COVID-19 Impacts on Future Transportation:
Anticipated Changes in Long Range Travel Forecasts

Oregon has many transportation projects, long range plans, and policies under development. The question has been raised internally and externally of whether the impacts of COVID-19 require a substantial change in transportation planning and project design. Projects, long-range plans and policy development rely on travel model forecasts to evaluate investment options to meet agency goals and objectives.

Long-range transportation forecasts rely on historical trends and current behavior to understand future conditions and areas of uncertainty. It is important to observe patterns over a significant period of time to reveal long-range trends and avoid misinterpreting short-term changes, such as business cycles or random shocks to the system (wildfires, COVID-19) as changes in long-range behavior.

Permanent changes in travel behavior due to COVID-19 are currently unknown. Some of the changes made because of COVID may be long-term, while others may not. Travel surveys monitor household activity and reveal changes in travel behavior over time. The last survey was completed in 2011[1] and the next[2] is planned for 2022. Data collection is planned to coincide with the decennial census, an approach followed nationally by travel forecasters.

By early 2021, statewide weekday traffic volumes were about 11% below volumes compared to the previous year, while weekend traffic volumes were 18% below previous year volumes[3]. Overall, reductions in traffic have been the largest in metropolitan areas as illustrated in Table 1, especially in Portland. The reduction in travel relates to fewer commute trips for workers who can work remotely, fewer trips due to fewer jobs and higher unemployment, fewer trips due to schools operating remotely and fewer extracurricular activities, and fewer trips to eating and drinking establishments and for other recreation.

Table 1. Difference in Average Traffic Volumes by Region for I-5, I-84 and US-97

Average Weekday Traffic Volumes by Region: Week 4 January 18-24, 2021 as Percent Difference from 2020 Traffic Volumes							**Corridor Average**
I-5	Portland	-15%	Willamette Valley	-10%	South Segment	0%	-12%
I-84	Portland	-10%	Outside of Portland	+1%			-8%
US-97	Bend	-10%	Outside of Bend	+8%			-7%
Average Weekend Traffic Volumes by Region: Week 4 January 18-24, 2021 as Percent Difference from 2020 Traffic Volumes							**Corridor Average**
I-5	Portland	-24%	Willamette Valley	-12%	South Segment	+5%	-19%
I-84	Portland	-19	Outside of Portland	-2%			-17%
US-97	Bend	-15%	Outside of Bend	-5%			-14%

There is potential for long-term change in travel behavior, but it is impossible to accurately predict what those changes will be or the magnitude of such changes on overall traffic patterns. Personal and business travel activity have a history of changing slowly and being closely linked to economic conditions. Transportation planning efforts are built on understanding economic behavior and travel patterns. Accordingly, ODOT will continue to monitor travel patterns to ensure forecasts incorporate new information and identify emerging changes to medium- and long-term travel patterns and behavior.

For questions related to this topic, please contact Becky Knudson rebecca.a.knudson@odot.state.or.us , Senior Transportation Economist, ODOT Transportation Planning Analysis Unit

[1] "Personal Travel in Oregon: A Snapshot of Daily Household Travel Patterns": https://www.oregon.gov/odot/Planning/Documents/OHAS-Daily-Travel-In-Oregon-Report.pdf

[2] https://www.oregon.gov/odot/Planning/Documents/Travel%20Survey%20Briefing%20-%20April%202019.pdf

[3] https://www.oregon.gov/odot/Data/Documents/ODOT_TrafficReport_Jan_29_2021.pdf