PAAC System Performance Review

November 23, 2016

Port Authority of Allegheny County (PAAC) Performance Report

Revised - September 2019

pennsylvania
DEPARTMENT OF TRANSPORTATION

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September 2019 Revision

In April 2019, PennDOT conducted a mid-term performance review of the Port Authority of Allegheny County (PAAC). The purpose of the review was intended to:

- Better understand changes in service and organizational structure since the last review
- Assess PAAC's attainment of the performance targets and adjust the targets if warranted
- Evaluate the actions taken thus far in PAAC's action plan and determine if additional actions are needed

PennDOT completed the mid-term review in September 2019 and issued an addendum to the 2016 report. Based on findings detailed in the addendum, PennDOT and PAAC agreed to revise PAAC's performance targets. The addendum can be found at the end of this report in **Appendix B: Act 44 Interim Performance Review (2019)**.

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LIST OF EXHIBITS

AGENCY PUBLIC TRANSPORTATION PROFILE

FIXED-ROUTE SERVICE

Agency	Port Authority of Allegheny County (d.b.a., Port Authority, PAAC)			
Year Founded	1964			
Reporting Fiscal Year End (FYE)	FYE 2015			
Service Area (square miles)	775			
Service Area Population	1,415,244			
Fixed-Route Annual Operating Statistics*	**Bus**	**Light Rail**	**Inclined Plane**	**Fixed-Route Total**
Vehicles in Maximum Service (VOMS)	575	56	2	633
Operating Cost	$285,589,037	$55,969,169	$904,248	$342,462,454
Operating Revenues	$81,521,189	$11,962,763	$1,179,362	$94,663,314
Total (Actual) Vehicle Miles	25,914,991	2,216,163	19,602	28,150,756
Revenue Miles of Service (RVM)	20,187,249	2,136,358	19,602	22,343,209
Total Vehicle Hours	1,807,088	172,860	8,392	1,988,340
Revenue Vehicle Hours (RVH)	1,536,250	168,181	8,392	1,712,823
Total Passenger Trips	54,843,567	8,047,976	793,419	63,684,962
Senior Passenger (Lottery) Trips	4,245,883	518,947	47,233	4,812,063
Act 44 Performance Statistics				
Passengers / RVH	35.70	47.85	94.54	37.18
Operating Cost / RVH	$185.90	$332.79	$107.75	$199.94
Operating Revenue / RVH	$53.07	$71.13	$140.53	$55.27
Operating Cost / Passenger	$5.21	$6.95	$1.14	$5.38
Other Performance Statistics				
Operating Revenue / Operating Cost	28.54%	21.37%	130.42%	27.64%
Operating Cost / Total Vehicle Hours	$158.04	$323.78	$107.75	$172.24
Operating Cost / Total Vehicle Miles	$11.02	$25.25	$46.13	$12.17
Total Passengers / Total Vehicle Hours	30.35	46.56	94.54	32.03
Operating Cost / RVM	$14.15	$26.20	$46.13	$15.33
RVM / Total Vehicle Miles	77.90%	96.40%	100.00%	79.37%
RVH / Total Vehicle Hours	85.01%	97.29%	100.00%	86.14%
Senior Passengers / Total Passengers	7.74%	6.45%	5.95%	7.56%
Revenue Miles / Revenue Hours	13.14	12.70	2.34	13.04
Operating Subsidy / Passenger Trip	$3.72	$5.47	($0.35)	$3.89

* source: dotGrants 2015 reporting. Non-mode specific revenues and costs have been allocated to each fixed-route mode in proportion to that mode's revenues and costs relative to the system's totals.

Agency Public Transit Profile

Paratransit Service

Agency	Port Authority of Allegheny County (d.b.a., Port Authority, PAAC, ACCESS)			
Reporting Fiscal Year End (FYE)	FYE 2015			
Paratransit Annual Operating Statistics*	**Shared Ride**	**ADA Paratransit**	**Other Dept. Approved Service**	**Paratransit Total**
Vehicles in Maximum Service (VOMS)	166	96	5	267
Operating Cost	$22,316,235	$12,633,130	$540,253	$35,489,618
Operating Revenues	$21,534,984	$2,167,432	$298,238	$24,000,654
Total (Actual) Vehicle Miles	5,633,223	4,597,471	338,205	10,568,899
Revenue Miles of Service (RVM)	4,982,586	4,066,463	299,142	9,348,191
Total Vehicle Hours	435,530	249,126	10,834	695,490
Revenue Vehicle Hours (RVH)	395,403	226,181	9,836	631,420
Total Passenger Trips	1,012,253	424,103	19,345	1,455,701
Senior Passenger (Lottery) Trips	669,345	0	1,558	670,903
Act 44 Performance Statistics				
Passengers / RVH	2.56	1.88	1.97	2.31
Operating Cost / RVH	$56.44	$55.85	$54.93	$56.21
Operating Revenue / RVH	$54.46	$9.58	$30.32	$38.01
Operating Cost / Passenger	$22.05	$29.79	$27.93	$24.38
Other Performance Statistics				
Operating Revenue / Operating Cost	96.50%	17.16%	55.20%	67.63%
Operating Cost / Total Vehicle Hours	$51.24	$50.71	$49.87	$51.03
Operating Cost / Total Vehicle Miles	$3.96	$2.75	$1.60	$3.36
Total Passengers / Total Vehicle Hours	2.32	1.70	1.79	2.09
Operating Cost / RVM	$4.48	$3.11	$1.81	$3.80
RVM / Total Vehicle Miles	88.45%	88.45%	88.45%	88.45%
RVH / Total Vehicle Hours	90.79%	90.79%	90.79%	90.79%
Senior Passengers / Total Passengers	66.12%	0.00%	8.05%	46.09%
Revenue Miles / Revenue Hours	12.60	17.98	30.41	14.81
Operating Subsidy / Passenger Trip	$0.77	$24.68	$12.51	$7.89

* source: dotGrants 2015 reporting

EXECUTIVE SUMMARY

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

An Act 44 transit performance review of the Port Authority of Allegheny County (d.b.a. Port Authority, PAAC) was conducted in late 2015. The performance review focused on fixed-route service. This report addresses the performance criteria that Act 44 established, trends and comparisons with peer agencies, targets for future performance, a list of the agency's best practices and a discussion of opportunities for improvement which should assist PAAC in meeting future performance targets. This report also addresses the management, general efficiency, effectiveness, and quality of services.

On the basis of this performance report, PAAC will develop an action plan which identifies the steps PAAC will take to meet the agreed upon Act 44 performance criteria targets by FY 2019-20 (Fiscal Year End (FYE) 2020). The general goals are to maximize efficiency and promote cost savings, maximize service quality, and maximize ridership and revenue. The action plan should focus on the most critical areas for the agency, as prioritized by PAAC's management and its governing board.

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

AGENCY DESCRIPTION

The Pennsylvania General Assembly established the Port Authority of Allegheny County (d.b.a., PAAC) in 1959. In the early 1960's, PAAC acquired services, rolling stock, buses, and capital infrastructure of transit assets formerly operated by the Pittsburgh Railways Company along with 32 independent bus and inclined plane companies, all of which were then bankrupt. PAAC consolidated the fare structures, centralized operations, established the first unified transit system in Allegheny County and began operations in March 1964.

Allegheny County residents have a history of high public transit usage- more than ten percent of work trips are made using public transportation, a mode share higher than most counties in the United States. As a result of that dependence, Allegheny County's demographics and changing economics/industry, and other factors, there has always been pressure to expand the system regardless of the availability of resources to support the expansion. Since federal funding is intended primarily for capital purposes and local funding is minimal, state funding has covered the majority of operating deficits. Legislation in the 1990's created dedicated funding for public transportation, the Public Transportation Assistance Fund (PTAF), which was intended to grow and in combination with annual funding appropriations, make public transportation sustainable. Unfortunately, the PTAF never reached the expected revenue levels and annual appropriations remained level (or decreased one year). At the same time, PAAC's wages and benefits, along with industry-wide fuel and insurance increases, drove large annual expense increases creating deficits far exceeding available funding.

To stave off draconian service cuts and fare increases in FYE 2006, in an extremely controversial and hotly debated move, former Governor Rendell orchestrated the transfer of significant amounts of federal flex funds from highway projects to public transportation—primarily for the Southeastern Pennsylvania Transportation Authority (SEPTA) and PAAC. At the same time, he formed the Transportation Funding and Reform Commission to study highway and public transportation projects and funding shortfalls, identify improvement reforms which would reduce the need for additional funding and estimate funding needs based on the reforms. The transfer of $66 million in federal flex funding to PAAC in FYE 2006 and $47 million in FYE 2007 allowed PAAC to continue operations.

The enactment of Act 44 of 2007 increased the levels of both state operating and capital funding for public transportation. With regard to PAAC, the state operating assistance increased by 40 percent. Act 44 enabled Allegheny County to impose a local drink tax to provide local matching funds, alleviating the burden on Allegheny County's general fund budget.

Unfortunately, PAAC's high and continually increasing legacy costs meant that the 40% increase in state operating subsidies could only sustain current service levels for a few years. In 2011, when Act 44's capital funding plan for public transportation was not approved by the U.S. Department of Transportation (i.e., tolling I-80), PAAC's financial position became even more precarious. Without the capital funding envisioned by Act 44 provisions, PAAC's previous financing arrangements for capital projects transferred the debt service burden from capital to operating. At the same time fuel costs and healthcare costs soared for the public transportation industry. Additionally, since PAAC's contractual retirement policies and healthcare commitments for retirees were generous by industry standards, even greater cost increases resulted for PAAC.

To offset a $65 million budget shortfall (on a $300 million total operating budget) PAAC's Board approved a 35% service reduction and layoffs of 500 employees to take effective September 2012 if a new collective bargaining agreement did not achieve necessary savings. By mid-August the Commonwealth, Allegheny County, PAAC and its labor union reached agreement on administrative and labor savings totaling $30 million, which when combined with an additional $30 million from the Commonwealth and $4.5 million in local match from Allegheny County averted service cuts and layoffs while the Commonwealth worked on an overall fix for public transportation funding. Act 89 of 2013 amended Act 44 of 2007, significantly increasing capital funding and addressing operating funding as well, both generally and specifically for PAAC.

The history of PAAC service, expenses, and funding illustrates the challenges PAAC has faced over the past several decades. PAAC continues to deal with legacy projects such as the North Shore connector and debt service, and legacy costs—fringe benefits and retiree healthcare (Other Post-Employment Benefits – OPEB). PAAC successfully addressed OPEB in the 2012 labor contract with the elimination of life-time retiree healthcare coverage for new hires after July 1, 2012. New hires today receive three years of retiree healthcare at full pension eligibility. While it does not produce immediate savings, there will be long-term cost savings for the Authority. In the five years between FYE 2010 and FYE 2015, OPEB costs rose by $9.1 million per year. From FYE 2016 through FYE 2024, these costs are expected to grow by less than 2% per year. However, they are forecast to decline starting in FYE 2024. By addressing both short-term and long-term cost containment issues, PAAC started setting the stage in 2013 to avoid the need for service reductions in order to have a balanced budget.

PAAC saw other important changes in 2013. In November, with the passage of Act 89, PAAC secured additional capital funds and additional state operating subsidies. PAAC reversed its financial trajectory by ending the fiscal year with an operating surplus of $24.8 million. Additionally, Act 72 reconstituted the PAAC governing body to have an 11-member Board of Directors appointed by the Allegheny County Executive, the State Legislature, and the Governor of Pennsylvania. Since 2013, PAAC increased service availability on existing routes, bringing revenue service back to levels last seen in 2010. Even with additional service hours/miles, PAAC maintained an operating surplus through FYE 2015. PAAC was in negotiation for a new collective bargaining agreement in 2016. The goals are to continue a pathway that will contain long-term healthcare, fringe and OPEB cost increases.

Today, PAAC is the Commonwealth's second largest transit system and the nation's 26th largest, with a network of fixed route services including bus, light rail, inclined plane, as well as ADA paratransit, shared-ride and other Department approved paratransit service (DAS). PAAC owns and maintains a network of facilities throughout Allegheny County including 20 miles of dedicated busways, 50 park and ride lots, 52 miles of light rail track, 80 bridges and tunnels including a high-occupancy vehicle (HOV) tunnel, and one inclined plane. PAAC operates 98 bus routes and two light rail lines with more than 900 vehicles available in the fixed-route and paratransit fleets. PAAC also has its own police department.

ACT 44 PERFORMANCE DETERMINATION

Act 44 performance factors were analyzed to quantify PAAC's fixed-route bus and light rail performance[1] in comparison to its peer agencies in Fiscal Year End (FYE) 2014 and over a five-year trend period from FYE 2009-2014.[2] Peers were selected (by mode) through an analytical process and were agreed to in advance by PAAC.

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

- "At Risk" if more costly than one standard deviation **above** the peer group average in –
  - Single-year and five-year trend for Operating Cost / Revenue Vehicle Hour
  - Single-year and five-year trend for Operating Cost / Passenger

- "At Risk" if performing worse than one standard deviation **below** the peer average in –
  - Single-year and five-year trend for Passengers / Revenue Vehicle Hour
  - Single-year and five-year 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.

ACT 44 PEER COMPARISON FINDINGS BY MODE: BUS

An analysis of the eight key criteria mandated by Act 44 was conducted and **it was determined that PAAC is "In Compliance" for six criteria and "At Risk" for two**. The peer comparison process as applied to Act 44 criteria (below, in bold typeface) revealed the following:

In Compliance

1. **FYE 2014 passengers / revenue vehicle hour** ranks 2nd out of the 14 transit agencies and is better than the peer group average.

[1] Inclined Plane does not have a sufficient number of peers nationally to conduct an Act 44 peer comparison.
[2] The most recent National Transit Database (NTD) data available at the time of the peer selection was FYE 2014.

2. The **five-year trend of passengers / revenue vehicle hour** is better than the peer group average.

3. **FYE 2014 operating revenue / revenue vehicle hour** ranks 1st out of the 14 transit agencies and is better than the peer group average.

4. The **five-year trend for operating revenue/ revenue vehicle hour** is better than the peer group average.

5. **FYE 2014 operating cost / passenger** ranks 12th out of the 14 transit agencies and is worse than the peer group average.

6. The **five-year trend for operating cost / passenger** is better than the peer group average.

At Risk

1. **FYE 2014 operating cost / revenue vehicle hour** ranks 13th out of the 14 transit agencies and is worse than the peer group average.

2. The **five-year trend for increase in operating cost / revenue vehicle hour** is worse than the peer group average.

A summary of the specific Act 44 measures and their values are presented in the following table.

Performance Criteria	FYE	Determination	Rank (of 14)	Relation to Peer Average	Value	Peer Average
Passengers / Revenue Hour	2014	In Compliance	2	Better	36.00	31.16
	Trend	In Compliance	2	Better	1.46%	-0.55%
Operating Cost / Revenue Hour[3]	2014	**At Risk**	13	Worse	$186.60	$136.56
	Trend	**At Risk**	12	Worse	4.63%	2.90%
Operating Revenue / Revenue Hour	2014	In Compliance	1	Better	$51.64	$33.23
	Trend	In Compliance	2	Better	4.80%	-0.05%
Operating Cost / Passenger	2014	In Compliance	12	Worse	$5.18	$4.45
	Trend	In Compliance	7	Better	3.13%	3.50%

ACT 44 PEER COMPARISON FINDINGS BY MODE: LIGHT RAIL

An analysis of the eight key criteria mandated by Act 44 was conducted and **it was determined that PAAC is "In Compliance" for seven criteria and "At Risk" for one**. The peer comparison process as applied to Act 44 criteria (below, in bold typeface) revealed the following:

In Compliance

1. **FYE 2014 passengers / revenue vehicle hour** ranks 5th out of the 6 transit agencies and is worse than the peer group average.

[3] PAAC's high legacy costs directly contribute to this determination. Continuing efforts by management to contain costs and optimize service levels should positively impact this determination in subsequent performance reviews.

2. The **five-year trend of passengers / revenue vehicle hour** is worse than the peer group average.
3. **FYE 2014 operating cost / revenue vehicle hour** ranks 5th out of the 6 transit agencies and is worse than the peer group average.
4. The **five-year trend for increase in operating cost / revenue vehicle hour** is better than the peer group average.
5. **FYE 2014 operating revenue / revenue vehicle hour** ranks 1st out of the 6 transit agencies and is better than the peer group average.
6. The **five-year trend for operating revenue/ revenue vehicle hour** is better than the peer group average.
7. The **five-year trend for operating cost / passenger** is better than the peer group average.

At Risk

1. **FYE 2014 operating cost / passenger** ranks 5th out of the 6 transit agencies and is worse than the peer group average.

A summary of the specific Act 44 measures and their values are presented in the following table.

Performance Criteria	FYE	Determination	Rank (of 6)	Relation to Peer Average	Value	Peer Average
Passengers / Revenue Hour	2014	In Compliance	5	Worse	49.22	52.70
	Trend	In Compliance	4	Worse	-1.41%	-0.90%
Operating Cost / Revenue Hour	2014	In Compliance	5	Worse	$329.39	$266.92
	Trend	In Compliance	2	Better	-2.46%	0.38%
Operating Revenue / Revenue Hour	2014	In Compliance	1	Better	$70.60	$55.44
	Trend	In Compliance	1	Better	3.83%	-1.23%
Operating Cost / Passenger[4]	2014	**At Risk**	5	Worse	$6.69	$5.11
	Trend	In Compliance	2	Better	-1.07%	1.61%

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, effectiveness, and/or quality of service of PAAC and may be shared with other agencies as techniques for improvement. Improvement opportunities identify tasks that may be undertaken to increase the efficiency, effectiveness, and /or quality of service of the agency.

[4] PAAC's high legacy costs directly contribute to this determination. Continuing efforts by management to contain costs and optimize service levels should positively impact this determination in subsequent performance reviews.

BEST PRACTICES

1. Establishment of Board-adopted transit service guidelines to guide proposed service changes and an annual service report to determine adherence to those guidelines.
2. A strong focus on system safety and security for employees, riders and contractors.
3. Close collaboration with labor through a Labor-Management Healthcare Committee to address the steep rise in healthcare costs and to limit long-term liabilities from other post-employment benefits.
4. A Board-approved five-year Strategic Plan that identifies challenges and opportunities under Act 89 and the goals, strategies and key performance indicators to monitor progress. The plan builds on a two-year engagement with customers, employees, and community stakeholders to reach an achievable plan to strengthen the financial position and long-term viability of the agency within available resources.
5. Establishment of Board-adopted transit-oriented development guidelines to promote smart development along PAAC fixed guideways and service corridors and the creation of future investment opportunities and non-fare revenue growth for the agency. Coordinating with the City of Pittsburgh and other county municipalities to build a strategic partnership that promotes transit-oriented redevelopment.
6. Implementation of a Board-adopted, risk-based audit plan that includes detailed allocation of staff resources based on risk potential.
7. A comprehensive, customer-focused program that employs the latest technology to expand ridership and farebox receipts by employing GPS for real time arrival, social media for alerts, and E-blasts for special event promotions.
8. A Board-adopted fare policy that reevaluated the approach to fares and fare collection as a response to changes in technology and customer expectations.
9. Implemented smartcard technology -- the ConnectCard -- to eliminate multiple fare media and to create a single "purse" for customers using PAAC and nearby transit systems.
10. Implemented *TransitStat*, a data-driven performance management program, to identify performance trends, establish goals to improve organizational efficiencies and effectiveness, and enhance the quality of service delivery.
11. Introduced a payback policy that requires a refund for the cost of training from employees who leave within two years of completing the training program.
12. Developed a reimbursement policy for loss attributed to drivers who leave before completing commercial driver's license (CDL) training.
13. Partners with CareerLink as an efficient pre-screening tool to evaluate objectively potential hires prior to an in-person interview.
14. Includes a performance standard of riders / revenue vehicle hour in ACCESS subcontracts to encourage subcontractor efficiency.
15. Work with local trade schools, such as the Community College of Allegheny County (CCAC), to develop a maintenance internship / trainee program.
16. Annual CEO Scorecard that relies on weighted performance metrics.

Opportunities for Improvement to Address in the Action Plan

1. Assess the feasibility of generating advertising revenues from the paratransit vehicle fleet.
2. Establish and monitor targets for unscheduled overtime, particularly in the maintenance department.
3. Develop a target total number of maintenance employees per unit of service delivered that considers overall maintenance goals and local conditions.
4. Evaluate the potential benefits and costs of strategically locating driver break facilities at various locations throughout the service area.
5. Develop a strategic information technology (IT) plan that focuses on interoperability and prioritizes PAAC's IT infrastructure investment needs.
6. Assess the benefits and costs of outsourcing additional IT functions.
7. Develop a target for annual parts turnover.
8. Refine service guidelines to tailor on-time performance (OTP) goals that are specific to each type of bus service offered.
9. Continue to identify long-term (e.g., five & ten year) strategies, that, when taken together, could work to achieve a "fiscally sustainable" business model to foster discourse.
10. Continue to monitor debt / bond market for possible refinancing savings.
11. Incorporate unmarked vehicles as one element of a road supervision strategy.
12. Encourage ACCESS to conduct service delivery solicitations at least every five years and participate in a collaborative process with PAAC to determine the performance requirements of selected subcontractors.

