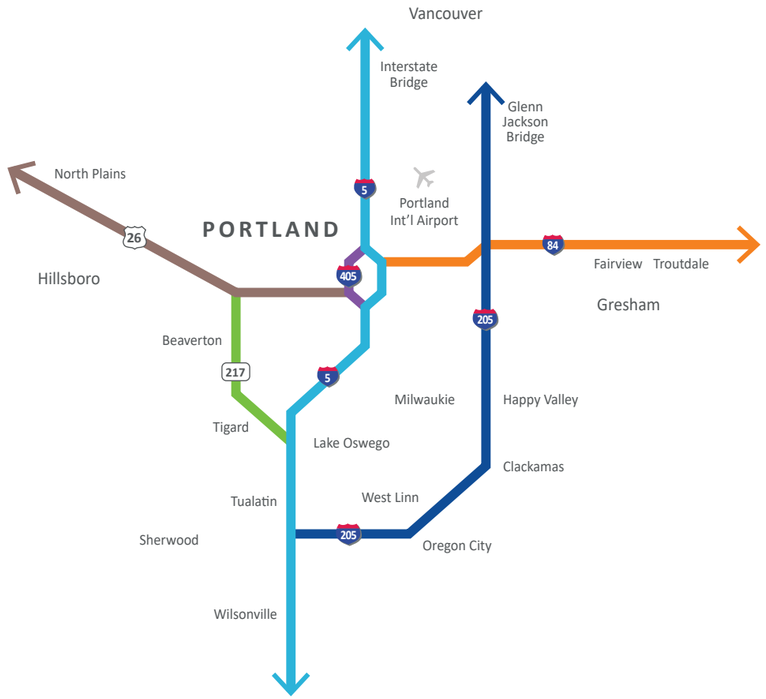
Oregon Department of Transportation

Portland Region

Impacts of Covid-19 on Traffic

March 9-April 8, 2020



Report and Analysis Contributors

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Jacob Hagen, Planner 1

Data Contributors

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Department
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Data Sources

Data presented in this report were pulled from Automatic Traffic Recorders (ATR's), PORTAL, and HERE.

ODOT has loop detectors on highways throughout the state. ATR's are one type of sensor and provide volumes for I-5, I-84, I-205, I-405 and US26. There are no ATR's on OR217. Volumes for OR217 were collected from another source of sensors that are archived through PORTAL.[1]

ODOT acquired commercial HERE data set of average travel times for use in performance measurement. The HERE data is obtained from a number of sources including mobile phones, vehicles, and portable navigation devices. Travel time data are from HERE.

The travel time reported is the average travel time it takes to travel each indicated freeway corridor for the following time periods:
AM peak is 7-9am
PM peak is 4-6pm

ODOT's Traffic Incident Management program keeps a database of all roadway incidents on Region 1 freeways. The analysis team filtered the data into crash and non-crash incidents. For the purpose of this reporting, the non-crash incidents have also been narrowed to exclude non-vehicular related factors.

1. PORTAL is the official Archived Data User Service (ADUS) for the Portland Metropolitan region as specified in the Regional ITS Architecture. PORTAL provides a centralized, electronic database that facilitates the collection, archiving, and sharing of data and information for public agencies within the region.

Introduction

The purpose of this report is to monitor the impacts of the Covid-19 Pandemic on traffic in the Portland region.

Beginning March 14, ODOT traffic analysts noted a significant drop in daily traffic volume on major freeways and a substantial decrease in total travel time.

Timeline

Feb. 28: First covid-19 case in Oregon

Mar. 8: **Gov. Brown declares a State of Emergency in Oregon**; Fourteen cases total

Mar. 11: **Gov. Brown announces no gatherings of more than 250 people**; Twenty-one cases total

Mar. 12: **Gov. Brown announces school closure March 16-31**; Thirty cases total

Mar. 14: First death reported in Oregon

Mar. 16: **Gov. Brown announces no gatherings of more than 25 people and restricts restaurant business beginning March 17**

Mar. 17: Second death reported in Oregon; Gov. Brown extends school closure through April 28th; Sixty-eight cases total

Mar. 21: Fourth death reported in Oregon; 138 cases total in 17 of Oregon's 36 counties

Mar. 23: **Gov. Brown issues "stay at home" executive order**; 192 cases total

Mar. 27: Total cases in Oregon reaches 414 in 24 of Oregon's 36 counties; Oregon Health Authority reports that 25% of known Covid-19 patients were hospitalized at some point

Mar. 29: Trump approves disaster declaration for Oregon and extends national social-distancing recommendation through April 30

April 1: Total cases in Oregon reaches 737 with 19 deaths; Social-distancing is believed to be slowing transmission in Oregon by 50-70% with an estimated peak on May 6

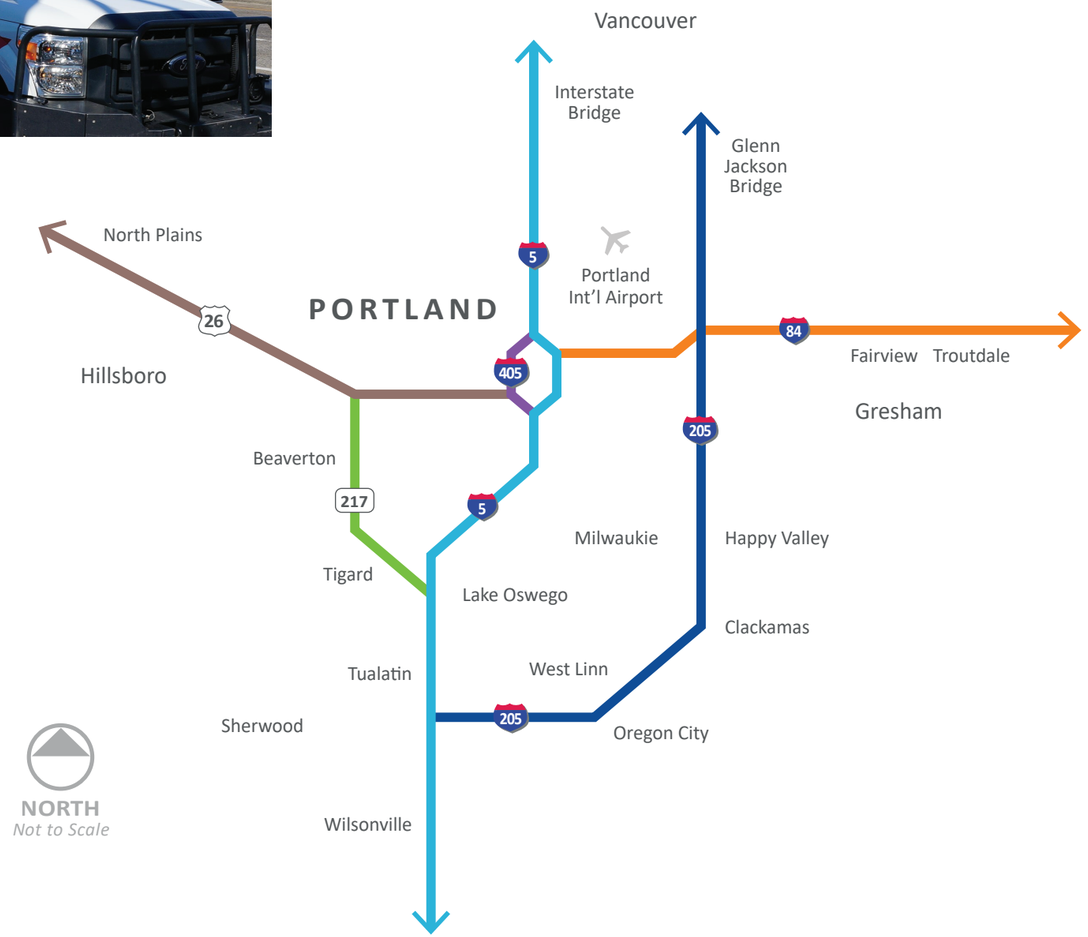
Apr. 4: Largest single-day case increase in Oregon of 100 new cases, bringing total to 999 with twenty-six deaths

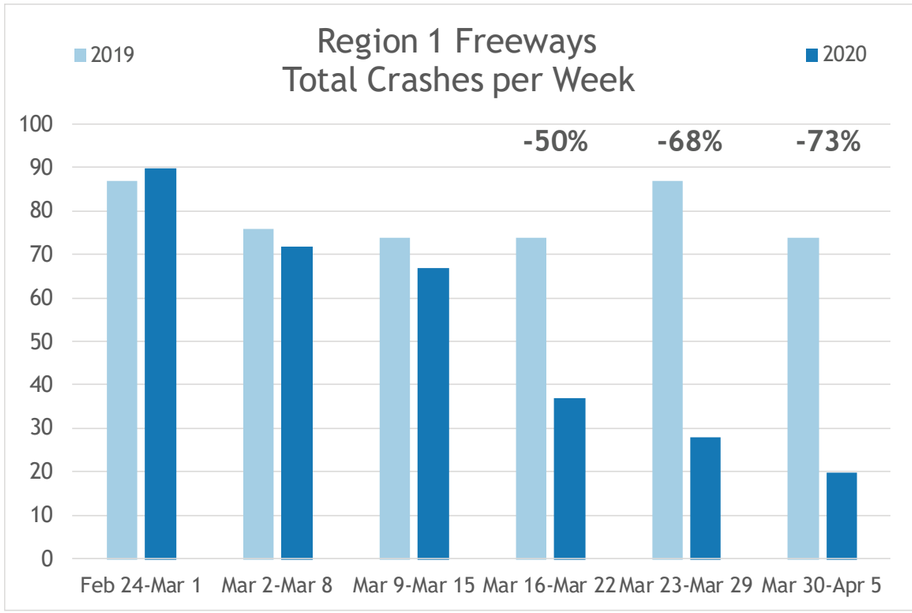
Apr. 7: Total cases in Oregon reaches 1,181 with thirty-four deaths; **Gov. Brown extends closure of in-person dining indefinitely**

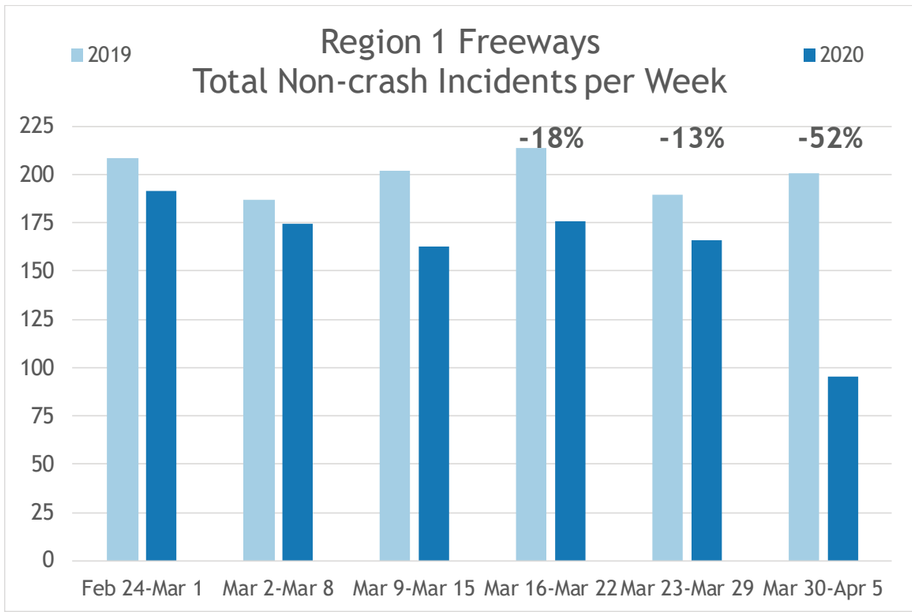
Apr. 8: Total cases in Oregon reaches 1,239 with thirty-nine deaths; **Gov. Brown extends school closure through the remainder of the school year**

Portland Traffic Monitoring: Covid-19 Impacts on Incidents Region-Wide

ODOT's Traffic Incident Management Program keeps a databse of all roadway incidents on Region 1 freeways. The analysis team filtered the data into crash and non-crash incidents. For the purpose of this reporting, the non-crash incidents also have been narrowed to exclude non-vehicular related factors.







