

TRANSPORTATION IMPACTS OF THE COVID-19 PANDEMIC IN THE NATIONAL CAPITAL REGION

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TPB Technical Committee
December 4, 2020

Overview

- Numerous actions have been taken to contain the pandemic spread of the COVID-19 virus and to mitigate COVID-19's threat to personal and public health.
- These actions have restricted socio-economic activities throughout the country, including the Washington metropolitan area.
- Staff from various COG department are collaborating to develop a snapshot summary of observed impacts on the region from a multisectoral perspective.
- Sectors of analysis will include:
 - Transportation (Roadways and Public Transportation)
 - Economy
 - Environment
 - Health

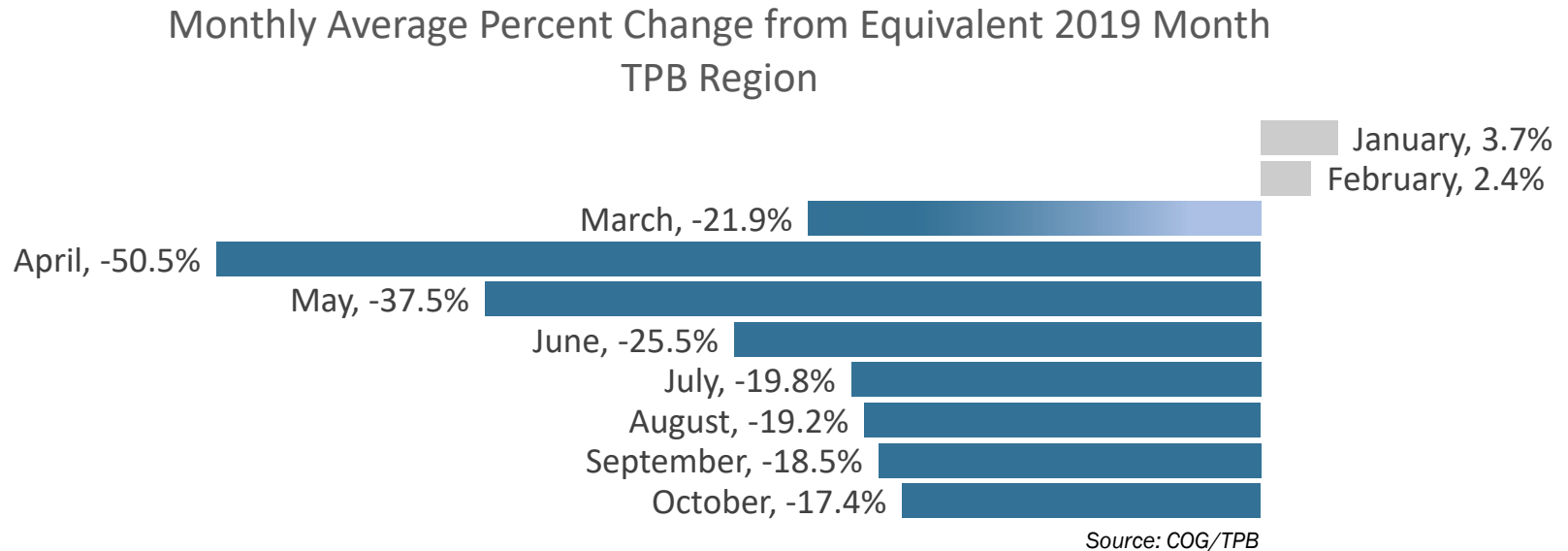


Overview cont'd

- A multisectoral approach will provide a snapshot summary of impacts from a broader perspective to provide more context.
- Analyses and findings, while empirical, are intended to provide a general contextual understanding of the impacts and are not intended to constitute a comprehensive “deep dive.”
- Analyses will measure what has occurred and will not be predictive in nature due to remaining uncertainties.
- Presentations to be made in two phases:
 - *Near-term Activities*: readily available data that can be presented to stakeholders starting in December.
 - *Longer-term Activities*: data collection and analysis activities that may take longer to complete.



Roadway Traffic Volumes: TPB Region

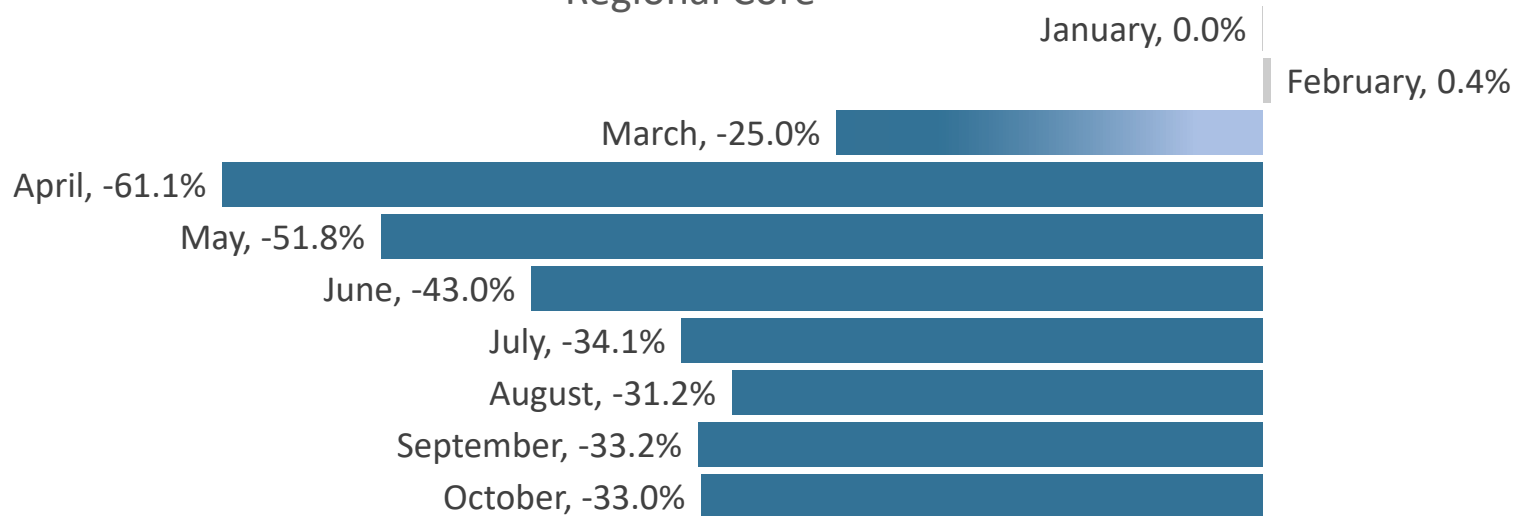


- Regional traffic volumes, which in April 2020 had dipped below 50% of 2019 volumes, had recovered to over 80% of 2019 volumes by July, and continued a slow recovery through October.



Roadway Traffic Volumes: Regional Core

Monthly Average Percent Change from Equivalent 2019 Month
Regional Core

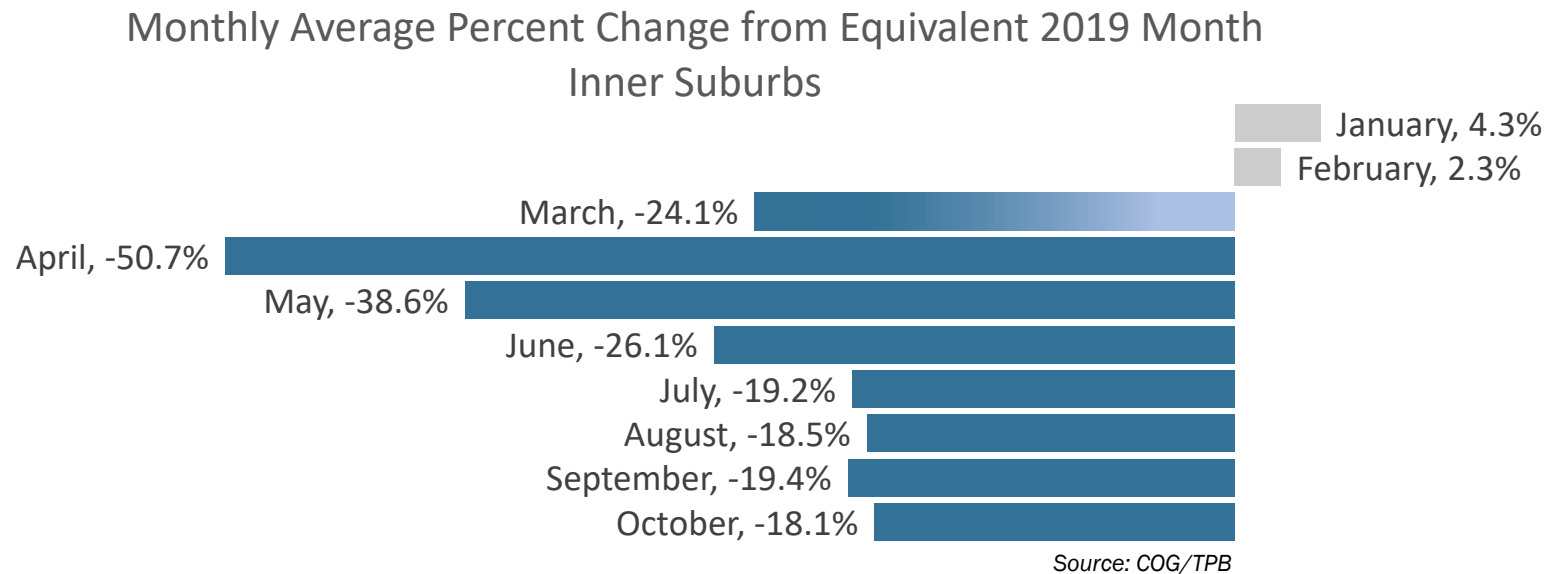


Source: COG/TPB

- Traffic Volumes in the Regional Core decreased by more than 60% over the year in April and have recovered more slowly compared to the region overall



