



### Port Authority's light-rail costs near the top nationally

**Overview:** A recent *Policy Brief* (Vol. 22, No. 14) analyzed the Port Authority's light-rail system with emphasis on the North Shore Connector. This *Brief* compares the authority's operating expense per vehicle revenue hour with other systems in the United States in the year before COVID.

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The National Transit Database (NTD) defines light-rail as “a transit mode that typically is an electric railway with a light volume traffic capacity [with] passenger rail cars operating...on fixed rails in shared or exclusive right-of-way.”

Based on the NTD's “Transit Profiles: 2019 Top 50 Reporters” (ranked by the number of unlinked trips on all transit modes offered by an agency) there are 19 mass-transit agencies in the U.S. that operated light-rail.

Included in the group was the Port Authority of Allegheny County (PAAC). There were 7.2 million unlinked light-rail trips taken, which ranked the agency fourth from the bottom. For the group, the range was just under 60 million in Los Angeles to 1.5 million in Cleveland. Eleven percent of all mass transit trips provided by PAAC were on light-rail; only Newark, Baltimore and Cleveland were lower.

#### *Operating expense per vehicle hour*

In *Policy Brief Vol. 18, No.13* it was noted “operating expense per revenue hour should be considered the best cost measure since that is the fundamental cost of providing the service.” On bus service, PAAC was much higher than the average for a peer group of five agencies.

In order to replicate the comparison for light-rail, operating expense per vehicle revenue hour is shown in the table below for the 19 agencies. It ranged from \$695.47 in Newark to \$168.59 in Denver. The average for the 18 systems other than PAAC was \$339.48.

### Light-Rail Operating Expense per Vehicle Revenue Hour, 2019

City	Authority/Agency/District	OE/AVRH	City	Authority/Agency/District	OE/AVRH
Newark	New Jersey Transit Corporation	\$695.47	Cleveland	Greater Cleveland Regional Transit Authority	\$309.23
San Jose	Santa Clara Valley Transit Authority	\$573.35	Boston	Massachusetts Bay Transportation Authority	\$292.10
Los Angeles	Los Angeles County Metro Transportation Authority	\$515.13	Houston	Metro Transit Authority of Harris County	\$285.37
Seattle	Central Puget Sound Regional Transit Authority	\$494.10	Portland	Tri County Metro Transportation District	\$261.13
Pittsburgh	Port Authority of Allegheny County	\$422.80	Charlotte	Charlotte Area Transit System	\$252.22
Dallas	Dallas Area Rapid Transit	\$388.46	Salt Lake	Utah Transit Authority	\$194.60
San Francisco	San Francisco Municipal Transportation Agency	\$358.09	Minneapolis	Metro Transit	\$181.61
St. Louis	Bi State Development Agency	\$327.83	San Diego	San Diego Metro Transit System	\$177.41
Buffalo	Niagara Frontier Transportation Authority	\$326.80	Denver	Denver Regional Transportation District	\$168.59
Baltimore	Maryland Transit Administration	\$309.31		<b>18 System Average (not including PAAC)</b>	<b>\$339.48</b>

PAAC's \$422.80 ranked fifth highest of the group. It was 9 percent higher than the next closest agency and 25 percent higher than the group average. It was 54 percent higher than the average \$273.77 for the 14 agencies with a lower operating expense per vehicle revenue hour.

Systems in Salt Lake City, Minneapolis, San Diego and Denver had an operating expense per hour that was less than half of PAAC's.

If PAAC was able to operate at the group average on a per vehicle hour basis it would result in savings of \$14 million per year of its \$71.1 million in light-rail operating expenses. Even more dramatic savings of \$25 million of the \$71.1 could be achieved if PAAC operated at the average cost of the 14 less expensive systems.

Looking closely at the components of total operating expenses for all modes of transit provided by an agency—labor, materials and supplies, purchased transportation and other operating expenses—there were five agencies where labor represented over 70 percent. PAAC was one of the five at 74.1 percent. It was exceeded only by agencies in Minneapolis (77.9 percent), San Francisco (76.8 percent) and Cleveland (74.8 percent). If the overall labor expense percentage of 74.1 percent was applied to PAAC's \$71.1 million in light-rail operating expenses, the labor expense would be \$52.7 million that year. For the 11 agencies with a lower operating cost per vehicle revenue hour than PAAC and also had a labor cost lower than 70 percent of total operating expenses, the average labor cost was a dramatically lower 55 percent of total.

Much like PAAC's 2016 performance review performed by the Pennsylvania Department of Transportation (PennDOT) as required by Act 44 of 2007, PAAC was lower on operating expense per vehicle revenue hour than the system in San Jose but higher than those in Baltimore, Cleveland, Minneapolis and St. Louis.

Moreover, it would be reasonable to assume that the cost of living difference among the cities would be correlated to light rail operating expenses. However, that is not the case.

Using the Bureau of Economic Analysis' Regional Price Parities (RPP) State and Metro Area Index which assigns a value of 100 to the U.S. it is possible to evaluate the assumption that light rail cost and cost of living in the cities are correlated. The Pittsburgh Metropolitan Statistical Area (MSA) had an RPP of 95.4 and ranked 155<sup>th</sup> out of 384 MSAs surveyed. The four agencies that had a higher operating expense per vehicle revenue hour than PAAC had a higher RPP with an average of 111.9.

However, there were 10 agencies—including those in Dallas, Baltimore, Minneapolis and Denver—with a higher RPP than Pittsburgh (average of 102.98) but lower operating expense per vehicle revenue hour. There were five MSAs where the RPP was quite close to Pittsburgh's and had lower operating expense per vehicle revenue hour measure.

### *Managing costs*

The Act 44 performance review stated that “to some extent, costs should be managed through good governance, proactive management and effective cost containment.” PAAC's 2021 service report noted its high light-rail costs (per passenger served) and attributed it to “comparatively high operator and maintenance employee wages and benefits, high maintenance costs ... and closely spaced stations which cause the rail to travel at lower speeds.” The report stated studies were underway to come up with solutions to lower costs. It is not known when the findings will be delivered or if any steps will be taken to lower costs.

That's very important to keep in mind as the PAAC administration negotiates a new labor agreement with its largest transit union in the coming months. To date there have been no layoffs or furloughs related to service being provided despite falling ridership throughout the pandemic. Average weekday light-rail ridership in February was a stunning 79 percent lower than in February 2019.

### *Conclusion*

PAAC has forecast how long federal stimulus money will last and that depends on how ridership recovers. PAAC has also acknowledged that state funding is entering a period of uncertainty with payments from the Turnpike Commission to PennDOT dropping significantly.

That has not dissuaded talk of extending the light-rail system from where it currently ends on the North Shore. In the same year when PAAC received a full-funding grant agreement from the federal government for the North Shore Connector, systems in Denver, Dallas, Newark, Los Angeles and Seattle also received funding for projects. The connector's cost per mile was much higher than the other projects, and that was before the final price tag.

A finite amount of federal stimulus money, a major change in state subsidy and local tax levies on alcohol and vehicle rentals that have been affected by the pandemic are all

factors affecting future PAAC revenue. This a prime opportunity for PAAC to enact long overdue reforms to reduce or at least slow the rise in operations costs.

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