Financial Review

Allegheny County and the Regional Asset District contribute local monies for PAAC's public transportation funding requirements. PAAC currently has a balanced operating budget. Operating cash reserves have steadily been increasing since FYE 2012. Management's cost containment efforts appear to be effectively addressing PAAC's high rate of fringe and legacy cost increases. Internally developed projections of service levels and budgets indicate that PAAC plans to maintain a balanced budget over the next five years. PAAC had $67,899,400 in Section 1513 carryover funds available and $4,779,180 in local carryover funds that are dedicated to capital matching funds for project in the pipeline, as of FYE 2015.

Consistent with the requirements of Act 89, PAAC has no plans to issue additional capital debt. PAAC has $214 million in outstanding capital debt that will be fully retired by 2029. Administrative debt management policies are appropriate.

A review of the finance and accounting practices concluded that the financial organization, audit practices, accounts management and internal controls are largely appropriate for an agency the size of PAAC. PAAC management will need to continue taking appropriate actions to control costs, achieve farebox recovery goals, and continue to build adequate cash reserves to maintain PAAC's overall financial health.

FIVE-YEAR 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. These performance targets are required to comply with Act 44 performance criteria and represent the minimum performance levels that PAAC 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 PennDOT dotGrants information available (FYE 2015). Standards were extrapolated to FYE 2020 and are designed to be aggressive, yet achievable. They are summarized as follows:

Performance Criteria	Fiscal Year End (FYE)				Target Annual Increase
	2013 Actual	2014 Actual	2015 Actual	2020 Target	
Passengers / Revenue Hour	38.18	37.54	37.18	41.05	2.0%
Operating Cost / Revenue Hour	$199.24	$200.13	$199.94	$260.08	5.4%
Operating Revenue / Revenue Hour	$56.73	$53.85	$55.27	$61.02	2.0%
Operating Cost / Passenger	$5.22	$5.33	$5.38	$6.36	3.4%

NEXT STEPS

Upon final transmission of the performance review report, Act 44 regulations stipulate that PAAC "…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 PAAC oversight board and management.

Functional area "Opportunities for Improvement" are areas in which adjustments may result in cost savings, improved service quality, and ridership and/or revenue increases. Achieved improvements in these areas will assist in meeting the performance targets by directly addressing areas that affect Act 44 performance criteria. It should be noted that many functional areas are interrelated, and the Action Plan should establish a comprehensive program that focuses on actions that address the larger issues within PAAC.

The template for the Action Plan is provided as an appendix to this report. This template is where PAAC should address its proposed actions to address the *"Opportunities for Improvement"* findings that directly affect the Act 44 performance metrics. Some actions will be quickly implementable while others may take several discrete steps to achieve over a longer period of time. The template provides a simple-to-follow order of key findings. PAAC must select, prioritize and schedule its intended actions using the template.

PAAC must submit the proposed draft Action Plan using the format provided to the Department for comment. The proposed draft Action Plan may then be revised based on consultation between PAAC's management and the Department. The finalized Action Plan then must be approved by the Board and formally submitted to PennDOT. At the very least, PAAC's management must report on a quarterly basis to the Board and the Department on progress towards accomplishing the Action Plan including actions taken in the previous quarter and actions planned for upcoming quarter(s).

INTRODUCTION

PURPOSE

In July 2007 the Pennsylvania Legislature passed Act 44, which established 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 Port Authority of Allegheny County (d.b.a. Port Authority, PAAC).

This performance review was 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, effectiveness, and quality of service.
- Identify and document legal, institutional, or other barriers beyond the control of the transit agency that may impede efficiency in service delivery and management.

PERFORMANCE REVIEW PROCESS

In September 2015, an Act 44-mandated performance review was initiated for PAAC. 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 review of available data and requests for what should be "off-the-shelf" information that may not be publicly available was transmitted.
2. Peer selection
    - PAAC and PennDOT jointly agreed upon a set of peers, used for comparative analysis. Bus and light rail modes were analyzed separately, each with a set of peers built on the jointly agreed upon group by PAAC and PennDOT. Due to an insufficient number of peer systems in the U.S., a peer comparison for inclined plane was not undertaken.
3. Act 44 performance criteria analysis
    - Performance criteria mandated by Act 44 were analyzed for the peer groups.
    - Additional performance criteria were calculated for informative purposes to help guide the on-site review process.
4. On-site review
    - An on-site review was conducted on September 15th through September 17th, 2015.
    - An interview guide customized for PAAC's service was used for the review.
    - Topics covered during the interview process included:
        - Governance & Management
        - Human/Labor Relations
        - Finance & Procurement
        - Operations & Scheduling
        - Maintenance
        - Safety and Security
        - Customer Service
        - Information Technology
        - Capital Planning
        - Marketing & Public Relations
        - Planning/Capital Program
        - Contracted Service

AGENCY DESCRIPTION

The Pennsylvania General Assembly established the Port Authority of Allegheny County (d.b.a., PAAC) in 1959. In the early 1960's, PAAC acquired services, rolling stock, buses, and capital infrastructure of transit assets formerly operated by the Pittsburgh Railways Company along with 32 independent bus and inclined plane companies, all of which were then bankrupt. PAAC consolidated the fare structures, centralized operations, established the first unified transit system in Allegheny County and began operations in March 1964.

Allegheny County residents have a history of high public transit usage- more than ten percent of work trips are made using public transportation, a mode share higher than most counties in the United States. As a result of that dependence, Allegheny County's demographics and changing economics/industry, and other factors, there has always been pressure to expand the system regardless of the availability of resources to support the expansion. Since federal funding is intended primarily for capital purposes and local funding is minimal, state funding has covered the majority of operating deficits. Legislation in the 1990's created dedicated funding for public transportation, the Public Transportation Assistance Fund (PTAF), which was intended to grow and in combination with annual funding appropriations, make public transportation sustainable. Unfortunately, the PTAF never reached the expected revenue levels and annual appropriations remained level (or decreased one year). At the same time, PAAC's wages and benefits, along with industry-wide fuel and insurance increases, drove large annual expense increases creating deficits far exceeding available funding.

To stave off draconian service cuts and fare increases in FYE 2006, in an extremely controversial and hotly debated move, former Governor Rendell orchestrated the transfer of significant amounts of federal flex funds from highway projects to public transportation—primarily for the Southeastern Pennsylvania Transportation Authority (SEPTA) and PAAC. At the same time, he formed the Transportation Funding and Reform Commission to study highway and public transportation projects and funding shortfalls, identify improvement reforms which would reduce the need for additional funding and estimate funding needs based on the reforms. The transfer of $66 million in federal flex funding to PAAC in FYE 2006 and $47 million in FYE 2007 allowed PAAC to continue operations.

The enactment of Act 44 of 2007 increased the levels of both state operating and capital funding for public transportation. With regard to PAAC, the state operating assistance increased by 40 percent. Act 44 enabled Allegheny County to impose a local drink tax to provide local matching funds, alleviating the burden on Allegheny County's general fund budget.

Unfortunately, PAAC's high and continually increasing legacy costs meant that the 40% increase in state operating subsidies could only sustain current service levels for a few years. In 2011, when Act 44's capital funding plan for public transportation was not approved by the U.S. Department of Transportation (i.e., tolling I-80), PAAC's financial position became even more precarious. Without the capital funding envisioned by Act 44 provisions, PAAC's previous financing arrangements for capital projects transferred the debt service burden from capital to operating. At the same time fuel costs and healthcare costs soared for the public transportation industry. Additionally, since PAAC's contractual retirement policies and healthcare commitments for retirees were generous by industry standards, even greater cost increases resulted for PAAC.

To offset a $65 million budget shortfall (on a $300 million total operating budget) PAAC's Board approved a 35% service reduction and layoffs of 500 employees to take effective September 2012 if a new collective bargaining agreement did not achieve necessary savings. By mid-August the Commonwealth, Allegheny County, PAAC and its labor union reached agreement on administrative and labor savings totaling $30 million, which when combined with an additional $30 million from the Commonwealth and $4.5 million in local match from Allegheny County averted service cuts and layoffs while the Commonwealth worked on an overall fix for public transportation funding. Act 89 of 2013 amended Act 44 of 2007, significantly increasing capital funding and addressing operating funding as well, both generally and specifically for PAAC.

The history of PAAC service, expenses, and funding illustrates the challenges PAAC has faced over the past several decades. PAAC continues to deal with legacy projects such as the North Shore connector and debt service, and legacy costs—fringe benefits and retiree healthcare (Other Post-Employment Benefits – OPEB). PAAC successfully addressed OPEB in the 2012 labor contract with the elimination of life-time retiree healthcare coverage for new hires after July 1, 2012. New hires today receive three years of retiree healthcare at full pension eligibility. While it does not produce immediate savings, there will be long-term cost savings for the Authority. In the five years between FYE 2010 and FYE 2015, OPEB costs rose by $9.1 million per year. From FYE 2016 through FYE 2024, these costs are expected to grow by less than 2% per year. However, they are forecast to decline starting in FYE 2024[5] (**Exhibit 1**). By addressing both short-term and long-term cost containment issues, PAAC started setting the stage in 2013 to avoid the need for service reductions in order to have a balanced budget.

PAAC saw other important changes in 2013. In November, with the passage of Act 89, PAAC secured additional capital funds and additional state operating subsidies. PAAC reversed its financial trajectory by ending the fiscal year with an operating surplus of $24.8 million. Additionally, Act 72 reconstituted the PAAC governing body to have an 11-member Board of Directors appointed by the Allegheny County Executive, the State Legislature, and the Governor of Pennsylvania. Since 2013, PAAC increased service availability on existing routes, bringing revenue service back to levels last seen in 2010. Even with additional service hours/miles, PAAC maintained an operating surplus through FYE 2015. PAAC was in negotiation for a new collective bargaining agreement in 2016. The goals are to continue a pathway that will contain long-term healthcare, fringe and OPEB cost increases.

Today, PAAC is the Commonwealth's second largest transit system and the nation's 26th largest, with a network of fixed route services including bus, light rail, inclined plane, as well as ADA paratransit, shared-ride and other Department approved paratransit service (DAS). PAAC owns and maintains a network of facilities throughout Allegheny County including 20 miles of dedicated busways, 50 park and ride lots, 52 miles of light rail track, 80 bridges and tunnels including a high-occupancy vehicle (HOV) tunnel, and one inclined plane. PAAC operates 98 bus routes and two light rail lines with more than 900 vehicles available in the fixed-route and paratransit fleets. PAAC also has its own police department.

[5] Letter from Robert W. Hazy, Senior Consultant and Actuary (Cowden Associates, Inc.), March 5, 2015.

Exhibit 1: PAAC Other Post-Employment Benefit (OPEB) Cost Forecast

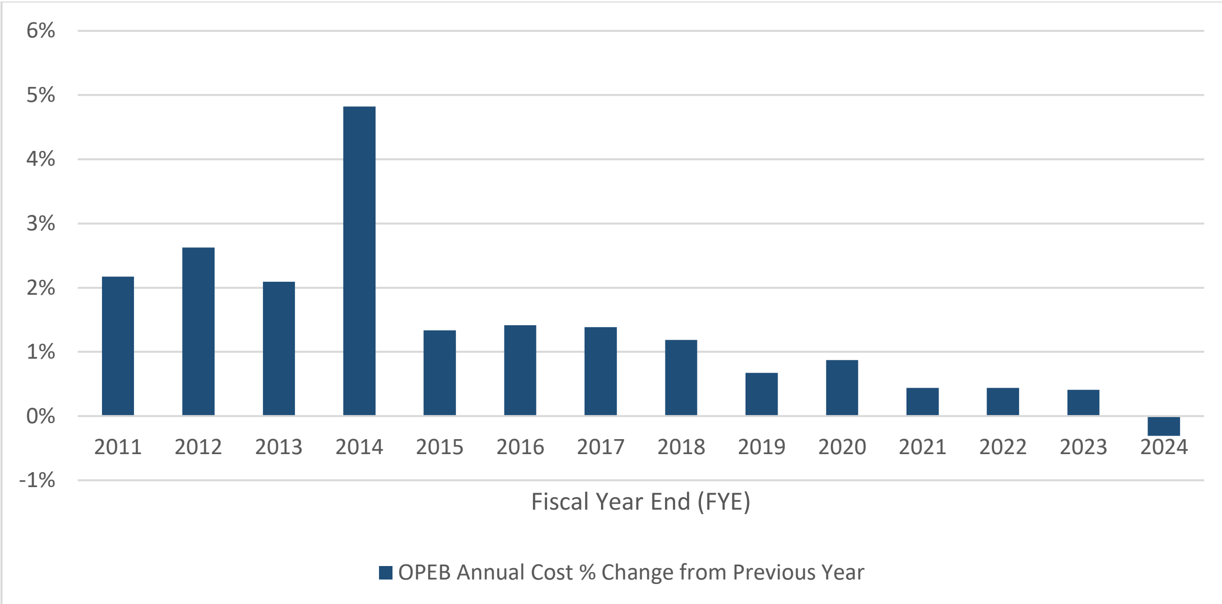

Exhibit 2 and **Exhibit 3** present fixed-route system level statistics for PAAC derived from PennDOT dotGrants. Important observations evident from the trends in demand, revenues, and operating characteristics for the legacy reporting period of FYE 2003-2015 for PAAC's fixed-route service are as follows:

1. Over the last decade, PAAC's annual fixed-route ridership has hovered between 60 and 70 million passengers annually. There were 63,684,962 passenger boardings in FYE 2015.

2. PAAC's FYE 2015 total operating revenue (including passenger fares, advertising, rents and other local revenues) was $1.49 per passenger trip. PAAC's regular base fare ranges from free, in the downtown free fare zone, to $3.75 for a two-zone trip. Transfers cost $1.00. Farebox revenues and route guarantees generated $1.44[6] per passenger. This equates to a farebox recovery of 26.8%[7] of total operating expenses and a total revenue (from all sources) recovery of 27.6% of operating expenses.

3. Revenue hours of service decreased between FYE 2003 and FYE 2013, largely due to budget shortfalls. Since the passage of Act 89 of 2013, revenue hours of service have started to recover. PAAC supplied 1.7 million revenue hours of service in FYE 2015.

4. Despite revenue hours being 28.3% lower in FYE 2015 than FYE 2003, total operating costs increased in total by about 35.9%, going from about $243.4 million to $342.5 million annually. Operating costs increased, in large part, due to the cost of fringe benefits, including pension and health insurance which have increased at a rate much higher than general inflation. Recent steps taken by management and labor to contain future costs increases should have the effect of containing fringe benefit costs in future years thereby reducing the OPEB liability.

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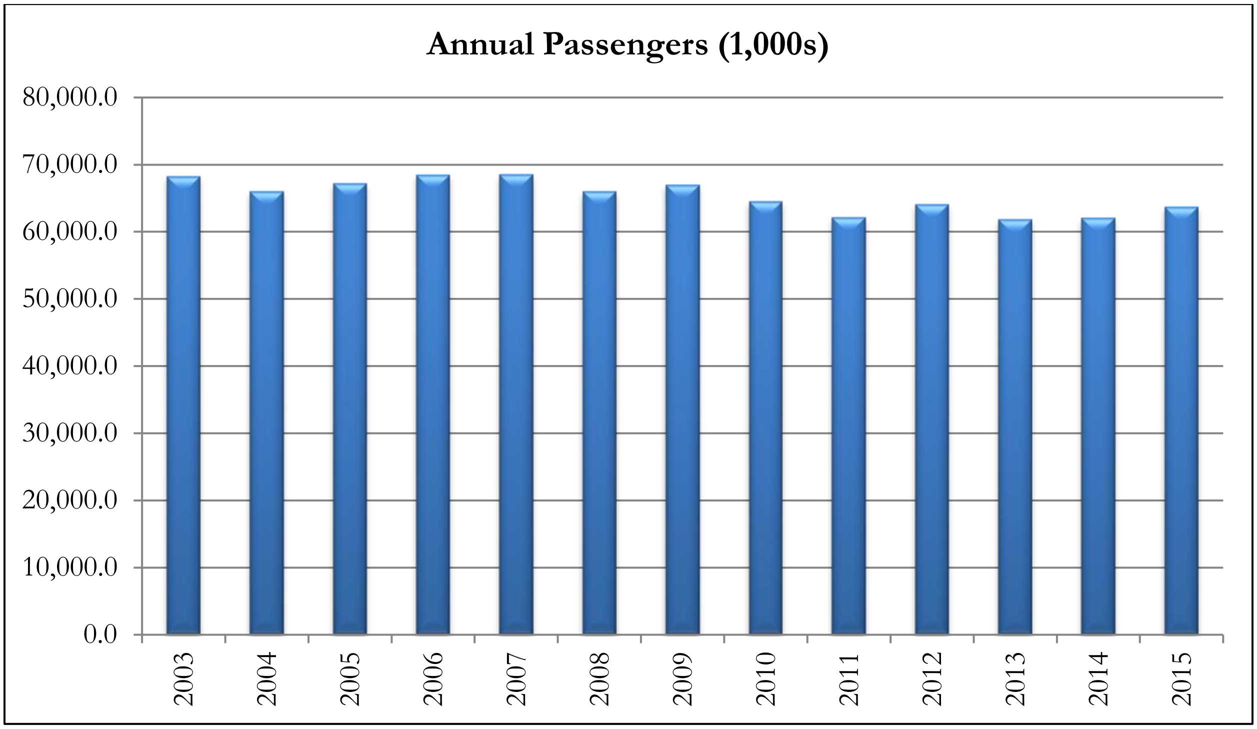
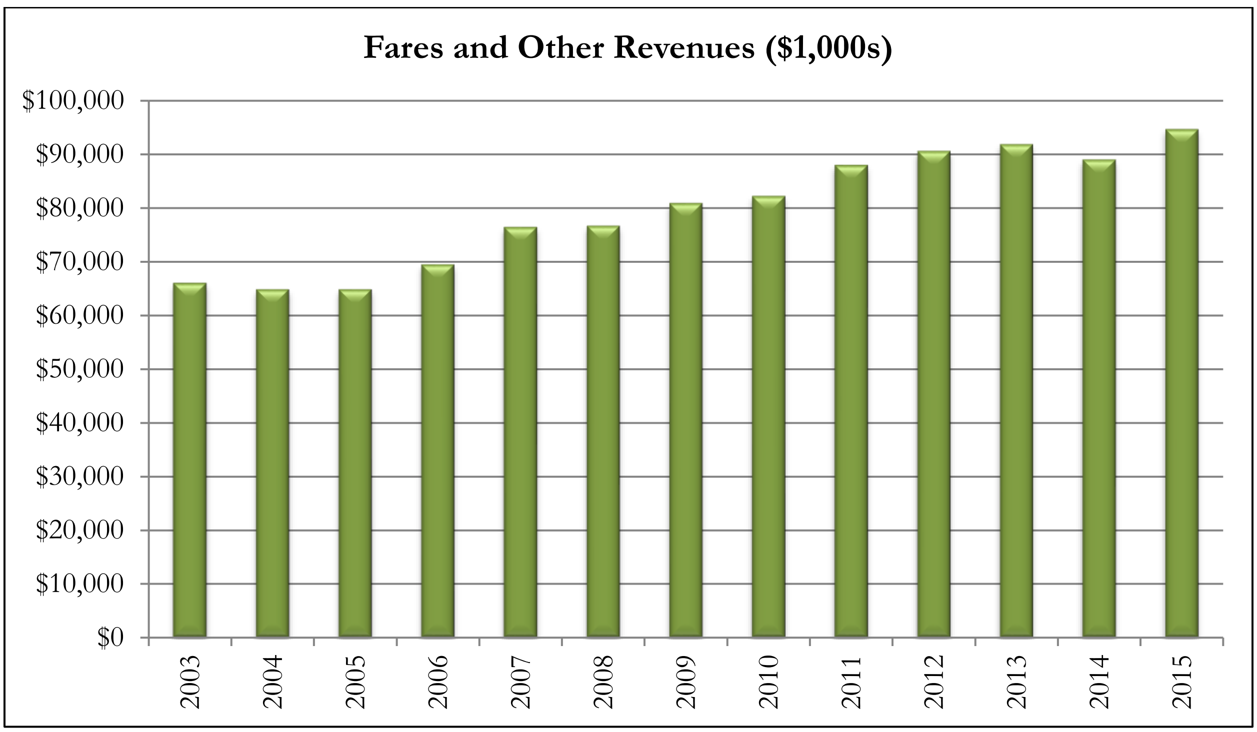
[6] Fixed-route farebox and route guarantee revenues = $91,712.299, passengers = 63,684,962
[7] Fixed-route farebox and route guarantee revenues = $91,712,299, operating cost = $342,462,454

