--	--	--	--	--
Casualty/Liability	\$0	\$1,554,918	\$1,791,961	\$2,055,011	\$2,102,575	\$9,395	--
Annual Change	--	--	15.2%	14.7%	2.3%	-99.6%	--
Other Expenses (a)	\$0	\$669,172	\$678,658	\$837,162	\$890,096	\$20,495	--
Annual Change	--	--	1.4%	23.4%	6.3%	-97.7%	--
<b>Total</b>	<b>\$33,500,787</b>	<b>\$35,959,297</b>	<b>\$36,781,361</b>	<b>\$37,227,663</b>	<b>\$39,229,496</b>	<b>\$37,553,888</b>	<b>--</b>
Annual Change	--	7.3%	2.3%	1.2%	5.4%	-4.3%	2.3%
OPERATING STATISTICS							
Vehicle Service Hours	411,335	413,890	\$408,835	404,355	413,534	428,785	--
Annual Change	--	0.6%	-1.2%	-1.1%	2.3%	3.7%	0.8%

Sources: FY2011 through FY2013 - Prior Performance Audit Report; FY2014 through FY2016 – AC Transit NTD Reports

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

## Exhibit B-4.5: Distribution of Component Costs

*Operating Cost per Vehicle Service Hour*



## **IV. STATUS OF PRIOR AUDIT RECOMMENDATIONS**

EBPC's prior performance audit was completed in May 2014. 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 EBPC's responses to the recommendations made in the prior performance audit, and whether EBPC made reasonable progress toward their implementation. However, there were no recommendations made in EBPC's prior audit.

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## V. FUNCTIONAL PERFORMANCE INDICATOR TRENDS

To further assess EBPC'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:

- Service Planning
- Operations
- Maintenance
- Safety

The indicators selected for this analysis were primarily those that were tracked regularly by EBPC or for which input data were maintained by EBPC 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 C 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. EBPC's functional area trends represent areas of cost efficiency, safety, productivity and service reliability. Audit period performance is discussed below and presented in Exhibit B-5.

- Service Planning
  - Operating costs per passenger mile decreased overall from \$5.10 in the first year to \$5.02 in FY2016 (1.6 percent).
  - The farebox recovery ratio improved slightly overall from 7.2 percent in the first year to 7.4 percent in FY2016.
  - About 82 percent of all vehicle miles traveled were in service in all three years, as were about 86 percent of all vehicle hours.
- Operations
  - Vehicle operations costs increased from 68 percent of total operating costs in the first two years, to 73.5 percent by FY2016.
  - Vehicle operations costs per service hour remained close to \$64 over the audit period.
  - Schedule adherence decreased slightly in each year, but remained above 90 percent.
  - The rate of complaints also decreased overall, by six percent from FY2014 to FY2016.
  - The incidence of missed trips remained very low throughout the period, though there was an overall increase.
  - There were trip denials in each year -- increasing from 0.04 percent of total trips scheduled in the first two years to 0.05 percent in FY2016. Most of the denials reported were classified as “scheduled”, meaning the rider accepted an alternate trip which was outside the one hour window from the originally requested pick up time. However, there also were a small number of “capacity” denials, where the rider did not receive the requested trip and did not accept an alternate time. EBPC had a total of 59 capacity denials during the audit period, with annual totals steadily decreasing.

EBPC reports its scheduling software has recently been under rigorous review, with systematic changes being implemented that have led to a decrease in denials in FY2017. Further, there does not appear to be any operational pattern or practice that significantly limits the availability of service to ADA paratransit eligible persons (as defined in the Code of Federal Regulations – 49 CFR 37.131).

- The rate of trip cancellations decreased slightly in each year, from 23 percent to 22 percent of total trips scheduled.
- At the same time, late trip cancellations (less than one hour before scheduled pick-up time) and passenger no-shows both increased by more than ten percent over the period, to 3.4 and 4.5 percent of total trips scheduled, respectively.
- Maintenance
  - Total maintenance costs increased over the period from 7.9 percent of total operating costs in the first two years to 8.5 percent in FY2016.
  - Vehicle maintenance costs per service mile increased steadily from \$0.44 to \$0.47 (6.3 percent).
  - The vehicle spare ratio decreased from a high 35 percent in FY2014 to less than 15 percent subsequently. The FY2014 result reflects the NTD requirement that all vehicles in service for any part of the year be listed. A number of older vehicles were in service for part of that year, then retired after replacement by a newer vehicle.
  - The mean distance between major failures declined in each year, especially in FY2016, when it dropped below 30,000 miles traveled. When looking at all failures, there was also a generally negative trend, with less than 20,000 miles between failures in FY2016. EBPC cites an aging fleet and degrading road conditions in the service area. In response, enhancements to the preventive maintenance function are being programmed. Further, a number of new vehicles are being delivered, and early results in FY2017 indicate some improvement in the failure rate.

