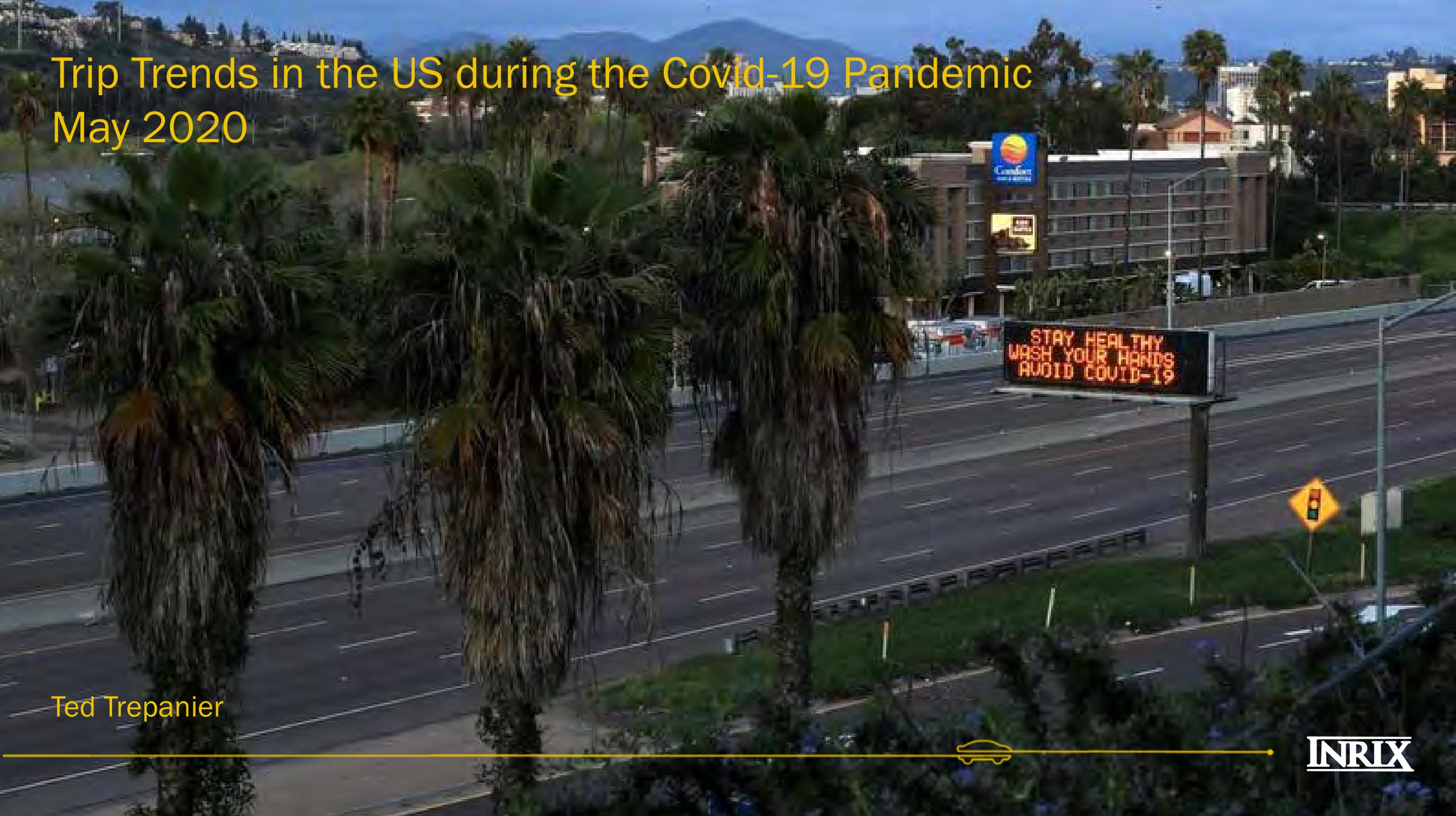


Trip Trends in the US during the Covid-19 Pandemic

May 2020



Ted Trepanier



Our Mission is to Improve Mobility Worldwide

We are connecting people, cities and businesses to keep the world moving smarter, faster, and safer

Cities & Road Authorities

From intersections to highways, we're helping to make mobility smarter, safer and more enjoyable for everyone.



Automotive

Our high-quality content and innovative services help OEMs create the ultimate driving experience.



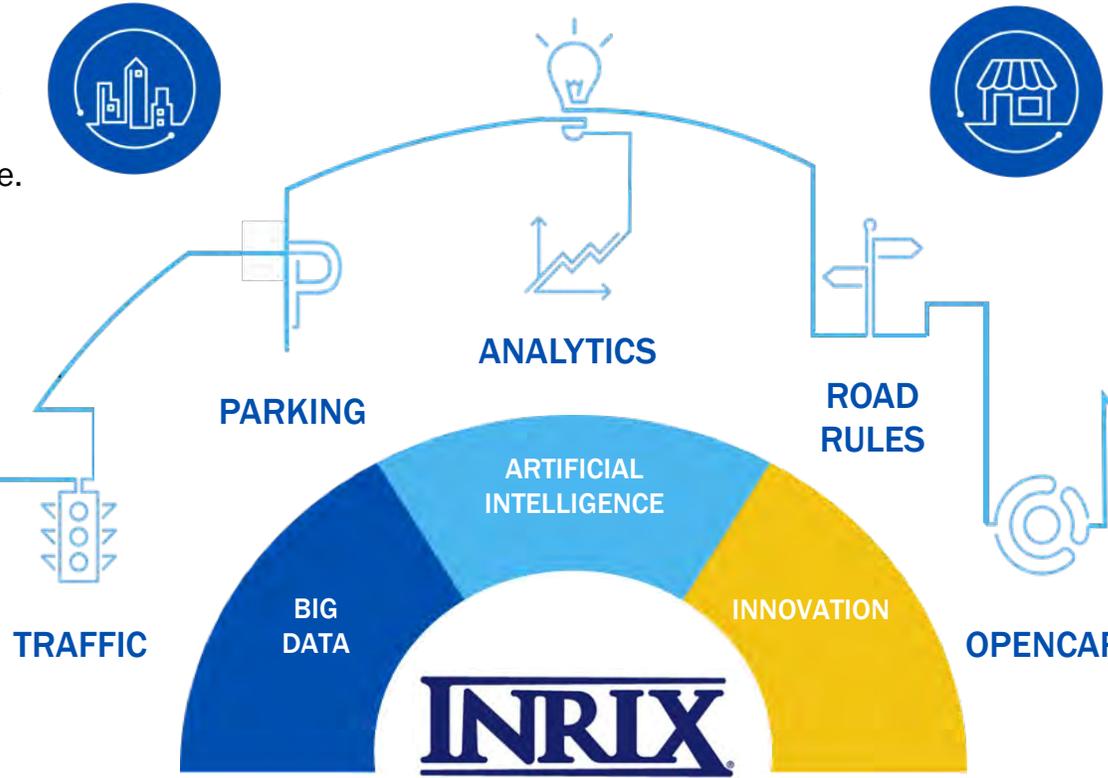
Businesses

We help a diverse set of world-class businesses make calculated decisions and improve their services with mobility data and analytics.



People

Popular navigation apps, smart speakers, and cloud-based services rely on our services to improve their users' journeys.

