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More on the PA Turnpike and Mon Fayette Expressway

Summary: An earlier *Policy Brief* found the case for building the Turnpike extension from Route 51 to I-376 in Monroeville to be unpersuasive. Analysis of additional, updated information for the Mon Fayette Expressway, the other two completed toll roads in Southwest PA and the Turnpike system makes an even stronger case against building the extension.

An April *Policy Brief (Volume 17, Number 17)* laid out the case against spending ***nearly $2 billion*** on the proposed 13 mile Turnpike (PA 43) link from Route 51 to the Parkway East at Monroeville. The current 48 miles of the Mon Fayette toll road extending from Route 51 in Jefferson Hills Borough to the West Virginia border cost ***$1.69 billion***, half of that was for the 17 mile segment between Uniontown and Brownsville—the last segment completed and opened in 2012.

The unanswered question at the time the April *Brief* was written was how the Mon Fayette Expressway (MFE) and the other local Turnpike connectors have been performing. Thanks to Right-to-Know provisions, data for the past eleven years for vehicle traffic and toll revenue for the Beaver Valley Expressway (PA 60), Mon Fayette (PA 43) and Amos Hutchinson (PA 66) in Westmoreland County have been compiled and delivered by the Turnpike Commission.

As background, it is useful to note the completion dates for these roads. Beaver Valley was completed in 1992; Amos Hutchinson was finished in 1993. The 48 miles of MFE was completed in five phases—1st in 1990, 2nd in 2000, 3rd in 2001, 4th in 2002 and the 5th in two stages in 2008 and 2012. Thus, the first two fully completed roads have been in existence for 24 and 25 years, certainly long enough for traffic usage patterns to be developed. For the MFE, traffic has grown over time as new phases opened including a near 20 percent bump up since the 2012 completion of the 5th phase.

Unfortunately, traffic on the Beaver Valley Expressway (BVE) peaked in 2008 at 8,601,180 vehicles. In 2016 traffic was 7,695,911, down 10.5 percent from the peak level. However, toll revenue rose 69 percent from 2008 to 2016 even with the decline in traffic volume. Most of the rise in revenue is attributable to ongoing toll rate hikes over the period although some of it could be due to a higher percentage of trucks (which payer higher tolls) using the road. The data supplied by the Turnpike Commission does not break out vehicle volume by type of vehicle.

Vehicle count on Amos Hutchison jumped by nearly 3,000,000 to 7.8 million between 2006 and 2008. However since 2008, traffic has been fairly flat with some slight growth up to 2011 followed since by a slow year by year decline back to the 2008 level. Notwithstanding the lack of

a gain in net traffic volume over the 2008 to 2016 period, toll revenue jumped by 68 percent. Toll rate increases account for most of this boost in toll collections.

For each of these toll roads, it appears likely that continuous hikes in toll costs have had a chilling effect on traffic volume growth.

For the MFE, traffic climbed steadily between 2006 and 2011, rising about 2 million to 10.7 million vehicles. With the 2012 opening of the link between Uniontown and Brownsville that permits uninterrupted travel from Route 51 to the West Virginia border, traffic has climbed 30 percent above the 2011 level, reaching 13.96 million. Toll collections climbed 187 percent from 2008 to 2016 to accompany a 53 percent rise in traffic. The big gap between traffic and collections reflects the ongoing rise in toll rates as well as the undoubted lengthening of the average trip following the final segment completion that allows end to end travel with the accompanying higher toll charges per trip. In this regard, note that toll revenue per vehicle rose from $0.82 in 2008 to $1.54 per vehicle in 2016, an increase of 88 percent attributable to both higher toll rates and longer trips following the opening of the "missing" connecting link.

Bear in mind that the $7 million increase in annual toll revenue on the MFE since 2012 must be viewed in the context of rising toll rates and the fact that the connecting final link cost $849 million. Indeed, this finding prompts a series of questions about how well the Southwest Turnpike highways are doing compared to the rest of the Turnpike system.

Several measures will be used to compare the performance of these elements of the PA Turnpike system including; revenue per vehicle, revenue per mile of road, share of Southwest road mileage as a percent of total system, and share of revenue as percent of total.