- Safety
  - The rate of preventable accidents increased in each year, and more than doubled in FY2016 compared to FY2015. EBPC staff attributes the FY2016 results to difficulties in driver recruitment, followed by an influx of new drivers in that year. As part of the next five-year contract option extension, the Broker will be instructed to thoroughly review driver safety and training programs from the service providers, and review the content and percentage of classroom and behind the wheel training.

\* \* \* \*

The following is a brief summary of EBPC's functional trend highlights between FY2014 and FY2016:

- Service Planning results showed operating cost per passenger mile decreasing slightly, with the farebox recovery ratio increasing slightly to 7.4 percent in FY2016, and consistently 82 percent or more vehicle miles and hours in service.
- Operations results showed vehicle operations costs steady at \$64 per hour but increasing from 68 to 73.5 percent of total costs. Schedule adherence decreased but remained above 90 percent, while there was an overall decrease in the rate of complaints. The missed trip rate increased but remained very low. There were trip denials in each year – up to 0.05 percent of scheduled trips in FY2016. Most were “scheduled” denials, where the rider accepted an alternate trip time, and EBPC reports recent scheduling software changes resulting in a decrease in denials in FY2017. Trip cancellations decreased slightly, but late trip cancellations and passenger no-shows both increased by more than ten percent.
- Maintenance results showed total maintenance costs increasing from 7.9 to 8.5 percent of total costs and vehicle maintenance costs increasing from \$0.44 per service mile to \$0.47 per service mile. The spare ratio decreased from a high of 35 percent in FY2014 (when many older vehicles were replaced during the year) to less than 15 percent in subsequent years. There was overall worsening in the mechanical failure rates, especially in FY2016.

- Safety results showed the preventable accident rate worsened significantly, especially in FY2016 when there was an influx of new drivers.

## Exhibit B-5: Functional Performance Trends – EBPC

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
<b>SERVICE PLANNING</b>			
Total Operating Cost/Passenger Mile	\$5.10	\$5.25	\$5.02
<i>Annual Percent Change</i>	--	3.0%	-4.4%
<i>Three Year Percent Change</i>	--	--	-1.6%
Farebox Recovery Ratio (Farebox Rev./Oper. Cost)	7.2%	7.1%	7.4%
<i>Annual Percent Change</i>	--	-1.9%	5.3%
<i>Three Year Percent Change</i>	--	--	3.3%
Vehicle Service Miles/Total Miles	82.4%	82.5%	82.4%
<i>Annual Percent Change</i>	--	0.1%	-0.2%
<i>Three Year Percent Change</i>	--	--	-0.1%
Vehicle Service Hours/Total Hours	86.7%	86.3%	86.4%
<i>Annual Percent Change</i>	--	-0.5%	0.1%
<i>Three Year Percent Change</i>	--	--	-0.4%
<b>OPERATIONS</b>			
Vehicle Operations Cost/Total Operating Cost	68.6%	68.4%	73.5%
<i>Annual Percent Change</i>	--	-0.3%	7.4%
<i>Three Year Percent Change</i>	--	--	7.1%
Vehicle Operations Cost/Vehicle Service Hour	\$63.20	\$64.93	\$64.40
<i>Annual Percent Change</i>	--	2.7%	-0.8%
<i>Three Year Percent Change</i>	--	--	1.9%
Trips On-Time/Total Trips	91.4%	90.9%	90.1%
<i>Annual Percent Change</i>	--	-0.5%	-0.9%
<i>Three Year Percent Change</i>	--	--	-1.4%
Complaints/10,000 Unlinked Passenger Trips	44.3	48.9	41.7
<i>Annual Percent Change</i>	--	10.3%	-14.7%
<i>Three Year Percent Change</i>	--	--	-6.0%
Missed Trips/Total Trips Scheduled	0.21%	0.19%	0.23%
<i>Annual Percent Change</i>	--	-10.3%	21.6%
<i>Three Year Percent Change</i>	--	--	9.1%
Capacity Trip Denials/Total Trips Scheduled	0.003%	0.002%	0.002%
<i>Annual Percent Change</i>	--	-23.9%	-17.2%
<i>Three Year Percent Change</i>	--	--	-36.9%
Scheduled Trip Denials/Total Trips Scheduled	0.04%	0.04%	0.05%
<i>Annual Percent Change</i>	--	0.5%	33.1%
<i>Three Year Percent Change</i>	--	--	33.8%
Total Trip Denials/Total Trips Scheduled	0.04%	0.04%	0.05%
<i>Annual Percent Change</i>	--	-1.2%	30.6%
<i>Three Year Percent Change</i>	--	--	29.0%