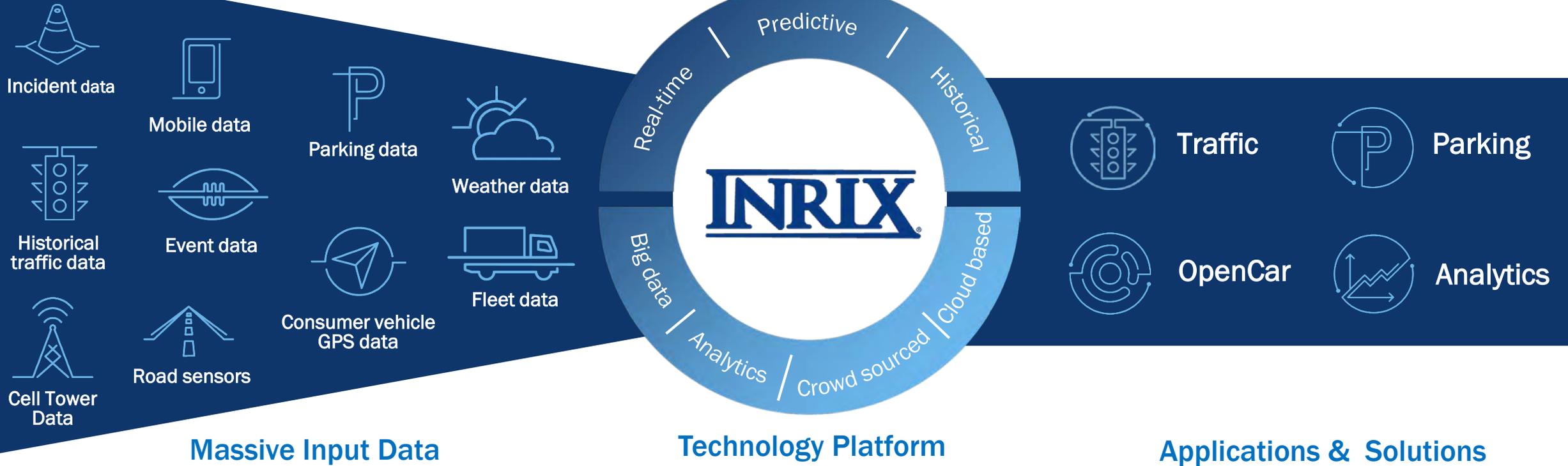


Intelligence That Moves the World



INRIX Technology Platform

Unique big data and analytics platform ingesting multiple data feeds



- Global geo-spatial platform for location based services
- Massive real-time data aggregation and processing
- Analytics capabilities on 10 years of historical data



Source Data Comes from Many Types

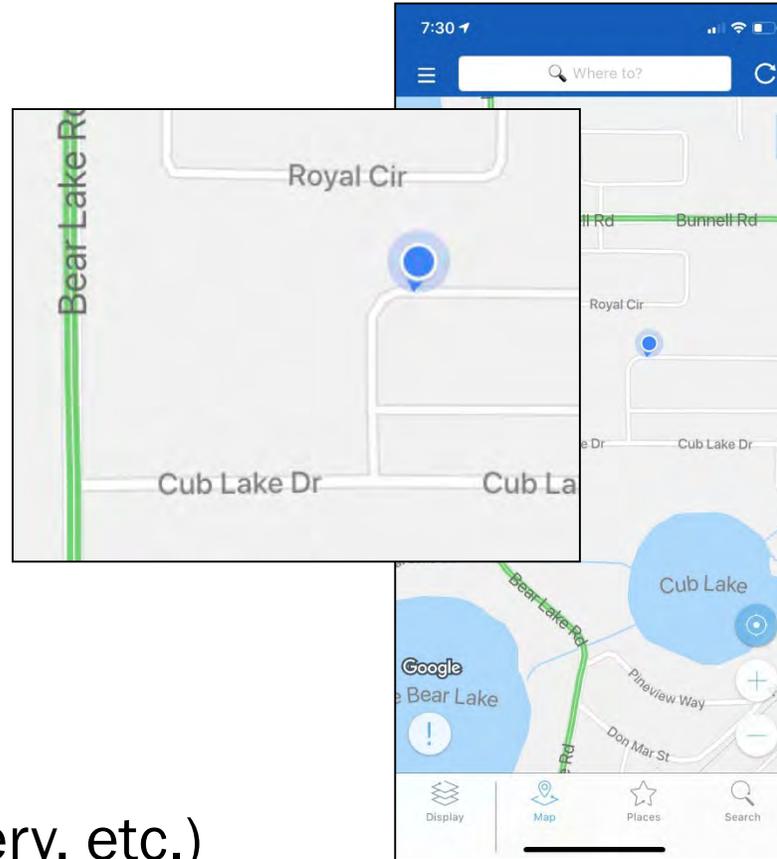
100 million+ trips per day in the US

Core Source Data Elements:

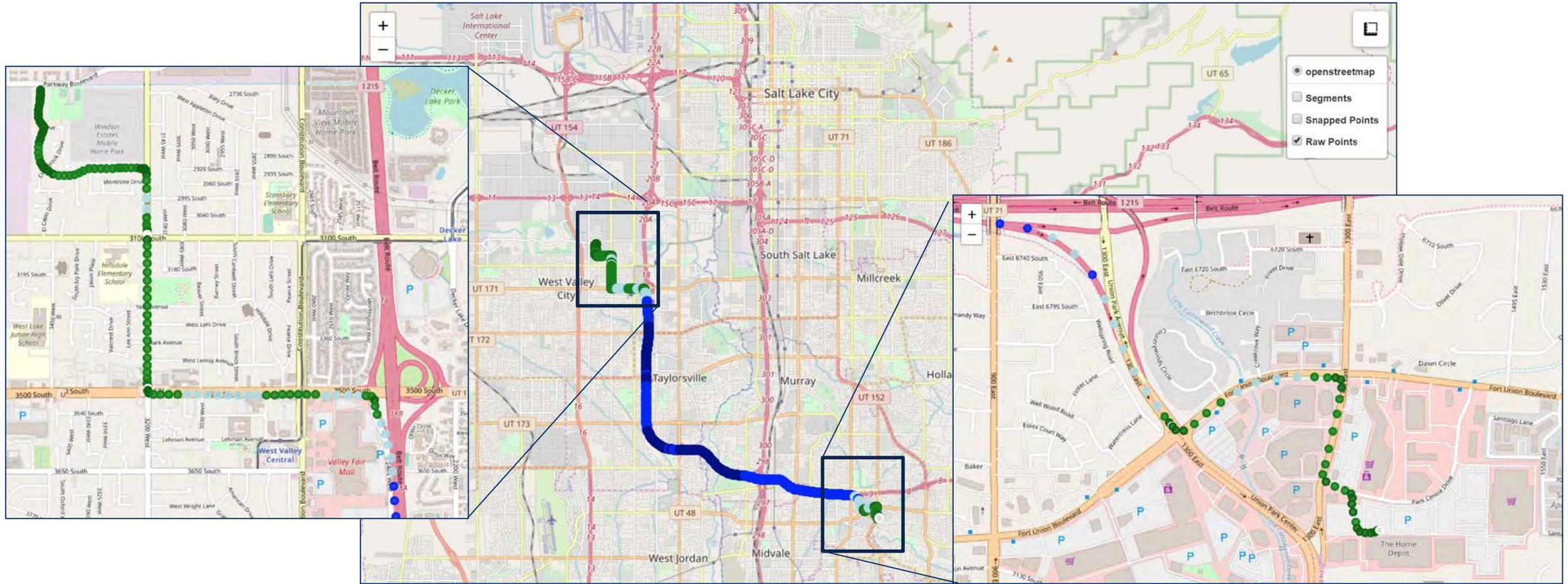
- Device/Trip ID
- Location
- Heading
- Speed

