

The North Shore Connector turns 10: a look back and a look ahead

Summary: On March 25, 2012, the Port Authority’s North Shore Connector, the 1.2 mile-extension of the light-rail system under the Allegheny River from Downtown to the North Shore, began service. Allegheny Institute research analyzed the construction, escalating estimates and questionable benefits of the connector.

The connector’s history

“There [are] very serious questions about the North Shore Connector: Can we afford this project? Where are the estimates of economic benefits to justify such outlandish expenditures? Surely we cannot afford to waste valuable resources when the region’s other transportation needs are much more pressing.” Allegheny Institute *Policy Brief Vol. 1, No. 16*

That 2001 *Brief* raised questions that persist to this day. As documented in subsequent *Briefs*, the connector’s cost grew from \$363 million (June 2005) to \$393 million (August 2005) to \$435 million (July 2006, the amount at which the project received a full-funding grant agreement from the federal government) to \$553 million (January 2009) before finally settling at \$517 million when it opened for service. And that’s after lopping off the “spine line” to the David L. Lawrence Convention Center, perhaps the only justifiable part of the project.

The connector received 80 percent of its funding from the federal government, and there was a strong “use-it-or-lose-it” rationale locally when the connector proceeded in the face of the escalating estimates.

A 2016 Federal Transit Administration (FTA) “Before-and-After Study” on the connector stated “under-estimates of project costs were a persistent problem throughout the development of the North Shore Connector.” The study chronicled how components of the connector were dropped at various stages; that 0.3 mile leg to the convention center, a third station on the North Shore and additional light-rail vehicles. The convention center leg was where much of the population and, thus, projected ridership, was to be drawn. Its

elimination affected the “ridership numbers and the attractiveness of the project” according to *Policy Brief Vol. 6, No. 7*.

Arguments for the connector made by proponents included serving workers commuting to the North Shore; improving linkages to recreational, cultural and civic facilities; spurring development on the North Shore and providing the jumping off point for light rail extensions to other parts of the county.

As Institute research pointed out, the cost per rider for the first 20 years of operations, taking into account operating and capital costs, was an estimated \$15 to \$20. The connector gained national attention in 2010 as it was highlighted by two U.S. senators as the third-most-offensive use of federal stimulus spending.

Not long before opening it was announced that the Port Authority had secured agreements with four sponsors to provide free rides to and from the two new stations on the North Shore to the four stations Downtown. Officials touted the possibility that naming rights for the stations might be sold. As of today, an agreement to continue free rides from one station through March 2024 has been proposed; the station names are unchanged.

In *Policy Brief Vol. 12, No. 17* indicators in the fiscal year preceding the connector’s opening (July 1, 2010, to June 30, 2011) were 6.9 million unlinked light-rail trips and light-rail operating expenses of \$48.1 million, resulting in an operating expense per unlinked trip of \$6.96. In addition, there were 141,356 light rail vehicle revenue hours driven that year, resulting in an operating expense per hour of \$340.58.

Performance after the connector’s opening

In the first full fiscal year following the opening of the connector (FY2012-13), operating expenses fell, unlinked trips and vehicle hours rose. As a result, the operating expense per trip and per hour fell from FY2011-12 to their lowest point.

In the years after FY2012-13, operating expenses rose each year. Unlinked trips rose twice, vehicle hours did so four times. If all trips above the 6.9 million in FY2010-11 are attributed to the connector, FY2015-16 would be the year in which there was the biggest net gain, 1.2 million trips. In the last year pre-COVID, the number of unlinked light-rail trips were around 245,000 greater than before the connector opened. Operating expense per unlinked trip rose each year and was an astounding \$12.48 in FY2019-20. So, too, did operating expense per hour, reaching \$468.39 in that same fiscal year.

