

COVID Effects on Transportation

GRITS Annual Meeting November 2021

Terri Johnson,
Director, Public Sector Services
INRIX



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Number of People Quitting Their Jobs Hits Record 4.4 Million

The number of job openings, measured by the Bureau of Labor Statistics, has risen to a record 10 million.

THE WALL STREET JOURNAL.

United States Department of Transportation

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- Catalog of COVID-19 Related Transportation Statistics
- Daily Travel (National, State, and County)
- The Week in Transportation (National)
- Bikes and E-scooters
- Ferry Operations
- COVID-19-Related Data Spotlights

COVID-19 Related Transportation Statistics

Responding to interest in the most recent coronavirus-related data, BTS has created web pages of transportation statistics allowing comparison of pre-COVID-19 and current numbers for passenger travel and freight shipments.

These pages present a wide range of data on all transportation modes from various sources, and BTS will add more measures as they become available.

DAILY TRAVEL DURING THE COVID-19 PUBLIC HEALTH EMERGENCY

- What it shows:** The percent and number of people staying home and not staying home each day, and the number of trips taken each day for 10 different distance groupings.
- How recent:** One-week lag
- Update Frequency:** Weekly on Monday
- Geography level:** National, State, County

ECONOMY

Covid-19 Pushed Many Americans to Retire. The Economy Needs Them Back.

The unexpected absence of older American workers has exacerbated an already difficult labor shortage, since no one is returning to work.

By [Amara Omeokwe](#)
Oct. 31, 2021 10:42 am ET

GALLUP News



ECONOMY OCTOBER 13, 2021

Remote Work Persisting and Trending Permanent

BY LYDIA SAAD AND BEN WIGERT, PH.D.

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Job Openings Reach Record 10 Million



The “New Normal”

Traffic is coming back or has already come back, but is it going to be the same?

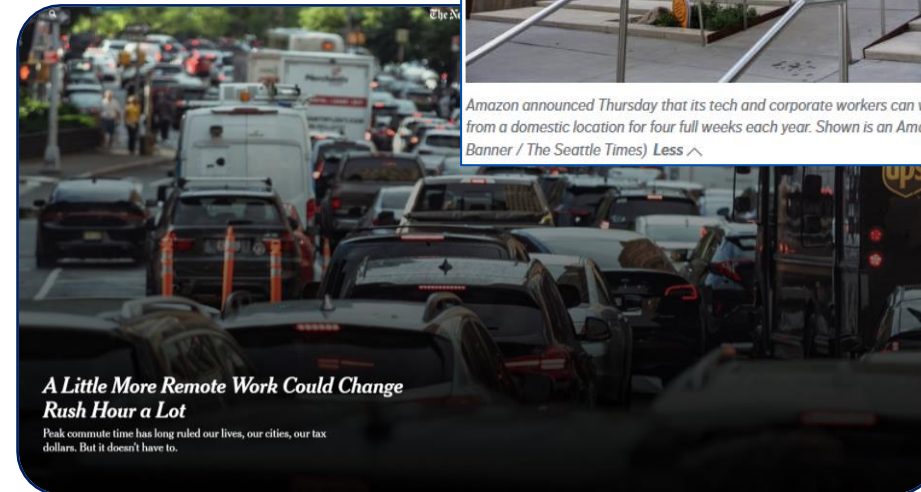
- There are clearly places where congestion is at pre-covid levels, and even more
- Many businesses continuing telecommuting – reducing commute trips
- Key Questions:
 - How have travel patterns changed?
 - How do areas compare?
 - When will traffic “normalize”?

Amazon shifts return-to-office stance, says remote work is OK 2 days a week

June 10, 2021 at 10:36 am | Updated June 22, 2021 at 10:20 pm



Amazon announced Thursday that its tech and corporate workers can work remotely two days a week and remotely from a domestic location for four full weeks each year. Shown is an Amazon building in South Lake Union. (Ellen M. Banner / The Seattle Times) Less ^



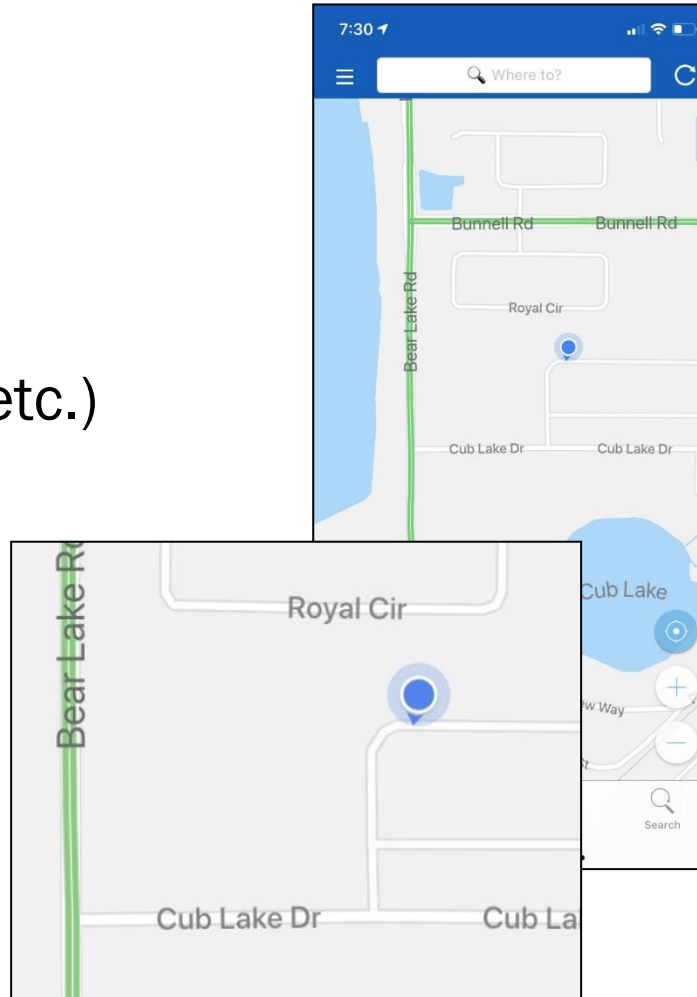
Analysis

Data Types

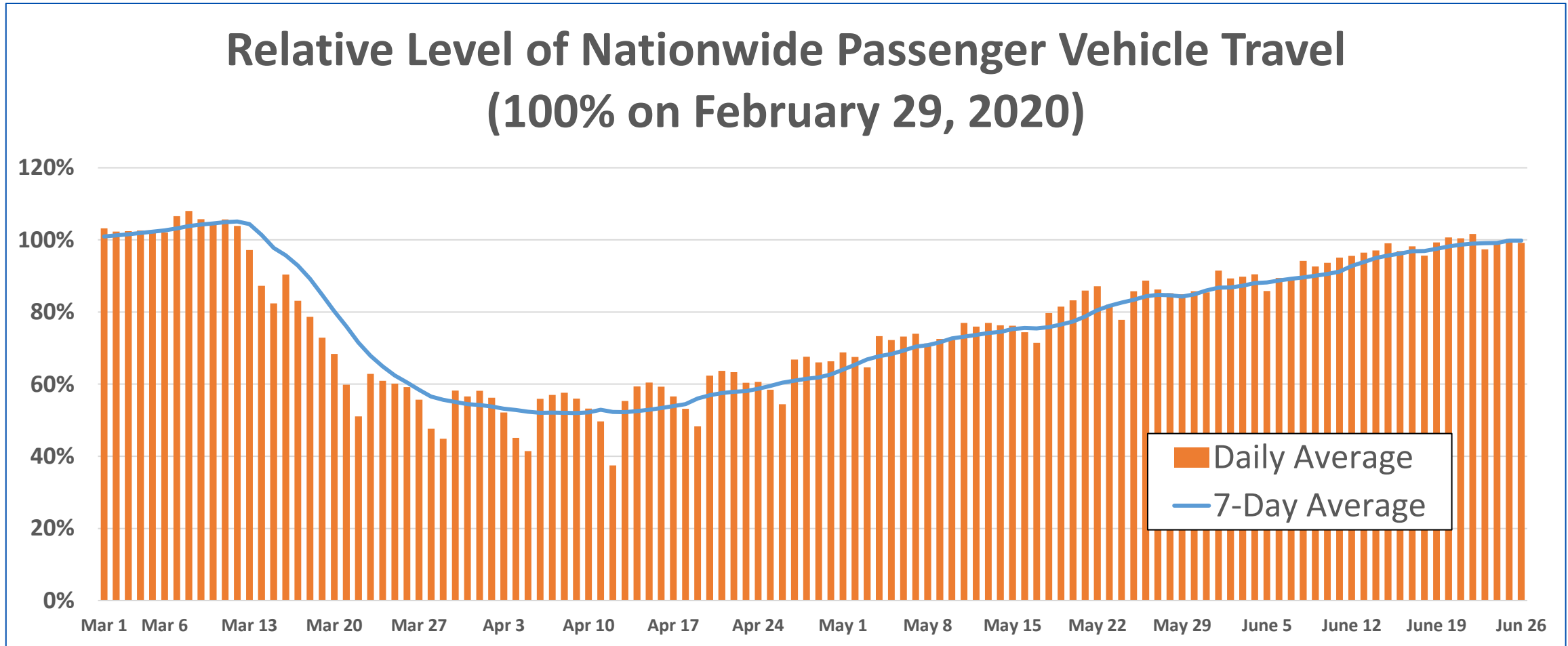
- Consumers
 - Connected Cars
 - Mobile Phones
- Local Fleets (service, delivery, etc.)
- Long Haul Trucks

Analysis

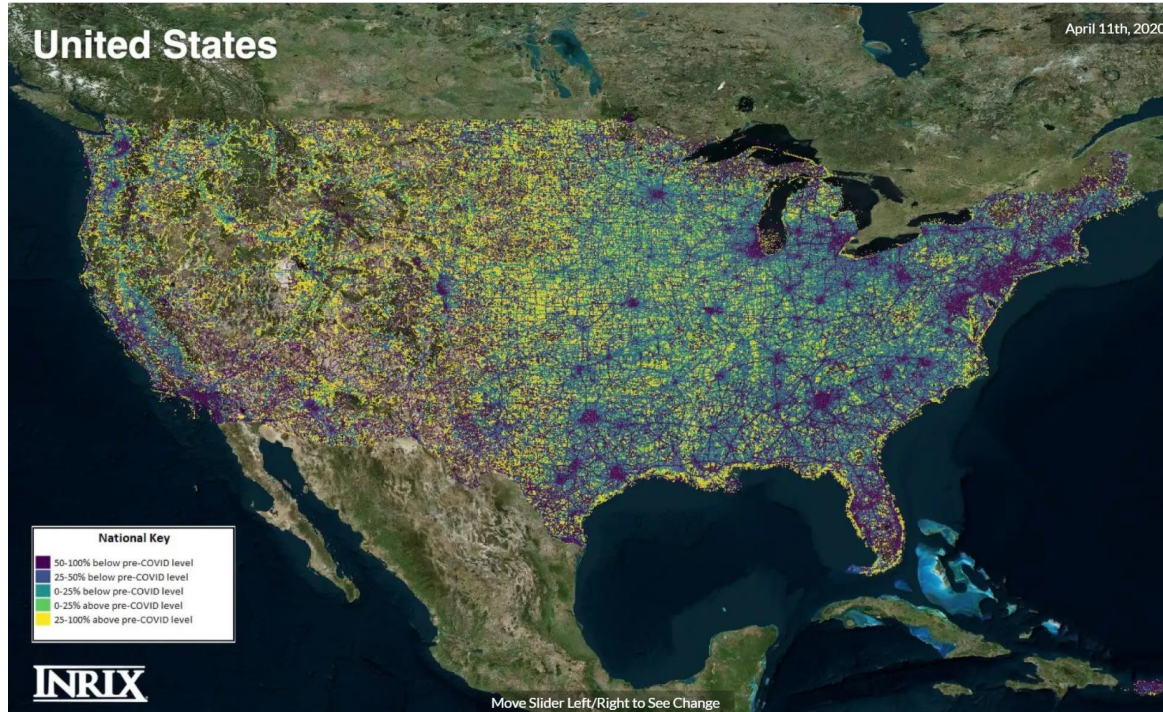
- Trip Volumes
 - Time of Day Distribution
- Trip Patterns (O/D)
 - Urban and Residential
- Congestion Levels
 - Impacts