Data Types:

- Consumers
 - Connected Cars
 - Mobile Phones
- Local Fleets (service, delivery, etc.)
- Long Haul Trucks



Consumer Trip Example (South Salt Lake City, Utah)

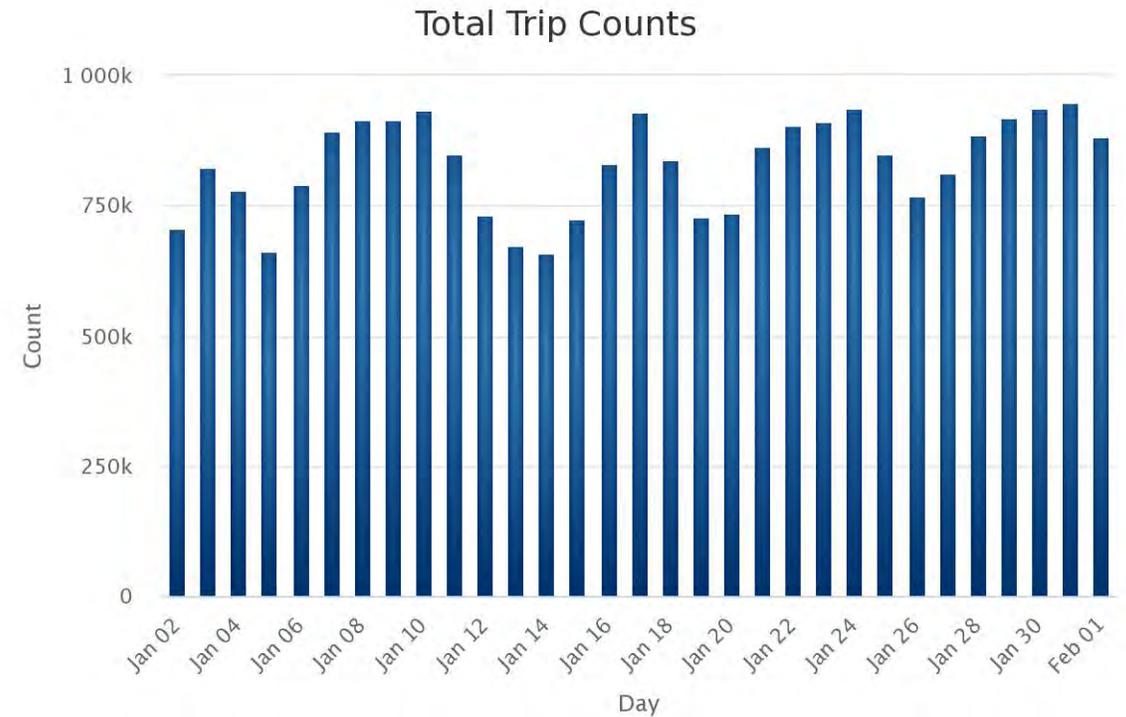


INRIX's Trip Datasets are Growing – Seattle Metro Numbers

Trip Records grew by more than 8x in 2019

3 million trips - Seattle Metro - January 2019

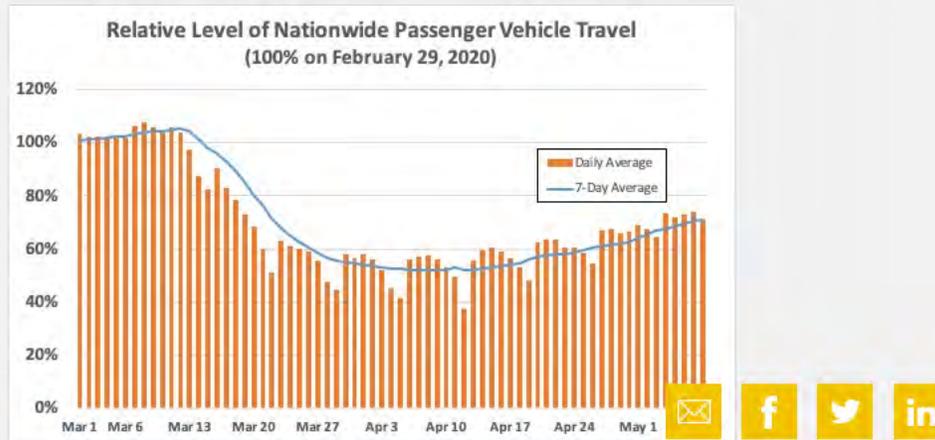
25 million trips - Seattle Metro – January 2020



Connected Car, Industry News, Smart Mobility, Traffic, USA

INRIX U.S. National Traffic Volume Synopsis Issue #8 (May 2 – May 8, 2020)

May 11, 2020 / By Mark Burfeind



By Rick Schuman, VP, Public Sector Americas (rick@inrix.com)

This is the eighth edition of a weekly review of changes in road traffic demand in the United States from the COVID-19 virus spread and our collective response.[1] We will endeavor to publish this Synopsis every Monday for the foreseeable future, providing results through Friday of the previous week. If interested in detailed information with daily updates, we have introduced the INRIX Traffic Trends.

Key Findings

- Travel continued to accelerate the rate of rebound, across all states, regions and vehicle types

<https://inrix.com/blog/>

- Personal travel down 29% vs. 36% in Week 7, increasing daily since April 15th

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RELEVANT POSTS/CONTENT

INRIX U.S. National Traffic Volume Synopsis: Issue #1 (March 14-20, 2020)
[READ MORE](#)

Big or Small, All Cities Experience Rush Hour
[READ MORE](#)

