



Unmasking Transportation After COVID-19

APA Utah Fall Conference



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Stephanie Tomlin, UDOT

COVID-19 - The fastest changes to transportation behavior in history

Rikki Sonnen, UDOT - Freeway Operations

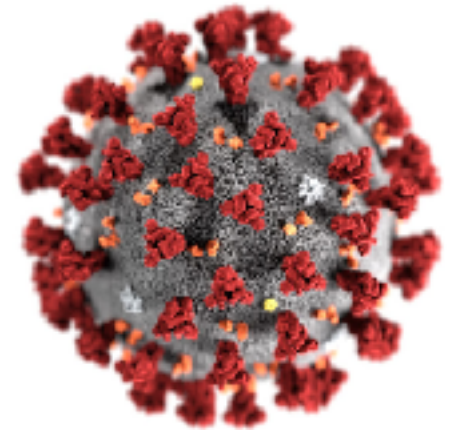
rikkisonnen@utah.gov

Ted Knowlton, WFRC - Telework, transit, local traffic, and land use patterns

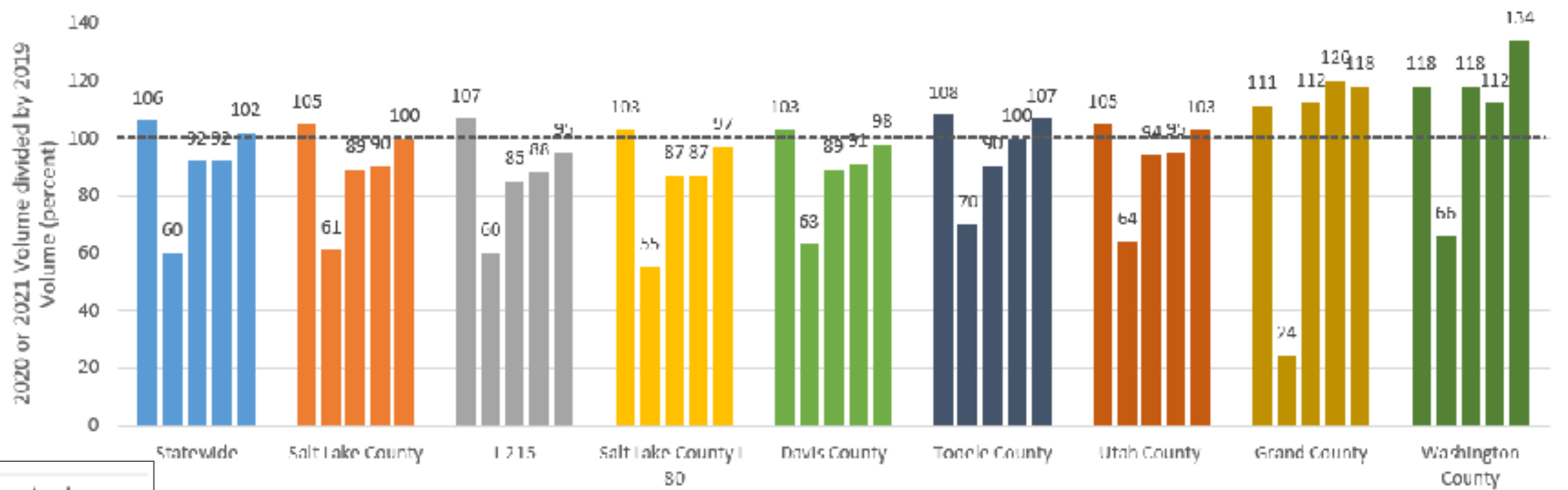
ted@wfrc.org

Stephanie Tomlin, UDOT - Active Transportation Trends

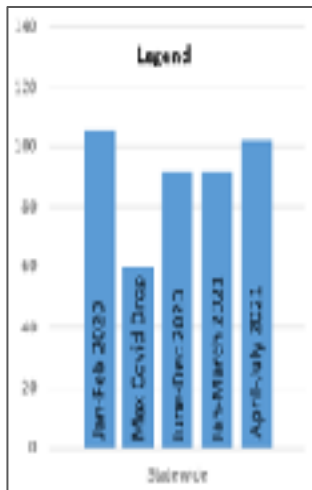
satomlin@utah.gov



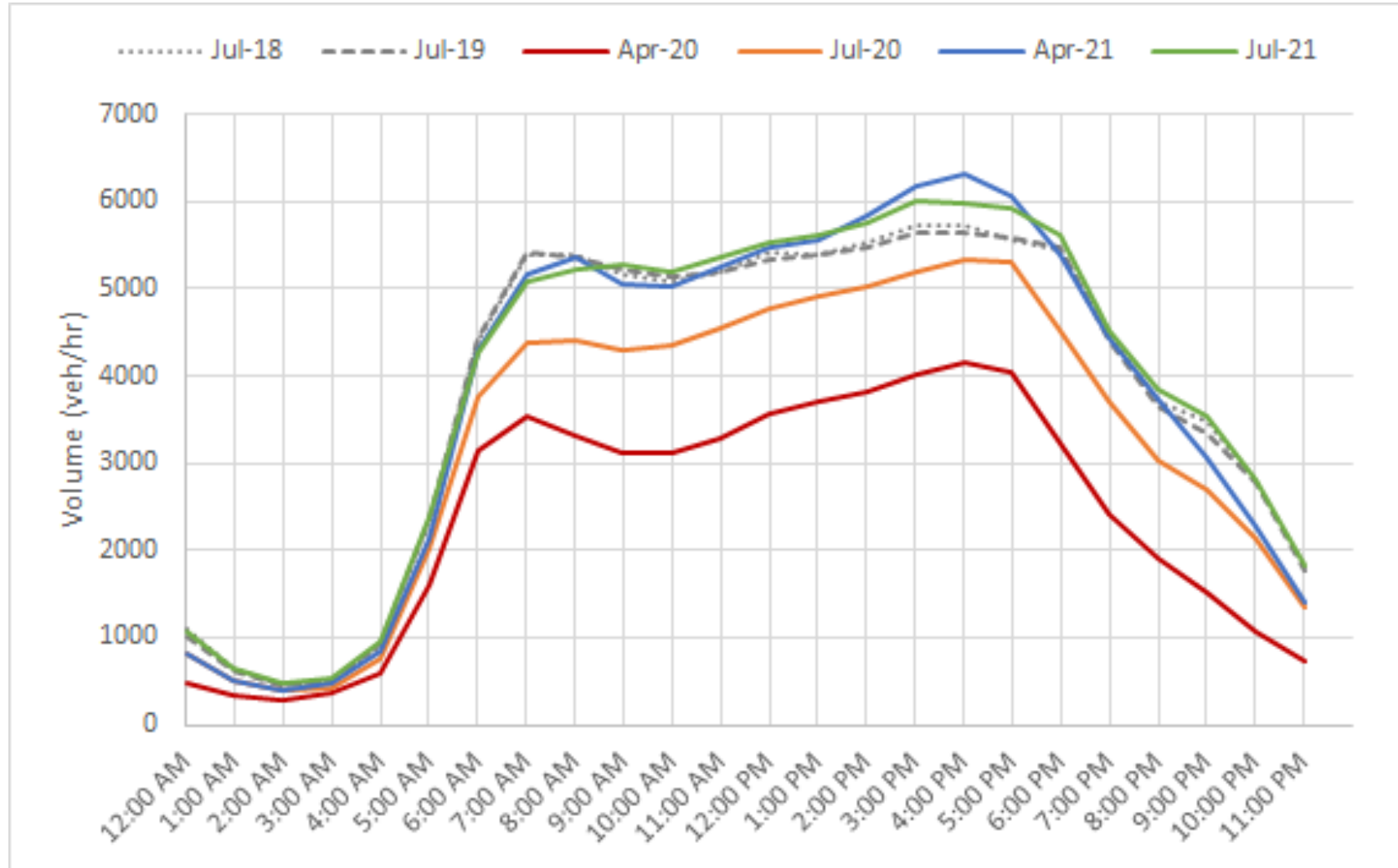
Regional Volume Changes



- Volume changes were different by region
- Most areas are currently experiencing at or above pre-pandemic volumes