Travel Declines Peaked in Mid-April

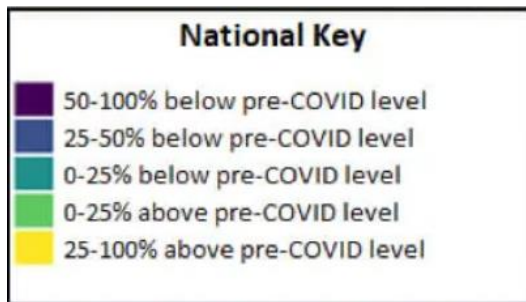
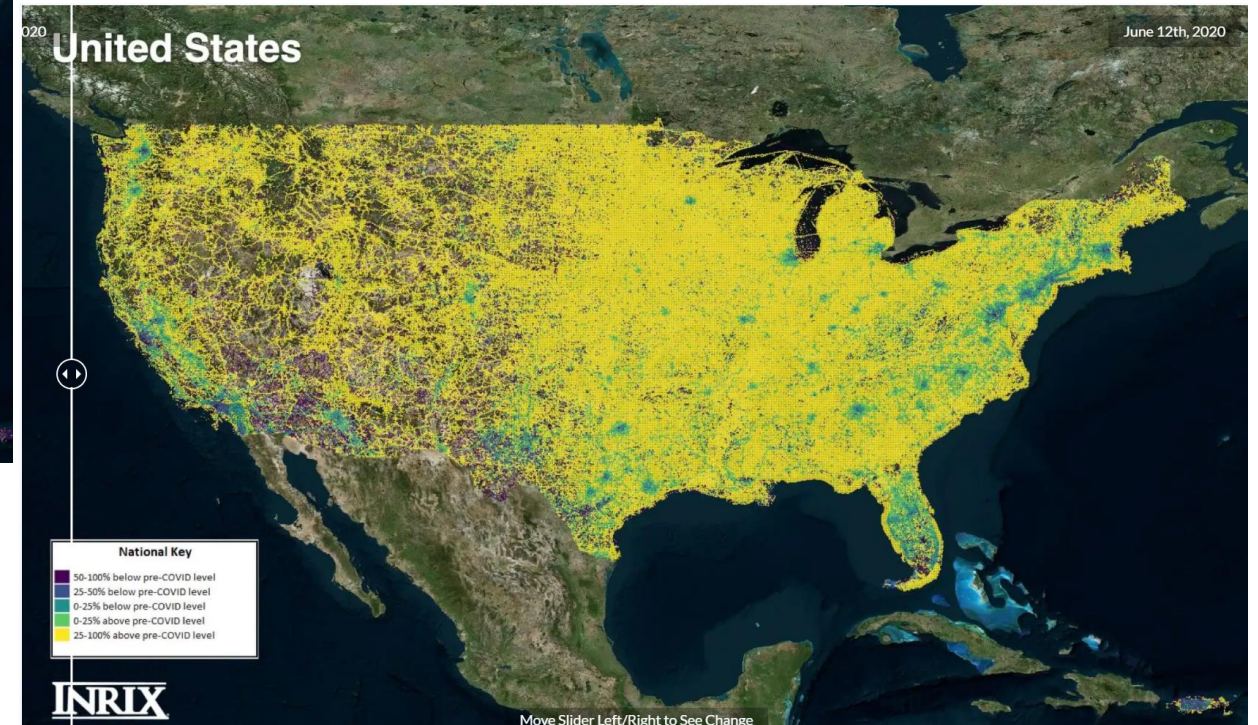


Activity Levels...Coming Back...Differently?