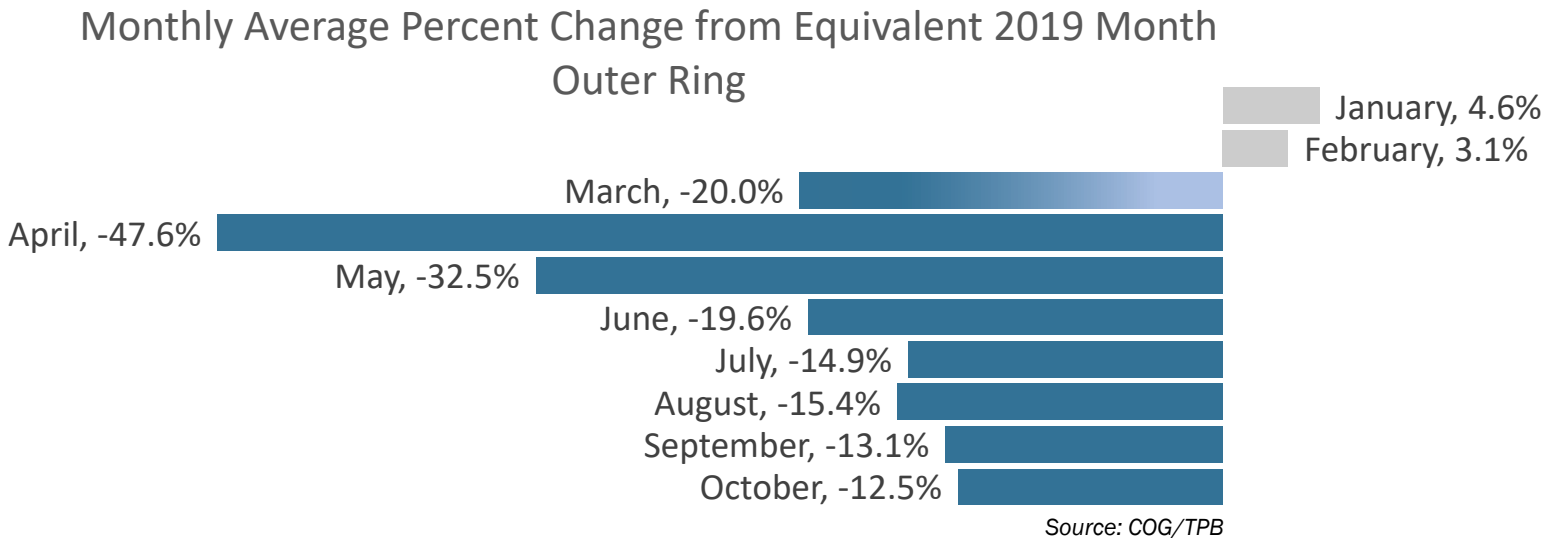
Roadway Traffic Volumes: Inner Suburbs



- After decreasing by more than 50% in April, traffic volumes in the inner suburbs have recovered to nearly 80% of 2019 levels, although fluctuations in recovery are still being observed.



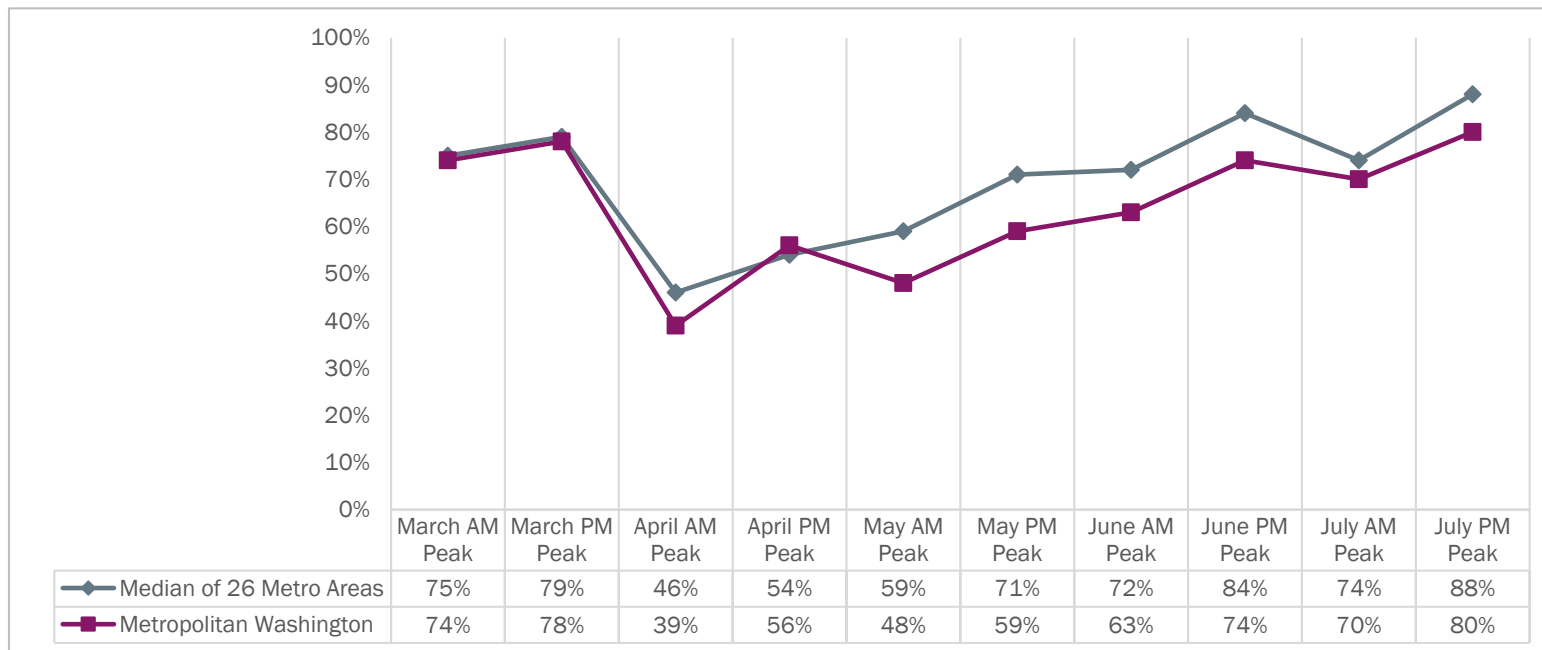
Roadway Traffic Volumes: Outer Ring



- In the outer ring within the TPB Modeled Area, traffic volumes sustained the smallest peak decrease in April of 47.6% and have since registered notable recovery. By October, volumes in the outer ring were down only 12.5% compared to the same time in 2019.



Vehicle Miles of Travel

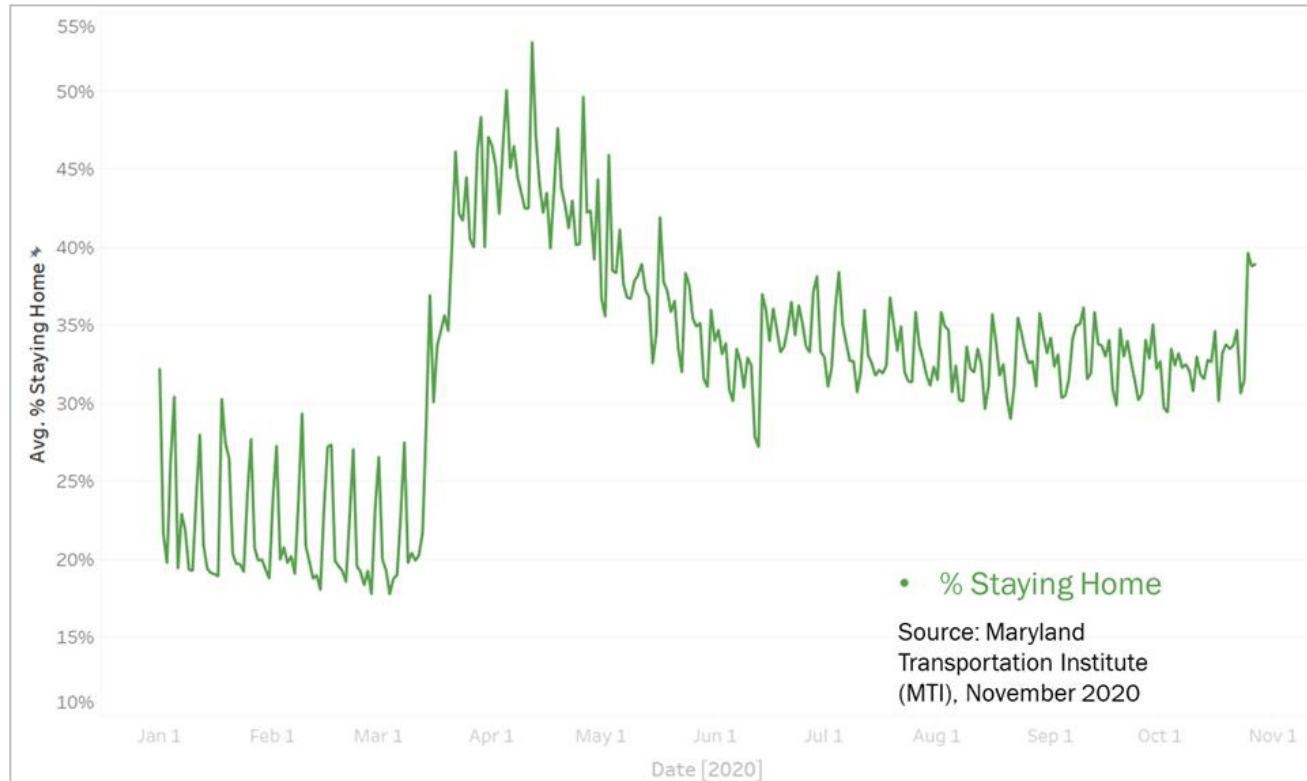


Comparison to pre-pandemic levels. Source: INRIX

- Regional vehicle miles of travel (VMT) dipped most dramatically in April, but by July had recovered significantly
- Lower but similar to the median of 26 major metro areas



