



SEPTA System Performance Review

July 14, 2016

Southeastern Pennsylvania Transportation Authority (SEPTA) Performance Report

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AGENCY PUBLIC TRANSPORTATION PROFILE

TABLE ES-1: SEPTA TRANSPORTATION PROFILE

Agency Name	Southeastern Pennsylvania Transportation Authority	
	(d.b.a. SEPTA)	
Year Founded	1964	
Reporting Fiscal Year	FY 2013-2014	
Service Area (square miles)	836	
Service Area Population	3,355,152	
Type of Service Provided	Fixed-Route (All)	ADA + Shared Ride
Vehicles Operated in Maximum Service	1,962	380
Annual Revenue Vehicle Miles of Service	80,719,844	10,935,142
Annual Revenue Vehicle Hours of Service	6,066,954	1,031,941
Annual Total Passenger Trips	328,376,955	1,777,751
Annual Total Senior Lottery Trips	26,162,730	732,419
Total Annual Operating Cost	\$1,171,777,418	\$56,098,309
Total Annual Operating Revenues	\$505,764,322	\$21,440,003
Total Annual Operating Revenue / Total Annual Operating Cost	43.16%	38.22%
Operating Cost / Revenue Vehicle Mile	\$14.52	\$5.13
Operating Cost / Revenue Vehicle Hour	\$193.14	\$54.36
Passengers / Revenue Vehicle Hour	54.13	1.72
Total Annual Operating Revenue / Revenue Vehicle Hour	\$83.36	\$20.78
Operating Cost / Passenger	\$3.57	\$31.56
Senior Trips / Total Passenger Trips	7.97%	41.20%

Sources: dotGrants; SEPTA; National Transit Database

EXECUTIVE SUMMARY

In July 2007, the Pennsylvania Legislature passed Act 44, establishing a framework for a Pennsylvania Department of Transportation (PennDOT) driven transit agency performance review process. The purpose of a review is to assess general management/business practices and financial stability. The assessment makes transit agencies aware of improvement opportunities and identifies best practices that can be shared with other transit agencies.

The Act 44 performance review of the Southeastern Pennsylvania Transportation Authority (SEPTA) was conducted in October 2014. The performance review focused on Fixed-Route Bus, Streetcar / Light Rail (trolley), Heavy Rail (subway and elevated), and Commuter Rail (SEPTA's preferred designation is Regional Rail). This report addresses Act 44-established performance criteria for each of these four modes, trends in SEPTA's performance, and a comparison of SEPTA's performance to its peers' performance. The report also establishes targets for future performance (performance reviews are conducted on a five-year cycle) and includes results of a functional review of SEPTA's operations, a list of the agency's best practices, and discussion of opportunities for improvement which should assist SEPTA in meeting future performance targets. This report also addresses the management of the agency, general efficiency, and quality of service.

After acceptance of this performance review report, SEPTA will develop an action plan to identify the steps the agency will take to meet Act 44 performance criteria targets by FY 2018-2019. The general goals are to maximize efficiency and promote cost savings, improved service quality, and increased ridership and revenue. The action plan should focus on the most critical areas for the agency, as prioritized by SEPTA management and its governing board.

A draft action plan will be due to the Department of Transportation within 90 days of receipt of the final report. PennDOT will work with SEPTA to agree on a plan which, when approved by SEPTA's governing board, will be submitted as the final action plan. After that point, SEPTA will report at least quarterly to the Board and PennDOT on the progress of the action plan, identifying actions taken to date and actions yet to be implemented. SEPTA's success will be measured, in part, on meeting performance targets established through this review.

ACT 44 PERFORMANCE DETERMINATION

Act 44 performance factors were analyzed to quantify SEPTA's Fixed-Route Bus, Streetcar / Light Rail, Heavy Rail (subway and elevated), and Commuter Rail (Regional Rail) performance in comparison to its peer agencies' performance in FY 2011-2012 and over a five-year trend period from FY 2006-2007 to FY 2011-2012 (the most recent National Transit Database (NTD) data available at the time of the peer selection). Peers were selected through an analytical process and were agreed to in advance by SEPTA.

A transit agency's performance can fall into one of two categories: "In Compliance" or "At Risk". The following criteria established in Act 44 are used to make the determination:

- In Compliance if within plus or minus one standard deviation or below minus one standard deviation in:
 - The single-year and trend for Operating Cost / Revenue Vehicle Hour
 - The single-year and trend for Operating Cost / Passenger
- In Compliance if within plus or minus one standard deviation or exceeds plus one standard deviation in:
 - The single-year and trend for Passengers / Revenue Vehicle Hour
 - The single-year and trend for Operating Revenue / Revenue Vehicle Hour

If the agency falls outside of these prescribed boundaries, it is considered "At Risk" for that factor and must improve as agreed upon between PennDOT and the agency.

An analysis of the four criteria for FY 2011-2012 and the trend for the same four criteria between FY 2006-2007 and FY 2011-2012, as mandated by Act 44, was conducted. As a result, **it was determined that SEPTA is "In Compliance" for all eight criteria across the four transit modes of Fixed-Route Bus, Streetcar / Light Rail, Heavy Rail (subway and elevated), and Commuter Rail (Regional Rail).**

A summary of the specific Act 44 performance measures and their values as calculated for SEPTA¹ are presented in Table ES-2 to Table ES-5 below:

TABLE ES-2: SUMMARY OF ACT 44 PERFORMANCE MEASURES (FIXED-ROUTE BUS)

Performance Measure	Fiscal Year and Trend	Determination	Value	Peer Average
Passengers / Revenue Vehicle Hour	FY 2011-2012	In Compliance	47.15	40.53
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	1.37%	0.64%
Operating Cost / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$148.72	\$141.67
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	4.02%	2.70%
Operating Revenue / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$47.62	\$45.27
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	2.02%	2.92%
Operating Cost / Passenger	FY 2011-2012	In Compliance	\$3.15	\$3.70
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	2.61%	2.14%

TABLE ES-3: SUMMARY OF ACT 44 PERFORMANCE MEASURES (STREETCAR / LIGHT RAIL)

Performance Measure	Fiscal Year and Trend	Determination	Value	Peer Average
Passengers / Revenue Vehicle Hour	FY 2011-2012	In Compliance	73.54	84.15
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	1.61%	-0.81%
Operating Cost / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$183.32	\$285.53
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	5.76%	3.57%
Operating Revenue / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$90.34	\$100.24
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	13.76%	8.84%
Operating Cost / Passenger	FY 2011-2012	In Compliance	\$2.49	\$3.55
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	4.08%	4.46%

¹ NTD 2007 values were rounded to the nearest 100 by NTD in the published data tables. These rounded values were used to calculate SEPTA and peer system performance metrics for FY 2006-2007.

TABLE ES-4: SUMMARY OF ACT 44 PERFORMANCE MEASURES (HEAVY RAIL)

Performance Measure	Fiscal Year and Trend	Determination	Value	Peer Average
Passengers / Revenue Vehicle Hour	FY 2011-2012	In Compliance	118.03	110.44
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	1.62%	2.14%
Operating Cost / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$211.62	\$248.19
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	3.64%	2.90%
Operating Revenue / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$119.87	\$157.24
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	3.80%	6.13%
Operating Cost / Passenger	FY 2011-2012	In Compliance	\$1.79	\$2.38
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	1.99%	0.78%

TABLE ES-5: SUMMARY OF ACT 44 PERFORMANCE MEASURES (COMMUTER/REGIONAL RAIL)

Performance Measure	Fiscal Year and Trend	Determination	Value	Peer Average
Passengers / Revenue Vehicle Hour	FY 2011-2012	In Compliance	54.03	49.13
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	-0.52%	-0.34%
Operating Cost / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$373.39	\$473.54
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	2.71%	4.03%
Operating Revenue / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$211.15	\$276.79
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	2.90%	3.97%
Operating Cost / Passenger	FY 2011-2012	In Compliance	\$6.91	\$9.72
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	3.24%	4.41%

GENERAL FINDINGS

In accordance with Act 44, findings are indicated as “best practices” or “opportunities for improvement”. Best practices are current practices that enhance the efficiency and/or quality of service of SEPTA and may be shared with other agencies as techniques for improvement. Opportunities for improvement identify tasks that may be undertaken to increase the efficiency and/or quality of service of the agency. Major themes are indicated below.

BEST PRACTICES

1. **A Strategic Business Plan that Guides Everyday Decision-making Throughout the Organization** - The ongoing educational effort of the strategic planning group, the incorporation of the strategic plan in various aspects of SEPTA’s operations, and the setting of Key Performance Indicators raise this strategic planning effort to a best practice.
 - a. SEPTA’s financial management team has developed and implements the strategic plan to emphasize education and support of employees to maximize the organization’s delivery of the plan as it was envisioned.
 - b. The strategic plan is fully integrated into operating and capital budgets, staff training, and staff performance evaluations.
 - c. SEPTA has adopted Key Performance Indicators (KPIs) for each of the six focus areas identified in the strategic plan and uses them to measure the quality of their services, reflecting a business-oriented approach to planning and performance measurement.
2. **A Strong Customer Service Culture that Guides all Aspects of Service Delivery** - SEPTA’s establishment of customer experience action teams, development of a Customer Relationship Management Database, and use of social media and smartphone applications are some of the ways the agency has created a strong customer focus to its delivery of transit services.
3. **Demonstrated Leadership in the Transit Industry** - SEPTA’s development of a succession planning program, its establishment of a Facilities Improvement Team, its willingness to share effective maintenance practices with other transit agencies, and its careful design of a new fare payment system that should reduce operating costs and losses to errors and fraud have demonstrated leadership in the industry.
4. **Commitment to Community** – SEPTA’s recognition of the ways that it can contribute to the overall quality of life of the greater Philadelphia region has led the agency to develop an Art in Transit program, to offer services to the homeless population, and to address the environmental impacts of its services with twelve “SEP-TAinable” sustainability goals.
5. **Proactive Financial Management** – SEPTA’s financial management practices employed across a breadth of financial functions, as well as its interaction with stakeholders related to financial issues, incorporate a proactive approach that strengthens SEPTA’s financial condition and helps to minimize financial risk.
 - a. Successful cash management at SEPTA is based upon key banking relationships, conservative cash flow planning, multiple cash-related reports, and a board-approved investment policy
 - b. Debt management balances sophisticated transactions with ongoing analysis and thoughtful financial planning
 - c. The operating budget development process involves extensive financial assessment, detailed operational analysis of route performance, and ongoing stakeholder participation
 - d. The capital budget development process focuses on both short- and long-term planning conditions, assessment of funding availability and cash flow projections, public participation, and linkages between capital projects and the agency’s operating budget
 - e. The route planning and analysis process examines both poorly performing and well performing routes in an effort to raise the performance of the full transportation system
6. **A Strong Focus on Safety and Security** – SEPTA’s safety initiatives include its “Never Too Busy for Safety” campaign, rigorous operator training programs, required track safety training for non-SEPTA personnel performing work on SEPTA equipment or property, emergency operations planning and coordination with local authorities, and installation of a Positive Train Control signaling system and surveillance cameras in vehicles and stations.

OPPORTUNITIES FOR IMPROVEMENT

SEPTA is currently in compliance with the eight criteria mandated in Act 44. Below are additional considerations where SEPTA can further excel in their delivery of services.

1. **Operating Cost per Revenue Vehicle Hour** - For three of four transit modes, SEPTA's rates of growth in operating costs per revenue vehicle hour were significantly higher than peer group averages. To bring the rate of change in operating cost per revenue vehicle hour down to a sustainable level, the goal should be to **gain additional productivity from fixed-route bus service**. SEPTA should look for opportunities to slow the rate of growth by systematically examining operations where routes can be optimized to increase average speed and reduce overall delay. Further analysis may also include identifying areas of auto congestion, locations where queue jumps or modified signal timing may be beneficial, and wider bus stop spacing to increase average bus speed and productivity.
2. **Operating Revenue per Revenue Vehicle Hour** - Three of four of SEPTA's fixed-route modes exhibited lower operating revenue per revenue vehicle hour than peer group averages in FY 2011-2012. At the same time, SEPTA's rate of growth in operating revenue per revenue vehicle hour was lower than peer group averages. To increase the levels and rates of operating revenues, SEPTA should maintain their policy of increasing fares every three years, pursue opportunities to increase public-private development, advertising, branding, and marketing efforts in order to increase revenues.
3. **Internal Audit Plan** - The purpose of establishing any internal audit function is to minimize risk and prevent losses from occurring; and the development of an annual audit plan has become a standard and prudent practice in the internal audit profession to support the internal auditor's efforts to identify and minimize risk. While SEPTA's Internal Audit staff annually determines areas to audit, it is recommended that SEPTA adopt the Institute of Internal Auditors international standard to prepare an annual risk assessment and internal audit plan, and to balance each year's cyclical, topical and responsive audits based on the annual risk assessment.
4. **Capital Project Monitoring and Capital Budget Amendment Process** - Capital project monitoring and the capital budget amendment process should be more transparent in order to better evaluate budget performance and project completion expectations. Given the significant increase in state capital funding (Act 89 of 2013), SEPTA anticipates major expansion of capital program activity. SEPTA management and governance should have clear and current project-level information on which to base capital budget decisions. Two recommendations to assist in that decision-making process relate to improving the Project Control Report by adding specific data elements that are not provided today and providing the Board with project level data for all capital projects requiring budget adjustment approval.
5. **Capital Program Prioritization** - The addition of approximately \$250 million annually to SEPTA's capital program creates an historic opportunity to address deferred capital investments due to years of inadequate funding. During the interview process, SEPTA management indicated that it has not changed its process for investment prioritization and acknowledged that state-of-good-repair needs will continue to be a focus of its capital program. SEPTA management should continue on this path and not yield to temptation or local pressure to expend large portions of its capital funding on growth and expansion purposes until the deferred state of good repair improvements have been made.

PERFORMANCE TARGETS

This transit agency performance report outlines areas where improvements may be made to enhance the overall quality, effectiveness, and efficiency of the transit system. As a result of the performance review, a set of "performance targets" has been established for each of SEPTA's four fixed modes: Fixed-Route Bus, Streetcar / Light Rail (trolley), Heavy Rail (subway and elevated), and Commuter Rail. These performance targets are required to comply with Act 44 performance criteria and represent the minimum performance levels that SEPTA should work to achieve during the next review cycle (i.e., five years from the date of this report). These performance targets were created using historical data analyzed during the five-year trend analysis as well as the most current audited SEPTA reported information available (FY 2014- 2015). Standards were extrapolated to FY 2019-2020 and are designed to be aggressive, yet achievable. They are summarized as follows:

TABLE ES-6: SUMMARY OF ACT 44 PERFORMANCE TARGETS (BUS)

Performance Criteria Fixed-Route Bus	Fiscal Year End (FYE)		Target Annual Increase
	2015 Actual	2020 Target	
Passengers / Revenue Hour	43.6	44.70	0.5%
Operating Cost / Revenue Hour	\$157.70	\$182.82	3.0%
Operating Revenue / Revenue Hour	\$49.30	\$50.54	0.5%
Operating Cost / Passenger	\$3.62	\$4.10	2.5%

TABLE ES-7: SUMMARY OF ACT 44 PERFORMANCE TARGETS (LIGHT RAIL/STREETCAR)

Performance Criteria Fixed-Route Light Rail	Fiscal Year End (FYE)		Target Annual Increase
	2015 Actual	2020 Target	
Passengers / Revenue Hour	65.3	70.35	1.5%
Operating Cost / Revenue Hour	\$170.30	\$197.42	3.0%
Operating Revenue / Revenue Hour	\$81.80	\$88.12	1.5%
Operating Cost / Passenger	\$2.61	\$2.81	1.5%

TABLE ES-8: SUMMARY OF ACT 44 PERFORMANCE TARGETS (HEAVY RAIL)

Performance Criteria Fixed-Route Heavy Rail	Fiscal Year End (FYE)		Target Annual Increase
	2015 Actual	2020 Target	
Passengers / Revenue Hour	114.4	123.24	1.50%
Operating Cost / Revenue Hour	\$214.20	\$248.32	3.00%
Operating Revenue / Revenue Hour	\$131.00	\$141.12	1.50%
Operating Cost / Passenger	\$1.87	\$2.01	1.50%

TABLE ES-9: SUMMARY OF ACT 44 PERFORMANCE TARGETS (COMMUTER/REGIONAL RAIL)

Performance Criteria Fixed-Route Commuter Rail	Fiscal Year End (FYE)		Target Annual Increase
	2015 Actual	2020 Target	
Passengers / Revenue Hour	43.3	46.65	1.50%
Operating Cost / Revenue Hour	\$310.70	\$360.19	3.00%
Operating Revenue / Revenue Hour	\$187.90	\$202.42	1.50%
Operating Cost / Passenger	\$7.17	\$7.72	1.50%

NEXT STEPS

Upon final transmission of the performance review report, Act 44 regulations stipulate that SEPTA "...shall develop and submit to the Department within 90 days...a strategic action plan that focuses on continually improving the system to achieve the established minimum performance targets." The action plan should outline corrective action that will be taken to address "Opportunities for Improvement" as prioritized by the SEPTA oversight board and management.

INTRODUCTION

PURPOSE

In July 2007, the Pennsylvania legislature passed Act 44 establishing a framework for a performance review process for all public transportation agencies receiving state financial assistance. This report documents the findings and observations of the public transportation agency performance review for the Southeastern Pennsylvania Transportation Authority (SEPTA).

Performance reviews are conducted to emphasize the importance of good management, proactive planning, and efficient service which maximizes the effectiveness of federal, state, and local funding. In addition, other important goals of the review process and this document are to:

- Find, document, and publicize best practices that contribute to efficient, high-quality public transit service delivery, encouraging other Pennsylvania transit agencies to apply them as appropriate.
- Provide guidance to transit agencies on cost-effective ways to improve efficiency and quality of service.

PERFORMANCE REVIEW PROCESS

In August 2014, an Act 44-mandated performance review was initiated for SEPTA. PennDOT, with consultant assistance, conducted the review according to the steps outlined below:

1. Initial notification of performance review selection and transmission of document request
 - a. A review of available data and requests for information that may not be publicly transmitted.
2. Peer selection
 - a. A set of peers used for competitive analysis was jointly agreed upon by SEPTA and PennDOT.
3. Act 44 performance criteria analysis
 - a. Performance criteria mandated by Act 44 were analyzed for SEPTA and for the peer groups.
 - b. Additional performance criteria were calculated and analyzed to help guide the on-site review.
4. On-site review
 - a. An on-site review was conducted on October 7th-9th and 22nd, 2014.
 - b. An interview guide for SEPTA's service characteristics was used for the review.
 - c. Topics covered during the interview process included:

<ul style="list-style-type: none"> • Governance • Management • Human Resources and Labor Relations • Finance • Procurement • Operations • Maintenance 	<ul style="list-style-type: none"> • Facilities • Contracted Service Provider • Safety and Security • Customer Service • Information Technology • Capital Planning • Marketing and Public Relations • Planning
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AGENCY DESCRIPTION

SEPTA was established on February 18, 1964 by the Pennsylvania General Assembly to provide public transportation services for Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties. In the 1960s and 1970s, SEPTA expanded its responsibilities by absorbing or acquiring services, rolling stock, buses, and capital infrastructure formerly operated by the Reading Company, Pennsylvania Railroad, Philadelphia Transportation Company, Philadelphia Suburban Transportation Company, Schuylkill Valley Lines, and other transit providers.

Today, SEPTA is the Commonwealth's largest transit system and the nation's sixth largest, with a vast network of fixed route services including bus, subway, trolley, trackless trolley/trolleybus, and Regional Rail, as well as ADA paratransit and shared ride programs.

The agency has won numerous awards and citations in recent years, including "Outstanding Public Transit System for 2012" (from the American Public Transportation Association), an Energy Star Award in 2010 (from the U.S. Environmental Protection Agency), the Governor's Award for Environmental Excellence in 2016 for its wayside energy initiative at the Griscom Substation on the Market-Frankford Line (from the Pennsylvania Department of Environmental Protection), a Preservation Achievement Award in 2011 for the reconstruction of the Allen Lane Station on the Chestnut Hill West Regional Rail line (from the Preservation Alliance for Greater Philadelphia), and for ten years in a row (from 2006 to 2015) the "Distinguished Budget Presentation Award" from the Government Finance Officers Association (GFOA) of the United States and Canada.

SEPTA is governed by a 15-member board of directors, appointed by local county commissioners, majority and minority leaders of the Pennsylvania State Legislature's Senate and House of Representatives, and by the governor. The daily operations of SEPTA are managed by the general manager, appointed and hired by the board of directors. The general manager is assisted by a deputy general manager and ten department heads called assistant general managers.

SEPTA offered 145 routes with 2,772 vehicles available and an annual ridership of 337.3 million in FY 2013. See Figure 1 on the following page for a map of the agency's Regional Rail and Rail Networks.

Figure A-1 to Figure A-5 in Appendix A: Agency Statistics present fixed-route bus, streetcar / light rail, heavy rail (subway and elevated), commuter rail (Regional Rail), and trackless trolley/trolleybus statistics for SEPTA derived from PennDOT Legacy Reports (dotGrants) and the National Transit Database (NTD).

FIGURE 1: SEPTA'S RAIL NETWORK, 2015



Source: SEPTA Regional Rail and Rail Transit Map, <http://www.septa.org/maps/pdf/click-map.pdf>

ACT 44 PERFORMANCE ASSESSMENT

Act 44 establishes the framework for a performance review process as follows:

“The Department may conduct performance reviews of an award recipient under this section to determine the effectiveness of the financial assistance. Reviews shall be conducted at regular intervals as established by the Department in consultation with the management of the award recipient. After completion of a review, the Department shall issue a report that:

*Highlights exceptional performance and identifies any problems that need to be resolved;
Assesses performance, efficiency, and effectiveness of the use of the financial assistance;
Makes recommendations on follow-up actions required to remedy any problem identified; and,
Provides an action plan documenting who should perform the recommended actions and a time frame within which they should be performed.”*

The law sets forth performance criteria to be used to satisfy its objectives:

- Passengers per revenue vehicle hour,
- Operating cost per revenue vehicle hour,
- Operating revenue per revenue vehicle hour,
- Operating cost per passenger, and
- Other items as the Department may establish.

Performance criteria are to be compared for both the system being reviewed and for a group of five or more peers by mode, determined by considering:

- Revenue vehicle hours (car hours for rail and fixed guideway)
- Revenue vehicle miles (car miles for rail and fixed guideway)
- Number of peak vehicles
- Service area population

PennDOT is required to prepare a five-year trend analysis for the local transportation organization under review and the peer systems by performance criteria and by mode, and make a determination of “In Compliance” or “At Risk” status based on findings. Trend analysis findings are presented for FY 2006-2007 to FY 2011-2012.

PEER SYSTEM SELECTION

The following list was submitted to SEPTA management for review and comment. All peer agencies, including SEPTA, were included in subsequent analyses for peer comparison purposes:

Fixed-Route Bus

- Chicago Transit Authority (Chicago, IL)
- MTA Bus Company (New York, NY)
- Massachusetts Bay Transportation Authority (Boston, MA)
- Washington Metropolitan Area Transit Authority (Washington, DC)
- Los Angeles County Metropolitan Transportation Authority (Los Angeles, CA)
- Metropolitan Transit Authority of Harris County, Texas (Houston, TX)
- Denver Regional Transportation District (Denver, CO)
- King County Department of Transportation – Metro Transit (Seattle, WA)

Streetcar / Light Rail

- San Francisco Municipal Railway (San Francisco, CA)
- Massachusetts Bay Transportation Authority (Boston, MA)
- Los Angeles County Metropolitan Transportation Authority (Los Angeles, CA)
- San Diego Metropolitan Transit System (San Diego, CA)
- Dallas Area Rapid Transit (Dallas, TX)
- Central Puget Sound Regional Transit Authority (Seattle, WA)

Heavy Rail

- Massachusetts Bay Transportation Authority (Boston, MA)
- Chicago Transit Authority (Chicago, IL)
- San Francisco Bay Area Rapid Transit District (San Francisco, CA)
- Washington Metropolitan Area Transit Authority (Washington, DC)
- Metropolitan Atlanta Rapid Transit Authority (Atlanta, GA)
- Los Angeles County Metropolitan Transportation Authority (Los Angeles, CA)
- MTA New York City Transit (New York, NY)

Commuter Rail

- Massachusetts Bay Transportation Authority (Boston, MA)
- MTA Metro-North Commuter Railroad Company (New York, NY)
- New Jersey Transit Corporation (Newark, NJ)
- MTA Long Island Rail Road (New York, NY)
- Northeast Illinois Regional Commuter Railroad Corporation (Chicago, IL)

ACT 44 FIXED-ROUTE COMPARISONS AND FINDINGS

Comparison of SEPTA with the selected peer transit agencies was completed using NTD reported data and statistics. NTD was selected as the source of data to use in the calculation of the following Act 44 metrics due to consistency and availability for comparable systems for the five-year trend analysis window:

- Passengers per revenue vehicle hour
- Operating cost per revenue vehicle hour
- Operating revenue per revenue vehicle hour
- Operating cost per passenger

The definitions of the variables used in the calculations are as follows, based on Act 44 legislation:

- Passengers: Annual unlinked passenger boardings by mode for both directly-operated and purchased transportation.
- Operating Cost: Annual operating cost of services provided (excluding capital costs) by mode for both directly-operated and purchased transportation.
- Operating Revenue: Total annual operating revenue generated from farebox and other non-state, non-federal sources by mode for both directly-operated and purchased transportation.
- Revenue Vehicle Hour: The total number of “in-service” hours of service provided by mode for both directly-operated and purchased transportation.
- Average: Unweighted linear average of all values being measured across all peer transit agencies, including SEPTA.
- Standard Deviation: Standard deviation of all values being measured across all peer transit agencies, including SEPTA.