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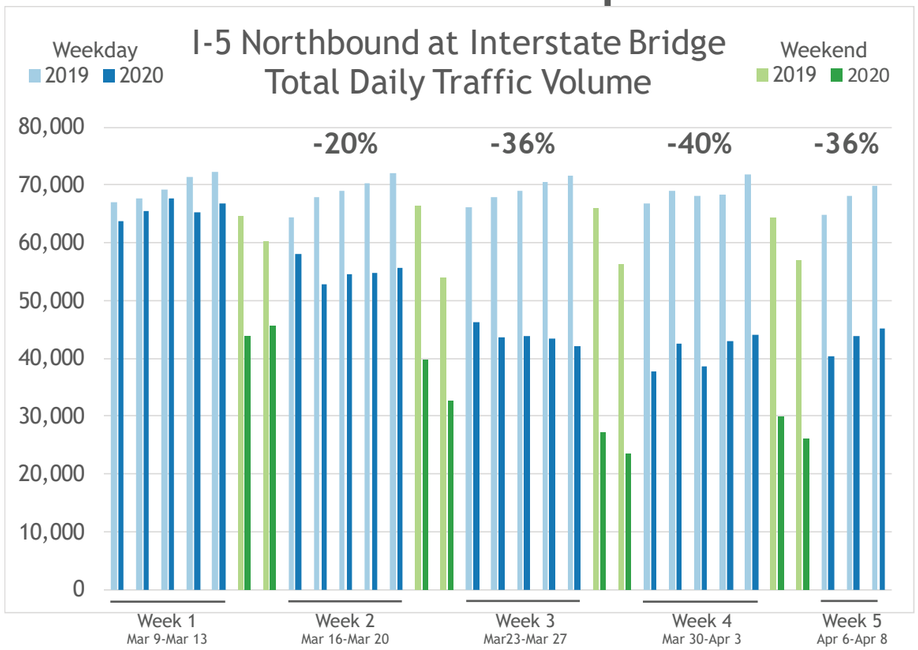
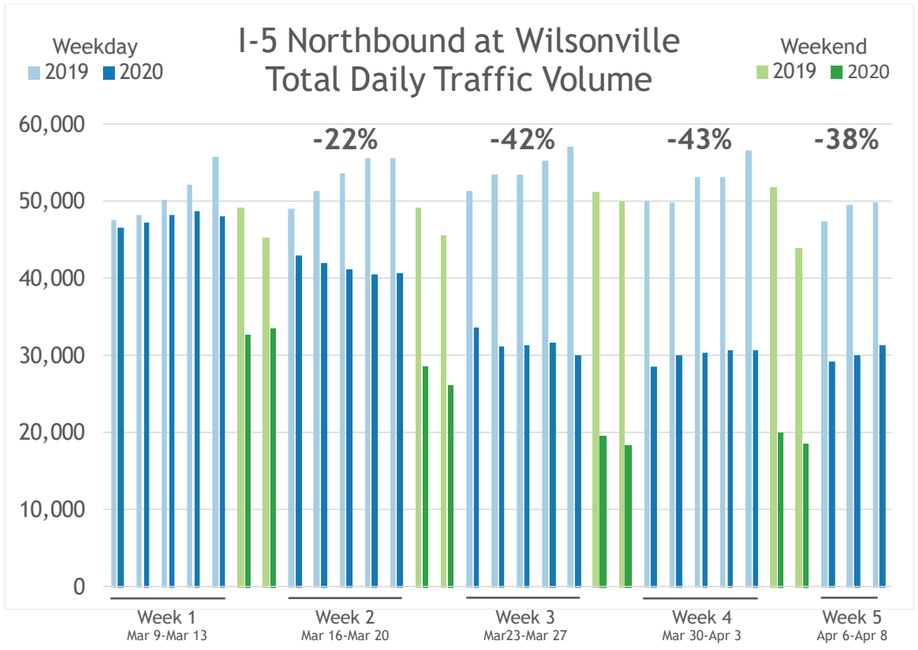
Portland Traffic Monitoring: Covid-19 Impacts on I-5 Northbound

Percentage (%) decrease shown represents the average weekday traffic per week compared to the year prior. Travel pattern is seasonal, and by comparing travel to the same time in the year prior, we can avoid seasonal adjustments to the data.
Incident data has been filtered into crash and non-crash incidents. For the purpose of this reporting, the non-crash incidents have also been narrowed to exclude non-vehicular related factors.

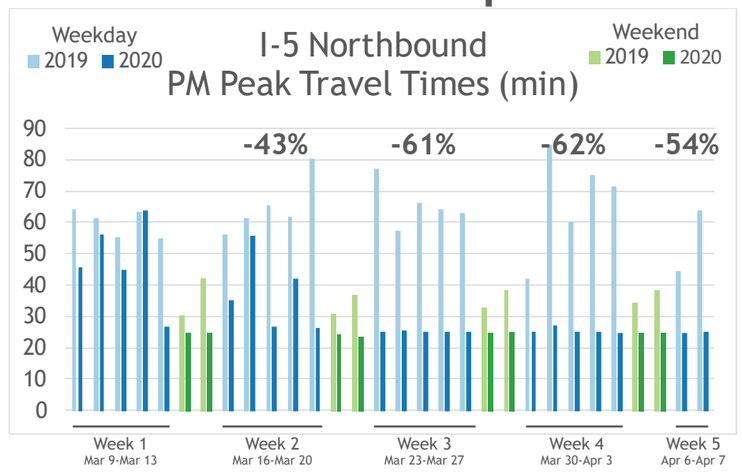
Map of ATR Locations

Traffic Volume Comparison

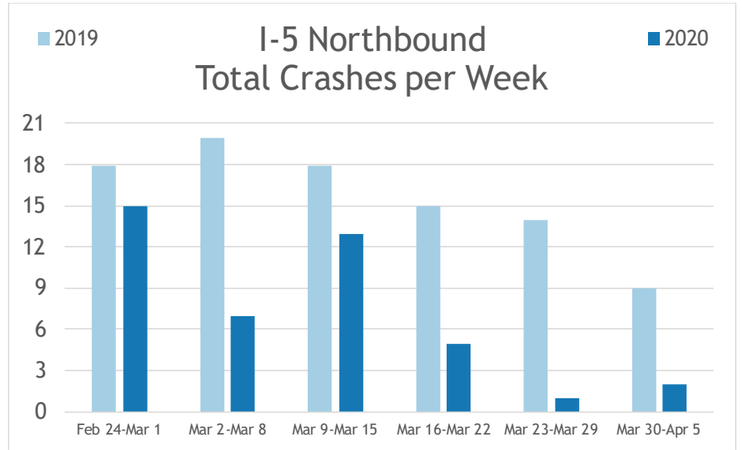


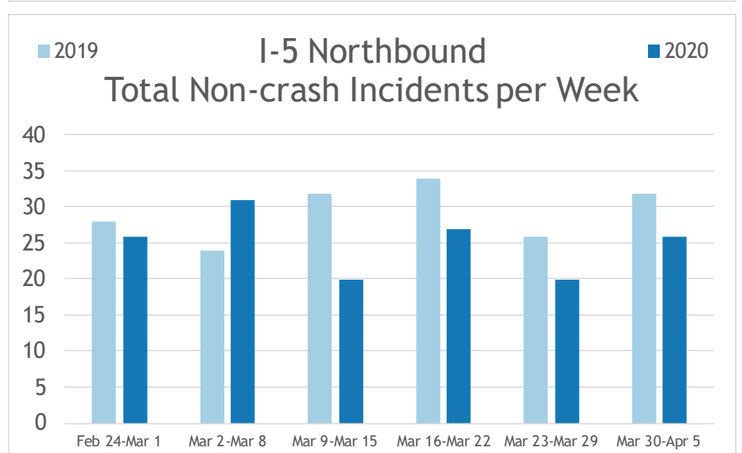


Travel Time Comparison



Incident Data Comparison





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Portland Traffic Monitoring: Covid-19 Impacts on I-5 Southbound

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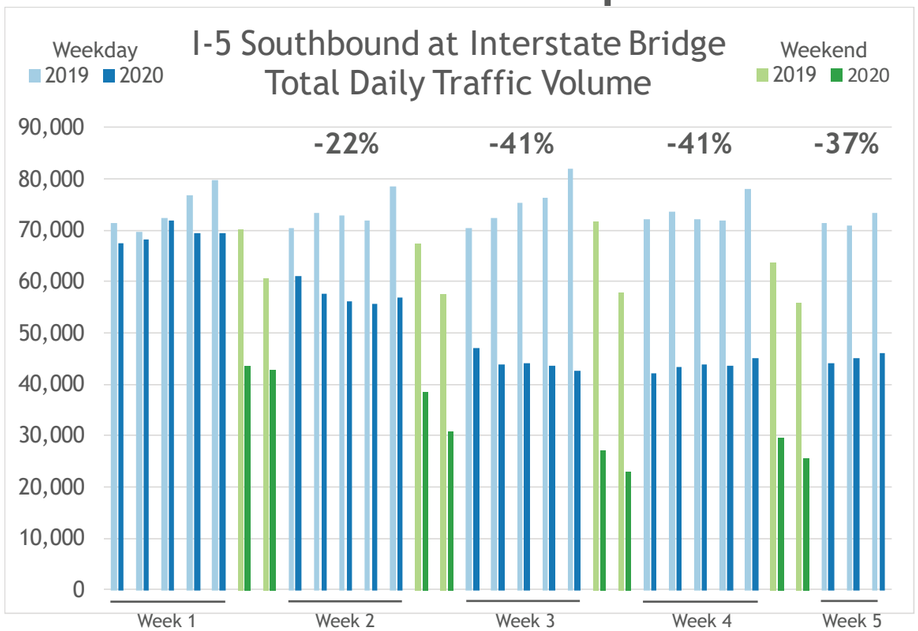
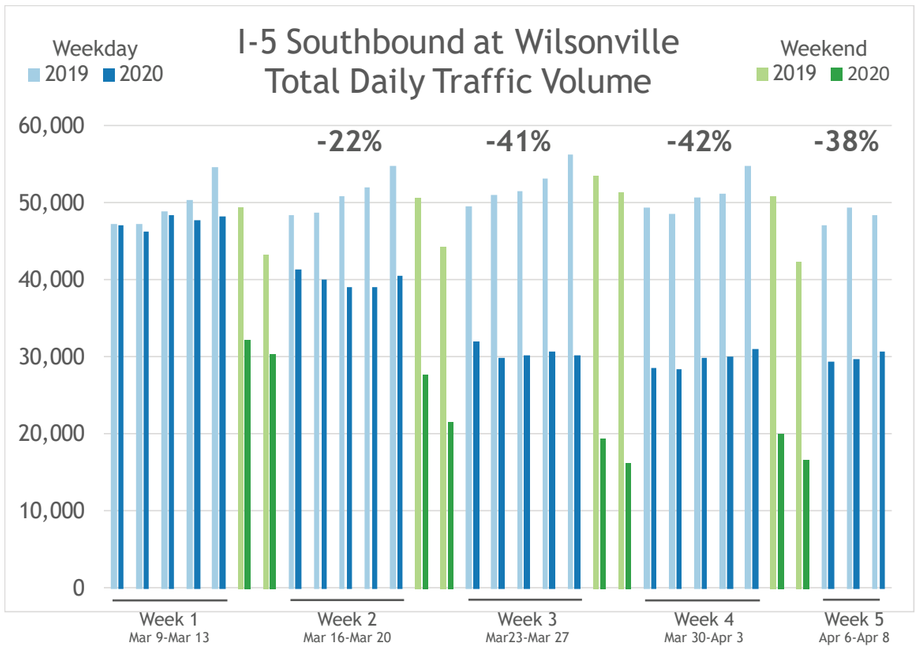
Map of ATR Locations