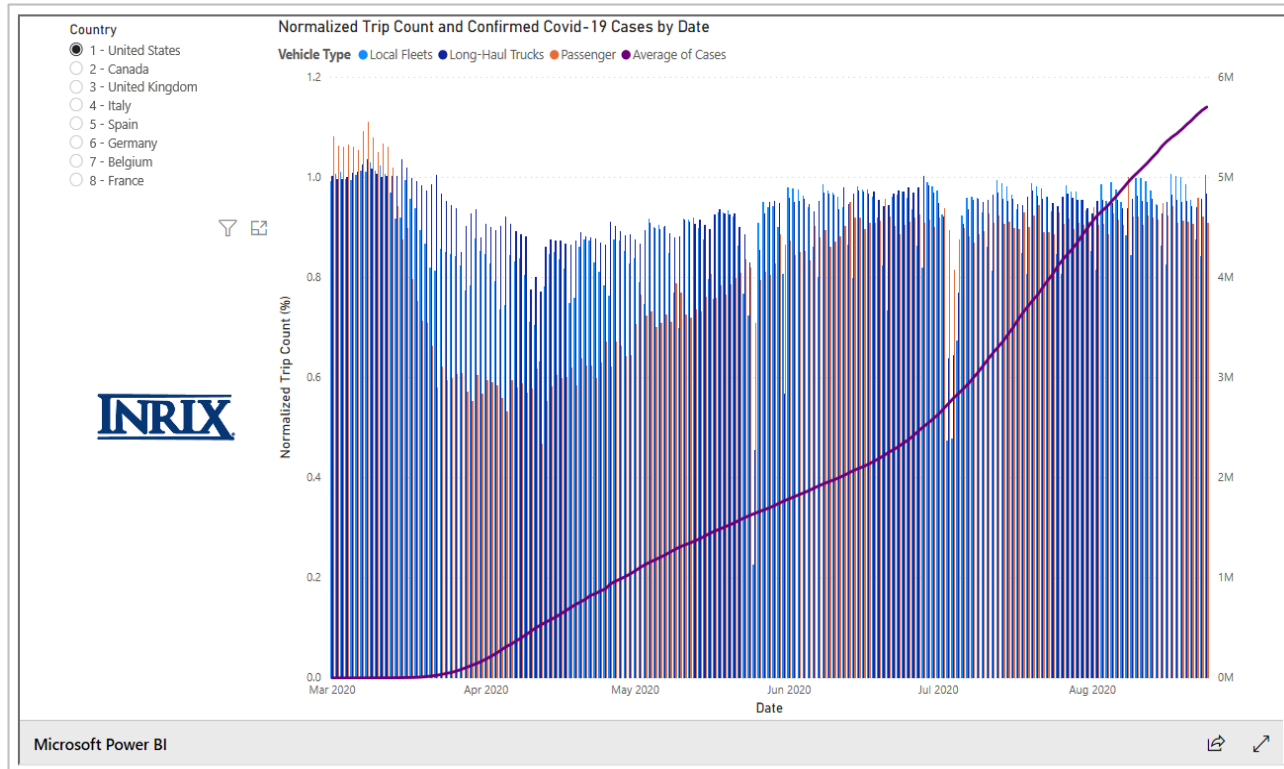
Person Travel



- Persons staying home on a given day regionally went from about 25% pre-pandemic, up to about 45%, and recently back to around 35%



Truck Travel

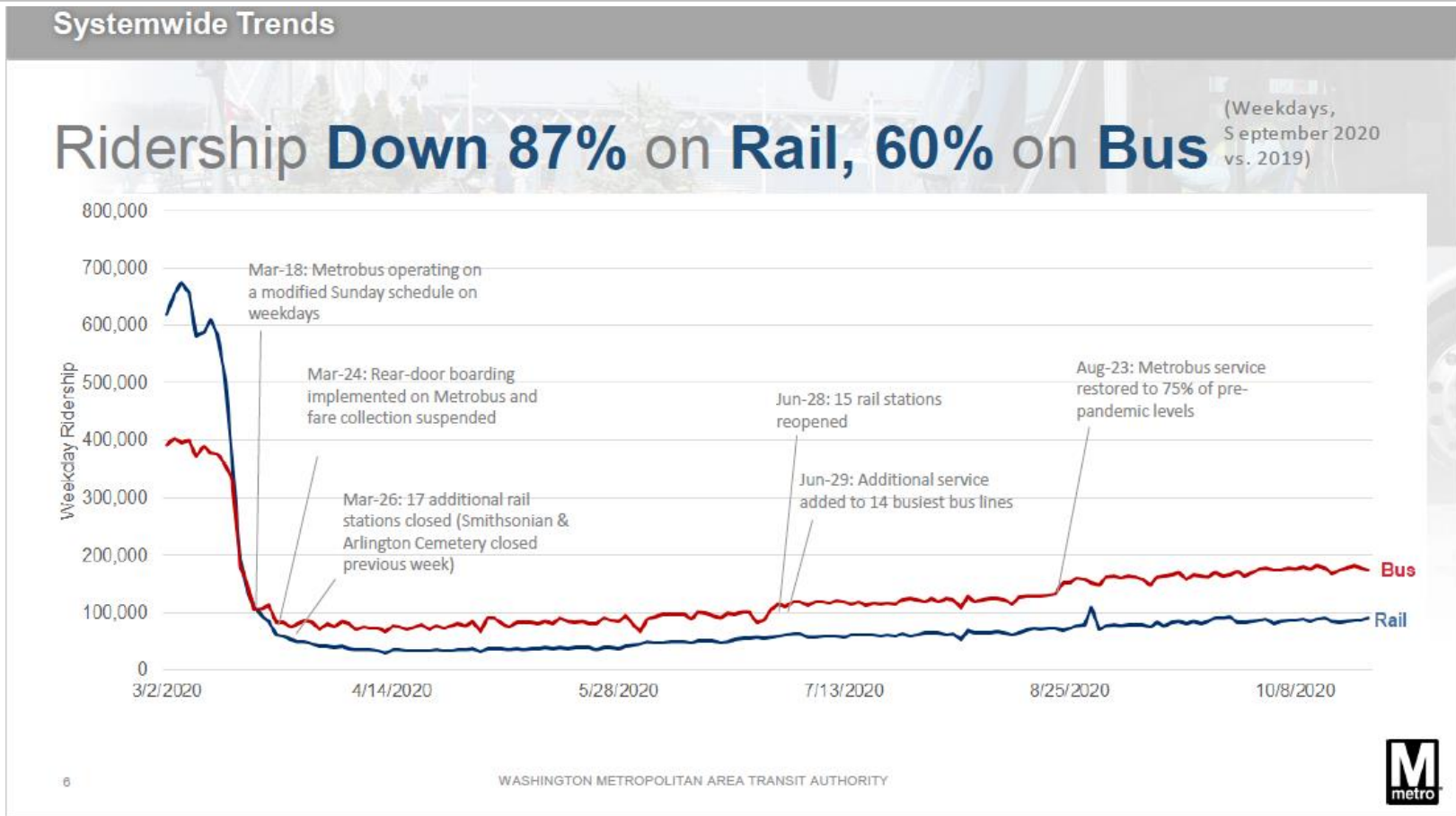


Nationwide data. Source: INRIX.

- Nationally and regionally, truck travel (blue) never declined as much as passenger travel (red/orange) did



Metrorail and Metrobus Ridership



WMATA Regional Bus Ridership Workshop, November 17, 2020. COVID Ridership Trends, Diane Patterson.