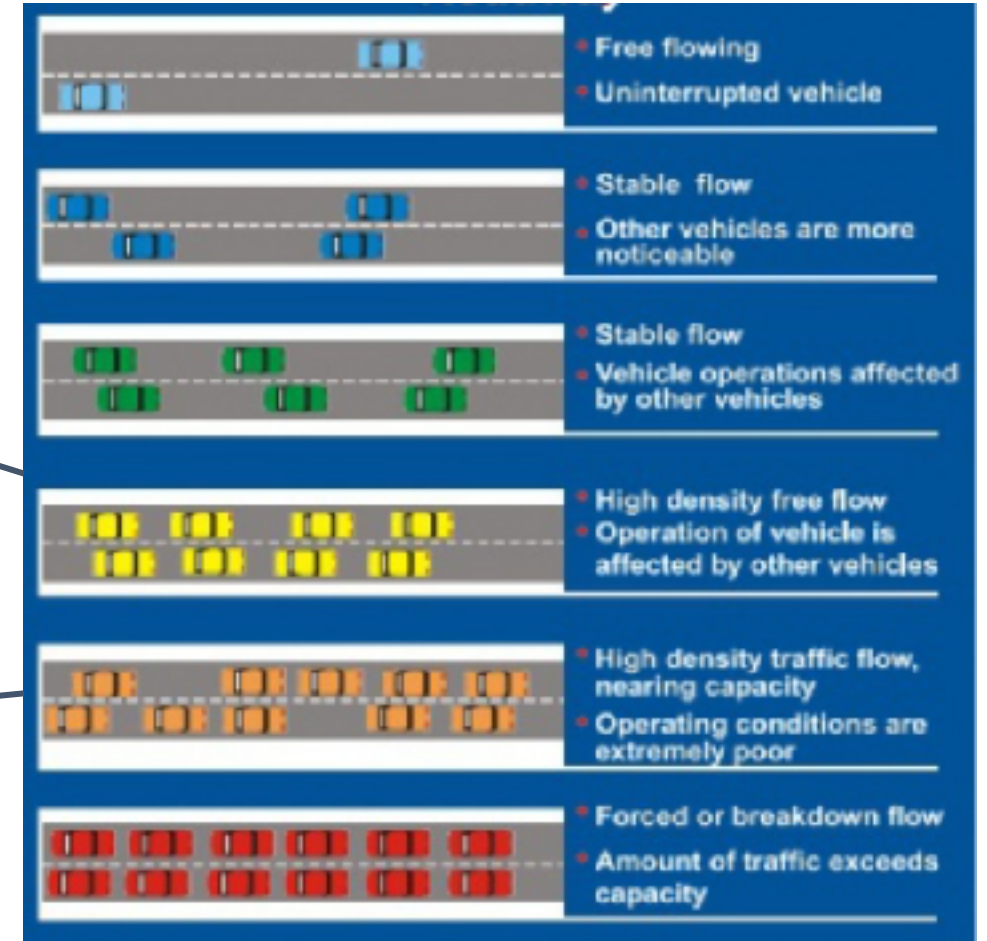
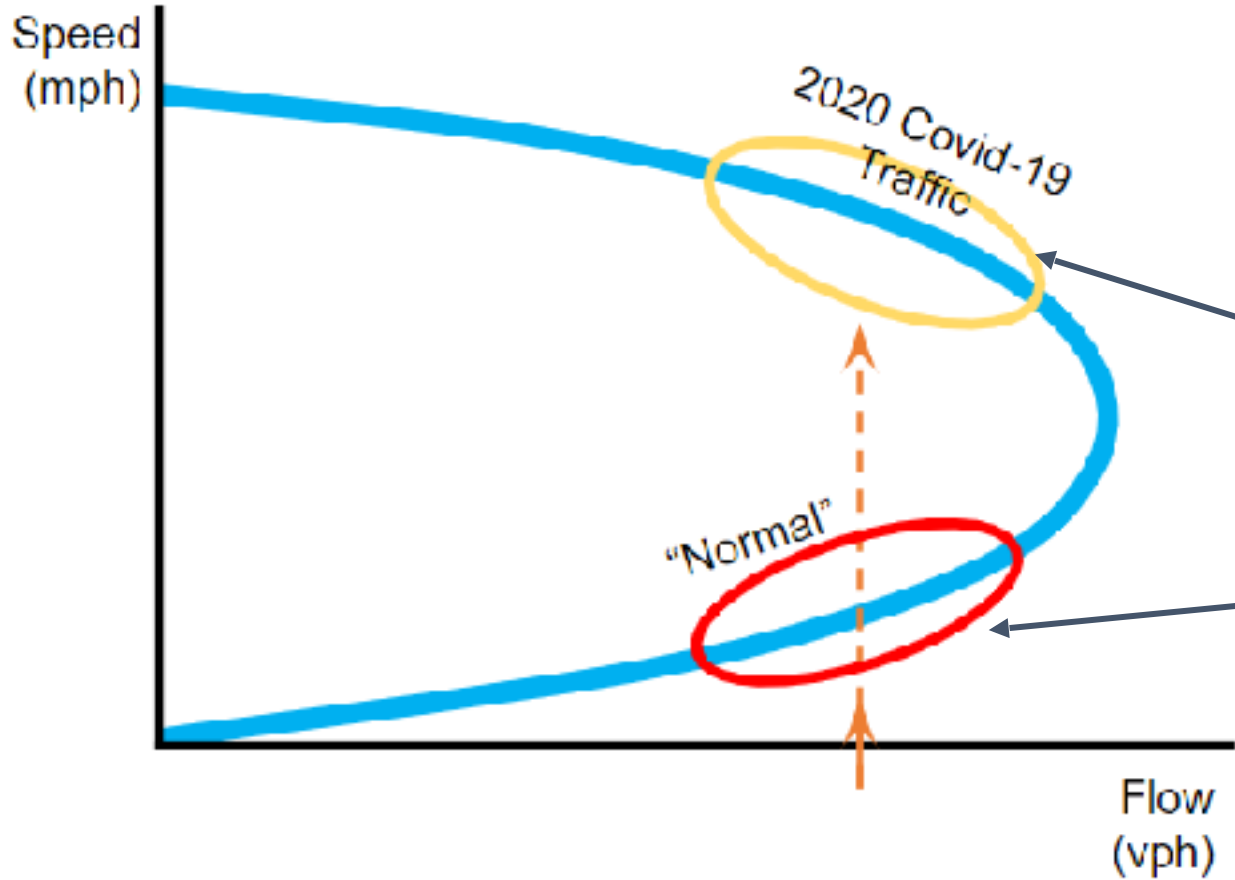
I-15 NB: I-215 - 600 S Hourly Volume Changes



- No major construction between 2018 and 2021
- Major drop in daily volumes at beginning of pandemic
- Volumes increasing in the midday and PM peak

Speed/Flow Relationship

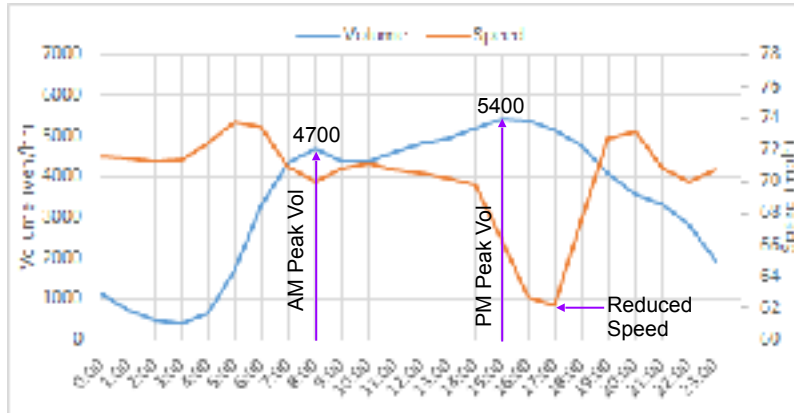
Traffic Flow Theory



Source: Maryland DOT Policy Manual

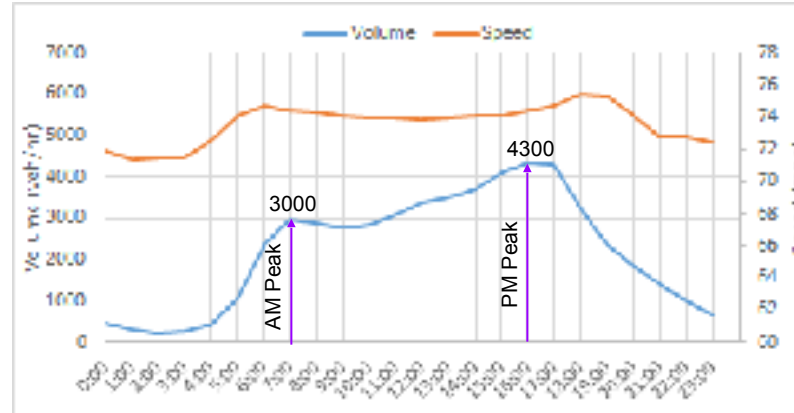
Salt Lake Area Speed Changes

Pre-Covid (July 2019): High volume and moderate speeds



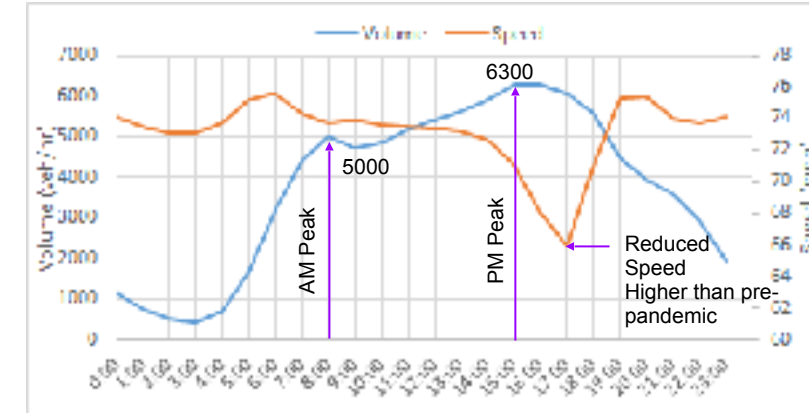
- High AM and PM peak volumes
- Reduced speed during the peaks
- Somewhat reliable, speed drops are reoccurring

During Covid (July 2020): Low volume and high speeds



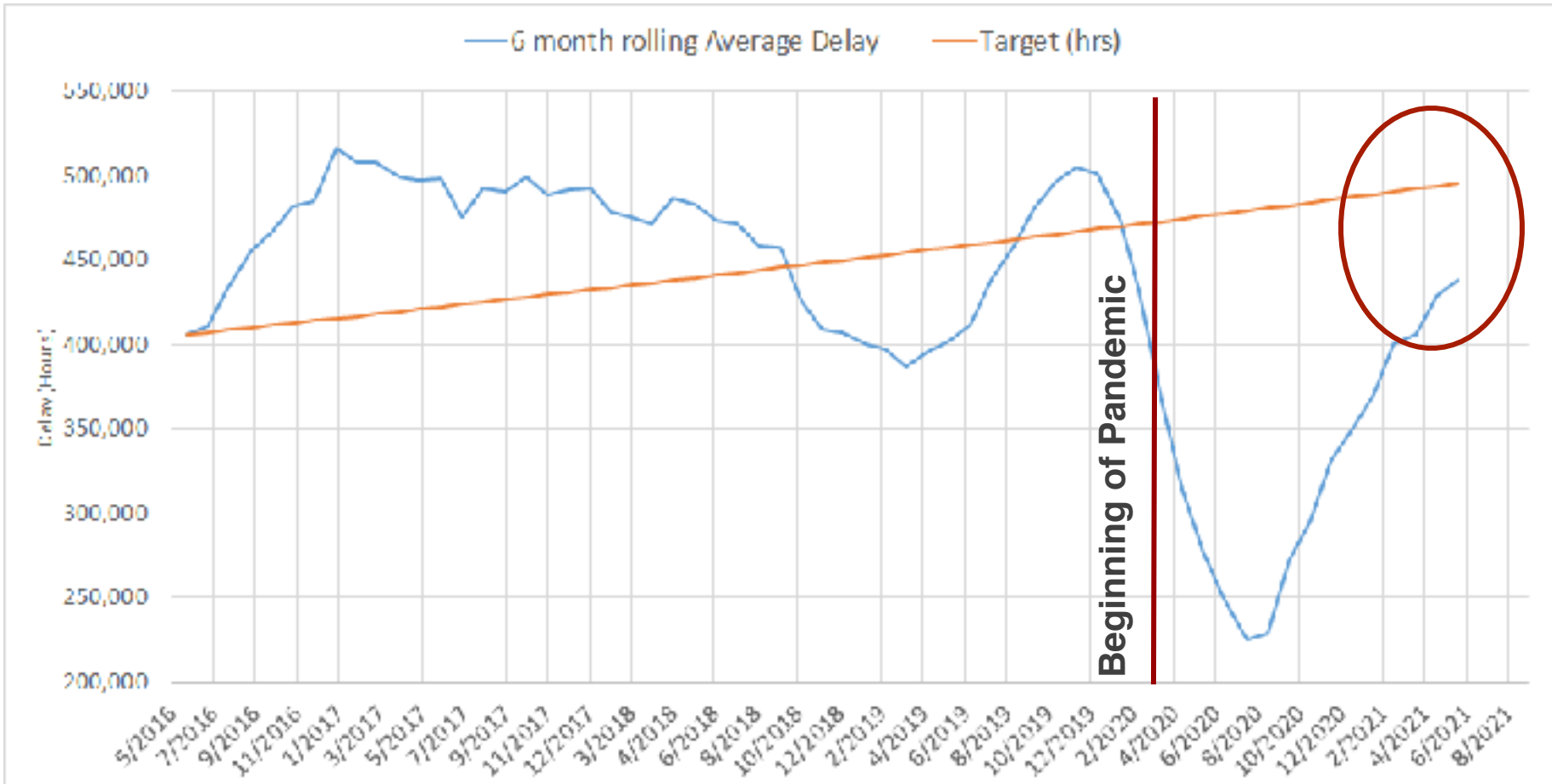
- Low AM and PM peak volumes
- Speeds remain high throughout the day
- Very reliable system

1+ Year In (July 2021): High volume and high speeds



- Volumes higher than pre-pandemic
- Speeds higher than pre-pandemic, but dropping during the peaks
- Reliability eroding

Statewide Delay Changes



What Do We Know?