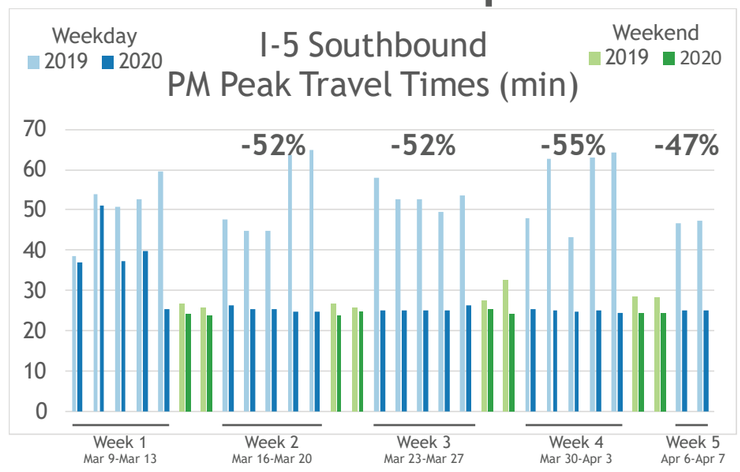
Oregon Department of Transportation

Traffic Volume Comparison

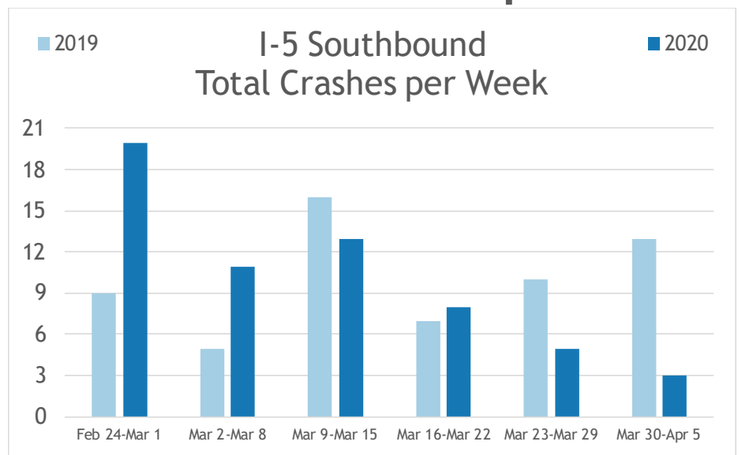


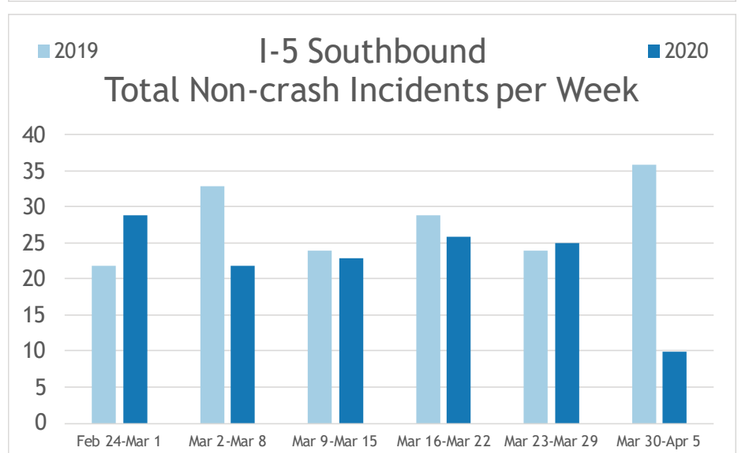


Travel Time Comparison



Incident Data Comparison





Portland Traffic Monitoring: Covid-19 Impacts on I-84 Eastbound

Percentage (%) decrease shown represents the average weekday traffic per week compared to the year prior. Travel pattern is seasonal, and by comparing travel to the same time in the year prior, we can avoid seasonal adjustments to the data.
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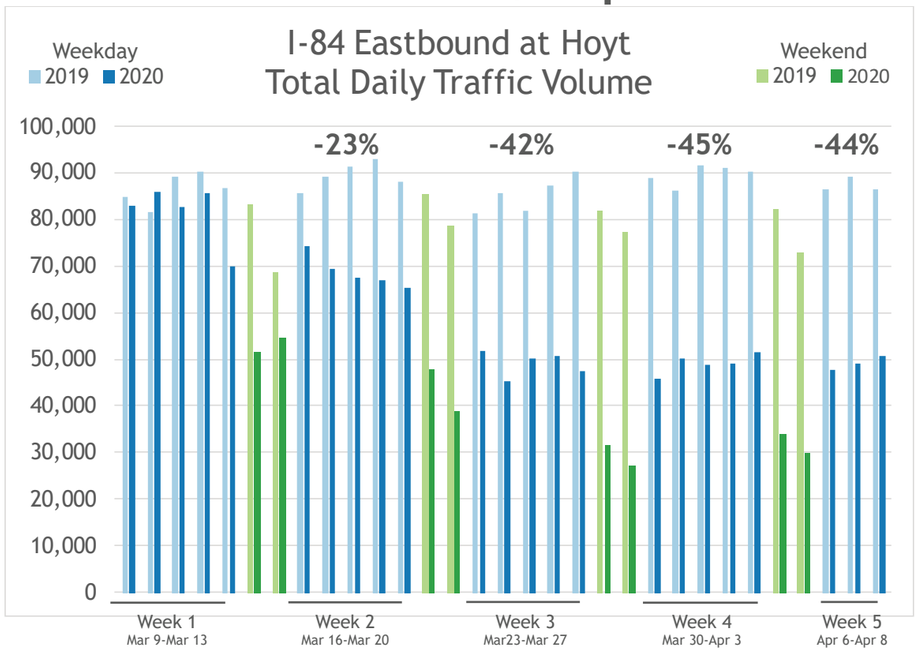
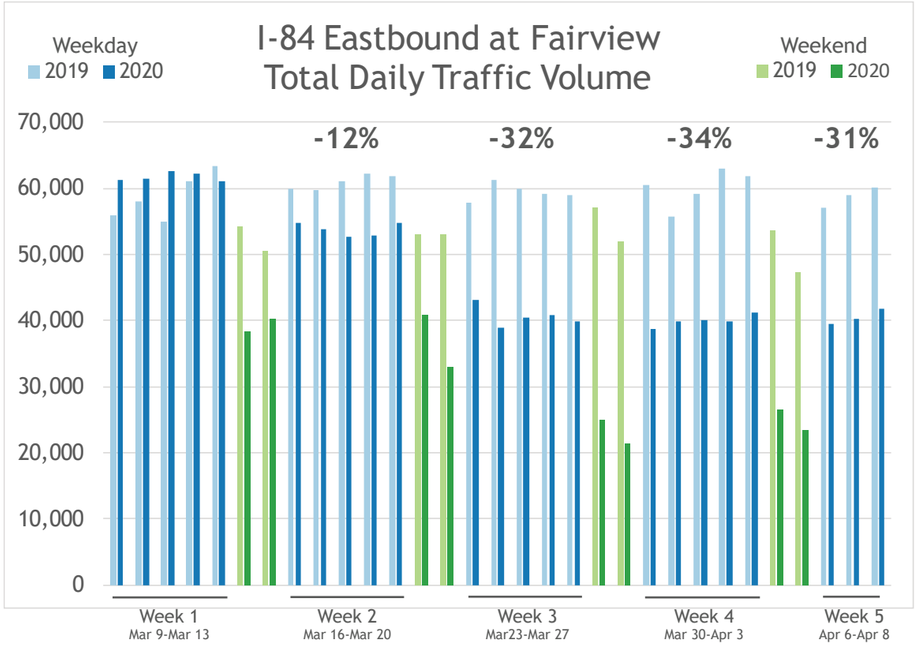
Map of ATR Locations

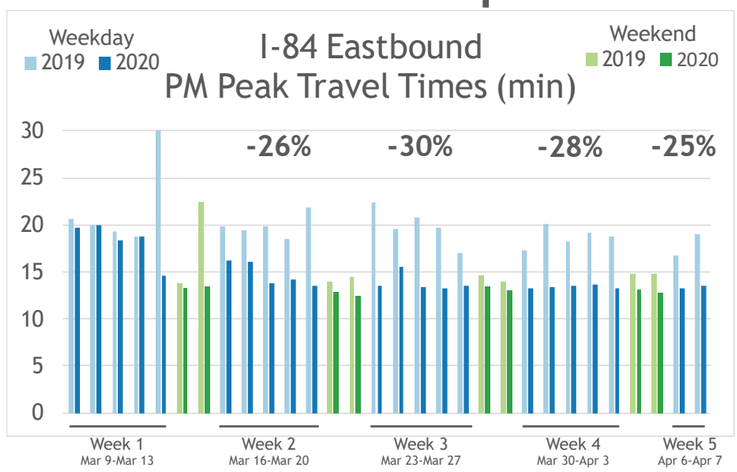
Oregon Department of Transportation

Traffic Volume Comparison

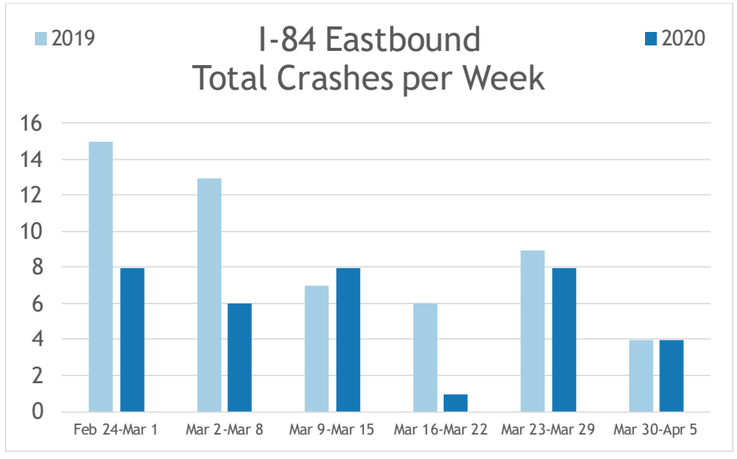


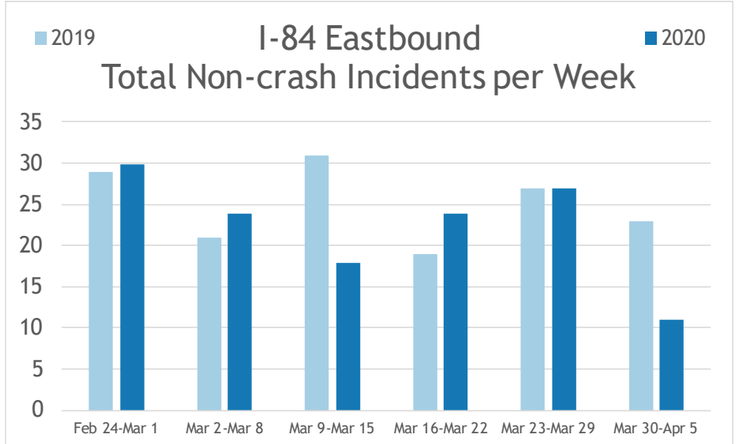


Travel Time Comparison



Incident Data Comparison





Portland Traffic Monitoring: Covid-19 Impacts on I-84 Westbound

Percentage (%) decrease shown represents the average weekday traffic per week compared to the year prior. Travel pattern is seasonal, and by comparing travel to the same time in the year prior, we can avoid seasonal adjustments to the data.
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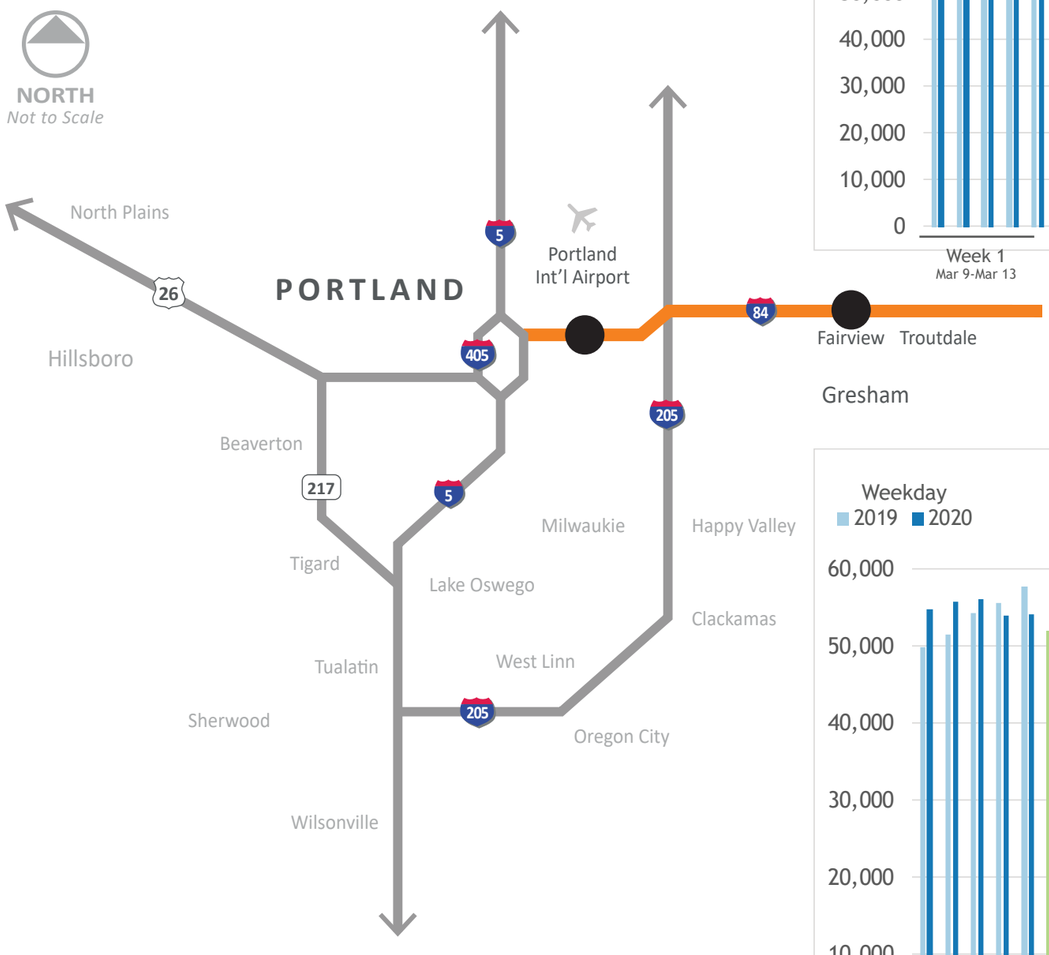
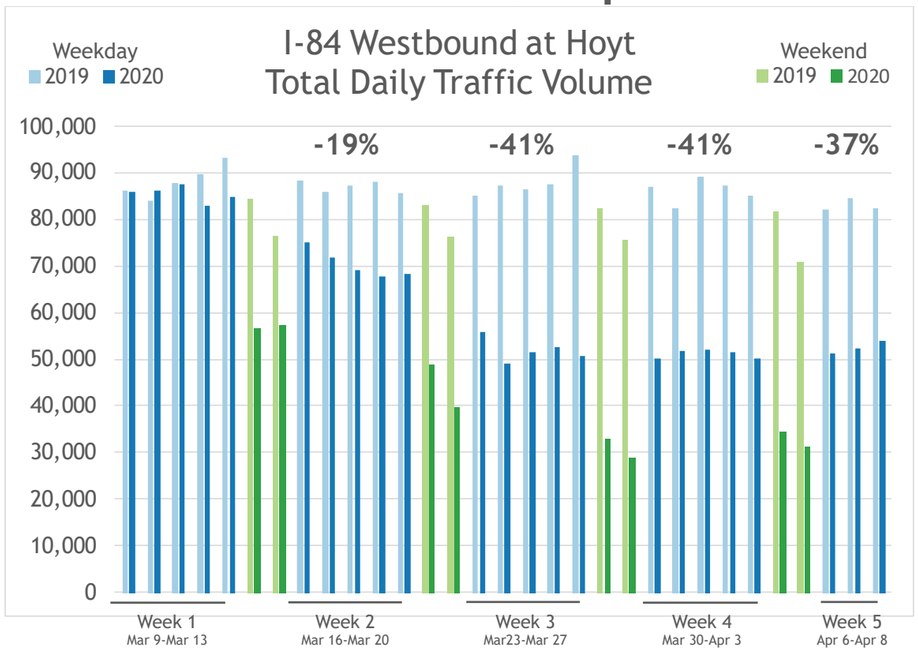
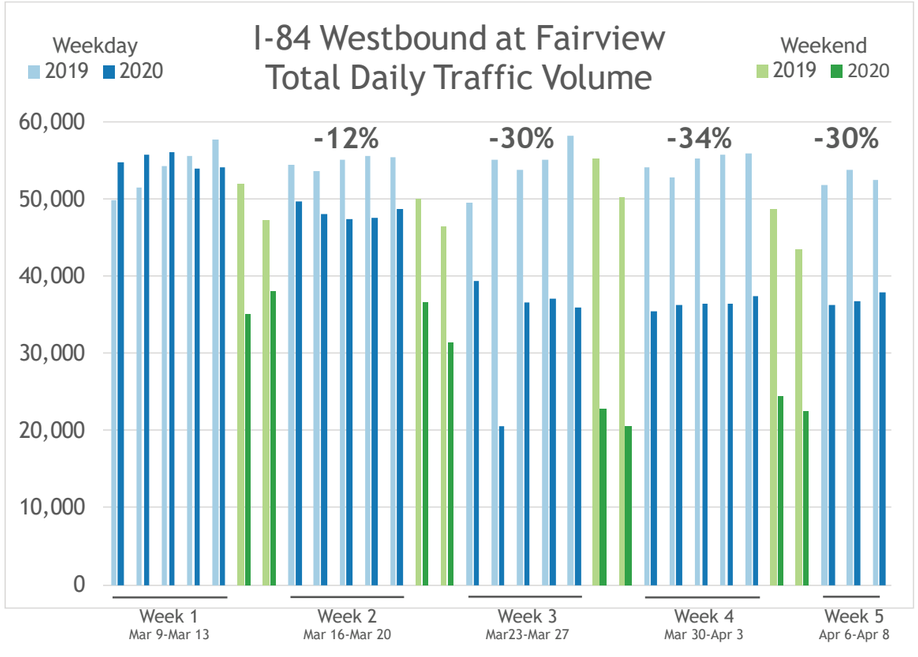
Map of ATR Locations