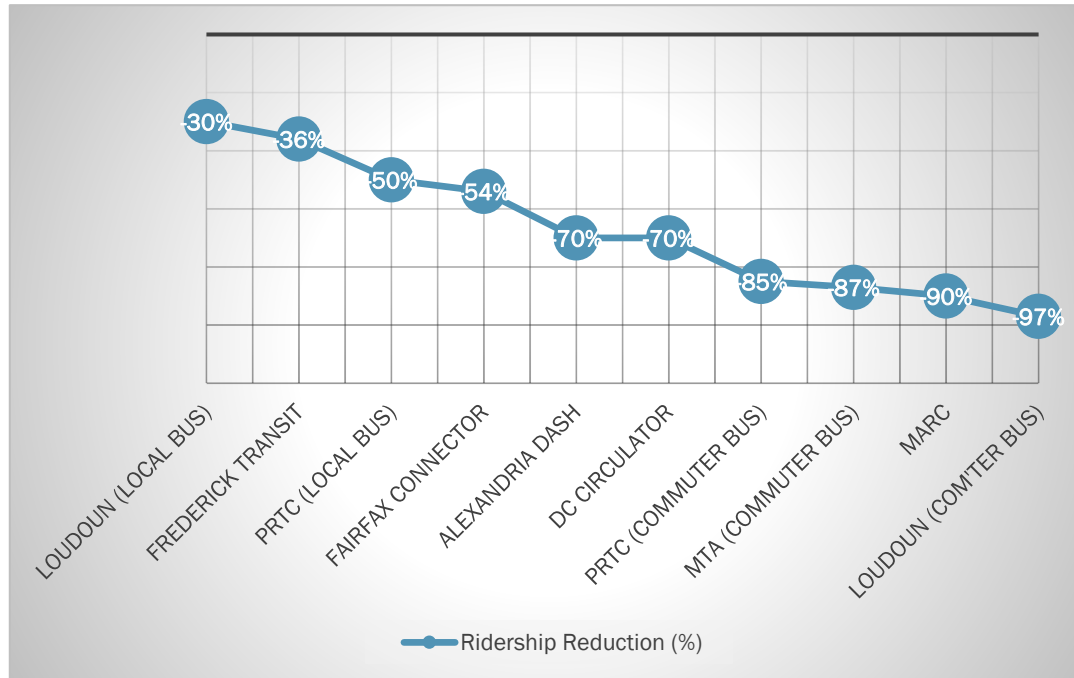


Change in Ridership vs. Capacity

- Usage of available capacity has been significant, particularly on the bus system, which remains a lifeline for critical workers
- Complex interaction of demand and supply (what services were running)



Local and Commuter Transit

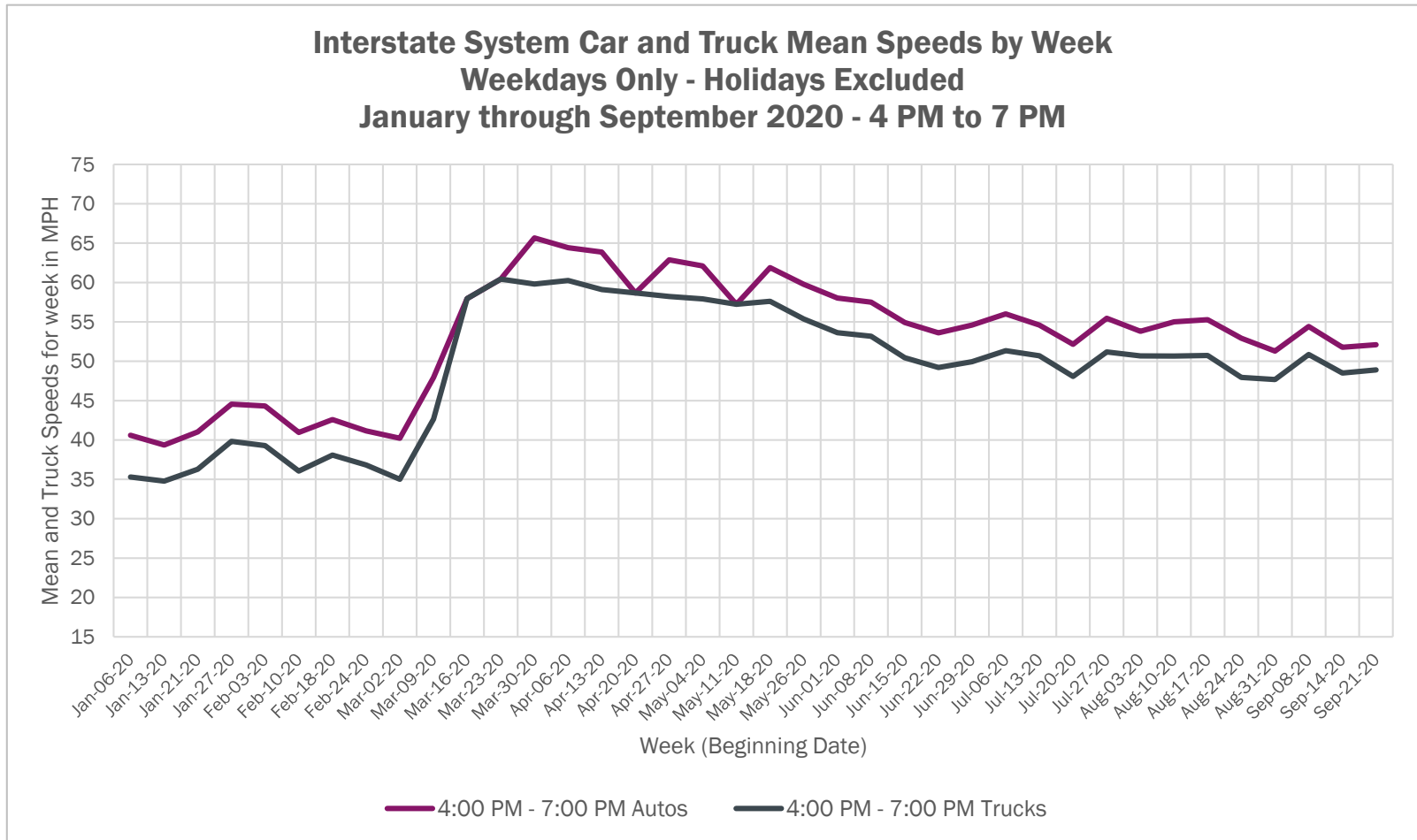


- Impacts varied among long-distance, local, and tourist routes

Reported approximate reductions of ridership vs. typical levels. Source: COG/TPB questionnaire of local transit agencies, August 5, 2020.



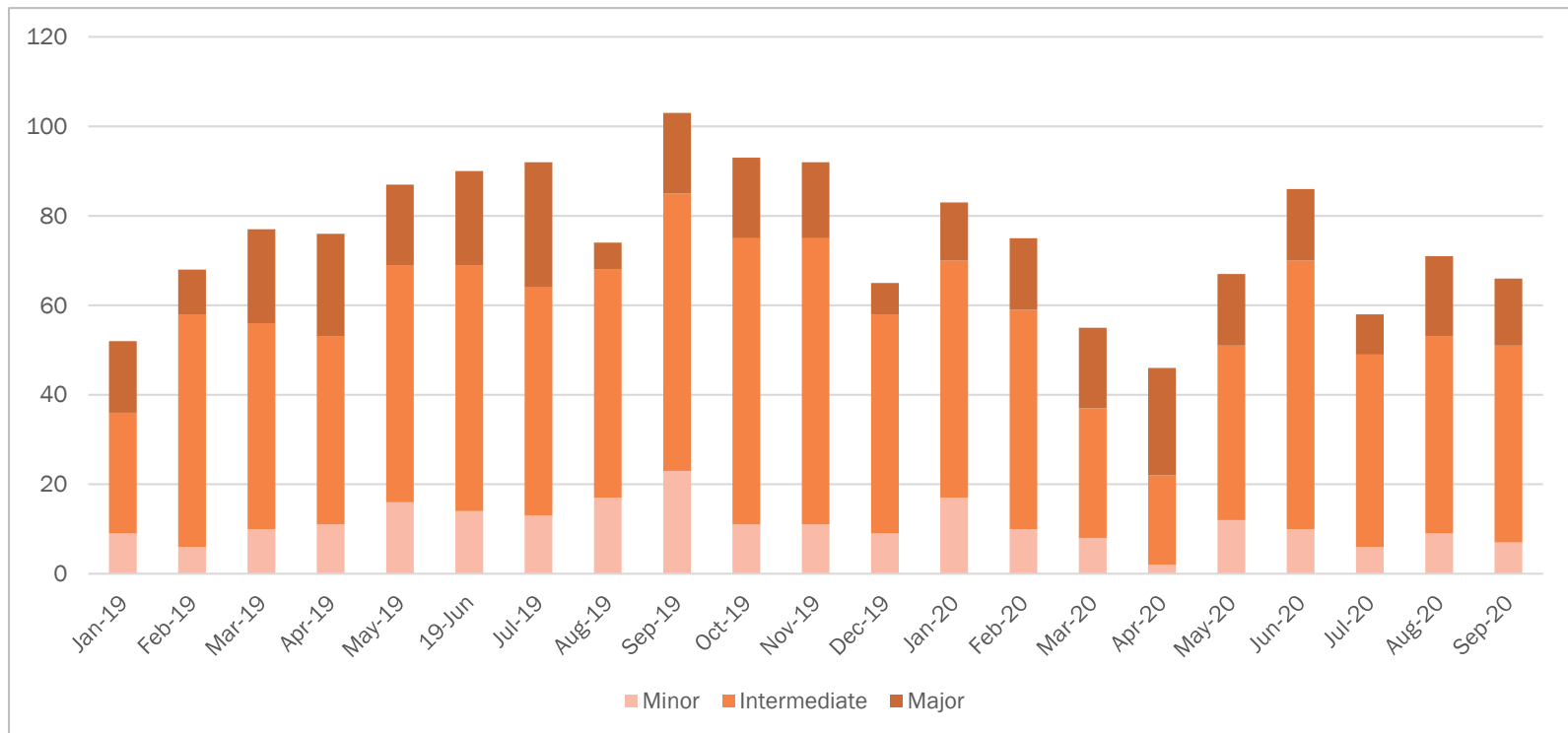
Roadway Speeds



Source: COG/TPB Analysis of the National Performance Management Research Data Set (NPMRDS).
 Certain regional Interstate highway segments excluded due to data availability.