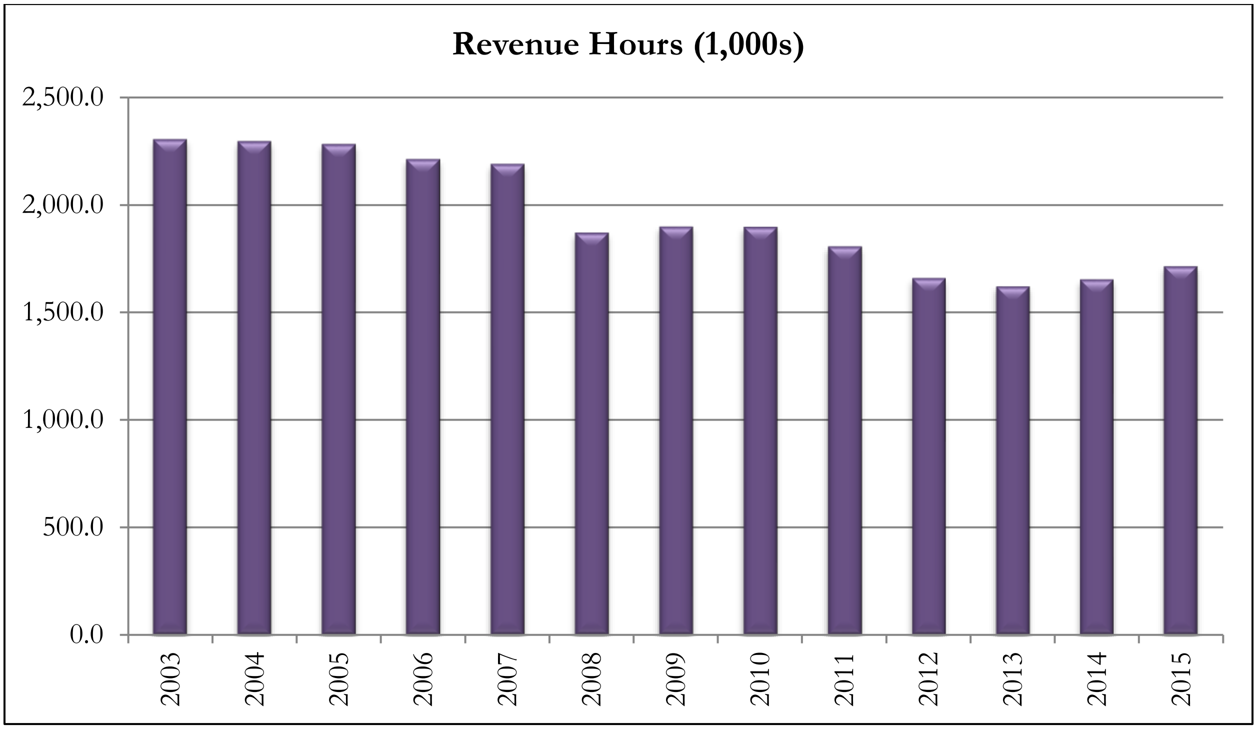
Exhibit 2: Fixed-Route Passengers and Revenues FYE 2003-2015 (MB+LR+IP)

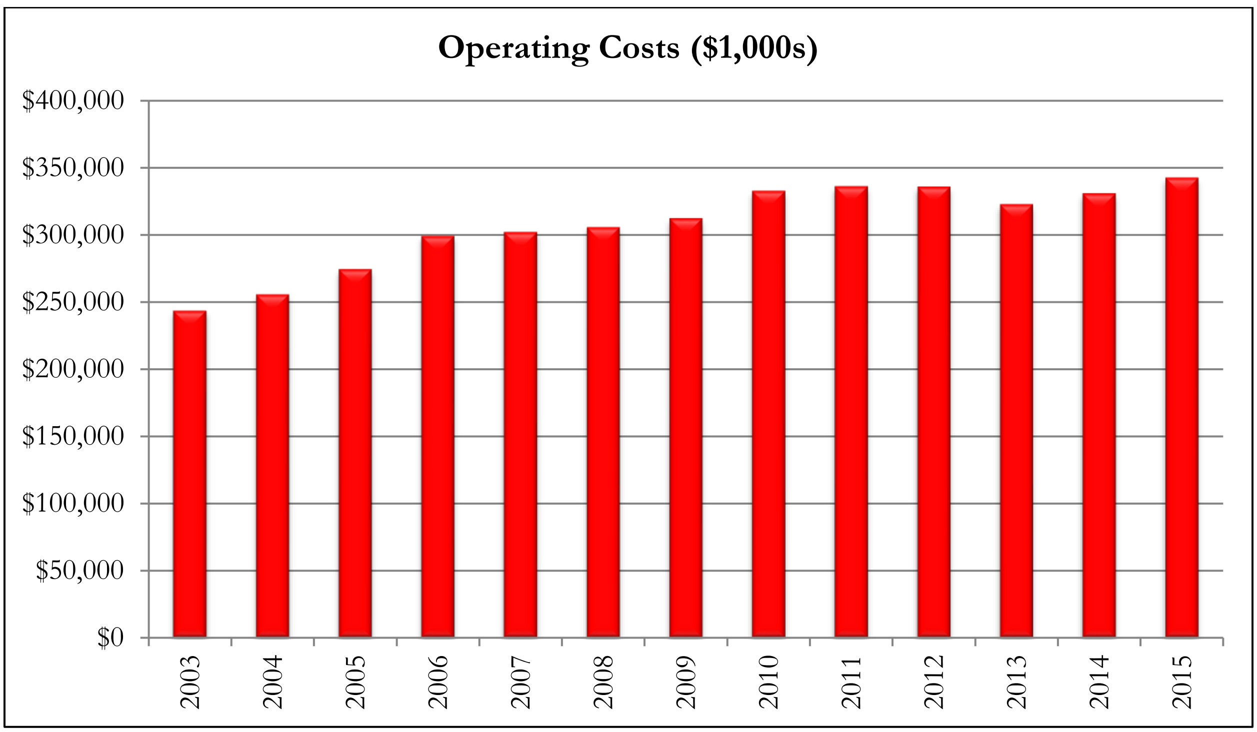




Source: NTD and PennDOT Legacy Reporting System (dotGrants)

Exhibit 3: Fixed-Route Revenue Hours and Operating Costs FYE 2003-2015 (MB+LR+IP)





Source: NTD and PennDOT Legacy Reporting System (dotGrants)

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…"* [8]

The law sets forth the following performance criteria to be used to satisfy its objectives:[9]

- Passengers / revenue vehicle hour;
- Operating cost / revenue vehicle hour;
- Operating revenue / revenue vehicle hour;
- Operating cost / 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 the following:[10]

- Revenue vehicle hours;
- Revenue vehicle miles;
- Number of peak vehicles; and,
- Service area population.

The law further instructs PennDOT 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.

PEER SYSTEM SELECTION

A list of tentative peers was submitted to PAAC's management for review and comment. After discussions were complete, the following 13 peer systems, in addition to PAAC, are included in the fixed-route bus peer comparisons:

1. Alameda-Contra Costa Transit District (AC Transit) Oakland, CA
2. Tri-County Metropolitan Transportation District of Oregon (TriMET) Portland, OR
3. Bi-State Development Agency of the Missouri-Illinois Metropolitan District (METRO) St. Louis, MO
4. VIA Metropolitan Transit (VIA) San Antonio, TX
5. Metropolitan Atlanta Rapid Transit Authority (MARTA) Atlanta, GA
6. San Diego Metropolitan Transit System (MTS) San Diego, CA
7. Metro Transit (Metro Transit) Minneapolis, MN
8. Milwaukee County Transit System (MCTS) Milwaukee, WI
9. Santa Clara Valley Transportation Authority (VTA) San Jose, CA

[8] Title 74 Pa. C.S.A. §1513 (e)
[9] Title 74 Pa. C.S.A. §1513 (f)
[10] 67 Pa Code Chapter 427, Annex A . §427.12(d)(1)(i), Jan 2011.

10. The Greater Cleveland Regional Transit Authority (GCRTA) Cleveland, OH
11. Southwest Ohio Regional Transit Authority (SORTA/Metro) Cincinnati, OH
12. Maryland Transit Administration (MTA) Baltimore, MD
13. Niagara Frontier Transportation Authority (NFT Metro) Buffalo, NY

The following five peer systems, in addition to PAAC, are included in the light rail peer comparison:

1. Bi-State Development Agency of the Missouri-Illinois Metropolitan District (METRO) St. Louis, MO
2. Metro Transit (Metro Transit) Minneapolis, MN
3. Santa Clara Valley Transportation Authority (VTA) San Jose, CA
4. The Greater Cleveland Regional Transit Authority (GCRTA) Cleveland, OH
5. Maryland Transit Administration (MTA) Baltimore, MD

There are three inclined plane systems in the United States. Therefore, a peer comparison for this mode was not completed as Act 44 requires that at least five peer systems be compared.

ACT 44 COMPARISONS AND FINDINGS

Comparison of PAAC with the selected peer systems was completed using National Transit Database (NTD) reported data and PennDOT dotGrants Legacy statistics. Due to its consistency and availability[11] for comparable systems, the NTD FYE 2014 Reporting Year database was selected as the primary data source used in the calculation of the five-year trend Act 44 metrics:

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

The definition of the variables used in the calculations is as follows:

- *Passengers:* Annual unlinked passenger boardings by mode for both directly-operated and purchased transportation
- *Operating Costs:* 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 Hours:* The total annual number of "in-service" hours of service provided by mode for both directly-operated and purchased transportation
- *Average:* Un-weighted linear average of all values being measured across all peer transit agencies, including PAAC
- *Standard Deviation:* Standard deviation of all values being measured across all peer transit agencies, including PAAC

[11] NTD data is available for almost every urbanized area transit system in the United States. The latest data available at the time of the Peer Selection was for Fiscal Year End (FYE) 2014.

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

- "At Risk" if more costly than one standard deviation **<u>above</u>** the peer average in:
  - The single-year or five-year trend for Operating Cost / Revenue Vehicle Hour
  - The single-year or five-year trend for Operating Cost / Passenger
- "At Risk" if performing worse than one standard deviation **<u>below</u>** the peer group average in:
  - The single-year or five-year trend for Passengers / Revenue Vehicle Hour
  - The single-year or five-year trend for Operating Revenue / Revenue Vehicle Hour

If an agency is within these limits, it is considered "In Compliance." However, if an agency is "At Risk" for any given criterion, it must very closely monitor the effectiveness of remedial strategies identified in the action plan to achieve "Compliance" prior to the next performance review.[12]

[12] Act 44 identifies potential financial penalties for agencies determined "At Risk" during the review process that are not subsequently determined "In Compliance" within 5 years of the original "At Risk" finding.

FIXED-ROUTE BUS

Results of the PAAC analysis and peer comparison are presented in **Exhibit 4**. PAAC's fixed-route bus is "**In Compliance**" for six of the measures and "**At Risk**" for two, both of which relate to operating cost.

Exhibit 4: Act 44 Peer Comparison Summary- Bus

Variable	Act 44 Determination	
	Single Year	Trend
Passengers / RVH	In Compliance	In Compliance
Operating Cost / RVH[13]	**At Risk**	**At Risk**
Operating Revenue / RVH	In Compliance	In Compliance
Operating Cost / Passenger	In Compliance	In Compliance

For the 13 peer systems plus PAAC, NTD data were extracted and summarized for each of the required Act 44 metrics. Measures were put into histograms and tables for visual inspection, statistical analyses, and ordinal ranking purposes. The single-year results of these analyses are presented in **Exhibit 5**, **Exhibit 6**, **Exhibit 7**, and **Exhibit 8**. Five-year trend analyses are presented in **Exhibit 9**, **Exhibit 10, Exhibit 11**, and **Exhibit 12**.

For measures relating to passengers or operating revenue, ordinal rankings are on a highest-to-lowest system. For measures relating to operating cost, ordinal rankings are on a lowest-to-highest system. Thus a ranking of "1st" consistently indicates that the agency scores best amongst its peers and a ranking of "14th" indicates that it performs the poorest on any given metric.

The findings presented in the exhibits are as follows:

1. PAAC's FYE 2014 passengers / revenue hour ranks 2nd out of the 14 transit agencies in the peer group and is above the peer group average. The passengers / revenue hour five-year trend has been increasing at about 1.46% per year.
2. PAAC's FYE 2014 operating cost / revenue vehicle hour ranks 13th and is the second most costly of the 14 transit agencies in the peer group. Operating cost / revenue hour was increasing at about 4.63% per year between FYE 2009 and FYE 2014. PAAC has received an "At Risk" finding for the FYE 2014 single year determination and the five-year trend.
3. PAAC's FYE 2014 operating revenue / revenue vehicle hour ranks as the 1st of the peers. The trend between FYE 2009 and FYE 2014 indicates that operating revenue / revenue vehicle hour is increasing at an average rate of 4.8% per year while the peer average decreased at -0.05% per year.
4. PAAC's FYE 2014 operating cost / passenger is the third most costly of all the 14 transit agencies in the peer group. The trend of annual cost / passenger increased at a rate of 3.13% a year which is a lower (better) rate of cost increase than the peer group average.

These findings provided a basis for further investigation during the on-site interviews and functional area reviews.

[13] PAAC's high legacy costs directly contribute to this determination. Continuing efforts by management to contain costs and optimize service levels should positively impact this determination in subsequent performance reviews.

Exhibit 5: Peer Comparison- Bus Passengers / Revenue Vehicle Hour

Passengers / Revenue Hour (MB)					
	FYE 2014 Single Year		5 Year Change Since FYE 2009		
System	Value	Rank of 14	2009 Value	Annual Rate	Rank of 14
Alameda-Contra Costa Transit District	34.12	4	31.88	1.37%	3
Tri-County Metropolitan Transportation District of Oregon	35.77	3	36.21	-0.25%	6
St. Louis Bi-State Development Agency	22.11	14	26.20	-3.34%	13
VIA Metropolitan Transit	27.65	11	28.78	-0.80%	10
Metropolitan Atlanta Rapid Transit Authority	32.68	6	33.16	-0.29%	7
San Diego Metropolitan Transit System	32.64	7	31.21	0.90%	4
Metro Transit	33.12	5	33.82	-0.42%	8
Milwaukee County Transit System	32.59	8	37.15	-2.58%	12
Santa Clara Valley Transportation Authority	26.01	12	26.96	-0.71%	9
The Greater Cleveland Regional Transit Authority	29.97	9	26.02	2.87%	1
Southwest Ohio Regional Transit Authority	22.30	13	28.53	-4.81%	14
Maryland Transit Administration	43.60	1	48.15	-1.97%	11
Niagara Frontier Transportation Authority	27.75	10	26.57	0.87%	5
Port Authority of Allegheny County	**36.00**	**2**	**33.49**	**1.46%**	**2**
Average	*31.16*		*32.01*	*-0.55%*	
Standard Deviation	*5.76*		*5.94*	*2.07%*	
Average – 1 Standard Deviation	*25.41*		*26.06*	*-2.62%*	
Average + 1 Standard Deviation	*36.92*		*37.95*	*1.52%*	
Act 44 Compliance Determination	**In Compliance**		**In Compliance**		
Compared to the Peer Group Average	**Better**		**Better**		

Exhibit 6: Peer Comparison- Bus Operating Cost / Revenue Vehicle Hour

Operating Cost / Revenue Hour (MB)					
	FYE 2014 Single Year		**5 Year Change Since FYE 2009**		
System	**Value**	**Rank of 14**	**2009 Value**	**Annual Rate**	**Rank of 14**
Alameda-Contra Costa Transit District	$178.92	12	$155.82	2.80%	8
Tri-County Metropolitan Transportation District of Oregon	$144.23	9	$122.63	3.30%	9
St. Louis Bi-State Development Agency	$110.51	4	$97.77	2.48%	6
VIA Metropolitan Transit	$96.07	2	$75.27	5.00%	14
Metropolitan Atlanta Rapid Transit Authority	$123.06	7	$96.99	4.88%	13
San Diego Metropolitan Transit System	$87.88	1	$78.99	2.16%	5
Metro Transit	$137.15	8	$121.13	2.51%	7
Milwaukee County Transit System	$106.76	3	$109.93	-0.58%	1
Santa Clara Valley Transportation Authority	$188.64	14	$153.06	4.27%	10
The Greater Cleveland Regional Transit Authority	$145.12	10	$115.92	4.60%	11
Southwest Ohio Regional Transit Authority	$114.36	5	$104.35	1.85%	4
Maryland Transit Administration	$170.01	11	$155.13	1.85%	3
Niagara Frontier Transportation Authority	$122.58	6	$117.19	0.90%	2
Port Authority of Allegheny County	**$186.60**	**13**	**$148.80**	**4.63%**	**12**
Average	*$136.56*		*$118.07*	*2.90%*	
Standard Deviation	*$33.64*		*$26.99*	*1.65%*	
Average – 1 Standard Deviation	*$102.92*		*$91.08*	*1.25%*	
Average + 1 Standard Deviation	*$170.20*		*$145.06*	*4.55%*	
Act 44 Compliance Determination	**At Risk**		**At Risk**		
Compared to the Peer Group Average	**Worse**		**Worse**		

Exhibit 7: Peer Comparison- Bus Operating Revenue / Revenue Vehicle Hour

Operating Revenue / Revenue Hour (MB)					
	FYE 2014 Single Year		**5 Year Change Since FYE 2009**		
System	**Value**	**Rank of 14**	**2009 Value**	**Annual Rate**	**Rank of 14**
Alameda-Contra Costa Transit District	$36.50	6	$30.93	3.37%	3
Tri-County Metropolitan Transportation District of Oregon	$39.23	4	$38.98	0.13%	7
St. Louis Bi-State Development Agency	$23.50	12	$20.91	2.37%	4
VIA Metropolitan Transit	$14.61	14	$16.04	-1.85%	10
Metropolitan Atlanta Rapid Transit Authority	$33.54	7	$40.27	-3.59%	13
San Diego Metropolitan Transit System	$32.08	9	$34.49	-1.44%	8
Metro Transit	$37.05	5	$40.21	-1.63%	9
Milwaukee County Transit System	$31.66	10	$34.83	-1.89%	11
Santa Clara Valley Transportation Authority	$22.71	13	$27.14	-3.50%	12
The Greater Cleveland Regional Transit Authority	$30.82	11	$29.95	0.58%	5
Southwest Ohio Regional Transit Authority	$40.07	2	$39.31	0.38%	6
Maryland Transit Administration	$32.17	8	$38.63	-3.60%	14
Niagara Frontier Transportation Authority	$39.65	3	$30.78	5.20%	1
Port Authority of Allegheny County	**$51.64**	**1**	**$40.85**	**4.80%**	**2**
Average	*$33.23*		*$33.09*	*-0.05%*	
Standard Deviation	*$8.99*		*$7.68*	*3.00%*	
Average – 1 Standard Deviation	*$24.24*		*$25.42*	*-3.05%*	
Average + 1 Standard Deviation	*$42.22*		*$40.77*	*2.95%*	
Act 44 Compliance Determination	**In Compliance**		**In Compliance**		
Compared to the Peer Group Average	**Better**		**Better**		

Exhibit 8: Peer Comparison- Bus Operating Cost / Passenger

Operating Cost / Passenger (MB)					
	FYE 2014 Single Year		5 Year Change Since FYE 2009		
System	Value	Rank of 14	2009 Value	Annual Rate	Rank of 14
Alameda-Contra Costa Transit District	$5.24	13	$4.89	1.42%	3
Tri-County Metropolitan Transportation District of Oregon	$4.03	6	$3.39	3.55%	8
St. Louis Bi-State Development Agency	$5.00	10	$3.73	6.02%	13
VIA Metropolitan Transit	$3.47	3	$2.62	5.85%	12
Metropolitan Atlanta Rapid Transit Authority	$3.77	4	$2.92	5.18%	11
San Diego Metropolitan Transit System	$2.69	1	$2.53	1.24%	2
Metro Transit	$4.14	7	$3.58	2.94%	6
Milwaukee County Transit System	$3.28	2	$2.96	2.05%	5
Santa Clara Valley Transportation Authority	$7.25	14	$5.68	5.02%	10
The Greater Cleveland Regional Transit Authority	$4.84	9	$4.46	1.68%	4
Southwest Ohio Regional Transit Authority	$5.13	11	$3.66	7.00%	14
Maryland Transit Administration	$3.90	5	$3.22	3.89%	9
Niagara Frontier Transportation Authority	$4.42	8	$4.41	0.03%	1
Port Authority of Allegheny County	**$5.18**	**12**	**$4.44**	**3.13%**	**7**
Average	*$4.45*		*$3.75*	*3.50%*	
Standard Deviation	*$1.12*		*$0.92*	*2.09%*	
Average – 1 Standard Deviation	*$3.33*		*$2.83*	*1.41%*	
Average + 1 Standard Deviation	*$5.58*		*$4.67*	*5.59%*	
Act 44 Compliance Determination	**In Compliance**		**In Compliance**		
Compared to the Peer Group Average	**Worse**		**Better**		