Act 44 stipulates that metrics fall into two categories: “In Compliance” and “At Risk”. The following criteria are used to make the determination:

- In Compliance if within plus or minus one standard deviation or below minus one standard deviation in:
 - The single-year and trend for Operating Cost / Revenue Vehicle Hour
 - The single-year and trend for Operating Cost / Passenger
- In Compliance if within plus or minus one standard deviation or exceeds plus one standard deviation in:
 - The single-year and trend for Passengers / Revenue Vehicle Hour
 - The single-year and trend for Operating Revenue / Revenue Vehicle Hour

If the agency falls outside of any of the boundaries, it is considered “At Risk” for that criteria and must create an action plan to bring the criteria into compliance prior to the next performance review.

Detailed results of the SEPTA analysis and the peer analysis are presented in the Performance Comparisons section below.

PERFORMANCE COMPARISONS

For all peer agencies along with SEPTA, NTD data were extracted and summarized for each of the Act 44 metrics. Measures were put into histograms and tables for visual inspection, statistical analyses, and ordinal ranking purposes. The single year and five-year trend results of these analyses are presented in Figure B-1 to Figure B-32 in Appendix B: Performance Comparisons.

For measures relating to passengers or operating revenue, ordinal rankings are based on a highest-to-lowest system. For measures relating to operating cost, ordinal rankings are based on a lowest-to-highest system. Thus a ranking of “1” consistently indicates that the agency scores highest amongst its peers and lower rankings, depending on the transit mode, indicate that it performs lower on any given metric.

The findings presented in Appendix B: Performance Comparisons are summarized as follows, by mode:

FIXED-ROUTE BUS

TABLE 1: SUMMARY OF ACT 44 MEASURES (FIXED-ROUTE BUS)

Performance Measure	Fiscal Year and Trend	Determination	Value	Peer Average
Passengers / Revenue Vehicle Hour	FY 2011-2012	In Compliance	47.15	40.53
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	1.37%	0.64%
Operating Cost / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$148.72	\$141.67
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	4.02%	2.70%
Operating Revenue / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$47.62	\$45.27
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	2.02%	2.92%
Operating Cost / Passenger	FY 2011-2012	In Compliance	\$3.15	\$3.70
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	2.61%	2.14%

- SEPTA’s FY 2011-2012 Fixed-Route Bus passengers per revenue vehicle hour ranks fourth out of the nine transit agencies in the peer group. Passengers per revenue vehicle hour grew at an average annual rate of change of 1.37% from FY 2006-2007 to FY 2011-2012, ranking fifth out of nine. The peer groups’ average annual rate of change was smaller, at 0.64%. See Figure B-1 and Figure B-2 in Appendix B: Performance Comparisons.
- SEPTA’s FY 2011-2012 Fixed-Route Bus operating cost per revenue vehicle hour is higher than the peer group average, ranking sixth, and is increasing at a rate higher than the peer group trend, ranking eighth overall. See Figure B-3 and Figure B-4 in Appendix B: Performance Comparisons.

- SEPTA’s FY 2011-2012 Fixed-Route Bus operating revenue per revenue vehicle hour ranks fourth out of nine and performs better than the peer average. The trend between FY 2006-2007 and FY 2011-2012 indicates that SEPTA’s rate of change in operating revenue per revenue vehicle hour is lower than the peer agency average. Therefore, operating revenue per vehicle revenue hour increased at a slower rate than the peer agencies. See Figure B-5 and Figure B-6 in Appendix B: Performance Comparisons.
- SEPTA’s FY 2011-2012 Fixed-Route Bus operating cost per passenger is better than the peer group average, ranking third of the nine peers. Operating cost per passenger is growing at a faster (worse) rate than the peer group average, ranking seventh out of nine agencies. See Figure B-7 and Figure B-8 in Appendix B: Performance Comparisons.

STREETCAR / LIGHT RAIL

TABLE 2: SUMMARY OF ACT 44 MEASURES (STREETCAR / LIGHT RAIL)

Performance Measure	Fiscal Year and Trend	Determination	Value	Peer Average
Passengers / Revenue Vehicle Hour	FY 2011-2012	In Compliance	73.54	84.15
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	1.61%	-0.81%
Operating Cost / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$183.32	\$285.53
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	5.76%	3.57%
Operating Revenue / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$90.34	\$100.24
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	13.76%	8.84%
Operating Cost / Passenger	FY 2011-2012	In Compliance	\$2.49	\$3.55
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	4.08%	4.46%

- SEPTA’s FY 2011-2012 Streetcar / Light Rail passengers per revenue vehicle hour ranks fifth out of the seven agencies in the peer group. SEPTA’s FY 2006-2007 to FY 2011-2012 passengers per revenue vehicle hour trend ranks second out of seven agencies, growing at a positive rate while the peer group average indicates a negative growth. See Figure B-9 and Figure B-10 in Appendix B: Performance Comparisons.
- SEPTA’s FY 2011-2012 Streetcar / Light Rail operating cost per revenue vehicle hour is better (that is, lower) than the peer group average, ranking second of seven peer groups, yet the overall trend for FY2006-2007 to FY 2011-2012 is worse than the peer group average, ranking sixth out of seven, indicating that SEPTA’s operating cost per revenue vehicle hour is growing at a faster rate than the average of the peer transit agencies. See Figure B-11 and Figure B-12 in Appendix B: Performance Comparisons.
- SEPTA’s FY 2011-2012 Streetcar / Light Rail operating revenue per revenue vehicle hour ranks fourth of seven, lower than the peer group average. The trend in rate of change between FY 2006-2007 and FY 2011-2012, however, ranks SEPTA’s Streetcar / Light Rail system second out of the seven peer groups, higher than the peer group average. See Figure B-13 and Figure B-14 in Appendix B: Performance Comparisons.
- SEPTA’s FY 2011-2012 Streetcar / Light Rail operating cost per passenger ranks third out of seven, better than the peer group average. The rate of change between FY 2006-2007 and FY 2011-2012 in operating cost per passenger ranks fifth out of seven, but still increases at a lower (better) rate than the peer group average. See Figure B-15 and Figure B-16 in Appendix B: Performance Comparisons.

HEAVY RAIL

TABLE 3: SUMMARY OF ACT 44 MEASURES (HEAVY RAIL)

Performance Measure	Fiscal Year and Trend	Determination	Value	Peer Average
Passengers / Revenue Vehicle Hour	FY 2011-2012	In Compliance	118.03	110.44
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	1.62%	2.14%
Operating Cost / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$211.62	\$248.19
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	3.64%	2.90%
Operating Revenue / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$119.87	\$157.24
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	3.80%	6.13%
Operating Cost / Passenger	FY 2011-2012	In Compliance	\$1.79	\$2.38
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	1.99%	0.78%

- SEPTA's FY 2011-2012 Heavy Rail passengers per revenue vehicle hour ranks third out of the eight agencies in the peer group. The FY 2006-2007 to FY 2011-2012 trend ranks SEPTA sixth out of eight, with passengers per revenue vehicle hour rising at a slower rate than the peer group average. See Figure B-17 and Figure B-18 in Appendix B: Performance Comparisons.
- SEPTA's FY 2011-2012 Heavy Rail operating cost per revenue vehicle hour is better (that is, lower) than the peer group average, ranking third out of eight agencies. The trend from FY2006-2007 to FY 2011-2012 is worse than the peer group average, however, ranking sixth out of eight peer groups. See Figure B-19 and Figure B-20 in Appendix B: Performance Comparisons.
- SEPTA's FY 2011-2012 Heavy Rail operating revenue per revenue vehicle hour ranks seventh out of eight, lower than the peer group average. The rate of change trend ranks seventh out of eight because SEPTA's operating revenue per revenue vehicle hour is growing at about half the rate of the peer group average. See Figure B-21 and Figure B-22 in Appendix B: Performance Comparisons.
- SEPTA's FY 2011-2012 Heavy Rail operating cost per passenger ranks second out of eight, performing much better than the peer group average. The trend between FY 2006-2007 and FY 2011-2012, however, ranks SEPTA fifth out of eight, lower than the peer group average. See Figure B-23 and Figure B-24 in Appendix B: Performance Comparisons.

COMMUTER RAIL (REGIONAL RAIL)

TABLE 4: SUMMARY OF ACT 44 MEASURES (COMMUTER RAIL (REGIONAL RAIL))

Performance Measure	Fiscal Year and Trend	Determination	Value	Peer Average
Passengers / Revenue Vehicle Hour	FY 2011-2012	In Compliance	54.03	49.13
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	-0.52%	-0.34%
Operating Cost / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$373.39	\$473.54
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	2.71%	4.03%
Operating Revenue / Revenue Vehicle Hour	FY 2011-2012	In Compliance	\$211.15	\$276.79
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	2.90%	3.97%
Operating Cost / Passenger	FY 2011-2012	In Compliance	\$6.91	\$9.72
	Trend FY 2006-2007 to FY 2011-2012	In Compliance	3.24%	4.41%

- SEPTA's FY 2011-2012 Commuter Rail passengers per revenue vehicle hour ranks first out of the six agencies in the peer group. Passengers per revenue vehicle hour declined at an average annual rate of -0.52% from FY 2006-2007 to FY 2011-2012, a steeper decrease than the peer groups' average annual rate of -0.34%. See Figure B-25 and Figure B-26 in Appendix B: Performance Comparisons.
- SEPTA's FY 2011-2012 Commuter Rail operating cost per revenue vehicle hour is better than the peer group average, ranking first, and is increasing at a rate of change much lower than the peer group's average, ranking first overall. This is the only performance criterion where SEPTA ranks first in both single-year and trend analysis. See Figure B-27 and Figure B-28 in Appendix B: Performance Comparisons.
- SEPTA's FY 2011-2012 Commuter Rail operating revenue per revenue vehicle hour ranks last among the peer agencies. The trend between FY 2006-2007 and FY 2011-2012 indicates that SEPTA's rate of change in operating revenue per revenue vehicle hour is lower than the peer agency average, ranking fifth among the peer agencies. See Figure B-29 and Figure B-30 in Appendix B: Performance Comparisons.
- SEPTA's FY 2011-2012 Commuter Rail operating cost per passenger is better than the peer group average, ranking first of the six peers. Operating cost per passenger is growing at a slower (better) rate than the peer group average, ranking second out of six agencies. See Figure B-31 and Figure B-32 in Appendix B: Performance Comparisons.

PERFORMANCE TARGETS

Act 44 requires that PennDOT and all local transit agencies establish five-year performance targets for each of the following four core metrics for fixed-route service:

- Passengers / Revenue Hour
- Operating Cost / Revenue Hour
- Operating Revenue / Revenue Hour
- Operating Cost / Passenger

These metrics are intended to improve both the effectiveness and efficiency of service delivery. PennDOT uses the most recent audited and agency-verified values for passengers, operating costs and operating revenues as the “baseline” from which to develop the targets. Five-year targets are then developed based on realistic and achievable expectations of improvement.

Passengers / Revenue Hour is a measure of effectiveness of transit service. Passengers may increase due to successful marketing, customer service, improved route planning and natural growth. Declines in passengers / revenue hour can occur in spite of overall ridership increases due to the introduction of relatively inefficient service. Substantial improvements can be realized through the reduction of relatively inefficient services.

Typically, PennDOT suggests a minimum increase of 3% per year in passengers / revenue hour of service. This target is consistent with statewide historic trends; is often achievable; and, it encourages agencies to better match service delivery with customer needs. Based on historical trends in ridership, SEPTA’s targets have been set by mode to reflect the established nature of the Philadelphia area and the maturity of the SEPTA service while at the same time encouraging increased ridership and revenues for the next performance review.

Operating Cost / Revenue Hour quantifies the efficiency of service delivery. To some extent, costs can be / should be managed through good governance, proactive management and effective cost containment. PennDOT suggests a target of no more than 3% per year increase in operating cost / revenue hour of service. SEPTA’s target has been set to a rate of 3% per year due to a need to make sure future costs and future state subsidies are aligned.

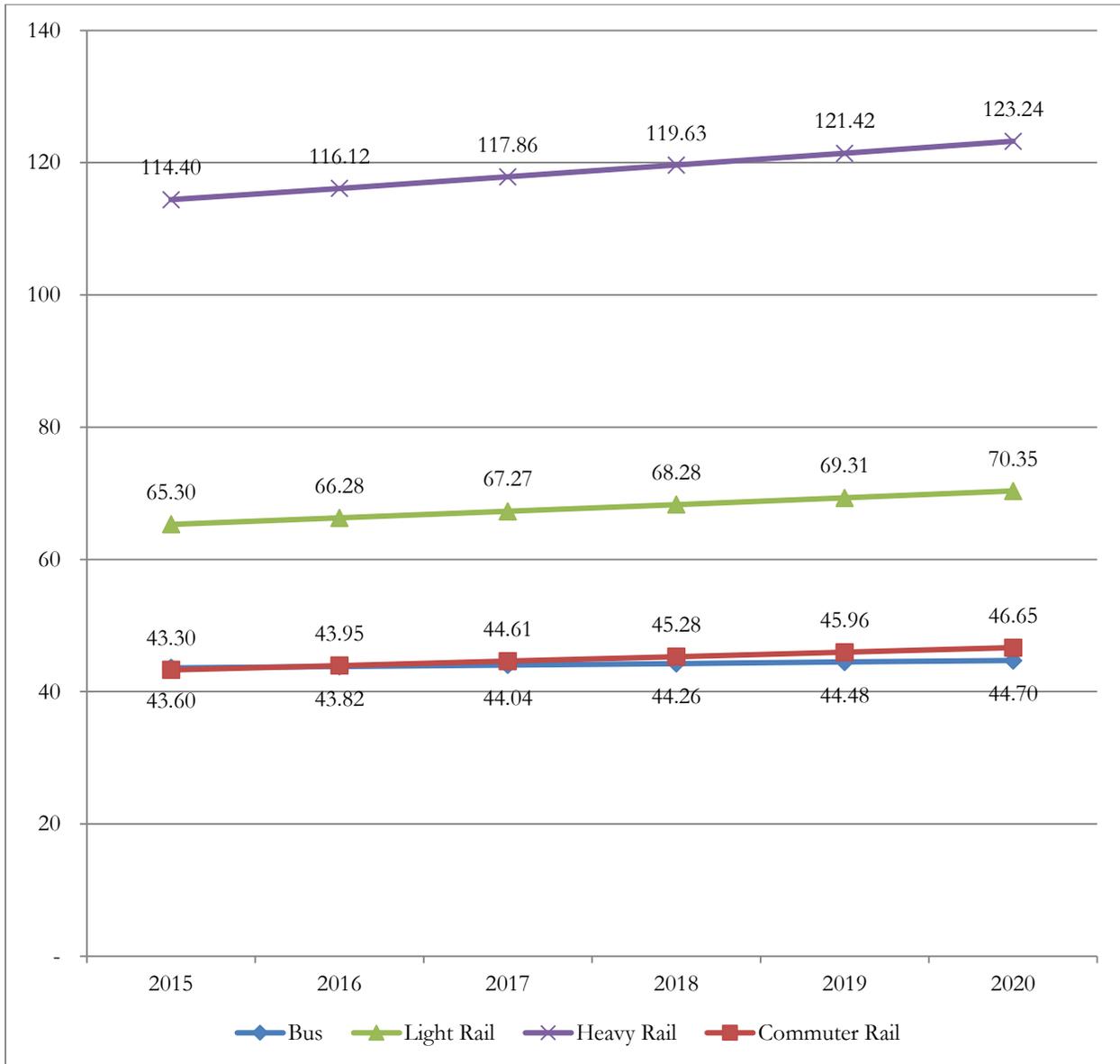
Operating Revenue / Revenue Hour, like operating cost / revenue hour, tries to ensure an agency remains financially solvent in the long run. Operating revenue is composed of fares and other non-subsidy revenues. The target is set to be the same as passenger / revenue hour by mode to make sure that revenue increases keep pace or exceed cost increases.

Operating Cost / Passenger captures both the efficiency and effectiveness of transit service delivery. The target is set to be equal to the difference between maximum operating cost / revenue hour increase (3.0%) less the minimum passengers / revenue hour goal by mode.

Performance targets are required to comply with Act 44 and represent minimum performance levels that SEPTA should work to achieve for each Act 44 performance criterion during the next review cycle, five years from the agency’s receipt of the final report. These performance targets were created using historical data analyzed during the five-year trend analysis as well as the most current NTD information available, FY 2015. In order for PennDOT to monitor performance criteria in dotGrants, data for all modes were combined. Standards were extrapolated to FY2019-2020.

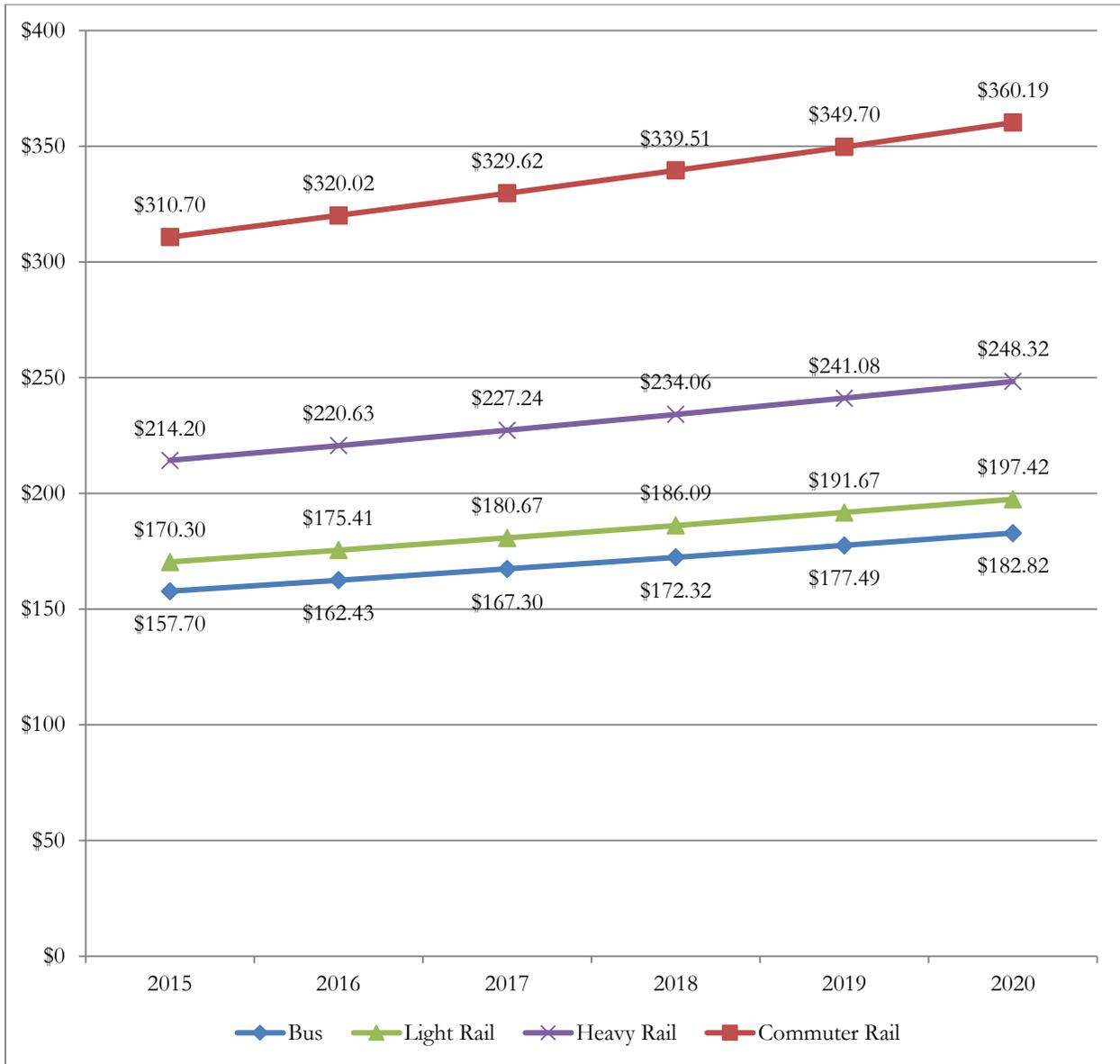
SEPTA performance targets are set for each fixed-route mode (i.e., Bus, Streetcar/Light Rail, Heavy Rail, Commuter/Regional Rail based on SEPTA reporting of “Fixed-Route” operating cost, operating revenue, passenger and revenue vehicle hour statistics. The standards established for FY 2019-2020 are designed to be aggressive, yet achievable.