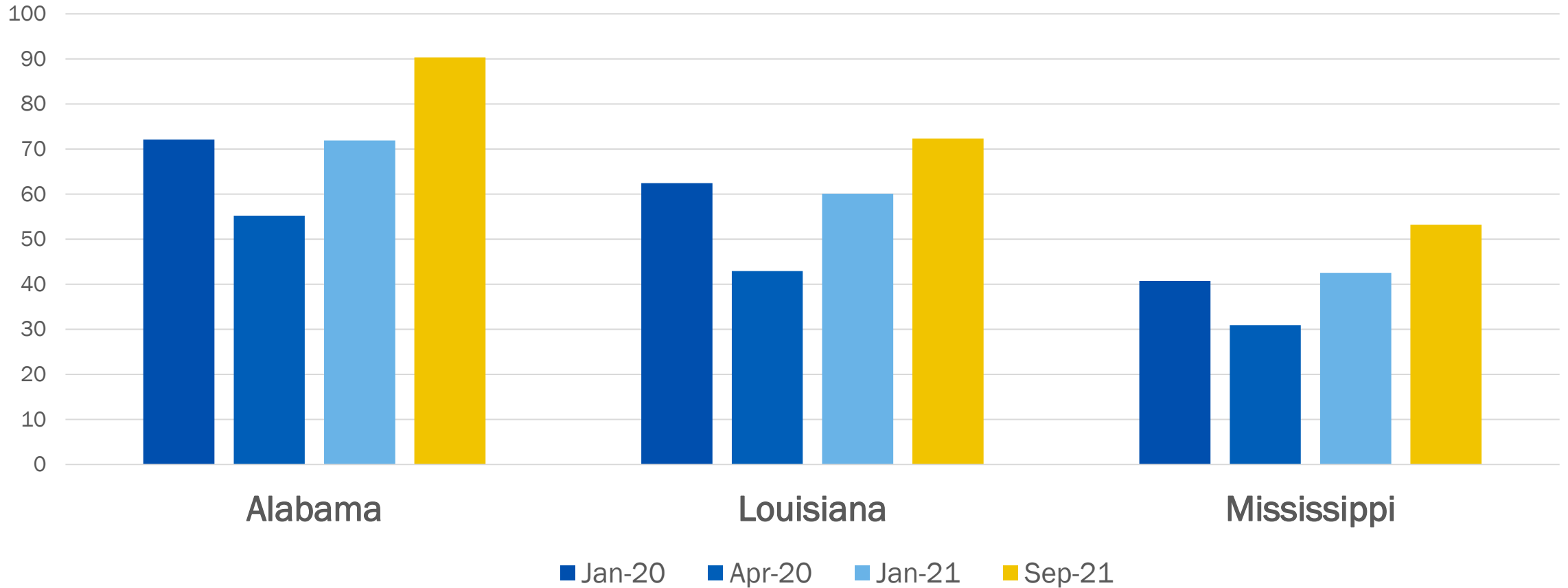
April 11, 2020

June 12, 2020



COVID Effect on Statewide Trips

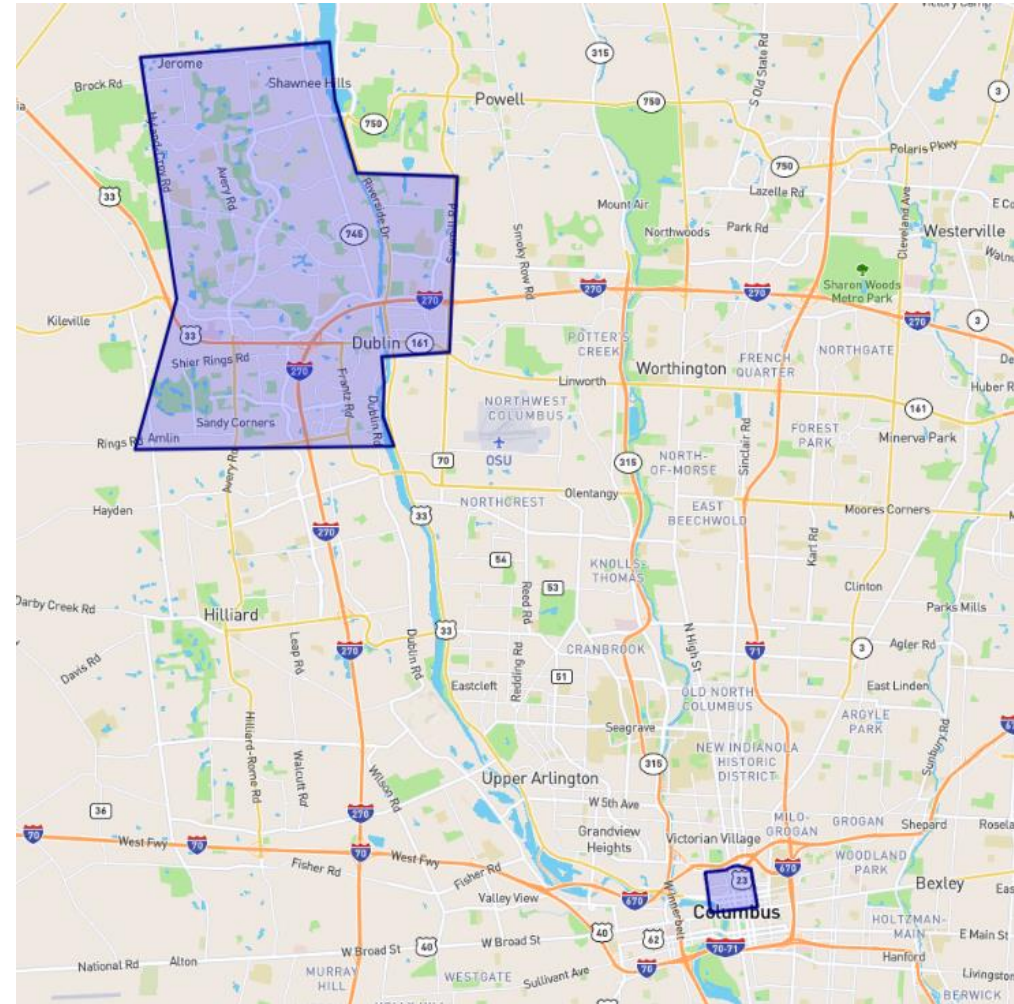
Total Trips (Millions) by Month



Urban Core vs Nearby Residential Areas

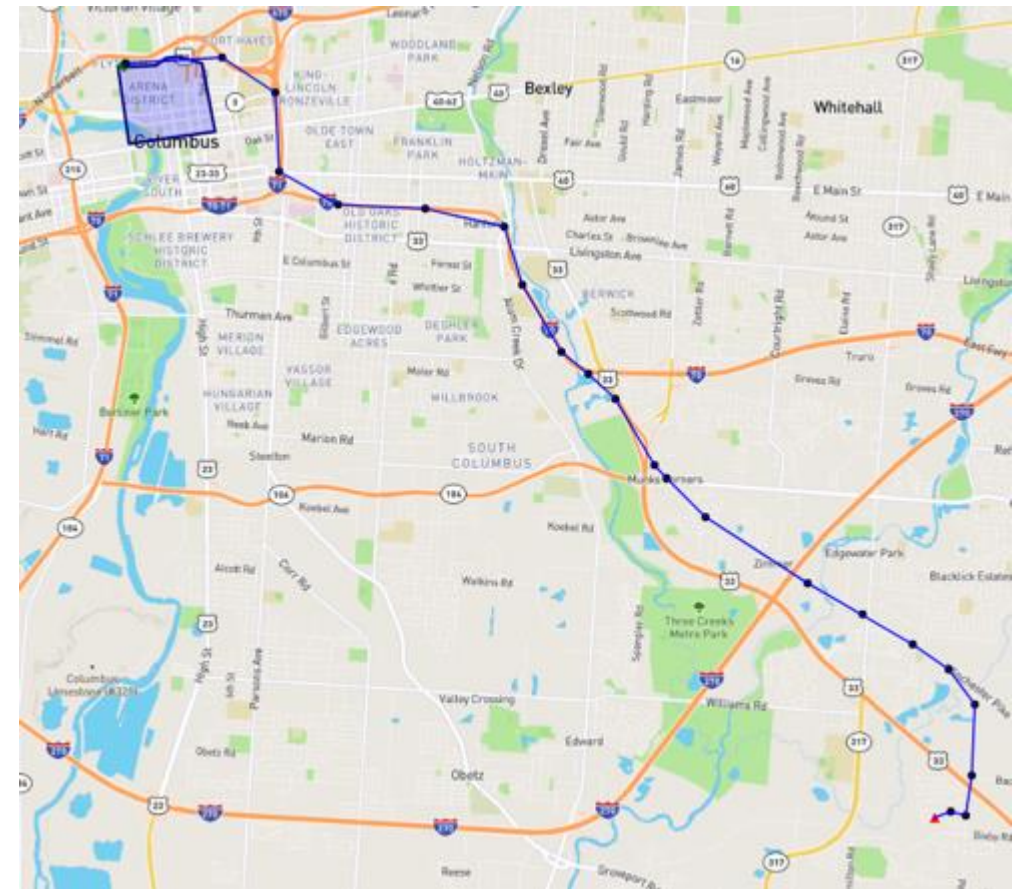
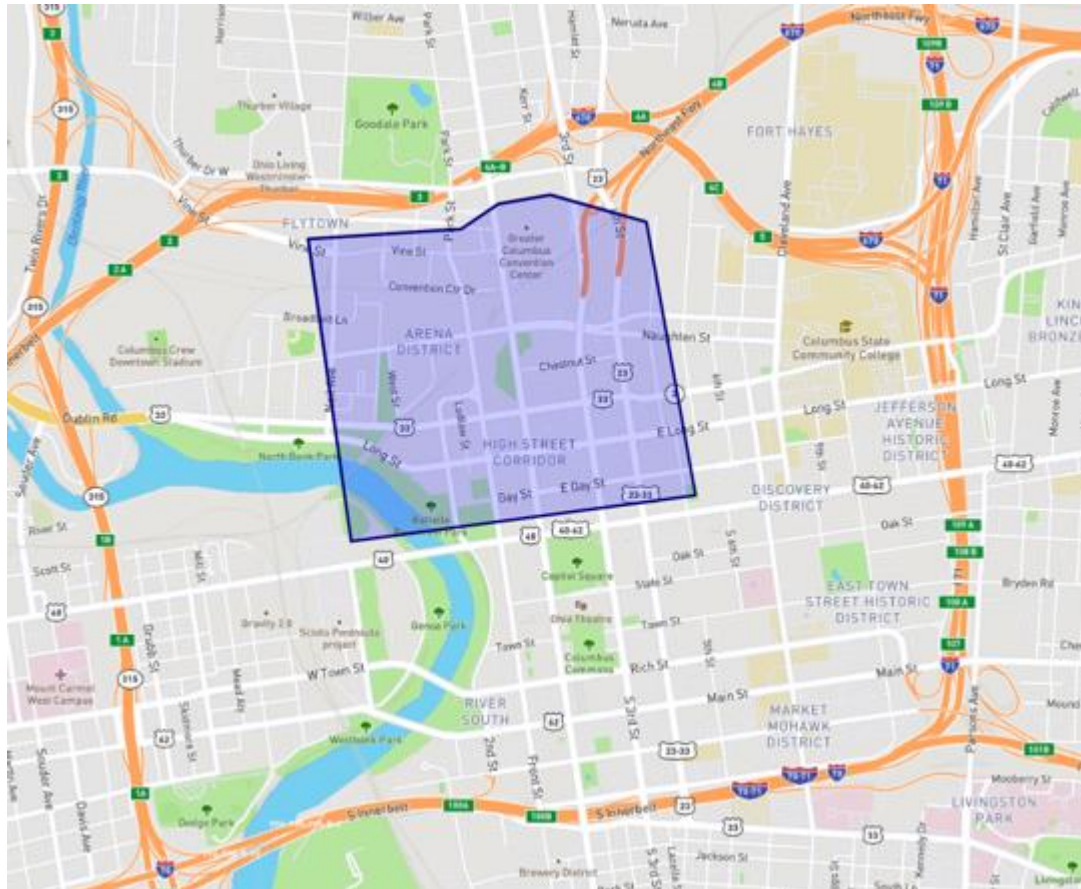
Trip Starts by Hour

- January 2020: Pre-COVID
- April 2020: Lowest recorded traffic
- January 2021: YOY
- September 2021: “Current” conditions



Downtown Columbus

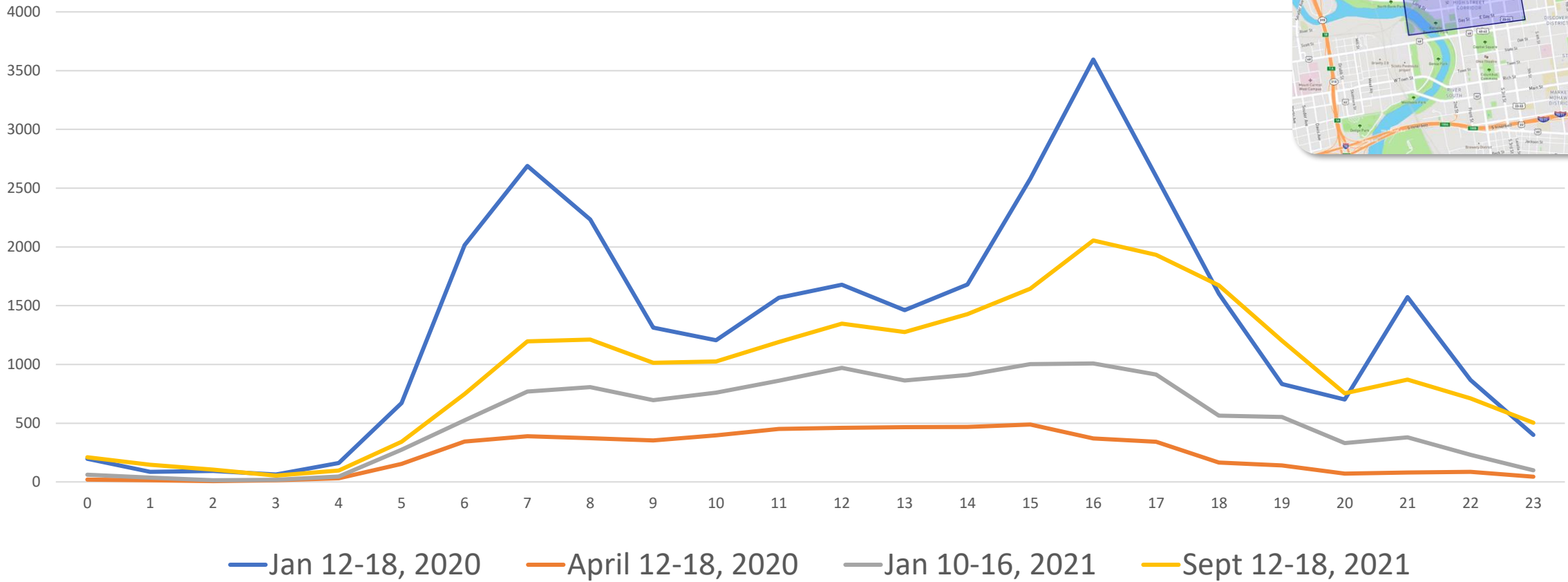
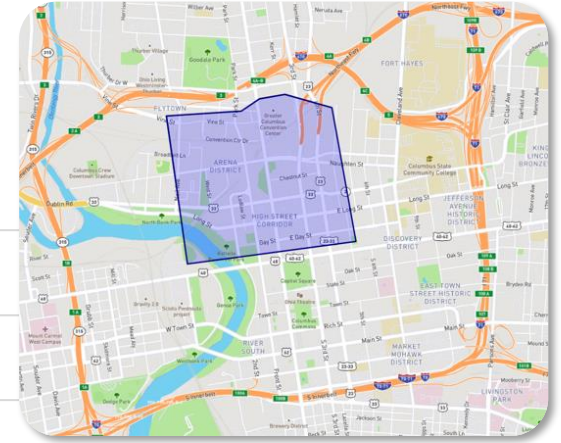
Pre-COVID sample: 31,876 observed Trips per week



Downtown Columbus

Trip Starts by Hour

Convention Center Trips by Hour



31,876

5740 (18%)

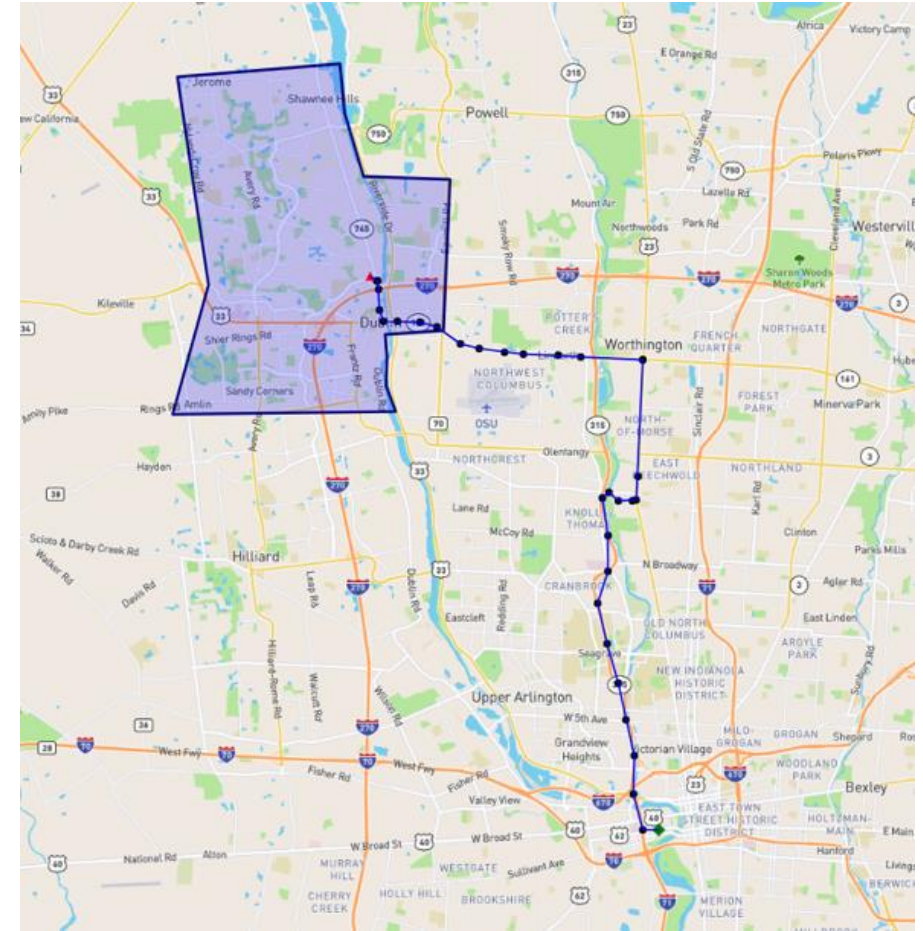
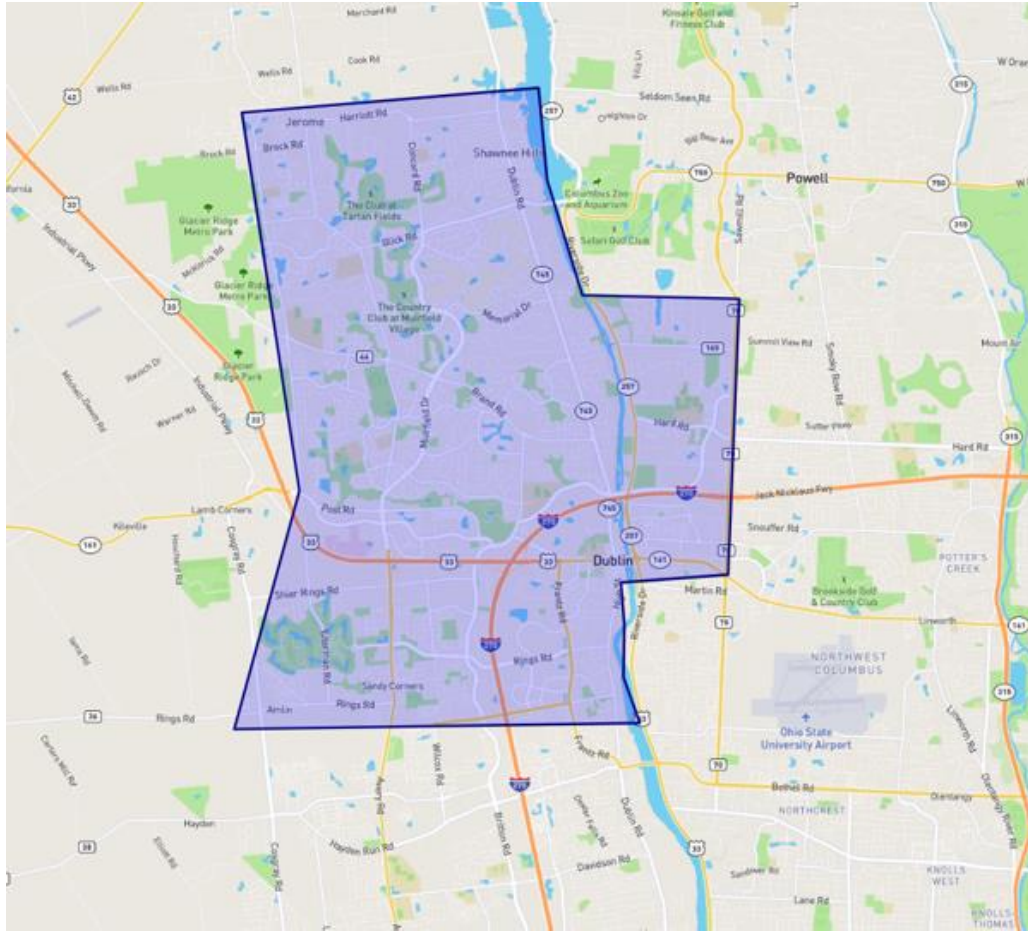
12,701 (40%)