Exhibit 9: Trend Comparison- Bus Passengers / Revenue Vehicle Hour

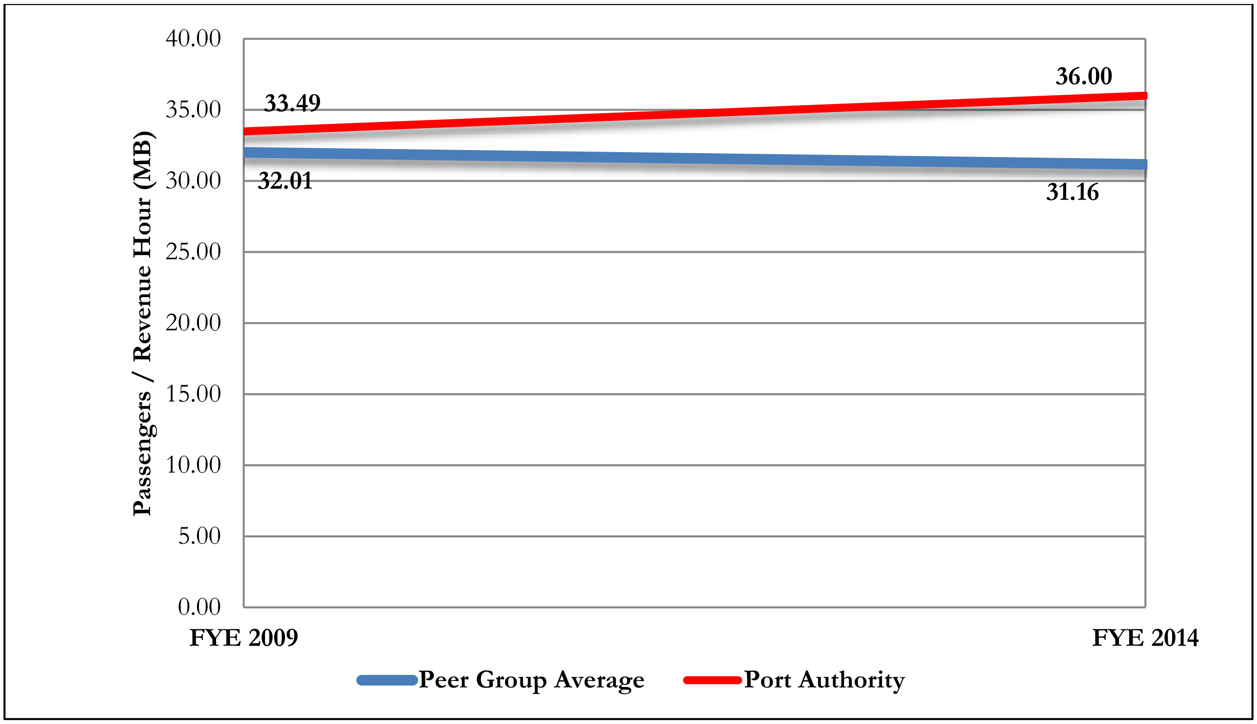


Exhibit 10: Trend Comparison- Bus Operating Cost / Revenue Vehicle Hour

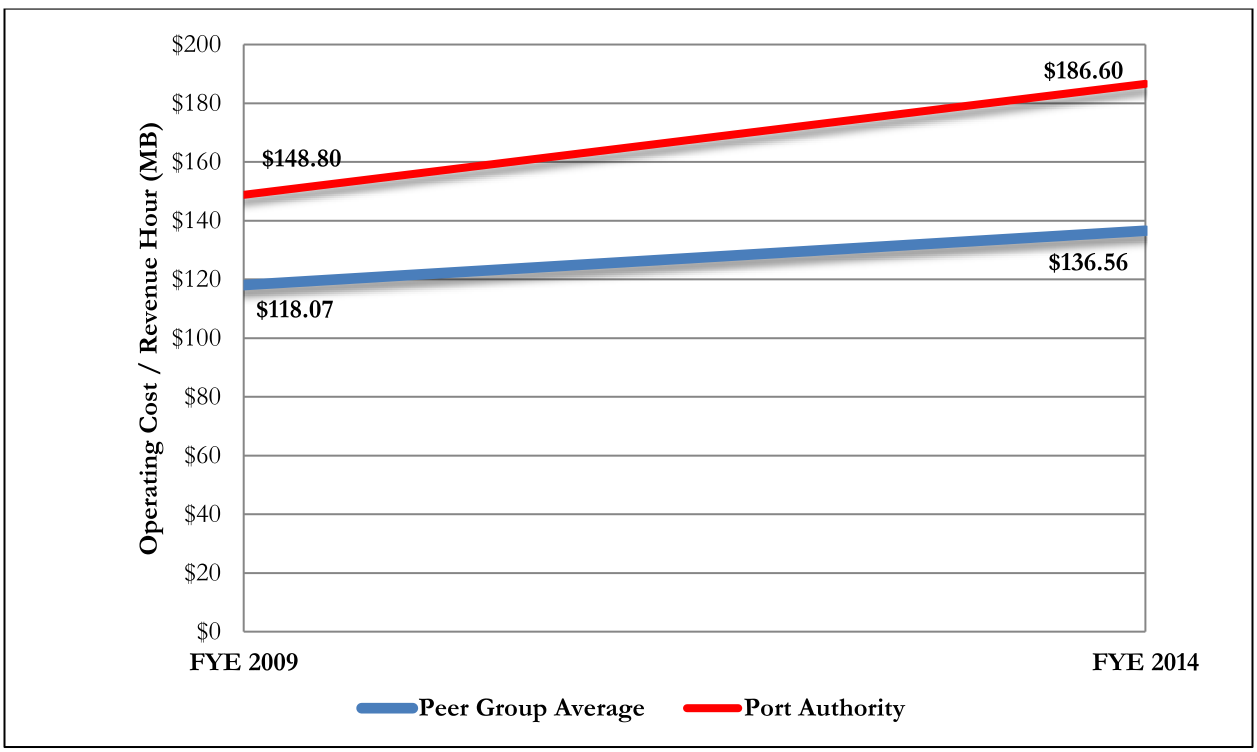


Exhibit 11: Trend Comparison- Bus Operating Revenue / Revenue Vehicle Hour

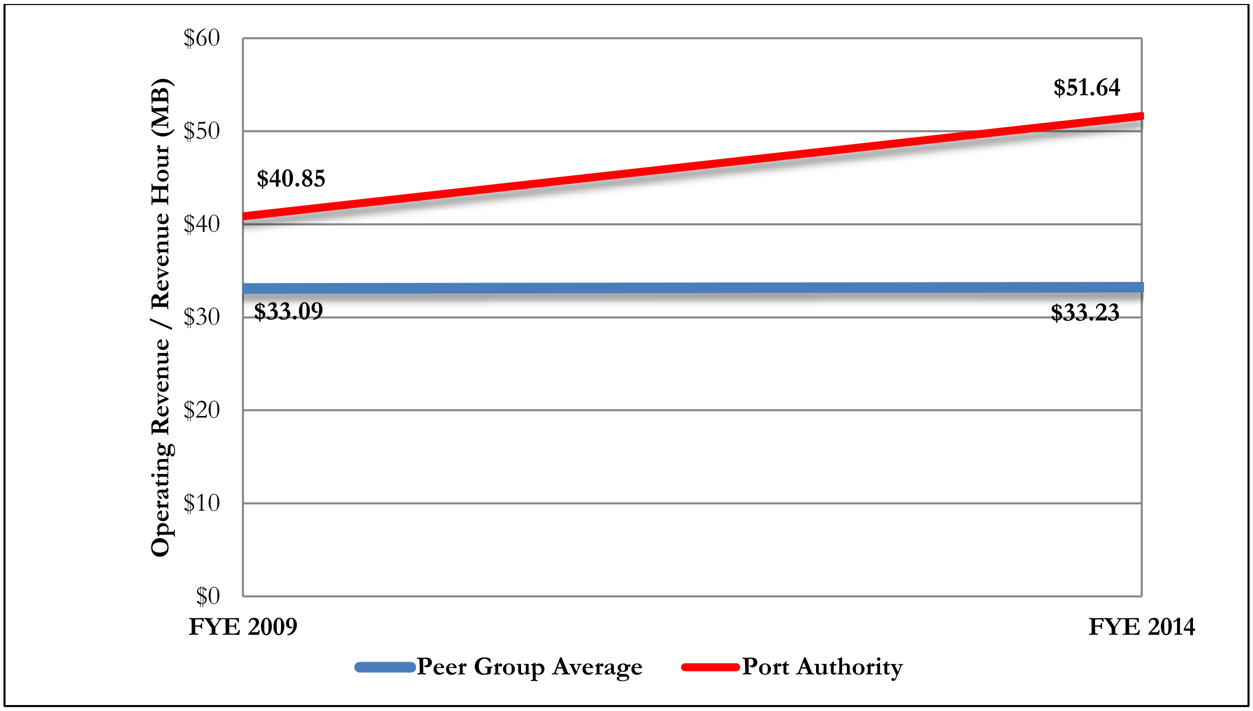
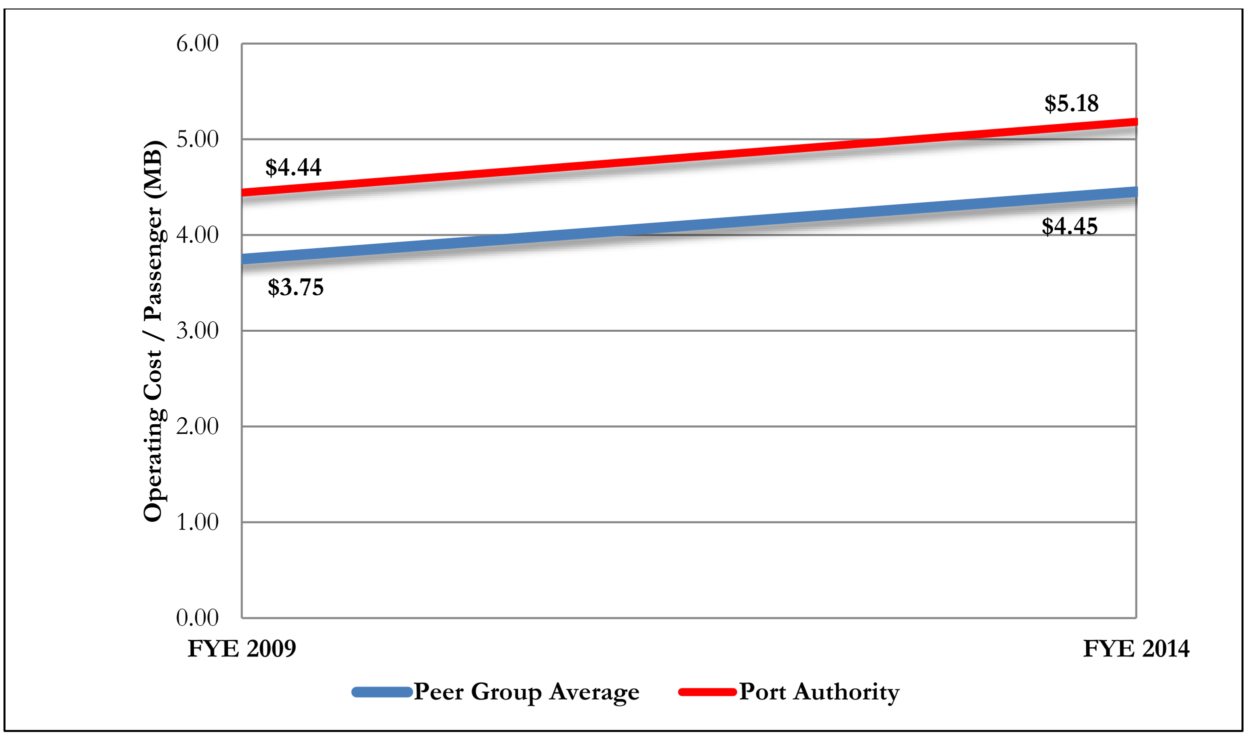


Exhibit 12: Trend Comparison- Bus Operating Cost / Passenger Trend



Light Rail Comparison

Exhibit 13 presents results of the PAAC peer comparison for light rail. PAAC's light rail is "**In Compliance**" for seven of the measures and "**At Risk**" for one, single year operating cost / passenger. This is the result of PAAC having the second highest operating cost per revenue hour and the second lowest ridership per hour of the peer group.

Exhibit 13: Act 44 Peer Comparison Summary- Light Rail

Variable	Act 44 Determination	
	Single Year	**Trend**
Passengers / RVH	In Compliance	In Compliance
Operating Cost / RVH	In Compliance	In Compliance
Operating Revenue / RVH	In Compliance	In Compliance
Operating Cost / Passenger[14]	**At Risk**	In Compliance

For the five peer systems plus PAAC, NTD data were extracted and summarized for each of the required Act 44 metrics. Measures were put into histograms and tables for visual inspection, statistical analyses, and ordinal ranking purposes. The single-year results of these analyses are presented in **Exhibit 14**, **Exhibit 15**, **Exhibit 16**, and **Exhibit 17**. **Exhibit 18**, **Exhibit 19**, **Exhibit 20** and **Exhibit 21** present five-year trend analyses.

For measures relating to passengers or operating revenue, ordinal rankings are on a highest-to-lowest system. For measures relating to operating cost, ordinal rankings are on a lowest-to-highest system. Thus a ranking of "1st" consistently indicates that the agency scores best amongst its peers and a ranking of "6th" indicates that it performs the poorest on any given metric.

The findings presented in the exhibits are as follows:

1. PAAC's FYE 2014 passengers / revenue hour ranks 5th out of the 6 transit agencies in the peer group and is below the peer group average. Passengers / revenue hour have been decreasing at about 1.41% per year.
2. PAAC's FYE 2014 operating cost / revenue vehicle hour ranks 5th and is the second most costly of all the 6 transit agencies in the peer group. Operating cost / revenue hour was decreasing at about 2.46% per year between FYE 2009 and FYE 2014.
3. PAAC's 2014 operating revenue / revenue vehicle hour ranks best in the peer group. The trend between FYE 2009 and FYE 2014 indicates that operating revenue / revenue vehicle hour is increasing at an average rate of 3.83% per year while the peer average decreased at 1.23% per year.
4. PAAC's FYE 2014 operating cost / passenger ranks 5th out of 6 transit agencies in the peer group and a received an "At Risk" finding for the single year determination. The trend of annual cost / passenger decreased at a rate of 1.07% a year.

These findings provided a basis for further investigation during the on-site interviews and functional area reviews.

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[14] PAAC's high legacy costs directly contribute to this determination. Continuing efforts by management to contain costs and optimize service levels should positively impact this determination in subsequent performance reviews.

Exhibit 14: Peer Comparison- Light Rail Passengers / Revenue Hour

Passengers / Revenue Hour (LR)					
	FYE 2014 Single Year		5 Year Change Since FYE 2009		
System	Value	Rank of 6	2009 Value	Annual Rate	Rank of 6
St. Louis Bi-State Development Agency	65.82	1	70.62	-1.40%	3
Metro Transit	48.62	6	73.30	-7.88%	6
Santa Clara Valley Transportation Authority	50.07	4	53.60	-1.35%	2
The Greater Cleveland Regional Transit Authority	51.12	3	30.63	10.78%	1
Maryland Transit Administration	51.36	2	63.50	-4.15%	5
Port Authority of Allegheny County	**49.22**	**5**	**52.83**	**-1.41%**	**4**
Average	*52.70*		*57.41*	*-0.90%*	
Standard Deviation	*6.51*		*15.60*	*6.27%*	
Average – 1 Standard Deviation	*46.19*		*41.81*	*-7.17%*	
Average + 1 Standard Deviation	*59.22*		*73.01*	*5.37%*	
Act 44 Compliance Determination	**In Compliance**		**In Compliance**		
Compared to the Peer Group Average	**Worse**		**Worse**		

Exhibit 15: Peer Comparison- Light Rail Operating Cost / Revenue Hour

Operating Cost / Revenue Hour (LR)					
	FYE 2014 Single Year		**5 Year Change Since FYE 2009**		
System	**Value**	**Rank of 6**	**2009 Value**	**Annual Rate**	**Rank of 6**
St. Louis Bi-State Development Agency	$269.88	3	$210.16	5.13%	6
Metro Transit	$148.65	1	$185.81	-4.36%	1
Santa Clara Valley Transportation Authority	$341.47	6	$289.45	3.36%	5
The Greater Cleveland Regional Transit Authority	$240.91	2	$266.69	-2.01%	3
Maryland Transit Administration	$271.21	4	$238.33	2.62%	4
Port Authority of Allegheny County	**$329.39**	**5**	**$373.11**	**-2.46%**	**2**
Average	*$266.92*		*$260.59*	*0.38%*	
Standard Deviation	*$69.50*		*$66.57*	*3.81%*	
Average – 1 Standard Deviation	*$197.42*		*$194.02*	*-3.44%*	
Average + 1 Standard Deviation	*$336.42*		*$327.17*	*4.19%*	
Act 44 Compliance Determination	**In Compliance**		**In Compliance**		
Compared to the Peer Group Average	**Worse**		**Better**		

Exhibit 16: Peer Comparison- Light Rail Operating Revenue / Revenue Hour

Operating Revenue / Revenue Hour (LR)					
	FYE 2014 Single Year		**5 Year Change Since FYE 2009**		
System	**Value**	**Rank of 6**	**2009 Value**	**Annual Rate**	**Rank of 6**
St. Louis Bi-State Development Agency	$69.90	2	$58.37	3.67%	2
Metro Transit	$46.81	5	$78.13	-9.74%	6
Santa Clara Valley Transportation Authority	$44.24	6	$54.40	-4.05%	5
The Greater Cleveland Regional Transit Authority	$52.57	3	$50.59	0.77%	3
Maryland Transit Administration	$48.51	4	$53.29	-1.86%	4
Port Authority of Allegheny County	**$70.60**	**1**	**$58.51**	**3.83%**	**1**
Average	*$55.44*		*$58.89*	*-1.23%*	
Standard Deviation	*$11.79*		*$9.91*	*5.18%*	
Average – 1 Standard Deviation	*$43.65*		*$48.98*	*-6.41%*	
Average + 1 Standard Deviation	*$67.23*		*$68.79*	*3.95%*	
Act 44 Compliance Determination	**In Compliance**		**In Compliance**		
Compared to the Peer Group Average	**Better**		**Better**		

Exhibit 17: Peer Comparison- Light Rail Operating Cost / Passenger

Operating Cost / Passenger (LR)					
	FYE 2014 Single Year		5 Year Change Since FYE 2009		
System	Value	Rank of 6	2009 Value	Annual Rate	Rank of 6
St. Louis Bi-State Development Agency	$4.10	2	$2.98	6.62%	5
Metro Transit	$3.06	1	$2.53	3.82%	3
Santa Clara Valley Transportation Authority	$6.82	6	$5.40	4.78%	4
The Greater Cleveland Regional Transit Authority	$4.71	3	$8.71	-11.55%	1
Maryland Transit Administration	$5.28	4	$3.75	7.07%	6
Port Authority of Allegheny County	**$6.69**	**5**	**$7.06**	**-1.07%**	**2**
Average	*$5.11*		*$5.07*	*1.61%*	
Standard Deviation	*$1.47*		*$2.44*	*7.07%*	
Average – 1 Standard Deviation	*$3.64*		*$2.63*	*-5.46%*	
Average + 1 Standard Deviation	*$6.58*		*$7.52*	*8.68%*	
Act 44 Compliance Determination	**At Risk**		**In Compliance**		
Compared to the Peer Group Average	**Worse**		**Better**		