Beginning of Pandemic



Reduced volumes



Excessive speeding



Improved delay

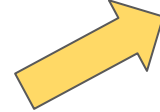


Improved reliability

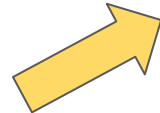


Increased crash severity

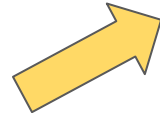
Current Conditions



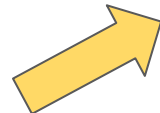
Increasing volumes above pre-pandemic levels



Excessive speeding is occurring, but lessening as congestion returns



Increasing delay



Diminishing reliability



Increased crash severity

Big points

1. Telework
2. Outdoor recreation
3. Transit use
4. Length of trips

1. Telework and outdoor recreation

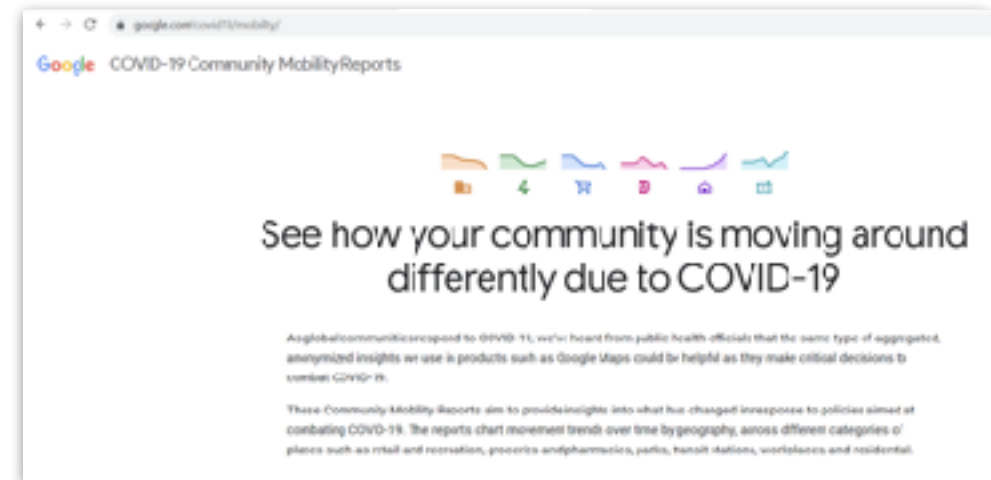
Utah trips this week (all modes) versus 5-week period Jan 3–Feb 6, 2020

Workplace trips: -30%

Telework is here to stay (?)

Trips to parks: +90%

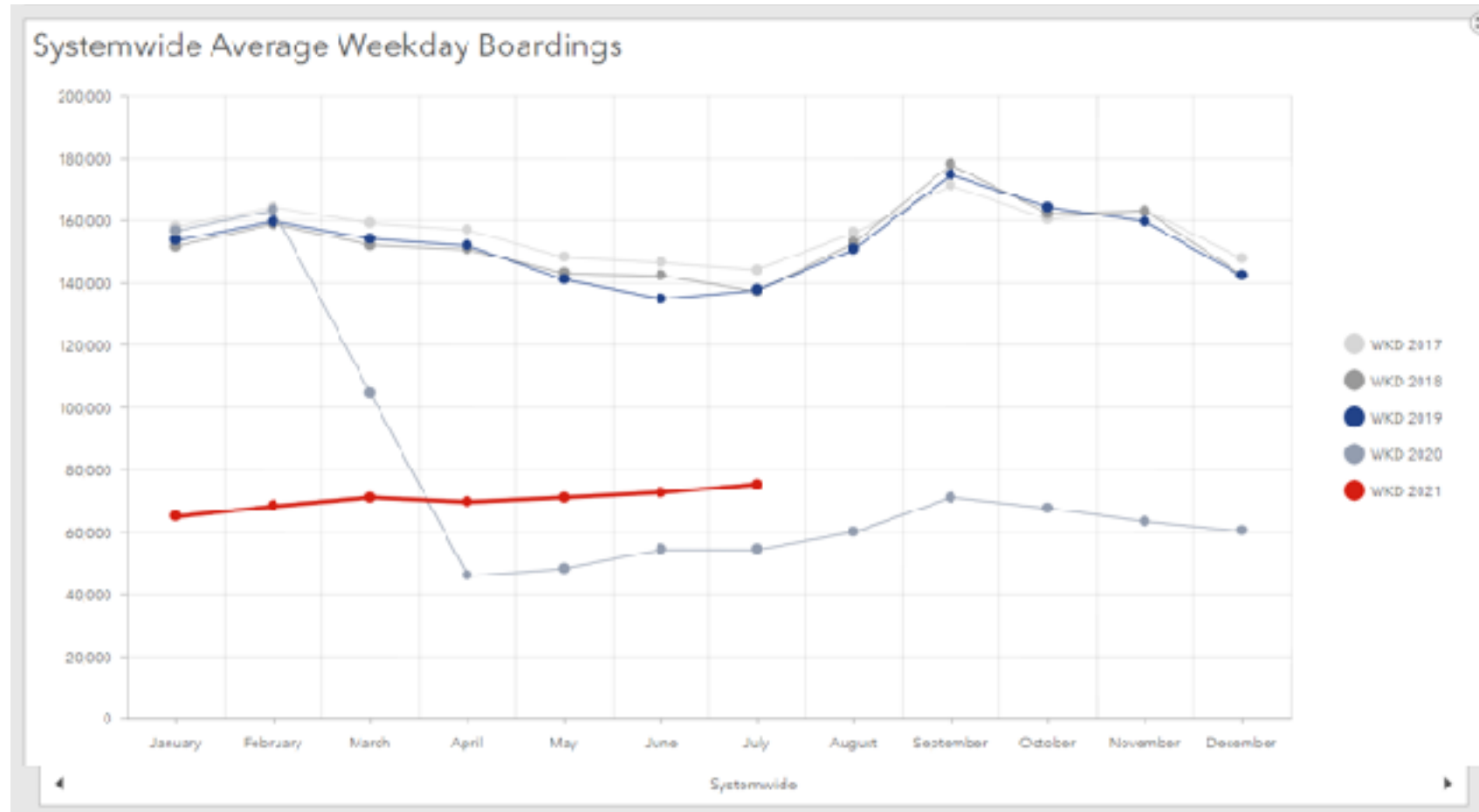
How high will the demand remain for outdoor recreation and bicycling?



[Google.com/covid19/mobility](https://www.google.com/covid19/mobility)

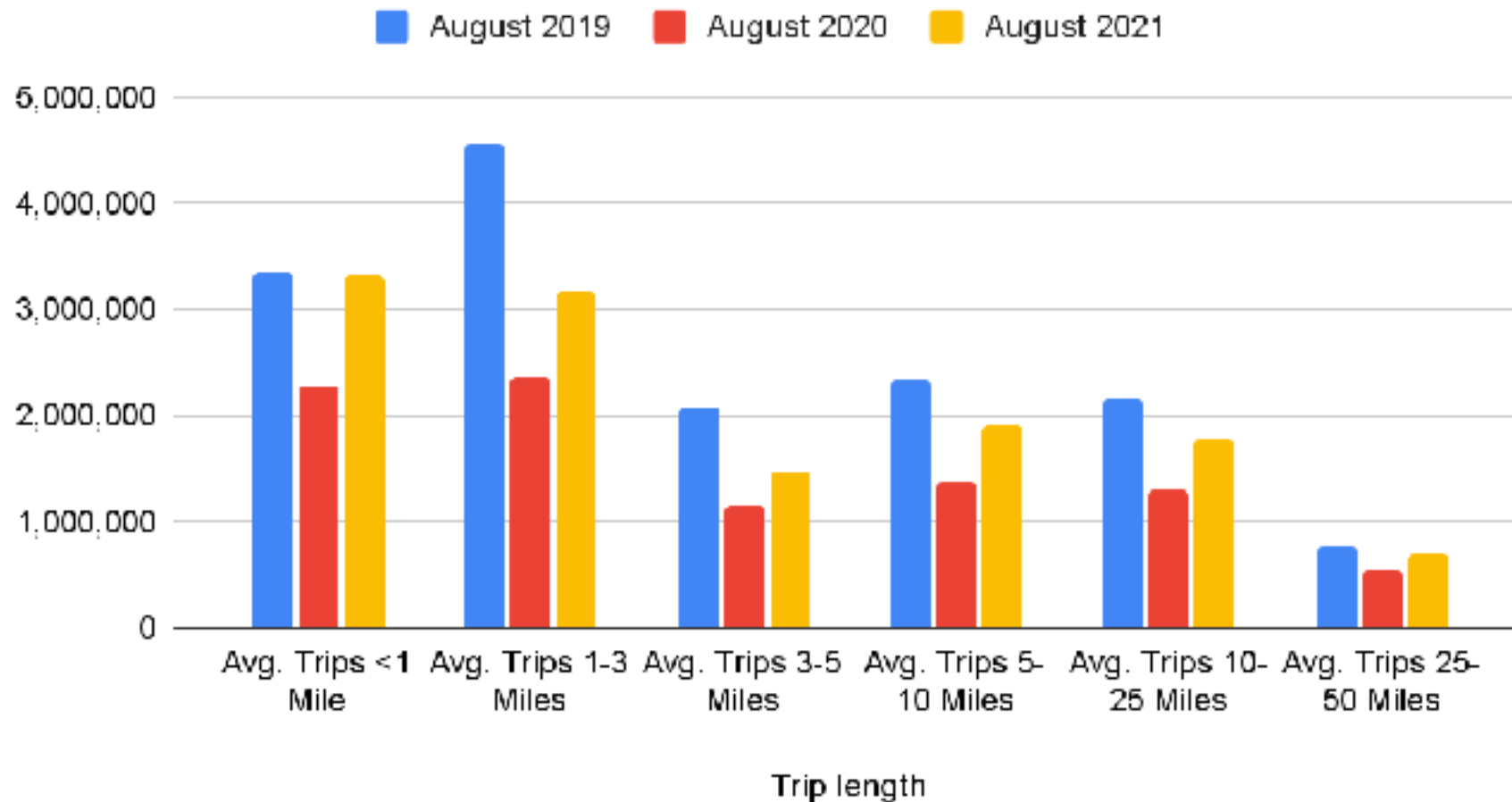
2. Transit stays low in the midst of ongoing Delta variant