FUNCTION/Indicator	Actual Performance		
	FY2014	FY2015	FY2016
<b>OPERATIONS (continued)</b>			
Trip Cancellations/Total Trips Scheduled	22.9%	22.6%	22.0%
<i>Annual Percent Change</i>	--	-1.0%	-2.8%
<i>Three Year Percent Change</i>	--	--	-3.7%
Late Trip Cancellations/Total Trips Scheduled	3.0%	3.3%	3.4%
<i>Annual Percent Change</i>	--	10.5%	3.1%
<i>Three Year Percent Change</i>	--	--	13.9%
No-Shows/Total Trips Scheduled	4.0%	4.5%	4.5%
<i>Annual Percent Change</i>	--	10.3%	1.2%
<i>Three Year Percent Change</i>	--	--	11.6%
<b>MAINTENANCE</b>			
Vehicle + Non-Veh. Maint. Cost/Total Operating Cost	7.9%	7.9%	8.5%
<i>Annual Percent Change</i>	--	0.1%	7.3%
<i>Three Year Percent Change</i>	--	--	7.4%
Vehicle Maintenance Cost/Vehicle Service Mile	\$0.44	\$0.46	\$0.47
<i>Annual Percent Change</i>	--	4.2%	2.0%
<i>Three Year Percent Change</i>	--	--	6.3%
Spare Vehicles/Total Vehicles	35.0%	14.6%	12.9%
<i>Annual Percent Change</i>	--	-58.2%	-11.9%
<i>Three Year Percent Change</i>	--	--	-63.2%
Mean Dist. betw. Major Failures (Miles)	53,037	51,335	29,587
<i>Annual Percent Change</i>	--	-3.2%	-42.4%
<i>Three Year Percent Change</i>	--	--	-44.2%
Mean Dist. betw. All Failures (Miles)	23,786	25,502	18,578
<i>Annual Percent Change</i>	--	7.2%	-27.2%
<i>Three Year Percent Change</i>	--	--	-21.9%
<b>SAFETY</b>			
Preventable Accidents/100,000 Vehicle Miles	0.48	0.68	1.83
<i>Annual Percent Change</i>	--	41.1%	167.6%
<i>Three Year Percent Change</i>	--	--	277.5%

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## VI. CONCLUSIONS AND RECOMMENDATIONS

This report has presented the findings of the compliance audit portion of the performance audit of EBPC during the three-year period of FY2014 through FY2016 (July 1, 2013 through June 30, 2016). It has focused on TDA compliance issues including trends in TDA-mandated performance indicators. It also provides the findings from an overview of EBPC's data collection activities to support the TDA indicators.

### Conclusions

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

- Data Collection – EBPC is in compliance with the data collection and reporting requirements for all five 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 - The following is a brief summary of the TDA performance trend highlights over the six-year period of FY2011 through FY2016:
  - There was an average annual increase in the operating cost per hour of 1.5 percent, which amounted to an annual decrease of one percent in inflation adjusted dollars. After a generally increasing trend through FY2015, a notable reduction was achieved in the last year.
  - The cost per passenger increased on average by 2.9 percent per year, or 0.4 percent in constant FY2011 dollars.

- Passenger productivity showed somewhat negative trends, with passengers per vehicle service hour decreasing by 1.4 percent per year overall, and passengers per vehicle service mile decreasing by 1.2 percent.