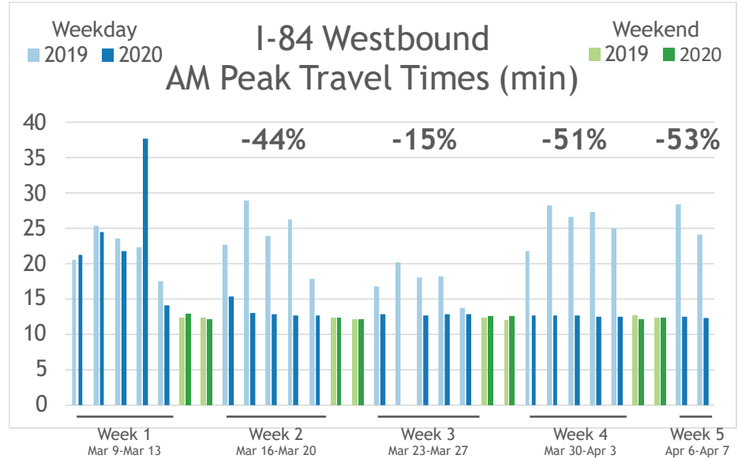
Oregon Department of Transportation

Traffic Volume Comparison

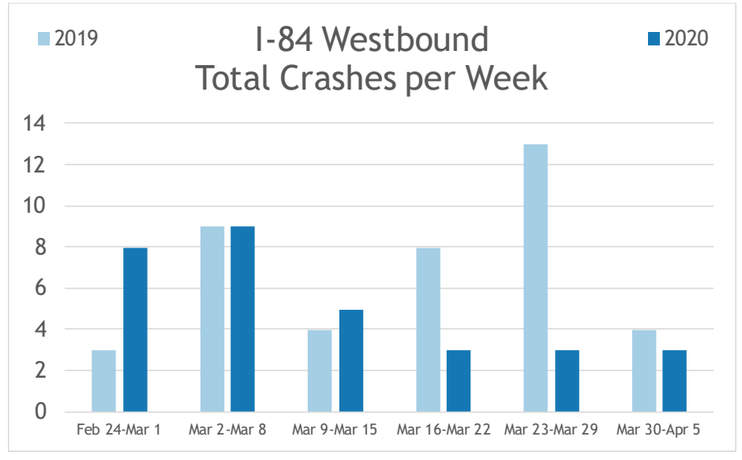


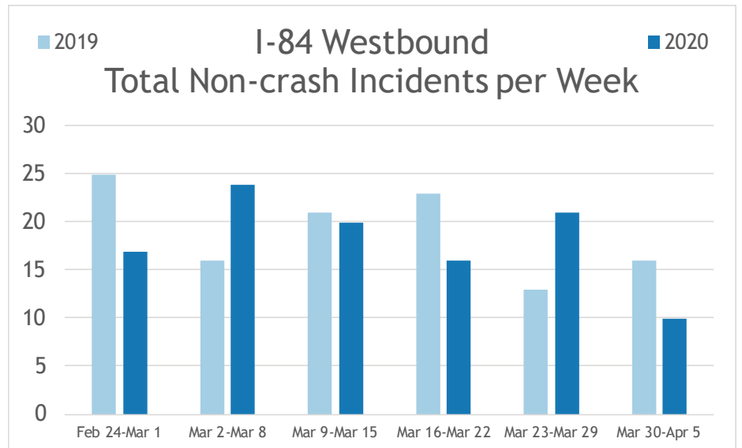


Travel Time Comparison



Incident Data Comparison





10 Portland Traffic Monitoring: Covid-19 Impacts on I-205 Northbound

Percentage (%) decrease shown represents the average weekday traffic per week compared to the year prior. Travel pattern is seasonal, and by comparing travel to the same time in the year prior, we can avoid seasonal adjustments to the data.
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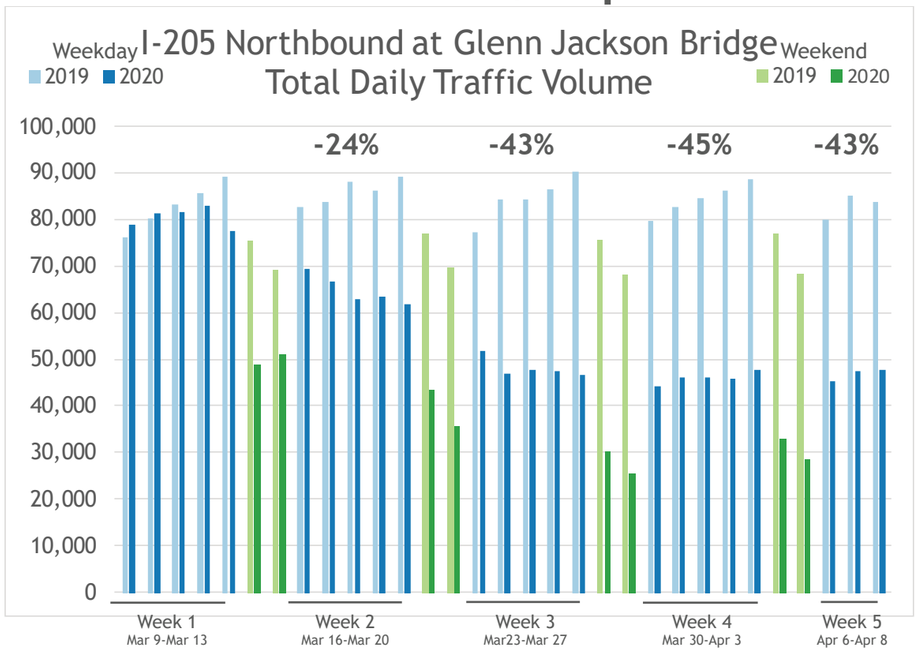
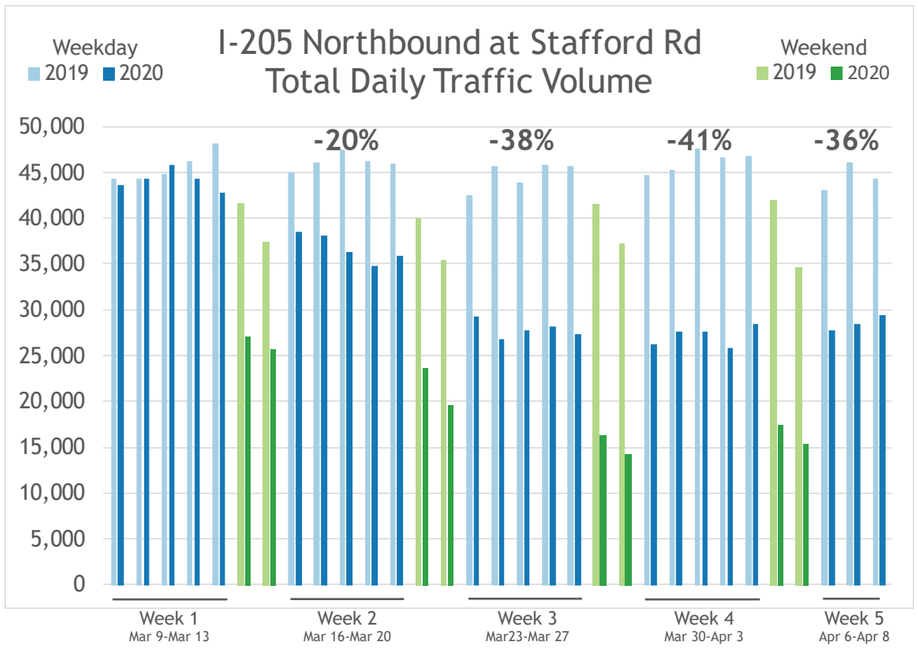
Map of ATR Locations

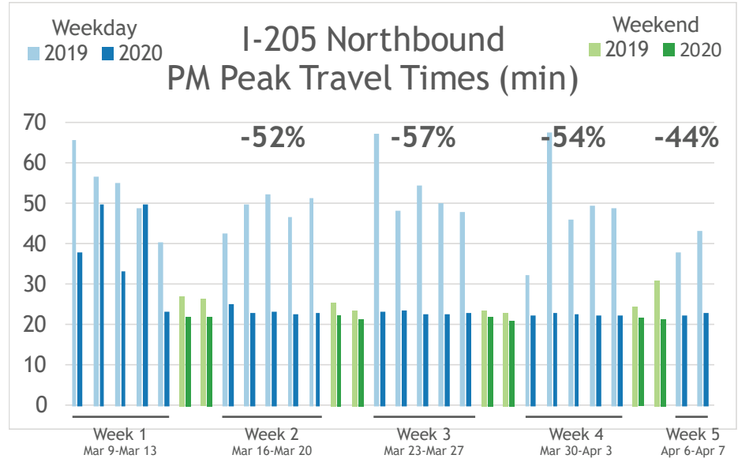
Oregon Department of Transportation

Traffic Volume Comparison

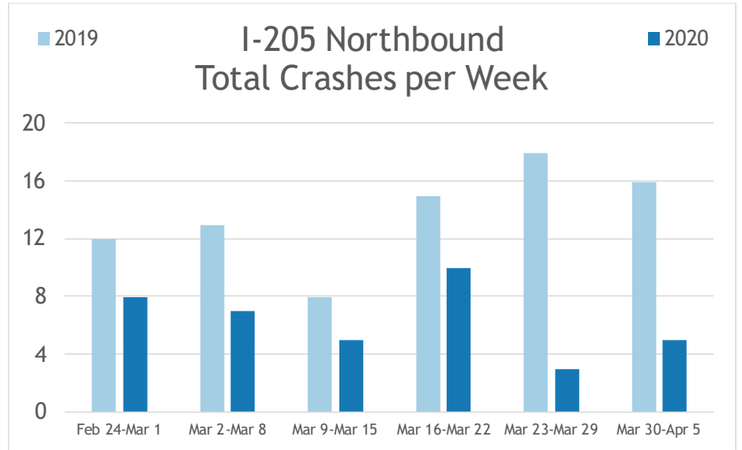


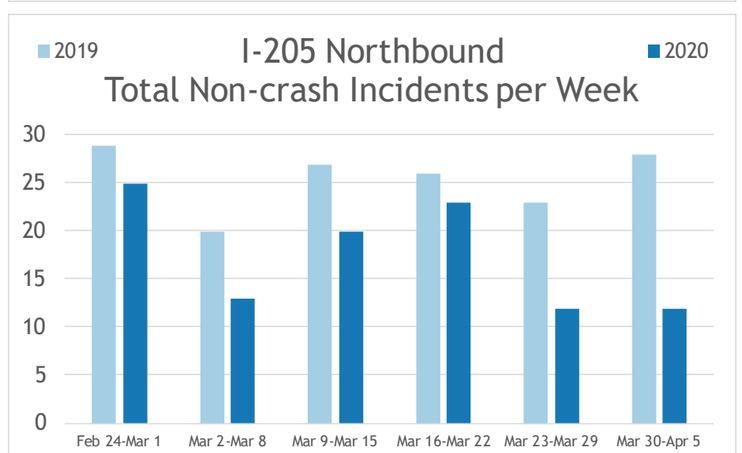


Travel Time Comparison



Incident Data Comparison





Portland Traffic Monitoring: Covid-19 Impacts on I-205 Southbound [11]