22,747 (71%)



Residential Area

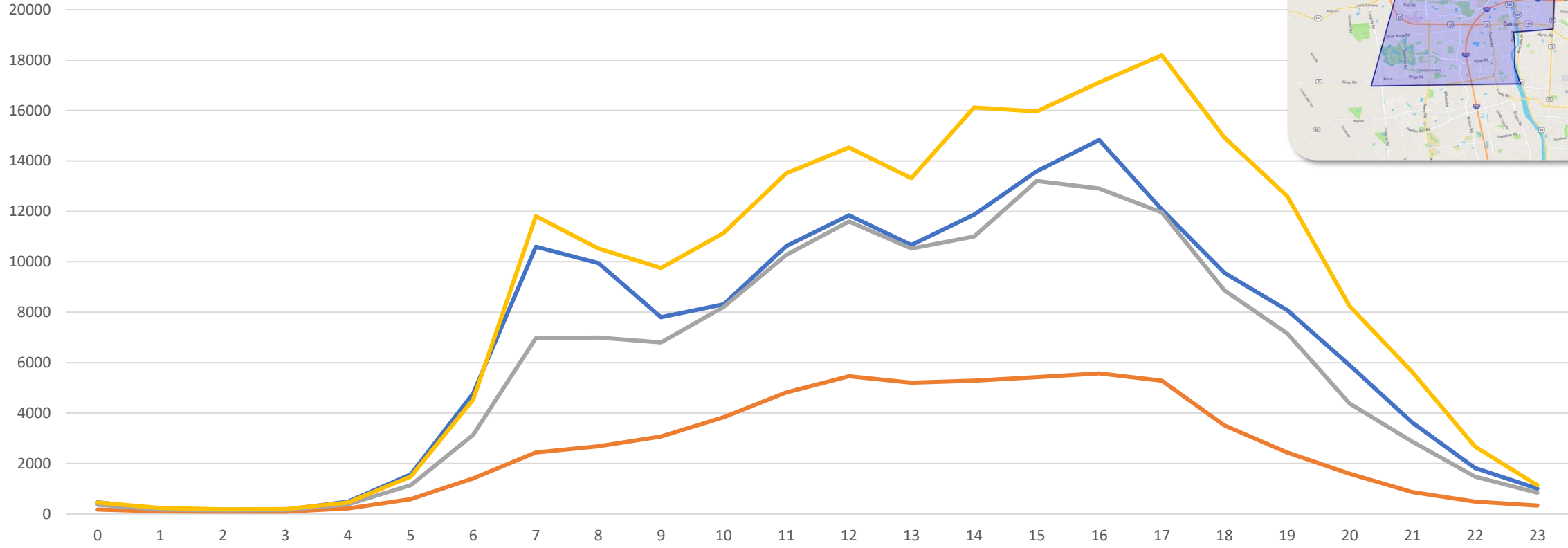
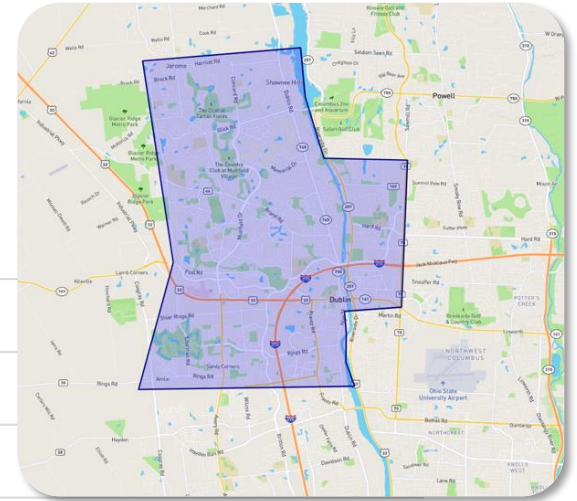
Pre-COVID sample: 159,927 Observed Trips per week



Residential Area

Trip Starts by Hour

Residential Area Trips by Hour



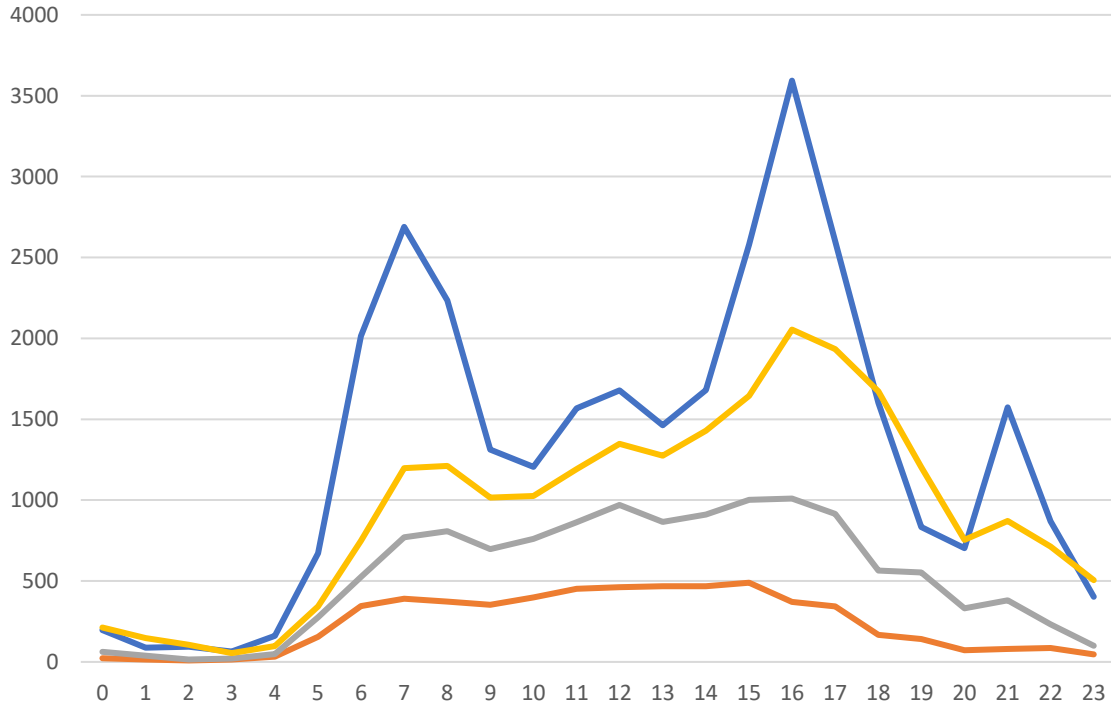
— Jan 12-18, 2020
 — April 12-18, 2020
 — Jan 10-16, 2021
 — Sept 12-18, 2021
 159,927 60,868 (38%) 141,486 (88%) 204,702 (128%)



