WILLAMETTE WEEK

Expert Says Traffic Modeling for Interstate Bridge Replacement Is Wrong

**The bi-state bridge project is t
studied investment whose cos**

Expand

Traffic on the Interstate 5 Bridge. (Henry Cromett)

By Nigel Jaquiss

November 11, 2024 at 7:13 pm PST

A new examination of the assumptions underlying the proposed Interstate Bridge between Portland and Vancouver says the project relies on bogus numbers.

The new study was commissione
wants to reduce the freeway con
of it, including the seismic repla
and pedestrian improvements.

"The traffic modeling the whole

based on is a work of fiction," says Chris Smith of the Portland group No More Freeways, which is part of the Just Crossing Alliance.

Norman Marshall, president of Smart Mobility Inc., a Vermont traffic consulting firm, says the rationale for building a new, wider bridge (estimated cost: $5 billion to $7.5 billion)—that it will relieve congestion—is simply wrong.

"The congestion is caused by bottlenecks to the south—at North Lombard in the southbound a.m. peak and at Victory Boulevard in the p.m. northbound peak," Marshall wrote in his report. "And there is no possibility that widening the bridge can address those problems."

Greg Johnson, program administrator for the bridge replacement, which is a joint venture between the Oregon and Washington transportation departments, says Marshall's criticism misses the mark.

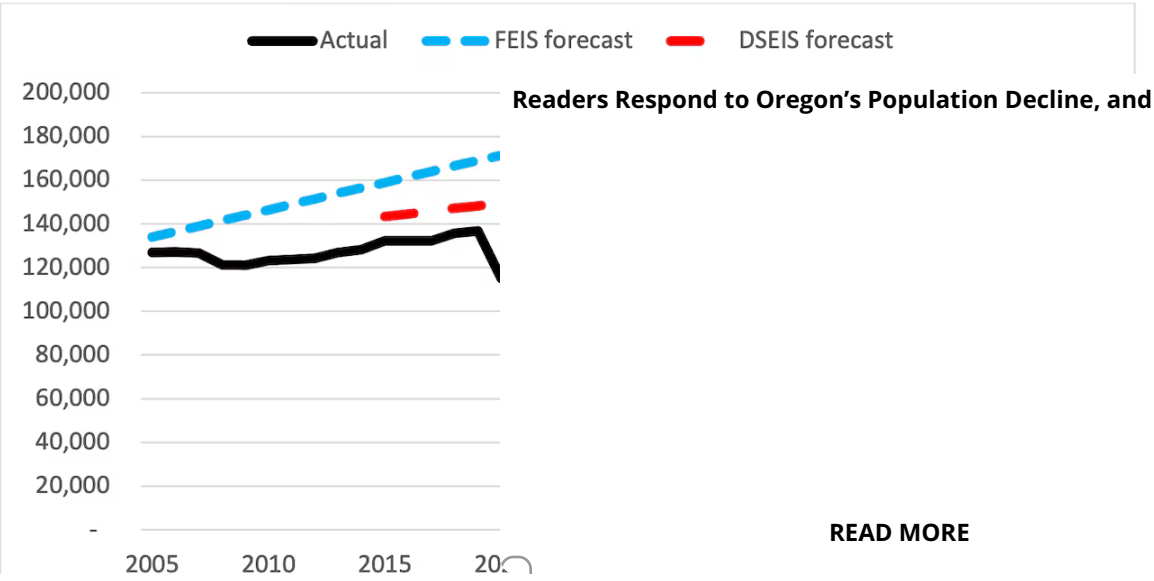
"The Interstate Bridge replacem
regional transportation network
will reduce congestion and impr
we cannot solve the region's cor
outside of the program area, but

efficient. Design improvements, multimodal investments, including extension of light rail and express bus enhancements, safety shoulders throughout the IBR Program area, variable rate tolling, and the addition of an auxiliary lane across the bridge to enhance ramp-to-ramp connections will help improve the flow of traffic both on the bridge and throughout the IBR 5-mile program corridor."

Marshall's report says the draft supplemental environmental impact statement, a federally required document meant to take a comprehensive look at the costs and benefits of the project, relied on old numbers and an outdated forecasting model. He provided a couple of examples of how the methodology underlying the project has previously produced inaccurate forecasts of traffic volumes.

Here's a snapshot of how previous projections have overestimated daily traffic on the I-5 bridge.