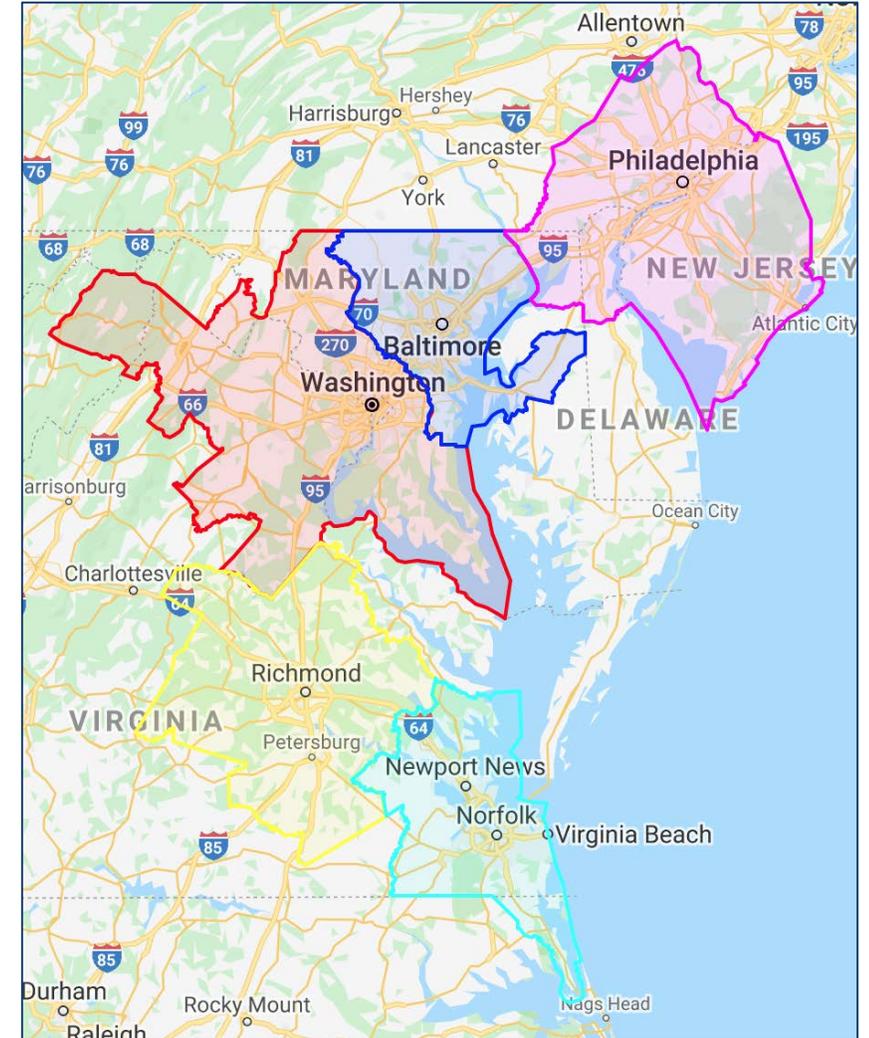
INRIX U.S. National Traffic Volume

Traffic Volume Trends Dashboard



Volume Index Fundamentals

- Leverages 'Metadata' from INRIX Trips
- Uses aggregated total daily trip distance
- Internal tools categorize trips/distance by:
 - Country
 - State
 - Regions (nearly 100, INRIX defined 'standard geographies')
 - Vehicle Type
- Established a control period, non-holiday days:
January 20 – Feb 28, 2020
- All dashboard metrics are results are ratios for comparison
between given day and same day of week in control period



Traffic Volume Trend Dashboard

Daily Index by Vehicle Type and Geography

Indices included:

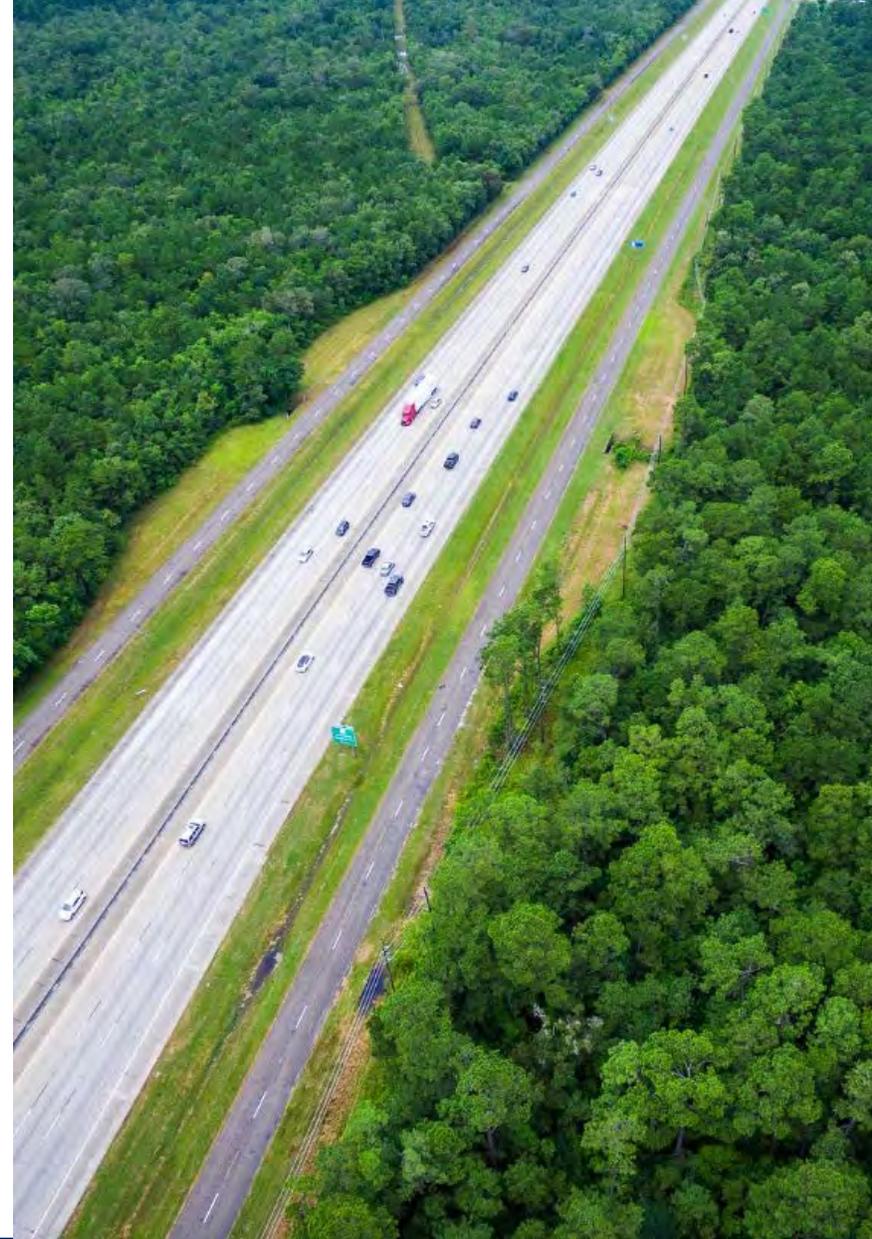
- VMT – Total vehicle miles traveled
- Total Trips
- Average Trip Length

Geographical Summaries

- 7 Countries
- 50 States plus DC
- 98 Markets – Major Metro Areas

“Typical Days”

- 5-week period, January 20 thru February 28, 2020, excluding school holidays
- Average created for each day of the week



