

SR 99 Performance Monitoring Update

Tyler Patterson, Systems Manager, WSDOT Toll Division
Washington State Transportation Commission Meeting
May 18, 2021

Monitoring mobility during a major change

Interagency coordination was an essential component of our effort and proved to be invaluable throughout our work.

Technical Team

- Set monitoring boundaries
- Confirmed questions we wanted to answer and reports we wanted to develop
- Prioritized data collection
- Worked through issues
- Worked together to tell the story
- Reviewed reports



King County



City of Seattle



Data collection

Data collection milestones

- Jan. 11, 2019 Permanent closure of the Viaduct
- Feb. 4, 2019 SR 99 tunnel opened
- Nov. 9, 2019 Start of SR 99 tolling
- *Mar. 2020 COVID-19 pandemic impacts begin in Washington state*
- Nov. 9, 2020 One year anniversary of SR 99 tolling

Primary Monitoring Area



One year of SR 99 tolling

Coronavirus and the commute: Average speeds increase noticeably as many workers stay home

BY KURT SCHLOSSER on March 6, 2020 at 10:33 am

TRAFFIC NEWS

West Seattle Bridge closure will likely outlast coronavirus pandemic

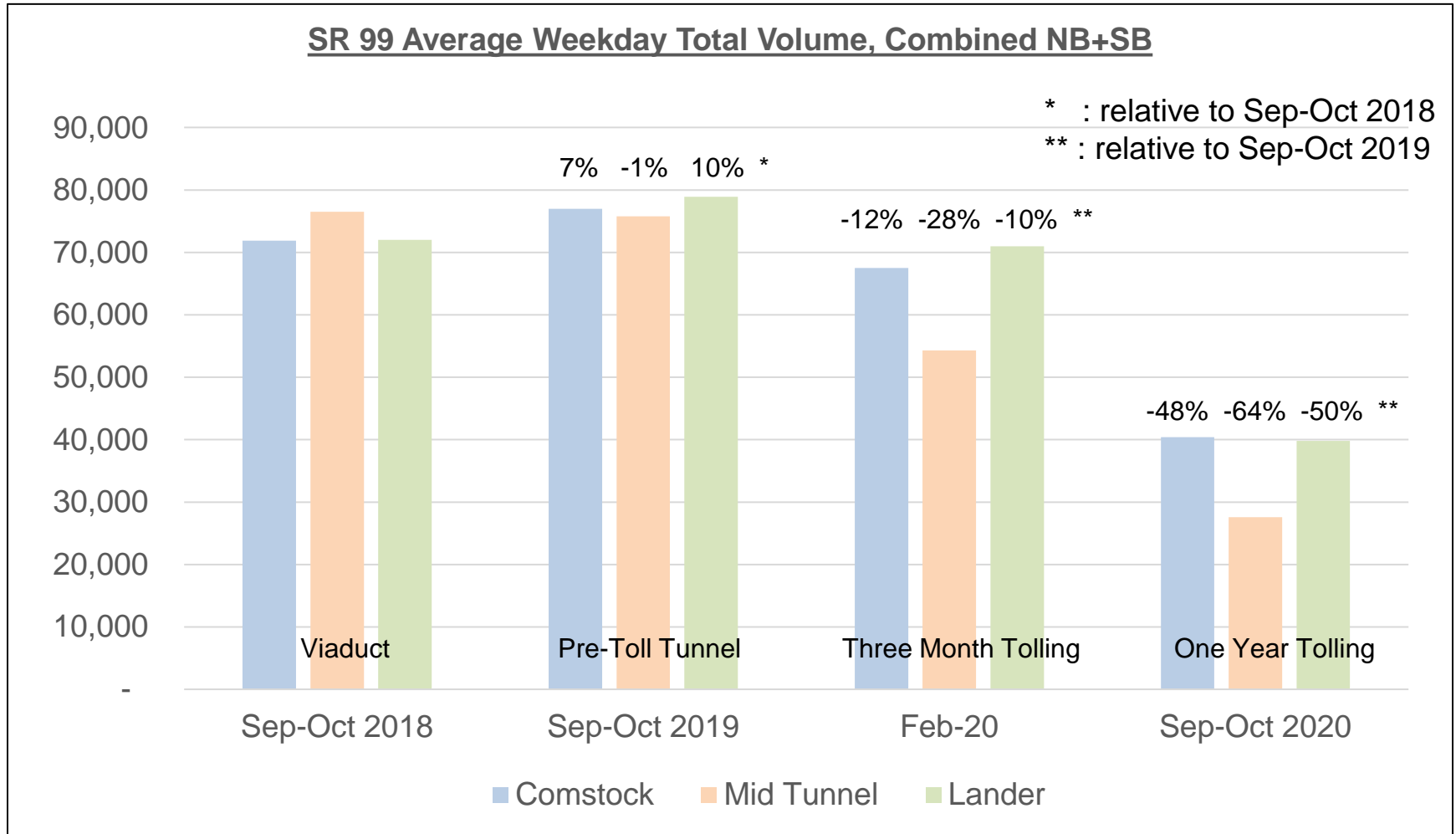
The West Seattle Bridge is closed after crews noticed increasing cracks and deterioration in the aging structure.