Safety: MATOC Incidents

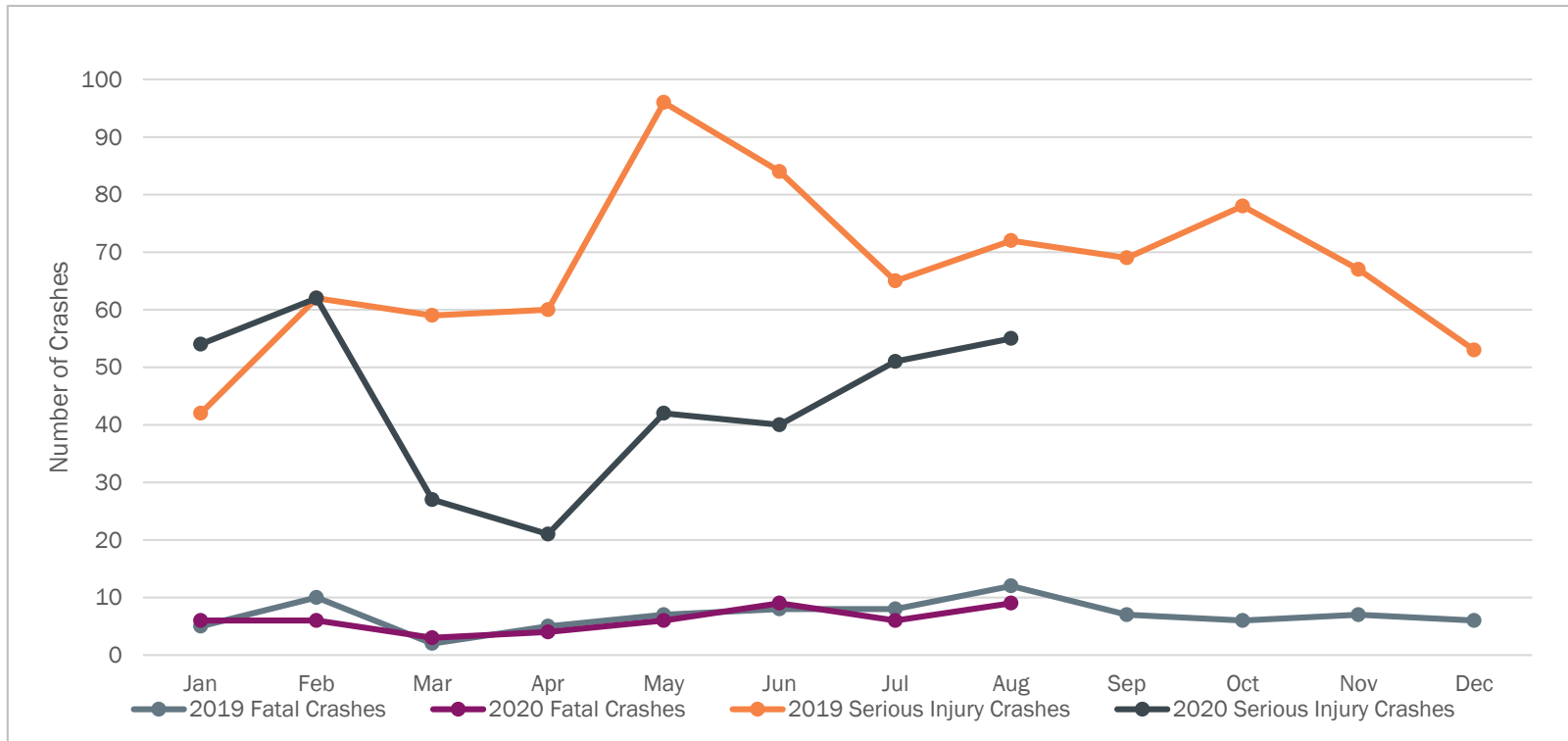


Numbers of documented roadway incidents during Metropolitan Area Transportation Operations Coordination (MATOC) Program operating hours (4:30 A.M. to 8:00 P.M. weekdays only). Source: MATOC.

- MATOC-tracked major incidents were disproportionately high in April



Safety: Crashes (Northern Virginia)



Data for 2020 are preliminary and subject to change. Source: VDOT.

- Though serious crash numbers have been lower than 2019, fatal crashes have remained at about the same level as 2019, even with reduced traffic volumes since March



Non-Farm Job Loss March to April 2020 In 10 Largest MSAs

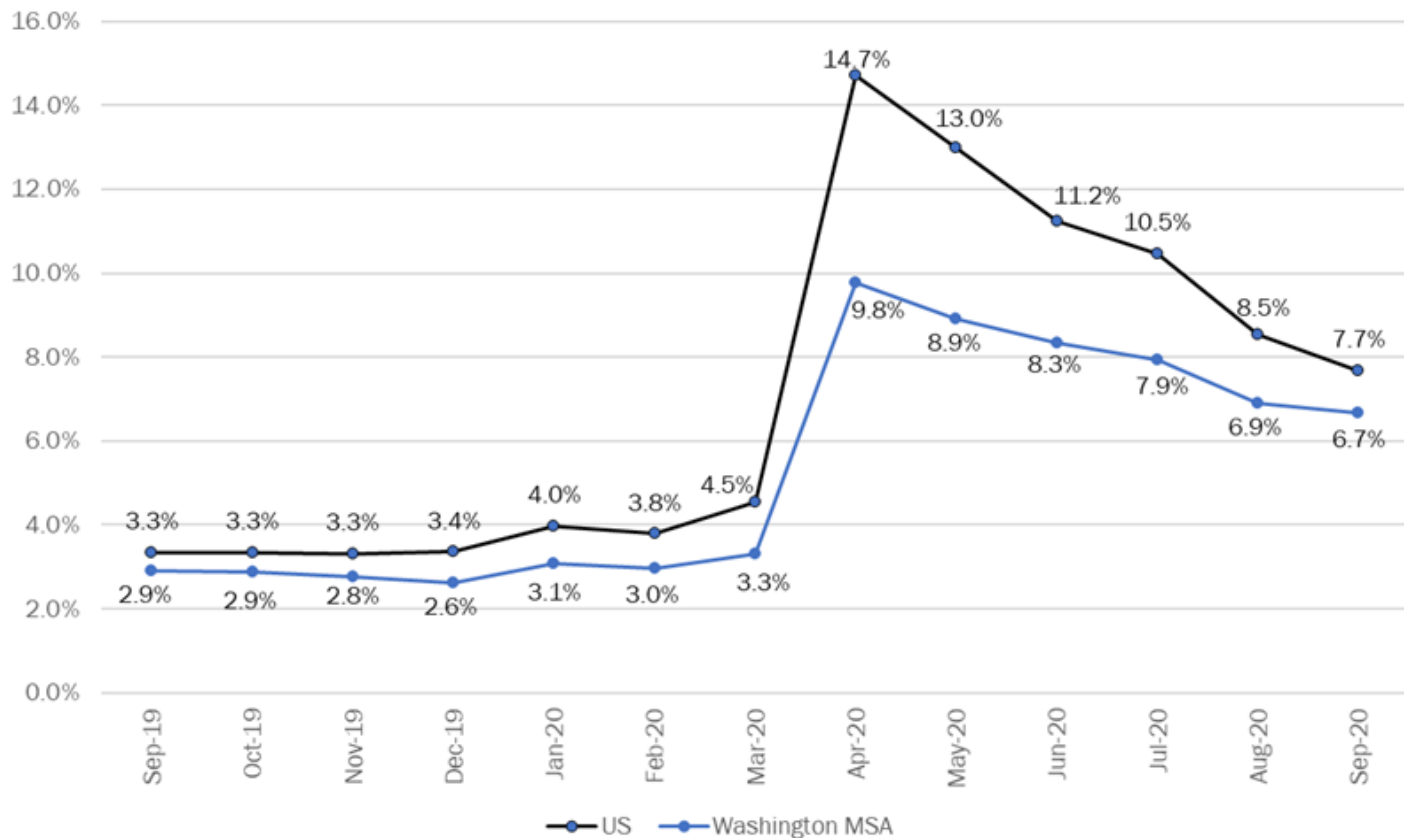
(Source: Bureau of Labor Statistics)



Our initial job losses were the lowest when compared to many of our peer regions. New York and Los Angeles experienced the most severe losses.