FIGURE 2: FIXED-ROUTE PASSENGERS / REVENUE HOUR PERFORMANCE TARGETS



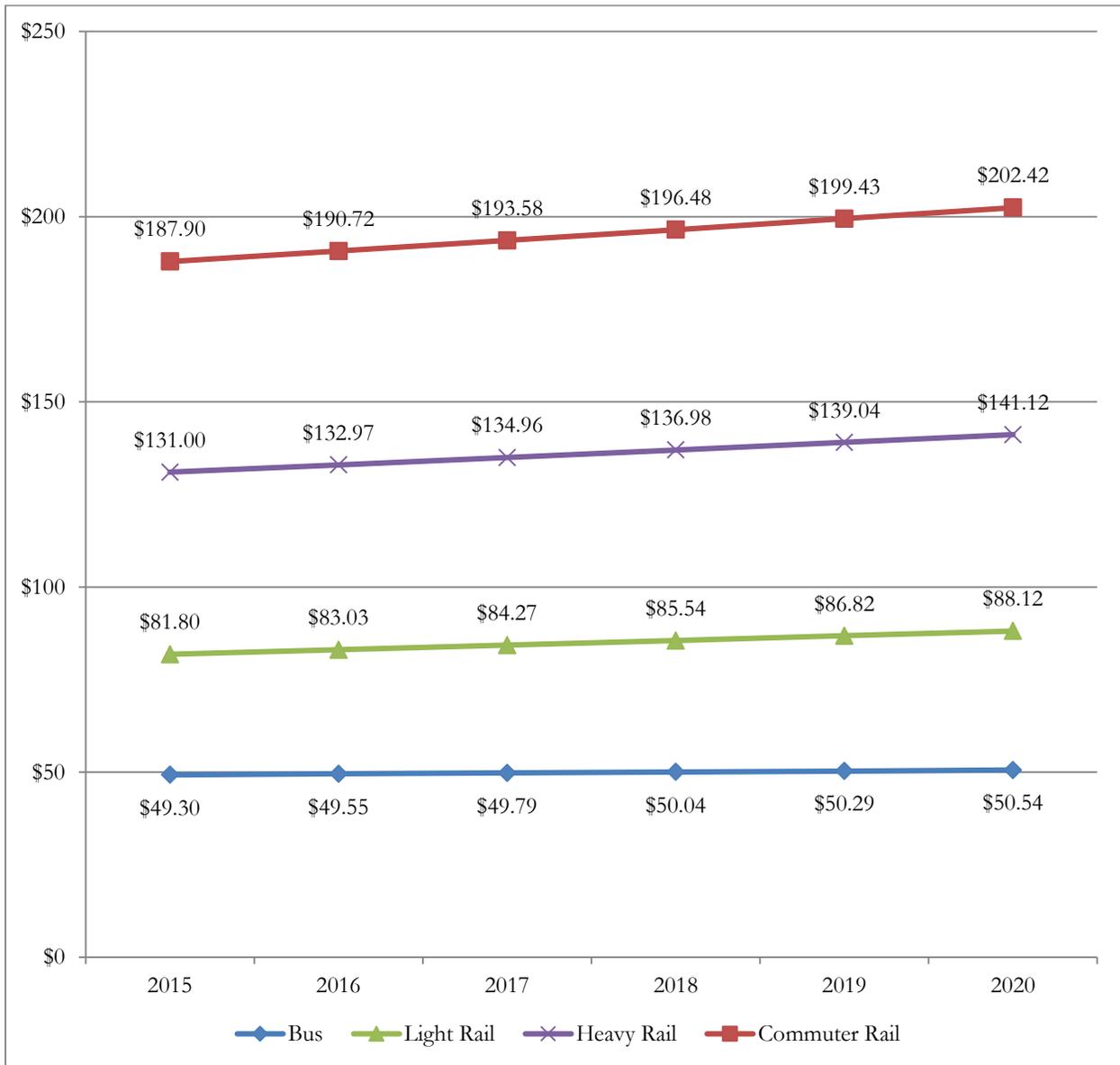
Mode	FYE 2015 Actual	FYE 2020 Target	Interim Year Targets
Bus	43.60	44.70	Annual increase of at least 0.5%
Light Rail	65.30	70.35	Annual increase of at least 1.5%
Heavy Rail	114.40	123.24	Annual increase of at least 1.5%
Commuter Rail	43.30	46.65	Annual increase of at least 1.5%

FIGURE 3: FIXED-ROUTE OPERATING COST / REVENUE VEHICLE HOUR PERFORMANCE TARGETS



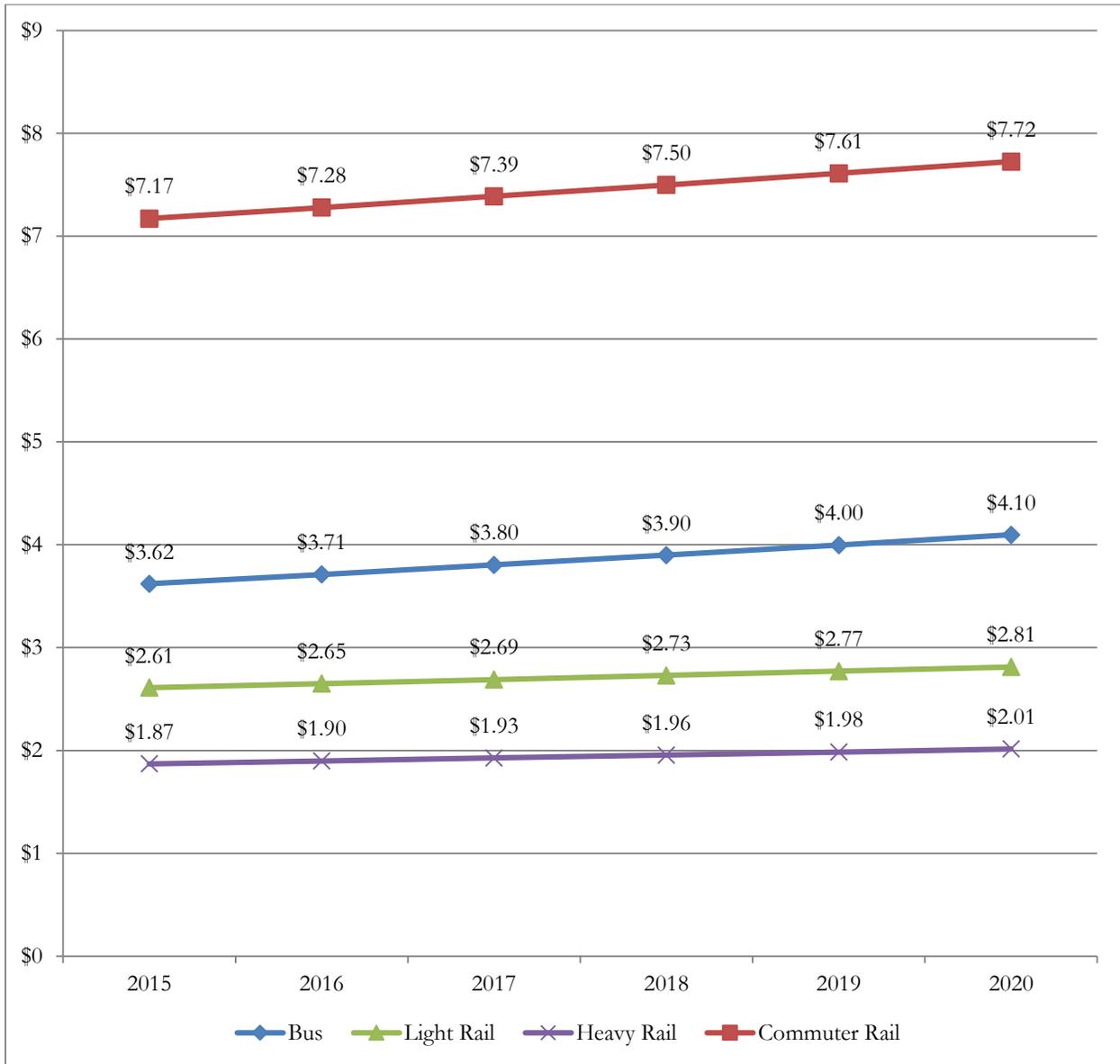
Mode	FYE 2015 Actual	FYE 2020 Target	Interim Year Targets
Bus	\$157.70	\$182.82	Annual increase of no more than 3.0%
Light Rail	\$170.30	\$197.42	Annual increase of no more than 3.0%
Heavy Rail	\$214.20	\$248.32	Annual increase of no more than 3.0%
Commuter Rail	\$310.70	\$360.19	Annual increase of no more than 3.0%

FIGURE 4: FIXED-ROUTE OPERATING REVENUE / REVENUE VEHICLE HOUR PERFORMANCE TARGETS



Mode	FYE 2015 Actual	FYE 2020 Target	Interim Year Targets
Bus	\$49.30	\$50.54	Annual increase of at least 0.5%
Light Rail	\$81.80	\$88.12	Annual increase of at least 1.5%
Heavy Rail	\$131.00	\$141.12	Annual increase of at least 1.5%
Commuter Rail	\$187.90	\$202.42	Annual increase of at least 1.5%

FIGURE 5: FIXED-ROUTE OPERATING COST / PASSENGER PERFORMANCE TARGETS



Mode	FYE 2015 Actual	FYE 2020 Target	Interim Year Targets
Bus	\$3.62	\$4.10	Annual increase of no more than 2.5%
Light Rail	\$2.61	\$2.81	Annual increase of no more than 1.5%
Heavy Rail	\$1.87	\$2.01	Annual increase of no more than 1.5%
Commuter Rail	\$7.17	\$7.72	Annual increase of no more than 1.5%

FUNCTIONAL REVIEW

Functional reviews are used to evaluate performance results found in the Act 44 comparisons, to find best practices to share with other transit agencies, and to identify opportunities for improvement that should be addressed in the Action Plan (see Appendix C: Action Plan Improvement Strategies). A total of 15 functional areas were reviewed through documents received by the agency (see Appendix D: Documentation Requests to General Manager) and interviews conducted on-site. The functional areas are as follows:

- **Governance** – Responsibilities include setting vision, mission, goals and objectives; management oversight; recruiting and retaining top management personnel; and advocacy for the agency’s needs and positions.
- **Management** – Responsible for the day-to-day operations of the agency. Manage, monitor, analyze, direct, and plan for the future with regard to all functional areas. Inform and report to the Governing Body, and implement governing body direction.
- **Human Resources** – Responsible for employee retention, recruitment, succession planning, training, performance reviews, grievance procedures, employee benefits, and labor relations.
- **Finance** – Includes accounting, financial reporting, and financial services; capital budget, planning, and grant management; cash and debt management; internal audit and risk management; operating budget, financial analysis, and route planning; revenues, fares, ridership, and sales; strategic planning; and financial technology. For more information on the Financial Review, see Appendix E: Financial Review Background Information
- **Procurement** – Includes acquisition of rolling stock, vehicle parts, non-revenue capital items, and other operations-related items.
- **Operations** – Includes management of daily service operations, on-street supervision and control, dispatching, and general route management.
- **Maintenance** – Includes vehicle and facilities maintenance procedures, and performance.
- **Facilities** – Includes assessment of vehicle and facilities maintenance procedures and performance.
- **Contracted Service Provider** – A review of the elements of service delivery provided by a private contractor and a review of the relationship between the agency and contractor.
- **Safety and Security** – Includes vehicle and passenger safety, facility security, and emergency preparedness.
- **Customer Service** – Includes management, procedures, and performance related to current and future customers of the fixed-route system and other topics such as service information and complaint handling procedures.
- **Marketing and Public Relations**– Includes maximizing current markets and expanding into new markets. Includes managing the perception of the agency by the public at-large to encourage current and future ridership.
- **Information Technology** – Includes automated mechanism for in-house and customer service communication including current and future plans for new technology.
- **Capital Program** – Includes assessing and programming current and future capital needs reflecting both funded and unfunded projects. Includes the Transportation Improvement Plan (TIP), 12-Year Capital Plan, 20-Year Long Range Transportation Plan (LRTP), and Transit Development Plan (TDP).
- **Planning** – Includes analysis of information to effectively plan for changes to the system in the short-, medium- and long-term horizons, to help ensure continued success.

The following sections summarize how service can be delivered more efficiently in ways that are sensitive and responsive to the community's needs, maximize productivity, direct service hours effectively, control operating costs, and achieve optimum revenue hours. The observations garnered during the review process are categorized as *Best Practices* or *Opportunities for Improvement*. Best Practices are those exceptional current practices that are beneficial and should be continued or expanded. Opportunities for Improvement are recommendations which have the potential to maximize productivity, to direct service hours effectively, to control operating costs, and to achieve optimum revenue levels which will enhance the system's future performance overall for one or more of the Act 44 fixed-route performance factors.

BEST PRACTICES

1. **A Strategic Business Plan that Guides Everyday Decision-making Throughout the Organization** - The ongoing educational effort of SEPTA's strategic planning group, the incorporation of the strategic plan in various aspects of SEPTA's operations, and the setting of Key Performance Indicators raise this strategic planning effort to a best practice.
 - **Ongoing Educational Efforts:** SEPTA's financial management team believes that a key factor in successfully implementing the strategic plan is for every employee to understand and adopt the strategic plan initiatives. Once the plan was finalized by the organization, the focus of the strategic planning group changed from strategy development to education and support of employees to maximize the organization's ability to deliver the plan as it was envisioned. The strategic planning group continues to meet with employees at staff meetings and training sessions to review the plan and demonstrate its application to their respective departments and individual responsibilities. The core strategic planning team and the Assistant General Manager team receive quarterly updates on the plan's status and discuss the issues behind the data.
 - **Incorporation of the Strategic Business Plan in SEPTA's Operations:** Many times, strategic plans are shelved and senior management may periodically review results or only review results at the end of the five-year strategic period. Instead, SEPTA has integrated the strategic plan with various aspects of its operations. The strategic plan themes, focus areas, and goals influence the development of SEPTA's service plans, operating budget, capital program, and capital budget. Additionally, the strategic plan initiatives are the principles used for divisional planning, employee goal setting, and performance evaluations. This linkage complements the ongoing educational efforts and improves the likelihood of success.
 - SEPTA has adopted **Key Performance Indicators (KPIs)** for each of the six focus areas identified in the strategic plan and uses them to measure the quality of their services, reflecting a business-oriented approach to planning and performance measurement.
2. **A Strong Customer Service Culture that Guides all Aspects of Service Delivery** - Many examples of SEPTA's commitment to customer service were identified during the performance review. Notable among these are that:
 - SEPTA has **six customer experience action teams** who work externally and internally representing SEPTA's dedication to the "4C's" (courtesy, cleanliness, communications, and convenience).
 - SEPTA actively manages and stays engaged with its customers through **social media** outlets such as Facebook, Instagram, and Twitter.
 - SEPTA created its in-house **Customer Relationship Management Database** called Veritas in order to track and monitor user experiences.
 - SEPTA's Technology Department created a **mobile app** for Android and iPhone users that provides trip planning and real-time transit data to more than 600,000 customers.
 - SEPTA is **focused on the next generation** of riders, "millennials" between the ages of 18-34, by engaging this age group through television, radio, and internet advertising along with the "I SEPTA Philly" campaign, and social media.

- The **Accessible Travel Center** in Suburban Station provides customers the opportunity to learn about SEPTA fixed-route service and shows customers how to ride the system.
 - SEPTA created a **Youth Advisory Council** in 2009, composed of riders aged 14 to 22 from Philadelphia and surrounding counties. The Council advocates student needs, assists SEPTA in creating promotional materials, and provides outreach to the region's youth.
3. **Demonstrated Leadership in the Transit Industry** - Though one of the oldest and largest transit systems in the U.S., SEPTA continues to evolve and innovate in creative ways:
- **SEPTA set an industry standard through the creation and implementation of a succession planning program** designed to pass down instructional knowledge to the next generation of employees. The succession program, known as Advancing Internal Management (AIM), strives to ensure continuity of leadership in the event of planned or unplanned turnover in critical leadership positions across the agency.
 - **SEPTA's FIT (Facilities Improvement Team)** evaluates physical conditions at facilities and implements recommended changes and upgrades in order to create a more productive and comfortable work environment and boost employee morale.
 - SEPTA's **selling of station naming rights** (for example, the 2010 naming of AT&T Station on the Broad Street Line subway and the 2014 renaming of Market East Station to Jefferson Station) is an innovative way to generate non-fare box revenue for transit operations.
 - SEPTA's multi-year implementation of **New Payment Technology (NPT)** will allow customers to seamlessly use and pay for rides on all modes of transportation using smart cards and smart phones. Once completed, NPT will provide a better customer experience, fewer fare evasion opportunities, and more reliable ridership data to guide decision-making. The percentage of fares paid with cash should decline, decreasing operating costs and reducing losses due to errors and fraud.
4. **Commitment to Community** - SEPTA recognizes the ways that it can contribute to the overall quality of life of the greater Philadelphia region through stewardship and partnership:
- The **Art in Transit Program** grew from a belief that aesthetic enhancement at stations and facilities could be an integral component of community outreach and partnership building efforts. SEPTA seeks to strengthen its identity as the region's public transit provider and create a dynamic transit environment while fostering an enhanced sense of pride and ownership for riders and citizens by using permanent art installations.
 - SEPTA is committed to a **vision of a sustainable region** and created a sustainability program plan in 2011 to achieve that vision. SEPTA has established 12 "SEP-TAinable" goals to ensure that the organization reaches the "triple bottom line" of social, environmental, and economic sustainability. SEPTA's sustainability efforts caught the attention of nation-wide advocacy organizations and they have been awarded a number of grants and awards to support sustainable agency-wide efforts.
 - SEPTA has seen a **decline in the homeless population in Center City concourses** due to a partnership with Project HOME. The program, called the 'Hub of Hope,' offers a variety of services and housing for individuals experiencing long term homelessness. The program is located at Suburban Station and operates from January to April of each year.
5. **Proactive Financial Management** – SEPTA's financial management practices employed across a breadth of financial functions as well as its interaction with stakeholders related to financial issues incorporate a proactive approach that strengthens SEPTA's financial condition and helps to minimize financial risk.²
- **Cash Management:** SEPTA treasury management group's policies, procedures, reporting, and analyses regarding cash management meet the intense cash needs of the sixth largest transit system in the country. Cash management strength comes from a reliance on key banking relationships, conservative cash flow planning, multiple cash-related reports, and a board-approved investment policy. Cash flow forecasts contain historical monthly results and a monthly forecast for the

² Background information on SEPTA's financial management practices is included in **Appendix E** of this document.

remainder of the fiscal year. There is also a daily cash position report that is prepared for senior finance management.

- **Debt management** practices balance sophisticated financing transactions with ongoing analysis and financial planning. The treasury management group has focused on improving SEPTA's cash position with regard to debt-related transactions. They also work to maintain favorable credit ratings that minimize costs for future transactions.

To achieve budget certainty and control volatility in fuel prices, SEPTA has entered into financial derivative³ agreements for its fuel purchases. Approximately 80% of SEPTA's diesel consumption is hedged each year and at the time of the Finance Department interviews, approximately 40% of the diesel purchases had been hedged at an average cost of \$2.56 per gallon. As of June 30, 2014, the fuel derivative instruments or fuel hedges had a net positive market position of \$1.5 million. SEPTA also entered into two swaption⁴ agreements related to its bond issues. The 2010 swaption, related to a SEPTA 2010 Revenue Refunding Bond issue, has been a cash positive transaction for the agency. The 2007 swaption agreement is a swap of variable interest rates for fixed interest rates related to a SEPTA Variable Rate Revenue Refunding Bond issue. The risk related to this transaction has been reduced due to a recent agreement with PNC Bank that adjusts the transaction structure.

For future transactions, the determination of the agency's debt capacity is based on a sound internal Treasury policy rather than a mandated formula. SEPTA's policy regarding the maximum amount of debt it should incur is based on maintenance of SEPTA's investment grade credit rating and the practical consideration of the availability of repayment funding streams. Therefore, SEPTA will not incur a level of debt that would (1) result in a reduction of its credit rating or the rating of a particular financing transaction to the point where it is no longer considered investment grade⁵ or (2) require a level of repayment that is greater than the funds available to repay such debt.

- **Operating Budget Development:** SEPTA's operating budget development begins with an examination of route performance, the construction of the service plan, ridership and revenue projections, and an analysis of headcount need. Route performance analysis is based on board-approved operating standards. Before they are implemented, new and modified routes must meet a minimum operating ratio of 60% of the average for the division where the route is located. Actual operating ratios for existing routes are monitored on an ongoing basis, with exceptions given for life line routes, routes where there are geographical reasons for a lower operating ratio, or routes that are considered connecting. Key budget drivers, such as labor and fuel costs, are integrated with the service plan and inflationary rates are determined. Departments are responsible for budget entries into an on-line budget system and counties are contacted in advance to advise them on likely and proposed budgets, impacts to service, and expected local match requirements. Proposed budgets may be subsequently changed due to county input and the results of the annual public hearing process. Every eight weeks, after the budget is approved, there are county meetings with the finance department to share financial results. Additionally, the finance department meets periodically with SEPTA's operating departments to review departmental financial results.
- **Capital Budget Development:** Finance's capital budget group begins the budget development process by reviewing the status of existing capital projects to forecast short-term activity and the subsequent 12 years to prepare capital projects for the TIP and STIP. After their internal analysis, the group meets with a number of stakeholders including SEPTA operating departments, counties, planning groups, advisory groups, the general public, and SEPTA's capital planning committee to obtain input on program components. The proposed

³ Derivatives are one of three main categories of financial instruments, the other two being stocks and debt (bonds). A derivative is a contract that "derives" its value from the performance of an underlying entity such as an asset, index or interest rate. Derivatives can be used for a number of purposes including insuring against price movements (hedging). Some of the more common derivatives include futures, options, and swaps.

⁴ A swap is a derivative where two parties exchange cash flows related to the financial instruments of each party such as debt or bonds. Usually at least one of these cash flows is determined by an uncertain variable such as a floating interest rate or a foreign exchange rate. Therefore, a swap can be used to hedge certain risks such as interest rate risk on bonds.

⁵ An investment grade rating for municipal bonds generally means that the bonds have a relatively low risk of default. Credit ratings at or above BBB- or Baa3 are considered investment grade.

capital program is based on this combined input along with the capital budget group's assessment of asset condition, funding availability and cash flow projections. A formal public hearing process then occurs. Decisions made as part of the capital program development are subsequently linked to the operating budget. For example, preventive maintenance, vehicle overhauls and debt service needs are directly linked to required expenses in the operating budget. Additionally, the decisions on the type of investments to make, such as hybrid buses, and the subsequent impact on fuel usage and maintenance costs are similarly linked to the operating budget. The capital budget group will be expanding these linkages as it examines other types of investments that may help to control increases in operating costs.

- The **route planning and analysis process** examines both poorly performing and well performing routes in an effort to raise the performance of the full transportation system.
6. **A Strong Focus on Safety and Security** - SEPTA has a number of initiatives to create a safe and secure environment for SEPTA staff and customers:
- Through its strategic business plan, SEPTA is advancing a number of **employee and customer-focused safety initiatives**. Safety initiatives include track safety training, the employee-focused “Never Too Busy for Safety” Campaign, where SEPTA holds internal safety days to review policies and procedures, and Positive Train Control signaling system on Regional Rail. In addition, employees at SEPTA’s Buildings and Bridges facility created a “Safety Awareness Center”, a permanent exhibit of safety equipment and materials staff members use on a regular basis to remind employees of the need to keep safety at the forefront of all operations. A customer-focused “Make the Safe Choice” Campaign, monthly safety briefings at mechanic facilities and shops, and safety blitzes at railroad, rail transit, and bus stations are other components of safety initiatives.
 - **Operator training** is a rigorous process and includes five days of customer service training in a classroom setting called the “Red Kite Project” to improve operator social skills, safety awareness, fatigue awareness, and pedestrian awareness. Bus/trolley operator training lasts 30-40 days and Regional Rail operators are subject to ten months of hands-on training.
 - SEPTA requires **safety training for all non-SEPTA personnel** performing work on SEPTA track equipment and property. Personnel report to headquarters for class-based safety training and are given a quiz following training. Non-SEPTA personnel are then taken to a railroad track to perform additional hands-on safety training. Upon successful completion of safety training, personnel are given a SEPTA Roadway Worker ID Card which must be presented each time they are on the track. For yearly renewal, non-SEPTA personnel report to headquarters to review safety requirements and take an online quiz.
 - SEPTA places a strong value on personal safety and established the “**Make the Safe Choice**” **Safety Awareness Day** for its customers, now in its second year of operation. During the morning and afternoon rush hours, SEPTA employees and City Year corps members distribute educational materials and answer safety questions at 150 SEPTA rail, trolley, and bus stations, loops and transportation centers throughout the five-county service area. Safety messages are displayed in SEPTA stations and on its vehicles, including a wrapped 40-foot bus. These system-wide safety days were established to remind the public of the dangers of being too connected with mobile technology and to encourage customers be more observant at bus stops, train stations, or transportation centers. Safety Awareness Day is an extension of SEPTA System Safety’s “Safety Blitz” education program. SEPTA is believed to be the first U.S. transit authority to hold such an all-out, one-day safety endeavor for its customers.
 - SEPTA recently trained over 400 management and craft personnel in “**Incident Command Training**” on policies and procedures. Front line personnel and/or supervisors are dispatched to the scene of any safety, security, or accident incident.
 - SEPTA published an **Emergency Operations Plan** that establishes an organizational and procedural framework for managing and efficiently responding to major transit emergencies, acts of terrorism, and any other human-caused or natural incident affecting SEPTA operations.
 - SEPTA coordinates **emergency response training** with local, regional, and federal agencies.
 - SEPTA has approximately 18,000 **surveillance cameras** installed in vehicles and stations in order to ensure passenger and employee safety and reduce crime throughout the transit network. These cameras

also contribute to a significant decrease in the amount of money SEPTA spends on injury and damages claims and lawsuits.

OPPORTUNITIES FOR IMPROVEMENT

1. **Operating cost per revenue vehicle hour** - The pace of growth in SEPTA's operating cost per revenue vehicle hour is higher than peer group averages in three of four transit modes, raising questions about the long-term financial viability of rising costs on the system.

Observed fixed-route bus data from FY 2006-2007 to FY 2011-2012 regarding operating cost per revenue vehicle hour exhibits a **trend line of growth that is much higher than the peer group's average** (4.02% v 2.70%). SEPTA's streetcar / light rail and heavy rail services also demonstrate higher than peer group rates of growth in operating cost per revenue vehicle hour (respectively, 5.76% compared to the peer group average of 3.57% and 3.64% compared to 2.90%). To bring the rate of change in operating cost per revenue vehicle hour down to a sustainable level, the goal should be to **gain additional productivity from fixed-route bus service**. To do so, SEPTA may want to systematically examine operations to identify areas where routes can be optimized in order to increase average speed and reduce overall delay. Further analysis may also include identifying areas of auto congestion, locations where queue jumps or modified signal timing may be beneficial, and wider bus stop spacing to increase average bus speed and productivity.

2. **Operating revenue per revenue vehicle hour** - With the exception of its Fixed-Route Bus system, SEPTA's transit modes have brought in **significantly less in operating revenue per revenue vehicle hour** than the peer group averages. In FY 2011-2012:
 - SEPTA's streetcar/light rail transit system brought in \$90.34 in operating revenue per revenue vehicle hour compared to the peer group average of \$100.24.
 - SEPTA's heavy rail lines raised \$119.87 compared to the peer group average of \$157.24.
 - And SEPTA's Commuter Rail service brought in \$211.15 versus the peer group's average of \$276.79.