Percentage (%) decrease shown represents the average weekday traffic per week compared to the year prior. Travel pattern is seasonal, and by comparing travel to the same time in the year prior, we can avoid seasonal adjustments to the data.
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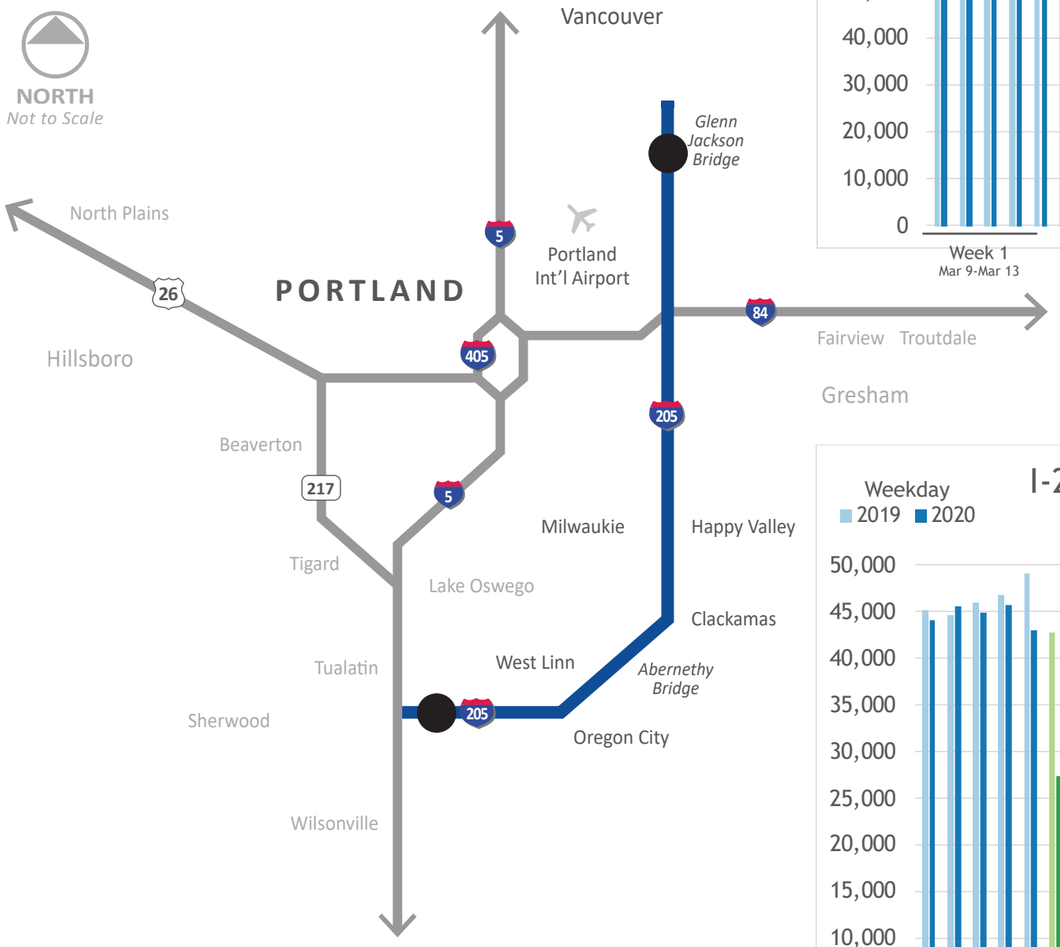
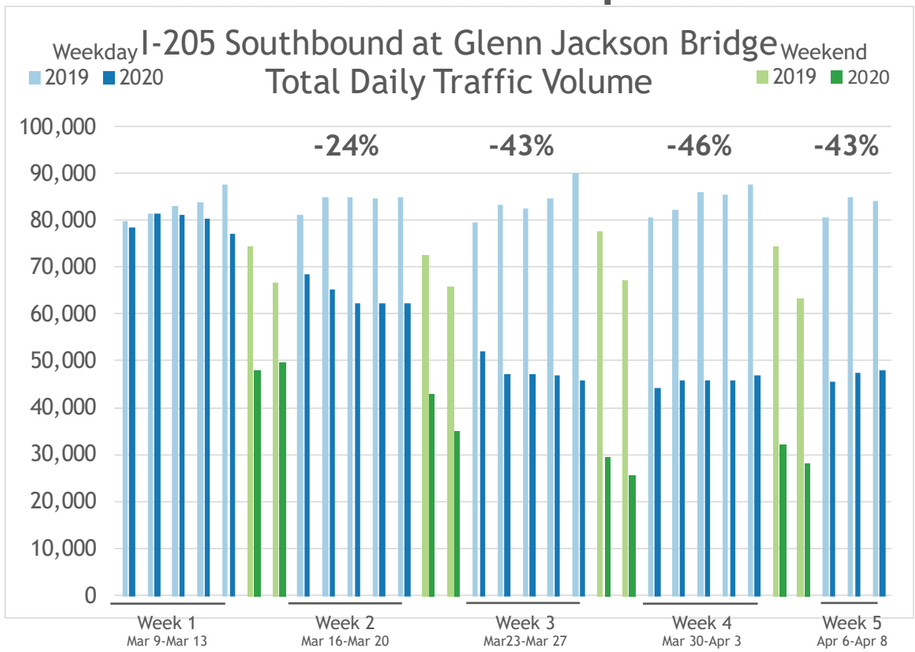
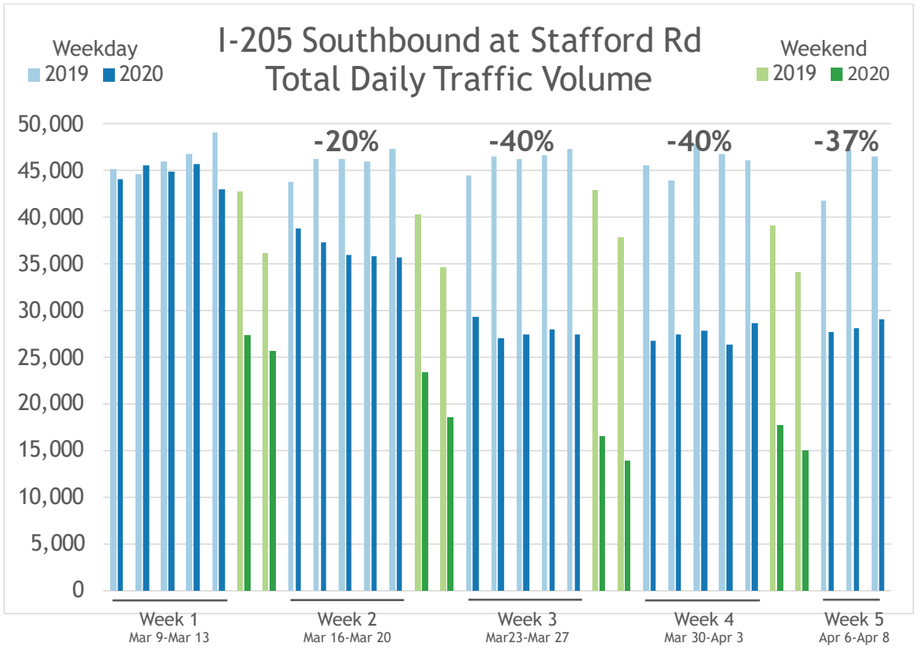
Map of ATR Locations



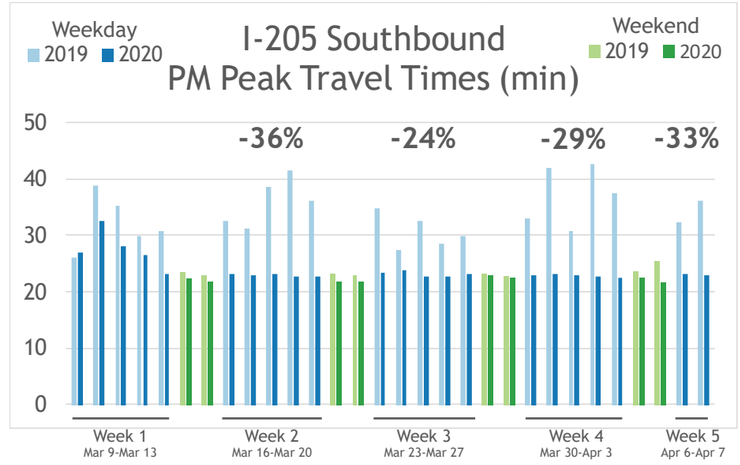
Oregon Department of Transportation

Traffic Volume Comparison

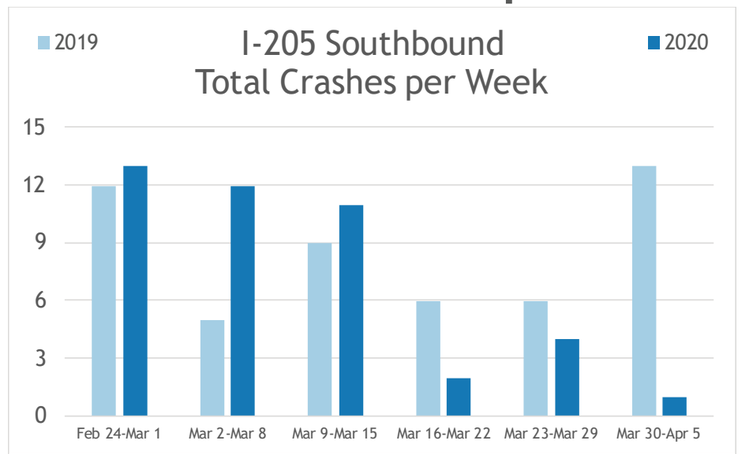


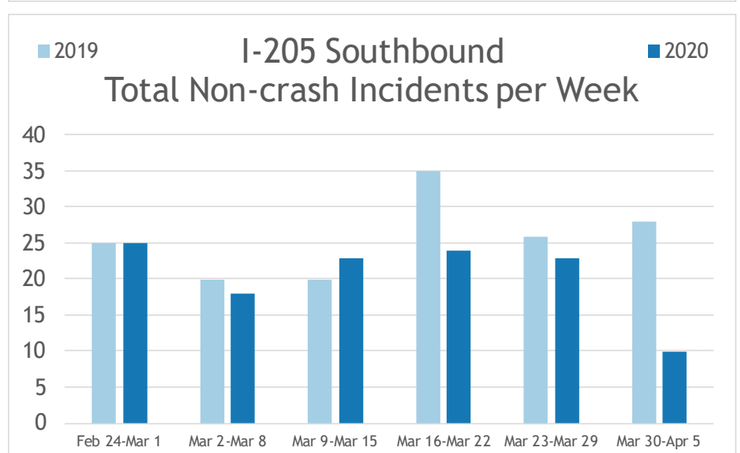


Travel Time Comparison



Incident Data Comparison





12 Portland Traffic Monitoring: Covid-19 Impacts on I-405 Northbound

Percentage (%) decrease shown represents the average weekday traffic per week compared to the year prior. Travel pattern is seasonal, and by comparing travel to the same time in the year prior, we can avoid seasonal adjustments to the data.
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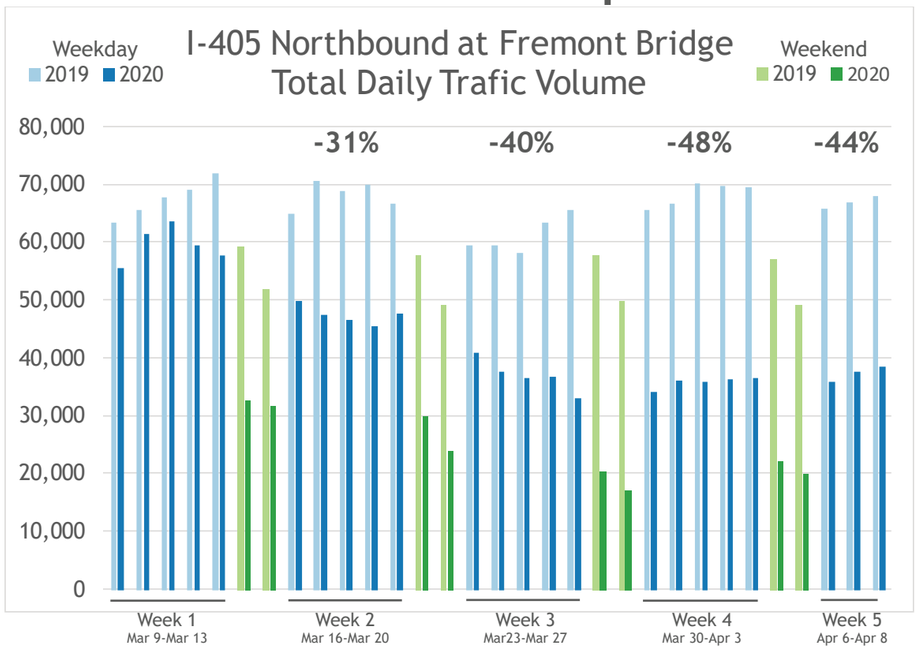
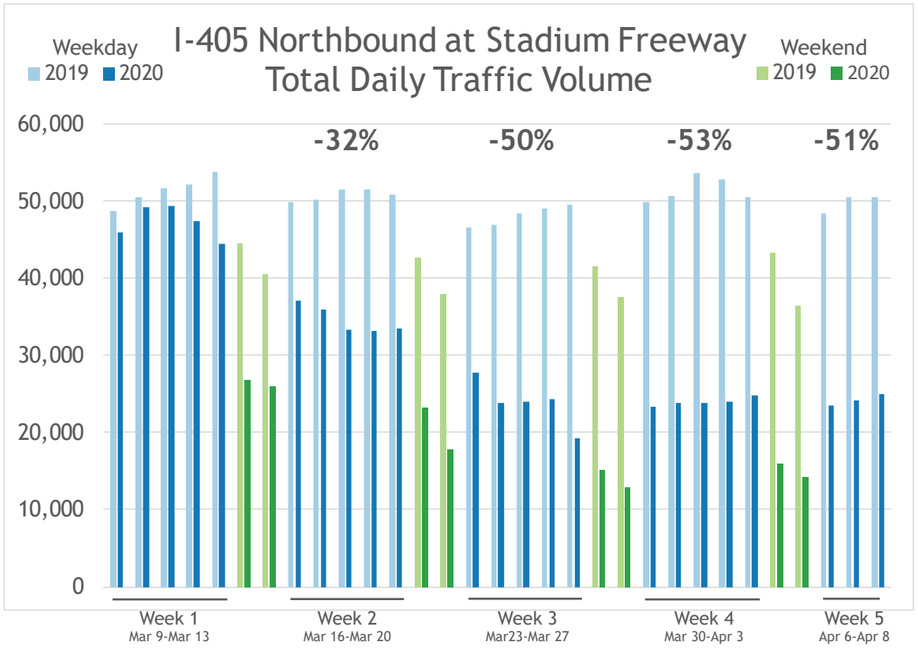
Map of ATR Locations