Light-Rail Trips and Expenses, FY2010-11 to FY2019-20

Fiscal Year	Operating Expenses	Annual Unlinked Trips	Annual Vehicle Revenue Hours	Operating Expense/Trip	Operating Expense/Hour
2010-11	\$48,143,059	6,918,141	141,356	\$6.96	\$340.58
2011-12	\$52,043,343	7,130,433	148,150	\$7.30	\$351.29
2012-13	\$51,528,512	8,032,051	159,005	\$6.42	\$324.07
2013-14	\$53,118,488	7,937,544	161,261	\$6.69	\$329.39
2014-15	\$55,717,989	8,047,976	168,181	\$6.92	\$331.30
2015-16	\$60,301,731	8,132,130	170,551	\$7.42	\$353.57
2016-17	\$62,950,866	7,759,217	169,646	\$8.11	\$371.07
2017-18	\$66,793,023	7,655,539	170,363	\$8.72	\$392.06
2018-19	\$71,102,939	7,162,790	168,173	\$9.93	\$422.80
2019-20	\$69,544,802	5,572,417	148,477	\$12.48	\$468.39

That’s systemwide. How many light-rail riders are using the connector segment? The 2016 FTA study stated “actual ridership on the North Shore Connector in March 2016 was 11,100 trips per average weekday. Of this total, 7,400 were made to jobs, shopping, and other activities in downtown Pittsburgh.”

The study also stated “another 1,500 trips were made to jobs, education, entertainment, and other activities on the North Shore. These trips originated throughout areas to the south of the Allegheny River.” As a share of the 11,100 trips, 64 percent were home to work, 22 percent home to non-work and 14 percent non-home to non-home. Based on that data, 67 percent of the trips were within the “free fare zone.”

To date, neither the FTA nor the Port Authority has replicated the connector ridership survey. There is plenty of data for years 2017 through 2020 on the Port Authority’s website on ridership (referred to as “ons” and “offs”) at the two stations added on the North Shore, but not where those trips originated or ended. Is ridership to Downtown still around 67 percent as it was in March 2016? What about weekend rides? And how would ridership be affected if a fare were eventually added and what would that do for the authority’s finances?

As a way of producing an estimate based on reasonable assumptions, Port Authority audits contain data on free ridership for light-rail, which in FY2018-19 was 2,014,557 trips. Assuming that all of those trips averaged one mile in length, and almost all took place between one of the stations on the North Side and one in Downtown, using the FY2018-19 operating expense per passenger mile for Port Authority light rail of \$2.46 from the National Transit Database, the cost of providing free rides would be close to \$5 million. That represents 7 percent of light rail operating expenses that year. This cost has been minimally offset by the sponsorships. The rides are free to the rider, but taxpayers are paying for the labor, maintenance, utilities, etc. associated with the free trips.

Looking forward

The FTA study concluded with the statement that “Port Authority predicted that 14,300 trips would use the North Shore Connector in 2025.” This forecast depended on various factors: the continuation of the “free fare zone”; the downtown economy; North Shore development; funding to maintain service; gas prices and other factors. Can anyone say today that any of these components have a clear future, including the “free fare zone”, especially in light of the effect that COVID had on ridership? The latest data on average weekday trips for February 2022 show overall light-rail ridership is 79 percent lower than it was in February 2019.

In 2010, the engineer in charge of the connector’s construction said "our hope is that 20, 30 years down the road people will say ‘I don’t know what the controversy was about.’" Twelve years after the engineer’s comment, have people forgotten about what went into the expensive project? Will they forget about the connector cost overruns? It is doubtful that in 2012 many knew there would be a bus rapid-transit project underway across the river. That project has one-half the price tag of the connector with 44 percent of the funding put up by the federal government. What could be in store during the next 10 years?

Eric Montarti, Research Director

Jake Haulk, Ph.D., President-emeritus

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Allegheny Institute for Public Policy
305 Mt. Lebanon Blvd.* Suite 208* Pittsburgh PA 15234
Phone (412) 440-0079
E-mail: aipp@alleghenyinstitute.org
Website: www.alleghenyinstitute.org
Twitter: [AlleghenyInst1](https://twitter.com/AlleghenyInst1)