Exhibit 18: Trend Comparison- Light Rail Passengers / Revenue Vehicle Hour

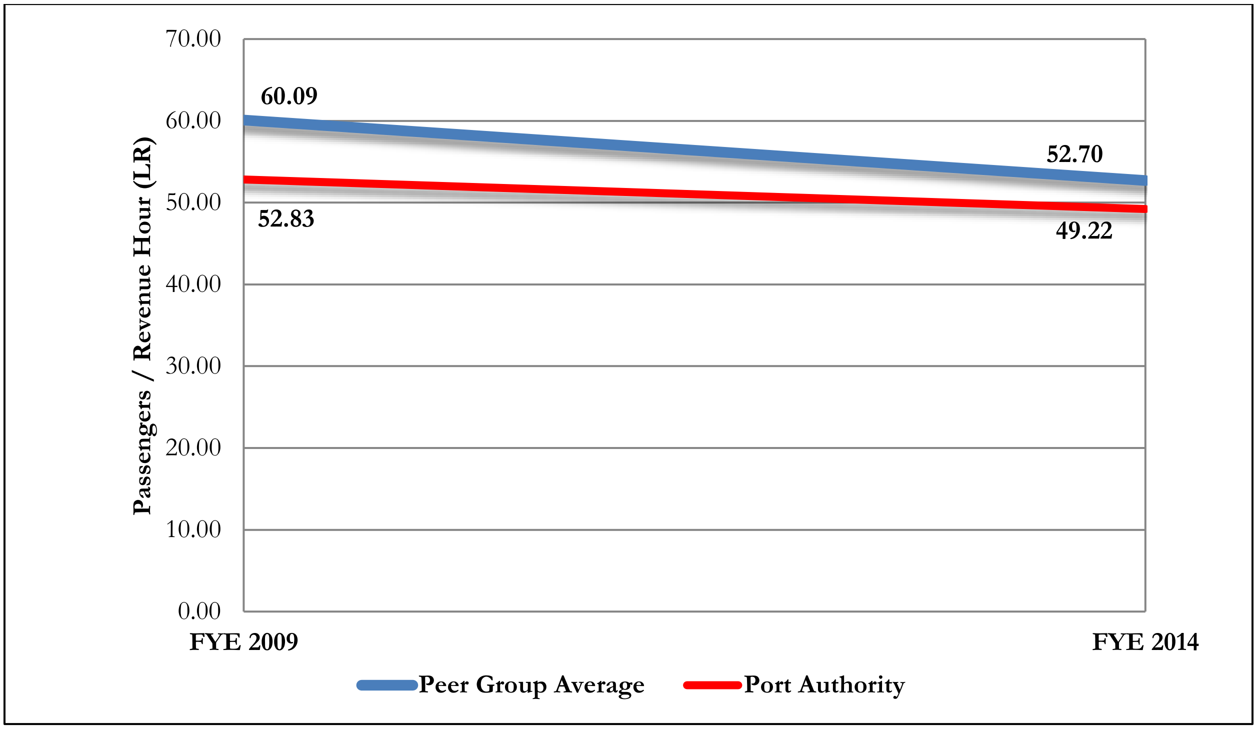


Exhibit 19: Trend Comparison- Light Rail Operating Cost / Revenue Vehicle Hour

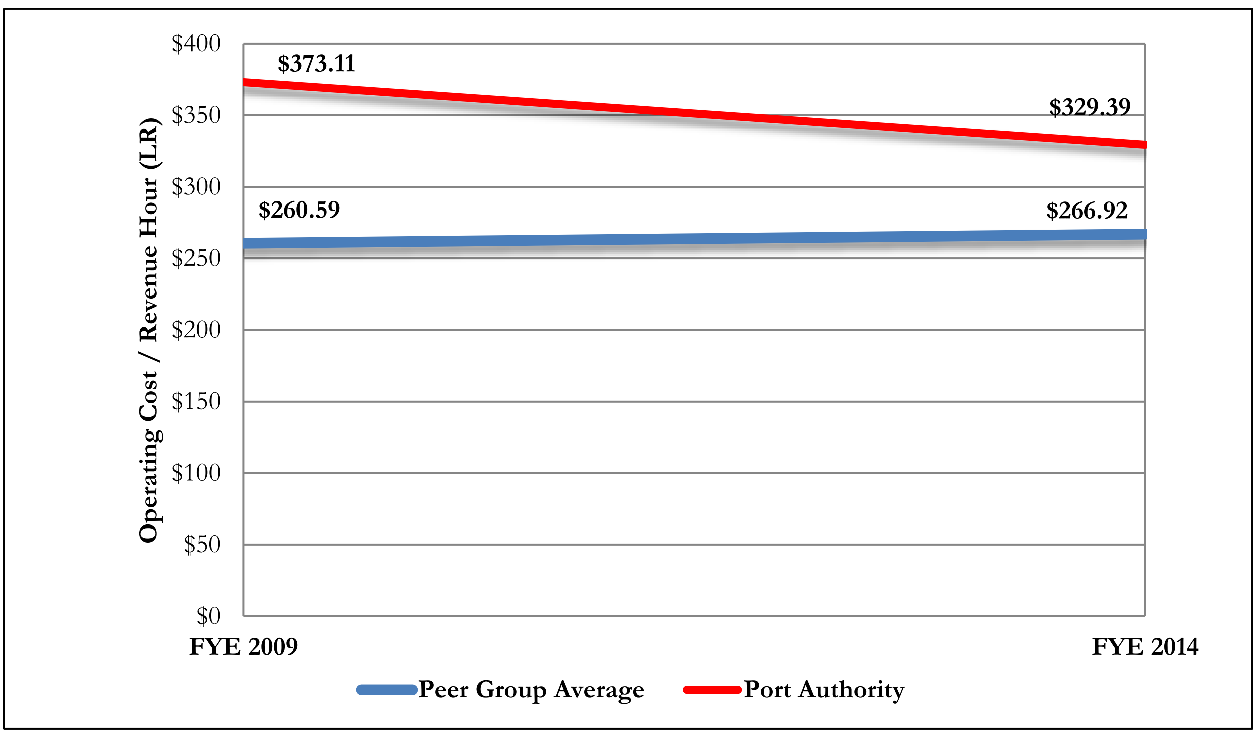


Exhibit 20: Trend Comparison- Light Rail Operating Revenue / Revenue Vehicle Hour

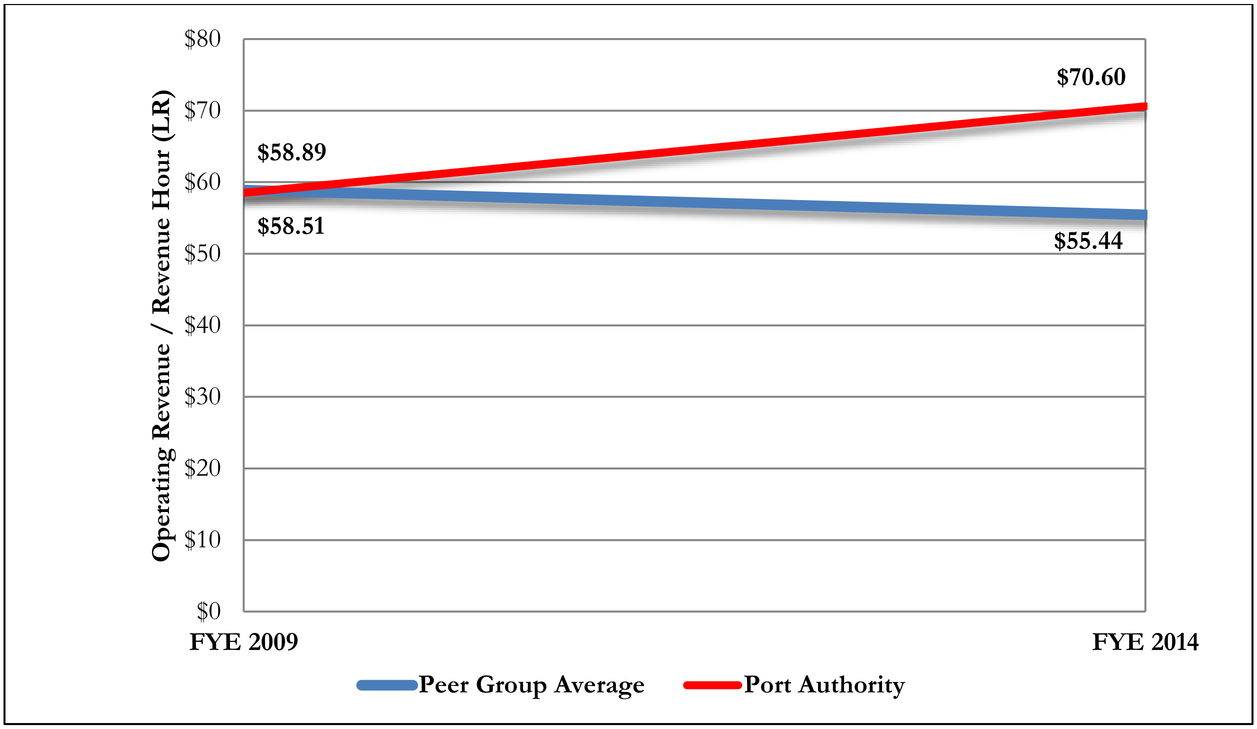
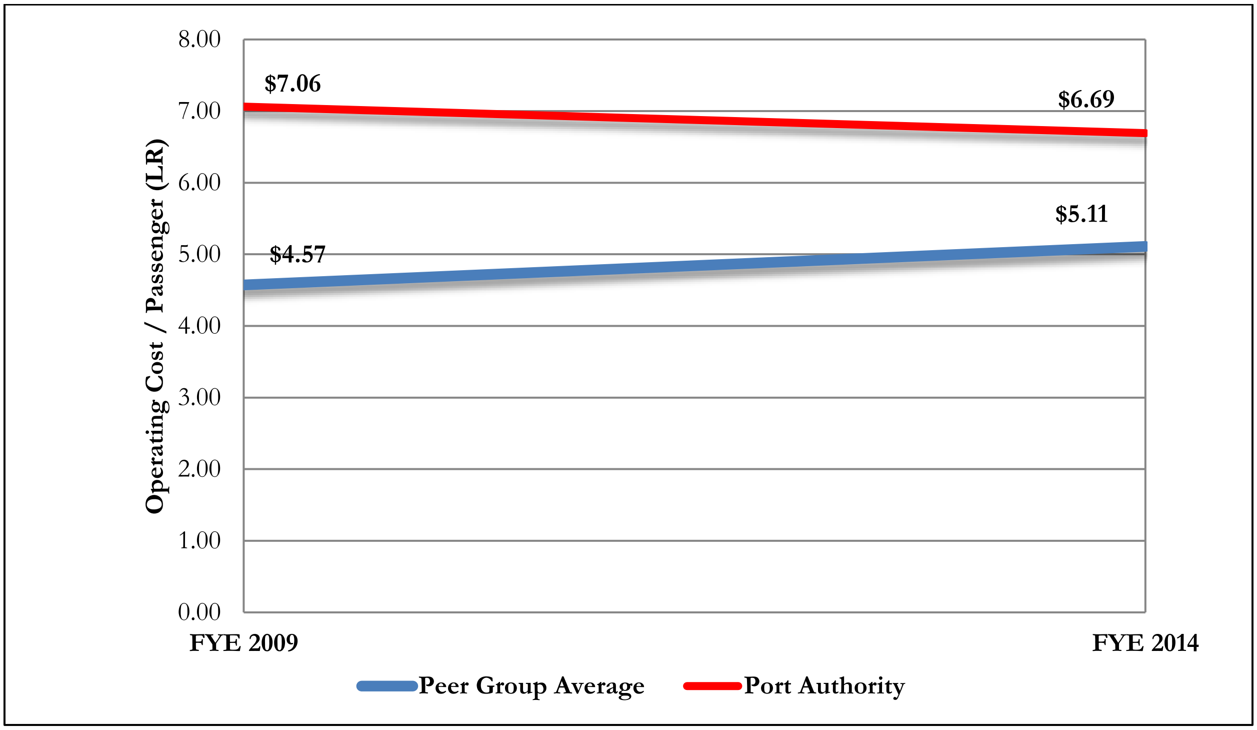


Exhibit 21: Trend Comparison- Light Rail Operating Cost / Passenger Trend



FIVE-YEAR FIXED-ROUTE 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 service delivery. Passengers may increase due to successful marketing, customer service, improved route planning and natural growth. Declines in passengers / revenue hour can occur despite 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 2.0% per year in passengers / revenue hour of service. This target is consistent with statewide historic trends; is achievable; and, it encourages agencies to better match service delivery with customer needs. PAAC's target has been set to 2.0% growth per year, an amount that should be achievable given trends over the last five years.

Operating Cost / Revenue Hour quantifies the efficiency of service delivery. To some extent, costs should be managed through good governance, proactive management and effective cost containment. PennDOT typically suggests a target of no more than 3.0% per year increase in operating cost / revenue hour of service to ensure expected subsidy growth can keep pace with cost growth. PAAC's management has aggressively worked to contain long-term cost increases, yet some legacy costs cannot be fully contained in five years. PAAC's target has been set to a rate of 5.4% per year to reflect management's cost containment efforts and their long-term impact on cost containment.

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. PAAC will have a major change in fare policy beginning in January 2017 with the net outcome of this change uncertain. The target growth in revenue / revenue hour, two percent (2.0%) is set to be the same as passenger / revenue hour and implicitly assumes fare revenue per passenger remains flat. PennDOT will work with PAAC in the coming years to reevaluate this target to see if it should be adjusted based on unanticipated impacts of the 2017 change in fare structure.

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 (5.4%) less the minimum passengers / revenue hour goal (2.0%), or 3.4%.

These performance targets represent the minimum performance level that PAAC should achieve for each Act 44 criteria during the next performance review cycle. The performance targets were created using historic trends, certified audit information, and management's budget forecasts. Standards were extrapolated to FYE 2020 and are designed to be aggressive, yet achievable. The performance targets for PAAC's Act 44 metrics are presented in **Exhibit 22**, **Exhibit 23**, **Exhibit 24**, and **Exhibit 25**.

Exhibit 22: Fixed-Route Passengers / Revenue Hour Performance Targets

FYE 2020 Target...**41.05**

Interim Year Targets ....**Annual increase of at least 2.0%***

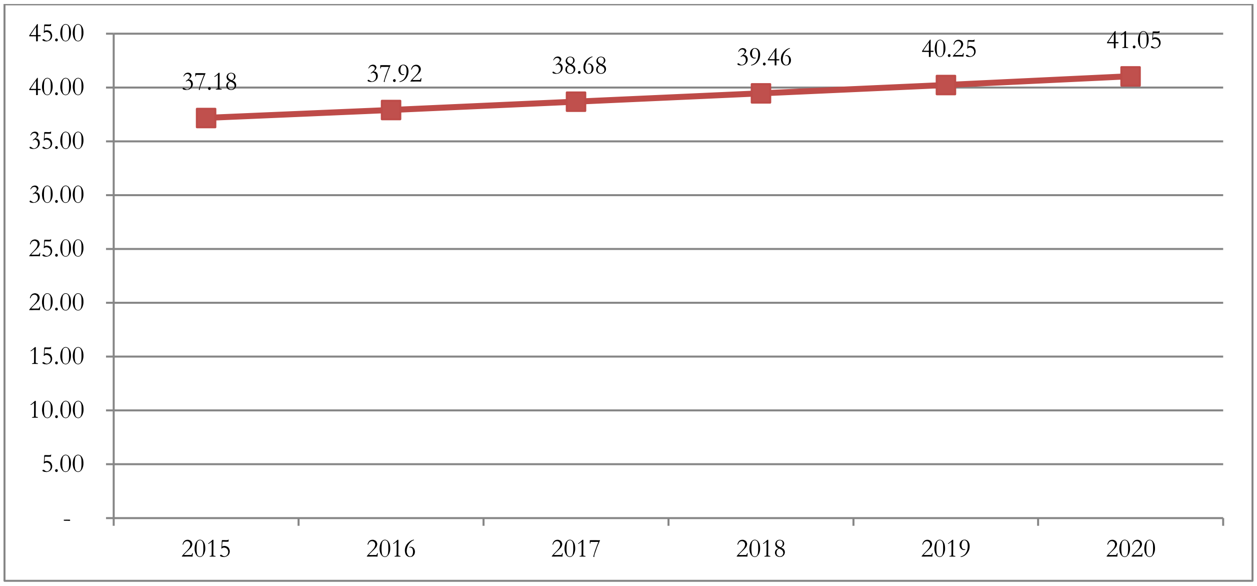


Exhibit 23: Fixed-Route Operating Cost / Revenue Vehicle Hour Performance Targets

FYE 2020 Target...**$260.08**

Interim Year Targets ....**Annual increase of no more than 5.4%**

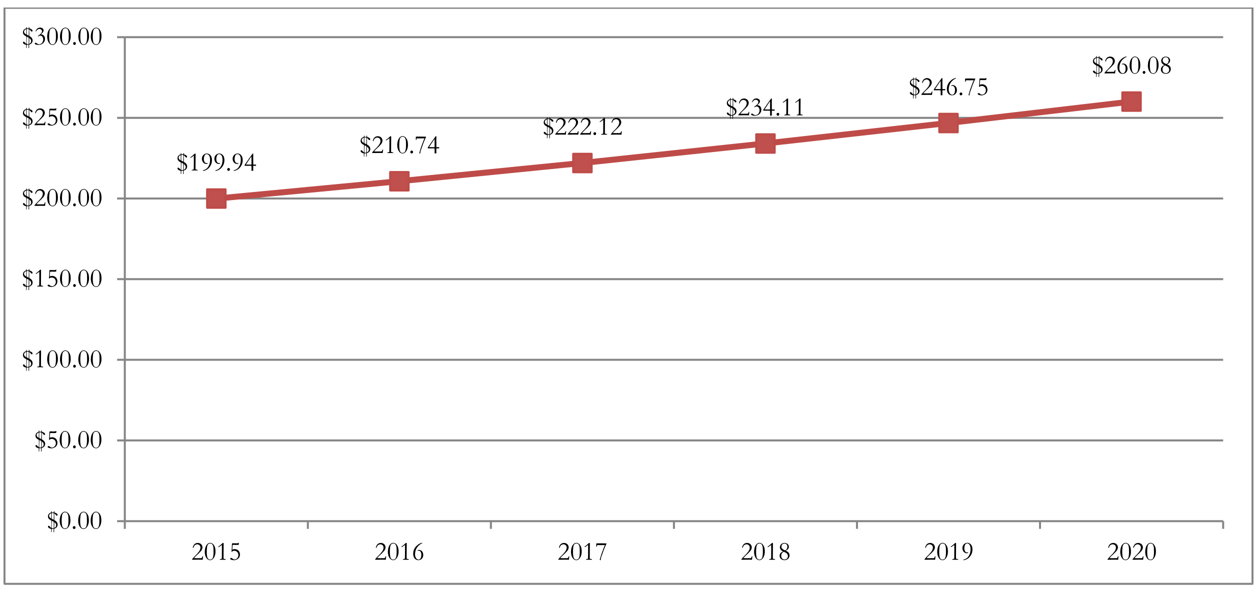


Exhibit 24: Fixed-Route Operating Revenue / Revenue Vehicle Hour Performance Targets
FYE 2020 Target...**$61.02**
Interim Year Targets .... **Annual increase of at least 2.0%**

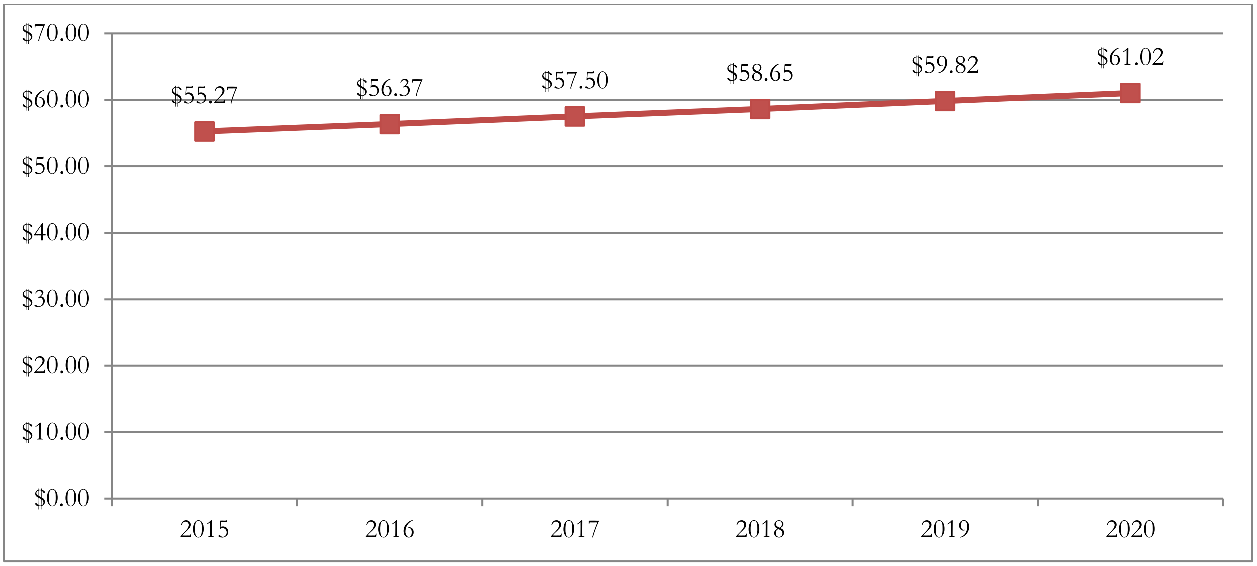
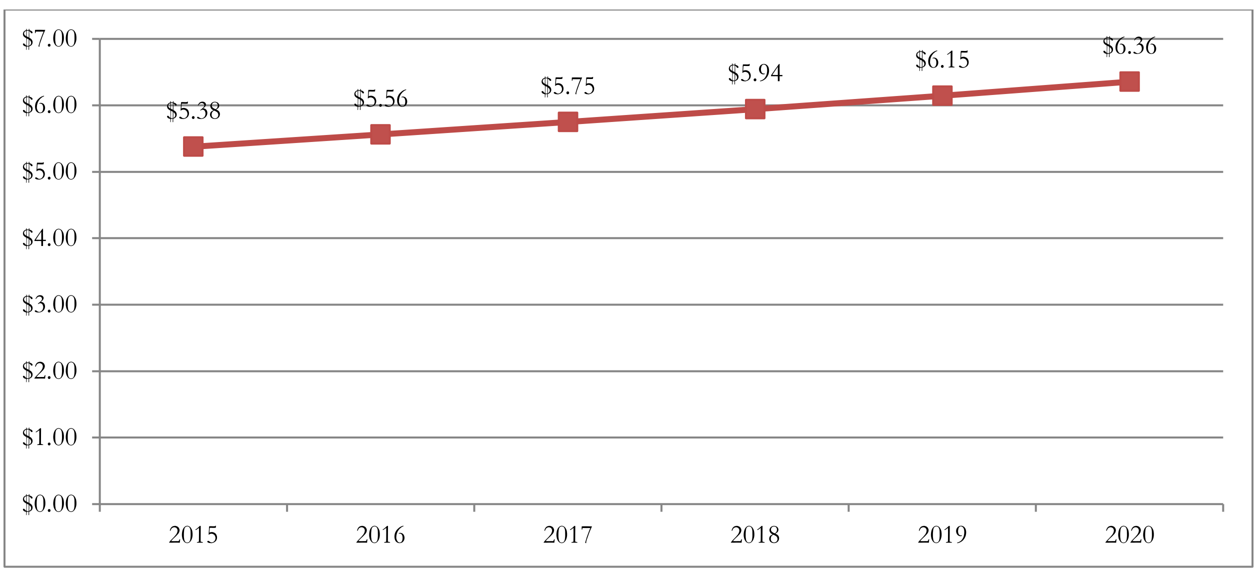