Downtown Columbus vs Residential Area

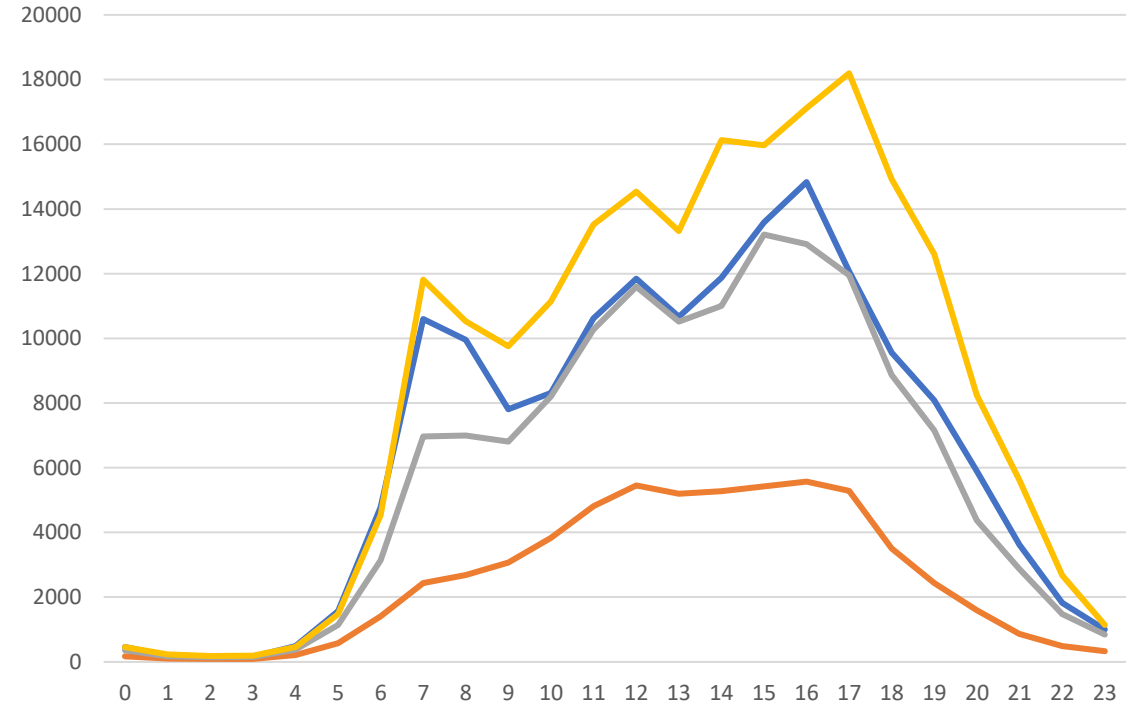
Trip Starts by Hour

Downtown



Jan 12-18, 2020 April 12-18, 2020 Jan 10-16, 2021 Sept 12-18, 2021

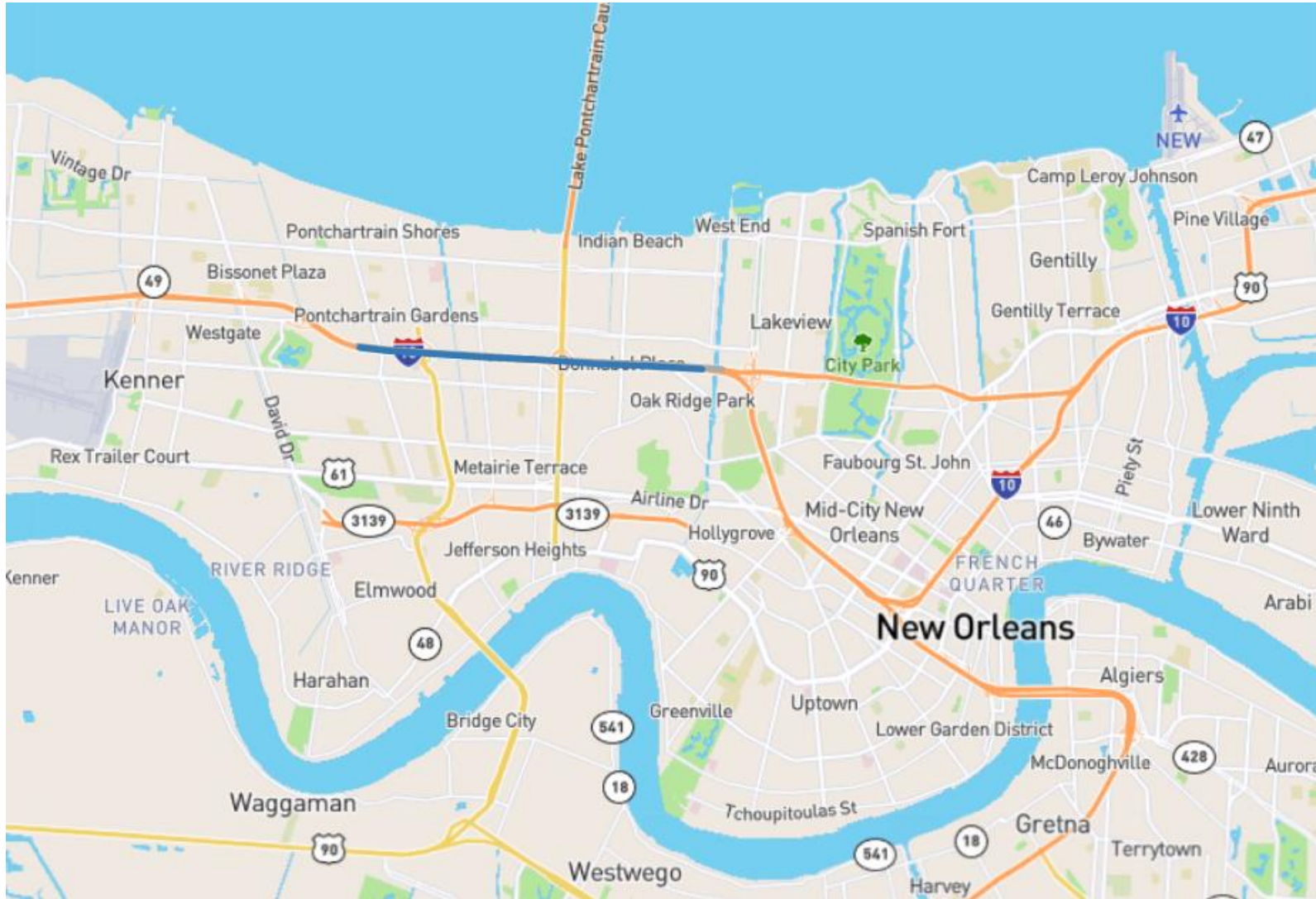
Residential Area



Jan 12-18, 2020 April 12-18, 2020 Jan 10-16, 2021 Sept 12-18, 2021



Section of I-10, New Orleans



I-10 Congestion Scans

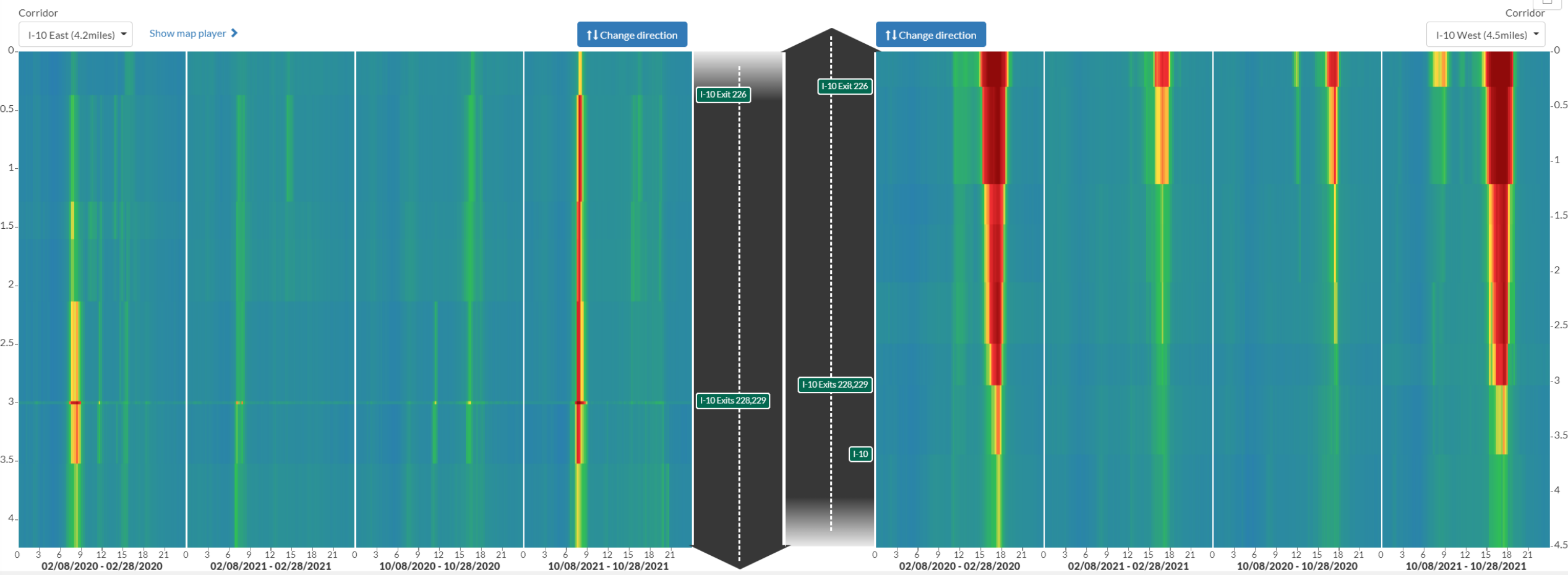
Overview Performance Charts **Congestion Scan** Bottlenecks

Data Downloader

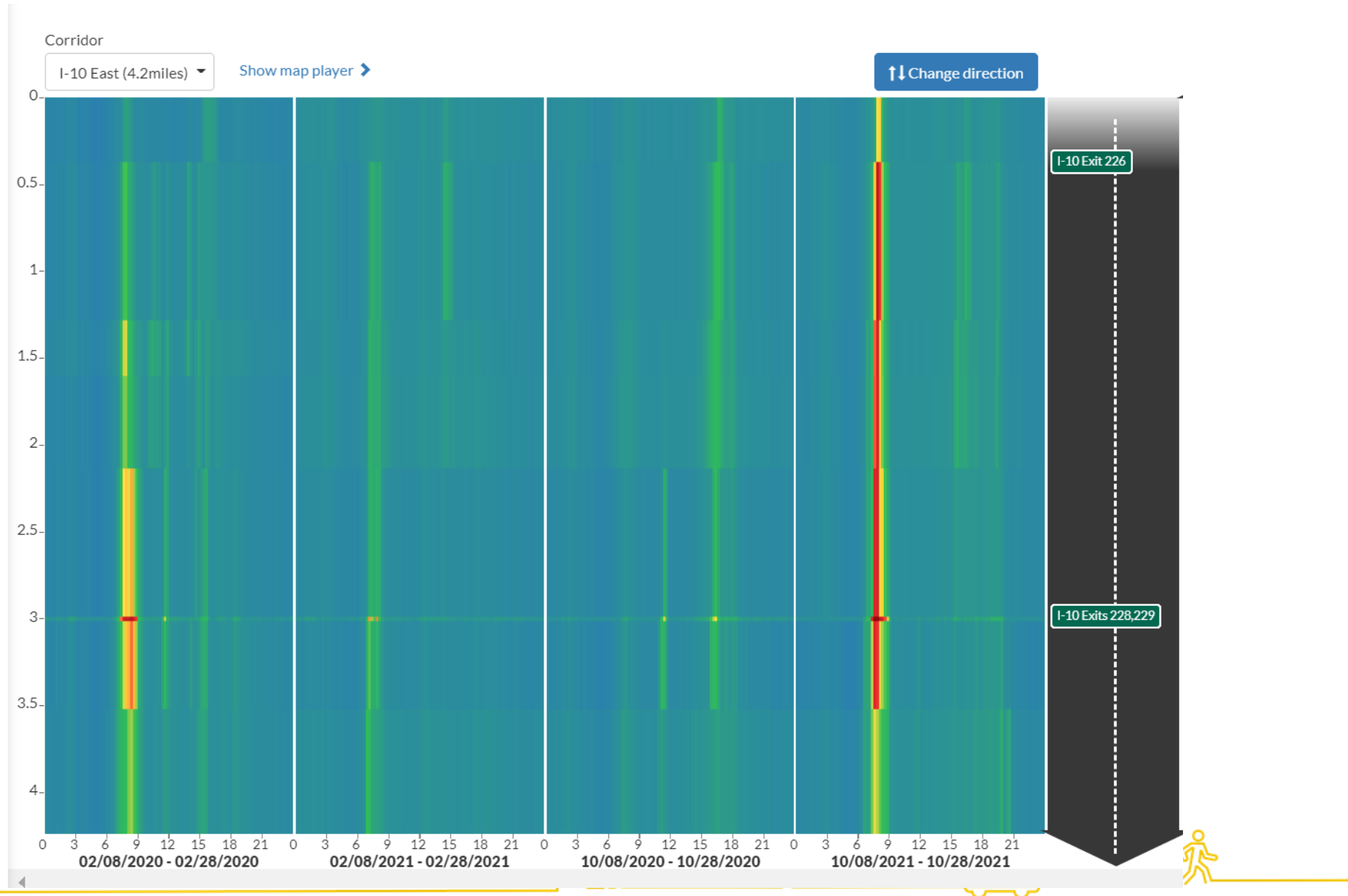
Metric: Congestion Perc...
Dates: All Selected (4)



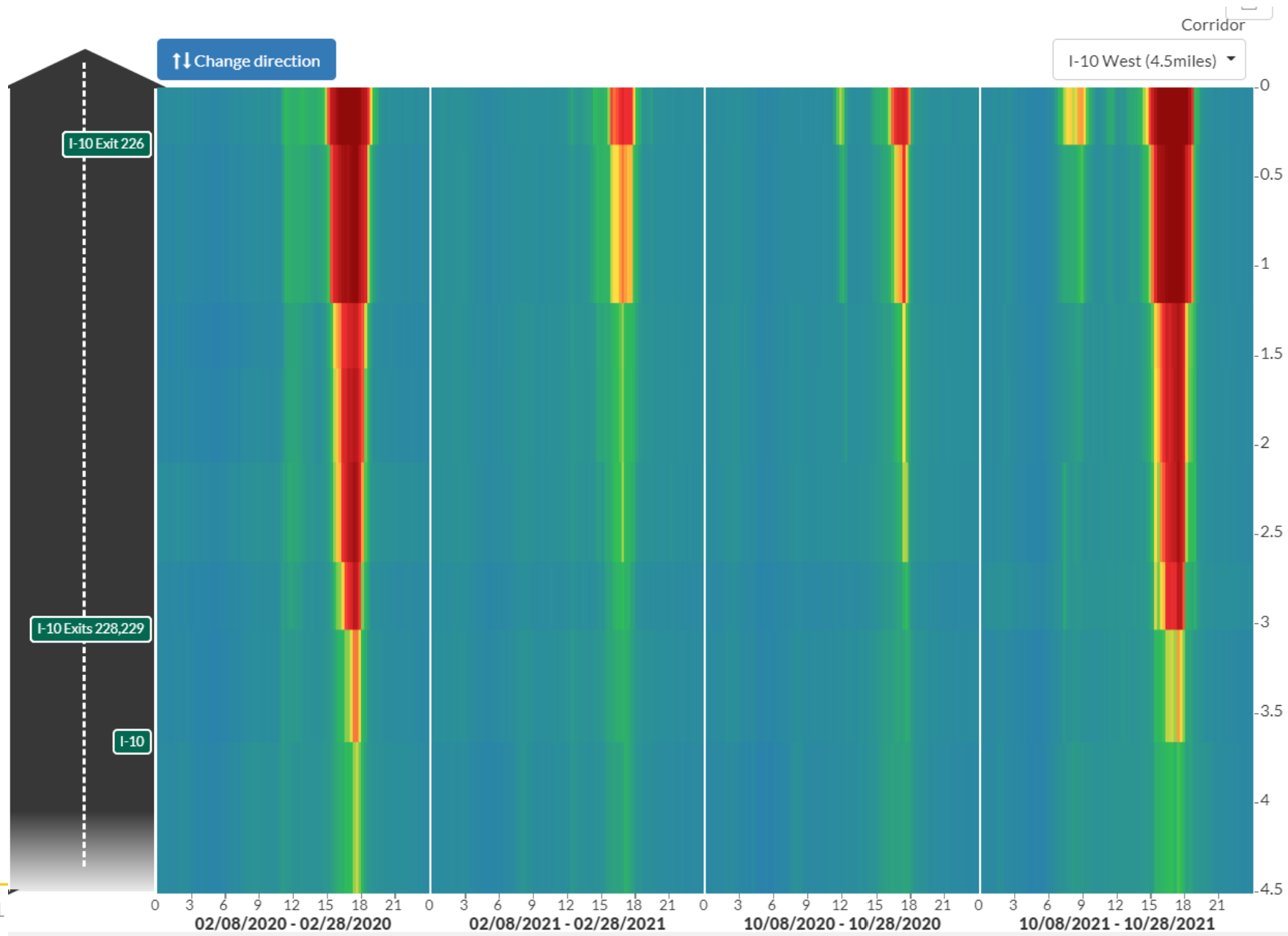
Tooltip Options: Show Magnifier Include map
View: **Default** Realtime Closures