State sees new budget crunch as fewer Washington drivers take toll routes

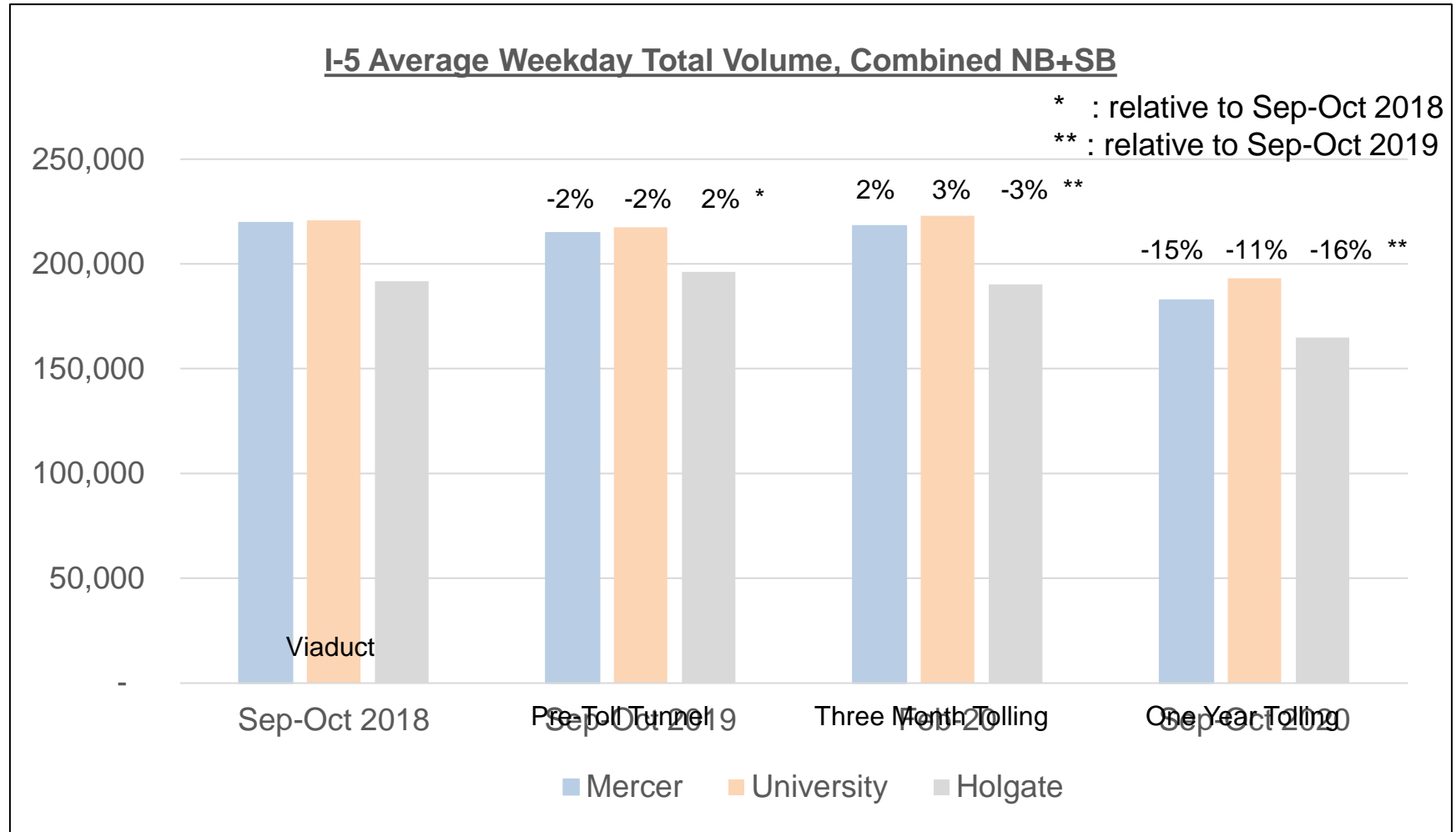
Dec. 7, 2020 at 6:00 am | Updated Dec. 7, 2020 at 5:28 pm



