

POLICY NOTES

Sound Transit Light Rail Should be Rated "Not Recommended" 03-14 by John S. Niles

Federal, state, and local officials who support Sound Transit's \$2.4 billion dollar plan to build a 14-mile light rail starter line from downtown Seattle to Tukwila frequently trumpet its "highly recommended" rating. For example, one elected official declared on July 24 that light rail in Seattle "will help solve the region's transportation mess and is 'highly recommended' for federal transportation dollars." The rating is based on data submitted by Sound Transit to the Federal Transit Administration (FTA) New Starts funding program.

However, close examination reveals that Sound Transit and FTA are using tainted information to make the Seattle light rail project look far better than it really is: Sound Transit light rail should actually be rated "not recommended."

FTA relies on data submitted by local agencies like Sound Transit to help decide which construction projects get federal funding. The ratings are then reported to Congress. A project rating of at least "recommended" is needed for federal grant approval, although it is not a guarantee of funding. A rating of "not recommended" means no New Starts money will be made available, and usually prompts a local transit agency to redesign or drop a proposed project entirely.

In other words, if Sound Transit light rail were rated "not recommended," as it should be, that would be a project stopper. This rating would foreclose federal funding for the first phase of an unrealistic 24-mile, seven billiondollar system, the most expensive light rail project ever served up in America. Congress would then have the opportunity to send Sound Transit back to the drawing board, and shift the \$409 million remaining in the grant allocation to more deserving projects.

Sound Transit has been able to produce the "highly recommended" rating for its light rail by manipulating the data and calculations that stand behind a measure called "transportation system user benefit." In order to explain this output from a complex computer model of 2020 travel behavior, FTA approximates this measure with traveler time savings.

Under FTA rules, to obtain federal funding the high cost of Sound Transit light rail must be justified by forecasting significant doorto-door time savings for all regional travelers, compared to the same person traveling by improved bus service. The greater the average time savings that can be shown for rail service compared with a strong bus alternative, the higher a new project is rated for costeffectiveness.

In 1999, before multi-billion dollar light rail cost overruns were revealed, Sound Transit calculated that average travel time savings would be at most seven minutes per trip for light rail versus an all-bus system. However, by 2001, when a more affordable and lower performing light rail initial segment was selected, Sound Transit downgraded the design and performance of the all-bus alternative. The scaled-down Initial Segment rail plan still came out looking good compared with a low-performing all-bus alternative. This makes light rail appear more attractive in the federal project rating.

In February 2003, the Sound Transit section of the FTA New Starts Report to Congress provided data based on the new, lowerperforming, all-bus baseline. It yielded the "highly recommended" rating for Sound Transit light rail. The average time saving per light rail rider per day in 2020 now computes as 22 minutes, three times the previous estimate of seven minutes. (This can be derived from the Cost per Transportation System User Benefit of \$16.27, a cost-effectiveness measure.) The claimed 22-minute savings is confirmed by its correlation with the assertion from the FTA Administrator in a July 11, 2003 letter to members of Congress that "the daily travel time savings for the projected 42,000 daily light rail commuters will be equivalent to nearly three work-weeks each year."

At best, the jump claimed by Sound Transit in the rail-over-bus time savings from seven minutes to 22 minutes is a technical error not caught by FTA. At worst, it is the result of collaboration between FTA and Sound Transit that bypassed Congress' responsibility to protect taxpayers from wasteful and fraudulent spending.

Either way, the new 22 minute savings allocated to each train rider is crucial to Sound Transit's "highly recommended" project rating. If the 22 minutes were reduced to the sevenminute average savings estimated earlier, "costeffectiveness" and "mobility improvement" measures for the project would drop to "low" and Seattle light rail's overall rating would fall to "not recommended" under FTA's own regulations and guidelines.

The misrepresentations don't end there. Sound Transit also claims that 15 light rail trains serving a dozen stations would somehow provide the region with more transit capacity and higher ridership than 232 additional express buses using the downtown tunnel and over 200 miles of freeway HOV lanes. But mounting experience from around the country, reported by the federal General Accounting Office and others, shows that buses organized smartly into Bus Rapid Transit (BRT) can provide the same capacity as light rail.

This growing reality casts further suspicion on the validity of Sound Transit's negative assessment of buses. Indeed, to protect the light rail project rating, Sound Transit explicitly excluded BRT as an alternative. Instead, Sound Transit has deployed the baseline bus comparison poorly to give light rail a small daily ridership advantage.

There is nothing new about local officials setting up a low baseline for buses in order to make a gold-plated rail project look better. In 1992, Harvard economist John Kain wrote a paper published in American Economic Review titled "The Use of Straw Men in the Economic Evaluation of Rail Transport Projects." He noted, "Nearly all, if not all, assessments of rail systems have used costly and poorly designed all-bus alternatives to make the proposed rail systems appear better than they are. In some cases, the use of badly designed alternatives is intentional, while in others a lack of interest in developing better bus systems may account for the inadequacies of the all-bus alternative."

Before Congress considers devoting half a billion dollars to begin a questionable project, it should require an independent audit of the baseline data submitted by Sound Transit. FTA regulations require an honest assessment of "the best that can be done for mobility without constructing a new transit guideway." How close is Sound Transit's straw man to the worst that could be done?

With reform of the FTA New Starts program looming in an upcoming reauthorization of transportation spending, the Seattle light rail project stands as a troubling example of what's wrong. An unjustified project has almost slipped through, despite FTA's responsibility to be a steward of the nation's federal transportation resources. Based on FTA's own criteria, the Sound Transit light rail project should actually be rated "not recommended," and is not a project worthy of federal support.

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