

# UPDATED TRANSPORTATION IMPACTS OF COVID-19 IN THE NATIONAL CAPITAL REGION

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Timothy Canan, AICP  
TPB Planning Data and Research Program Director

Andrew Meese, AICP  
TPB Systems Performance Planning Program Director

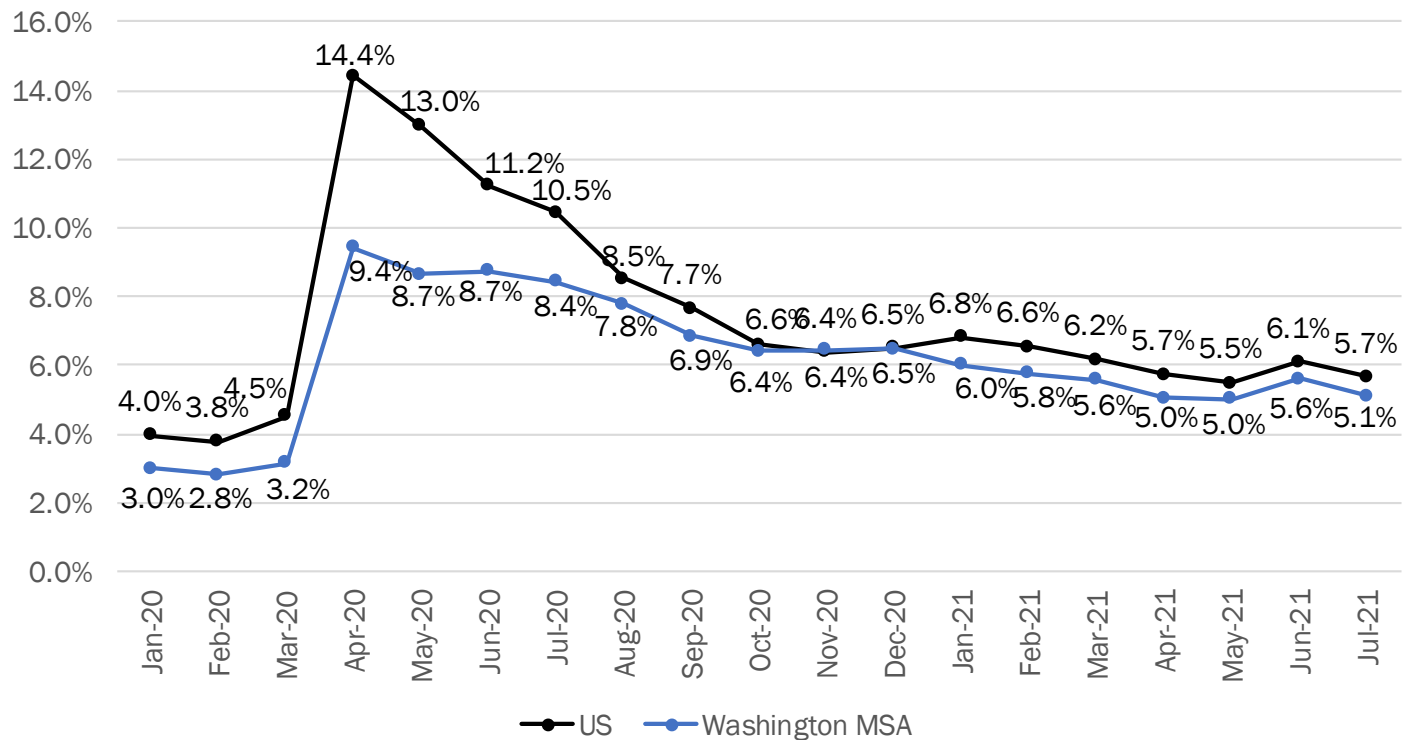
TPB Technical Committee  
October 1, 2021