Utah Transit Authority Ridership Dashboard

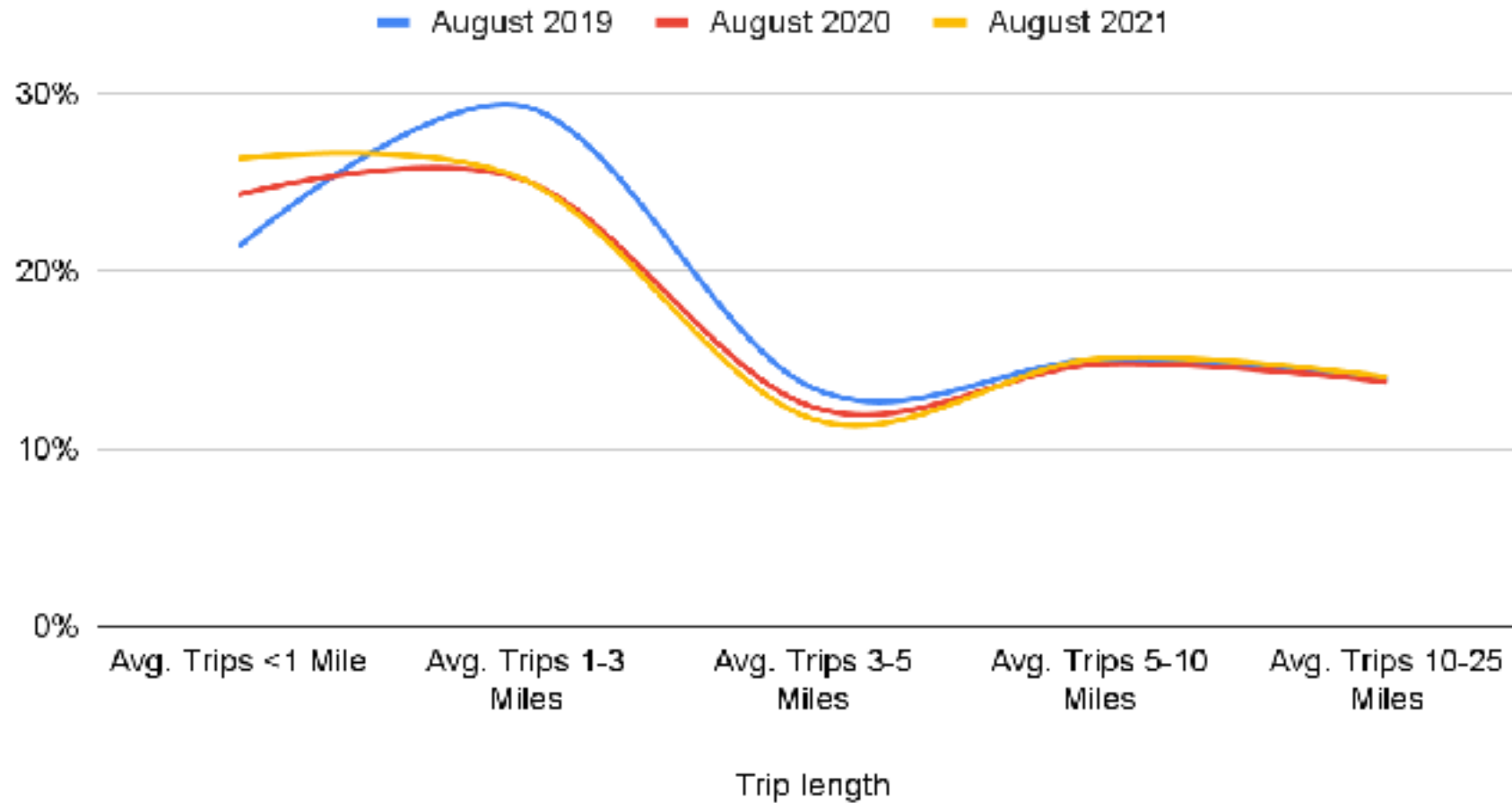


3. The “Great Localization” of trips

Utah home-based trip lengths through COVID-19

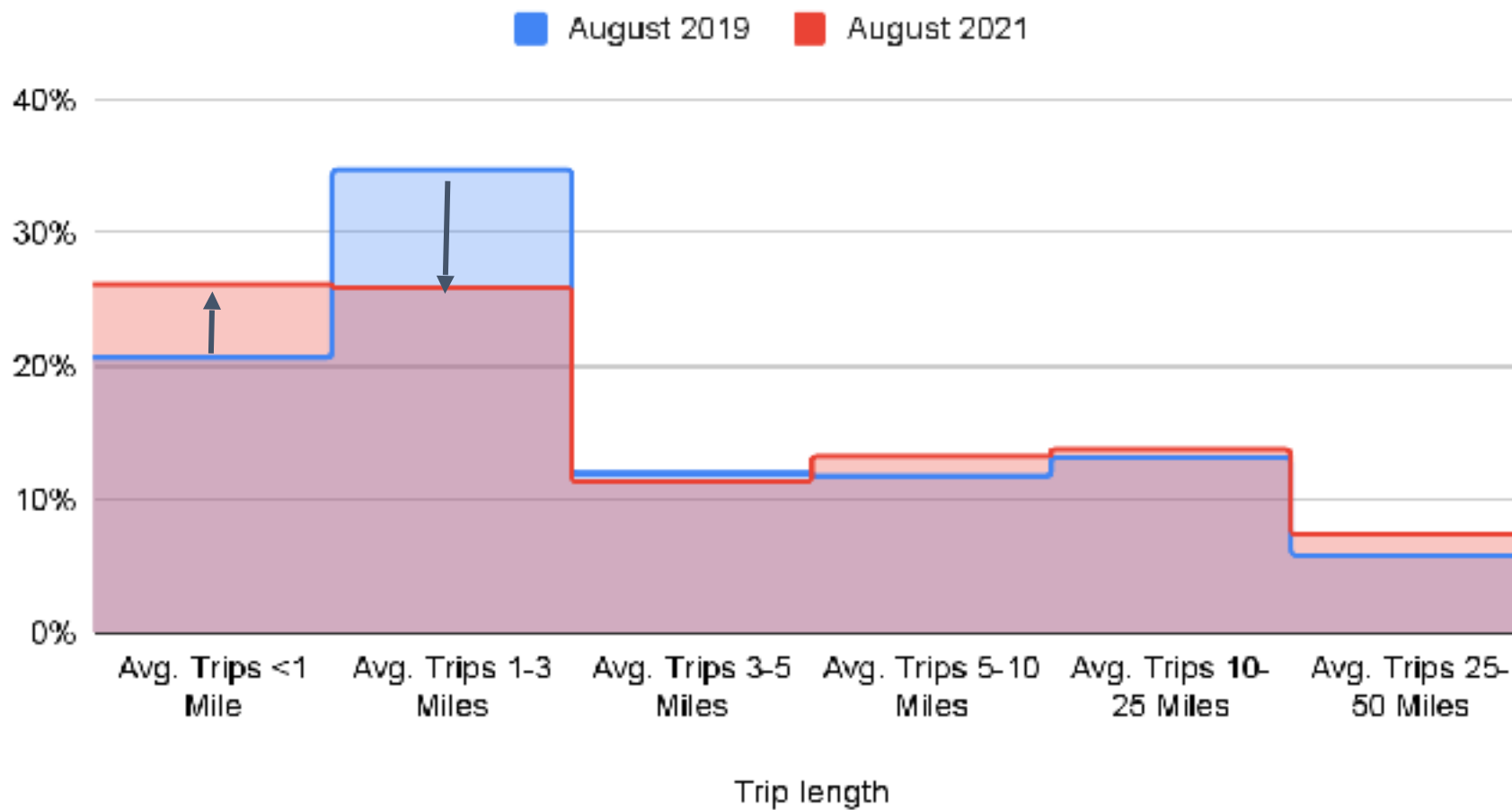


Utah home-based trip lengths through COVID-19



The teleworker is seeking local trips!

