

Pandemic Impacts on Future Transportation Planning: Implications for Long Range Travel Forecasts

Projects, long-range transportation plans and policy development rely on travel model forecasts to evaluate investment options to meet agency goals and objectives. The question has been raised internally and externally of whether the impacts of the pandemic require changes to existing transportation plans and project design. Long-range transportation forecasts rely on historical trends and current behavior to evaluate future conditions and identify 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, weather, pandemic) as changes in long-range behavior.

Tables 1, 2 and 3 present the differences in traffic volumes for years 2021, 2022 and 2023 compared to 2019 volumes for the month of April. **Table 1** reports differences in I-5 traffic volumes relative to 2019 pre-pandemic conditions. Traffic volumes on I-5 in the Portland region are currently about 6% lower than 2019 overall, weekday volumes are about 7% lower and weekend volumes about 4% lower. Traffic volumes on I-5 within the Willamette Valley south of Portland are about 4% lower than 2019 volumes overall, weekday volumes are about 4% lower and weekend volumes are about 2% lower. Traffic volumes for the southern portion of I-5 south of Eugene/Springfield are about 3% lower than 2019 overall, weekday volumes are about 7% lower and weekend volumes are about 10% higher.

**TABLE 1. I-5: Percent Difference in Traffic Volumes Compared to 2019:
Month of April 2021, 2022, and 2023**

	Year	Portland	Willamette Valley	Southern Segment
Average Weekday	2021	-6%	-2%	5%
	2022	-8%	-5%	-1%
	2023	-7%	-4%	-7%
Average Weekend	2021	-10%	0%	6%
	2022	-5%	0%	0%
	2023	-4%	-2%	10%
Overall Average	2021	-6%	-1%	6%
	2022	-7%	-3%	-1%
	2023	-6%	-4%	-3%
Source: Portland Region Automatic Traffic Recorders (ATRs): 03-011,026-004, 26-016; Willamette Valley: 20-020, 20-025, 22-005; Southern I-5: 10-008, 15-019, 15-002; this table provides averages across the 3 ATRs for each region.				

Table 2 reports differences in I-84 traffic volumes relative to 2019 pre-pandemic levels, breaking the highway into two segments – Portland and east of Portland. Current traffic volumes on I-84 in the Portland region are about 5% lower than 2019 overall, weekday volumes are about 3% lower and weekend volumes about 7% lower. Traffic volumes on I-84 east of Portland are about 8% higher than 2019 overall, weekday volumes are 5% higher and weekend volumes are about 10% higher than volumes seen in 2019.

Table 3 reports differences in US-97 traffic volumes relative to 2019 pre-pandemic levels, breaking the highway into two segments – Bend and outside of Bend. Current traffic volumes on US-97 in Bend are about 1% lower than 2019 overall, weekday volumes are about 3% higher and weekend volumes about 6% lower. Traffic volumes on US-97 outside of Bend are about 3% higher than 2019 overall, weekday volumes are 1% higher and weekend volumes are 5% higher than volumes seen in 2019.

At this time permanent changes in post-pandemic travel behavior are unclear. Some of the changes may be long-term, while others may be transitional. Some differences could relate to other factors, such as wildfire recovery, weather and changes in business and household activity. Data collection efforts observe household activity and

TABLE 2. I-84: Percent Difference in Traffic Volumes Compared to 2019: Month of April 2021, 2022, and 2023

	Year	Portland	East of Portland
Average Weekday	2021	-2%	10%
	2022	-3%	8%
	2023	-3%	5%
Average Weekend	2021	-5%	15%
	2022	-1%	11%
	2023	-7%	10%
Overall Average	2021	-3%	12%
	2022	-2%	10%
	2023	-5%	8%
Data Source: Portland ATRs: 26-014, 26-028; East of Portland ATRs: 23-014, 30-004, 33-001; this table provides averages across the ATRs used for each region.			

TABLE 3. US-97: Percent Difference in Traffic Volumes Compared to 2019: Month of April 2021, 2022, and 2023

	Year	Bend	Outside of Bend
Average Weekday	2021	-3%	11%
	2022	3%	1%
	2023	3%	1%
Average Weekend	2021	-8%	18%
	2022	-2%	6%
	2023	-6%	5%
Overall Average	2021	-5%	14%
	2022	1%	3%
	2023	-1%	3%
Data Source: Bend ATRs: 09-007, 09-020, 09-025; Outside of Bend ATRs: 16-002, 18-006, 18-019; this table provides averages across the 3 ATRs used for each region.			

reveal changes in travel behavior over time. The [Oregon Modeling Statewide Collaborative](#) is actively engaged in a new data collection effort for 2023 and 2024, the [Oregon Travel Study](#). This study will reveal current household travel behavior and be used to refine travel forecasts, for example reporting behavior related to work-from-home and e-commerce activity.

Personal and business travel have a history of changing slowly and being closely linked to economic conditions. Transportation planning is built on understanding travel behavior and economic conditions. ODOT will continue to monitor these areas to ensure forecasts incorporate new information and identify emerging changes to medium- and long-term behavior and travel patterns.

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