Long-term trends show slower growth in operating revenue per revenue vehicle hour for SEPTA than for its peer groups, with the exception of SEPTA's streetcar / light rail system where the five-year average annual growth rate, at 13.76%, was higher than the peer group's 8.84%.

Possible methods for **increasing operating revenues** include the continuation of fare increases every three years, targeted marketing and route branding of service; continued sales of station naming rights by neighborhood or commercial sponsor; and expansion of advertising through the use of vehicle wraps. The implementation of the SEPTA Key new fare payment system could reduce fare evasion and speed up boardings in ways that increase operating revenue per vehicle hour.

For SEPTA's Regional Rail lines, revenue could be raised through the use of public-private development at selected stations. SEPTA has several non-Amtrak owned stations and park-and-ride lots where joint development, transit-oriented development, and value-capture opportunities are most ripe. Advertising through the use of rail car wraps should be expanded as well as enhanced marketing utilizing social media (one example would be to take the name "Great Valley Flyer" and create a media scheme displayed at all Paoli Line stations). An additional revenue-enhancing option is related to parking at SEPTA Regional Rail stations which is, in many locations, in very high demand: a system-wide regional rail parking study may reveal opportunities for improving relations with station-area neighbors and increasing operating revenues with higher ridership and parking cost recovery.

3. **The lack of an annual internal audit plan is atypical of standard and prudent internal audit practice** - *The purpose of establishing any internal audit function is to minimize risk and prevent losses from occurring; and the development of an annual audit plan has become a standard and prudent practice in the internal audit profession to support the internal auditor's efforts to identify and minimize risk.* The Institute of Internal Auditors has issued International Standards for the Practice of Internal Auditing which state that "the chief audit executive must establish a risk-based plan to determine the priorities of the internal audit activity, consistent with the organization's goals."

It is recommended that SEPTA adopt this standard and develop an annual risk assessment and audit plan that balances cyclical, topical, and responsive audits. Cyclical audits are performed in areas where there is considered to be ongoing risk and are performed on a periodic basis, at a frequency determined by the chief auditor. Topical audits are those that are performed based on the chief auditor's determination of current relevance and could be related, among other items, to a new or changed program, a particular strategic initiative, or a change in law. Loss prevention can be strengthened when the audit group focuses on changes in factors such as operations, compliance and funding. The responsive audits are performed as a result of management or board requests or from information obtained from other employees. Each year the percentage of total audits that are cyclical, topical or responsive will change depending upon the operating environment, compliance environment, strategic plans, and risk assessment for that particular year.

4. **Capital project monitoring and the capital budget amendment process should be more transparent in order to better evaluate budget performance and project completion expectations** - Given the anticipated expansion of capital program activity, it is even more important that SEPTA management have clear and current project-level information on which to base capital budget decisions. Two recommendations are provided below to assist in that decision-making process.

First, while the finance department directly monitors capital spending, much of the information received on the status of capital projects comes from a report known as the Project Control Report, which is not prepared by the finance department. This report lacks specific information that would be useful in determining if a project requires a budget adjustment and/or an adjustment to the completion date and what the underlying reasons are for such adjustments. Therefore, it is recommended that the Project Control Report be modified to include the following data elements for each project in one table, regardless of project status or funding source:

- Project name (consistent with name used in Finance Department)
- Original board-approved budget with contingencies
- Date of original board-approved budget
- Current budget with contingencies
- Reason(s) for budget adjustment(s)⁶
- Expenditures made to date since project inception
- Forecasted expenditures through project completion
- Original board-approved project completion date
- Original project length in months
- Current project completion date
- Reason(s) for timeline change(s)

These changes will not only provide an indication of budget adjustment need, but will also be useful in budgeting and minimizing risk for future capital projects.

Second, when budget increases are required, the board is made aware of required changes on a consolidated capital program level rather than a project-by-project level. Highlights are only provided for projects that are deemed “key” at the General Manager’s discretion. A simple list of individual projects that is provided to the board, with changes to budget and completion date, would be sufficient to fulfill transparency requirements.

5. **Capital program prioritization should continue to focus on state-of-good-repair capital investments** - The addition of approximately \$250 million annually to SEPTA’s capital program creates an historic opportunity to deal with deferred capital investments due to years of inadequate funding. While there is always a need to balance state-of-good-repair investments with investments related to upgrades, growth, and expansion, SEPTA management should use caution in the years ahead in its prioritization of capital projects and its use of new capital funding, and not yield to temptation or local pressure to use the bulk of new capital funding for growth and expansion purposes. During the interview process, SEPTA management indicated that its process for investment

⁶ Reasons can be pre-defined categories that are brief explanations such as “Scope Change” or “Procurement Delay”.

prioritization has not changed and acknowledged that state-of-good-repair needs will be continue to be a focus of its capital program.

APPENDIX A: AGENCY STATISTICS

FIGURE A-1: SEPTA FIXED-ROUTE BUS PASSENGERS, REVENUES, OPERATING COSTS, AND REVENUE HOURS OF SERVICE FY 2006-2007 – FY 2011-2012

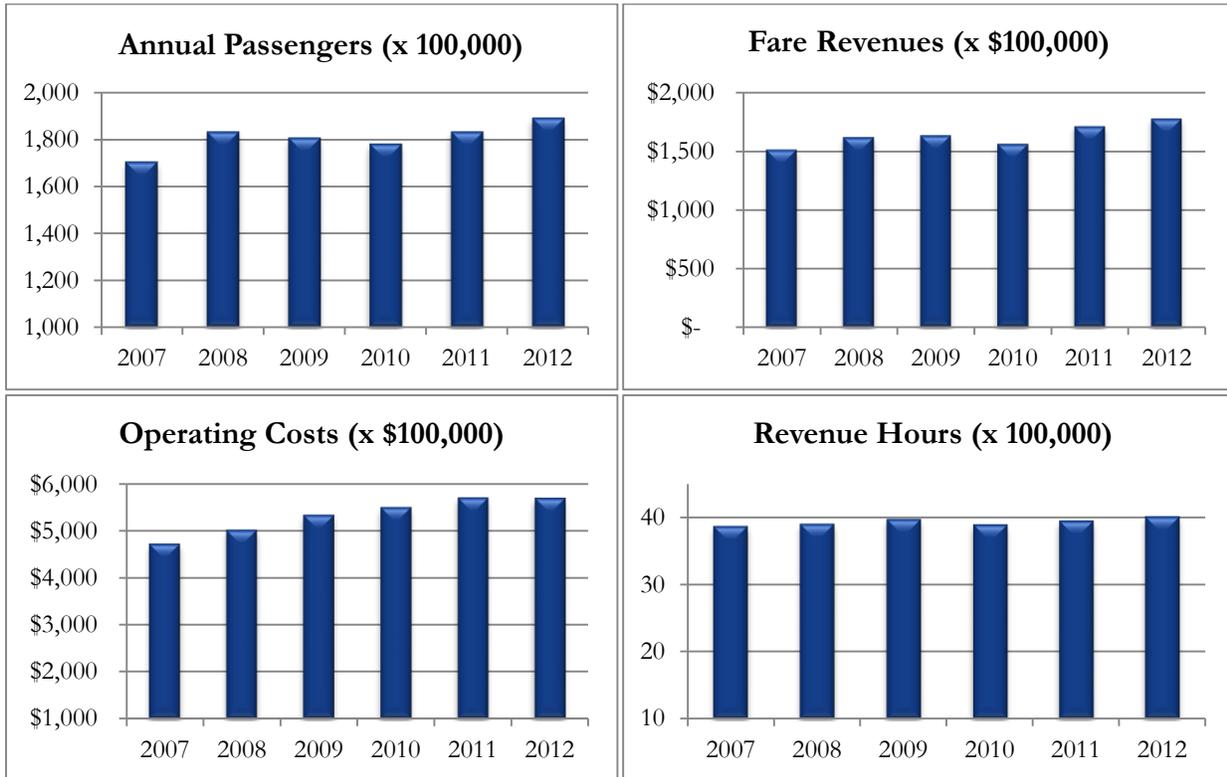


FIGURE A-2: SEPTA STREETCAR / LIGHT RAIL PASSENGERS, REVENUES, OPERATING COSTS, AND REVENUE HOURS OF SERVICE FY 2006-2007 – FY 2011-2012

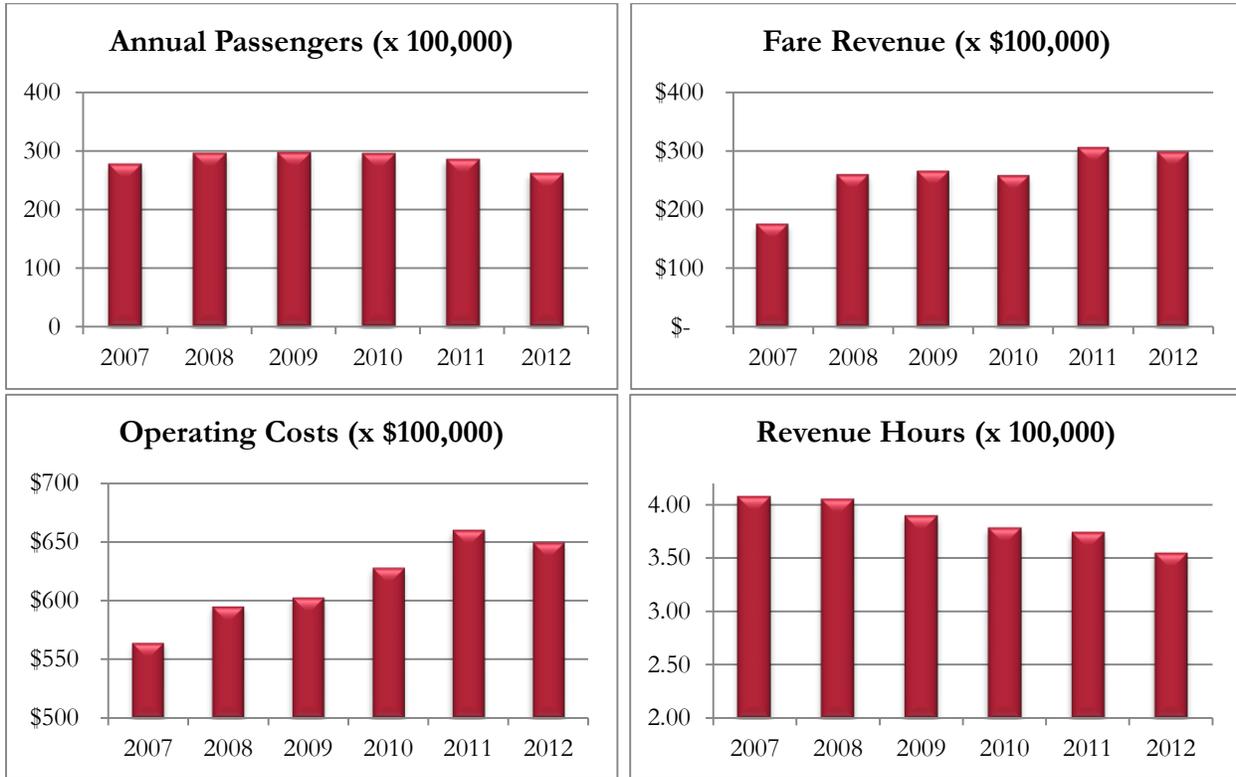


FIGURE A-3: SEPTA HEAVY RAIL PASSENGERS, REVENUES, OPERATING COSTS, AND REVENUE HOURS OF SERVICE FY 2006-2007 – FY 2011-2012

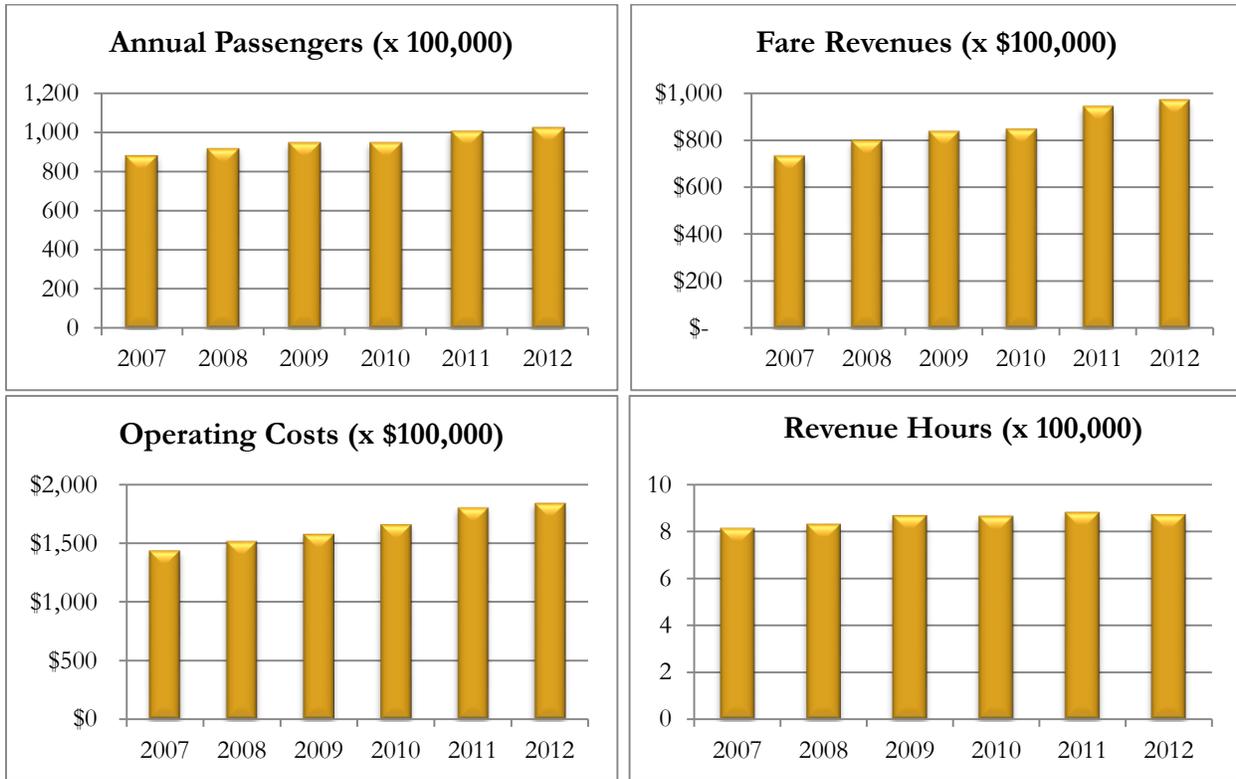


FIGURE A-4: SEPTA COMMUTER RAIL (REGIONAL RAIL) PASSENGERS, REVENUES, OPERATING COSTS, AND REVENUE HOURS OF SERVICE FY 2006-2007 – FY 2011-2012

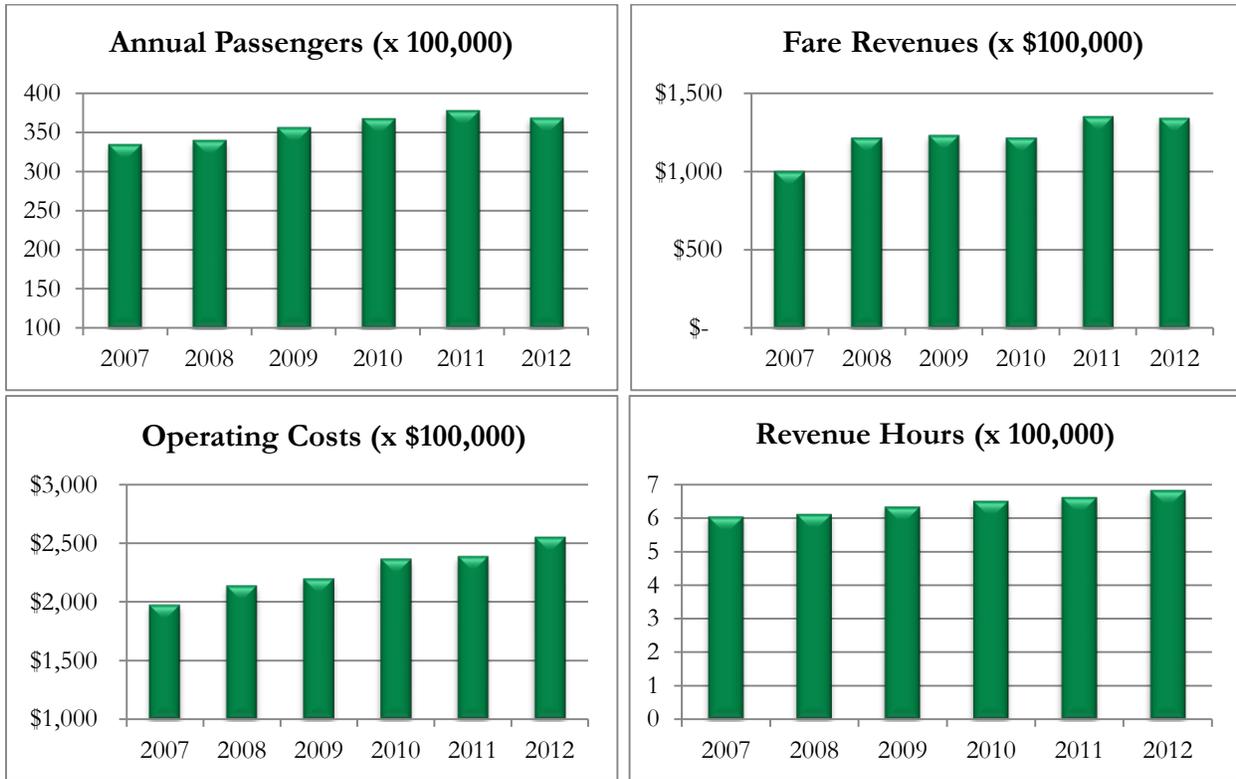
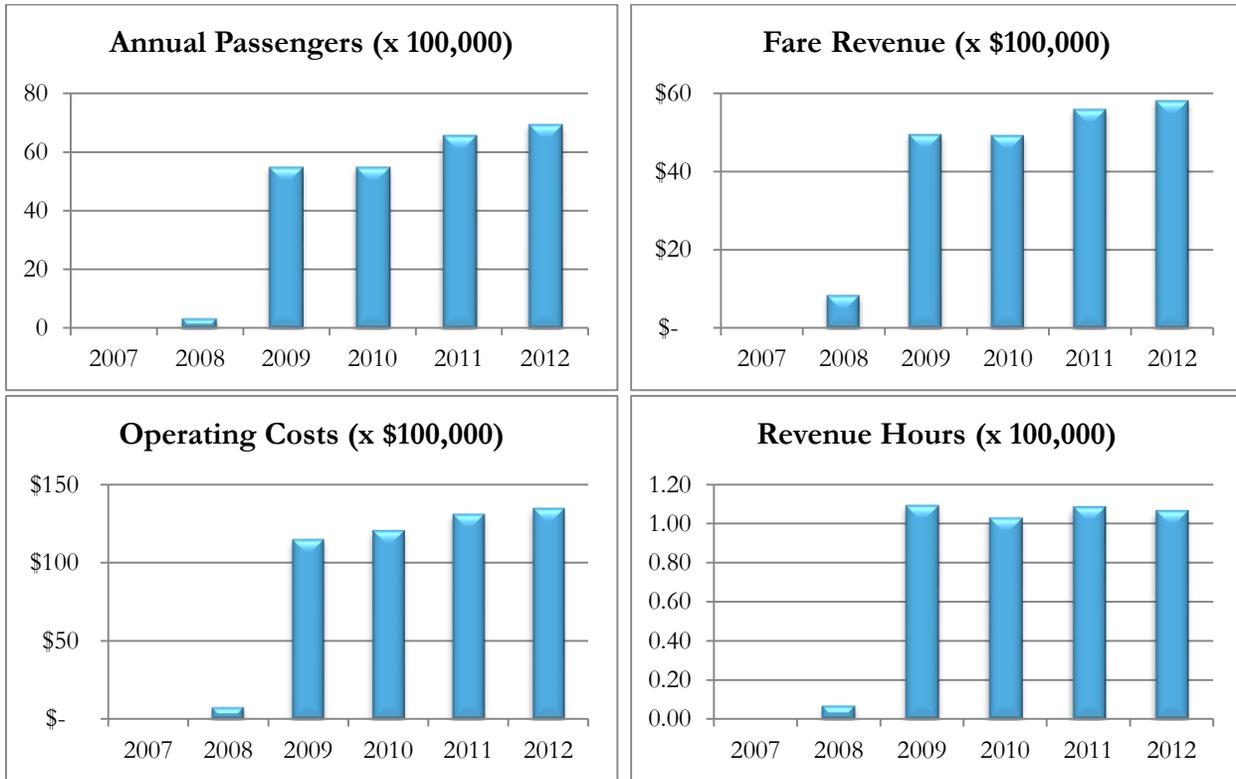


FIGURE A-5: SEPTA TROLLEYBUS PASSENGERS, REVENUES, OPERATING COSTS, AND REVENUE HOURS OF SERVICE FY 2006-2007 – FY 2011-2012



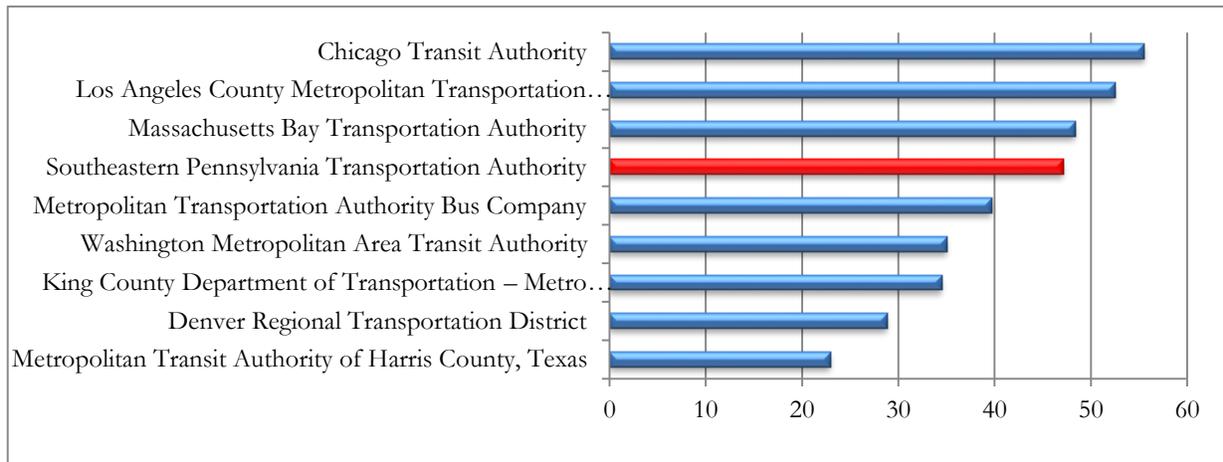
Note: Trackless Trolleybus service reinstated in 2008.

APPENDIX B: PERFORMANCE COMPARISONS

For all peer agencies along with SEPTA, NTD data were extracted and summarized for each of the Act 44 metrics. Measures were put into histograms and tables for visual inspection, statistical analyses, and ordinal ranking purposes and are presented in Figure B-1 to Figure B-32 as single year and five-year trend results, separated by mode.