Davis county home-based trip lengths through COVID-19



Key



Urban community



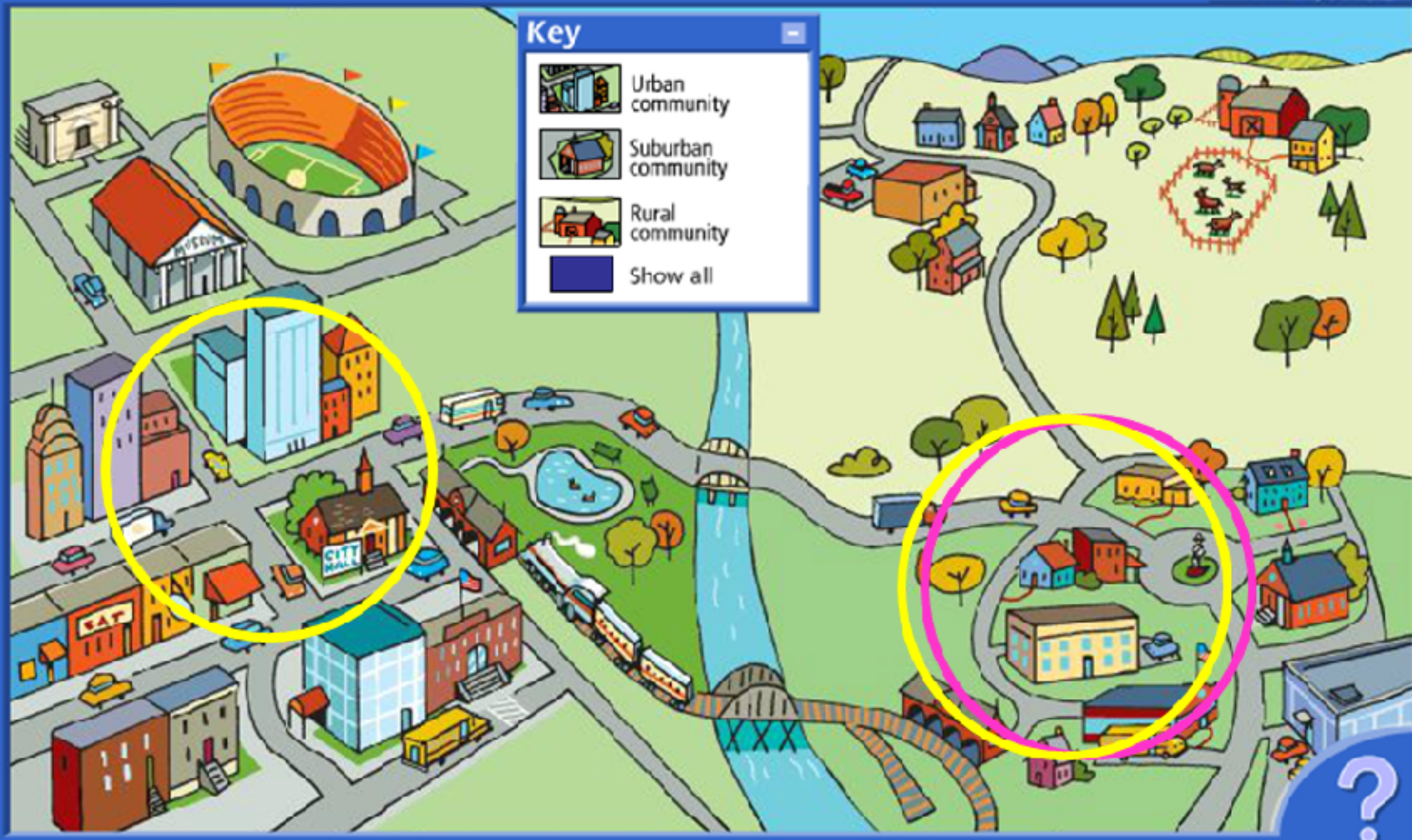
Suburban community



Rural community



Show all

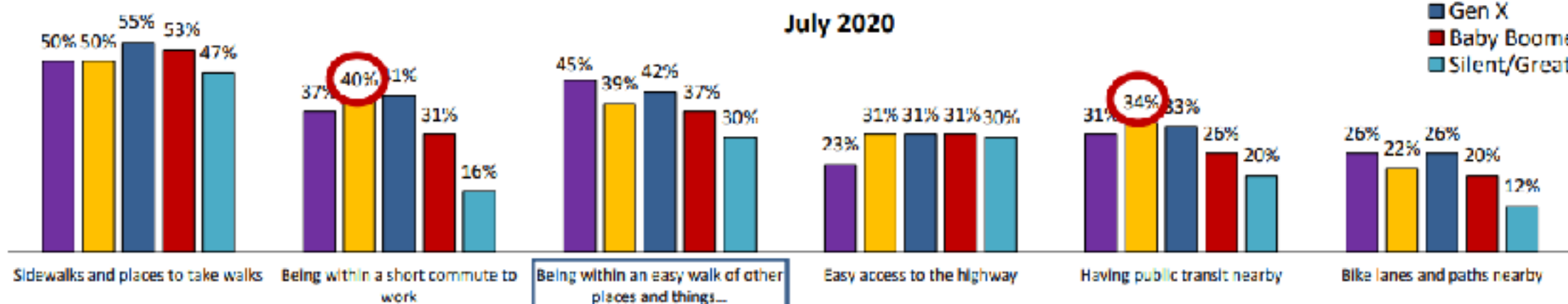


Millennials Less Focused on Commute Time and Public Transit During Pandemic While Older Generations Show More Interest in Walking

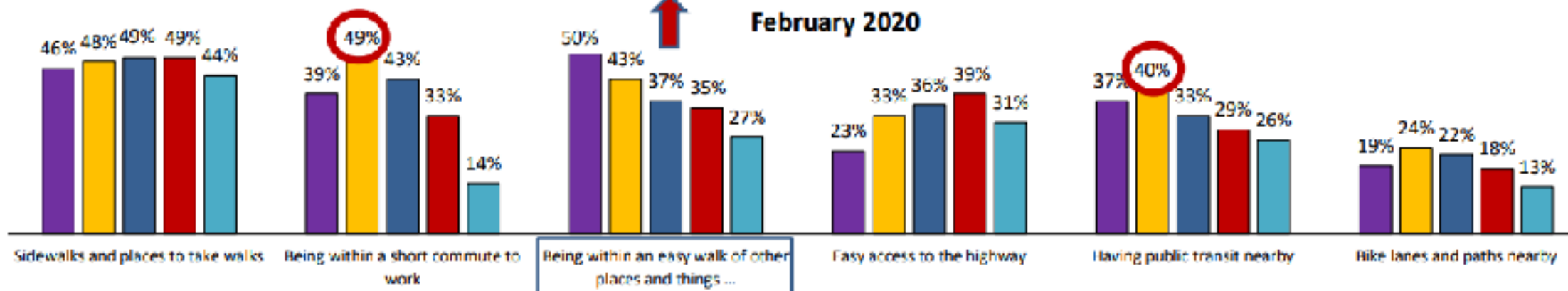
% Very Important Factor in Deciding Where to Live By Generation

■ Gen Z
■ Millennials
■ Gen X
■ Baby Boomers
■ Silent/Greatest

July 2020



February 2020



Taxable Sales Comparison - 2019 to 2020 by Quarter

Taxable Sales Data



Fourth Quarter

Third Quarter

Second Quarter

First Quarter

Annual

Total Taxable Sales

Taxable sales are calculated by summing data from sales and use tax returns from the local sales tax distribution each month and aggregating by time period, location and industry category. For more information, see the "About These Reports" section of the [Utah State Tax Commission's Taxable Sales Reports](#).

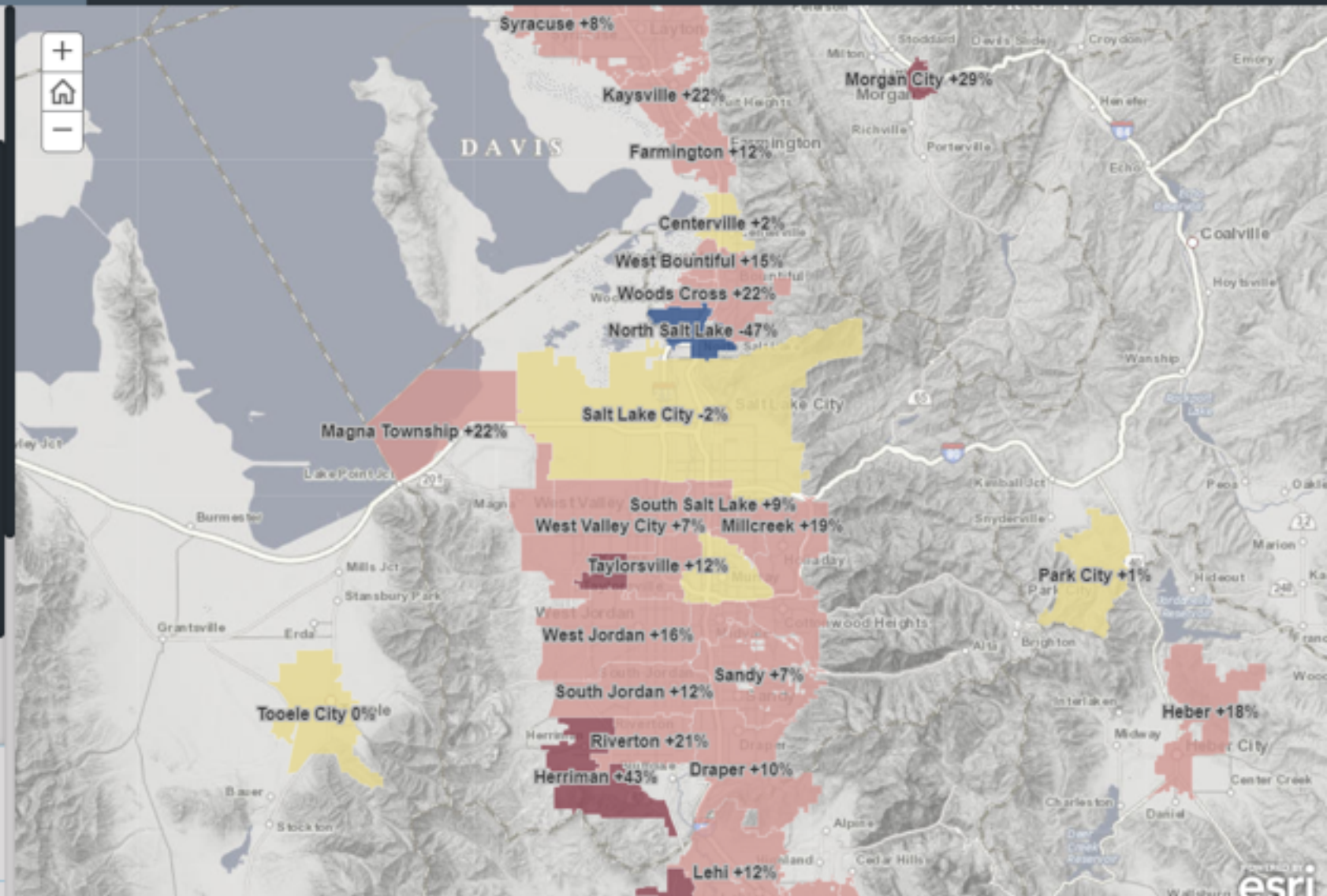
Total Taxable Sales includes taxable sales from all industry categories. Statewide, total taxable sales for the fourth quarter increased 10.4% from 2019 to 2020.

Click on a city for more detailed information about taxable sales and percent change from 2019 to 2020.