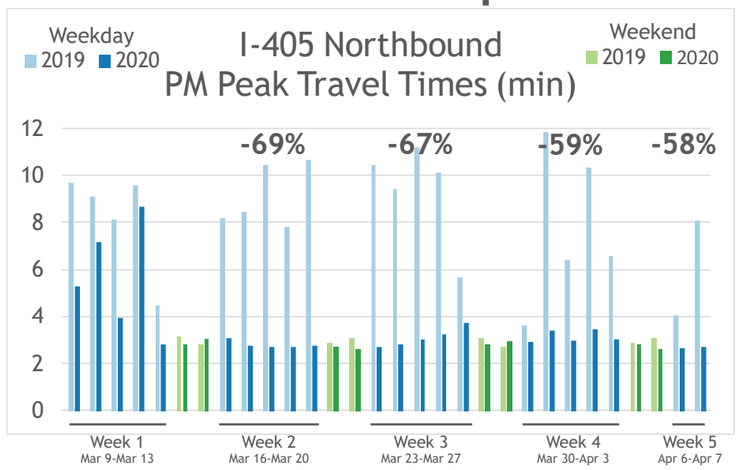
Oregon Department of Transportation

Traffic Volume Comparison

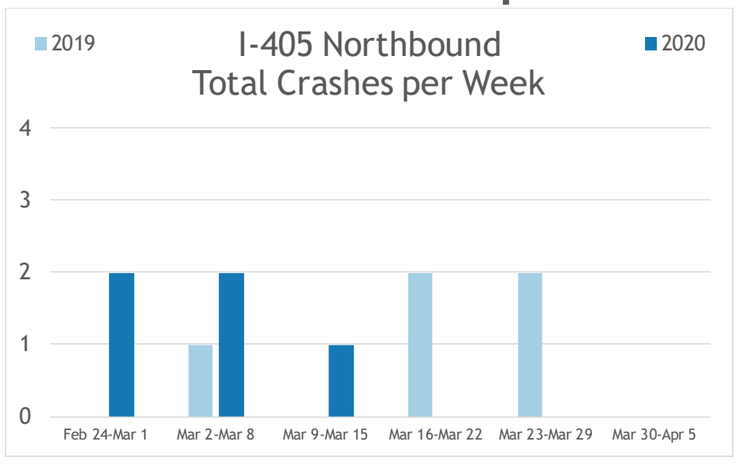


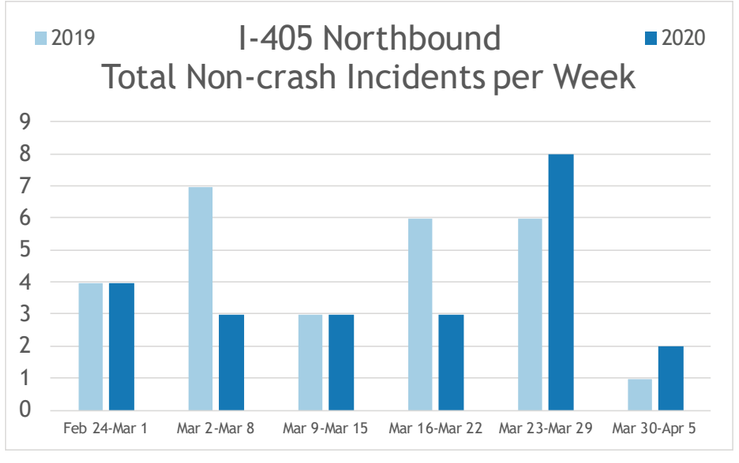


Travel Time Comparison



Incident Data Comparison





Portland Traffic Monitoring: Covid-19 Impacts on I-405 Southbound

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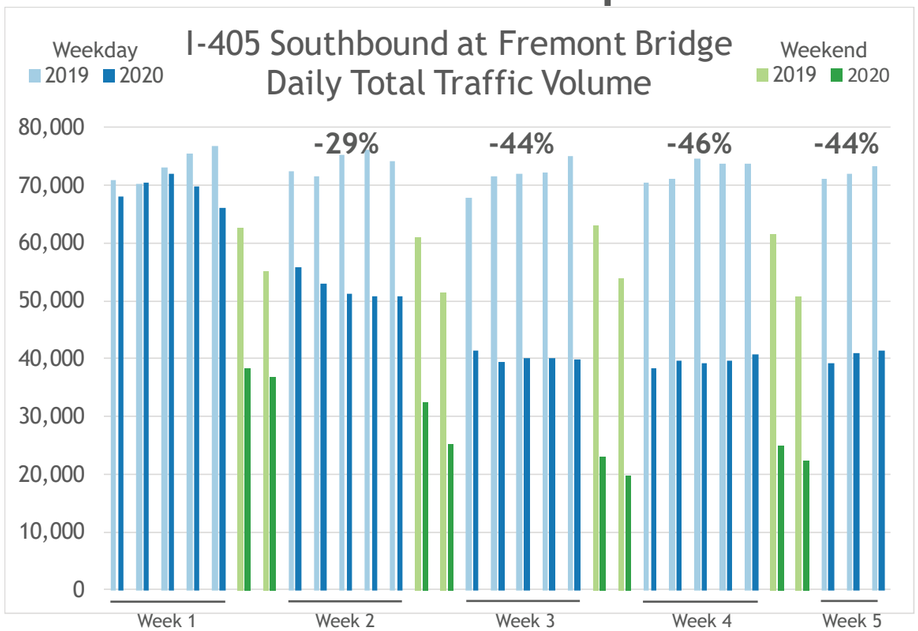
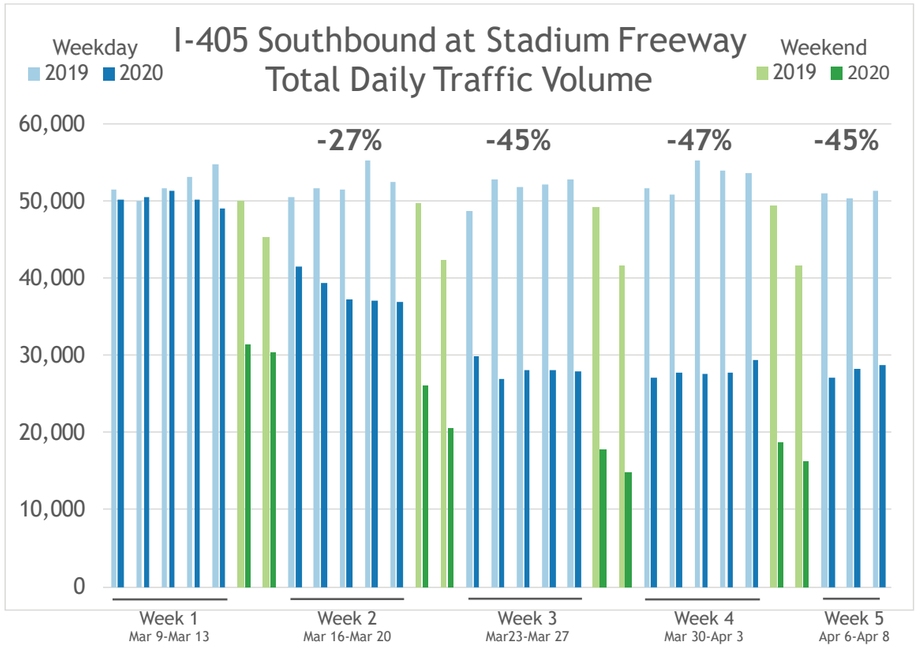
Map of ATR Locations

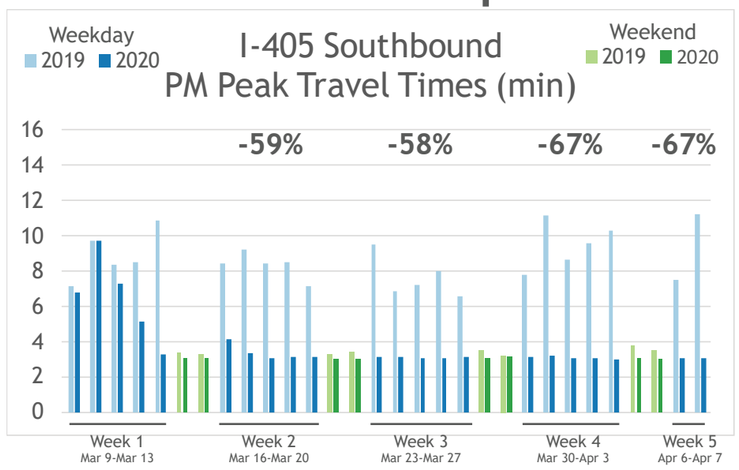
Oregon Department of Transportation

Traffic Volume Comparison

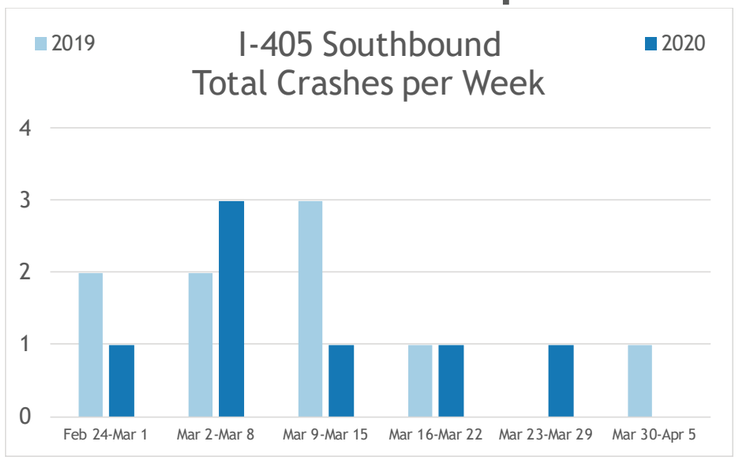


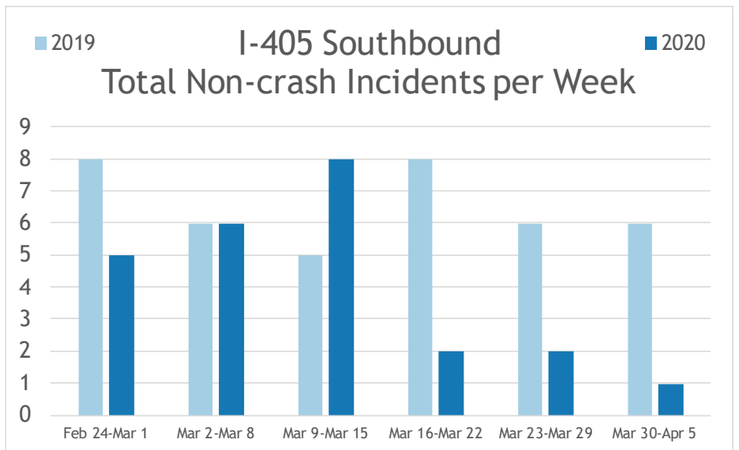


Travel Time Comparison



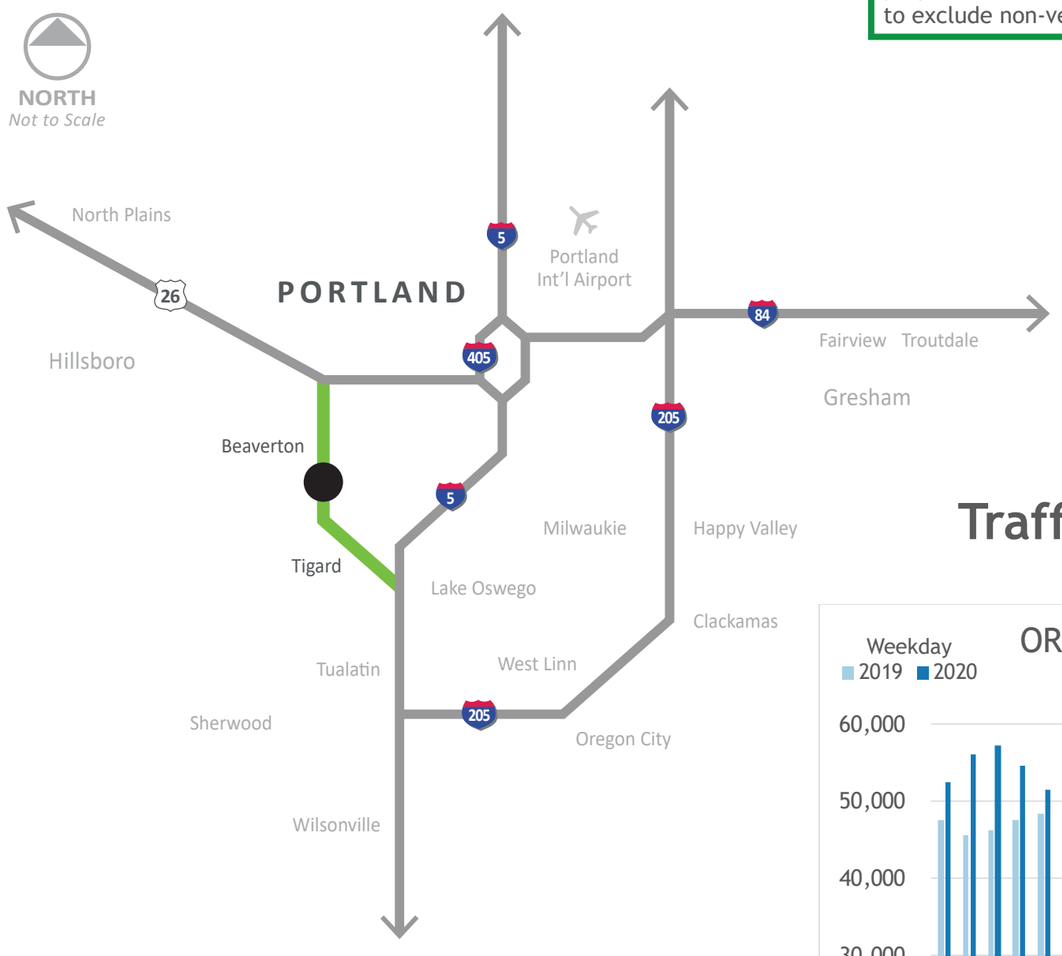
Incident Data Comparison





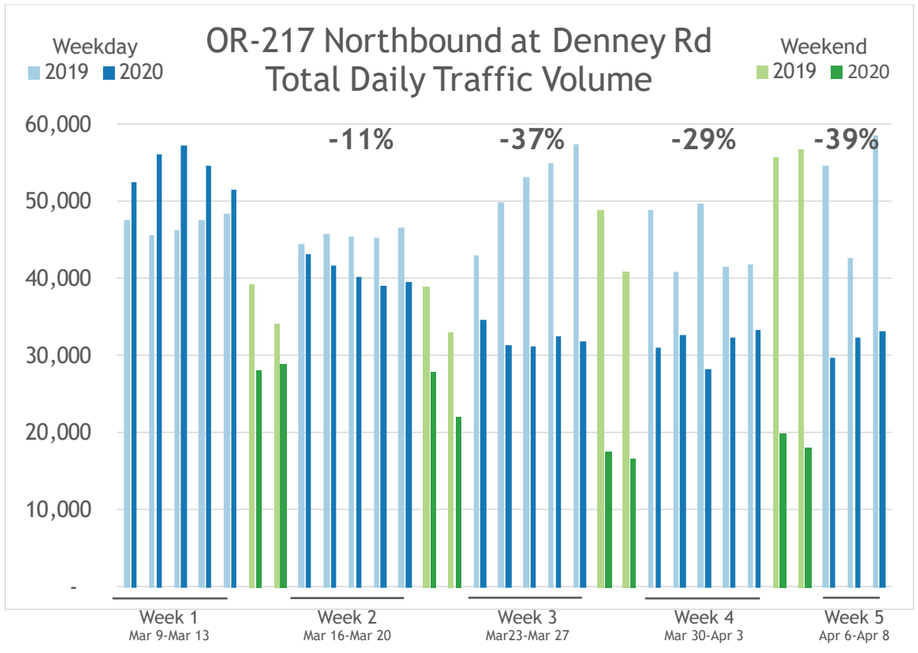
14 Portland Traffic Monitoring: Covid-19 Impacts on OR-217 Northbound

Map of Portal Location

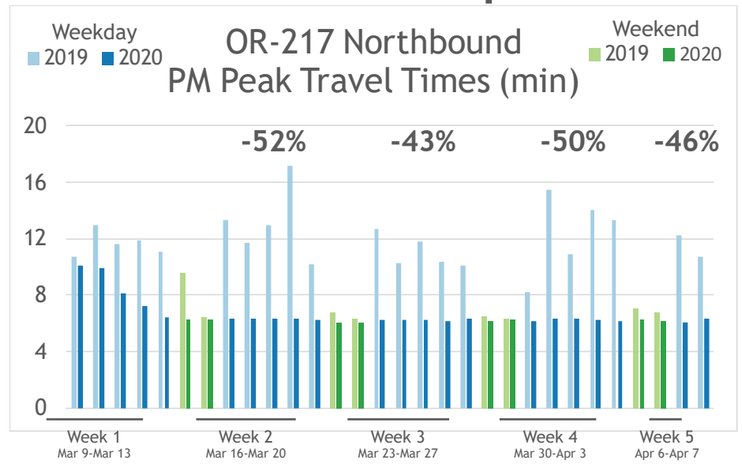


Percentage (%) decrease shown represents the average weekday traffic per week compared to the year prior. Travel pattern is seasonal, and by comparing travel to the same time in the year prior, we can avoid seasonal adjustments to the data.
Incident data has been filtered into crash and non-crash incidents. For the purpose of this reporting, the non-crash incidents have also been narrowed to exclude non-vehicular related factors.