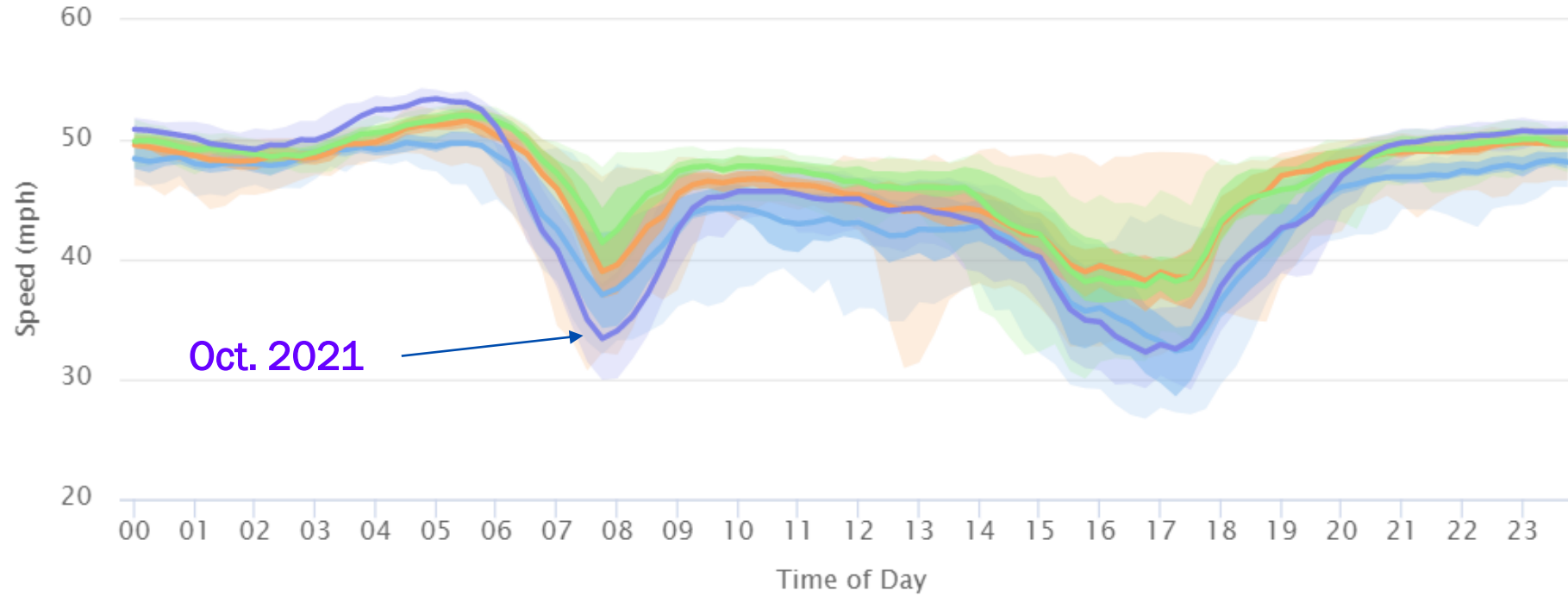
I-10 Eastbound



I-10 Westbound



New Orleans



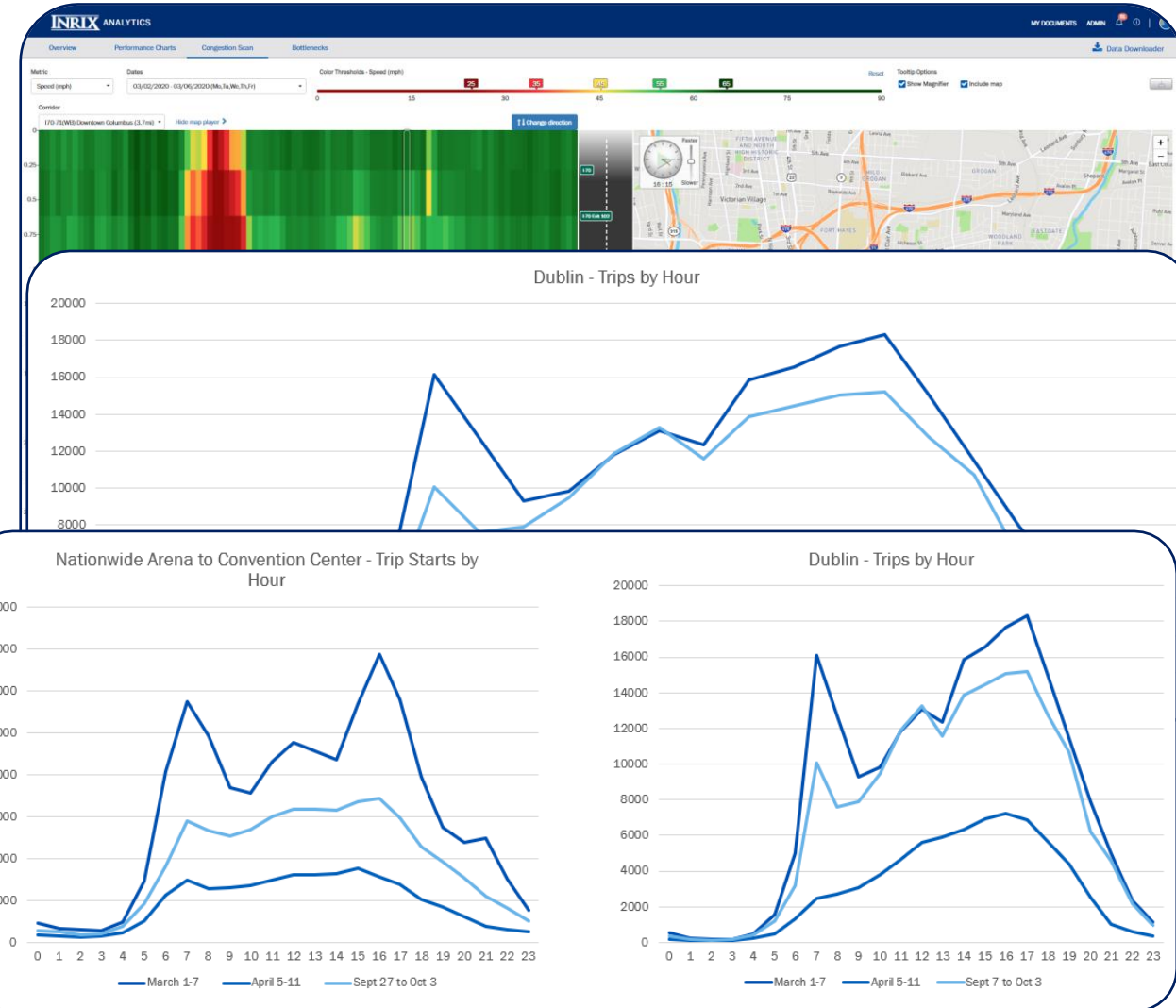
Oct. 2021

- 02/01/2020 – 02/28/2020 (Mo,Tu,We,Th,Fr)
- 5th and 95th Percentiles
- 25th and 75th Percentiles
- 02/01/2021 – 02/28/2021 (Mo,Tu,We,Th,Fr)
- 5th and 95th Percentiles
- 25th and 75th Percentiles
- 10/01/2020 – 10/31/2020 (Mo,Tu,We,Th,Fr)
- 5th and 95th Percentiles
- 25th and 75th Percentiles
- 10/01/2021 – 10/31/2021 (Mo,Tu,We,Th,Fr)
- 5th and 95th Percentiles
- 25th and 75th Percentiles
- Historical Average Speed – (Mo,Tu,We,Th,Fr)
- ⋯ Average Free Flow Speed



When will traffic return to pre-COVID levels?

- Volumes in many areas have returned and even exceeded pre-COVID levels
 - New home based trips are taking the place of some of the busiest routes
 - Traffic is still in flux
- Increased teleworking is promoting peak-spreading
- Traffic patterns will never be the same



Where does this leave us? More questions?

Are companies going to continue with modified work weeks?

When will we catch up on the supply chain?

Are early retirees going to go back to work?

When will more people back in the work force?



Thank You

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INRIX

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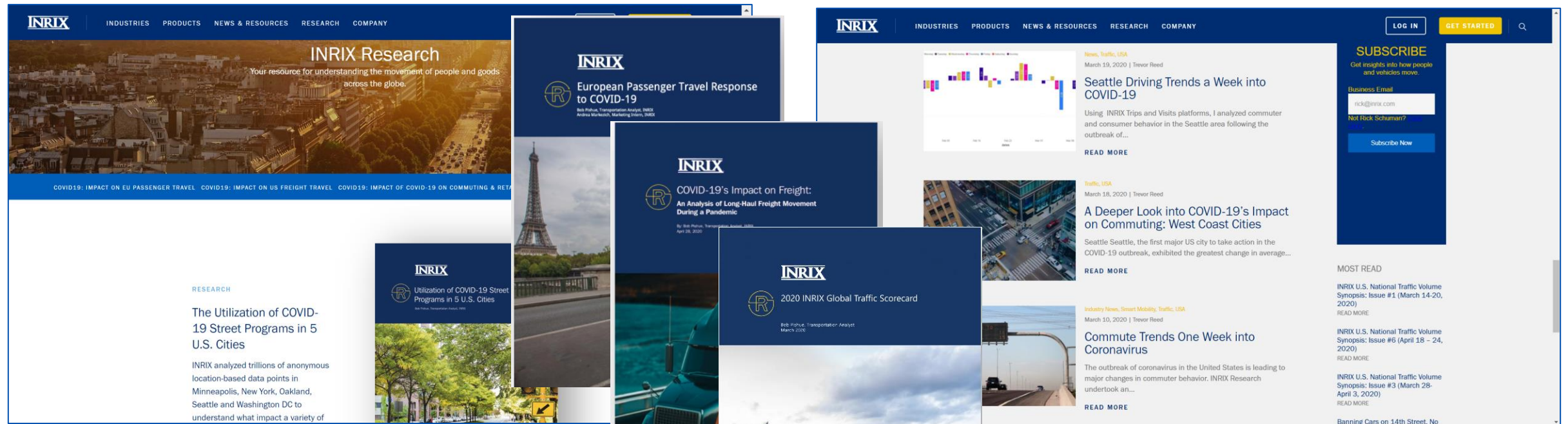
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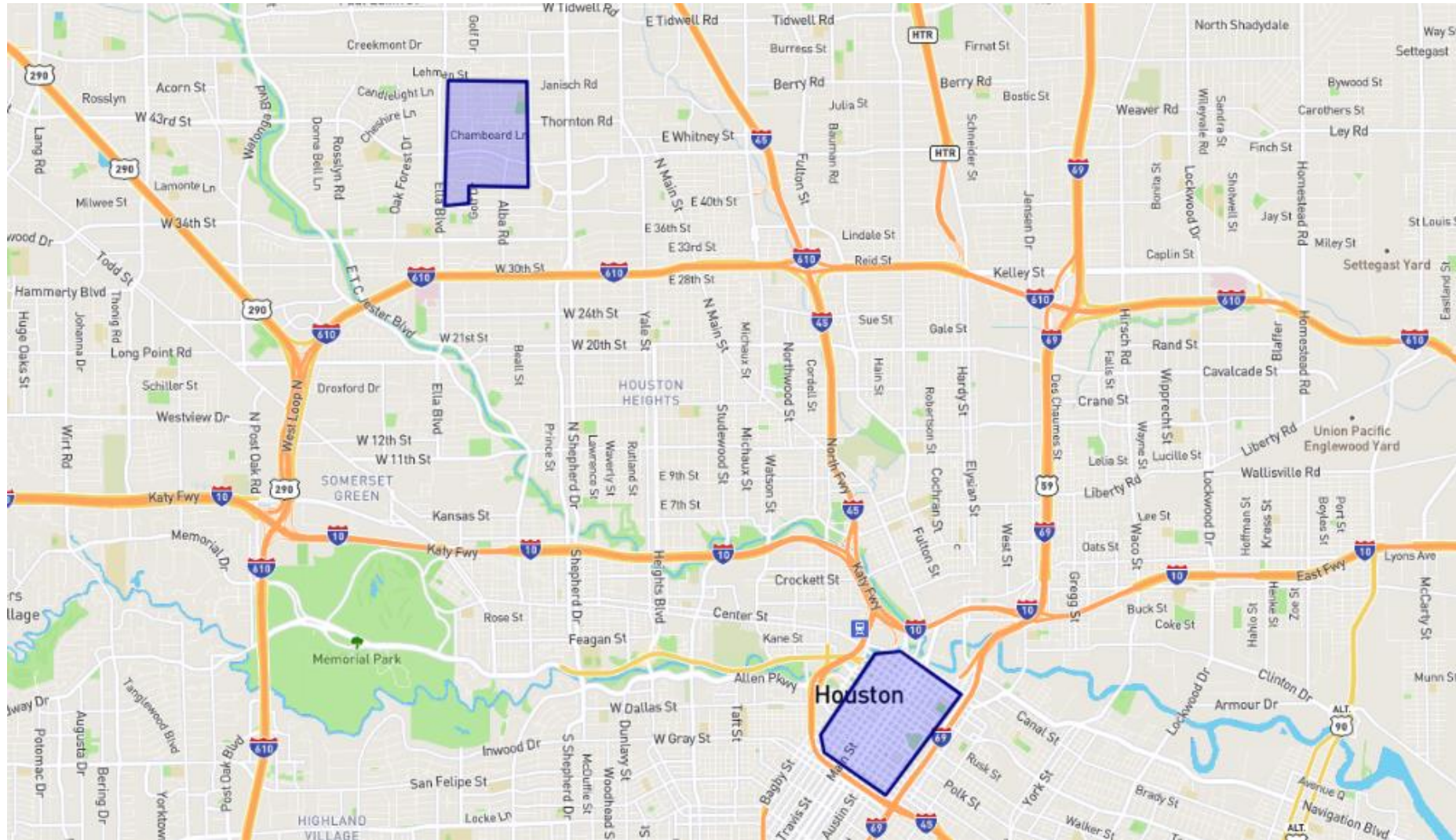