# Overview

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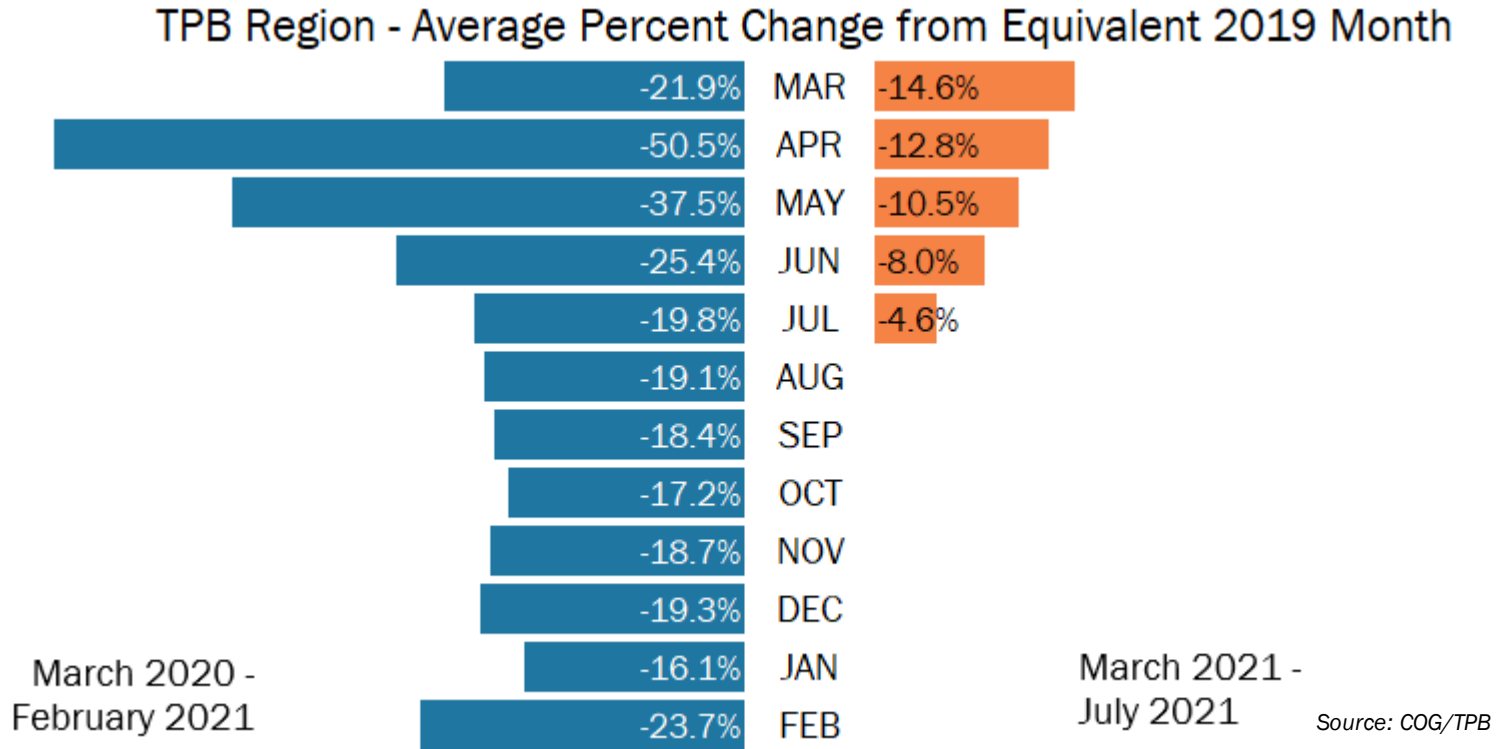
- Over past 18 months of during the pandemic period, staff made periodic briefings to the Technical Committee on the select indicators depicting regional impacts of COVID-19
- Today's briefing provides updated information on key indicators, revealing significant recovery to near pre-pandemic conditions by July 2021
- Staff will also highlight findings of recent analysis of regional travel before and after Labor Day 2021