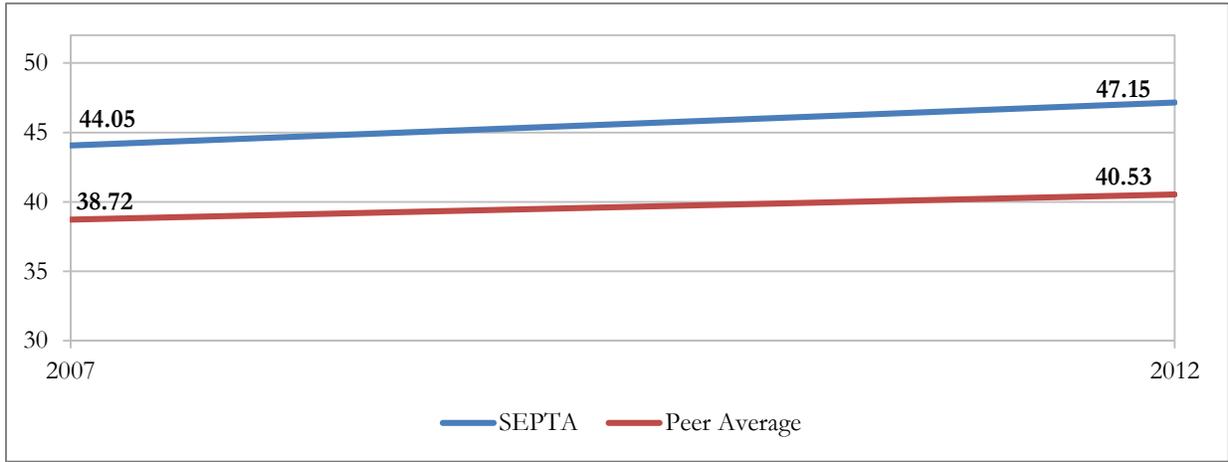
FIXED-ROUTE BUS PERFORMANCE MEASURES

FIGURE B-1: FIXED-ROUTE BUS PASSENGERS PER REVENUE VEHICLE HOUR FY 2011-2012



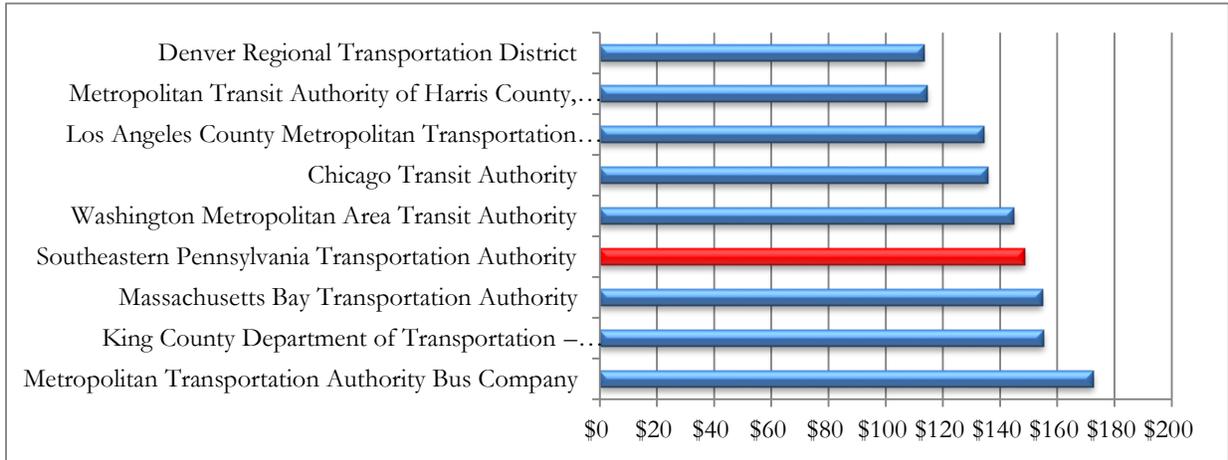
Passengers / Revenue Vehicle Hour (Bus)		
FY 2011-2012 Data		
System	Value	Rank
Chicago Transit Authority	55.57	1
Los Angeles County Metropolitan Transportation Authority	52.50	2
Massachusetts Bay Transportation Authority	48.44	3
Southeastern Pennsylvania Transportation Authority	47.15	4
Metropolitan Transportation Authority Bus Company	39.72	5
Washington Metropolitan Area Transit Authority	35.06	6
King County Department of Transportation – Metro Transit Division	34.53	7
Denver Regional Transportation District	28.86	8
Metropolitan Transit Authority of Harris County, Texas	22.97	9
<i>Average</i>	<i>40.53</i>	
<i>Standard Deviation</i>	<i>11.11</i>	
<i>Average – 1 Standard Deviation</i>	<i>29.43</i>	
<i>Average + 1 Standard Deviation</i>	<i>51.64</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-2: FIXED-ROUTE BUS PASSENGERS PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



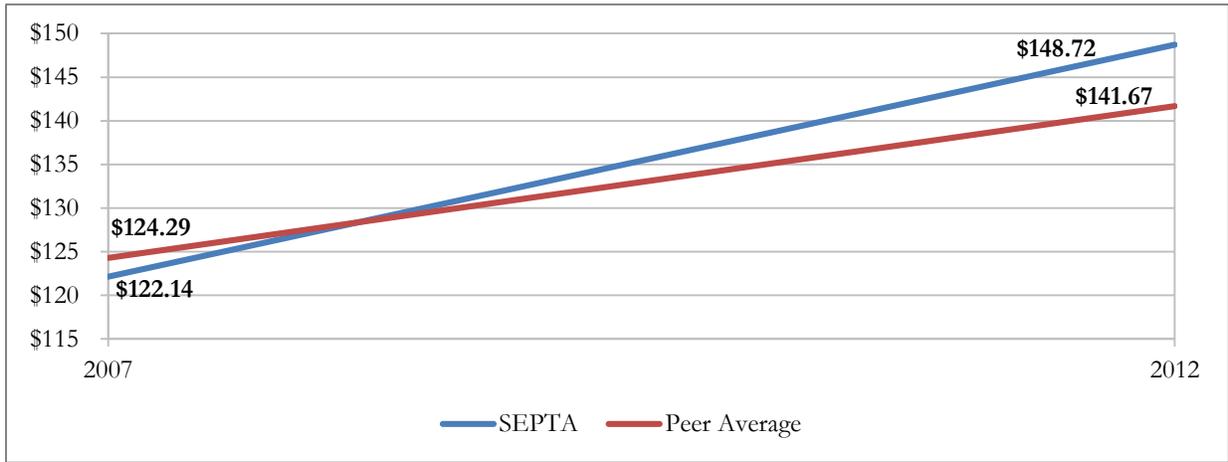
Passengers / Revenue Vehicle Hour (Bus)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Chicago Transit Authority	4.44%	1
Massachusetts Bay Transportation Authority	3.92%	2
Denver Regional Transportation District	1.75%	3
Metropolitan Transportation Authority Bus Company	1.65%	4
Southeastern Pennsylvania Transportation Authority	1.37%	5
King County Department of Transportation – Metro Transit Division	1.09%	6
Los Angeles County Metropolitan Transportation Authority	-0.63%	7
Washington Metropolitan Area Transit Authority	-1.69%	8
Metropolitan Transit Authority of Harris County, Texas	-6.13%	9
<i>Average</i>	<i>0.64%</i>	
<i>Standard Deviation</i>	<i>3.18%</i>	
<i>Average – 1 Standard Deviation</i>	<i>-2.54%</i>	
<i>Average + 1 Standard Deviation</i>	<i>3.82%</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-3: FIXED-ROUTE BUS OPERATING COST PER REVENUE VEHICLE HOUR FY 2011-2012



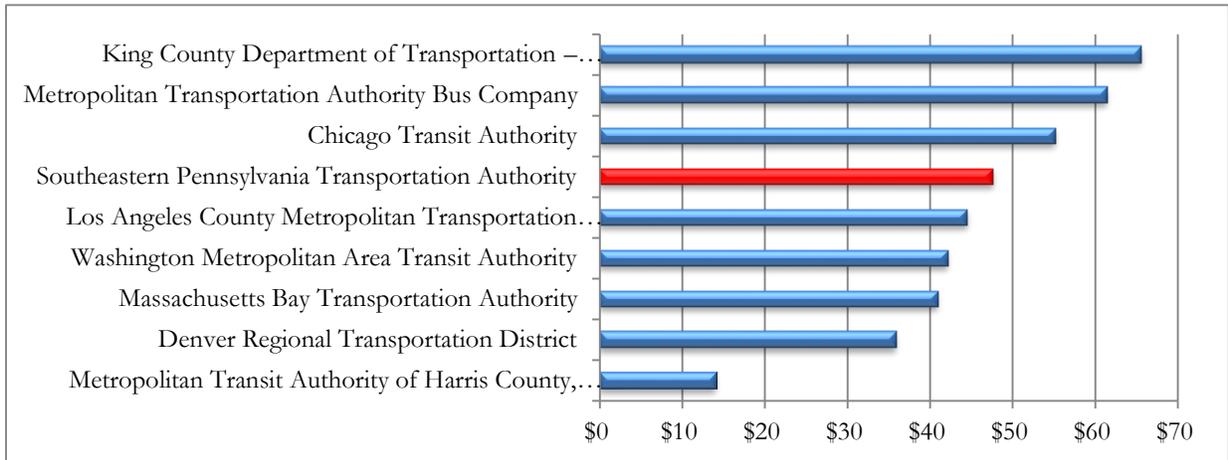
Operating Cost / Revenue Vehicle Hour (Bus)		
FY 2011-2012 Data		
System	Value	Rank
Denver Regional Transportation District	\$113.49	1
Metropolitan Transit Authority of Harris County, Texas	\$114.63	2
Los Angeles County Metropolitan Transportation Authority	\$134.46	3
Chicago Transit Authority	\$135.74	4
Washington Metropolitan Area Transit Authority	\$145.03	5
Southeastern Pennsylvania Transportation Authority	\$148.72	6
Massachusetts Bay Transportation Authority	\$154.85	7
King County Department of Transportation – Metro Transit Division	\$155.38	8
Metropolitan Transportation Authority Bus Company	\$172.73	9
<i>Average</i>	<i>\$141.67</i>	
<i>Standard Deviation</i>	<i>\$19.37</i>	
<i>Average – 1 Standard Deviation</i>	<i>\$122.30</i>	
<i>Average + 1 Standard Deviation</i>	<i>\$161.03</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-4: FIXED-ROUTE BUS OPERATING COST PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



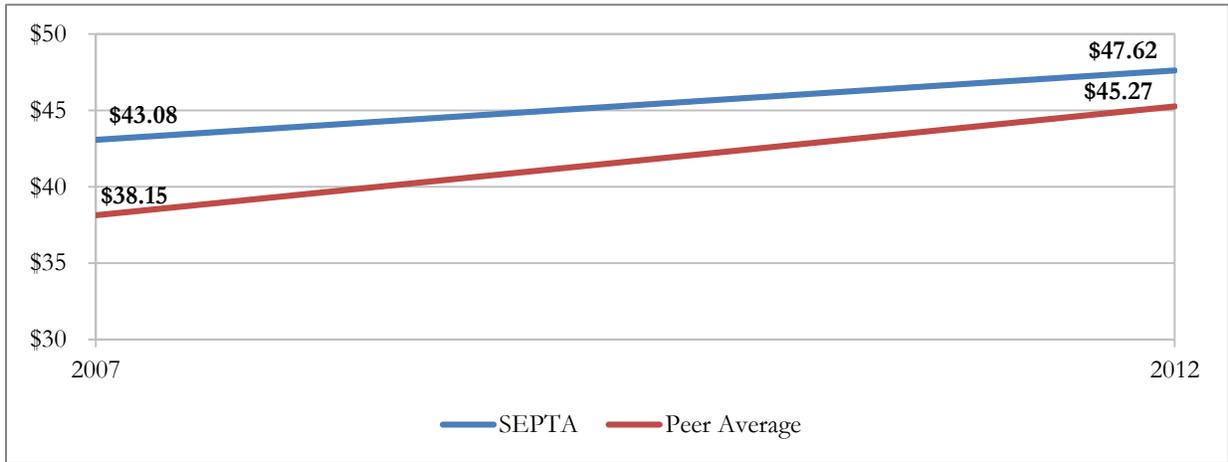
Operating Cost / Revenue Vehicle Hour (Bus)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Washington Metropolitan Area Transit Authority	0.86%	1
King County Department of Transportation – Metro Transit Division	1.32%	2
Chicago Transit Authority	1.48%	3
Metropolitan Transportation Authority Bus Company	2.72%	4
Metropolitan Transit Authority of Harris County, Texas	2.72%	4
Los Angeles County Metropolitan Transportation Authority	2.80%	6
Denver Regional Transportation District	3.57%	7
Southeastern Pennsylvania Transportation Authority	4.02%	8
Massachusetts Bay Transportation Authority	4.84%	9
<i>Average</i>	2.70%	
<i>Standard Deviation</i>	1.32%	
<i>Average – 1 Standard Deviation</i>	1.39%	
<i>Average + 1 Standard Deviation</i>	4.02%	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-5: FIXED-ROUTE BUS OPERATING REVENUE PER REVENUE VEHICLE HOUR FY 2011-2012



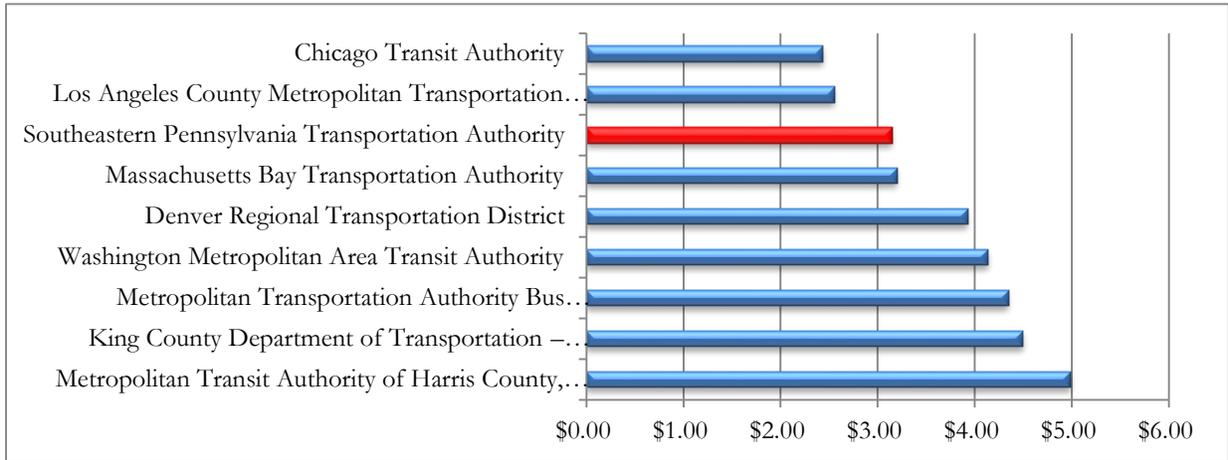
Operating Revenue / Revenue Vehicle Hour (Bus)		
FY 2011-2012 Data		
System	Value	Rank
King County Department of Transportation – Metro Transit Division	\$65.60	1
Metropolitan Transportation Authority Bus Company	\$61.40	2
Chicago Transit Authority	\$55.15	3
Southeastern Pennsylvania Transportation Authority	\$47.62	4
Los Angeles County Metropolitan Transportation Authority	\$44.51	5
Washington Metropolitan Area Transit Authority	\$42.20	6
Massachusetts Bay Transportation Authority	\$40.95	7
Denver Regional Transportation District	\$35.90	8
Metropolitan Transit Authority of Harris County, Texas	\$14.12	9
<i>Average</i>	\$45.27	
<i>Standard Deviation</i>	\$15.26	
<i>Average – 1 Standard Deviation</i>	\$30.01	
<i>Average + 1 Standard Deviation</i>	\$60.53	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-6: FIXED-ROUTE BUS OPERATING REVENUE PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



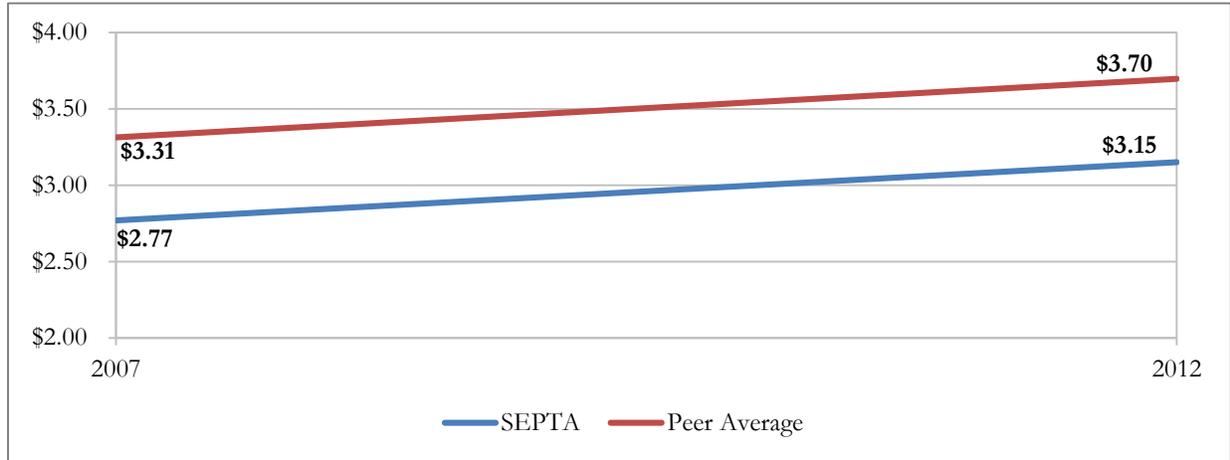
Operating Revenue / Revenue Vehicle Hour (Bus)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Denver Regional Transportation District	10.41%	1
Chicago Transit Authority	5.87%	2
King County Department of Transportation – Metro Transit Division	5.29%	3
Massachusetts Bay Transportation Authority	4.44%	4
Metropolitan Transportation Authority Bus Company	4.30%	5
Los Angeles County Metropolitan Transportation Authority	3.89%	6
Southeastern Pennsylvania Transportation Authority	2.02%	7
Washington Metropolitan Area Transit Authority	-0.73%	8
Metropolitan Transit Authority of Harris County, Texas	-9.24%	9
<i>Average</i>	2.92%	
<i>Standard Deviation</i>	5.45%	
<i>Average – 1 Standard Deviation</i>	-2.53%	
<i>Average + 1 Standard Deviation</i>	8.36%	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-7: FIXED-ROUTE BUS OPERATING COST PER PASSENGER FY 2011-2012



Operating Cost / Passenger (Bus)		
FY 2011-2012 Data		
System	Value	Rank
Chicago Transit Authority	\$2.44	1
Los Angeles County Metropolitan Transportation Authority	\$2.56	2
Southeastern Pennsylvania Transportation Authority	\$3.15	3
Massachusetts Bay Transportation Authority	\$3.20	4
Denver Regional Transportation District	\$3.93	5
Metropolitan Transportation Authority Bus Company	\$4.35	6
King County Department of Transportation – Metro Transit Division	\$4.50	7
Washington Metropolitan Area Transit Authority	\$4.14	8
Metropolitan Transit Authority of Harris County, Texas	\$4.99	9
<i>Average</i>	<i>\$3.70</i>	
<i>Standard Deviation</i>	<i>\$0.89</i>	
<i>Average – 1 Standard Deviation</i>	<i>\$2.80</i>	
<i>Average + 1 Standard Deviation</i>	<i>\$4.59</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

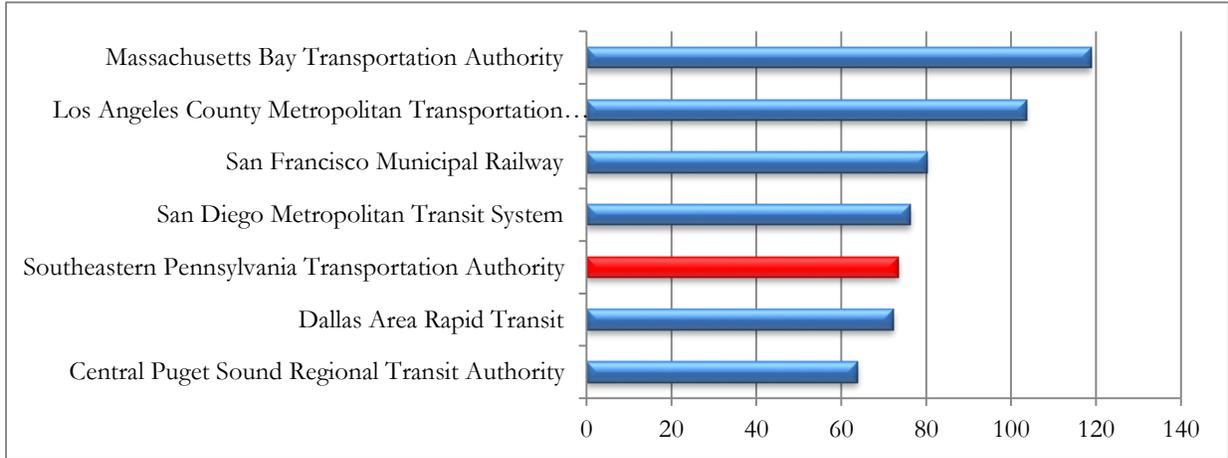
FIGURE B-8: FIXED-ROUTE BUS OPERATING COST PER PASSENGER TREND FY 2006-2007 TO FY 2011-2012



Operating Cost / Passenger (Bus)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Chicago Transit Authority	-2.83%	1
King County Department of Transportation – Metro Transit Division	0.23%	2
Massachusetts Bay Transportation Authority	0.89%	3
Metropolitan Transportation Authority Bus Company	1.05%	4
Denver Regional Transportation District	1.80%	5
Washington Metropolitan Area Transit Authority	2.60%	6
Southeastern Pennsylvania Transportation Authority	2.61%	7
Los Angeles County Metropolitan Transportation Authority	3.46%	8
Metropolitan Transit Authority of Harris County, Texas	9.42%	9
<i>Average</i>	2.14%	
<i>Standard Deviation</i>	3.29%	
<i>Average – 1 Standard Deviation</i>	-1.15%	
<i>Average + 1 Standard Deviation</i>	5.42%	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

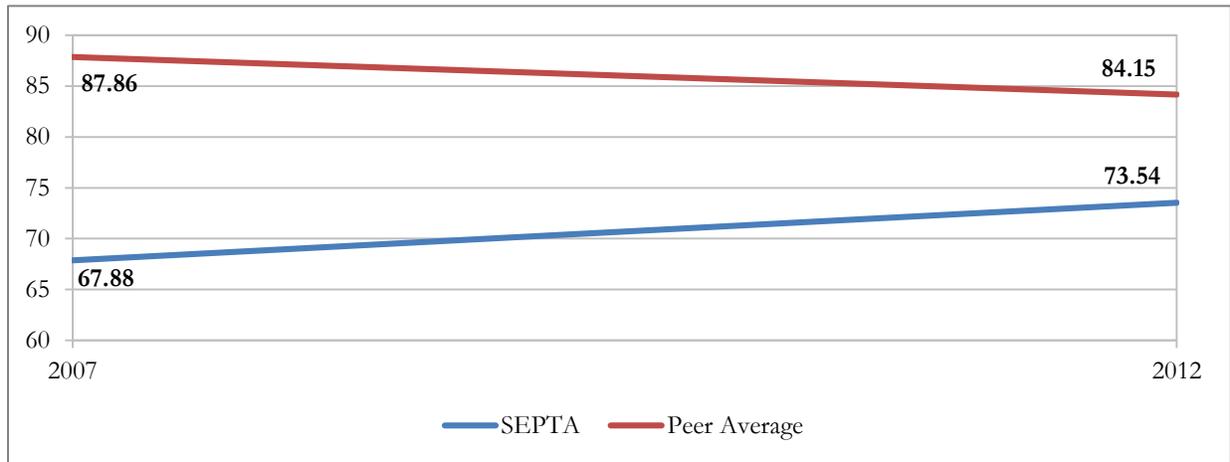
STREETCAR / LIGHT RAIL PERFORMANCE MEASURES

FIGURE B-9: STREETCAR / LIGHT RAIL PASSENGERS PER REVENUE VEHICLE HOUR FY 2011-2012



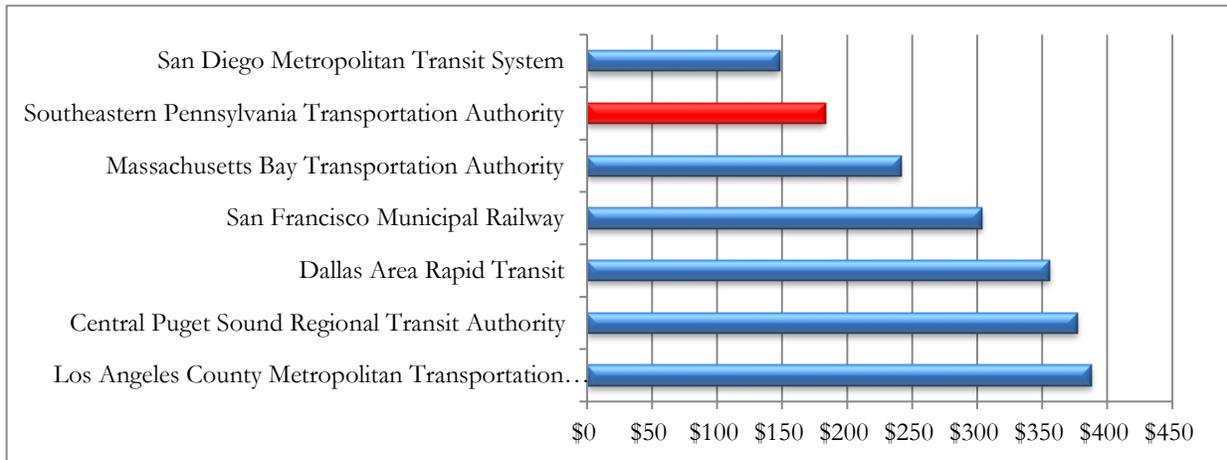
Passengers / Revenue Vehicle Hour (Streetcar / Light Rail)		
FY 2011-2012 Data		
System	Value	Rank
Massachusetts Bay Transportation Authority	118.92	1
Los Angeles County Metropolitan Transportation Authority	103.67	2
San Francisco Municipal Railway	80.2	3
San Diego Metropolitan Transit System	76.37	4
Southeastern Pennsylvania Transportation Authority	73.54	5
Dallas Area Rapid Transit	72.41	6
Central Puget Sound Regional Transit Authority	63.91	7
<i>Average</i>	<i>84.15</i>	
<i>Standard Deviation</i>	<i>19.69</i>	
<i>Average – 1 Standard Deviation</i>	<i>64.46</i>	
<i>Average + 1 Standard Deviation</i>	<i>103.84</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-10: STREETCAR / LIGHT RAIL PASSENGERS PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