By way of background, using data from the Turnpike's 2016 Comprehensive Annual Financial Report, it is learned that in 2016 the PA Turnpike system consisted of 552 miles of completed roadway, had $1.031 billion in toll revenue from 198.3 million vehicles—171 million cars and 27.3 million commercial vehicles. The Turnpike also has bond debt of over $11.7 billion, had $471 million expenditures on operating services and debt payments of $574.7 million.

The Turnpike employed 2,068 people in 2016 with salaries and wages of $161 million and employee benefits of $118 million—an average of $57,000 in benefits per active employee. With the borrowing required for its own capital needs and the $450 million or so borrowed annually to cover a mandated transfer to the Department of Transportation, the Turnpike moved to a cumulative net negative position of $4.6 billion in 2016.

The three Southwest Turnpike (excluding the Southern Beltway) toll roads have a combined 77 miles of highway and in 2016 collected a combined $47.2 million from 29.4 million vehicles. Thus, the Southwest toll roads account for 14 percent of total system miles, 4.6 percent of all Turnpike toll revenue and 14.8 percent of vehicles using the system.

Individually, the MFE accounts for 8.7 percent of Turnpike mileage but only 2.1 percent of total system revenue. The BVE represents 2.9 percent of mileage and 1.2 percent of PA system revenue and finally, PA 66 has 2.4 percent of system miles and 1.4 percent of system revenue.

Total Turnpike system revenue per vehicle in fiscal 2016 was $5.20—with cars at $3.44 and commercial vehicles at $16.26. In the Southwest, revenue per vehicle in 2016 ranged from $1.54 on MFE, to $1.59 on the BVE to a high of $1.87 on PA 66. Although, the data provided by the Turnpike Commission for the Southwest roads did not include total miles driven or the breakout

of type of vehicle it is almost a certainty that the lower collection rates per vehicle in the Southwest compared to the system total are due to both shorter trips and much lower use by commercial vehicles. Note that the average car trip system wide was 27 miles and commercial vehicle 45 miles. The BVE is only 16 miles in length and PA 66 only 13 miles. Trips on those roads could not possibly come close to the system average trip lengths.

Revenue per mile of toll road provides an interesting comparison. For the Turnpike system excluding the three Southwest toll roads in 2016, toll collections were $2.1 million per mile of highway. MFE toll collection per mile was $447,916; BVE revenue per mile was $762,500 and PA 66 had $1.12 million per mile.

Thus, neither of the three Southwest Turnpike highways came close to the rest of the Turnpike system in terms of revenue per mile of road with MFE collecting less than a fourth as much as the rest the system.

Finally, the cost of construction of the three Southwest toll roads is instructive. The BVE cost $15 million per mile and was completed in 1992; PA 66 cost $20.5 million per mile and was opened in 1993. The 48 miles of MFE were completed in stages over a 24 year period of construction at an average cost of $35 million per mile. The last stages completed in 2008 and 2012 cost $50 million per mile. At a capital cost of five percent, that segment would have to produce $42 million in revenue ($2.5 million per mile or five times the current MFE average) in order to justify its construction on a cost-revenue (benefit) analysis of the road.

In sum, the increasing cost of construction on MFE has far outpaced both traffic and revenue collected. The proposed thirteen miles of extension from Route 51 to I-376 are projected to cost nearly $2 billion, a figure that is almost certain to rise during an actual multi-year construction project. That would represent $150 million per mile in cost, triple the per-mile cost of the last 17 miles of MFE completed. The extension would need to produce $78 million in toll collections annually to justify the construction costs on a cost-revenue basis—that is $6 million per mile, three times what the Turnpike system currently generates. And the $78 million does not include the annual costs for maintenance, toll collections and administration.

To justify this proposed thirteen mile extension, the proponents need to show with rigorous and credible analysis that the projected vehicle usage, projected toll revenue and economic impact on the community would be sufficient to warrant the massive use of tax dollars from the wholesale fuel tax for the project. There are presumably far more productive optional uses of the funds. If not, why not simply roll back the tax and give consumers across the state a break from the extraordinarily high gasoline prices the tax is creating in Pennsylvania? Those higher fuel prices and the escalating tolls that are necessary to fund Turnpike borrowing that supports public transportation are almost certainly having a negative impact on the state's economy.

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