# Unemployment Rate Washington MSA and US



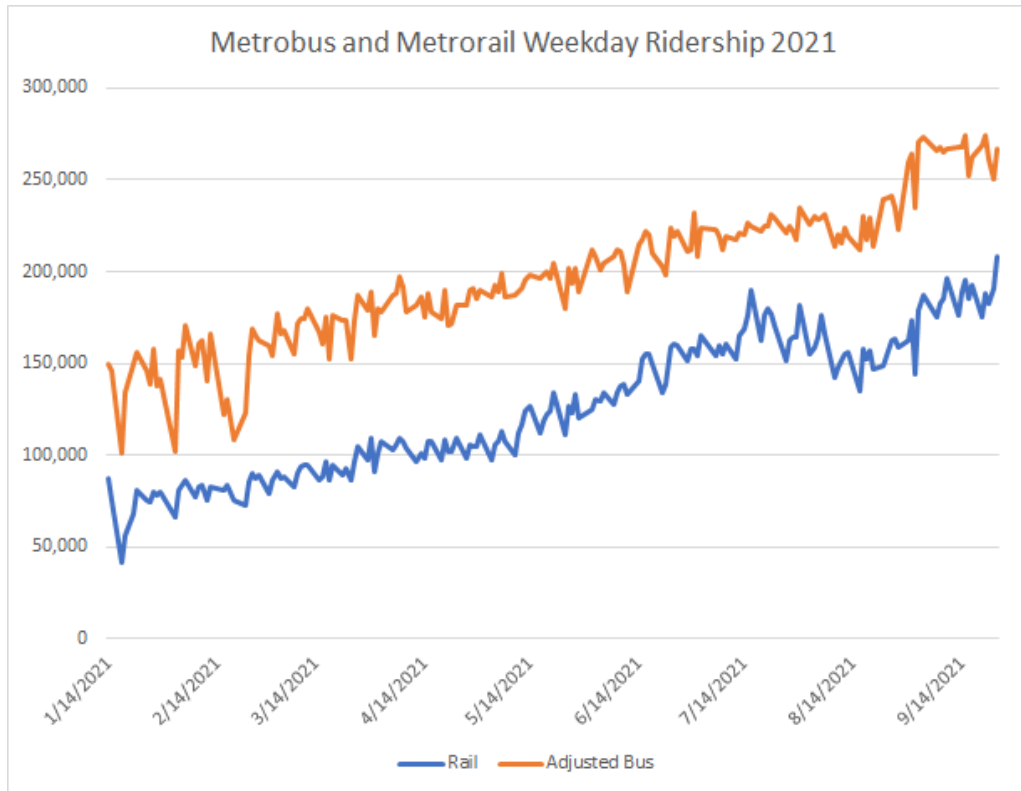
Our unemployment rate nearly tripled with the onset of the pandemic but was still nearly 5 points below the nation. With partial reopening, the national and local rates did converge in late 2020, but the local rate so far in 2021 is again below the national rate.

# Roadway Traffic Volumes: 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 2020. By May 2021, the region's volumes were nearly 95% of May 2019 (pre-pandemic) levels.