Traffic Volume Trend Dashboard

Daily Index by Vehicle Type and Geography

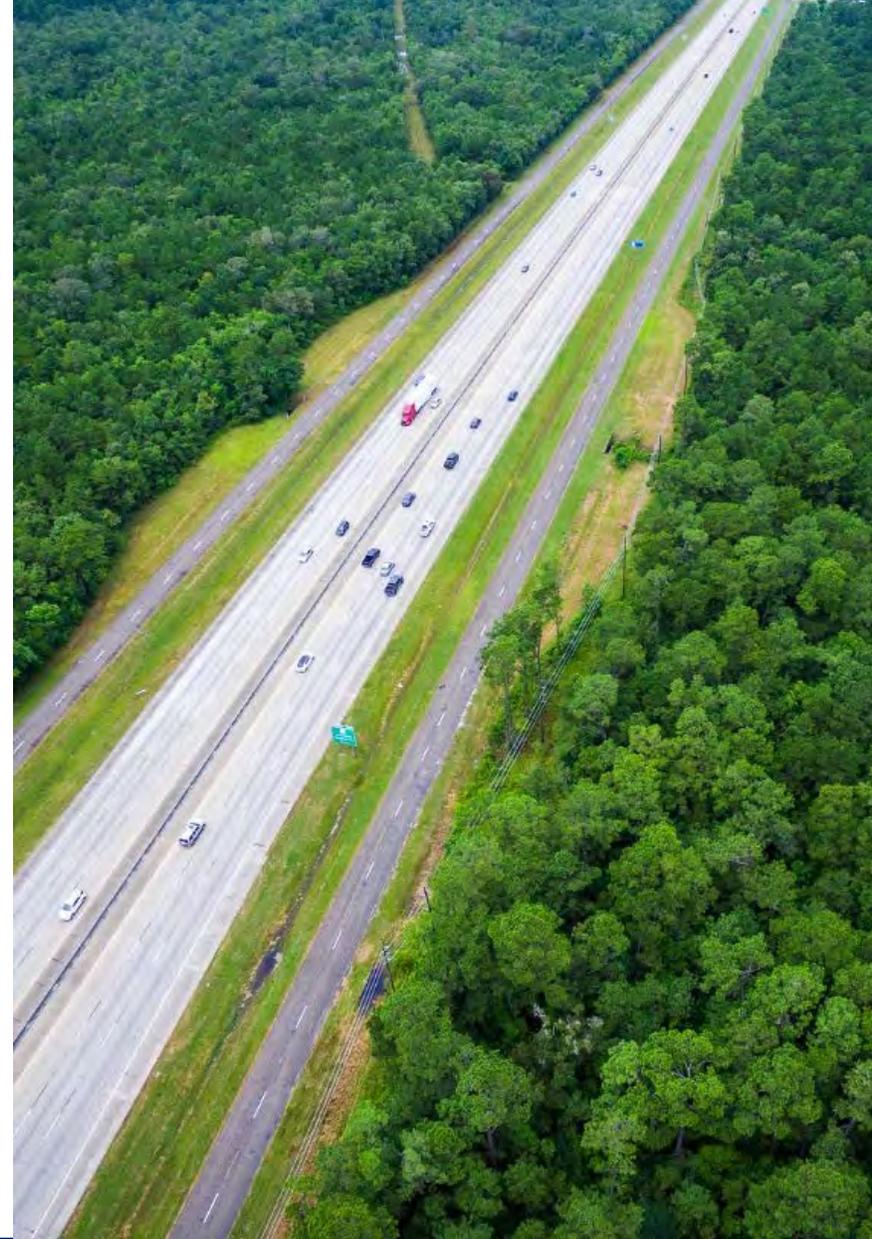
Vehicle Types:

- Local Fleets
- Long-Haul Trucks
- Passenger Vehicles

Time of Day Filters:

- AM Peak (6am – 10am)
- PM Peak (4pm – 8pm)
- Off-Peak (All other hours)

Includes data export functions to Excel



INRIX Traffic Volume Trend Dashboard

What measures are available in this report?

This report characterizes trends in trip volumes, total distance traveled, and average trip distance for major metropolitan areas in the USA, as well as for seven countries including the USA.

What data sources is this based on?

The data underlying this report is INRIX trips data, which is derived from GPS traces of millions of vehicles and mobile devices around the world. This data includes a number of fleet and freight vehicle transponder sources, which allows us to characterize travel trends with respect to different types of vehicles and corresponding travel patterns i.e. passenger cars, long-haul trucks, and local delivery vehicles.

What do these "Normalized" measures represent?

For trip count, vehicle miles traveled (VMT), and mean trip length, we first establish a range of dates that would be considered typical with respect to travel demand and traveler behavior. These "typical" dates are defined as all non-holiday dates in 2020 between January 20th and February 28th, inclusive. Documented school holidays are excluded as much as possible. From these dates, we compute the median trip count, VMT, and mean trip distance by day of week and (for US cities only) time of day bins. The values you are seeing in these plots represent the observed measure divided by the median typical value for that measure for that day of week and/or time of day bin. In practical terms, this represents the observed measure as a fraction of what would be expected in the absence of a global pandemic.

What hours of the day are considered "Morning Peak" and "Evening Peak"?

The definition of peak hours used in this report are intentionally somewhat broad. This is because peak travel hours change significantly across and even within cities and states, and it is important to use the same definitions everywhere to allow for between-city comparison of travel trends. The intent is to capture the majority of morning and evening peak travel in these bins across a wide spectrum of land uses, industries, and prevailing traffic patterns. The time bins are defined as:

Morning Peak: 6:00AM - 10:00AM

Evening Peak: 4:00PM - 8:00PM

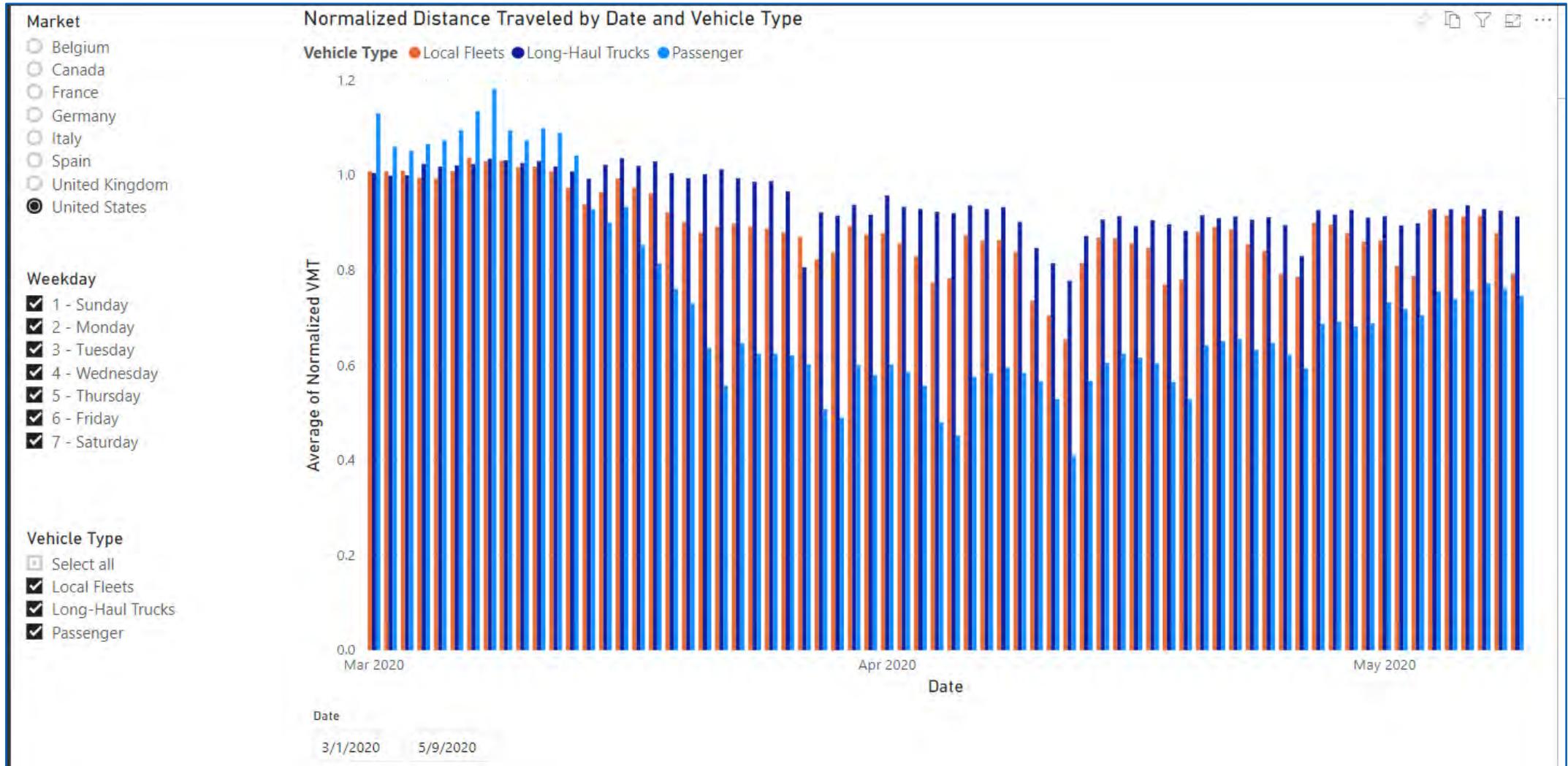
Off-Peak: 8:00PM - 6:00AM and 10:00AM - 4:00PM

How often is this data updated?