The following is a brief summary of the component operating costs trend highlights between FY2011 and FY2016:

- Total annual costs increased by 2.3 percent on average, but there was significant variation reported within certain component cost areas. This was principally traced to NTD reporting protocol, wherein all component costs except “Purchased Transportation” represent costs allocated from AC Transit operations to EBPC. The NTD has periodically adjusted the reporting requirements related to these allocations.
- FY2016 especially saw major increases in some component costs, with substantial reductions in other areas. Driven by the FY2016 results, labor and fringe benefits costs both increased on average by 25 percent annually through the period.
- No casualty/liability costs or “other expenses” were reported in the first year, and only very minor amounts in FY2016. In the interim, much more significant amounts were reported, with casualty/liability costs contributing four to five percent shares of total costs in those years. Otherwise, all cost categories except purchased transportation contributed just minimally.
- Purchased transportation costs increased on average by 2.1 percent annually, and retained well over a 90 percent share of the total cost per vehicle hour in all six years.
- Status of Prior Audit Recommendations – There were no recommendations made in EBPC’s prior performance audit.
- Functional Performance Indicator Trends - To further assess EBPC’s performance over the past three years, a detailed set of functional area

performance indicators was defined and reviewed. The following is a brief summary of the functional trend highlights between FY2014 and FY2016:

- Service Planning results showed operating cost per passenger mile decreasing slightly, with the farebox recovery ratio increasing slightly to 7.4 percent in FY2016, and consistently 82 percent or more vehicle miles and hours in service.
- Operations results showed vehicle operations costs steady at \$64 per hour but increasing from 68 to 73.5 percent of total costs. Schedule adherence decreased but remained above 90 percent, while there was an overall decrease in the rate of complaints. The missed trip rate increased but remained very low. There were trip denials in each year – up to 0.05 percent of scheduled trips in FY2016. Most were “scheduled” denials, where the rider accepted an alternate trip time, and EBPC reports recent scheduling software changes resulting in a decrease in denials in FY2017. Trip cancellations decreased slightly, but late trip cancellations and passenger no-shows both increased by more than ten percent.
- Maintenance results showed total maintenance costs increasing from 7.9 to 8.5 percent of total costs and vehicle maintenance costs increasing from \$0.44 per service mile to \$0.47 per service mile. The spare ratio decreased from a high of 35 percent in FY2014 (when many older vehicles were replaced during the year) to less than 15 percent in subsequent years. There was overall worsening in the mechanical failure rates, especially in FY2016.
- Safety results showed the preventable accident rate worsened significantly, especially in FY2016 when there was an influx of new drivers.

## **Recommendations**

### **1. CONTINUE EFFORTS TOWARD ELIMINATING TRIP DENIALS.**

*[Reference Section: VI. Functional Performance Indicator Trends]*

It was found that there were trip denials in each audit year -- increasing from 0.04 percent of total trips scheduled in the first two years to 0.05 percent in FY2016. This represented several hundred service denials per year, with the number growing larger each year. Most of the denials reported were classified as "scheduled", meaning the rider accepted an alternate trip which was outside the one hour window from the originally requested pick up time. However, there also were a small number of "capacity" denials, where the rider did not receive the requested trip and did not accept an alternate time. EBPC had a total of 59 capacity denials during the audit period, but with annual totals steadily decreasing.

EBPC reports its scheduling software has recently been under rigorous review, with systematic changes being implemented that have led to a decrease in denials in FY2017. Further, there does not appear to be any operational pattern or practice that significantly limits the availability of service to ADA paratransit eligible persons (as defined in the Code of Federal Regulations – 49 CFR 37.131). Nonetheless, EBPC should continue striving to eliminate all service denials, in order to better meet the needs of its constituency and to comply with the federal ADA goal of zero service denials.

2. INVESTIGATE ADDITIONAL STRATEGIES TO REDUCE LATE TRIP CANCELLATIONS AND PASSENGER NO-SHOWS.

*[Reference Section: VI. Functional Performance Indicator Trends]*

The rates of late trip cancellations (less than one hour before scheduled pick-up time) and passenger no-shows both increased by more than ten percent over the period, to 3.4 and 4.5 percent of total trips scheduled, respectively. Late cancellations and passenger no-shows have the potential to create capacity constraints on the ADA paratransit service. Such constraints can impede an operator's ability to successfully schedule trips, resulting in denials of service. Although EBPC has a policy which includes sanctions passengers for late cancellations and no-shows, it is unclear how this policy is being implemented considering the rise in late cancellations and no-shows during the audit period.

In order to provide service more effectively and decrease the likelihood of capacity constraints, EBPC should expand its efforts toward reducing the occurrences of late cancellations and passenger no-shows. These efforts should include providing additional outreach and education for paratransit passengers.