# Metrorail and Metrobus Ridership

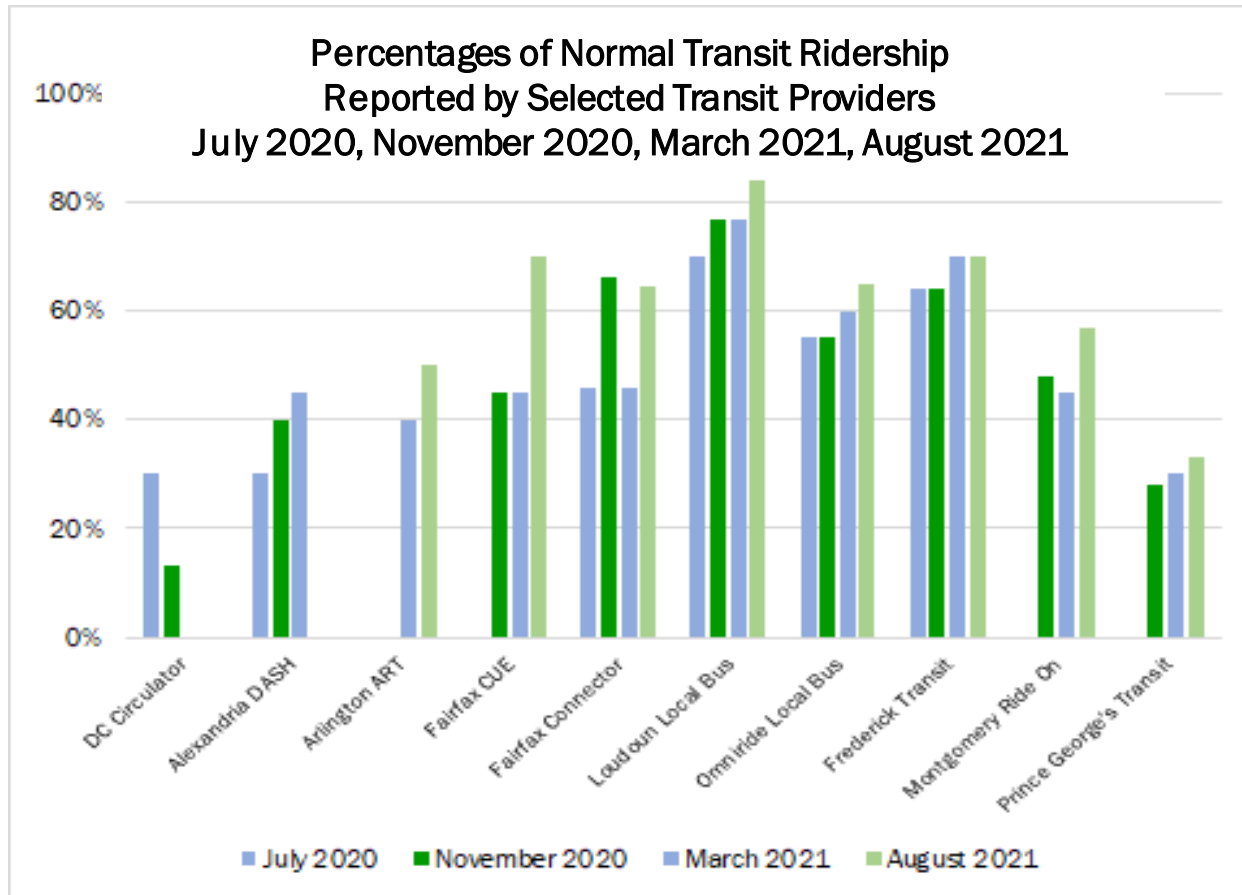


Ridership up throughout year, but currently Metrorail ~28%, Metrobus ~67% of 2019 levels

Source: WMATA Covid-19 Public Information Website 9/28/21: <https://www.wmata.com/service/covid19/Covid-19-Public-Information.cfm>.

Ridership decreased in 2019 as a result of both reduced demand and reduced transit capacity, underscoring the complex interrelationship of supply and demand on transit. This contrasts to roadway volume decreases, which resulted from demand reductions.

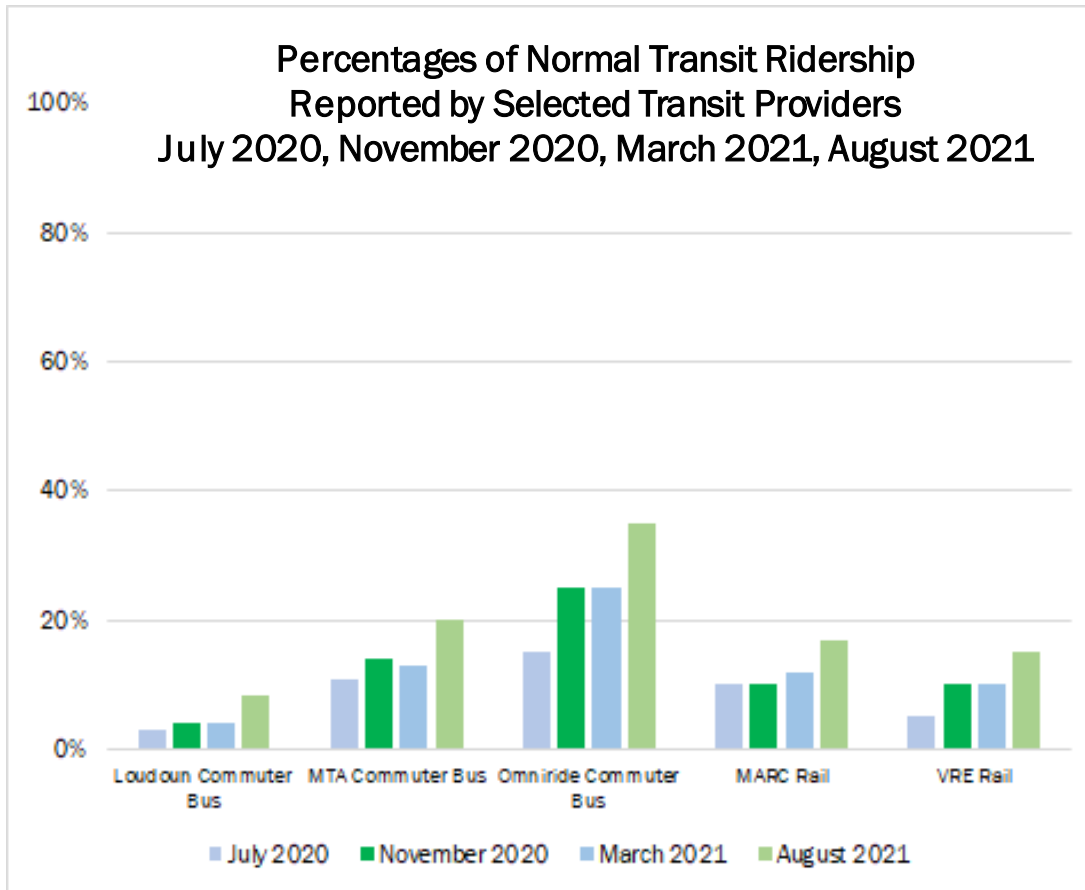
# Local Transit Ridership



- Ridership grew through June, and has generally been stable since

Agency self-reported approximate percentages of ridership vs. typical levels. Source: COG/TPB questionnaires of local (non-WMATA) transit agencies. Providers not shown did not participate in all rounds of the questionnaire.