Percent Change 2019 to 2020

- Greater than 25% Increase
- 5% to 25% Increase
- Minimal Change (-5% to +5%)
- 5% to -25% Decrease

Non-Store Retail

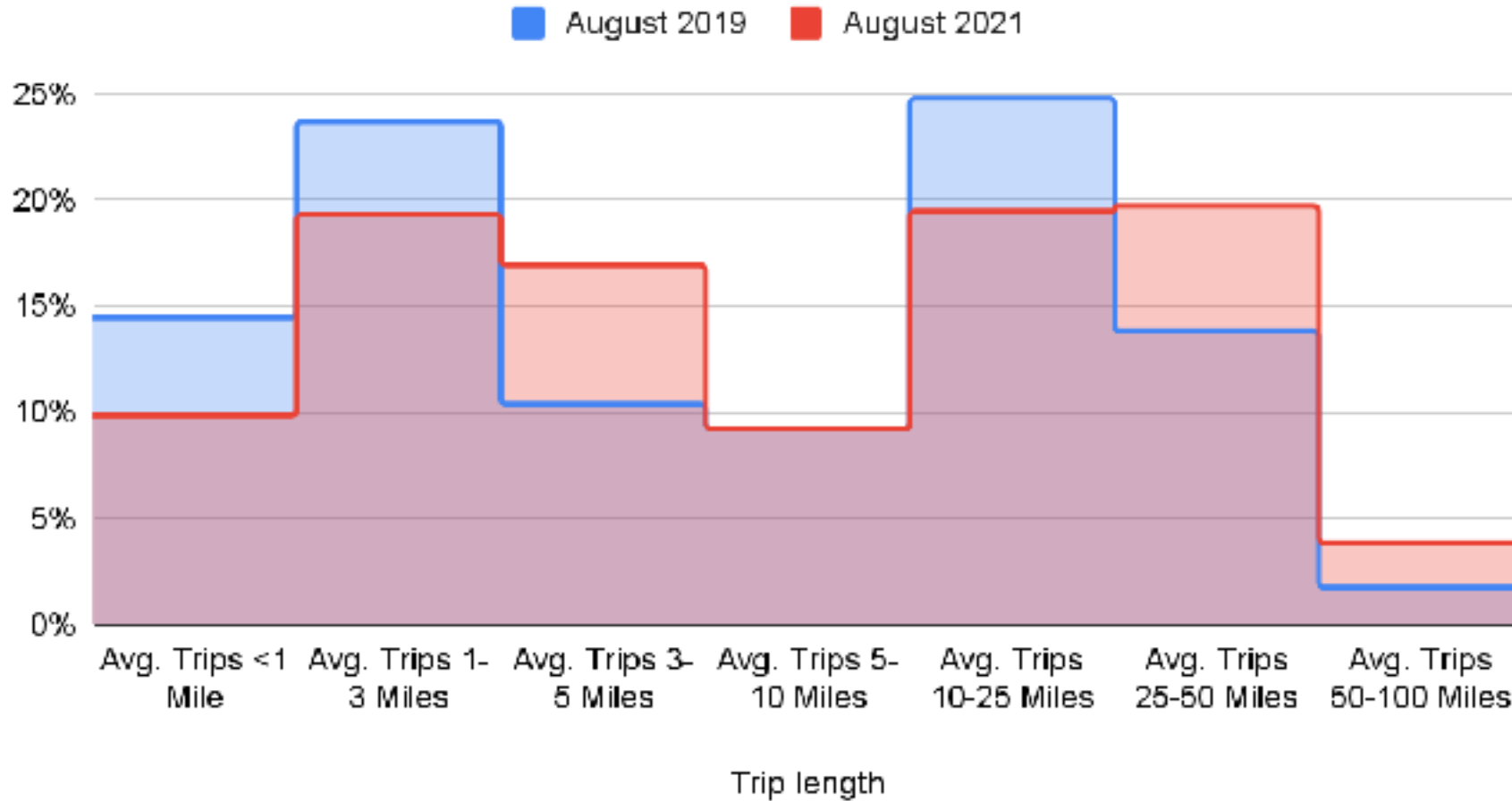


Attracting the teleworker



4. Zoomtown and the super commute (when not teleworking)

Morgan county home-based trip lengths through COVID-19



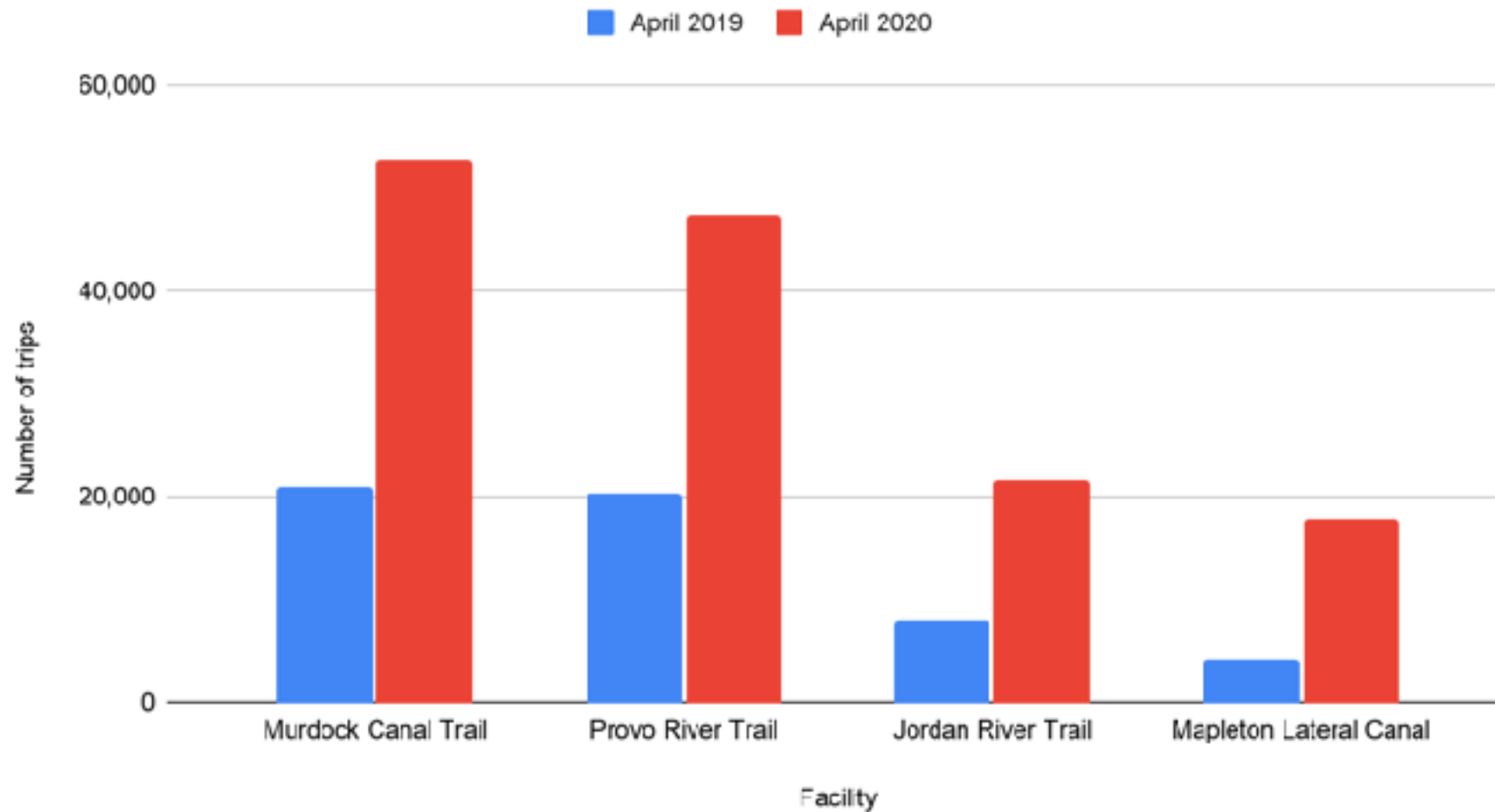
Active Transportation Trends





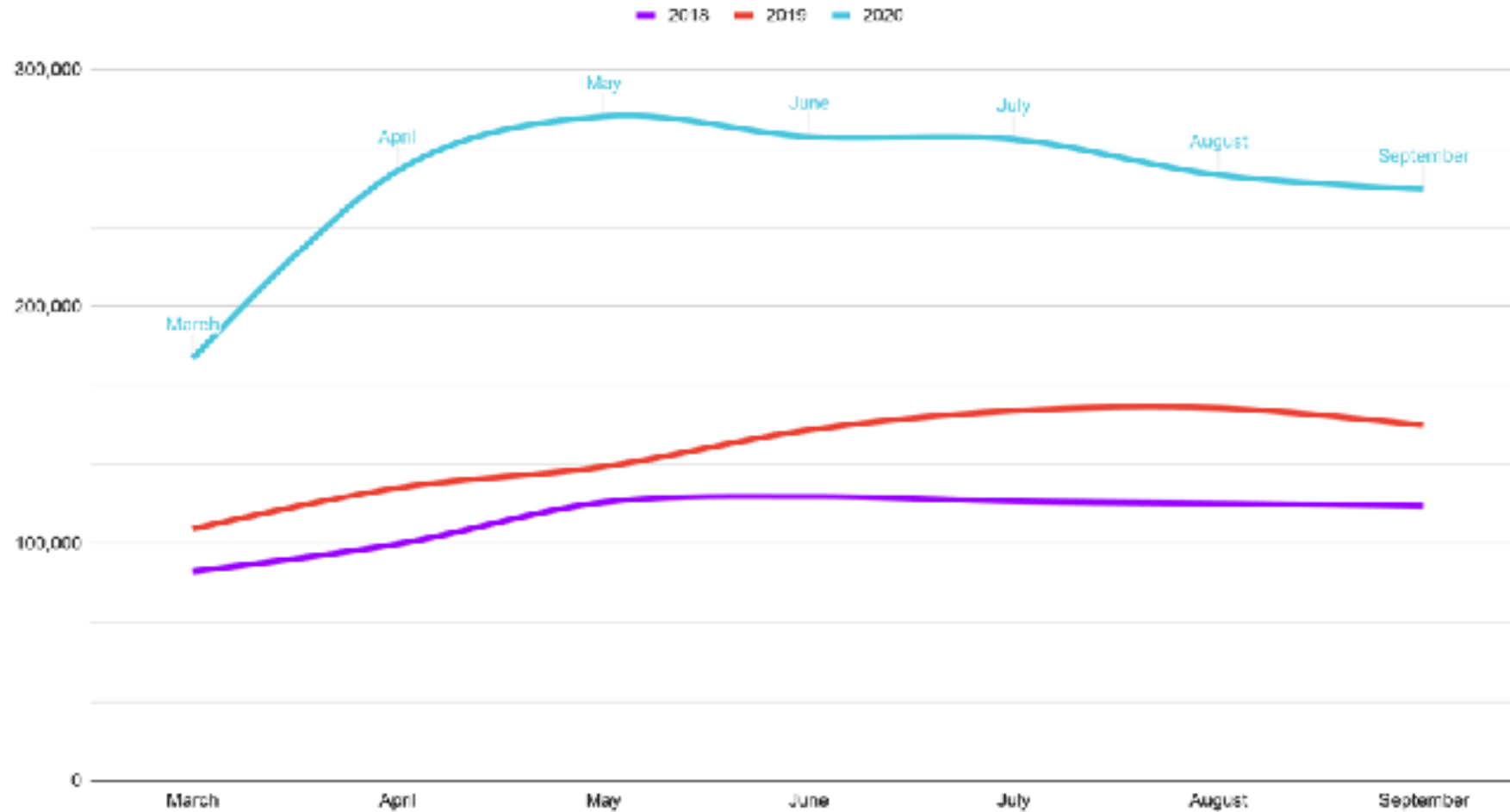
Active Transportation During COVID

Comparison of Trail Usage During April of 2019 and 2020



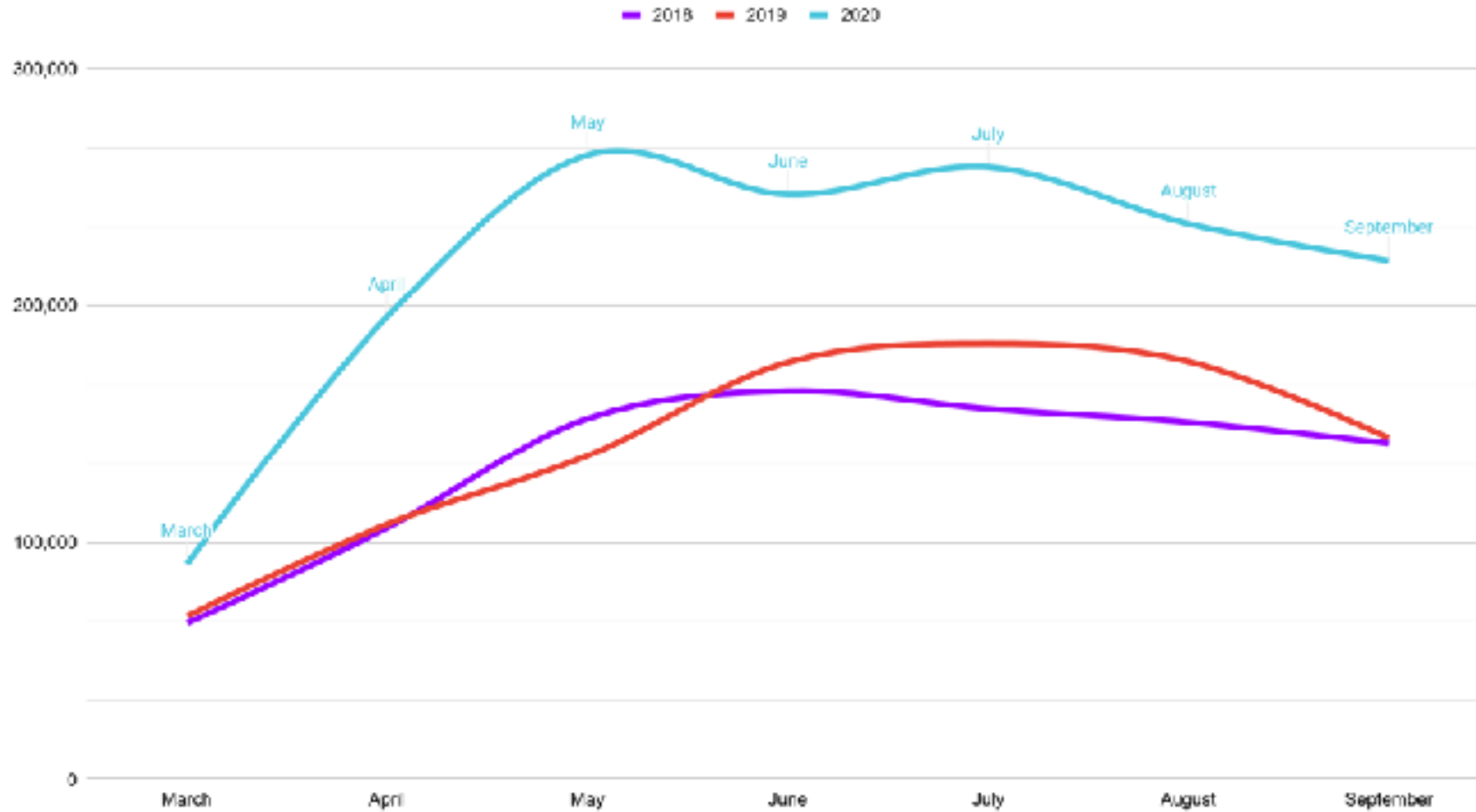
Pedestrian Strava Trips During COVID

Strava Pedestrian Trip Totals 2018 - 2020

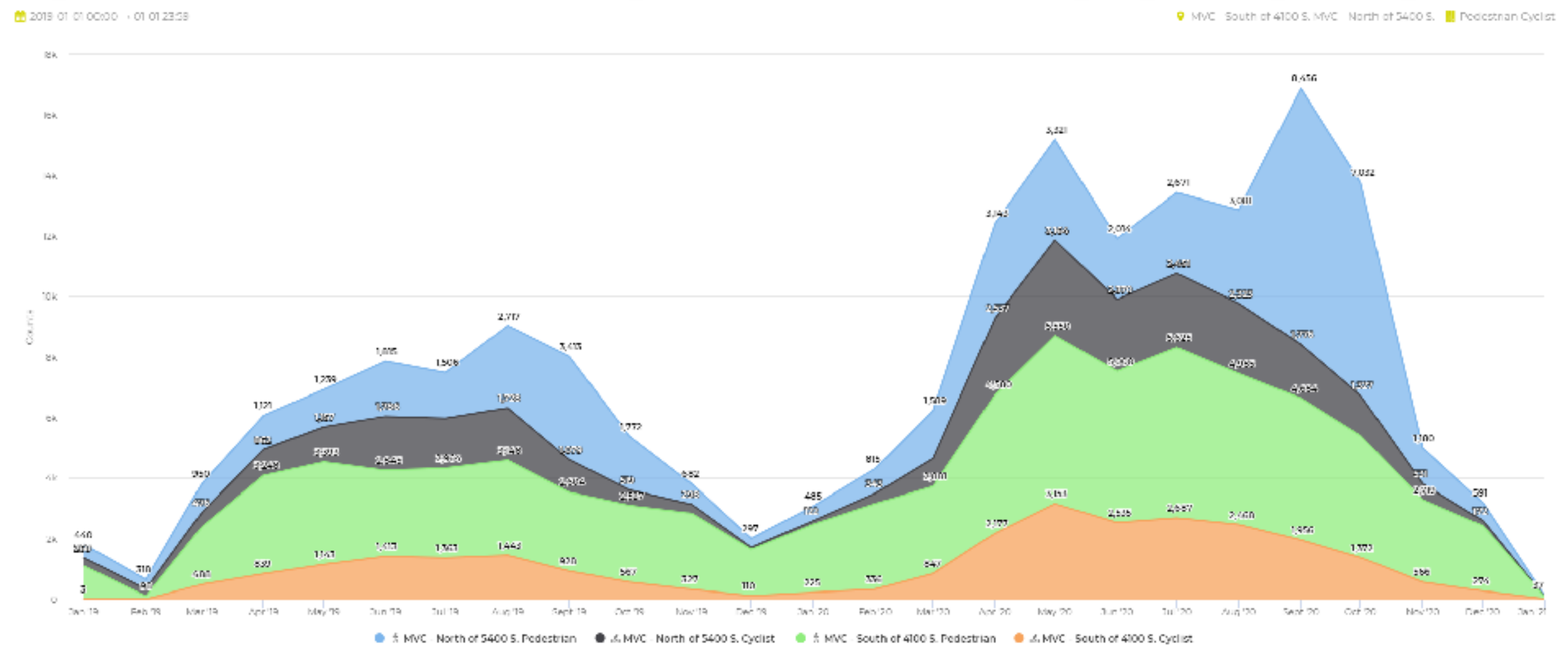


Cyclist Strava Trips During COVID

Strava Bike Trip Totals 2018 - 2020