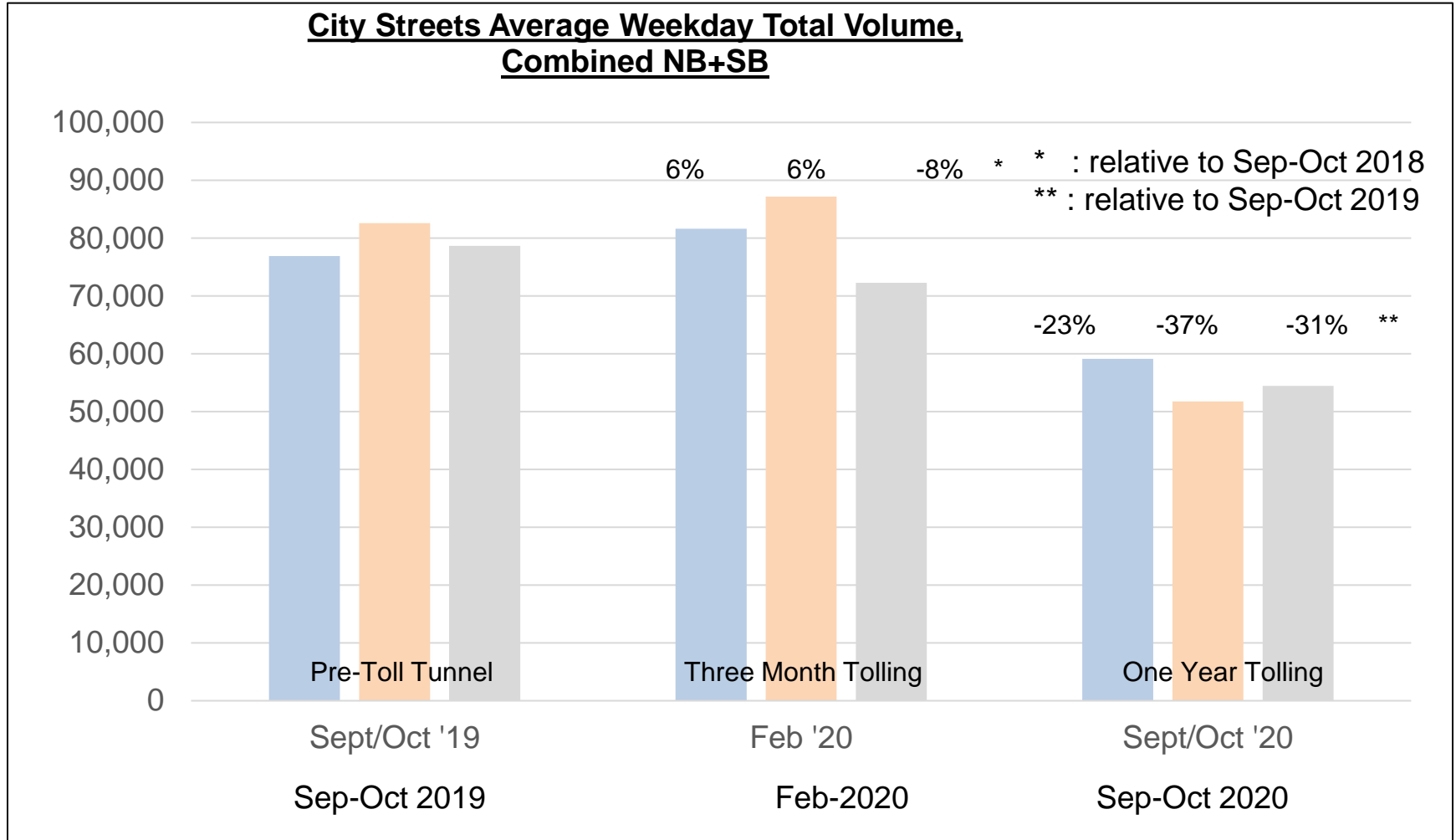
One year of SR 99 tolling



One year of SR 99 tolling




One year of SR 99 tolling



One year of SR 99 tolling

Travel times: Travel times generally remained consistent with Viaduct and pre-tolling baseline averages through the first three months of tolling, with reductions in travel times mirroring reductions in volumes one year after tolling.






| MODE | VIADUCT Sept – Oct, 2018 | PRE-TOLL TUNNEL* Sept – Oct, 2019 |
|--|---|--|
|  <p>VEHICLE TRAVEL TIMES</p> | <p>NB (AM Peak) SR 99: 3.7 min. NB (AM Peak) I-5: 1.3 min.</p> <p>Other monitored key routes</p> <p><u>AM Peak</u> 15th Ave (NB): 4.7 min. Airport Way S (NB): 4.9 min.</p> <p><u>PM Peak</u> Westlake Ave N (SB): 7.0 min. Madison St (WB): 6.0 min. Atlantic St/Edgar Martinez (WB): 3.6 min.</p> | <p>NB (AM Peak) SR 99: 5.5 min. (↑ 50%) NB (AM Peak) I-5: 1.4 min. (↑ 5%)</p> <p>Other monitored key routes</p> <p><u>AM Peak</u> 15th Ave (NB): 5.8 