In each daily update, the latest available Trips data is added to the report. In order to insure the data is complete for all dates represented, there is typically a lag of two to three days before a given date is viewable in this report.

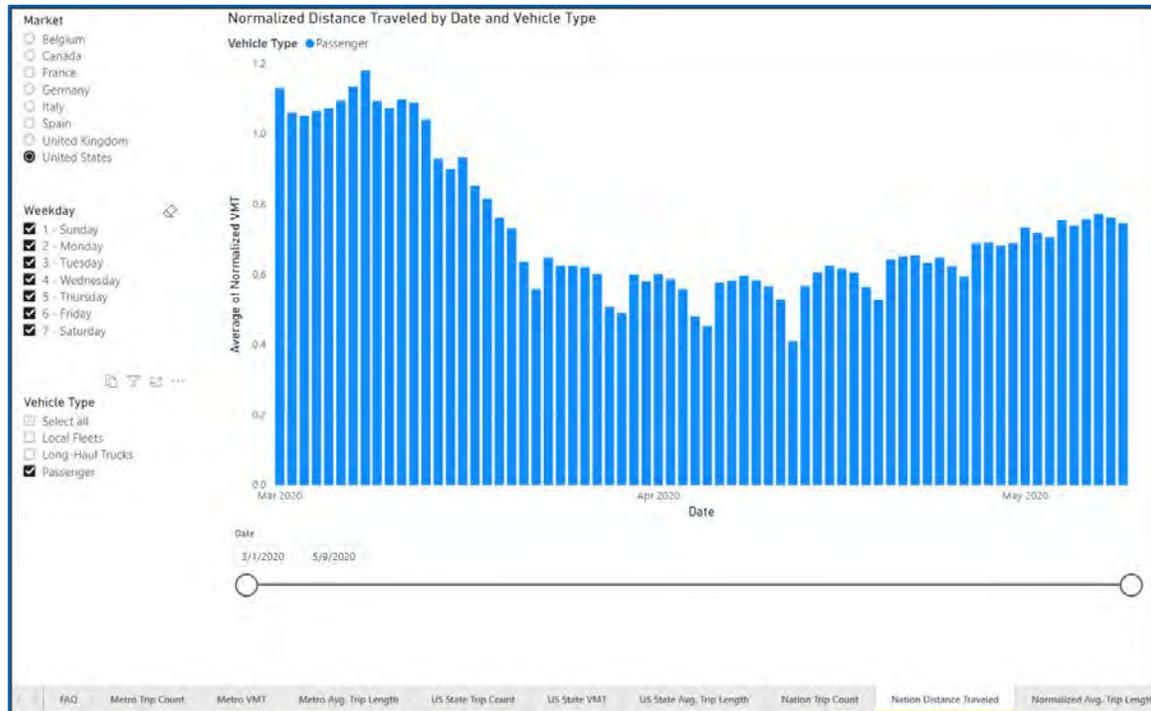


Trip Trends Dashboard: Example of USA VMT by Date and Vehicle Type

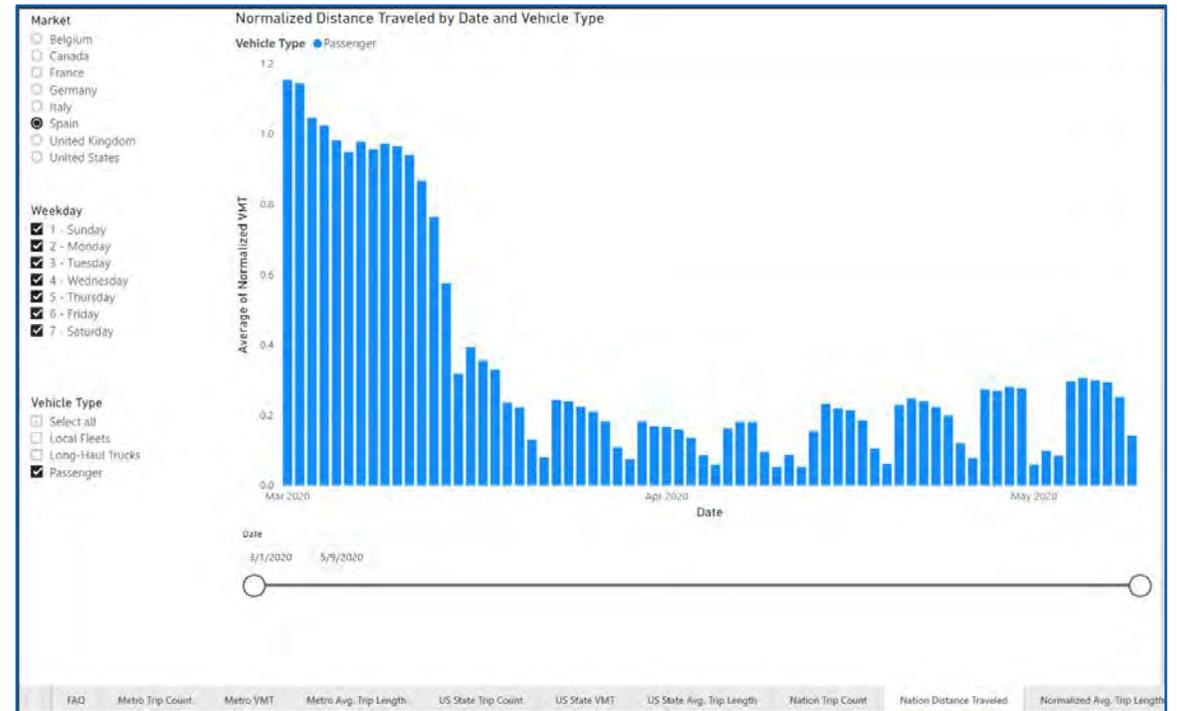