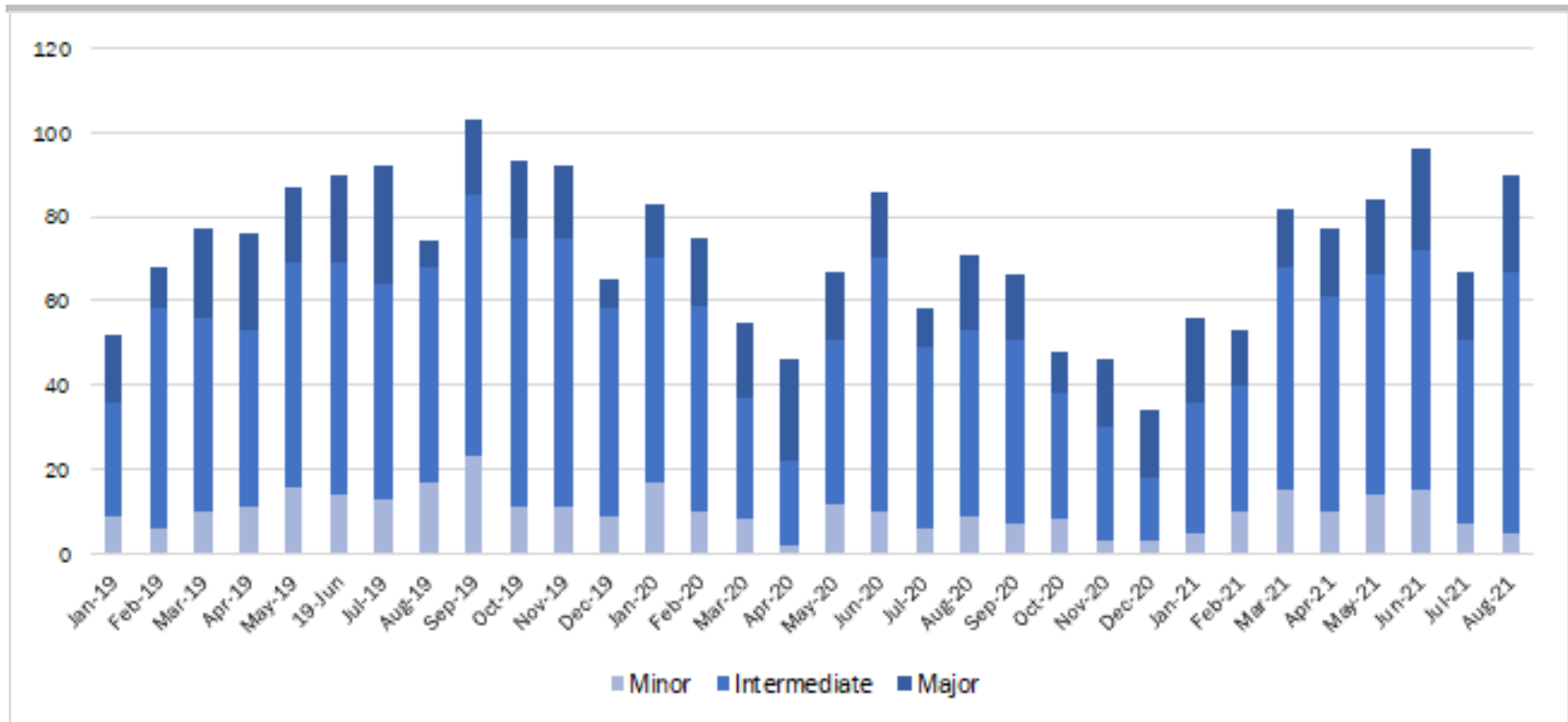
# Commuter Transit Ridership



- Commuter services ridership has slightly increased over time but remains low

Agency self-reported approximate percentages of ridership vs. typical levels. Source: COG/TPB questionnaires of local (non-WMATA) transit agencies. Providers not shown did not participate in all rounds of the questionnaire.