min. (↑ 23%) Airport Way S (NB): 3.6 min. (↓ 26%)</p> <p><u>PM Peak</u> Westlake Ave N (SB): 7.7 min. (↑ 10%) Madison St (WB): 8.3 min. (↑ 37%) Atlantic St/Edgar Martinez (WB): 3.4 min. (↓ 6%)</p> |
| | <p>THREE MONTH TOLLING** Feb 2020</p> <p>NB (AM Peak) SR 99: 5.9 min. (↑ 7%) NB (AM Peak) I-5: 1.4 min. (↔)</p> <p>Other monitored key routes</p> <p><u>AM Peak</u> 15th Ave (NB): 5.7 min. (↔) Airport Way S (NB): 3.5 min. (↔)</p> <p><u>PM Peak</u> Westlake Ave N (SB): 7.5 min. (↔) Madison St (WB): 6.4 min. (↓ 23%) Atlantic St/Edgar Martinez (WB): 3.0 min. (↓ 12%)</p> | <p>ONE YEAR TOLLING*** Sept – Oct, 2020</p> <p>NB (AM Peak) SR 99: 4.0 min. (↓ 27%) NB (AM Peak) I-5: 1.3 min. (↓ 7%)</p> <p>Other monitored key routes</p> <p><u>AM Peak</u> 15th Ave (NB): 5.5 min. (↓ 7%) Airport Way S (NB): 3.6 min. (↔)</p> <p><u>PM Peak</u> Westlake Ave N (SB): 6.2 min. (↓ 19%) Madison St (WB): 3.7 min. (↓ 55%) Atlantic St/Edgar Martinez (WB): 2.2 min. (↓ 35%)</p> |