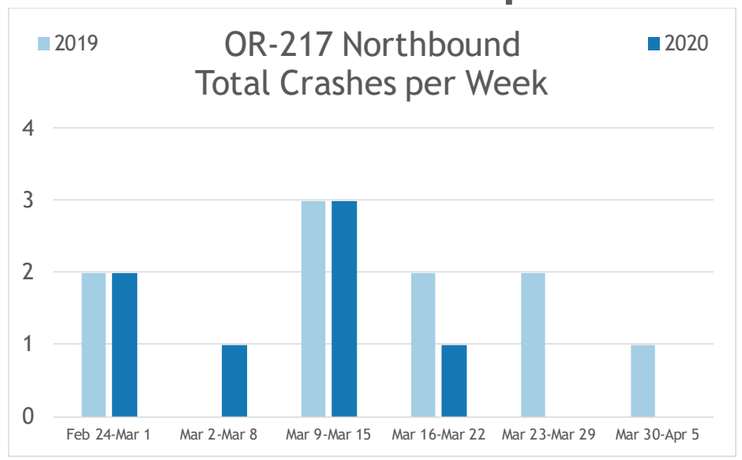
Traffic Volume Comparison

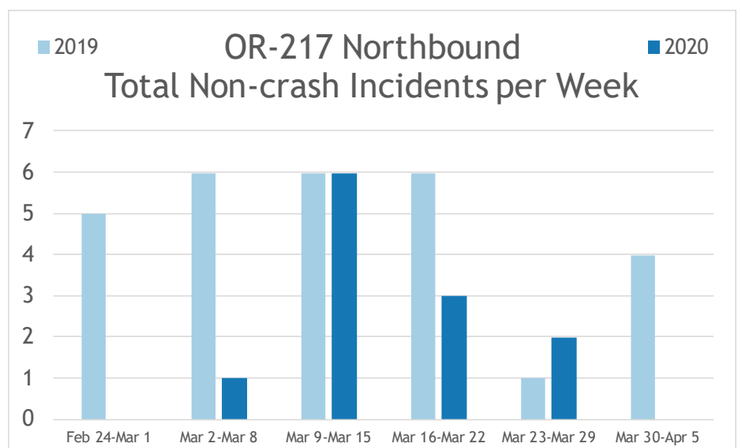


Travel Time Comparison



Incident Data Comparison

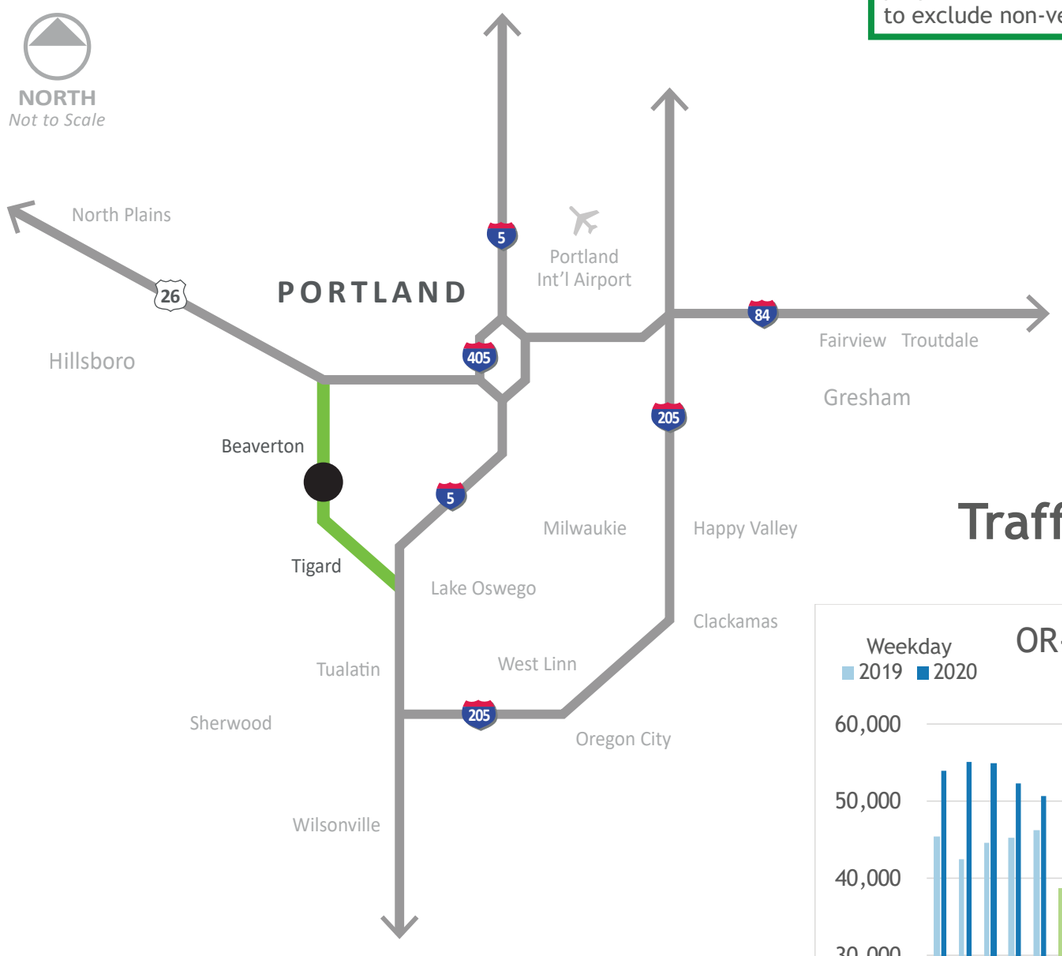




Oregon Department of Transportation

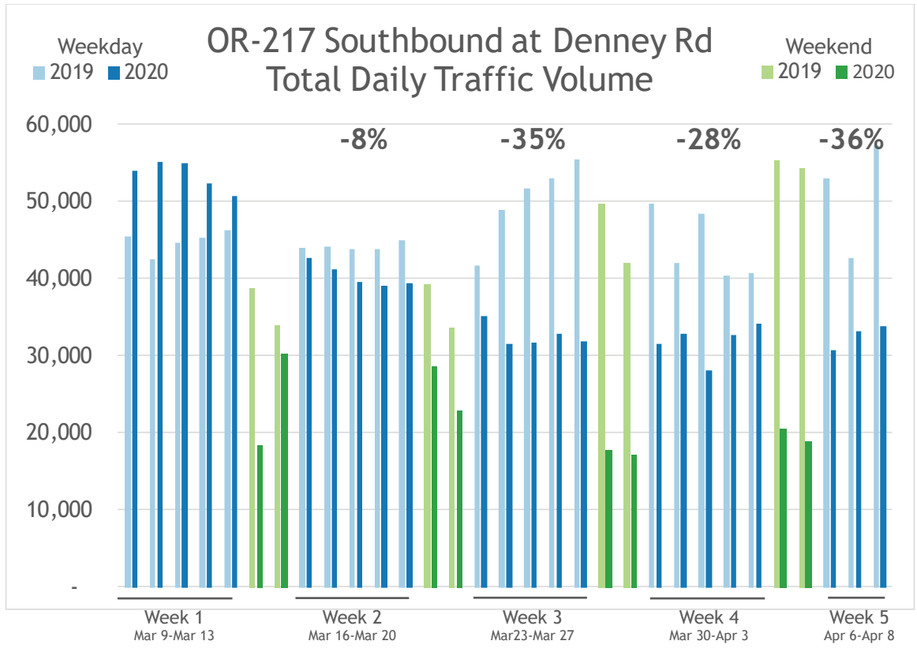
Portland Traffic Monitoring: Covid-19 Impacts on OR-217 Southbound

Map of Portal Location

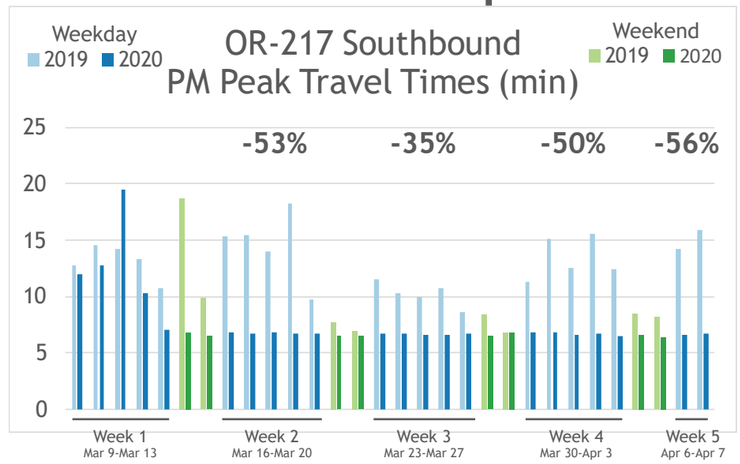


Percentage (%) decrease shown represents the average weekday traffic per week compared to the year prior. Travel pattern is seasonal, and by comparing travel to the same time in the year prior, we can avoid seasonal adjustments to the data.
Incident data has been filtered into crash and non-crash incidents. For the purpose of this reporting, the non-crash incidents have also been narrowed to exclude non-vehicular related factors.

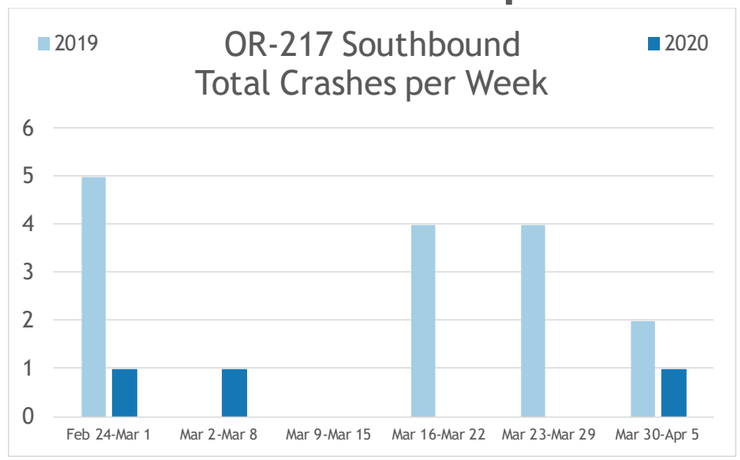
Traffic Volume Comparison

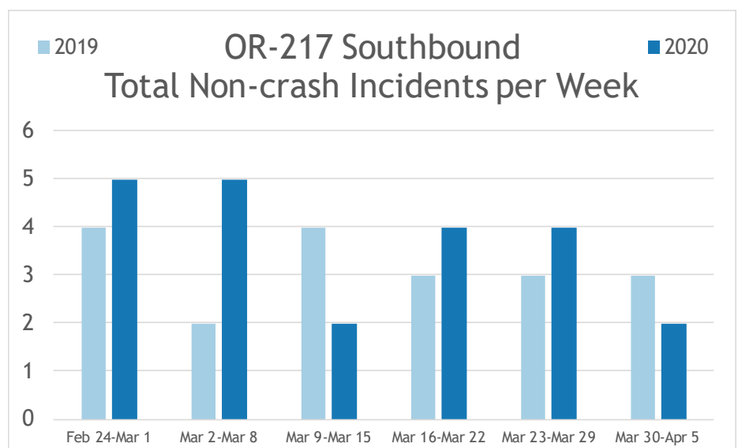


Travel Time Comparison



Incident Data Comparison





Oregon Department of Transportation

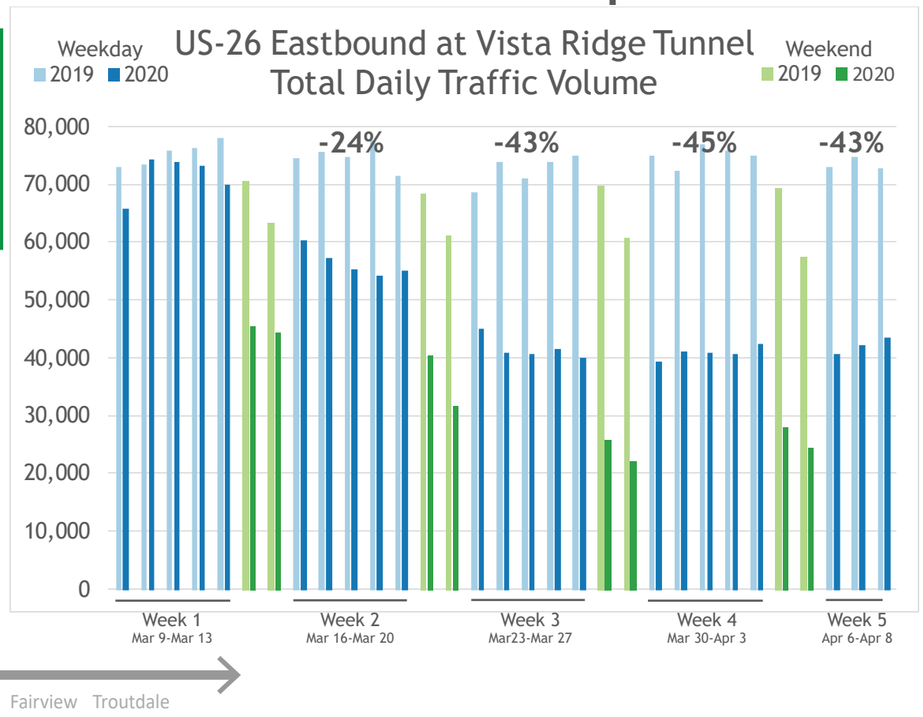
16 Portland Traffic Monitoring: Covid-19 Impacts on US-26 Eastbound