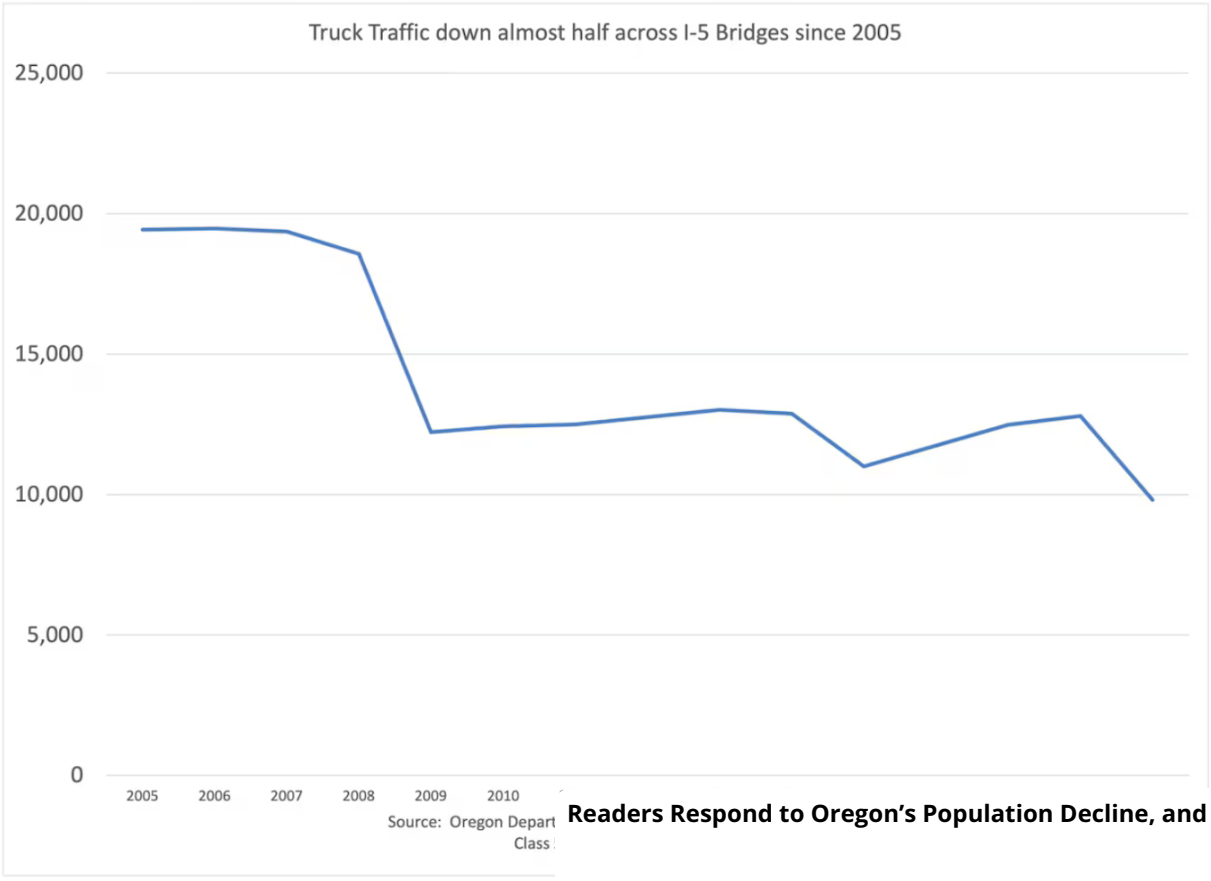
Figure 12: Average Weekday Bridge Traffic and FEIS and DSEIS Forecasts



Forecast traffic exceeds actual traffic.

And although truck traffic moves essential goods across the bridge and is hampered by congestion, Oregon Department of Transportation data included in Marshall's report shows truck traffic is down over the past 20 years. City Observatory first reported the truck data.

Figure 14: Daily Class 5-13 Truck Traffic on I-5 Bridges (ODOT Traffic Count data)



Truck volume declines over time.

Marshall writes that nobody sho
projections are inaccurate. He sa
model rather than a "dynamic" r
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"The model used to predict future traffic cannot even accurately predict current traffic levels," Marshall writes.

The IBR program's Johnson acknowledges the draft supplemental environmental report relies on old numbers and a static model from the regional government Metro, but he says his colleagues have augmented that model with additional analysis.

"Traffic modeling presented in the draft supplemental environmental impact statement is based on the most current information available when IBR started modeling work to support the draft SEIS: the 2018 Regional Transportation Plan jointly developed and adopted by both Metro and the Southwest Washington Regional Transportation Council," Johnson says.

"The IBR program conducted analysis and modeling in addition to the Metro regional travel demand model to produce future traffic forecasts in the program area," Johnson a
create regional travel demand m
traffic operations models compl
included in the draft SEIS used i
future travel and to plan for regi

Metro spokesman Nick Christensen defends his agency's work, adding that it believes a bridge replacement is necessary.

"The model results we provided to IBR are from a model that looks at travel patterns at a regional level—it estimates the number of daily trips across the Columbia River on both bridges. The 'dynamic' model Mr. Marshall cites is a supplement to, not a component of, regional models like Metro's. IBR did not ask Metro for any data beyond the output from the regional 'static' model we provided," Christensen says.

"We think our model performs well when estimating transportation choices at a regional level—the basis for a lot of decisions on large projects, like the proposal to replace our 107-year-old drawbridge over the Columbia River."

So what's the solution? Marshall says the highway departments should focus on using cheaper tools, such as ramp meters or tolls, to manage traffic more efficiently. (Gov. Tir
to halt the Regional Mobility Pr
reduce traffic on Interstates 5 ar
a live option.)

"The ramp meter system can be

impractical to rely solely on ramp metering," Marshall's report says. "Variable tolling certainly can achieve uninterrupted flow on I-5," the report concludes. "The sum of the monetary value of the resulting time savings would be far greater than the out-of-pocket toll expenses, and equity issues could be addressed through investments in non-auto travel modes and with targeted rebates."

The IPR program is taking public comment on the draft supplemental environmental impact statement through Nov. 18. To make a comment, click here.