Terri Johnson

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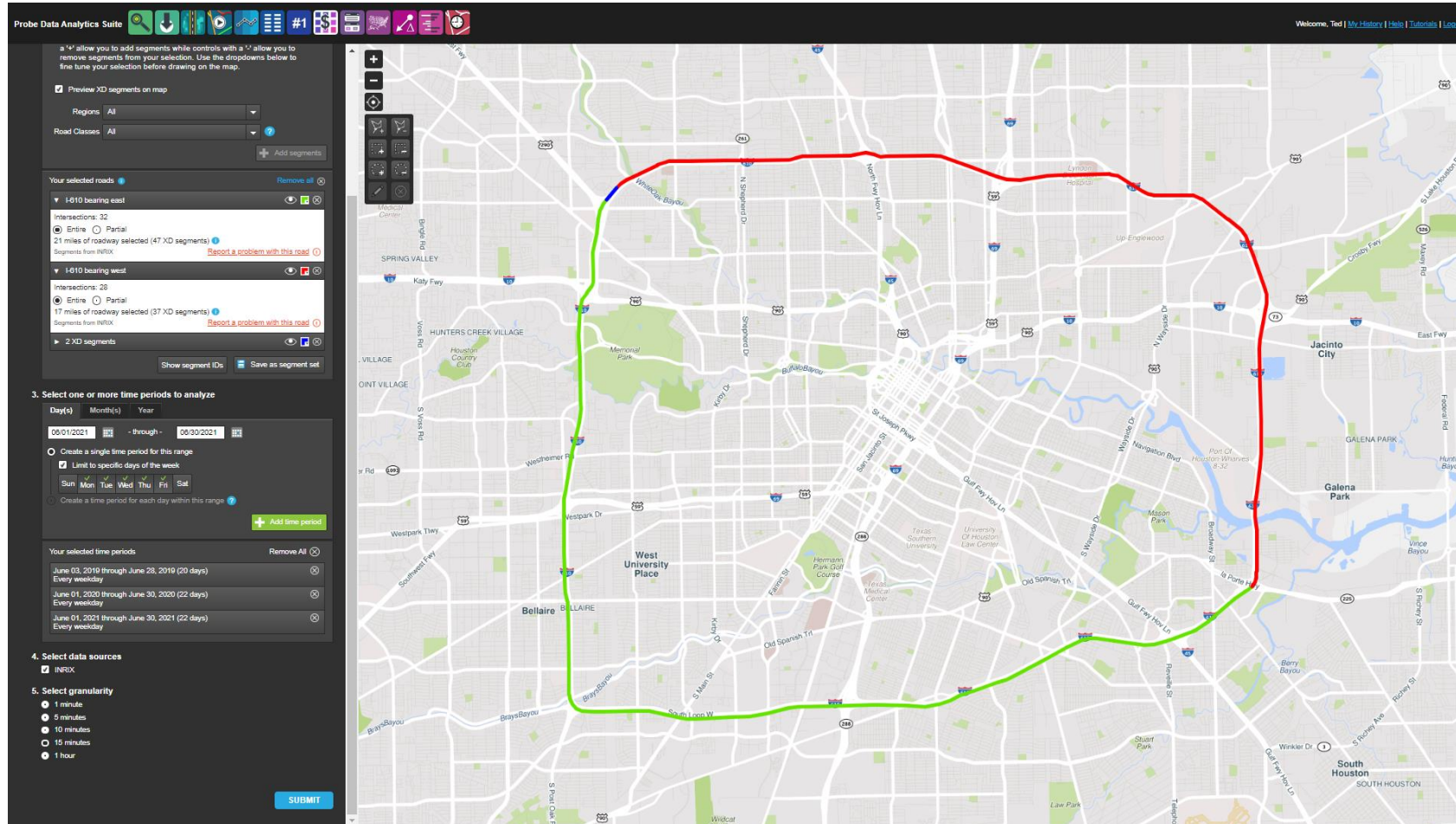


Houston CBD vs Shepherd Park Plaza Residential Area



Congestion Comparison

I-610 Counterclockwise – Weekdays of June 2019, 2020, and 2021



Trend Map - Using INRIX XD data

Display Options Open with...

Display

Speed (mph)

Color Thresholds

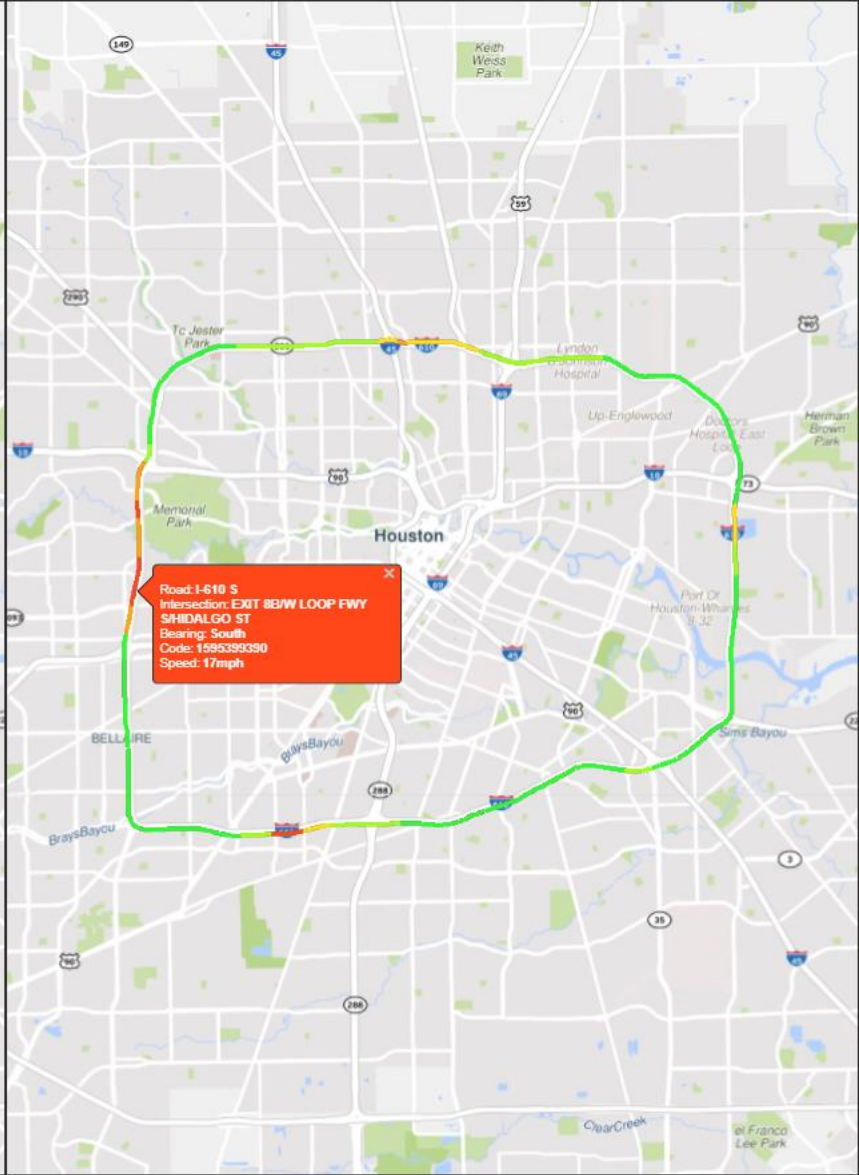
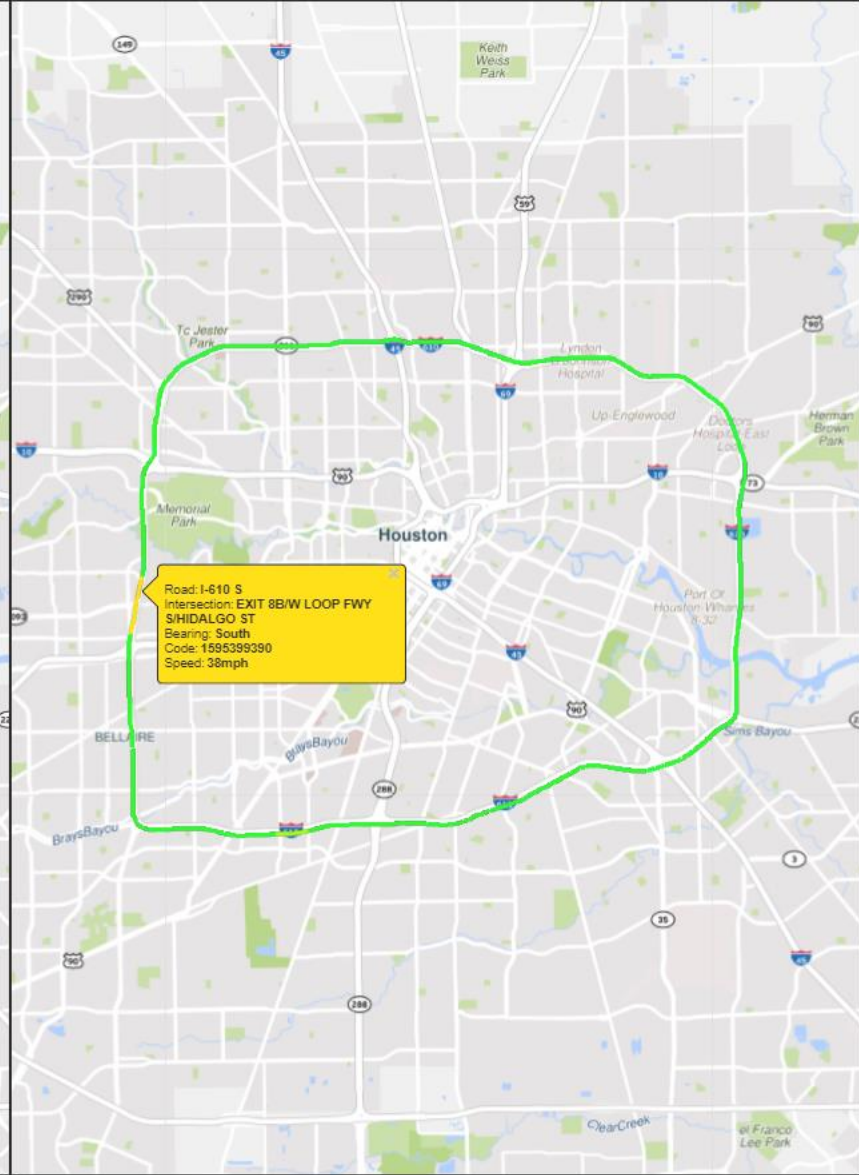
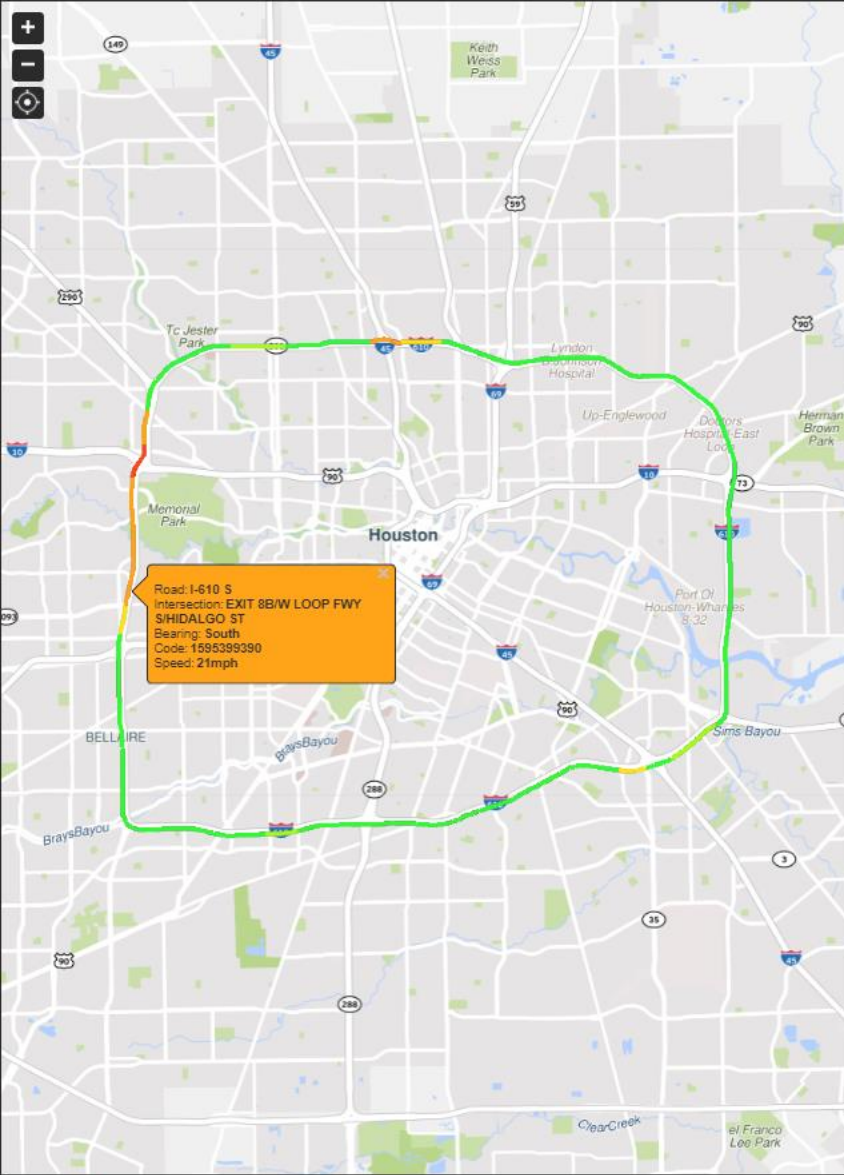
0 mph