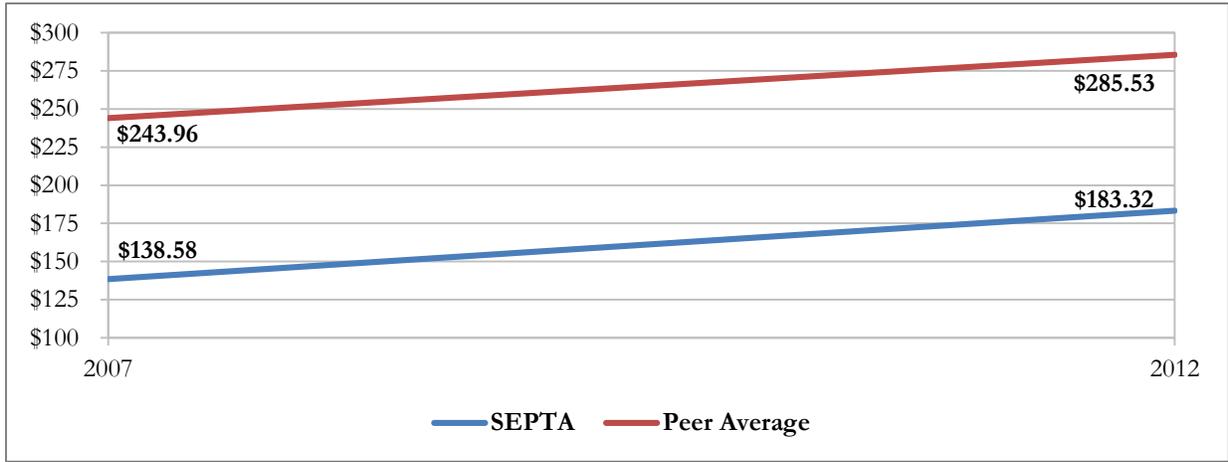
Passengers / Revenue Vehicle Hour (Streetcar / Light Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
San Francisco Municipal Railway	1.91%	1
Southeastern Pennsylvania Transportation Authority	1.61%	2
Dallas Area Rapid Transit	-0.30%	3
Massachusetts Bay Transportation Authority	-0.61%	4
San Diego Metropolitan Transit System	-1.22%	5
Los Angeles County Metropolitan Transportation Authority	-1.48%	6
Central Puget Sound Regional Transit Authority	-5.58%	7
<i>Average</i>	<i>-0.81%</i>	
<i>Standard Deviation</i>	<i>2.48%</i>	
<i>Average - 1 Standard Deviation</i>	<i>-3.29%</i>	
<i>Average + 1 Standard Deviation</i>	<i>1.67%</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-11: STREETCAR / LIGHT RAIL OPERATING COST PER REVENUE VEHICLE HOUR FY 2011-2012



Operating Cost / Revenue Vehicle Hour (Streetcar / Light Rail)		
FY 2011-2012 Data		
System	Value	Rank
San Diego Metropolitan Transit System	\$148.06	1
Southeastern Pennsylvania Transportation Authority	\$183.32	2
Massachusetts Bay Transportation Authority	\$241.75	3
San Francisco Municipal Railway	\$304.05	4
Dallas Area Rapid Transit	\$355.94	5
Central Puget Sound Regional Transit Authority	\$377.34	6
Los Angeles County Metropolitan Transportation Authority	\$388.27	7
<i>Average</i>	<i>\$285.53</i>	
<i>Standard Deviation</i>	<i>\$96.22</i>	
<i>Average – 1 Standard Deviation</i>	<i>\$189.31</i>	
<i>Average + 1 Standard Deviation</i>	<i>\$381.75</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-12: STREETCAR / LIGHT RAIL OPERATING COST PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



Operating Cost / Revenue Vehicle Hour (Streetcar / Light Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Los Angeles County Metropolitan Transportation Authority	-0.10%	1
Dallas Area Rapid Transit	1.65%	2
San Diego Metropolitan Transit System	2.73%	3
Massachusetts Bay Transportation Authority	2.81%	4
Central Puget Sound Regional Transit Authority	5.04%	5
Southeastern Pennsylvania Transportation Authority	5.76%	6
San Francisco Municipal Railway	7.07%	7
<i>Average</i>	<i>3.57%</i>	
<i>Standard Deviation</i>	<i>2.50%</i>	
<i>Average – 1 Standard Deviation</i>	<i>1.06%</i>	
<i>Average + 1 Standard Deviation</i>	<i>6.07%</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-13: STREETCAR / LIGHT RAIL OPERATING REVENUE PER REVENUE VEHICLE HOUR FY 2011-2012

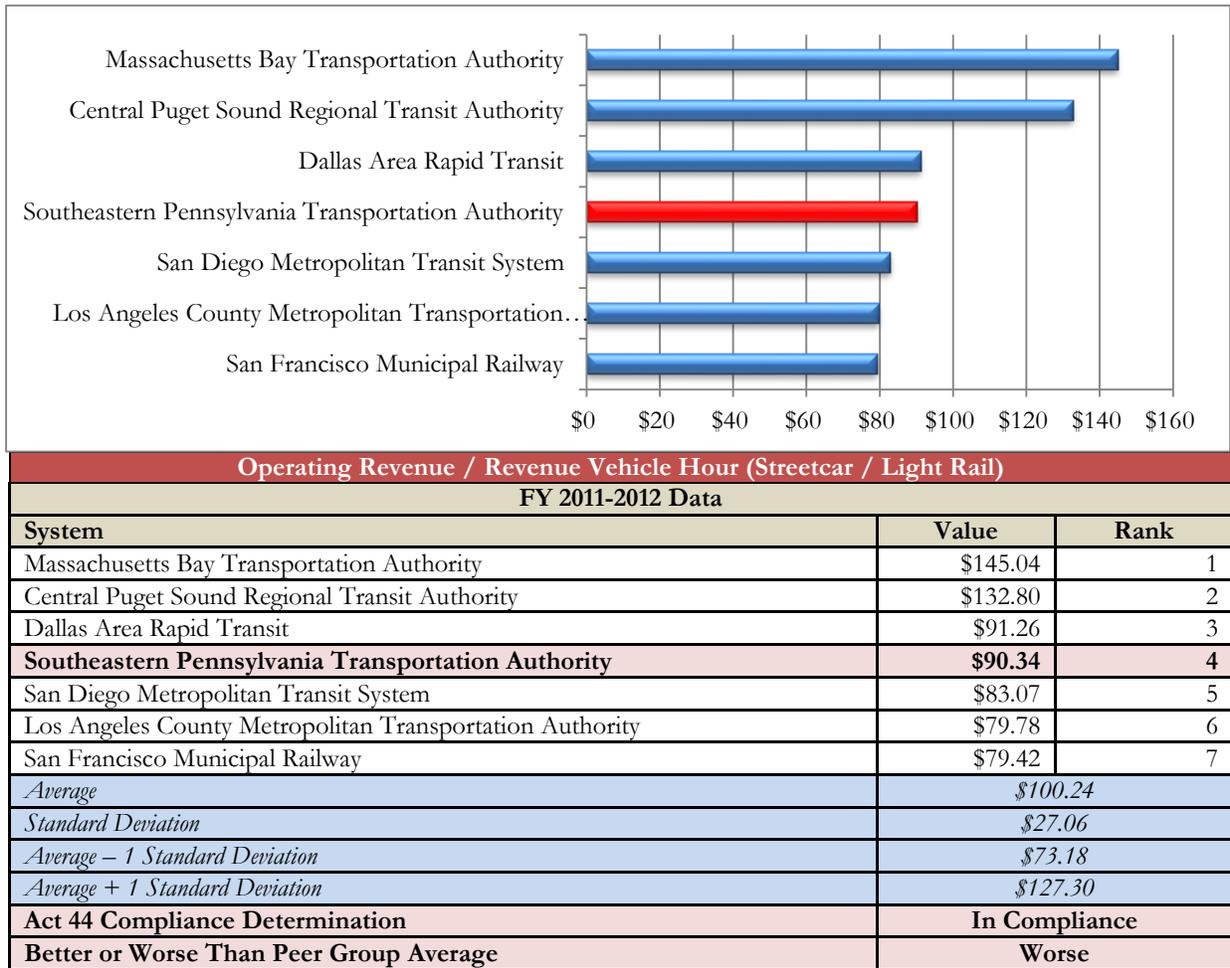
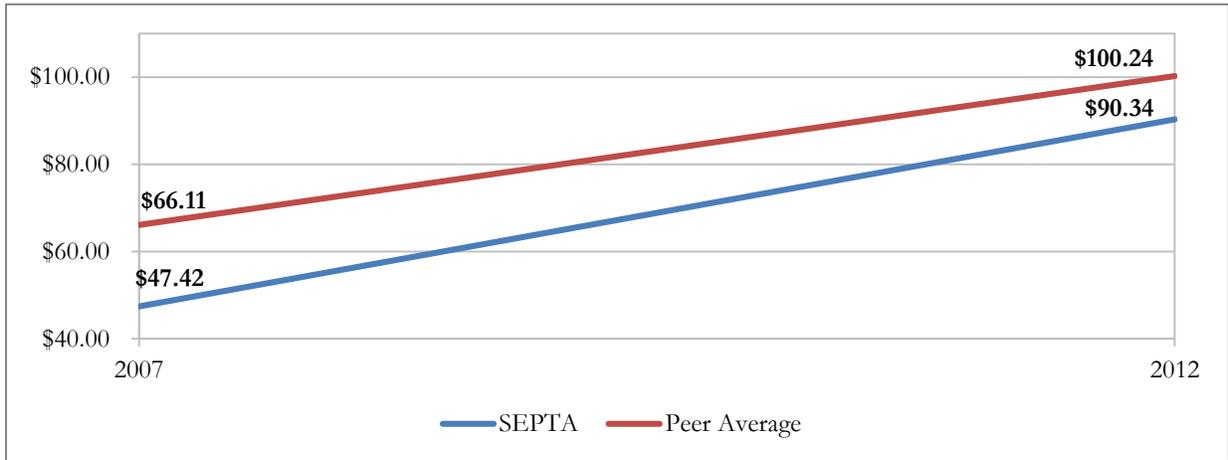
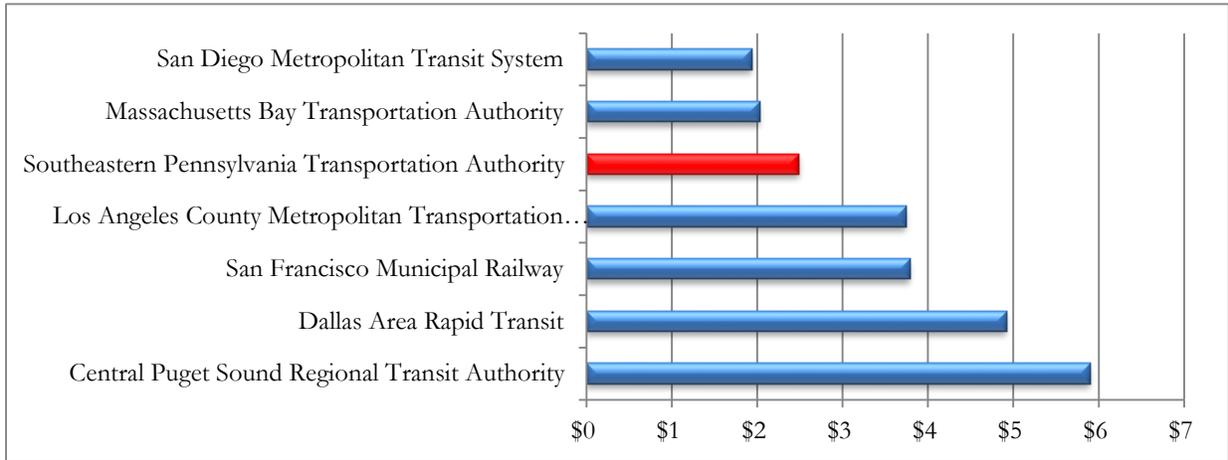


FIGURE B-14: STREETCAR / LIGHT RAIL OPERATING REVENUE PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



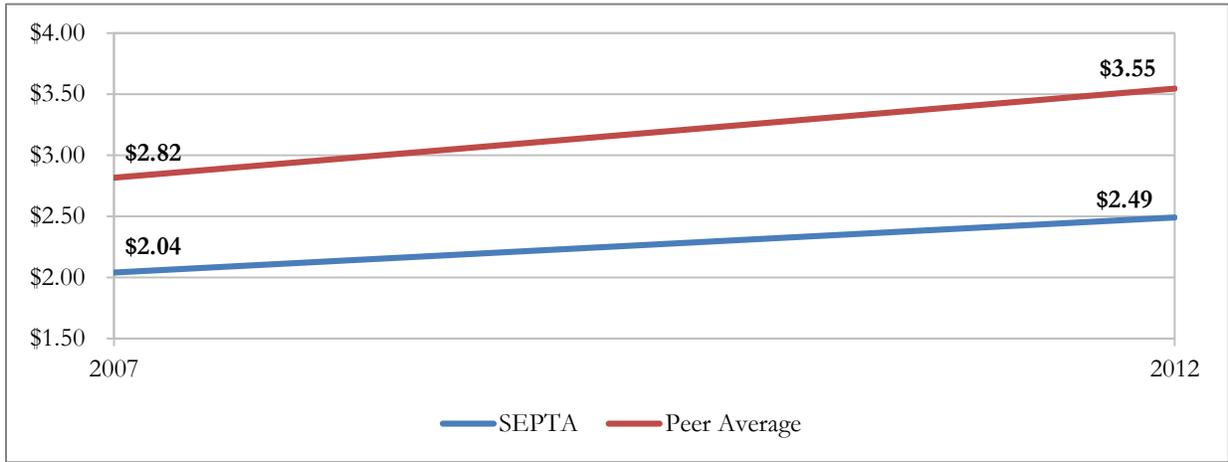
Operating Revenue / Revenue Vehicle Hour (Streetcar / Light Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Central Puget Sound Regional Transit Authority	N/A	N/A
Dallas Area Rapid Transit	16.95%	1
Southeastern Pennsylvania Transportation Authority	13.76%	2
San Francisco Municipal Railway	10.81%	3
Los Angeles County Metropolitan Transportation Authority	4.80%	4
San Diego Metropolitan Transit System	4.61%	5
Massachusetts Bay Transportation Authority	2.13%	6
<i>Average</i>	8.84%	
<i>Standard Deviation</i>	5.88%	
<i>Average - 1 Standard Deviation</i>	2.96%	
<i>Average + 1 Standard Deviation</i>	14.73%	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-15: STREETCAR / LIGHT RAIL OPERATING COST PER PASSENGER FY 2011 - 2012



Operating Cost / Passenger (Streetcar / Light Rail)		
FY 2011-2012 Data		
System	Value	Rank
San Diego Metropolitan Transit System	\$1.94	1
Massachusetts Bay Transportation Authority	\$2.03	2
Southeastern Pennsylvania Transportation Authority	\$2.49	3
Los Angeles County Metropolitan Transportation Authority	\$3.75	4
San Francisco Municipal Railway	\$3.79	5
Dallas Area Rapid Transit	\$4.92	6
Central Puget Sound Regional Transit Authority	\$5.90	7
<i>Average</i>	<i>\$3.55</i>	
<i>Standard Deviation</i>	<i>\$1.50</i>	
<i>Average - 1 Standard Deviation</i>	<i>\$2.04</i>	
<i>Average + 1 Standard Deviation</i>	<i>\$5.05</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

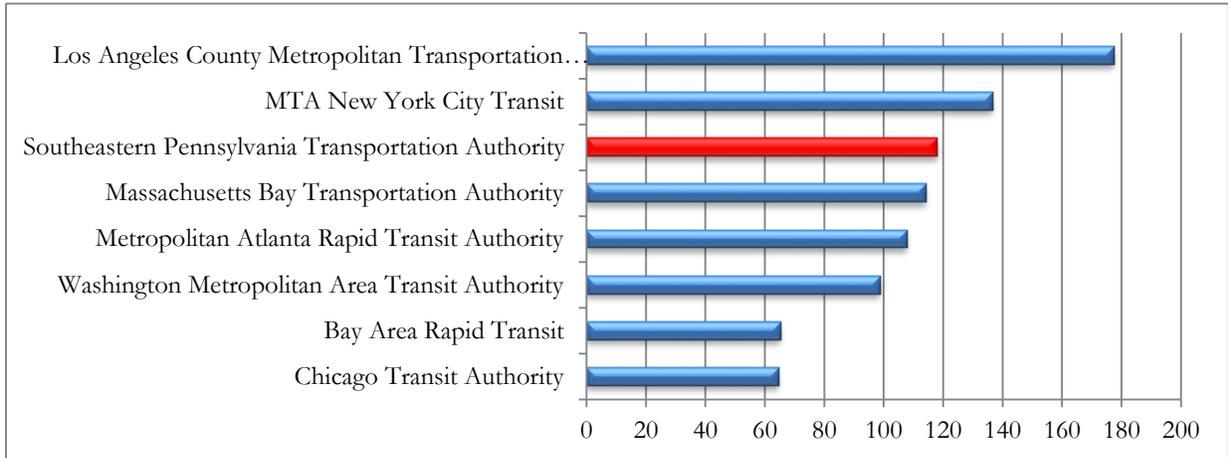
FIGURE B-16: STREETCAR / LIGHT RAIL OPERATING COST PER PASSENGER TREND FY 2006-2007 TO FY 2011-2012



Operating Cost / Passenger (Streetcar / Light Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Los Angeles County Metropolitan Transportation Authority	1.40%	1
Dallas Area Rapid Transit	1.96%	2
Massachusetts Bay Transportation Authority	3.44%	3
San Diego Metropolitan Transit System	4.00%	4
Southeastern Pennsylvania Transportation Authority	4.08%	5
San Francisco Municipal Railway	5.06%	6
Central Puget Sound Regional Transit Authority	11.25%	7
<i>Average</i>	4.46%	
<i>Standard Deviation</i>	3.25%	
<i>Average – 1 Standard Deviation</i>	1.20%	
<i>Average + 1 Standard Deviation</i>	7.71%	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

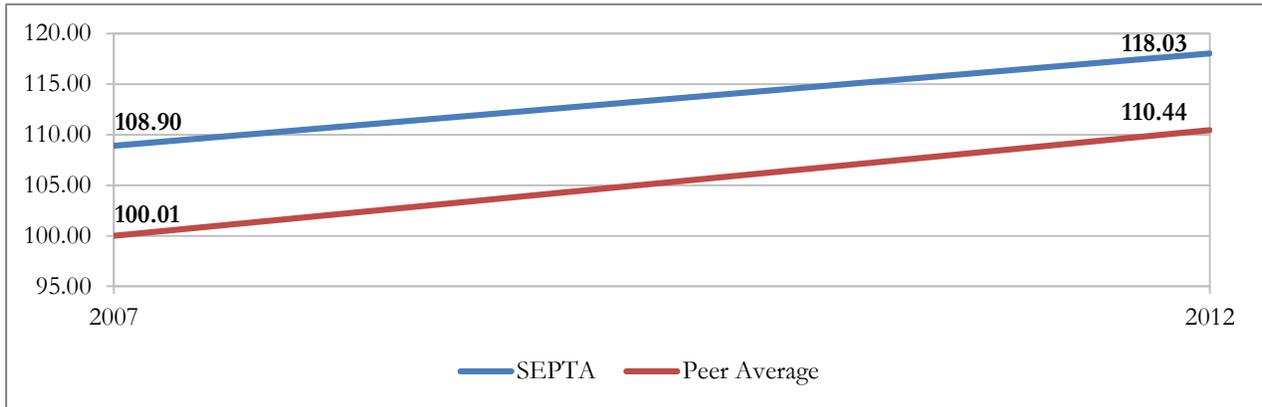
HEAVY RAIL PERFORMANCE MEASURES

FIGURE B-17: HEAVY RAIL PASSENGERS PER REVENUE VEHICLE HOUR FY 2011-2012



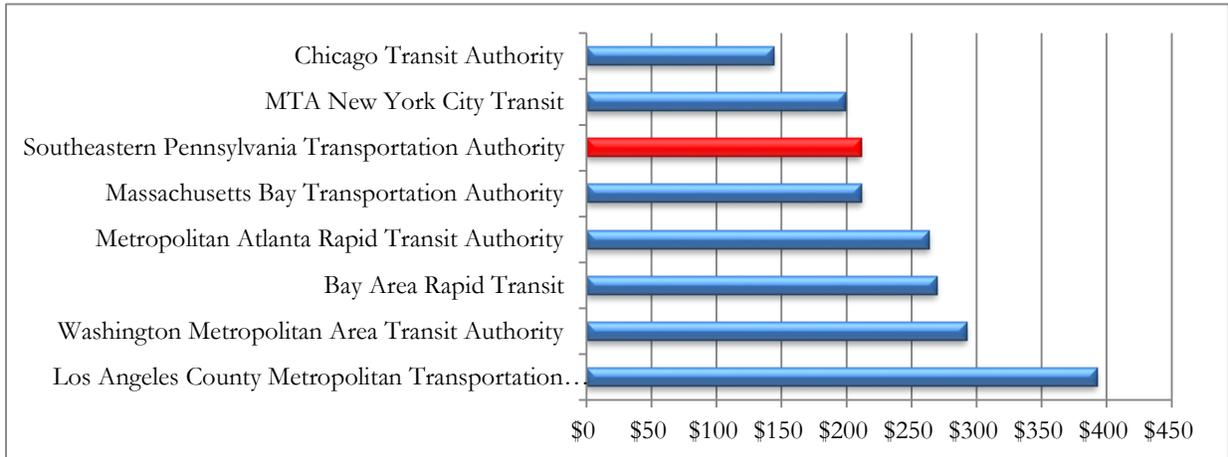
Passengers / Revenue Vehicle Hour (Heavy Rail)		
FY 2011-2012 Data		
System	Value	Rank
Los Angeles County Metropolitan Transportation Authority	177.59	1
MTA New York City Transit	136.69	2
Southeastern Pennsylvania Transportation Authority	118.03	3
Massachusetts Bay Transportation Authority	114.33	4
Metropolitan Atlanta Rapid Transit Authority	107.84	5
Washington Metropolitan Area Transit Authority	98.94	6
Bay Area Rapid Transit	65.44	7
Chicago Transit Authority	64.65	8
<i>Average</i>	<i>110.44</i>	
<i>Standard Deviation</i>	<i>36.90</i>	
<i>Average – 1 Standard Deviation</i>	<i>73.54</i>	
<i>Average + 1 Standard Deviation</i>	<i>147.34</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-18: HEAVY RAIL PASSENGERS PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