Legend

- ↔ no change
- ↑ increasing
- ↓ decreasing
- ↕ mixture

One year of SR 99 tolling

Multi-modal trends: Travel times generally remained consistent with Viaduct and pre-tolling baseline averages through the first three months of tolling, with reductions in travel times mirroring reductions in volumes one year after tolling.

| MODE | VIADUCT Sept – Oct, 2018 | | PRE-TOLL TUNNEL* Sept – Oct, 2019 | | THREE-MONTH TOLLING** Feb 2020 | | ONE YEAR TOLLING*** Sept – Oct, 2020 | |
|---|--|----------------------------------|---|--|--|---|---|--|
|  COLMAN DOCK | Bainbridge | Walk-ons 4,960 Vehicles 2,500 | Bainbridge | Walk-ons 4,930 (↔) Vehicles 2,500 (↔) | Bainbridge | Walk-ons 3,690 (↓25%) Vehicles 2,260 (↓9%) | Bainbridge | Walk-ons 880 (↓82%) Vehicles 1,760 (↓30%) |
| | Bremerton | Walk-ons 2,090 Vehicles 810 | Bremerton | Walk-ons 2,000 (↓4%) Vehicles 790 (↓4%) | Bremerton | Walk-ons 1,960 (↔) Vehicles 710 (↓9%) | Bremerton | Walk-ons 340 (↓83%) Vehicles 340 (↓57%) |
|  WATER TAXI RIDERSHIP | W. Seattle 1240 | Vashon 1050 | W. Seattle 1400 (↑13%) | Vashon 1100 (↑5%) | W. Seattle 790 (↓31%) | Vashon 1090 (↑38%) | W. Seattle 260 (↓81%) | Vashon 170 (↓85%) |
|  BIKE RIDERSHIP | Weekday: 8,370 Weekend: 3,140 | | Weekday: 9,520 (↑ 14%) Weekend: 3,770 (↑ 20%) | | Weekday: 6,390 (↓ 33%) Weekend: 2,150 (↓ 43%) | | Weekday: 4,120 (↓ 57%) Weekend: 3,840 (↔) | |
|  TRANSIT SPEED & RIDERSHIP | Daily weekday ridership 166,000 | | Daily weekday ridership 156,000 (↓6%) | | Daily weekday ridership 77,000 (↑9%) | | Daily weekday ridership 58,000 (↓63%) | |
| | Daily weekday peak period speeds 15 mph | | Daily weekday peak period speeds 14 mph (↓12%) | | Daily weekday peak period speeds 14 mph (↔3%) | | Daily weekday peak period speeds 16 mph (↑16%) | |
|  SOUNDER LINK RIDERSHIP | Sounder 18,000 | Link 78,000 | Sounder 19,000 (↑6%) | Link 80,000 (↔) | Sounder 17,000 (↔) | Link 96,000 (↑33%) | Sounder 2,000 (↓89%) | Link 19,000 (↓76%) |

Legend

- ↔ no change
- ↑ increasing
- ↓ decreasing
- ↕ mixture

Summary

Operationally, the first year of tolling on SR 99 went smoothly.

Traffic volumes are slowly returning to pre-pandemic averages on I-5 and city streets, while SR 99 tunnel volumes are recovering at a slower pace.

Multi-modal ridership saw reductions across all modes and is also slow to recover.



Questions?

Tyler Patterson, Systems Manager

Toll Division

Washington State Department of Transportation

(206) 716-1134 or PatterT@wsdot.wa.gov