Exhibit 25: Fixed-Route Operating Cost / Passenger Performance Targets
FYE 2020 Target... **$6.36**
Interim Year Targets .... **Annual increase of no more than 3.4%**



Functional Review

Functional reviews are used to determine the reasons behind performance results found in the Act 44 comparisons, to catalog "best practices" to share with other transit agencies, and to identify opportunities for improvement that should be addressed in the Action Plan (see **Appendix A: Action Plan Improvement Strategies**). Thirteen (13) functional areas were reviewed through documents received from the agency and interviews conducted onsite. The functional areas are as follows:

1. **Governance –** Responsibilities include working with management to set vision, mission, goals, and objectives/strategies; CEO oversight; and advocacy for the agency's needs and positions.
2. **Management –** Responsible for the day-to-day operations of the agency and organization of all staff. 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.
3. **Human Resources –** Responsible for employee retention, recruitment, training, performance reviews, grievance procedures, employee benefits, and labor relations.
4. **Finance –** Includes accounting, payroll, financial planning and reporting, financial services; operating and capital budgeting, financial analysis, accounting, cash flow management, revenue handling; grant administration; procurement; and financial technology.
5. **Procurement –** Includes acquisition of rolling stock, vehicle parts, non-revenue capital items (i.e., office equipment) and other operations-related items.
6. **Contracted Service Provider –** A review of elements of service delivery provided by a private contractors and a review of the relationship between the agency and the contractors (i.e., ACCESS paratransit service provided by TransDev).
7. **Operations –** Management of daily operations, on street supervision and control, dispatching, driver scheduling, vehicle and facilities maintenance procedures, and, reporting performance.
8. **Safety and Security –** Includes system-wide vehicle and passenger safety; facility security; and emergency preparedness.
9. **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 processes.
10. **Information Technology –** Includes automated mechanisms for in-house and customer service communication including future plans for new technology.
11. **Capital Planning –** 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).
12. **Marketing –** Includes maximizing current markets and expanding into new markets as well as managing the perception of the agency, by the public at-large, to encourage current and future ridership.
13. **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 functional review findings are organized by a brief description of the Act 44 variables guiding the performance review: passengers, fare and other non-subsidy revenues, and operating costs. These 13 areas work together to effectively meet the needs of passengers, to deliver high-quality service in a cost-effective manner and to provide resources that will adapt to changing needs.

The following sections summarize ways to deliver service more efficiently and effectively. It is important that service is both sensitive and responsive to the community's needs, while being able to maximize productivity, direct service hours effectively, control operating costs, and achieve optimum revenue hours. The observations recorded during the review process are categorized as Best Practices or Elements to Address in the Action Plan. Best Practices are those exceptional current practices that are beneficial and should be continued or expanded.

Elements to Address in the Action Plan 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. For the convenience of PAAC, Action Plan templates have been included in **Appendix A: Action Plan Improvement Strategies** (pp. 46-48). Some actions will be quickly implementable while others may take several discrete steps to achieve over a longer period. The template provides a simple-to-follow order of key findings of this report that should be addressed in the Action Plan.

Opportunities to Increase Fixed-Route Ridership

Act 44 defines "passengers" as unlinked passenger trips, or passenger boardings, across all routes in the fixed-route transit system. Increases in ridership directly represent how effectively management has matched service levels to current demand for service.

Best Practices

1. PAAC uses transit service guidelines to evaluate potential service changes as demand and conditions change. These guidelines provide a framework for service changes in terms of trips, frequencies and/or passenger loadings. By having an objective way to measure route-level performance, PAAC can maximize use of limited resources to serve the greatest possible ridership.

2. PAAC partners with the City of Pittsburgh and surrounding municipalities for transit planning opportunities, specifically corridor redevelopment. With transit planning projects like the East Liberty Transit Center, PAAC was able to build a strategic partnership with the City of Pittsburgh that promotes transit-oriented redevelopment that will increase ridership potential. A number of similar planning efforts are underway with municipalities across the corridor.

Elements to Address in Part 1-A of the Action Plan (see p. 46)

1. PAAC actively monitors on-time performance (OTP) and other performance metrics for each bus route.[15] OTP is a key measure of reliability that directly affects customer perception and willingness to use transit. The FYE 2015 system-wide goal for bus service is 70% of one minute early and up to six minutes late.[16] That OTP goal was increased to 73% in FYE 2016 and will continue to be adjusted as resources are available. However, the customer impacts of OTP on low-frequency service (i.e., key corridor and local routes) is greater than it is for high-frequency service, such as the busways and rapid routes. To improve the public perception of system reliability, PAAC should further **refine its OTP goals to be tailored to**

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[15] PAAC 2015 Annual Service Report, p. 19
http://www.portauthority.org/paac/portals/0/ServiceGuidelines/2015/ServiceGuidelines.pdf

[16] PAAC Service Guidelines, p. **8** http://www.portauthority.org/paac/Portals/0/Service%20Guidelines%20Final.pdf,

specific types of bus service based on headways. Bus schedules should be reviewed and adjusted to achieve high levels of OTP, especially on low-frequency routes.

OPPORTUNITIES TO INCREASE FIXED-ROUTE REVENUES

Act 44 defines "revenues" as all non-subsidy revenues generated to help fund the operation of a transit system. The largest contributors to this are typically farebox revenues, route guarantees, and advertising revenues.

BEST PRACTICES

1. In February 2016, PAAC proposed a revised fare structure to simplify fare collection and increase revenues. The proposed fare policy would consolidate the zone-based system into a single fare, eliminate the downtown "free fare zone" for bus routes and incentivize the use of ConnectCard by offering discounted pricing compared to cash transactions. By reevaluating its approach to fares and fare collection, PAAC is able to react to changes in technology and customer expectations.

2. PAAC uses E-blasts for special event promotions. Online marketing targets the community (riders and non-riders) with discounted event tickets. Targeted, low-cost marketing campaigns are an effective means to increase ridership, increase revenues and raise community awareness of PAAC service.

3. PAAC has heavily promoted the use of ConnectCard, a smart card technology that offers passengers a reloadable fare card. Through the ConnectCard initiative, PAAC is working to make a seamless connection for riders within its system and to other surrounding transit agencies: Fayette Area Coordinated Transportation (FACT), Butler Transit Authority (BTA), Mid Mon Valley Transit Authority (MMVTA), City of Washington and Westmoreland County Transit Authority (WCTA). By working to eliminate multiple fare media and to create a single "purse" for customers, PAAC simplifies fare collection and maximizes ridership and revenue potential.

4. PAAC applies for and receives funding from the Congestion Mitigation and Air Quality Improvement Program (CMAQ) to fund park-and-ride facilities. PAAC identified CMAQ as an alternative source of federal funding to support park-and-ride facilities thereby giving PAAC other options for the use of Commonwealth funds.

ELEMENTS TO ADDRESS IN PART 1-B OF THE ACTION PLAN (SEE P. 46)

1. Currently, PAAC reports no revenues from advertising on paratransit vehicles. Many agencies have found advertising revenues from these vehicles can increase revenue with little marginal cost. Management should **assess the feasibility of generating advertising revenues from the paratransit vehicle fleet**.

OPPORTUNITIES TO CONTROL OPERATING COSTS

Act 44 defines "operating costs" as the non-capital costs incurred in the day-to-day operations of a transit system. Labor, maintenance, and operating costs such as fuel, tires and lubricants contribute to this measure in significant ways. Many transit agencies have noted cost increases much higher than the general rate of inflation. Compounding this is the reality that operating subsidies are not likely to increase at a comparable rate. Consequently, controlling operating cost increases is one key to maintaining current service levels.

BEST PRACTICES

1. PAAC identified the cost of healthcare and fringe benefits as having a substantial impact on the agency's long-term financial sustainability. As a result, PAAC worked in close collaboration with labor in 2013 to address the steep rise in healthcare costs and to limit the extent of other post-employment benefits (OPEBs) for new hires. By working closely with labor, management is able to identify ways to work towards a fiscally sustainable service.

2. ACCESS includes a performance standard of riders / revenue vehicle hour (RVH) in its contracts to encourage subcontractor efficiency. If found to be underperforming, ACCESS levies penalties directly against subcontractor invoices. By establishing and enforcing performance standards for each subcontractor, ACCESS promotes greater efficiency and lower cost per passenger trip for paratransit service.

3. PAAC has an eleven-week training program where drivers receive instruction to pass the commercial driver's license (CDL) exam. In the past, PAAC was incurring losses on trainees who quit after working for the agency for a short period after receiving the CDL. As a cost-savings measure, PAAC introduced a payback policy that requires a refund for the cost of training from employees who leave within two years of completing the training program.

4. PAAC provides operator training for the CDL license exam. If a trainee repeatedly fails the exam or drops from the training program, PAAC is at loss for the resources spent on exam preparation. Similar to the training payback policy, PAAC is currently developing a reimbursement policy for CDL loss attributed to training. By managing training costs, PAAC should have short-term cost savings and improved long-term driver retention.

5. PAAC utilizes CareerLink, a job hosting website that incorporates a built-in validation test, and creates a pool of applicants based on the results. The use of CareerLink saves PAAC time and resources serving as an efficient pre-screening tool that objectively evaluates candidates prior to in-person interviews.

ELEMENTS TO ADDRESS IN PART 1-C OF THE ACTION PLAN (SEE P. 47)

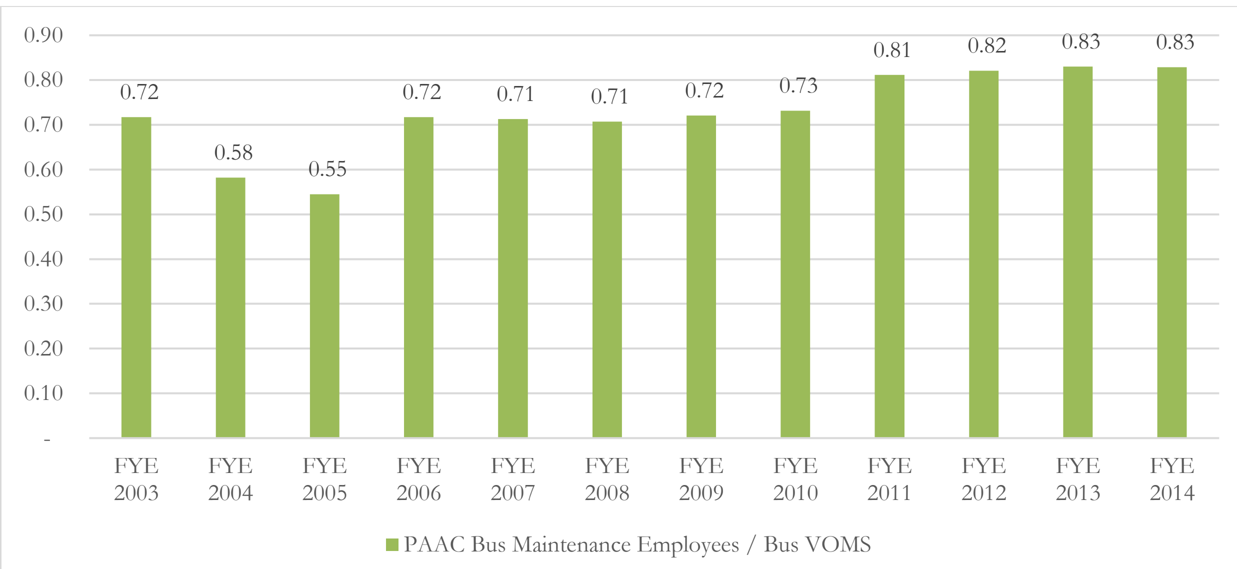
1. As shown in **Exhibit 26**, between FYE 2010 and FYE 2014, bus maintenance staffing levels per bus operating in peak service increased from 0.73 to 0.83. This 13% increase in the number of bus maintenance employees per vehicle operated in maximum service (VOMS) seems to have largely occurred in FYE 2011 (**Exhibit 27**). This is because reductions in bus maintenance staffing levels did not fully mimic cuts in bus service despite the age of the bus fleet remaining almost constant. In 2015, maintenance employee wages and fringe benefits accounted for almost $95 million (i.e., 27.6%) of PAAC's total fixed route operating expenses. A 13% decrease in maintenance costs (if bus maintenance employees/bus VOMS were decreased to the 2010 level) could reduce PAAC's cost by more than $12 million annually.

   Considering all vehicles at maximum operation (i.e., bus and light rail) PAAC has 606 full-time vehicle maintenance employees and operates 633 vehicles maximum service (VOMS), a ratio of almost one maintenance employee per vehicle in operation. PAAC's target number of buses per mechanic is 4 to 1. To ensure vehicle maintenance is efficient and cost-effective, management should **develop a target for <u>total</u> number of maintenance employees per unit of service delivered (e.g., vehicles, miles, etc.)**, based on overall maintenance goals and local conditions. That way, the overall size of the maintenance department will parallel any expansions or contractions of service while insuring PAAC maintains vehicles and facilities in a state of good repair.

Exhibit 26: PAAC NTD Reported Bus Maintenance Statistics

PAAC NTD Bus Statistic (does not include other modes and facilities statistics)	FYE 2010	FYE 2014	% Change
Average Bus Age	7.71	7.51	-3%
Bus VOMS	723	567	-22%
Bus Maintenance Employees	529	470	-11%
Bus Maintenance Employees / Bus VOMS	0.73	0.83	13%

Exhibit 27 PAAC Full-time Bus Maintenance Employees / Bus VOMS (NTD Data)



2. PAAC has a scheduled overtime target of 4.5%. However, there are no set targets to unscheduled overtime performance. Unscheduled overtime can be costly and is reported to be a significant challenge, particularly in the maintenance department. PAAC should **establish and monitor targets for unscheduled overtime** so as to promote greater cost containment.

3. PAAC reports that 22% of its annual bus miles are "non-revenue," or deadhead. Under the terms of the current collective bargaining agreement (CBA), PAAC is required to provide "suitable accommodations" for operators to eat their meals. To meet this provision, PAAC sends operators back to their division garages for meal breaks. This significantly increases the deadhead miles and hours on fixed-route bus routes since operating division garages are the only PAAC facilities that meet the "suitable accommodations" requisite. PAAC could reduce

operating costs related to deadhead miles and hours by developing strategically located break facilities that include:

- Access to commercial food service
- Non-commercial eating place
- Toilets and washing facilities

Management should **evaluate the potential benefits and costs of strategically locating driver break facilities at various locations throughout its service area** as a means to minimize the number of deadhead miles and hours.

4. PAAC has a small information technology (IT) department that primarily focuses on the maintenance of existing software. Despite an interest, and need, to upgrade IT systems and pursue new technologies, PAAC has cited difficulties in attracting talent and staffing IT positions due to a lack of competitive market salary rates. To address staffing needs, PAAC should **perform a benefit cost analysis to assess the feasibility of outsourcing additional IT functions,** particularly where it has difficulty hiring sufficient staff with the necessary skills to meet its needs.

5. PAAC has several legacy IT systems in place for managing data that are labor intensive. For example, PAAC has a work order system in the maintenance department that requires manual entry for inventory and asset management. Other legacy IT systems include manual fuel tracking and paper-based record keeping for human resources (HR). Many of these systems do not "talk" with one another requiring duplicate data entry. Because of the number of legacy IT systems, the need for interoperability, and the need for reliable and consistent data, PAAC should **develop a strategic IT plan that identifies and prioritizes PAAC's short-term and long-term IT needs**.

6. PAAC tracks the movement of parts with PeopleSoft eProcurement managing software. eProcurement monitors parts usage and updates the minimum/maximum threshold to determine when parts need to be ordered. However, PAAC has not established an annual goal for parts turnover. To minimize costs associated with maintaining inventory, PAAC should **develop a target for annual parts turnover** consistent with its needs and industry standards.

Other Findings that Impact Overall Agency Performance

"Other Findings" is a collection of findings from the functional review that may improve current or future operations. While not directly tied to Act 44 measures, actions to address these findings will result in a more seamless operation and greater operational efficiencies.

Best Practices

1. PAAC's Board developed an annual CEO Scorecard that relies on weighted performance metrics. Each metric has an industry category (e.g., operating performance, strategy, leadership and people management), a measurable attribute and a point score based on the responsibilities and duties of the CEO derived for that fiscal year. The CEO Scorecard is used to set next year's CEO goals and to facilitate discussions of future directions for the agency.

2. PAAC developed a 10-year strategic financial plan (FYE 2015 – 2024) as a response to Act 89 of 2013. Management uses the annually updated financial plan to guide their decisions on the use of capital and operating subsidies and to plan for future investments on key initiatives. Additionally, the Board approved and adopted a 2017 – 2021 Strategic Plan that details the agency's goals and strategies over the next five years.

3. PAAC has made safety a priority for capital projects and requires a safety employee present at each project site. By actively managing potential safety at worksites, PAAC promotes a safe workplace for its employees and reduces hazards for its customers.

4. Several trade schools in the Pittsburgh area provide mechanic training programs. The development of an internship / trainee program with these schools that provides hands-on experience can be a valuable source for recruiting mechanics if, and when, they are needed. PAAC has worked with several local trade schools to develop a maintenance internship / trainee program that is mutually beneficial.

5. PAAC conducts internal audits annually. PAAC prepares and the Board, following Senior Management review, adopts Internal Audit Work Plans every 18 months. Work Plans detail audit goals and objectives, the allocation of available auditor hours to complete identified audits and related review activities, status of findings from prior audits and risk assessment ratings. By having a formal audit process with a clear rationale for the allocation of resources, PAAC minimizes financial risk associated with grant activities.

ELEMENTS TO ADDRESS IN PART 2 OF THE ACTION PLAN (SEE P. 48)

1. PAAC routinely faced operating and/ or capital budget shortfalls about once every five years. As a result, periodic revenue service reductions occurred over the last decade. Only with the additional financial assistance provided by Act 89 has PAAC been able to increase service back to 2011 levels. To move away from a reactionary approach to recurring and predictable financial shortfalls, PAAC should **identify long-term (e.g., 5-10 year) strategies, that, when taken together, could work to achieve a "fiscally sustainable" business model**. "Fiscally sustainable" in this context is defined as a strategy where capital and operating expenditures are in line with reasonably expected funding levels and assets are maintained in a state of good repair. Recent progress on funding and management's effective containment of legacy costs make the attainment of a fiscally sustainable PAAC more achievable now than any time in the last ten years.

2. Under current regulations as stipulated by Act 44, PAAC cannot issue additional bonds secured by pledged revenues (PTAF). However, PAAC may issue refunding bonds, if market conditions would generate savings, though this is unlikely at the present time. Despite current market conditions, PAAC should **continue to monitor debt / bond market for possible refinancing savings**.

3. PAAC accomplishes road supervision using marked vehicles. With marked vehicles, operators are able to spot road supervisors and potentially adjust their behavior. To improve operator oversight, PAAC should **incorporate unmarked vehicles as one element of its road supervision strategy**.