50 mph

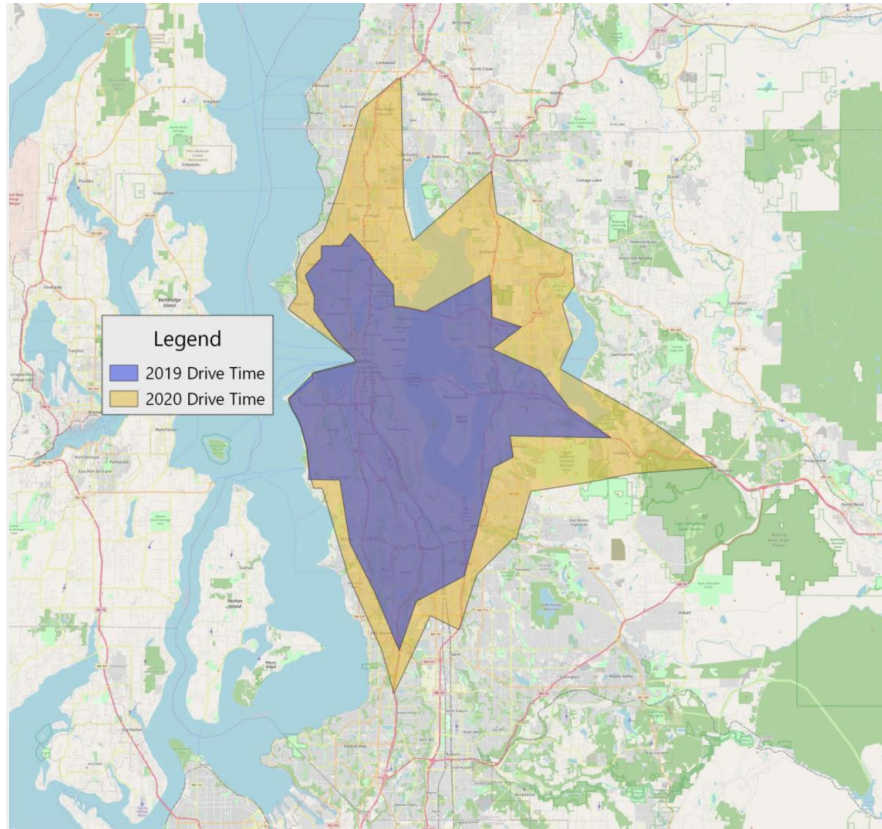
06:45 PM - June 03, 2019 through June 28, 2019 (Every weekday)

06:45 PM - June 01, 2020 through June 30, 2020 (Every weekday)

06:45 PM - June 01, 2021 through June 30, 2021 (Every weekday)

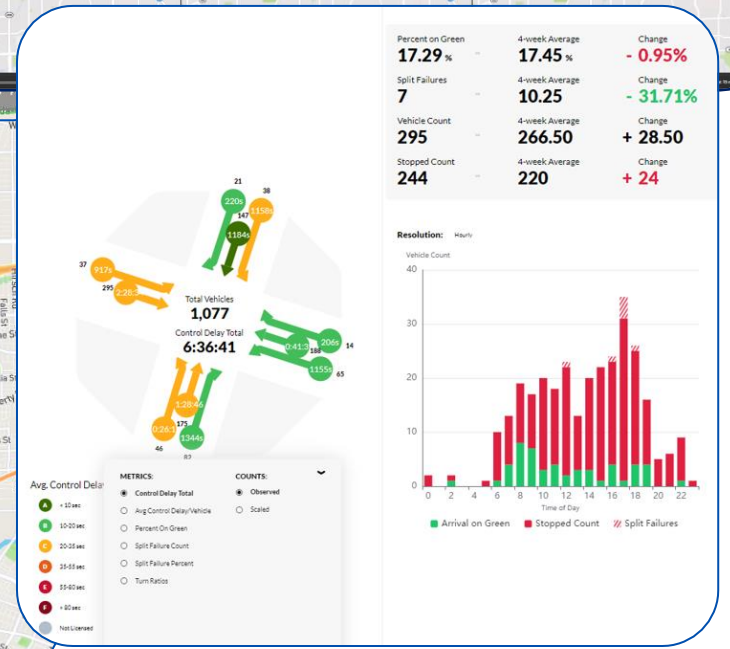
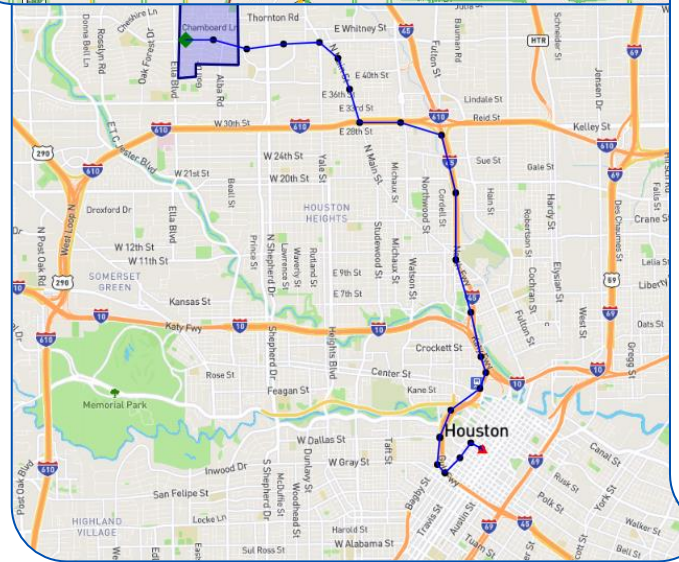
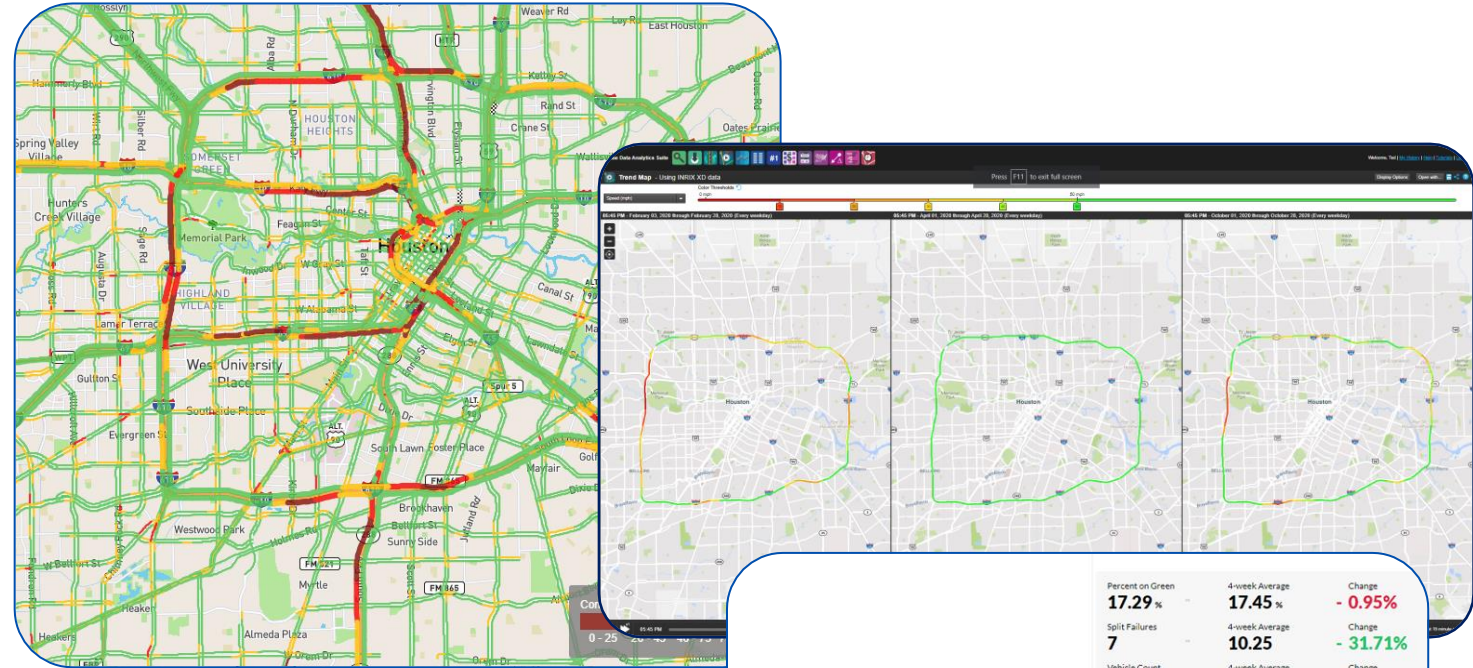


30 minute drive



Big Data Toolbox

- Real-Time XD Traffic Flow
- Roadway Analytics (Historical Speed)
- Trip Analytics
 - Volume, O-D, and Pattern Changes
- Signal Analytics



Find the latest Coronavirus-related transportation statistics on the [BTS Covid-19 landing page](#)

United States Department of Transportation

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