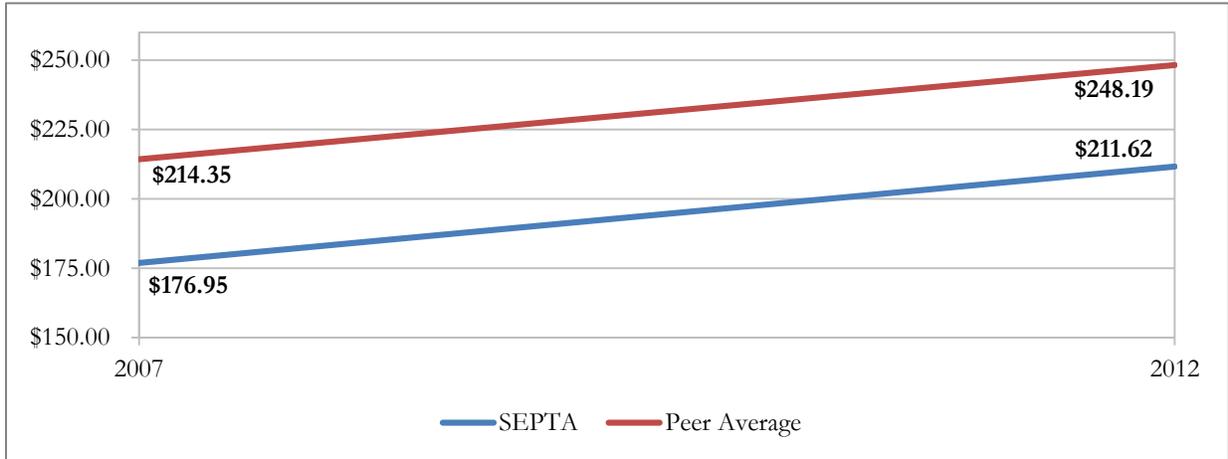
Passengers / Revenue Vehicle Hour (Heavy Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Chicago Transit Authority	4.66%	1
Massachusetts Bay Transportation Authority	3.11%	2
Metropolitan Atlanta Rapid Transit Authority	2.95%	3
Los Angeles County Metropolitan Transportation Authority	2.71%	4
Bay Area Rapid Transit	2.05%	5
Southeastern Pennsylvania Transportation Authority	1.62%	6
MTA New York City Transit	1.16%	7
Washington Metropolitan Area Transit Authority	-1.15%	8
<i>Average</i>	2.14%	
<i>Standard Deviation</i>	1.70%	
<i>Average - 1 Standard Deviation</i>	0.44%	
<i>Average + 1 Standard Deviation</i>	3.84%	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-19: HEAVY RAIL OPERATING COST PER REVENUE VEHICLE HOUR FY 2011 - 2012



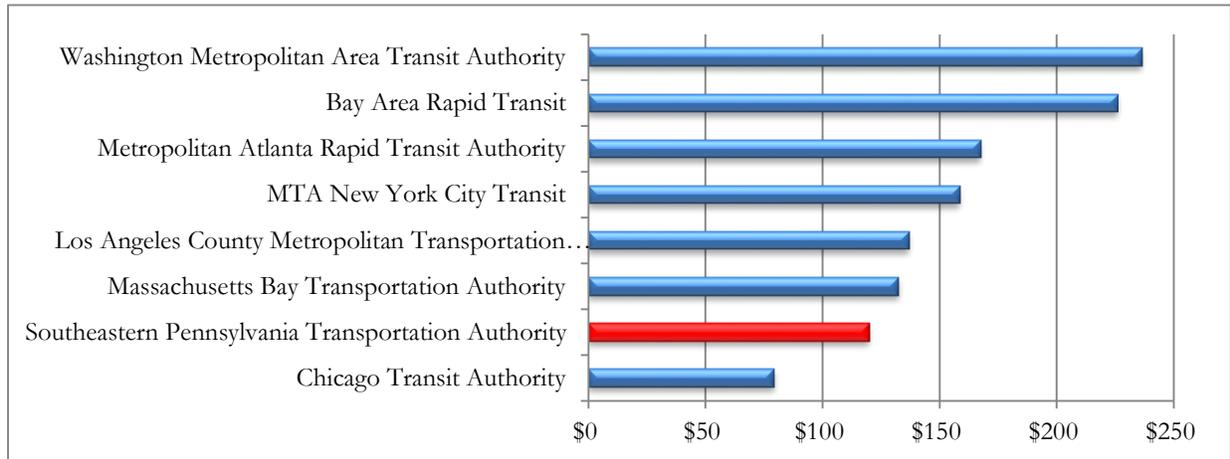
Operating Cost / Revenue Vehicle Hour (Heavy Rail)		
FY 2011-2012 Data		
System	Value	Rank
Chicago Transit Authority	\$144.04	1
MTA New York City Transit	\$199.17	2
Southeastern Pennsylvania Transportation Authority	\$211.62	3
Massachusetts Bay Transportation Authority	\$211.92	4
Metropolitan Atlanta Rapid Transit Authority	\$263.71	5
Bay Area Rapid Transit	\$269.56	6
Washington Metropolitan Area Transit Authority	\$292.58	7
Los Angeles County Metropolitan Transportation Authority	\$392.93	8
<i>Average</i>	<i>\$248.19</i>	
<i>Standard Deviation</i>	<i>\$75.14</i>	
<i>Average – 1 Standard Deviation</i>	<i>\$173.05</i>	
<i>Average + 1 Standard Deviation</i>	<i>\$323.33</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-20: HEAVY RAIL OPERATING COST PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



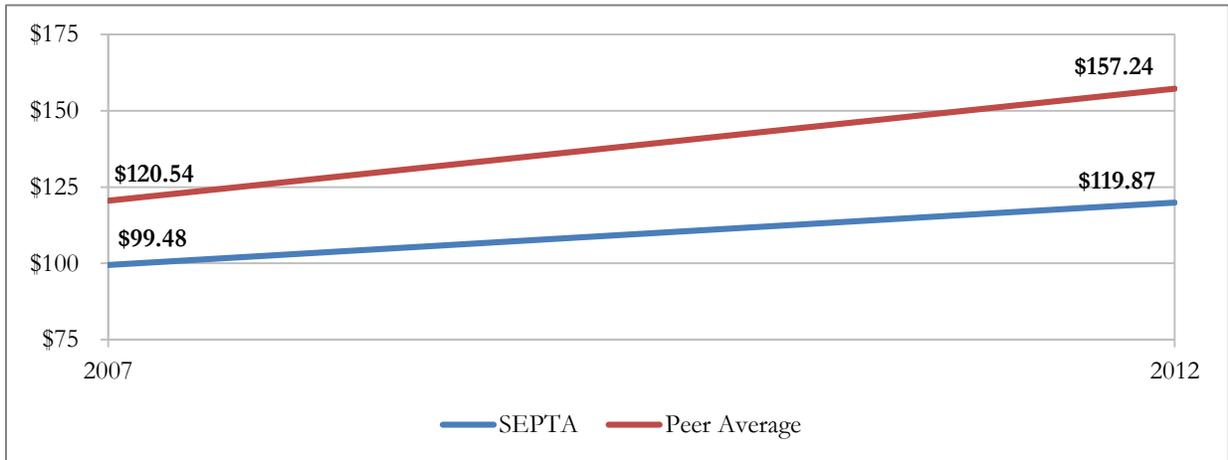
Operating Cost / Revenue Vehicle Hour (Heavy Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Chicago Transit Authority	-0.14%	1
Bay Area Rapid Transit	1.61%	2
Washington Metropolitan Area Transit Authority	2.07%	3
Los Angeles County Metropolitan Transportation Authority	3.42%	4
Massachusetts Bay Transportation Authority	3.51%	5
Southeastern Pennsylvania Transportation Authority	3.64%	6
MTA New York City Transit	4.03%	7
Metropolitan Atlanta Rapid Transit Authority	5.06%	8
<i>Average</i>	2.90%	
<i>Standard Deviation</i>	1.64%	
<i>Average - 1 Standard Deviation</i>	1.26%	
<i>Average + 1 Standard Deviation</i>	4.54%	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-21: HEAVY RAIL OPERATING REVENUE PER REVENUE VEHICLE HOUR FY 211 - 2012



Operating Revenue / Revenue Vehicle Hour (Heavy Rail)		
FY 2011-2012 Data		
System	Value	Rank
Washington Metropolitan Area Transit Authority	\$236.46	1
Bay Area Rapid Transit	\$226.15	2
Metropolitan Atlanta Rapid Transit Authority	\$167.51	3
MTA New York City Transit	\$158.69	4
Los Angeles County Metropolitan Transportation Authority	\$137.19	5
Massachusetts Bay Transportation Authority	\$132.63	6
Southeastern Pennsylvania Transportation Authority	\$119.87	7
Chicago Transit Authority	\$79.40	8
<i>Average</i>	\$157.24	
<i>Standard Deviation</i>	\$52.91	
<i>Average – 1 Standard Deviation</i>	\$104.33	
<i>Average + 1 Standard Deviation</i>	\$210.15	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-22: HEAVY RAIL OPERATING REVENUE PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



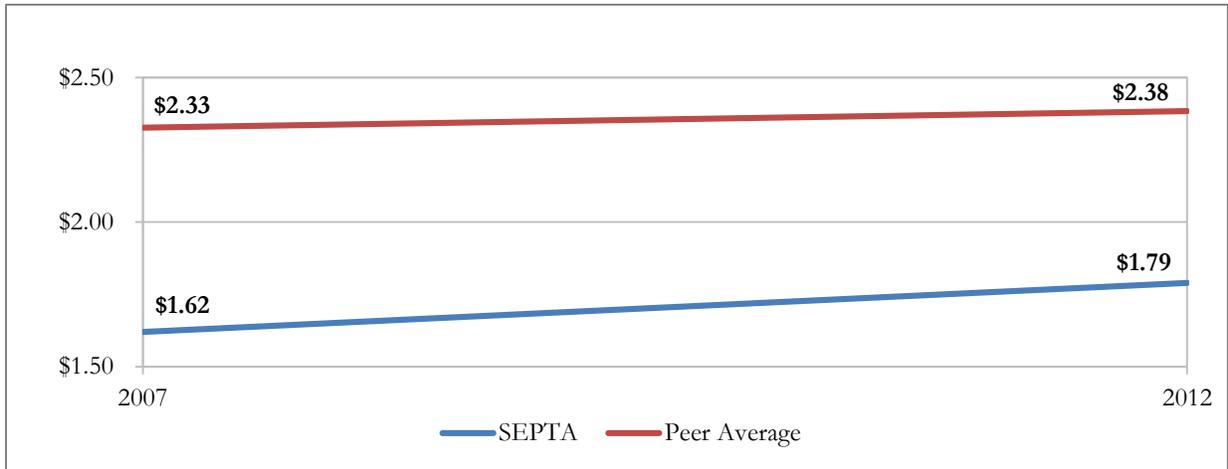
Operating Revenue / Revenue Vehicle Hour (Heavy Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Metropolitan Atlanta Rapid Transit Authority	15.04%	1
Chicago Transit Authority	6.21%	2
Los Angeles County Metropolitan Transportation Authority	6.19%	3
Massachusetts Bay Transportation Authority	6.14%	4
MTA New York City Transit	6.02%	5
Bay Area Rapid Transit	4.19%	6
Southeastern Pennsylvania Transportation Authority	3.80%	7
Washington Metropolitan Area Transit Authority	1.43%	8
<i>Average</i>	<i>6.13%</i>	
<i>Standard Deviation</i>	<i>3.98%</i>	
<i>Average – 1 Standard Deviation</i>	<i>2.15%</i>	
<i>Average + 1 Standard Deviation</i>	<i>10.10%</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-23: HEAVY RAIL OPERATING COST PER PASSENGER FY 2011 - 2012



Operating Cost / Passenger (Heavy Rail)		
FY 2011-2012 Data		
System	Value	Rank
MTA New York City Transit	\$1.46	1
Southeastern Pennsylvania Transportation Authority	\$1.79	2
Massachusetts Bay Transportation Authority	\$1.85	3
Chicago Transit Authority	\$2.23	4
Los Angeles County Metropolitan Transportation Authority	\$2.21	5
Metropolitan Atlanta Rapid Transit Authority	\$2.45	6
Washington Metropolitan Area Transit Authority	\$2.96	7
Bay Area Rapid Transit	\$4.12	8
<i>Average</i>	<i>\$2.38</i>	
<i>Standard Deviation</i>	<i>\$0.84</i>	
<i>Average - 1 Standard Deviation</i>	<i>\$1.55</i>	
<i>Average + 1 Standard Deviation</i>	<i>\$3.22</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

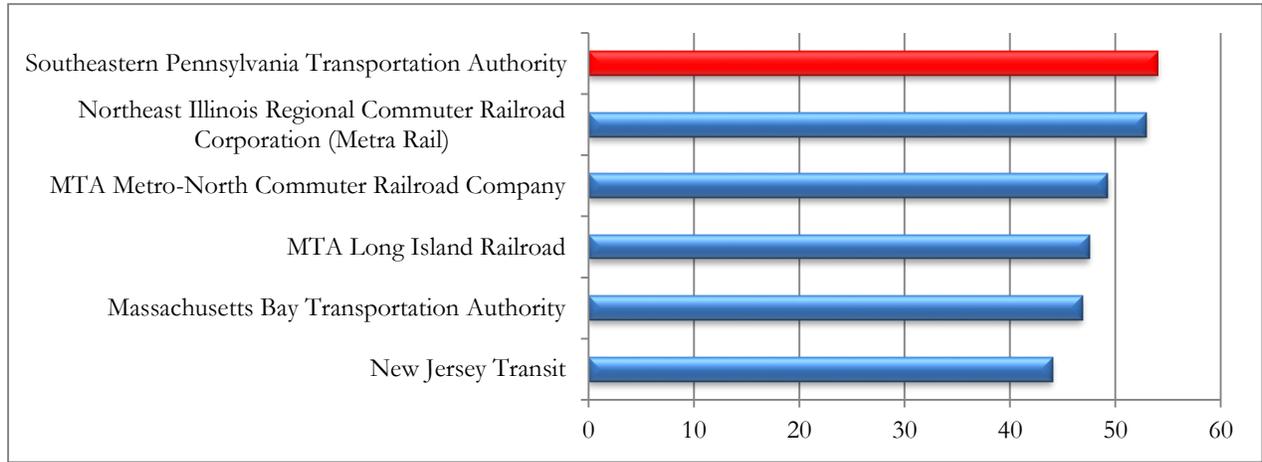
FIGURE B-24: HEAVY RAIL OPERATING COST PER PASSENGER TREND FY 2006-2007 TO FY 2011-2012



Operating Cost / Passenger (Heavy Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Chicago Transit Authority	-4.58%	1
Bay Area Rapid Transit	-0.43%	2
Massachusetts Bay Transportation Authority	0.39%	3
Los Angeles County Metropolitan Transportation Authority	0.70%	4
Southeastern Pennsylvania Transportation Authority	1.99%	5
Metropolitan Atlanta Rapid Transit Authority	2.05%	6
MTA New York City Transit	2.84%	7
Washington Metropolitan Area Transit Authority	3.26%	8
<i>Average</i>	0.78%	
<i>Standard Deviation</i>	2.50%	
<i>Average - 1 Standard Deviation</i>	-1.73%	
<i>Average + 1 Standard Deviation</i>	3.28%	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

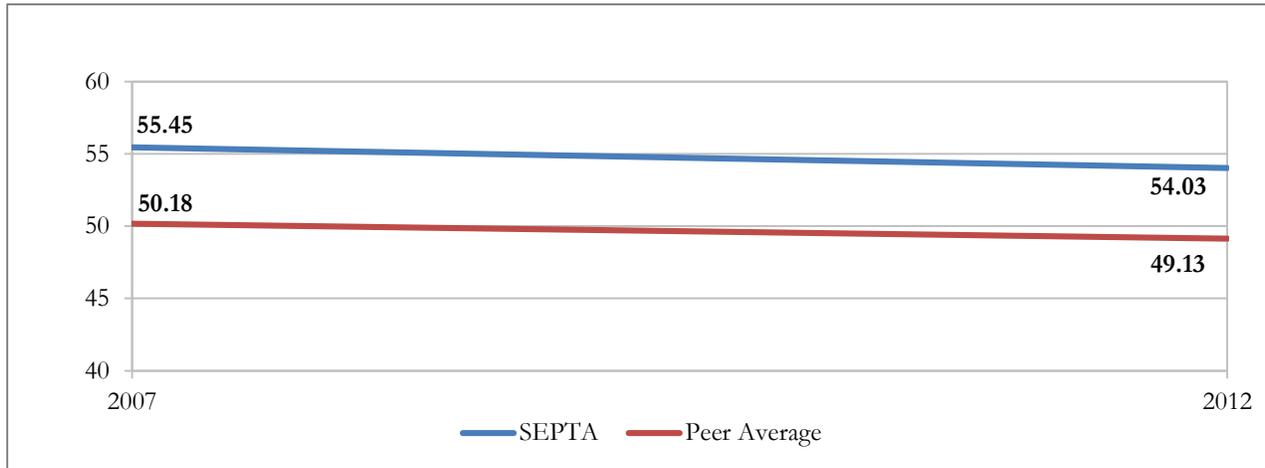
COMMUTER RAIL (REGIONAL RAIL) PERFORMANCE MEASURES

FIGURE B-25: COMMUTER RAIL (REGIONAL RAIL) PASSENGERS PER REVENUE VEHICLE HOUR FY 2011-2012



Passengers / Revenue Vehicle Hour (Commuter Rail)		
FY 2011-2012 Data		
System	Value	Rank
Southeastern Pennsylvania Transportation Authority	54.03	1
Northeast Illinois Regional Commuter Railroad Corporation (Metra Rail)	52.95	2
MTA Metro-North Commuter Railroad Company	49.29	3
MTA Long Island Railroad	47.56	4
Massachusetts Bay Transportation Authority	46.86	5
New Jersey Transit	44.08	6
<i>Average</i>	49.13	
<i>Standard Deviation</i>	3.79	
<i>Average - 1 Standard Deviation</i>	45.34	
<i>Average + 1 Standard Deviation</i>	52.91	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-26: COMMUTER RAIL (REGIONAL RAIL) PASSENGERS PER REVENUE VEHICLE HOUR TREND
FY 2006-2007 TO FY 2011-2012



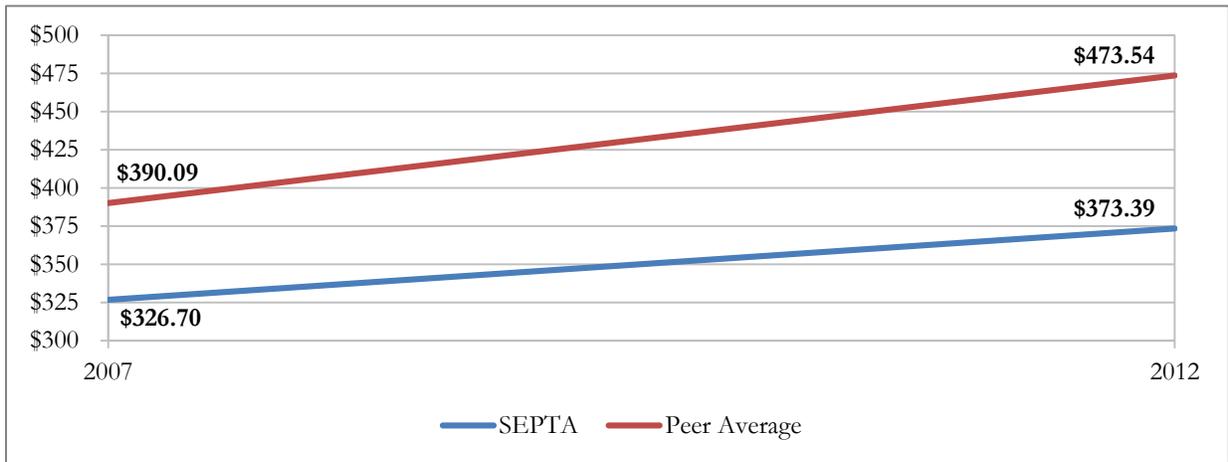
Passengers / Revenue Vehicle Hour (Commuter Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
New Jersey Transit	1.89%	1
MTA Metro-North Commuter Railroad Company	0.32%	2
MTA Long Island Railroad	-0.35%	3
Northeast Illinois Regional Commuter Railroad Corporation (Metra Rail)	-0.50%	4
Southeastern Pennsylvania Transportation Authority	-0.52	5
Massachusetts Bay Transportation Authority	-2.90%	6
<i>Average</i>	<i>-0.34%</i>	
<i>Standard Deviation</i>	<i>1.55%</i>	
<i>Average - 1 Standard Deviation</i>	<i>-1.89%</i>	
<i>Average + 1 Standard Deviation</i>	<i>1.21%</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-27: COMMUTER RAIL (REGIONAL RAIL) OPERATING COST PER REVENUE VEHICLE HOUR FY 2011 - 2012



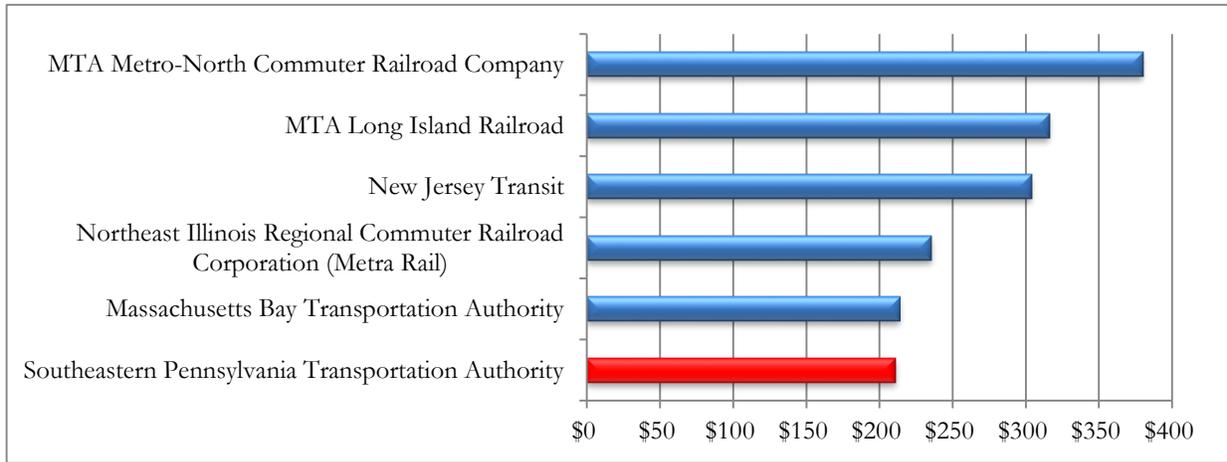
Operating Cost / Revenue Vehicle Hour (Commuter Rail)		
FY 2011-2012 Data		
System	Value	Rank
Southeastern Pennsylvania Transportation Authority	\$373.39	1
Massachusetts Bay Transportation Authority	\$418.32	2
Northeast Illinois Regional Commuter Railroad Corporation (Metra Rail)	\$447.56	3
New Jersey Transit	\$471.34	4
MTA Metro-North Commuter Railroad Company	\$559.88	5
MTA Long Island Railroad	\$570.75	6
<i>Average</i>	<i>\$473.54</i>	
<i>Standard Deviation</i>	<i>\$78.31</i>	
<i>Average - 1 Standard Deviation</i>	<i>\$395.22</i>	
<i>Average + 1 Standard Deviation</i>	<i>\$551.85</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-28: COMMUTER RAIL (REGIONAL RAIL) OPERATING COST PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



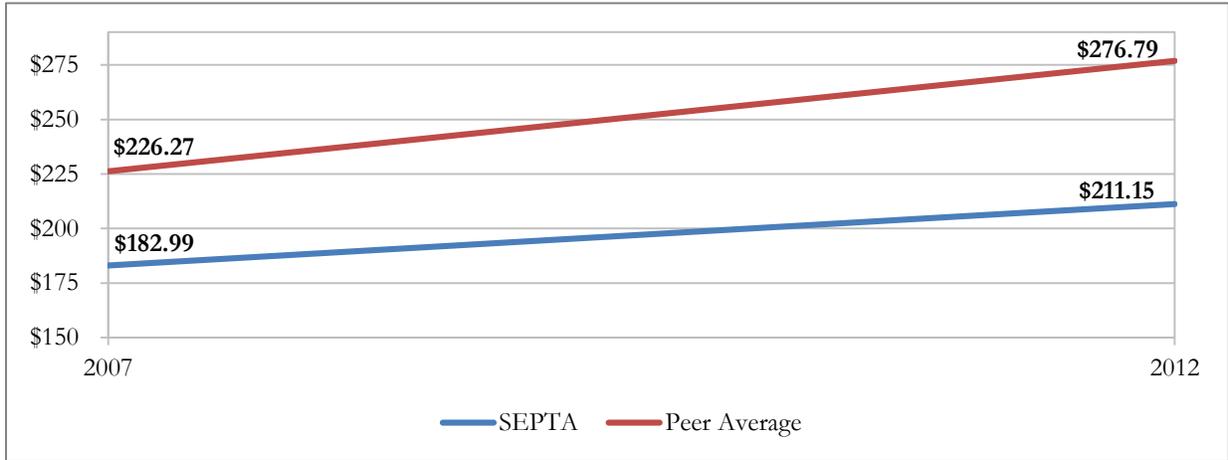
Operating Cost / Revenue Vehicle Hour (Commuter Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
Southeastern Pennsylvania Transportation Authority	2.71%	1
MTA Metro-North Commuter Railroad Company	2.75%	2
MTA Long Island Railroad	3.09%	3
Northeast Illinois Regional Commuter Railroad Corporation (Metra Rail)	4.60%	4
New Jersey Transit	5.42%	5
Massachusetts Bay Transportation Authority	5.62%	6
<i>Average</i>	<i>4.03%</i>	
<i>Standard Deviation</i>	<i>1.35%</i>	
<i>Average – 1 Standard Deviation</i>	<i>2.68%</i>	
<i>Average + 1 Standard Deviation</i>	<i>5.38%</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-29: COMMUTER RAIL (REGIONAL RAIL) OPERATING REVENUE PER REVENUE VEHICLE HOUR FY 2011 – 2012