4. Though the administrative cost of ACCESS is about 5% of the total paratransit service delivery cost, this is the only oversight that PAAC has in determining paratransit service delivery.

ACCESS chooses and assigns trips to all subcontractors billing PAAC at cost, which PAAC has no direct control over. PAAC does not manage or select contractors for the other 95% of the cost. While this appears to work, it is highly dependent on the management at ACCESS. To help insure service delivery costs remain as low as possible, PAAC should **encourage ACCESS to conduct service delivery solicitations at least every 5 years and participate in a collaborative process with PAAC to determine the performance requirements of selected subcontractors**.

FINANCIAL REVIEW

Assessing the financial health and trajectory of transit agencies is an effort that relies on accurate data from certified audit reports, accounts payable, accounts receivable, PennDOT dotGrants, and interviews with management and financial staff. This financial review focuses on "high-level" snapshot and trend indicators to determine if additional follow up by PennDOT is warranted through the review of audit reports, other financial reports, and budgets. The review assesses the financial status through a review of the following:

- High-Level Indicators of Financial Health
- Total Public Transportation Operational Expenditures and Funding
- Fixed-Route Funding
- Paratransit Funding
- Balance Sheet Findings
- Financial Projections
- Debt Management Practices and Trends
- Finance and Accounting Practices and Trends

HIGH-LEVEL INDICATORS OF FINANCIAL HEALTH

As shown in **Exhibit 28**, PAAC is in line with many, but not all, industry goals and targets for all high-level financial indicators. Available reserves, mostly attributable to state funds, have been below 25% of annual operating cost in most years but are rebuilding towards acceptable levels. Section 1513 funds represent a significant reserve of carryover funds, amounting to $67,899,400 as of FYE 2015. PAAC has $4,779,180 in carryover local funds separately identified in PennDOT dotGrants that are dedicated to capital grant matching requirements. PAAC will need to control future costs if it is to continue to maintain adequate reserves. However, the agency 10-year financial plan shows that PAAC will deplete its reserves and need to use state capital funds to subsidize operations in coming years.

Accounts payable and receivable amounts are negligible. PAAC has no available line of credit.

Allegheny County and the Regional Asset District subsidize 9.2% of PAAC's total operating costs (FYE 2015). These local matching funds, totaling $34,930,183, meet the 15% local match requirement for state Section 1513 funds.

TOTAL PUBLIC TRANSPORTATION OPERATIONAL EXPENDITURES AND FUNDING

As shown in **Exhibit 29**, PAAC public transportation has grown from a $361.7 million per year operation as of FYE 2011 to a $378 million per year operation as of FYE 2015, a 4.5% increase. Service levels have increased since 2012 and are now about the same as they were in 2010, before the operating shortfall and service cutbacks of 2011. Approximately 90.6% of PAAC's operational expenses are for fixed-route service. The remaining operational expenses are for paratransit service (9.4%), as shown in **Exhibit 30**.

Exhibit 28: FYE 2015 High-level Financial Indicators

Indicator	PAAC Value	Assessment Criteria / Rationale	Source
State Carryover 1513 Subsidies / Annual Operating Cost	18.0%	The combined target should be 25%+. This provides flexibility to account for unexpected cost increases or service changes.	FYE 2015 Audit and PennDOT dotGrants
Local Carryover Subsidies / Annual Operating Cost	1.3%		
Credit available/ Annual Payroll	0.0%		
Actual Local Match / Required Match	100%	Target 100%+. Local match that exceeds required minimums gives a transit agency flexibility to change service, to accommodate unexpected cost changes and make capital investments.	PennDOT dotGrants 2014
Accounts Payable (AP) 90+ days	0.0%	Target should be 0% over 90 days. Larger values indicate cash flow concerns.	PAAC reported value
Accounts Receivable (AR) 90+ days	0.0%	Target should be 0% over 90 days. Larger values can cause cash flow problems.	PAAC reported value
Debt / Annual Operating Cost	62.4%	Target should be 0%. Low debt amounts reduce borrowing costs.	FYE 2015 Audit

PAAC's operational funding comes from a variety of sources including state funds, federal funds, local funds and passenger fares. PAAC has used state, federal and local funds to finance both its fixed-route and paratransit operations (**Exhibit 31**). Combined, state and federal operating subsidies are the largest funding source, representing approximately 59.4% of total operating income. Passenger fares and other local funds also are an important share of income for PAAC accounting for 40.6% of total operating income (**Exhibit 32**). Local funding is in line with Act 44 requirements.

Exhibit 29: Public Transportation Operating Expense by Service Type

Expense by Service Type	FYE 2011	FYE 2012	FYE 2013	FYE 2014	FYE 2015
Fixed Route	$326.0	$322.1	$324.3	$332.5	$342.5
Paratransit (ADA + SR + DAS)	$35.7	$35.9	$35.2	$35.2	$35.5
Total ($ millions) *	$361.7	$358.0	$359.4	$367.7	$378.0

* May not add due to rounding

Exhibit 30: Share of Public Transportation Operating Expenses by Service Type

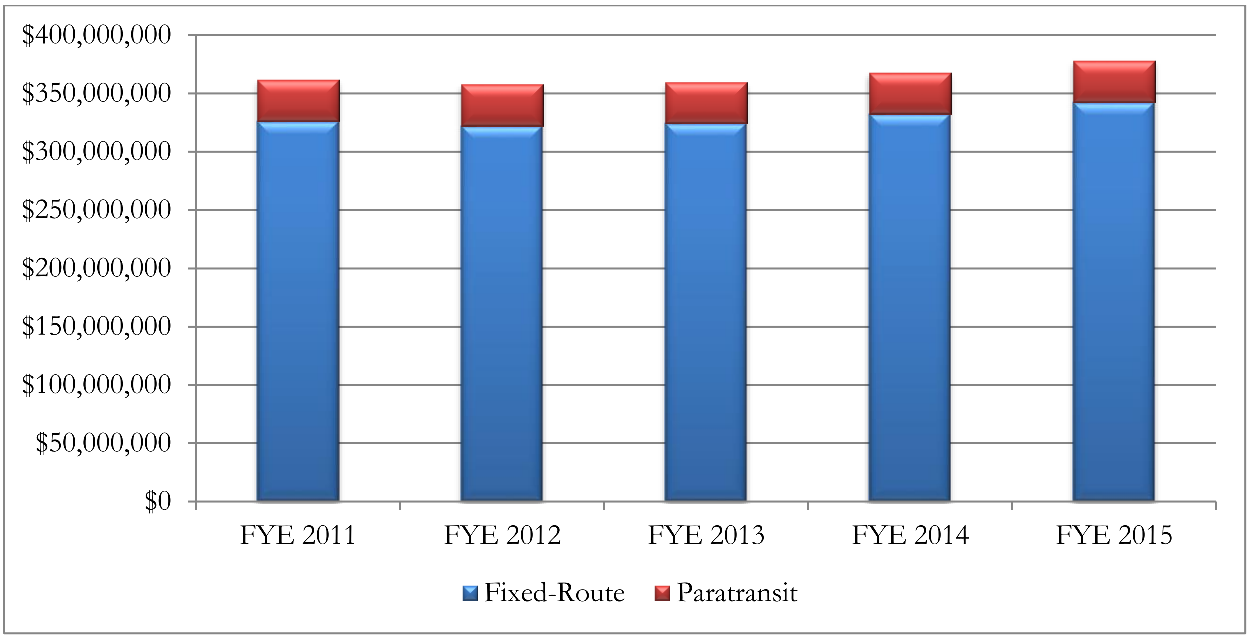
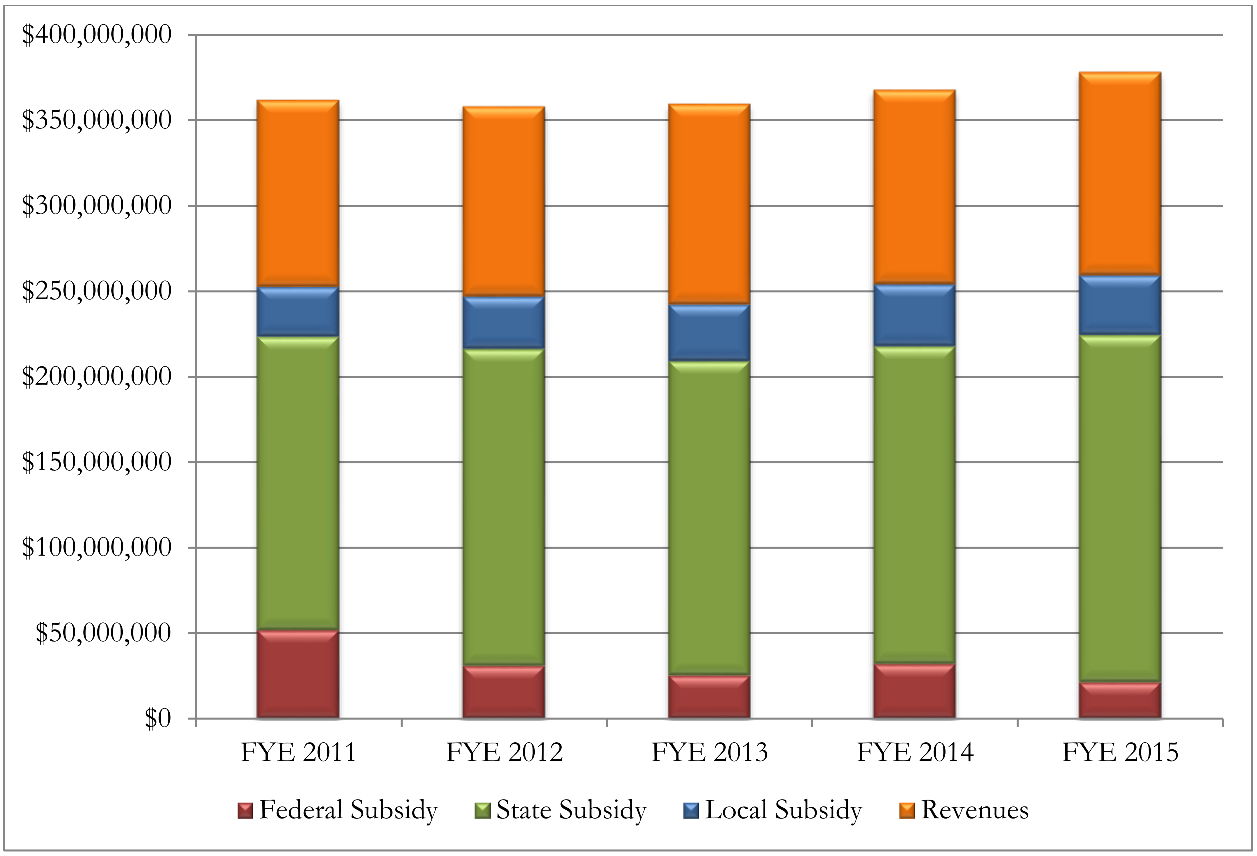


Exhibit 31: Percent of Total Public Transportation (Fixed-Route + Paratransit) Operating Budget by Funding Source

Share of Funding	2011	2012	2013	2014	2015
Federal Subsidy	14.3%	8.6%	7.0%	8.6%	5.6%
State Subsidy	47.5%	51.8%	51.2%	50.6%	53.7%
Local Subsidy	8.1%	8.5%	9.2%	9.9%	9.2%
Revenues	30.2%	31.0%	32.6%	30.9%	31.4%
Local Subsidy / State Subsidy	17.1%	16.5%	18.0%	19.5%	17.2%

Exhibit 32: Total Public Transportation (Fixed-Route + Paratransit) Operating Budget by Funding Source



Fixed-Route Funding

PAAC's fixed-route funding comes from general revenues and government subsidies. Direct passenger fares have covered between 23.7% and 25.2% of total operating revenues (**Exhibit 33**).

Based on FYE 2011-2015 dotGrants reporting, PAAC operated current year funding with $67,899,400 excess state funds being "carried over" as of FYE 2015.

Exhibit 33: Fixed-Route Funding

Funding Category	FYE 2011	FYE 2012	FYE 2013	FYE 2014	FYE 2015
Revenues					
Passenger Fares	$77,169,246	$79,150,494	$81,670,283	$80,315,851	$81,870,797
Advertising	$1,273,222	$1,362,831	$1,452,954	$1,535,890	$2,099,170
Route Guarantee	$7,406,908	$7,667,287	$8,091,319	$9,005,431	$9,841,502
Other (Misc Commissions)	$1,302,030	$1,098,096	$395,009	$504,956	$238,790
Other (Real Estate Income)	$0	$235,508	$237,364	$262,375	$246,517
Other (Concession, Parking)	$0	$0	$0	$0	$366,538
Other (Interest)	$9,641	$8,861	$0	$0	$0
Subtotal	**$87,161,047**	**$89,523,077**	**$91,846,929**	**$91,624,503**	**$94,663,314**
Subsidies					
Federal Operating Grant	$0	$0	$0	$0	$12,633,611
Act 44 (1513) State Prior	$0	$0	$0	$0	$0
Act 44 (1513) State Current	$150,221,302	$148,922,579	$131,756,198	$142,500,312	$195,389,881
Municipal Prior	$0	$0	$0	$0	$0
Municipal Current	$27,668,699	$27,668,700	$27,668,699	$29,168,699	$31,867,438
Act 3 PTAF Grant (State)	$0	$15,577,422	$0	$0	$0
Act 3 PTAF Grant (Local)	$0	$537,153	$0	$0	$0
Special (Federal)	$40,550,385	$19,369,706	$17,206,432	$22,149,505	$0
Special (State)	$19,195,130	$18,568,225	$50,668,810	$40,368,565	$4,955,666
Special (Local)	$1,168,039	$1,917,645	$5,123,021	$6,714,046	$2,952,544
Subtotal	**$238,803,555**	**$232,561,430**	**$232,423,160**	**$240,901,127**	**$247,799,140**

Total Funding	**$325,964,602**	**$322,084,507**	**$324,270,089**	**$332,525,630**	**$342,462,454**
Passenger Fares/ Total Funding	23.7%	24.6%	25.2%	24.2%	23.9%

Source: PennDOT dotGrants Reporting System

PARATRANSIT FUNDING

Paratransit funding is about 9.4% of PAAC's public transportation operation and consists of ADA complementary, shared-ride (Lottery) and other service. Local, state and federal subsidies as well as passenger fares help finance paratransit's operating costs (**Exhibit 34**). The paratransit program has decreased slightly from $35,732,593 as of FYE 2011 to $35,486,618 as of FYE 2015. The paratransit budget is small in proportion to PAAC's fixed-route budget.

Exhibit 34: Paratransit Funding by Source

Category	FYE 2011	FYE 2012	FYE 2013	FYE 2014	FYE 2015
Revenues					
Passenger Fares	$3,455,310	$3,596,149	$4,109,325	$4,182,497	$4,192,847
Advertising	$0	$0	$0	$0	$0
Lottery	$11,117,670	$11,900,227	$12,374,391	$12,102,955	$12,802,423
PwD Reimbursement	$0	$0	$0	$0	$1,217,634
AAA	$976,138	$996,664	$952,058	$958,661	$895,630
MATP	$4,041,328	$4,476,997	$4,499,965	$4,463,270	$3,756,847
Other	$3,015	$0	$0	$0	$0
Other- Various Agencies	$1,545,647	$662,475	$453,961	$396,212	$391,422
Other- Interest Income	$819,520	$0	$0	$0	$0
Other- Local	$0	$0	$2,879,881	$0	$0
Subtotal	**$21,958,628**	**$21,632,512**	**$25,269,581**	**$22,103,595**	**$23,256,803**
Subsidies					
Federal Operating Grant	$0	$0	$0	$0	$8,596,090
Act 44 (1513) State Prior	$0	$0	$0	$0	$0
Act 44 (1513) State Current	$0	$0	$0	$0	$702,956
Municipal Prior	$0	$0	$0	$0	$0
Municipal Current	$0	$0	$0	$0	$40,895
Special- (Federal)	$11,019,173	$11,427,373	$7,920,512	$9,649,191	$743,851
Special- (State) Capital Cost of Contracting State Share	$2,295,665	$2,380,708	$1,650,106	$3,091,346	$2,079,717
Special- (Local)	$459,127	$476,136	$330,021	$345,147	$69,306
Subtotal	**$13,377,965**	**$14,284,217**	**$9,900,639**	**$13,085,684**	**$12,232,815**
Total Funding	**$35,732,593**	**$35,916,729**	**$35,170,220**	**$35,189,279**	**$35,489,618**

Source: PennDOT dotGrants Reporting System

BALANCE SHEET FINDINGS

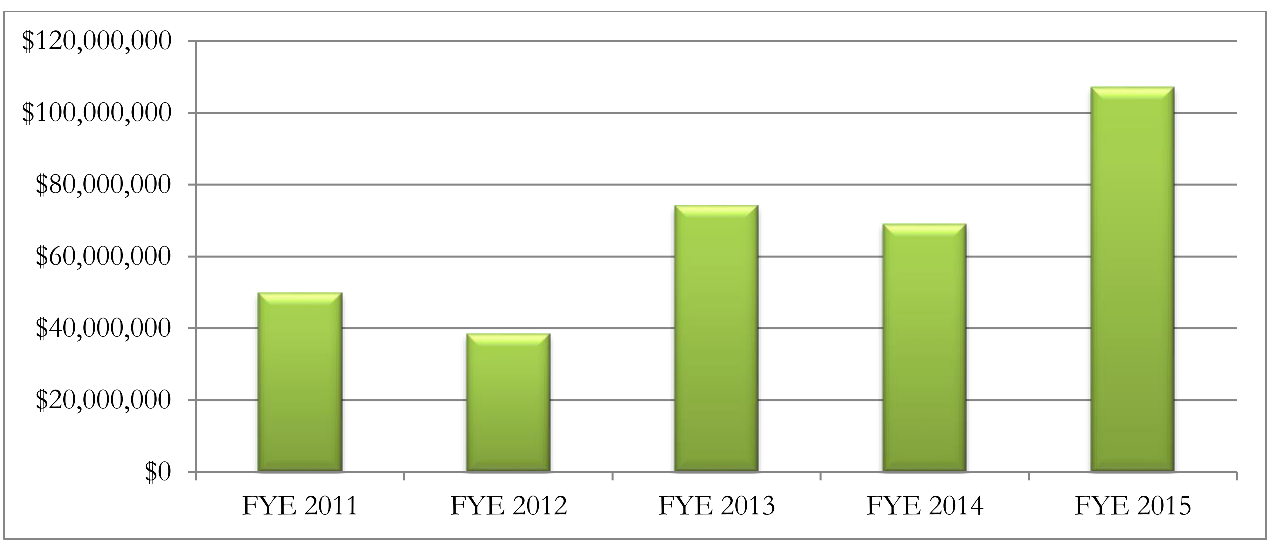
Review of balance sheets from PAAC shows that since FYE 2012, the agency has been growing its cash equivalent balance on hand (**Exhibit 35** and **Exhibit 36**). Net current assets reported as of FYE 2015 are slightly negative. However, deferred revenue of $82 million is included this amount. The margin between current assets and liabilities is similar to that seen in many other transit agencies in the Commonwealth. Accounts payable remains at low levels. PAAC does not maintain a line of credit.

Exhibit 35: Balance Sheet Summary (FYE 2011-2015)

Balance Sheet Report	FYE 2011	FYE 2012	FYE 2013	FYE 2014	FYE 2015
Current Assets					
Cash Equivalent Balance	$49,845,281	$38,409,805	$74,185,268	$69,008,743	$107,174,473
Grant Receivable (incl. capital)	$30,112,157	$20,155,230	$12,514,465	$16,175,486	$8,345,534
Other Accounts Receivable	$14,591,862	$17,009,336	$6,817,924	$19,468,114	$18,062,333
Restricted Assets: Cash	$16,993,595	$0	$0	$0	$0
Inventory Value	$9,901,537	$9,307,538	$9,773,367	$11,203,319	$12,230,853
Pre-paid Expenses	$334,614	$315,947	$383,264	$435,004	$1,007,297
Current Liabilities					
Accounts Payable	$36,194,699	$20,329,950	$18,183,696	$14,143,904	$20,487,416
Accrued Expenses	$5,174,697	$6,073,435	$4,464,847	$4,166,626	$3,870,001
Accrued Comp., benefits, etc.	$15,239,322	$15,856,234	$16,062,676	$16,563,676	$17,470,201
Deferred Revenue	$30,707,964	$18,893,015	$42,343,123	$62,451,720	$82,889,427
Reserve for Claims	$10,483,895	$9,846,735	$9,487,556	$7,400,458	$7,224,088
Current Maturities of Long-term Debt	$40,677,770	$24,636,046	$19,400,766	$17,497,858	$15,232,343
Line of Credit	$0	$0	$0	$0	$0
Total Operating Expense	**$361,697,195**	**$358,001,236**	**$359,440,309**	**$367,714,909**	**$377,952,072**
Cash Available / Annual Operating Expense	13.8%	10.7%	20.6%	18.8%	28.4%
Line of Credit / Annual Payroll	0.0%	0.0%	0.0%	0.0%	0.0%
Current Assets	$128,045,293	$92,976,698	$112,724,348	$121,312,501	$146,820,490
Current Liabilities	$138,478,347	$95,635,415	$109,942,664	$122,224,242	$147,173,476
Net Current Assets	**-$10,433,054**	**-$2,658,717**	**$2,781,684**	**-$911,741**	**-$352,986**

Source: Annual Audit Reports and dotGrants

Exhibit 36: End-of-Year Cash Balance (FYE 2011-2015)



FINANCIAL PROJECTIONS

All transit agencies in the Commonwealth that receive Section 1513 operating subsidies have been asked by PennDOT to develop a five-year projection of their operating and capital budgets. The purpose is to assess the relationship of planned service levels to operating budget projections, capital needs and available resources—federal and state subsidies which are expected to increase by no more than 3% per year. Projections are completed entirely by PAAC based on their own assumptions of future service levels as well as available operating and capital funding. At the time of this review, PAAC submitted a certified audit for FYE 2015. As a result, financial projections are reported from FYE 2016 through FYE 2019.