Trail User Data - Mountain View Corridor Trail



Scooter Utilization

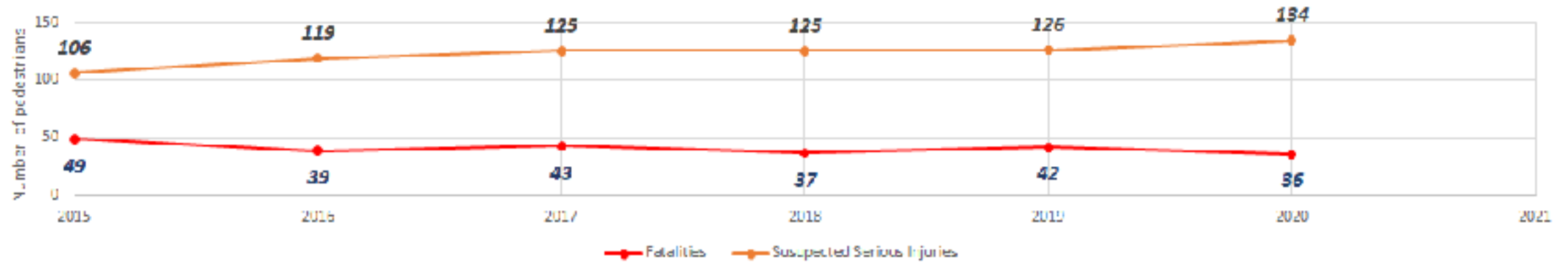


CALENDAR DATE	Trips	Active Riders		
2019-01-01	19,241	8,213		
2019-02-01	21,256	8,990		
2019-03-01	44,606	17,625		
2019-04-01	64,571	25,378		
2019-05-01	84,110	30,675	Percent Change in Trips 2019 to 2020 Comparison	Percent Change in Active Riders 2019 to 2020 Comparison
2019-06-01	90,021	36,166		
2019-07-01	105,908	40,632		
2019-08-01	106,184	39,983		
2019-09-01	93,336	32,993		
2019-10-01	54,908	19,639		
2019-11-01	31,732	12,730		
2019-12-01	20,008	8,897		
2020-01-01	9,848	4,641		
2020-02-01	12,398	5,985		
2020-03-01	11,171	5,020		
2020-04-01	1,446	677		
2020-05-01	25,156	8,705		
2020-06-01	29,904	10,838		
2020-07-01	44,384	14,887		
2020-08-01	51,278	16,746		
2020-09-01	43,100	14,142		