Operating Revenue / Revenue Vehicle Hour (Commuter Rail)		
FY 2011-2012 Data		
System	Value	Rank
MTA Metro-North Commuter Railroad Company	\$380.25	1
MTA Long Island Railroad	\$315.99	2
New Jersey Transit	\$303.87	3
Northeast Illinois Regional Commuter Railroad Corporation (Metra Rail)	\$235.52	4
Massachusetts Bay Transportation Authority	\$213.93	5
Southeastern Pennsylvania Transportation Authority	\$211.15	6
<i>Average</i>	\$276.79	
<i>Standard Deviation</i>	\$67.73	
<i>Average – 1 Standard Deviation</i>	\$209.06	
<i>Average + 1 Standard Deviation</i>	\$344.51	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-30: COMMUTER RAIL (REGIONAL RAIL) OPERATING REVENUE PER REVENUE VEHICLE HOUR TREND FY 2006-2007 TO FY 2011-2012



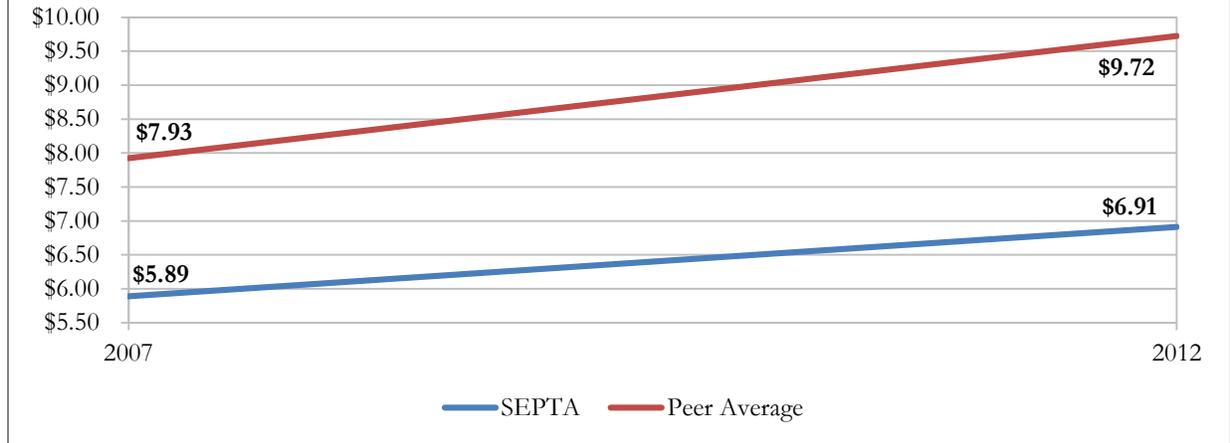
Operating Revenue / Revenue Vehicle Hour (Commuter Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
New Jersey Transit	5.66%	1
MTA Long Island Railroad	5.40%	2
Northeast Illinois Regional Commuter Railroad Corporation (Metra Rail)	4.13%	3
MTA Metro-North Commuter Railroad Company	4.11%	4
Southeastern Pennsylvania Transportation Authority	2.90%	5
Massachusetts Bay Transportation Authority	1.59%	6
<i>Average</i>	<i>3.97%</i>	
<i>Standard Deviation</i>	<i>1.53%</i>	
<i>Average - 1 Standard Deviation</i>	<i>2.43%</i>	
<i>Average + 1 Standard Deviation</i>	<i>5.50%</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Worse	

FIGURE B-31: COMMUTER RAIL (REGIONAL RAIL) OPERATING COST PER PASSENGER FY 2011 - 2012



Operating Cost / Passenger (Commuter Rail)		
FY 2011-2012 Data		
System	Value	Rank
Southeastern Pennsylvania Transportation Authority	\$6.91	1
Northeast Illinois Regional Commuter Railroad Corporation (Metra Rail)	\$8.45	2
Massachusetts Bay Transportation Authority	\$8.93	3
New Jersey Transit	\$10.69	4
MTA Metro-North Commuter Railroad Company	\$11.36	5
MTA Long Island Railroad	\$12.00	6
<i>Average</i>	<i>\$9.72</i>	
<i>Standard Deviation</i>	<i>\$1.95</i>	
<i>Average - 1 Standard Deviation</i>	<i>\$7.78</i>	
<i>Average + 1 Standard Deviation</i>	<i>\$11.67</i>	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

FIGURE B-32: COMMUTER RAIL (REGIONAL RAIL) OPERATING COST PER PASSENGER TREND FY 2006-2007 TO FY 2011-2012



Operating Cost / Passenger (Commuter Rail)		
5 Year Trend Average Annual Rate of Change FY 2006-2007 to FY 2011-2012		
System	Value	Rank
MTA Metro-North Commuter Railroad Company	2.42%	1
Southeastern Pennsylvania Transportation Authority	3.24%	2
MTA Long Island Railroad	3.44%	3
New Jersey Transit	3.46%	4
Northeast Illinois Regional Commuter Railroad Corporation (Metra Rail)	5.13%	5
Massachusetts Bay Transportation Authority	8.78%	6
<i>Average</i>	4.41%	
<i>Standard Deviation</i>	2.31%	
<i>Average – 1 Standard Deviation</i>	2.10%	
<i>Average + 1 Standard Deviation</i>	6.72%	
Act 44 Compliance Determination	In Compliance	
Better or Worse Than Peer Group Average	Better	

APPENDIX C: ACTION PLAN IMPROVEMENT STRATEGIES

ACT 44 PERFORMANCE ASSESSMENT SUMMARY

Improvement Opportunity	SEPTA Actions	Estimated Initiation Date	Estimated Completion Date
Operating cost per revenue vehicle hour: To bring the rate of change in operating cost per revenue vehicle hour down to a sustainable level, the goal should be to gain additional productivity from fixed-bus routes. (pg. 20)			
Operating revenue per revenue vehicle hour: Possible methods for increasing operating revenues include targeted marketing and route branding of service; leveraging SEPTA-owned properties or park-and-ride parcels along each corridor for future residential/commercial development; expanded sales of station naming rights by neighborhood or commercial sponsor, and expansion of advertising through the use of vehicle wraps. The implementation of the SEPTA Key new fare payment system could reduce fare evasion and speed up boardings in ways that increase operating revenue per vehicle hour. (pg. 18)			
The lack of an annual internal audit plan is atypical of standard and prudent internal audit practice (p.20)			
Capital project monitoring and the capital budget amendment process should be more transparent in order to better evaluate budget performance and project completion expectations (p. 21)			

Improvement Opportunity	SEPTA Actions	Estimated Initiation Date	Estimated Completion Date
Capital program prioritization should continue to focus on state-of-good-repair capital investments. (p. 21)			

Note: Include additional pages as necessary.

APPENDIX D: DOCUMENTATION REQUESTS TO GENERAL MANAGER

**2014 Transit Performance Review
Data Request
Pennsylvania Department of Transportation
Bureau of Public Transportation**



DOCUMENT REQUEST

Please provide the following documents and label as shown. Information is strongly preferred in electronic format. Please indicate on the below checklist as to the status and availability of the information.

**Denotes information requested from contractors in addition to Agency.

Requested Item	Mark Form in which Data to Be Provided			
	Electronic	On-Site Review	Not Available	Not Applicable
BACKGROUND				
1. Articles of Incorporation				
2. Brief history of the agency				
3. Latest Strategic Plan (including Mission, Vision, Strategic Goals and Objectives)				
4. Describe any unique circumstances that have adversely or positively affected the agency (e.g., work stoppages, ridership, finances, other).				
5. Updated 5-year presentation, including: <ul style="list-style-type: none"> • Most recent 5-year Operating Budget (starting with FY14-15 Annual Budget plus additional 4-year budget projections) • Current 4-year and 12-year Capital Budget plan, and/or additional 12-year capital budget 				
GOVERNANCE/GENERAL MANAGEMENT				
6. List of current governing body members, with terms and tenure of each member and contact information				
7. Governing body minutes and agenda packets (including all attachments) from the last 12 months.				
8. List of all committees of the Board with all minutes and agenda packets from the last 12 months				
9. Current Governing body bylaws				
10. **Organization chart delineating decision authority by roles.				
11. Succession plan or equivalent.				
12. Performance evaluation process for the Executive Director by the Governing Body.				
OVERSIGHT AND REVIEWS				
13. Two most recent annual reports from chief executive officer to governing board.				
14. Most recent triennial review and any other applicable FTA reviews (i.e. FMO, Procurement) in the previous 3 years.				
HUMAN RESOURCES				
15. All collective bargaining agreements as well as any related documents (e.g., letters or memoranda of understanding, letter agreements, side letters that clarify or modify the collective				

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Requested Item	Mark Form in which Data to Be Provided			
	Electronic	On-Site Review	Not Available	Not Applicable
bargaining agreements, etc.)				
16. Any reports filed with the state or federal government regarding union operations, funds management, etc.				
17. Turnover rate by position for each of the last 5 years.				
18. Current Employee Form(s) used for Annual Job Evaluations				
19. **Operator hiring and performance review procedures.				
FINANCE				
20. A description of any available lines of credit, their potential uses, terms and any outstanding balances				
21. Accounts Receivable (AR) and Accounts Payable (AP) aging Report.				
PROCUREMENT				
22. Procurement policy and procedures.				
CONTRACTING				
23. Contract agreements involving purchased transportation.				
24. Route guarantee or other contracts for the provision of services or special operations agreements to specific agencies, localities, colleges, universities, or other entities.				
25. **Contracts for tire services, fuel, management services, and professional services over \$100,000 in value.				
26. Contract management plan.				
OPERATIONS				
27. **Operations Manual and/or Operators Handbook.				
28. **Emergency and inclement weather (snow, flood, etc.) operational plans and procedures.				
29. **Dispatch procedures				
30. **On-street supervision procedures (incl. AVL, if equipped).				
31. **Current Service and Performance Standards				
FARES AND FARE SECURITY				
32. **Monthly fare revenue by mode, category, and by patron type.				
33. Fare Policy				
MAINTENANCE				
34. **Maintenance plan, programs and procedures manual by mode.				
35. Preventative maintenance schedules for vehicles, facilities and equipment				
36. Annual expenditure on parts and end of year inventory value of parts on hand for each of past 5 years by mode.				
37. Building condition appraisals.				
38. Ongoing asset maintenance programs.				
OPERATIONAL SCHEDULING/PLANNING				
39. **Scheduling Manual.				

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Requested Item	Mark Form in which Data to Be Provided			
	Electronic	On-Site Review	Not Available	Not Applicable
40. Revenue miles, revenue hours & fares from any charter services provided in each of the last 6 years.				
41. Latest Transit Development Plan (TDP)				
42. Long range transit plan.				
SAFETY AND SECURITY				
43. Summary of Worker Compensation Claims, by year, for each of last 5 years.				
44. **Description of accident/incident policy and definitions, including how they are recorded and monitored (separated by employee and patron).				
45. **Property collisions and other reportable incidents for each of the past 5 years.				
46. **Safety training and Collision reduction plan(s).				
47. **Emergency Preparedness / Operations Continuity Plan.				
48. Records of safety meetings for past 2 years.				
CUSTOMER SERVICE				
49. Latest rider survey and non-rider survey (form and summary results).				
50. **Complaint procedures manual/policy and 2 most recent reports.				
51. Other customer service metrics maintained by the agency.				
INFORMATION TECHNOLOGY				
52. **Computer disaster recovery plan.				
53. Computer security procedures now in use.				
54. **List of Software used for Accounting/Financial, Maintenance, Scheduling, Farebox and Data Collection (e.g. AVL, Avail)				
55. Summary of vehicles by mode with video and/or audio recording capability				
CAPITAL PROGRAMMING				
56. Short and Long-term capital programs or plans including: <ul style="list-style-type: none"> • Transit TIP • Capital needs list (outside of the TIP) 				
57. Contact information for any assets owned, operated, or maintained by others.				
58. Listing of real estate fixed assets (i.e., facilities, transfer locations, etc.) identifying any asset currently not directly used in transit operations and plans for same.				
MARKETING AND PUBLIC RELATIONS				
59. Local news clippings from past 5 years (to be reviewed on-site, do not provide at this time).		X		
60. Copy of current year marketing program and policies.				
61. Reports, input, recommendations, etc. from ridership committees and/or advocacy groups for the past 2 years.				

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* Include all garage and maintenance facilities, rail car shops and maintenance facilities, control centers, a centers; electric power stations/substations, rail stations and contract service providers.

APPENDIX E: FINANCIAL REVIEW BACKGROUND INFORMATION

INTRODUCTION

An assessment of SEPTA's financial health and financial management practices was conducted as part of SEPTA's performance review. This background appendix describes the review process, identifies high-level indicators of financial health, and summarizes the analysis of each of the nine high-level indicators of financial health.

REVIEW PROCESS

In performing this assessment, a variety of SEPTA's data and documents were examined and financial, audit, and risk management staff were interviewed. The functional areas that were reviewed included:

- Accounting, Financial Reporting, and Financial Services
- Capital Budget, Planning, and Grant Management
- Cash and Debt Management
- Executive Management
- Internal Audit and Risk Management
- Operating Budget, Financial Analysis, and Route Planning
- Revenue, Fare Pricing, Ridership, and Sales
- Strategic Planning and Analysis
- Technology

Data and documents for SEPTA as a whole and for the Finance Department in particular were reviewed and evaluated. Among the many items studied were SEPTA's FY2012-13 and FY2013-14 audited financial statements, FY 2014-2015 operating and capital budgets, FY 2014-2015 to FY 2018-2019 strategic plan, FY 2013-14 dotGrants legacy budget reports, and the Finance Department's policies, procedures, and organization charts.

Interviews were held with the Chief Financial Officer, Treasurer, Internal Auditor/ Assistant General Manager of Audit, Safety & Investigative Services, and the senior financial and risk management staff responsible for the respective functions noted above. General questions related to policies, procedures, and challenges were asked of most interviewees as were specific questions pertaining to their distinct functions and responsibilities. Sample topics covered during the interviews include the following:

Accounting, Financial Reporting, and Financial Services: General ledger account structure, journal entry process, accounts receivable collections, write-off policies, local match process, purchasing effectiveness, asset leases, independent audit contract, financial reporting consistency, management and board reports, and cost allocation.

Capital Budget, Planning, and Grant Management: Budget development process, key budget drivers, budget forecasts, budget monitoring, reporting, departmental participation, stakeholder participation, links to the operating budget, board approval process, project prioritization, Act 89 impact, and capacity to deliver.

Cash and Debt Management: Banking relationships, cash flow forecasts, lines of credit, outstanding debt, derivative transactions, planned financing, debt capacity, credit rating, and investment policies and decision-making.

Executive Management: Financial condition, authority and departmental challenges, succession planning, and relationship with board and operating departments.

Internal Audit and Risk Management: Audit planning, audit priorities, types of audits, finance department audits, proactive versus reactive audit approach, self-insurance, risk assessment, and use of insurance carriers.

Operating Budget, Financial Analysis, and Route Planning: Budget development process, key budget drivers, budget forecasts, budget monitoring, budget assumptions, reporting, departmental participation, stakeholder participation, fixed versus variable cost, and route performance measurement and adjustment.

Revenue, Fares, Ridership, and Sales: Revenue trends, revenue reporting, ridership statistics, cash collections, impact of new payment technologies, fare structure, and parking revenues.

Strategic Planning and Analysis: Strategic initiatives, impacts on financial and operating results, participants in the process, links to other organization programs and processes, monitoring, and measurements of success.

Technology: Strategic initiatives, current core initiatives, technology usage for operating improvements, financial systems used, and financial systems priorities.

HIGH LEVEL INDICATORS OF FINANCIAL HEALTH

Following the interviews and documents review, nine high-level indicators were chosen to provide a picture of SEPTA's financial health. A description of each indicator follows:

Operating Revenues and Expenses: SEPTA is Pennsylvania's largest transit operator with a \$1.6 billion operating budget. Financial health can be determined, in part, by analyzing revenue and cost trends, year-end financial results, and the existence of balanced budgets.

Liquidity: Liquidity is an organization's ability to meet its short-term (one year) obligations and is measured by using the acid test ratio (quick ratio). The quick ratio looks at current assets⁷, excluding inventory and prepaid expenses, as a ratio to current liabilities⁸. The higher the ratio, the stronger the organization's short-term health. An ideal acid test ratio is 1.0 or higher. Although one might question the applicability of liquidity ratios to public transit systems given the assuredness of state and/or federal operating assistance, it is this implied certainty of government funding that makes this indicator all the more important. It provides a clear measurement of the agency's prudence and efficiency of its cash management practices and sheds light on wasteful spending and potential future cash shortfall positions. A minimum ratio of 1.0 indicates that SEPTA has sufficient cash reserves and receivables to satisfy its short-term liabilities.

Capital Program: SEPTA has \$3.6 billion of fleet, buildings, infrastructure, land, technology, and other capital assets. Maintaining these assets in a state-of-good-repair and investing in upgraded or new assets to improve operational and financial results is critical to safe, efficient, revenue producing and ongoing operations. Financial health can therefore be determined, in part, by evaluating SEPTA's capital program expenditures, program distribution, program management, financing capacity, and operational capacity.

Five-Year Forecast: While the liquidity ratio measures short-term financial health, an examination of SEPTA's five-year forecast assumptions, drivers and results can provide an indication of mid-term financial health.

Government Subsidies: Given the significant reliance on federal, state and local funding, financial health can be determined, in part, by reviewing the level, cash flow, and payment timeliness of government subsidies for both operating and capital purposes.

Finance Organization: The ability to intelligently, effectively, and efficiently manage the financial programs and processes for which it has responsibility, lead the department's staff, and make prudent business decisions directly contributes to the financial health of the organization.

⁷ Assets that are reasonably expected to be converted into cash within one year in the normal course of business including cash and cash equivalents, investments, marketable securities, inventory, and prepaid expenses.

⁸ Debts or obligations that are due within one year and include short-term debt, accounts payable, accrued expenses, and other debts.

Finance Interviews: The broad set of topics reviewed with the Finance, Audit, and Risk Management senior staff provided an opportunity to see the skills of the management team and get an understanding of the department's policies, procedures, programs, and challenges.

Independent Audit Results: The annual audit performed by an independent accounting firm provides an indication of whether the financial statements prepared by SEPTA accurately reflect its financial results and also provides findings of material weaknesses in internal control.

Peer Comparisons of System Performance Criteria: Act 44 establishes performance criteria for public transit agencies receiving section 1513 funding and requires a current year and five-year trend comparison of such criteria to the transit agency peers. Three of the four criteria are financial indicators – operating cost per revenue vehicle hour, operating revenue per revenue vehicle hour, and operating cost per passenger. The remaining criterion is passengers per revenue vehicle hour. The financial health of SEPTA can, in part, be evaluated by reviewing the results of this comparative peer analysis.

These nine high-level indicators of financial health were reviewed and the resulting analysis for each indicator is summarized below:

OPERATING REVENUES AND EXPENSES

SEPTA's revenues and expenses show positive trend lines with steady fare revenue growth and focused cost savings programs. The operating budget has been balanced for 15 years and FY2014-15 is forecasted to result in a \$390K surplus.

LIQUIDITY

SEPTA's acid test ratio has averaged 0.75 since the inception of Act 44 in 2007, with little volatility over that time horizon. This demonstrates SEPTA's ability to satisfy approximately ¾ of its short-term liabilities and reflects relative strength in liquidity with regards to public transit systems that receive dedicated monthly cash inflows of Act 44 operating assistance.

CAPITAL PROGRAM

The addition of approximately \$250 million annually to SEPTA's capital program creates an historic opportunity to deal with deferred capital investments due to years of severely inadequate funding. SEPTA's strategic plan is intricately tied to its capital program, providing a solid basis for capital project prioritization. As noted in the *Best Practices* section of the report, the capital budget development process is strong in terms of need determination, prioritization, project distribution, and stakeholder participation. SEPTA's state-of-good-repair backlog is currently estimated at \$5 billion.

Given the anticipated increase in capital spending, it is critical for SEPTA to focus on improving the capital project monitoring report to increase transparency and provide the data necessary for operating and financial project analysis. Similarly, a more detailed presentation of capital project data will provide the Board with more precise information for its budget approval process (see *Opportunities for Improvement* section).

Two key challenges face the SEPTA management team. First, the anticipated expansion of the capital budget will test SEPTA's internal capacity to successfully implement the capital program in accordance with project deadlines and budgets. Internal capacity includes factors such as staff levels, staff expertise, and procurement and contracting processes. Second, while Act 89 provides an increase in capital grant funding, the agency will face a challenge obtaining financing from lenders given the more limited and new repayment streams available under the legislation. Among other provisions, Act 89 changes the sources of transit capital funding over the next six years. Potential investors may choose not to participate in SEPTA financing transactions or may require a higher interest rate to compensate for the perceived risk associated with new or changing revenue sources. Additionally, a larger portion of SEPTA's state-provided funding will be coming from State or Pennsylvania Turnpike bond proceeds. Proceeds from state bond transactions cannot be used to fund debt service on SEPTA bonds. Given the need to finance fleet and equipment purchases, SEPTA will need to determine an appropriate source of repayment prior to the issuance of any new bonds.

FIVE-YEAR FORECAST

SEPTA's five-year operating forecast is balanced in each fiscal year, consistent with its recently negotiated labor contracts, reflective of periodic fare increases, and based on reasonable assumptions and inflationary factors.

GOVERNMENT SUBSIDIES

Pennsylvania Acts 44 and 89 have provided SEPTA with a growing amount of operating and capital funding as noted above. As the primary provider of government subsidies for operations, PennDOT advances monthly operating assistance to SEPTA. Federal and state capital project funding is provided to SEPTA on a cost reimbursement basis with Federal funding available for drawdown immediately after SEPTA incurs actual capital expenditures. In contrast, SEPTA must invoice PennDOT for capital expenditure reimbursements. PennDOT also provides debt service payments directly to SEPTA's trustee on behalf of SEPTA for financing transactions that have been pre-approved by PennDOT. Finally, the counties that SEPTA serves make timely operating and capital local matching contributions. Timely county payments are likely the result of an active communication program between SEPTA and its local stakeholders, who are included in the budget development process and are informed of the budget status on a regular basis.

FINANCE ORGANIZATION

SEPTA's Finance Department staff is led by a skilled management team with strong support from the General Manager and Board of Directors.

FINANCE DEPARTMENT INTERVIEWS

Overall, financial policies, practices, and organization in all financial functions are strong. The department particularly excels in strategic planning, budget development, debt and cash management, accounting, and financial reporting. A key challenge is the complex implementation of the new payment technology project ("SEPTA Key") which has the potential to improve operational efficiency and reduce costs.

INDEPENDENT AUDIT RESULTS

SEPTA's accounting firm provided an unqualified opinion on SEPTA's financial statements for the fiscal years reviewed. Additionally, the auditor's report on internal control of financial reporting and compliance and other matters (1) did not identify any deficiencies in internal control that would be considered a material weakness and (2) found no instances of non-compliance or other matters that are required to be reported under Government Auditing Standards (GAS).

PEER COMPARISONS OF SYSTEM PERFORMANCE CRITERIA

SEPTA's overall and modal performance metrics as measured against its peers are strong. Separate performance analyses were conducted for SEPTA's four modes of transit – fixed-route bus, streetcar / light rail, heavy rail, and commuter rail (Regional Rail). Pursuant to Act 44, the transit agency under review is deemed to be in compliance if the value for a particular metric is within one standard deviation of the peer group's average value. Additionally, the peer average is to be calculated by including the data for the transit agency that is under review. SEPTA's metrics for each of its modes of transit were deemed to be in compliance as noted elsewhere in this document.

CONCLUSIONS

SEPTA's financial health and financial management practices are strong. While the capital budget development process, local stakeholder communication and government subsidy levels are commendable, there are risks associated with (1) SEPTA's internal capacity to deliver projects on time and on budget due to the expanded capital program and (2) the ability to finance certain elements of the capital program given the new capital funding sources from PennDOT. Given this risk, recommendations to support the finance department's efforts in monitoring the capital program are provided in the *Opportunities for Improvement* section of this report.