Trip Trends Dashboard: Example of Passenger Vehicle VMT by Date

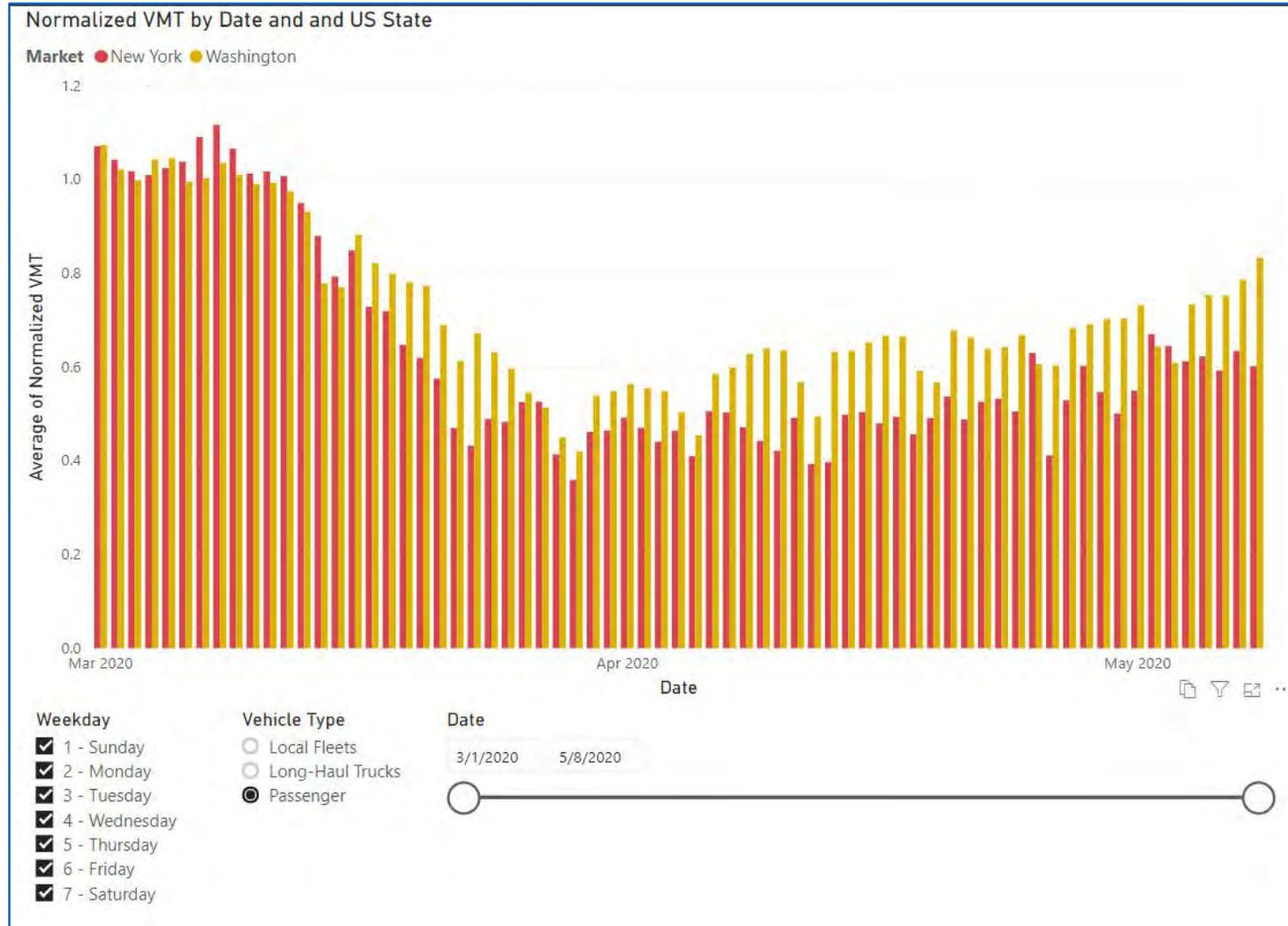
United States



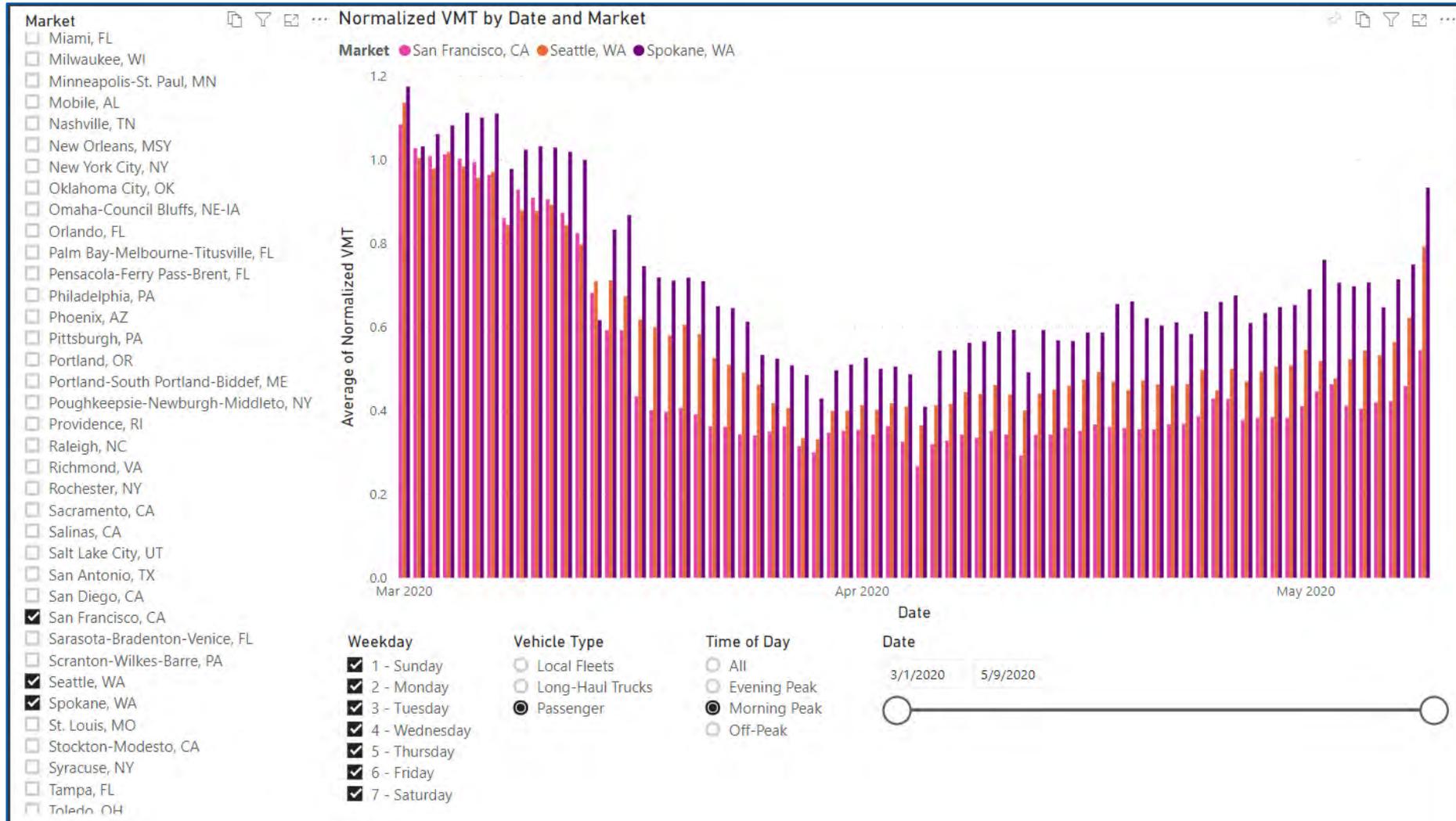
Spain



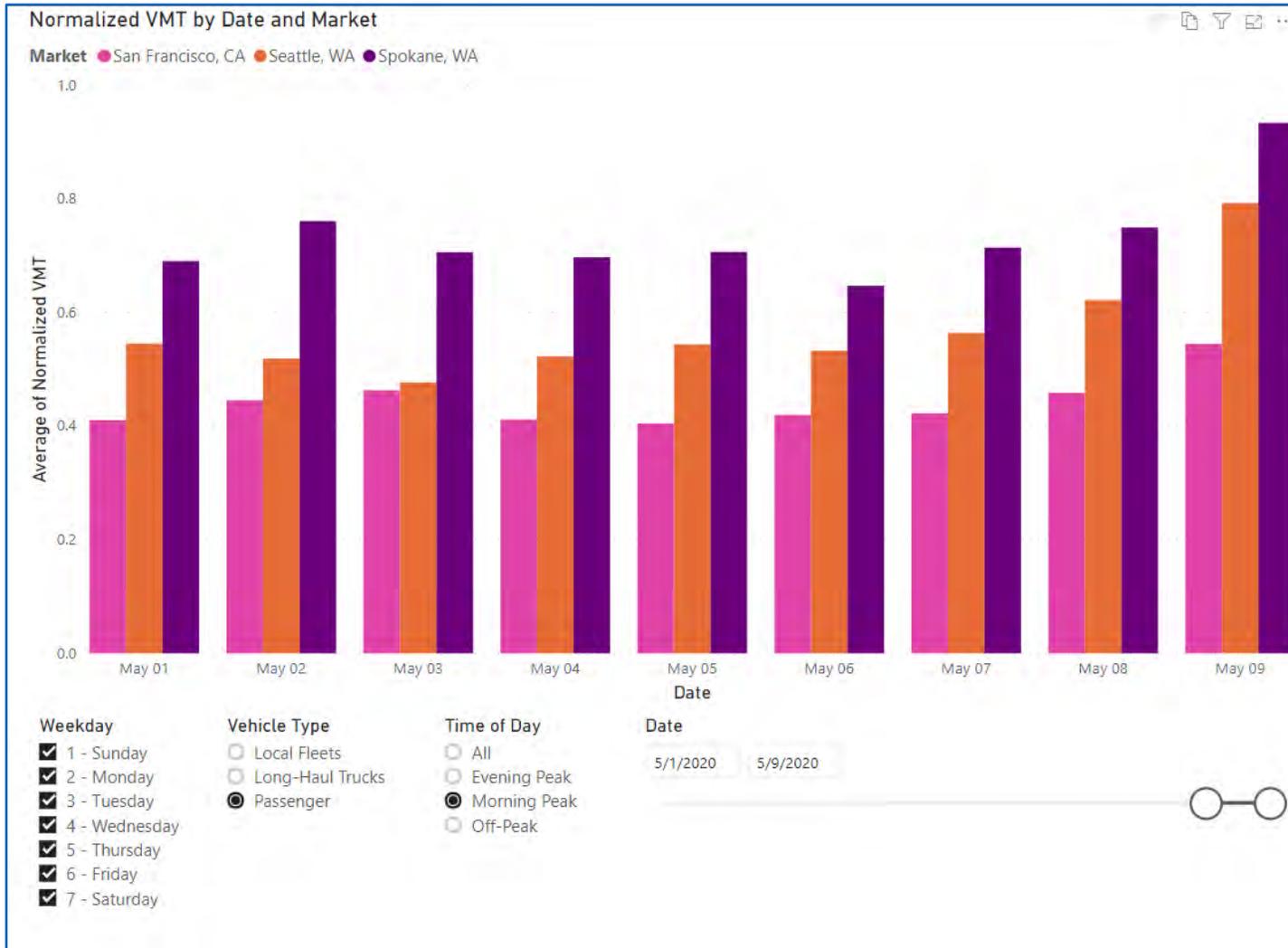
Trip Trends Dashboard: Example of VMT by Date and State



Trip Trends Dashboard: Example of VMT by Date and Metro Area (Market)



Trip Trends Dashboard: Example of VMT by Date and Metro Area (Market) – Zooming to May