As shown in **Exhibit 37**, PAAC's projected operating budget assumes an average increase of 5.8% from FYE 2016 to FYE 2019, as compared to 1.8% from FYE 2012 to FYE 2015. As an urbanized area within the Southwestern Pennsylvania Commission (SPC), the 10-county Metropolitan Planning Organization (MPO) planning area, PAAC receives FTA 5307 funds for transit capital and operating assistance.

Exhibit 37: PAAC Projected Operating Budget Summary (FYE 2016-2019)

Operating Budget (in $ thousands) *	**FYE 2016**	**FYE 2017**	**FYE 2018**	**FYE 2019**
Total Operating Expense	$398,472	$426,051	$445,928	$471,572
Total Operating Revenue	$107,083	$111,064	$112,856	$114,733
Total Operating Deficit	$291,389	$314,987	$333,072	$356,839
Federal Subsidy	$23,611	$31,533	$31,805	$32,080
State Subsidy	$231,448	$232,715	$237,581	$240,348
Local Subsidy	$36,330	$39,027	$39,749	$40,156
Total Funding	$291,389	$303,275	$309,135	$312,584
Surplus/Deficit	$0	($11,712)	($23,937)	($44,255)
5307 Annual Allocation	$33	$33	$33	$33
5307 Available for Capital	$6,863	$13,529	$7,738	$6,172
Operating Costs Change from Previous Year	**5.4%**	**6.9%**	**4.7%**	**5.8%**

* Totals may not add due to rounding

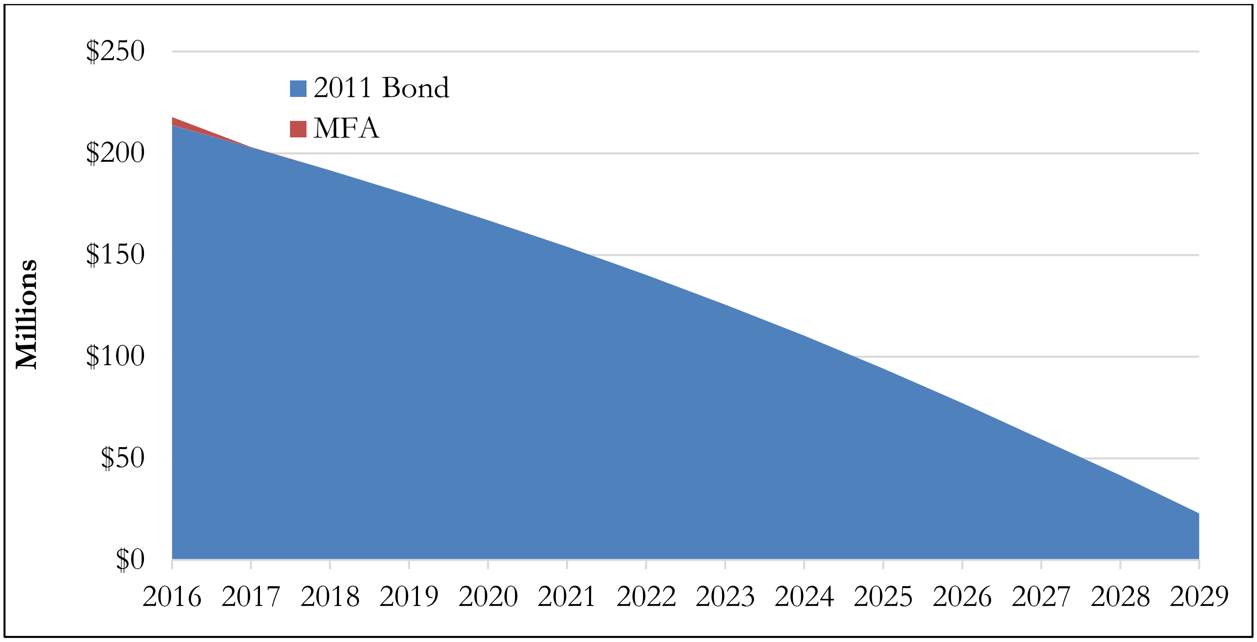
In FYE 2015, PAAC updated its 10-year Strategic Financial Plan (FYE 2015 - 2024) to forecast operations and capital spending based off initial funding estimates under Act 89. Under the plan, PAAC assumed modest revenue gains, referred in the plan as "efficiency gains," through increased ridership and fare increases, but does not consider fare structure changes (e.g., those programmed for January 2017), targeted marketing for ridership growth or expanded park-and-ride facilities within the base forecast. To maintain a sustainable 10-year financial plan, PAAC has proposed the use of Act 89 capital funding to satisfy operational deficits.

Under the 10-year Strategic Financial Plan, PAAC expects to increase service by 1.25% in FY 2016 and FY 2018. In order to accommodate future service increases, PAAC hopes to build a multi-fuel facility, capable of supporting CNG and diesel by FY 2019. PAAC does not currently have CNG vehicles or fueling stations, but is in the process of exploring a land purchase needed to build a dual fuel bus facility. PAAC maintains a vehicle overhaul program (VOH), and is in the process of expanding the VOH to include light-rail vehicle (LRV) overhaul as railcars continue to age.

DEBT MANAGEMENT PRACTICES AND TRENDS

A review of PAAC's outstanding debt and debt management shows $214 million in outstanding debt from bonds reissued in 2011. With these bonds reaching final maturity in 2029, PAAC has $304 million in remaining long-term debt service principal and interest payments, costing $22 million annually. Additionally, PAAC has debt from a master financing agreement (MFA) entered into in FY 2003 for bus purchases. As shown in **Exhibit 38**, PAAC will be free of all capital debt by 2029. The 2011 issuance, as executed, met the terms of a letter agreement between Treasury, PennDOT and PAAC not to extend the term of or incur any additional debt secured by PTAF subsidies. Series 2011 Bonds are not eligible for refunding until 2021. Management continues to monitor opportunities for advance refunding. However, to date, an escrow under current interest rates would result in negative arbitrage.

Exhibit 38: PAAC Long-term Debt Principal Payoff Schedule



Though PAAC lacks a formal Board adopted debt policy, it does have an administrative debt policy that covers key areas of debt management:

- Appropriate uses of debt types - long-term, leases, short-term, variable
- Variable rate debt limits
- Allowable purposes of refunding bonds
- Structural features
    - Final maturity limits
    - Level debt service structure
    - Avoidance of capitalized interest
    - Avoidance of back-loaded principal
    - Call options – not longer than 10 years
    - Appropriate use of credit enhancement
- Credit rating objectives
- Continuing disclosure guidelines

FINANCE AND ACCOUNTING PRACTICES AND TRENDS

The review of PAAC's finances focused on key elements of finance oversight including:

- Financial Organization;
- Internal and External Audits;
- Accounts Receivable/Payable/Trail Balance; and,
- Internal Controls/Risk Management.

A review of the finance department determined it has adequate staff relative to the agency's size, allowing for reasonable segregation of duties across all major accounting and finance functions.

PAAC conducts internal audits annually. PAAC prepares and the Board, following Senior Management review, adopts Internal Audit Work Plans every 18 months. Work Plans detail audit goals and objectives, the allocation of available auditor hours to complete identified audits and related review activities, status of findings from prior audits and risk assessment ratings.

External audits are scheduled annually at each fiscal year end (June 30th). A review of five fiscal years (FYE 2011 – 2015) confirmed all financial statements are presented on an accrual basis and that there were no major findings related to structure or content.

Accounts receivable and payable showed negligible amounts at year end for FYE 2011 – 2015. The review of the trail balance for FYE 2015 showed an extremely detailed chart of account methodology accompanied by a coding manual that provides definitions, assumptions and well-documented instructions. The review of fixed asset schedules concluded that these reports are not user friendly and make it difficult to track the maintenance cost of specific rolling stock assets. Management recognizes this shortcoming and will be looking for better solutions in future software procurements.

Examination of internal control documentation determined the following:

- Operating budget process is well documented and reasonable.
- Accounts payable responsibilities:
    - Accounts payable function lacks formal documentation of the protocols regarding how bills are received, reviewed and approved for payment.
    - Accounts receivable process is well-documented and reasonable.
    - Capital budget process is well-documented and reasonable.

A review of the PAAC organizational chart defines the following transactions functions:

- Purchasing approval limits
- Petty cash spending limits
- Employee expense report approval
- P-Card limits

In summary, PAAC's financial oversight appears adequate for an agency of its size. However, there are opportunities to better document accounts payable protocols.

CONCLUSIONS

Allegheny County and the Regional Asset District contribute local monies for PAAC's public transportation funding requirements. PAAC currently has a balanced operating budget. Operating cash reserves have steadily been increasing since FYE 2012. Management's cost containment efforts appear to be effectively addressing PAAC's high rate of fringe and legacy cost increases. Internally developed projections of service levels and budgets indicate that PAAC plans to maintain a balanced budget over the next five years. PAAC had $67,899,400 in Section 1513 carryover funds available and $4,779,180 in local carryover funds that are dedicated to capital matching funds for project in the pipeline, as of FYE 2015.

Consistent with the requirements of Act 89, PAAC has no plans to issue additional capital debt. PAAC has $214 million in outstanding capital debt that will be fully retired by 2029. Administrative debt management policies are appropriate.

A review of the finance and accounting practices concluded that the financial organization, audit practices, accounts management and internal controls are largely appropriate for an agency the size of PAAC. PAAC management will need to continue taking appropriate actions to control costs, achieve farebox recovery goals, and continue to build adequate cash reserves to maintain PAAC's overall financial health.

Appendix A: Action Plan Improvement Strategies

Part 1- Act 44 Performance Metric Findings Template

A. Actions to Increase Passengers / Revenue Hour Template

Recommendation From narrative starting on page 28	**PAAC Action**	**Estimated Initiation Date**	**Estimated Completion Date**
Refine service guidelines to include on-time performance (OTP) goals that vary depending on the headway of bus service offered along different routes			

B. Actions to Increase Operating Revenue / Revenue Hour Template

Recommendation From narrative starting on page 29	**PAAC Action**	**Estimated Initiation Date**	**Estimated Completion Date**
Assess feasibility of generating advertising revenues from the paratransit vehicle fleet			

C. ACTIONS TO REDUCE OR CONTAIN OPERATING COST / REVENUE HOUR TEMPLATE

Recommendation From narrative starting on page 30	**PAAC Action**	**Estimated Initiation Date**	**Estimated Completion Date**
Develop a target total number of maintenance employees per unit of service delivered (e.g., vehicles, miles, etc.)			
Establish and monitor targets for unscheduled overtime			
Evaluate the potential benefits and costs of strategically locating driver break facilities at various locations throughout its service area			
Perform a benefit cost analysis to assess the feasibility of outsourcing additional IT functions			
Develop a strategic IT plan			
Develop a target for annual parts turnover			
Build front-line management skills so supervisors/managers can leverage the workforce more effectively, eliminate recurring operational issues, and drive process improvements to reduce operating costs and enhance performance.			

PART 2- OTHER ACTIONS TO IMPROVE OVERALL PERFORMANCE TEMPLATE

Recommendation **From narrative starting on page 33**	**PAAC Action**	**Estimated Initiation Date**	**Estimated Completion Date**
Identify long-term (e.g., 10 year) strategies, that, when taken together, could work to achieve a "fiscally sustainable" business model to foster discourse.			
Continue to monitor debt / bond market for possible refinancing savings.			
Incorporate unmarked vehicles as one element of its road supervision strategy.			
Encourage ACCESS to conduct service delivery solicitations at least every 5 years and participate in a collaborative process with PAAC to determine the performance requirements of selected subcontractors			

APPENDIX B: ACT 44 INTERIM PERFORMANCE REVIEW (2019)

Act 44 requires PennDOT and Pennsylvania public transit agencies to establish five-year fixed-route performance targets. Setting performance targets and regularly reevaluating performance are intended to improve the effectiveness and efficiency of service delivery.

PennDOT conducted the initial review of the Port Authority of Allegheny County (d.b.a. PAAC and Port Authority) in September 2015 and issued its initial full Performance Report for PAAC in November 2016. The performance review focused on fixed-route bus and light rail services. PennDOT, in consultation with PAAC, established Act 44 mandated performance targets. In the spring of 2019, PennDOT conducted an interim performance review to assess if PAAC was on track to meet its Act 44 targets and to understand events that occurred between 2015 and 2019 that would impact its performance metrics. **Exhibit B1** shows PAAC's Act 44 performance targets and observed performance trends between 2015 and 2018.

Exhibit B1 PAAC Act 44 Performance Targets and Observed Performance Trends 2015-2018

Performance Criteria	2015 Actual	Average Annual Increase Performance Goal	Annual Average Actual Performance Trend 2015-2018
Fixed-Route Bus, Light Rail and Inclined Plane			
Passengers / RVH	37.18	2.0%	-2.8%
Operating Cost / RVH	$199.94	5.4%	1.2%
Operating Revenue / RVH	$55.27	2.0%	-1.7%
Operating Cost / Passenger	$5.38	3.4%	4.1%

2019 INTERIM REVIEW FINDINGS

Based on the assessment of the 2015-2018 data, PAAC is trending to fail to meet three performance targets. Unlike many systems in the country that have experienced significant ridership losses, PAAC's total fixed-route ridership declined only slightly between 2015 and 2018.

Cost-containment efforts since 2015 resulted in modest operating cost growth between 2015 and 2018. Operating revenue has not declined as much as ridership due to increased advertising revenue and investment income. Revenue hours have grown modestly since 2015. Some of this growth in revenue service is attributable to public and community requests to restore service eliminated by PAAC as it faced significant funding challenges before the passage of Act 89 of 2013. Increases in roadway congestion increased revenue service hours for some routes without any increase in passenger trips for those routes. PAAC implemented transit service guidelines following the passage of Act 89 that it uses to assess public requests for new or expanded service. The transit service guidelines consider efficiency, effectiveness, and equity measures. Service expansion requests are ranked and implemented on a fiscal year basis within budgetary limitations, with only a small portion of requests being implemented in some manner each fiscal year.

Based upon PAAC's FYE 2019 unaudited financial performance, PAAC has reversed several trends that occurred between 2015 and 2018. As shown in **Appendix B-1: PAAC Data Used in Performance Calculations**, the total number of passengers is up in FYE 2019 despite a late June 2018 flash flooding event and an August 2018 freight train derailment that adversely affected PAAC's delivery of revenue service. Fixed-route operating costs are up 6.1% from FYE 2018 to FYE 2019. Year-on-year revenues are down slightly. The cost savings resulting from changes to PAAC's collective bargaining agreement with its primary bargaining unit in 2012, and related changes to benefits implemented for non-represented employees and employees represented by PAAC's smaller bargaining units, are helping to slow the growth of operating cost increases, especially in the area of post-retirement healthcare costs. However, extraordinary expenses related to flooding and the derailment have contributed to cost increases. Strong stock market performance is helping offset some of PAAC's unfunded pension liability annual catchup payments, but pension expense is currently projected to increase over the next three to four years due to changes in actuarial funding requirements.

REVISED PERFORMANCE TARGETS

Several intervening events occurred between 2015 and 2019 that impact PAAC's ability to meet its Act 44 performance targets described in the 2016 Performance Report:

- PAAC changed from a zone-based fare structure to a systemwide flat-fare. With this change came anticipated short-term losses in revenue and ridership. Over the long-term, PAAC expects ridership and revenues to rebound and operations to be simplified.
- As numerous nationwide studies and reports have indicated, the continued growth and expansion of ride hailing services and other mobility options have adversely impacted transit ridership across the country and makes it more challenging for public transit agencies such as PAAC to grow ridership.
- The additional state 1513 subsidies to PAAC, resulting from Act 89 of 2013, have permitted the reintroduction of some fixed-route service eliminated before 2013. PAAC added back fixed-route service on a limited basis under PAAC's transit service guidelines. Though productive, this expanded service lowers average productivity because it is not as productive as the systemwide average. Additionally, increases in congestion increased PAAC's revenue service hours for some routes without any increase in passenger trips for those routes.
- The Downtown to North Shore portion of PAAC's light rail system is still fare-free despite the loss of a portion of funding from sponsors. Management intends to review the remaining funding sponsorship agreement and the overall free-fare structure as part of a broader review of Port Authority's fare policy and fare structure in FYE 2020.
- PAAC incurred $4.7 million in extraordinary expenses related to rail flooding, rail derailment and one flooding incident at the inclined plane.

Based upon the above-noted factors and trends that have materially changed PAAC's passenger and operating revenue environment since 2015, PennDOT and PAAC management concur that revised Act 44 performance targets are warranted. Based on PAAC's unaudited FYE 2019 performance, PAAC's future year fixed-route performance targets are now revised, as shown in **Exhibit B2**.

Exhibit B2 Revised PAAC Systemwide Fixed-Route Performance Targets

Act 44 Metrics	Passengers / RVH	Revenue / RVH	Operating Cost / RVH	Operating Cost / Passenger
FYE 2018	34.19	$52.61	$207.50	$6.07
FYE 2019	35.06	$52.97	$223.50	$6.38
Change FYE 2019 v. 2018	**2.52%**	**0.68%**	**7.71%**	**5.06%**
Annual Performance Goal	2.00%	2.00%	5.40%	3.40%
FYE 2020 Target	**35.76**	**$54.02**	**$235.57**	**$6.59**
FYE 2021 Target	**36.47**	**$55.10**	**$248.29**	**$6.82**
FYE 2022 Target	**37.20**	**$56.21**	**$261.70**	**$7.05**
FYE 2023 Target	**37.95**	**$57.33**	**$275.83**	**$7.29**
FYE 2024 Target	**38.71**	**$58.48**	**$290.72**	**$7.54**

APPENDIX B-1: PAAC DATA USED IN PERFORMANCE CALCULATIONS

2018 Observed[17]

DATE	Fixed-Route Only FYE 2018			
	Passengers	RVH	Operating Cost	Revenue
July 2017	4,856,292	147,464		
August 2017	5,417,784	157,999		
September 2017	5,455,154	146,327		
October 2017	5,677,278	154,337		
November 2017	5,135,243	149,103		
December 2017	4,563,334	149,176		
January 2018	4,877,740	155,414		
February 2018	4,913,835	141,167		
March 2018	5,247,569	156,193		
April 2018	5,299,755	149,691		
May 2018	5,441,432	155,707	$341,973,443	$87,341,256
June 2018	5,114,178	150,569	$34,250,899	$8,044,761
12 Month Total	**61,999,594**	**1,813,147**	**$376,224,342**	**$95,386,017**

2019 Estimated

DATE	11 Month Fixed-Route Only FYE 2019			
	Passengers	RVH	Operating Cost	Revenue
July 2018	5,094,293	149,302		
August 2018	5,494,121	156,385		
September 2018	5,408,378	140,132		
October 2018	6,046,864	157,557		
November 2018	5,150,811	146,916		
December 2018	4,704,022	146,533		
January 2019	4,967,592	150,994		
February 2019	4,919,074	139,343		
March 2019	5,143,247	151,408		
April 2019	5,390,158	151,653		
May 2019	5,394,090	150,586	$354,763,584	$87,166,709
June 2019 Unaudited	4,897,772	145,144	$44,394,326	$7,426,312
12 Month Total	**62,610,422**	**1,785,953**	**$399,157,910**	**$94,593,021**
12 Month YoY Change	1.0%	-1.5%	6.1%	-0.8%

[17] Year-to-date observed operating costs and revenues through June of FYE 2018 and May of FYE 2019 were derived from management reports to the PAAC Board and June 2019 was derived from PAAC's unaudited financial results for the month. Monthly ridership and revenue hours were provided by PAAC staff.

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