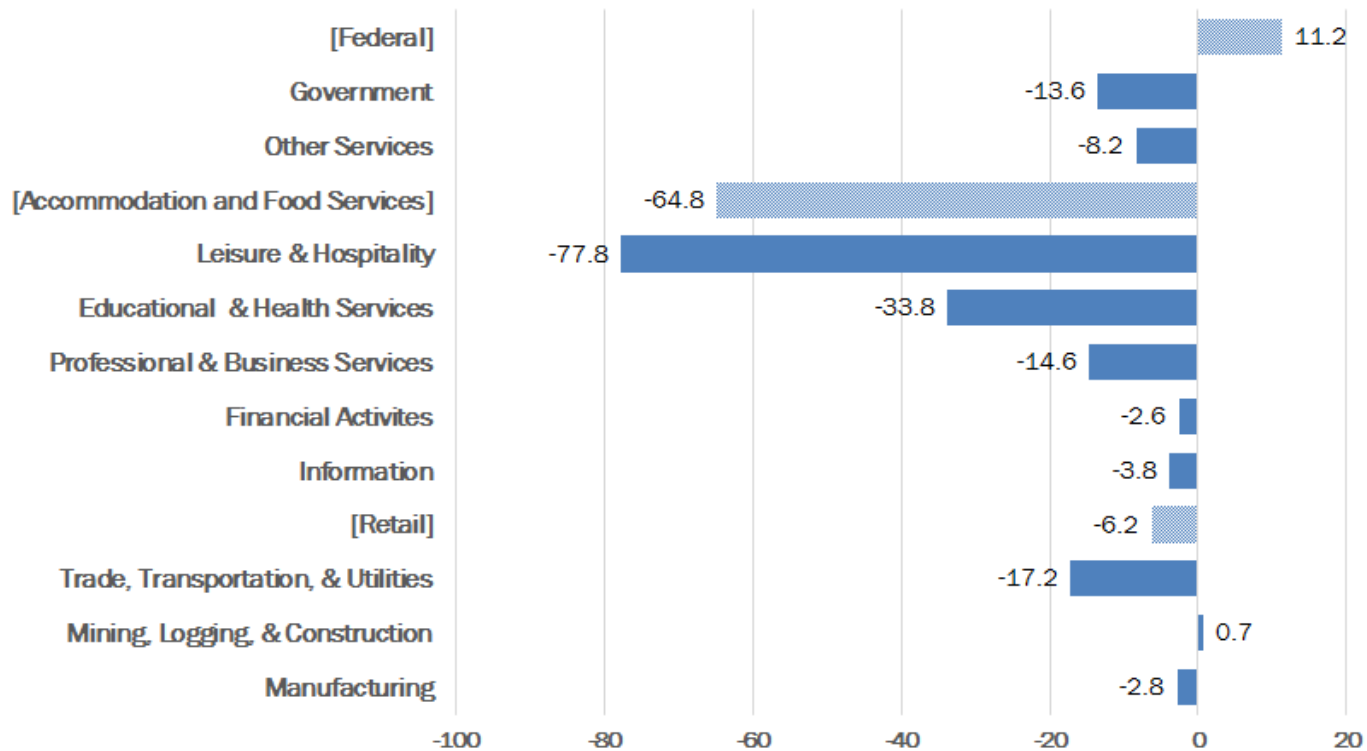
Unemployment Rate Washington MSA and US



Our unemployment rate nearly tripled with the onset of the pandemic but was still nearly 5 points below the nation. With reopening, the rates are converging but well above historic averages.



Over-the-year Job Change By Sector October 2020 vs October 2019 Washington MSA



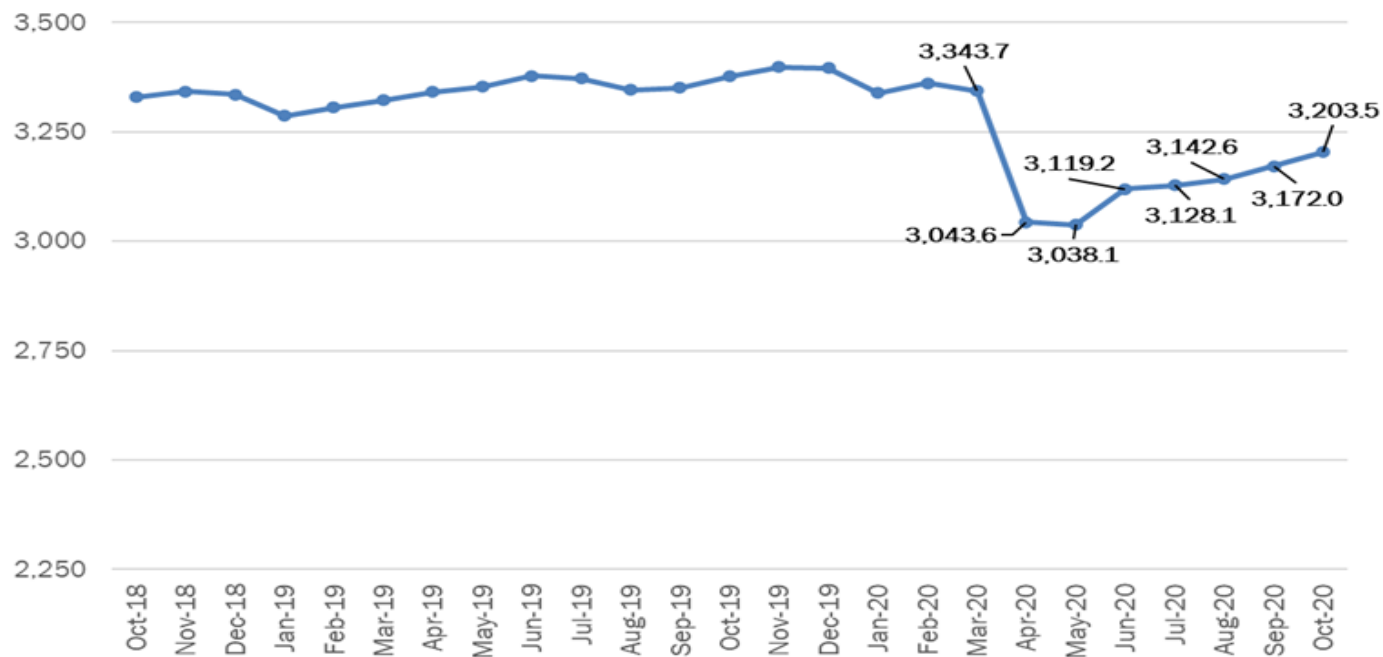
The most-current employment data shows job losses to be in hospitality, retail, and several service industry sectors.



Non-Farm Jobs (000s) - Washington MSA

October 2018 to October 2020

(Bureau of Labor Statistics, Not Seasonally-adjusted)

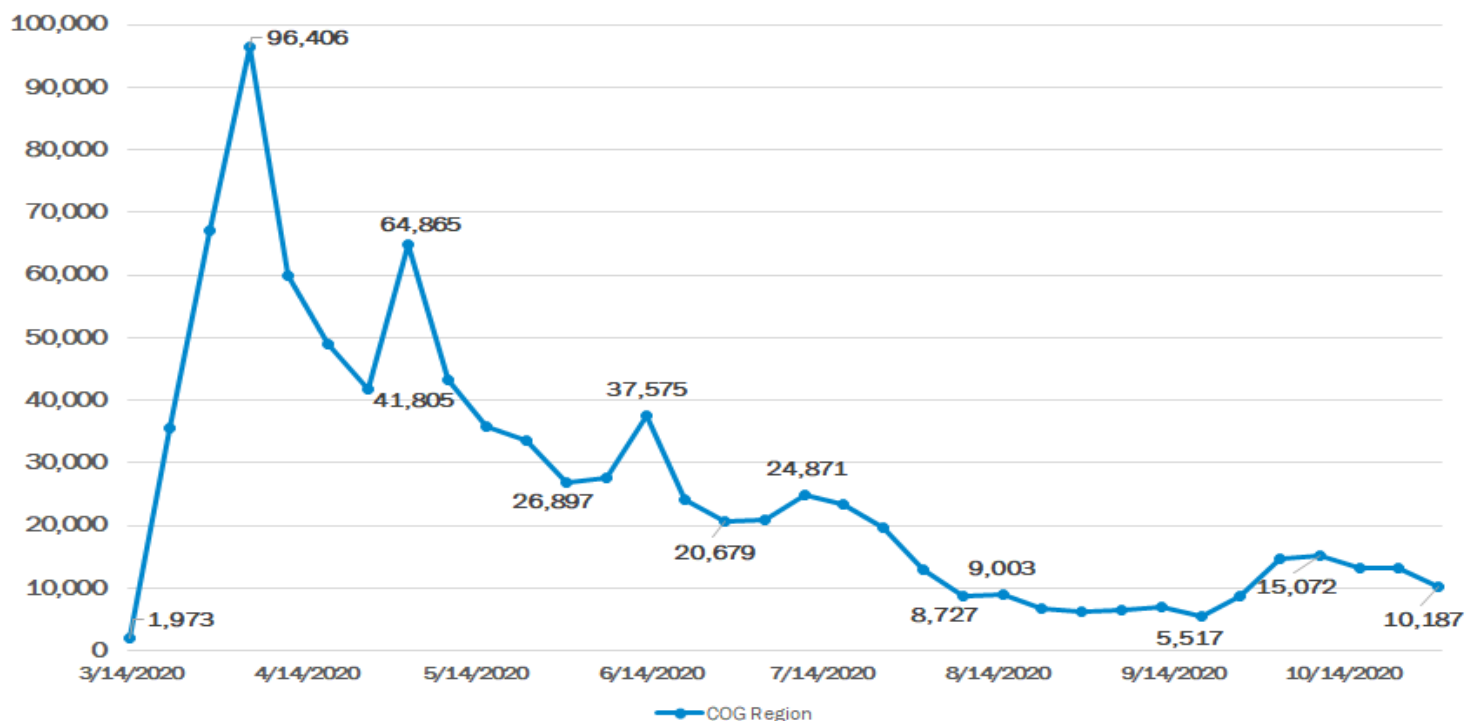


The region lost 300,000 jobs between March and April of this year. As of October, 160,000 jobs have been added during our partial reopening



Unemployment Insurance Claims

(DC Department of Employment Services, Maryland Department of Labor, Licensing, and Regulation and the Virginia Employment Commission)