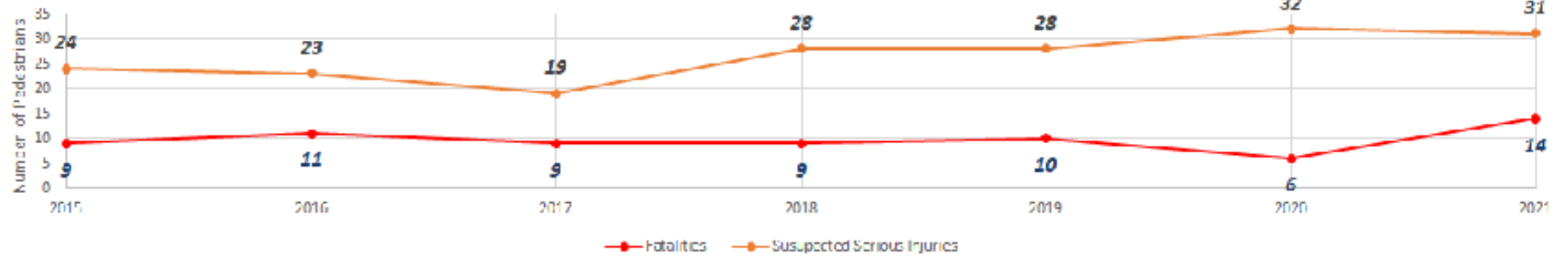
Pedestrian Trends Over Time



Total Pedestrian Fatalities and Suspected Serious Injuries Full Year



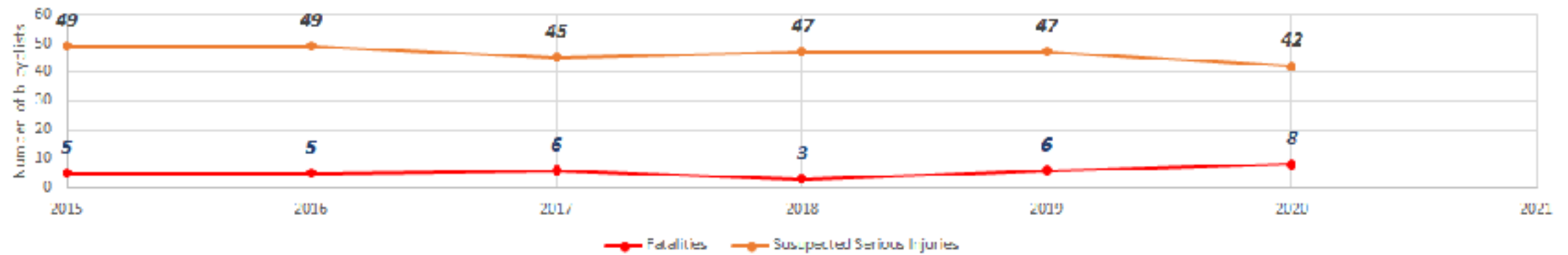
Total Pedestrian Fatalities and Suspected Serious Injuries - First Quarter



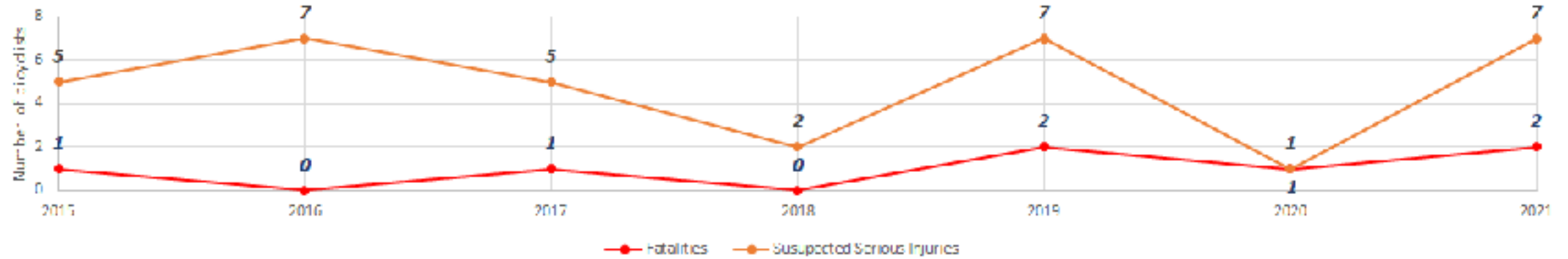


Bicyclists Trends Over Time

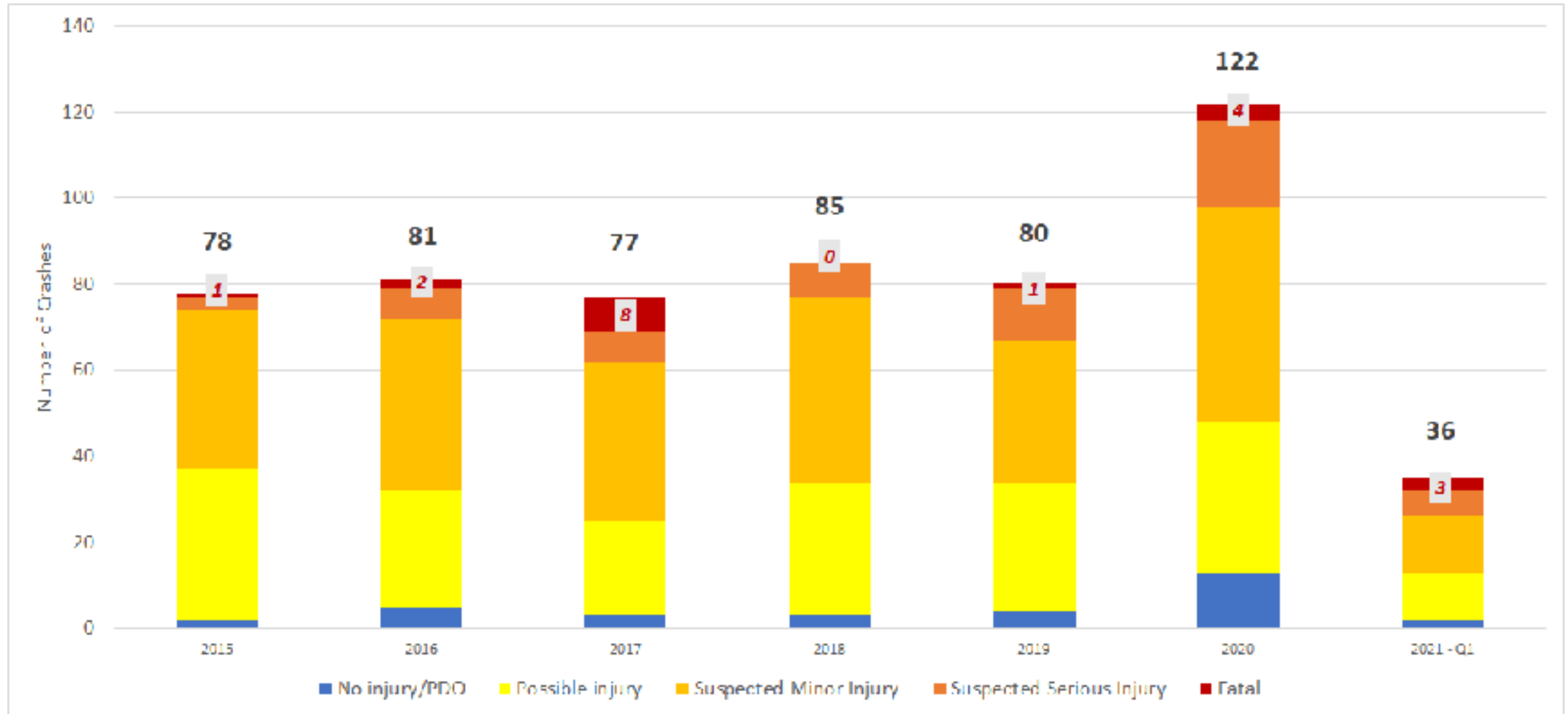
Total Bicyclist Fatalities and Suspected Serious Injuries Full Year



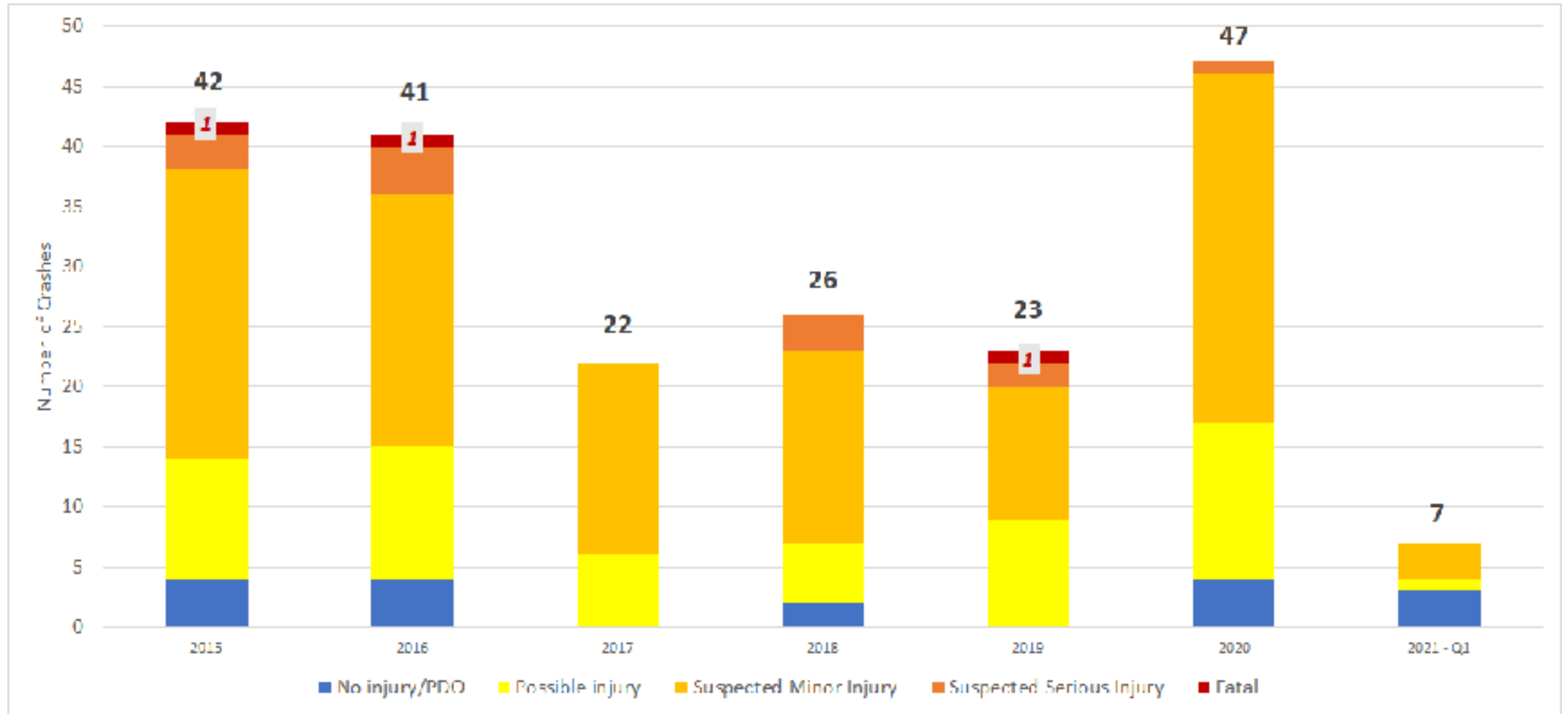
Total Bicyclist Fatalities and Suspected Serious Injuries - First Quarter



Hit and Run - Pedestrian Involved Crashes



Hit and Run - Bicyclist Involved Crashes



Collision Implications

● If hit by a person driving at:

● Person Survives the Collision

● Results in a Fatality

20 MPH



90%

10%



30 MPH



60%

40%



40 MPH



20%

80%



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