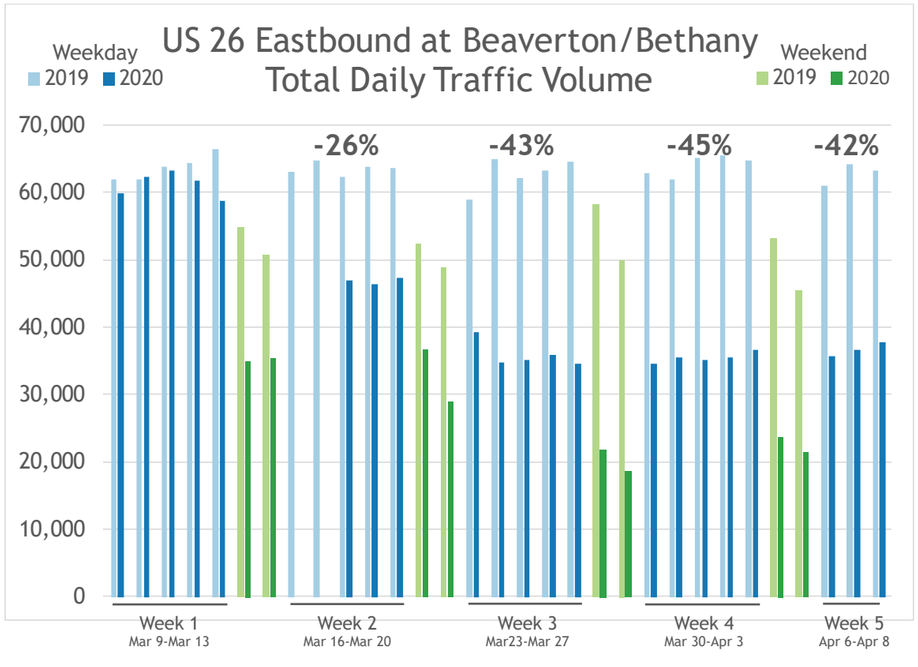
Percentage (%) decrease shown represents the average weekday traffic per week compared to the year prior. Travel pattern is seasonal, and by comparing travel to the same time in the year prior, we can avoid seasonal adjustments to the data.
Incident data has been filtered into crash and non-crash incidents. For the purpose of this reporting, the non-crash incidents have also been narrowed to exclude non-vehicular related factors.

Map of ATR Locations

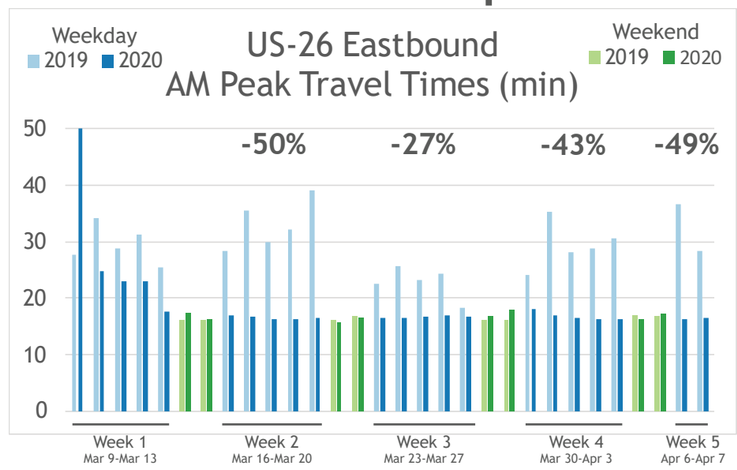
Oregon Department of Transportation

Traffic Volume Comparison

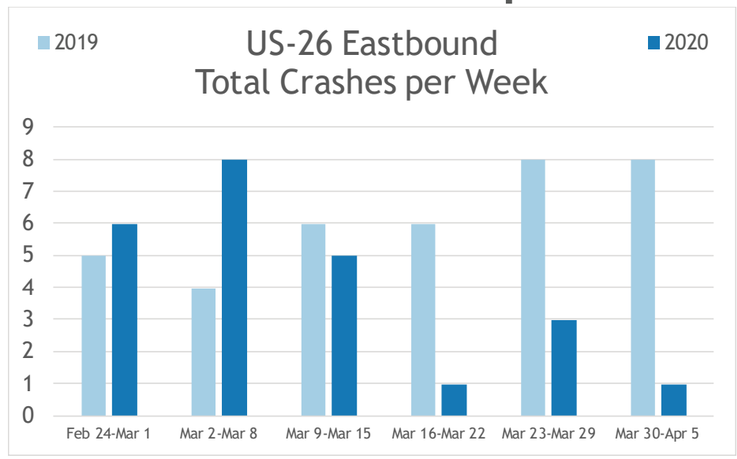


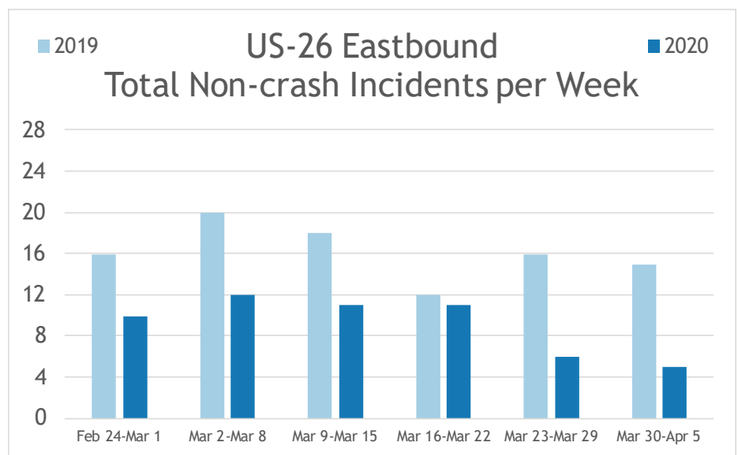


Travel Time Comparison



Incident Data Comparison





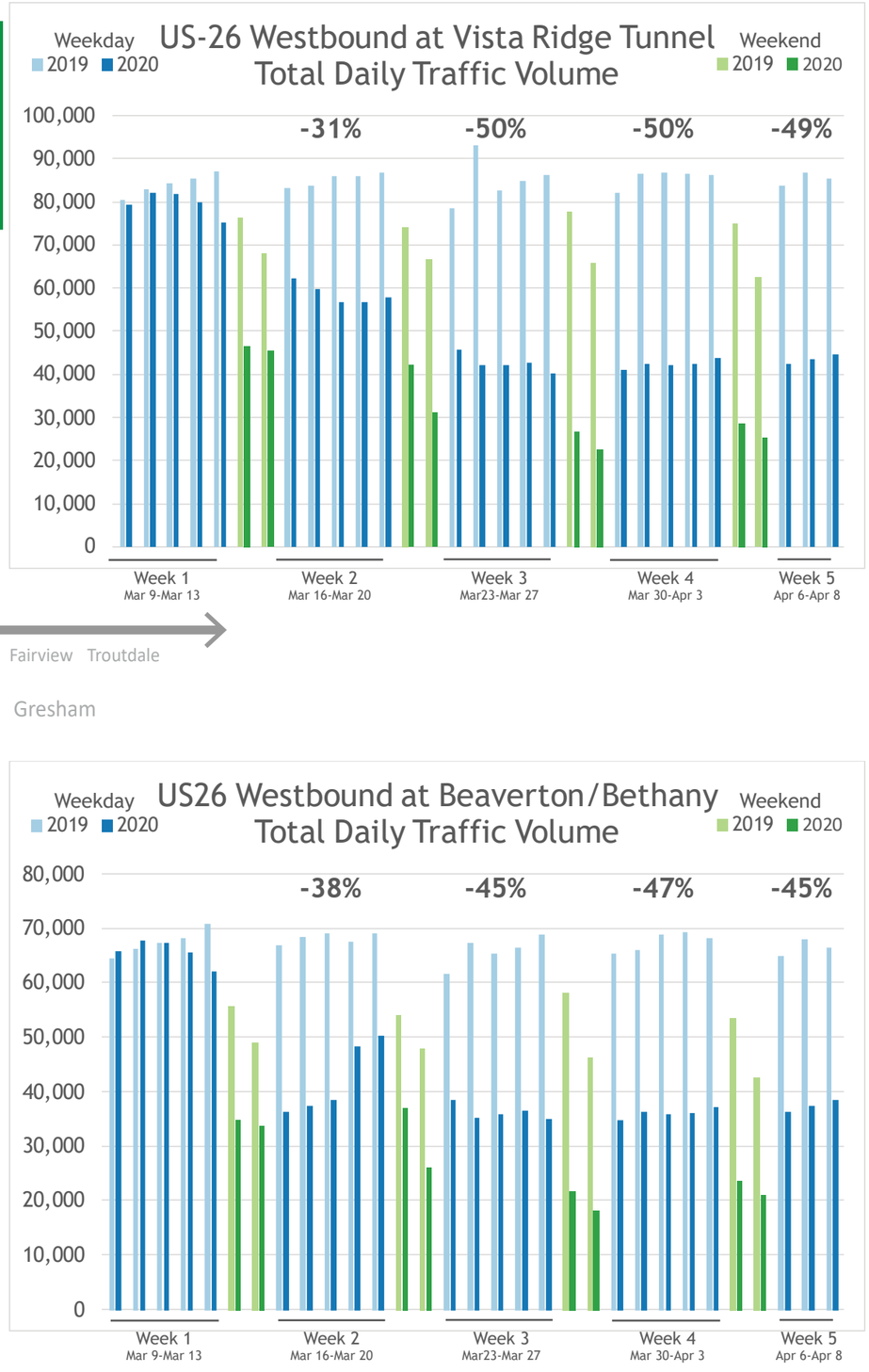
Portland Traffic Monitoring: Covid-19 Impacts on US-26 Westbound

Percentage (%) decrease shown represents the average weekday traffic per week compared to the year prior. Travel pattern is seasonal, and by comparing travel to the same time in the year prior, we can avoid seasonal adjustments to the data.
Incident data has been filtered into crash and non-crash incidents. For the purpose of this reporting, the non-crash incidents have also been narrowed to exclude non-vehicular related factors.

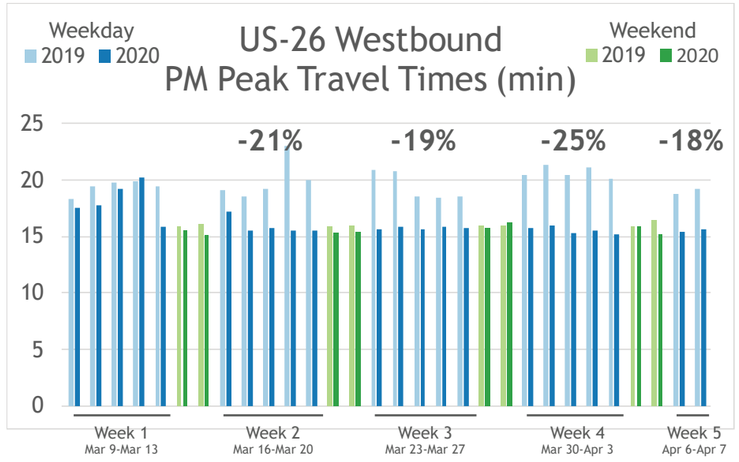
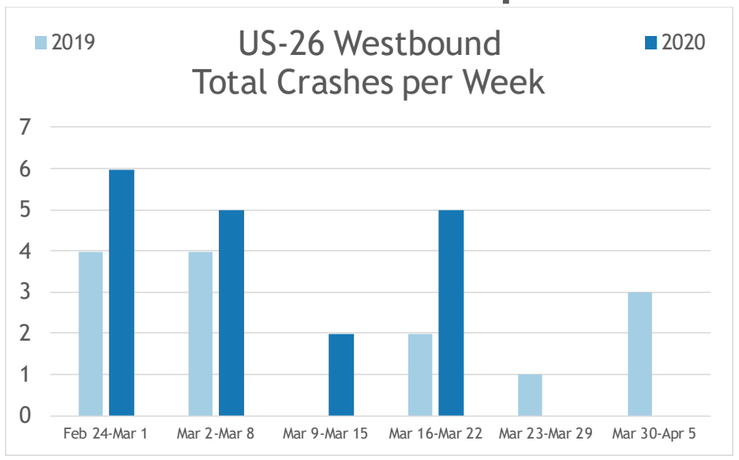
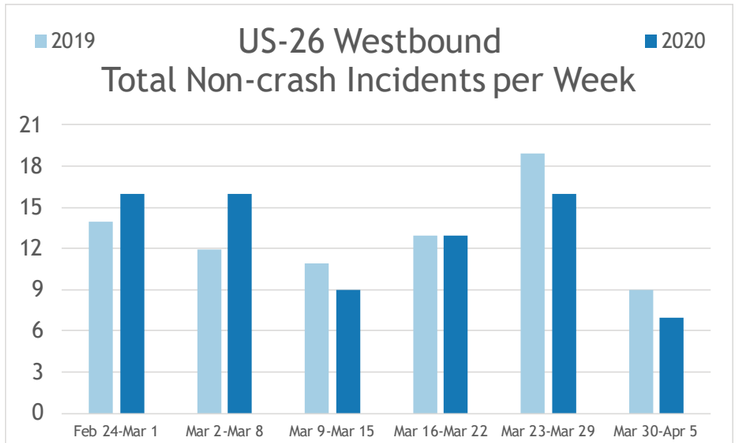
Map of ATR Locations

Oregon Department of Transportation

Traffic Volume Comparison



Travel Time Comparison



Incident Data Comparison