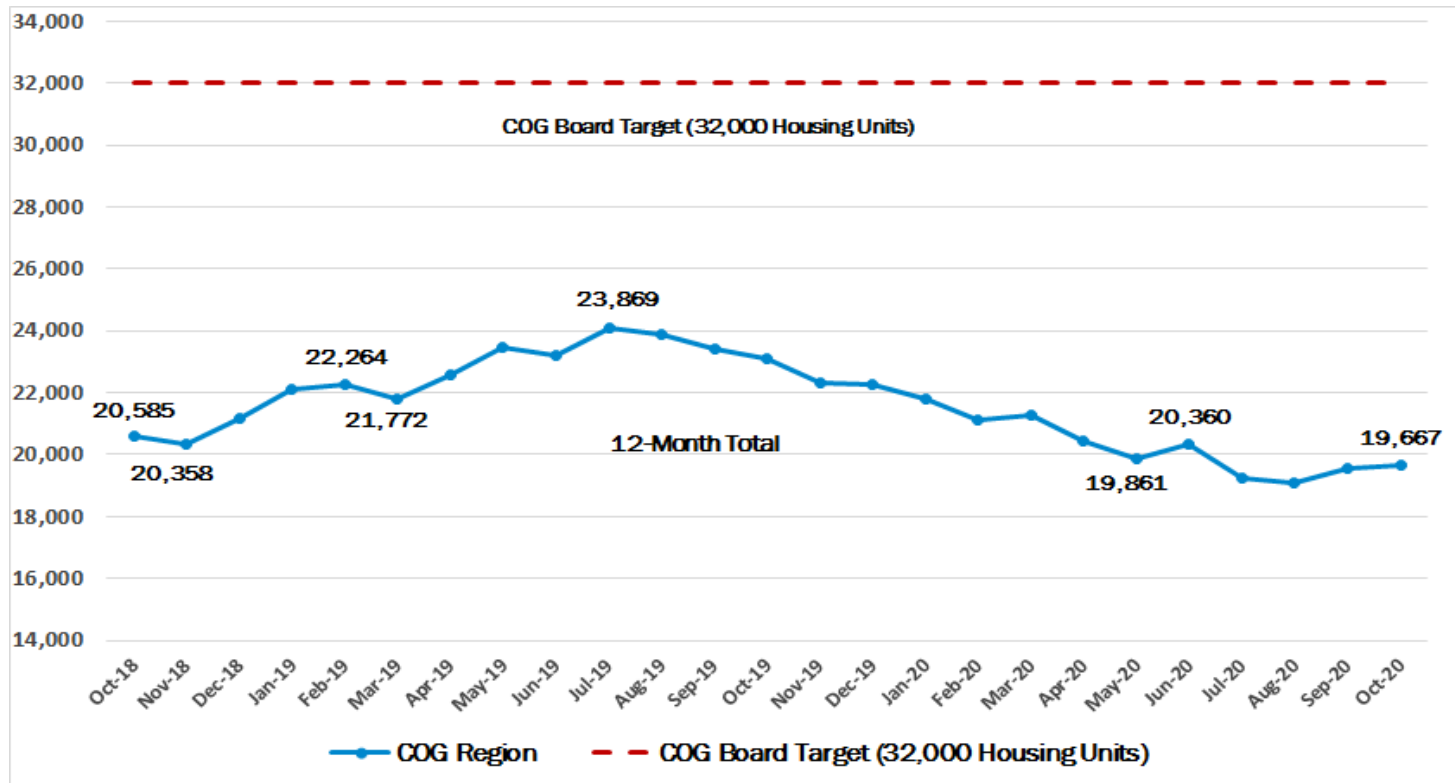


Weekly unemployment insurance claims peaked during April and have declined steadily as reflected in our improving unemployment rate



New Housing Units Authorized 12-month total for COG Region

(Source: US Census C-40 data)

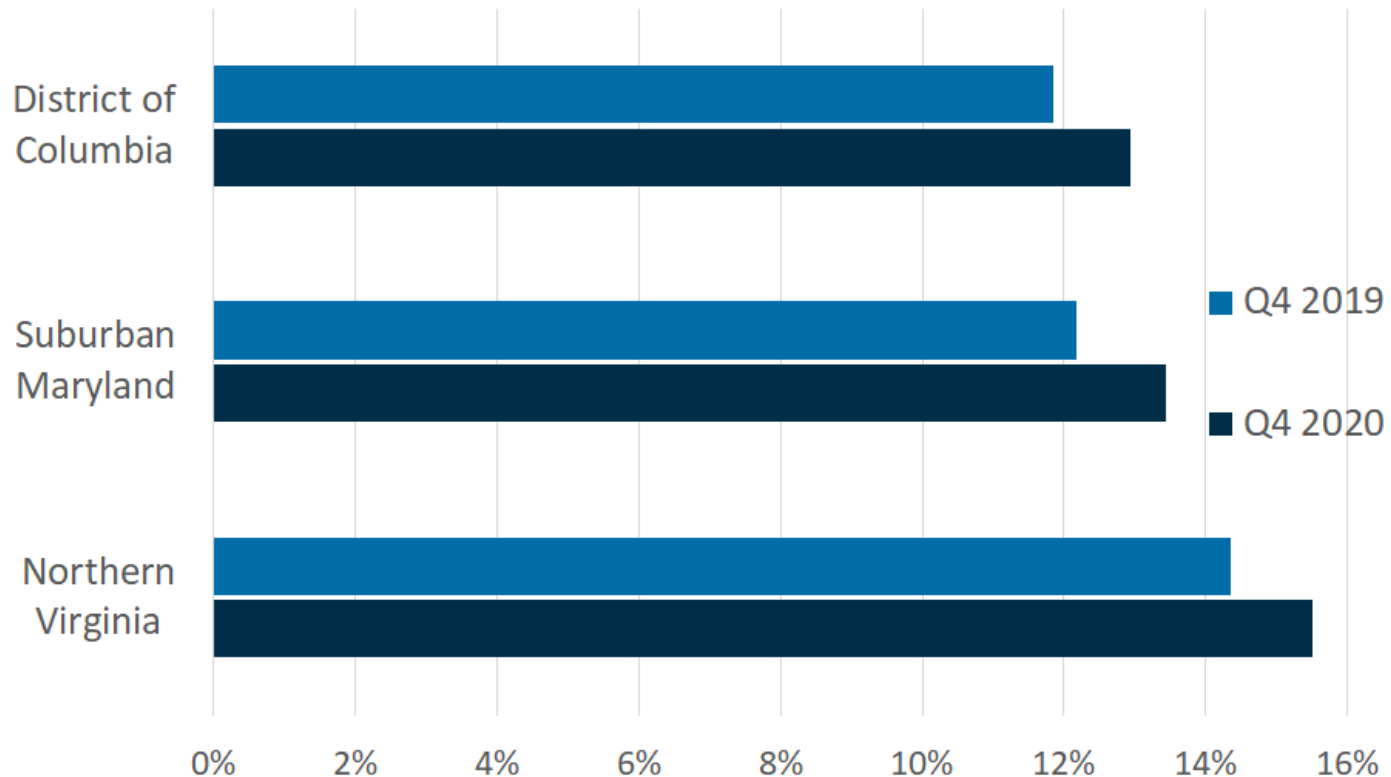


The number of new housing permits has declined monthly since July 2019 and is far below the adopted COG target.



Change in Office Vacancy Rates Q4 2019 vs Q4 2020

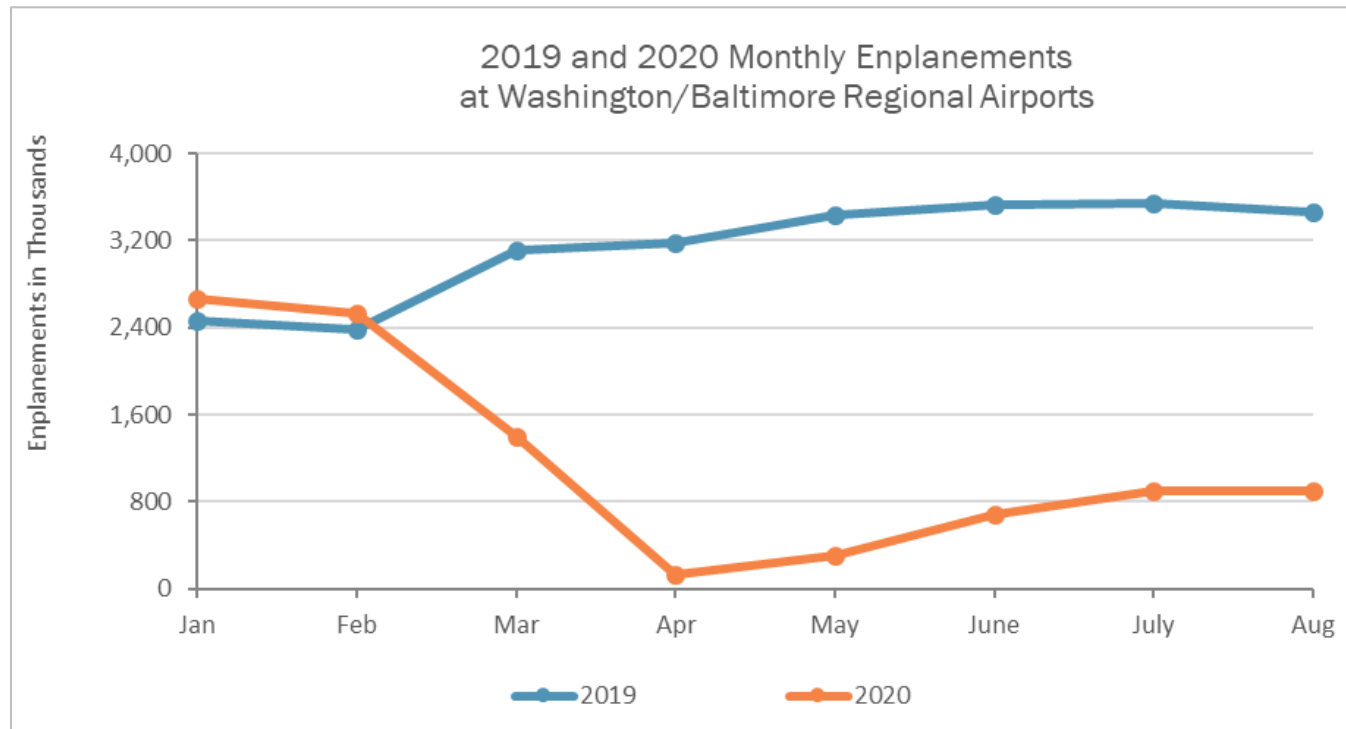
(Source: CoStar)