3. EXAMINE MAINTENANCE ACTIVITIES AND DEVELOP ADDITIONAL STRATEGIES TO ADDRESS THE RECENTLY INCREASING MECHANICAL FAILURE RATES.

*[Reference Section: VI. Functional Performance Indicator Trends]*

Audit period maintenance results for EBPC showed that the mean distance between major failures declined in each year, especially in FY2016, when it dropped below 30,000 miles traveled. The mean distance between major failures declined overall by 44 percent. When looking at all failures, there was also a

generally negative trend, with a 22 percent overall decline and less than 20,000 miles between failures in FY2016.

EBPC cites an aging fleet with replacement vehicles not acquired as quickly as desired, and degrading road conditions in the service area. In response, enhancements to the preventive maintenance function are being programmed. Further, a number of new vehicles are being delivered, and early results in FY2017 indicate some improvement in the failure rate. Additional efforts should be made by EBPC to improve its maintenance function to increase vehicle reliability and reduce the incidence of mechanical failures on its services.

4. DEVELOP A PLAN TO IMPROVE PERFORMANCE IN THE PREVENTABLE ACCIDENT RATE.

*[Reference Section: VI. Functional Performance Indicator Trends]*

It was found that the rate of preventable accidents increased in each year, and more than doubled in FY2016 compared to FY2015. There were 1.83 preventable accidents per 100,000 vehicle miles traveled in FY2016, comparing unfavorably with 0.68 in FY2015 and 0.48 in FY2014. EBPC staff attributes the FY2016 results to difficulties in driver recruitment, followed by an influx of new drivers in that year. This points to a safety issue which EBPC should address in coordination with its service providers. EBPC indicated that as part of the next five-year contract option extension, the Broker will be instructed to thoroughly review driver safety and training programs from the service providers, and review the content and percentage of classroom and behind the wheel training. This plan should include strategies to improve operator training and enhance monitoring activities to ensure that safety issues are identified and corrected.

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**APPENDIX C:**  
**EBPC - INPUT STATISTICS FOR**  
**FUNCTIONAL PERFORMANCE MEASURES**

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## Functional Performance Inputs – EBPC

Data Item	FY2014	FY2015	FY2016	Source
Vehicle Service Miles	6,470,829	6,524,042	6,579,584	NTD S-10 DR
Total Vehicle Miles	7,849,439	7,905,602	7,988,607	NTD S-10 DR
Vehicle Service Hours	404,355	413,534	428,785	NTD S-10 DR
Total Vehicle Hours	466,138	479,201	496,327	NTD S-10 DR
Unlinked Passenger Trips	706,491	727,651	731,299	NTD S-10 DR
Farebox Revenue	\$2,681,669	\$2,773,174	\$2,795,532	NTD F-10
Total Operating Costs	\$37,227,663	\$39,229,496	\$37,553,888	NTD F-30 DR
Passenger Miles	7,300,766	7,466,834	7,480,767	NTD S-10 DR
Vehicle Operations Costs	\$25,554,168	\$26,848,905	\$27,614,142	NTD F-30 DR
Trips On-Time	91.4%	90.9%	90.1%	EBPC Yr-End Monthly Rpt
Total Trips Scheduled	870,797	905,426	920,333	EBPC Yr-End Monthly Rpt
Complaints	3,131	3,557	3,048	EBPC Yr-End Monthly Rpt
Missed Trips	1,863	1,738	2,148	EBPC Yr-End Monthly Rpt
Capacity Trip Denials	24	19	16	EBPC Staff
Scheduled Trip Denials	336	351	475	EBPC Staff
Total Trip Denials	360	370	491	EBPC Yr-End Monthly Rpt
Trip Cancellations	199,206	205,046	202,664	EBPC Yr-End Monthly Rpt
Late Trip Cancellations	26,307	30,225	31,677	EBPC Yr-End Monthly Rpt
No Shows	35,221	40,397	41,536	EBPC Yr-End Monthly Rpt
Vehicle Maintenance Costs	\$2,870,622	\$3,016,066	\$3,101,811	NTD F-30 DR
Non-Vehicle Maintenance Costs	\$63,349	\$78,494	\$77,228	NTD F-30 DR
Spare Vehicles	100	32	30	NTD S-10 DR
Total Vehicles	286	219	233	NTD S-10 DR
Revenue Vehicle Mechanical System Failures - Total	330	310	430	NTD R-20
Revenue Vehicle Mechanical System Failures - Major	148	154	270	NTD R-20
Preventable Accidents	38	54	146	NTD R-20