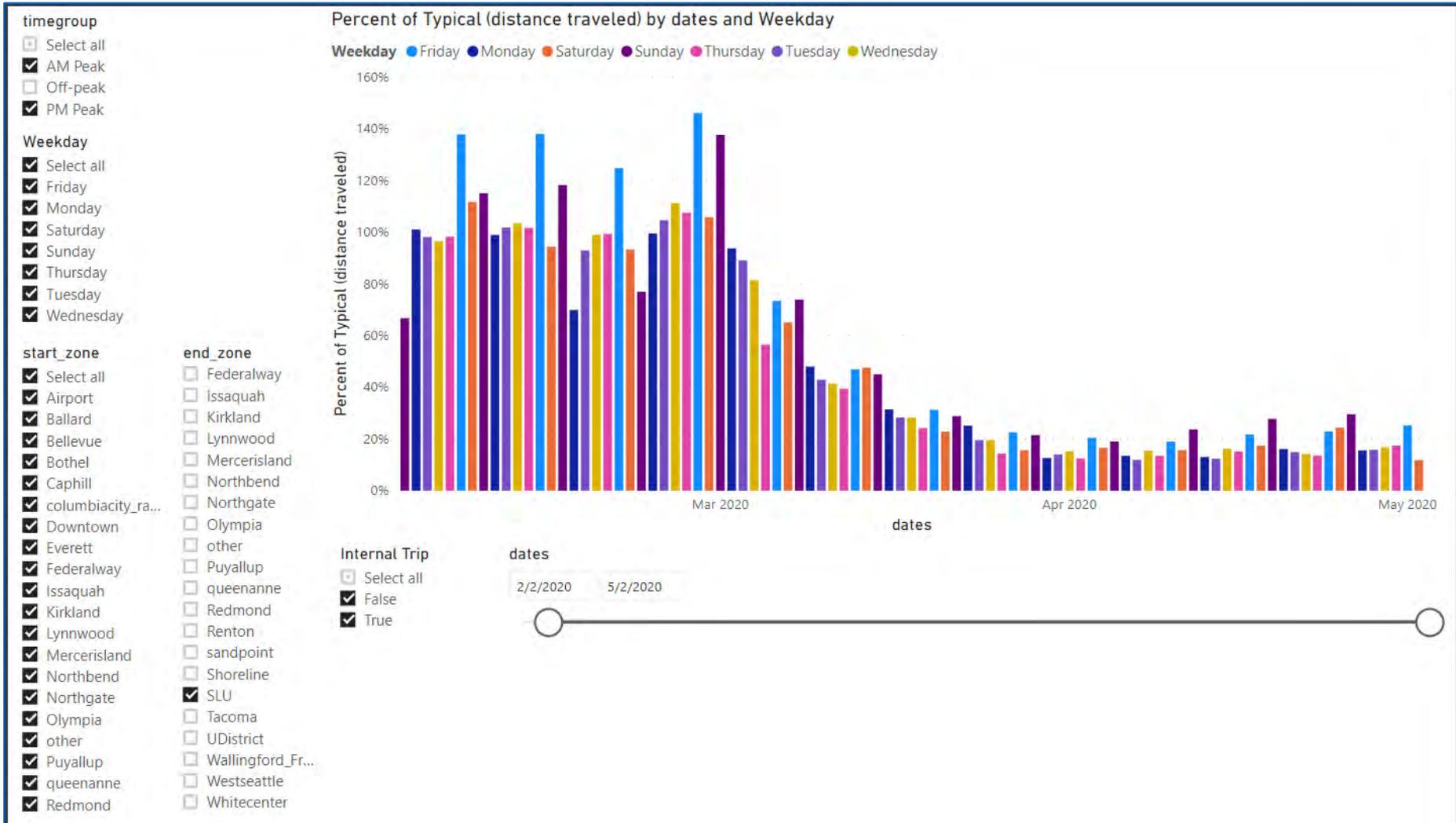


May 9 – Percent of AM Peak VMT

- San Francisco: 54%
- Seattle: 79%
- Spokane: 93%



Trip Trends Dashboard: Zone to Zone Trips for Puget Sound



Thank You!

Resources:

- <https://inrix.com/blog/>
- <https://inrix.com/traffic-volume-trends-dashboard/>

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