Office vacancy rates have increased slightly throughout the region. Office leases are for longer-term periods and will be monitored for changes



Air Travel



Source: COG

- Air travel has recovered somewhat at the region's three major airports since April, but remains much lower than 2019



Air Quality

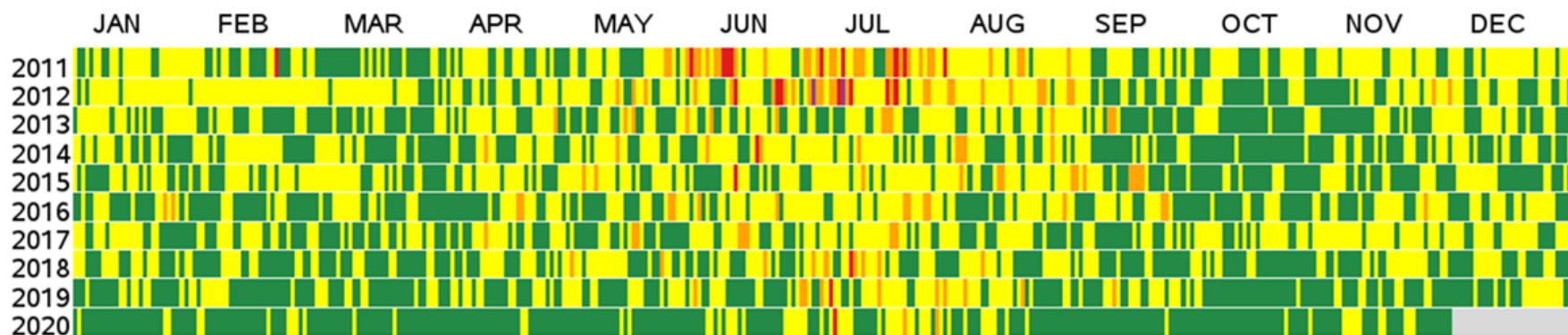
- **Ozone and fine particulate matter (PM2.5) were lower in 2020 compared to 2019 (March 1 – Sept 30)**
- COVID-19 related restrictions and closures reduced activities and related emissions
- Weather was unfavorable to the formation and build up of pollutants

Ozone Air Quality Index Days (March - September)			
Year	Code Green	Code Yellow	Code Orange
2020	190	32	2
2019	135	75	14



Air Quality

Daily AQI Values, 2011 to 2020 Washington-Arlington-Alexandria, DC-VA-MD-WV



Source: U.S. EPA AirData (<https://epa.gov/air-data>), generated December 2, 2020

Note: Data shown above is for combined AQI values for ozone, PM2.5, PM10, CO, NO2, and SO2 for the Washington-Arlington-Alexandria CBSA.



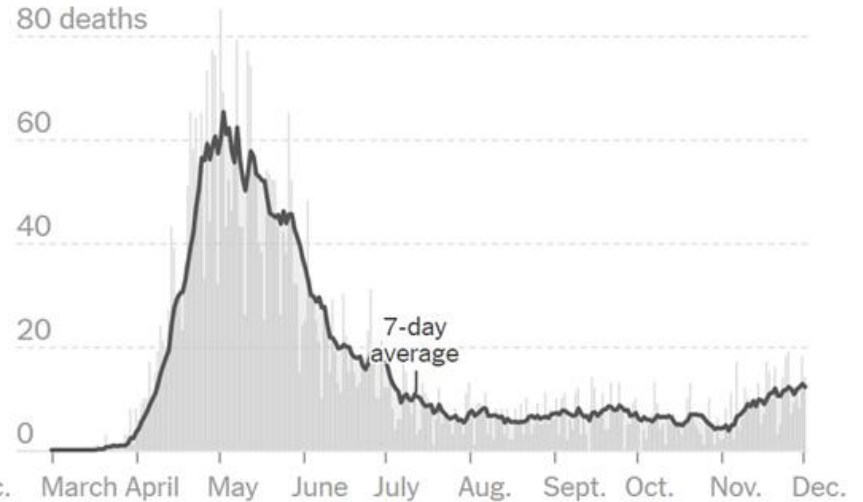
COVID Cases & Deaths in Washington, DC Metro Area

	ON DEC. 2	DAILY AVG. IN LAST 7 DAYS	PER 100,000	14-DAY CHANGE	TOTAL REPORTED
Cases	1,909	1,840	29	+27% 	201,301
Deaths	14	12	<1	+23% 	4,356

New cases



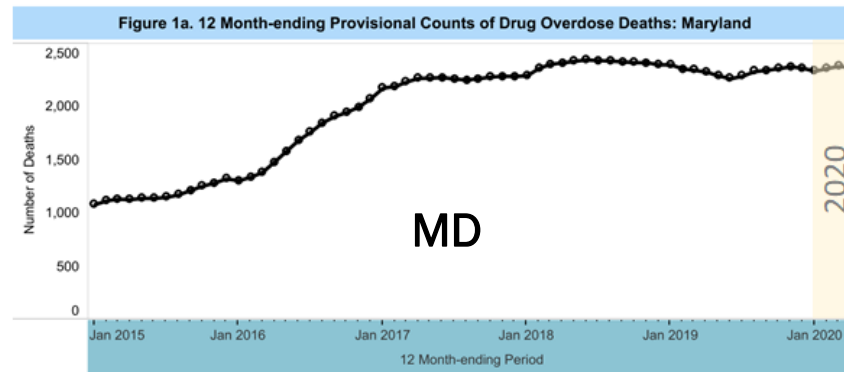
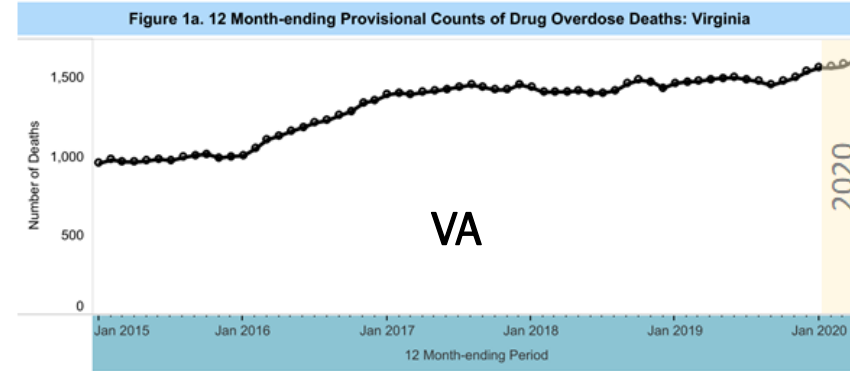
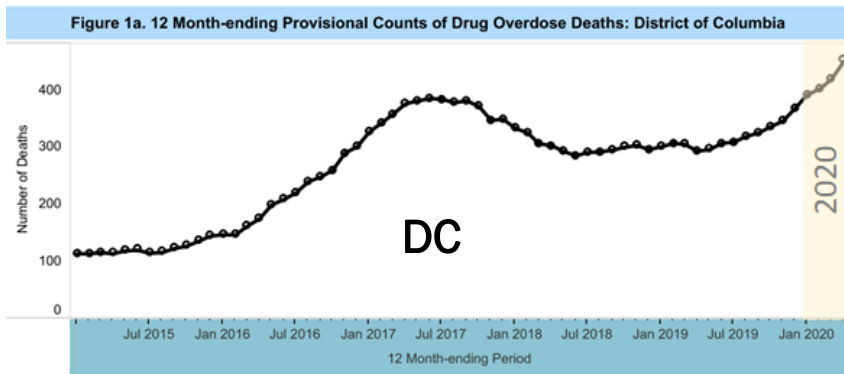
Deaths



New York Times Cases & Deaths Tracker: <https://www.nytimes.com/interactive/2020/us/covid-cases-deaths-tracker.html#USA-MSA47900>
 The Times uses reports from state, county and regional health departments.



Drug Overdose Deaths



CDC National Center for Health Statistics
<https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>

Current overdose death counts are available from January 2015 - April 2020. Early in the pandemic, overdose deaths were trending upward across the DMV.

Next Steps

Staff from COG departments continue collaborating on the multisectoral assessment of COVID-19 impacts on the region.

- Deeper dive into more data
- Future presentations to be made (near-term and longer-term)
 - COG Board of Directors
 - Transportation Planning Board
 - Climate Energy and Environment Policy Committee
 - Metropolitan Washington Air Quality Committee
 - Chesapeake Bay and Water Resources Policy Committee
 - Human Services Policy Committee
 - Region Forward Coalition
 - Supporting Committees and Subcommittees



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