# Safety: MATOC Incidents

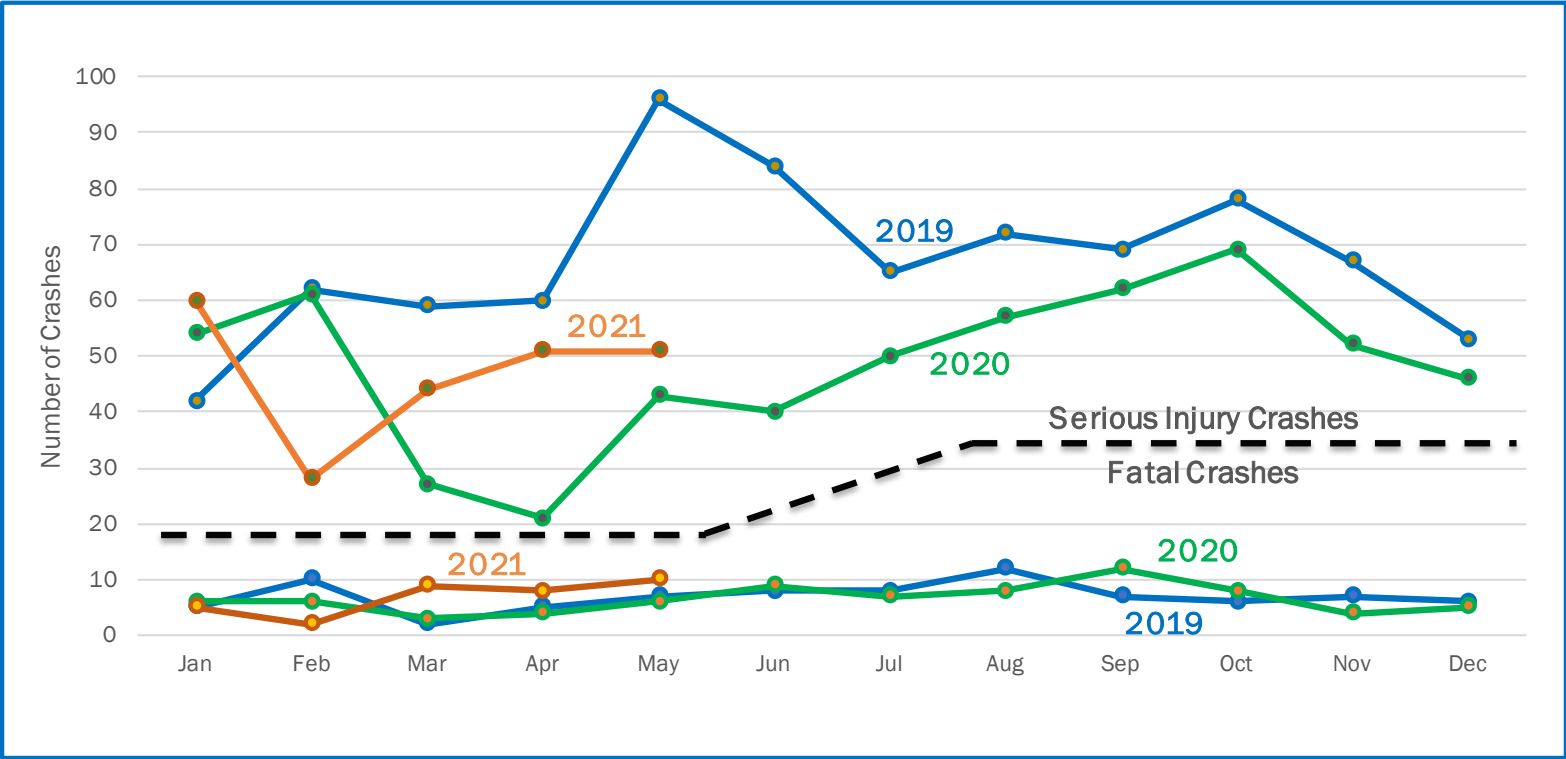


Numbers of documented roadway incidents during Metropolitan Area Transportation Operations Coordination (MATOC) Program operating hours (4:30 A.M. to 8:00 P.M. weekdays only, major holidays excluded). Source: MATOC.

MATOC-tracked incidents trended lower overall during the pandemic in 2020, but major incidents trended disproportionately high within those totals. In 2021, incidents have trended toward pre-pandemic proportions.



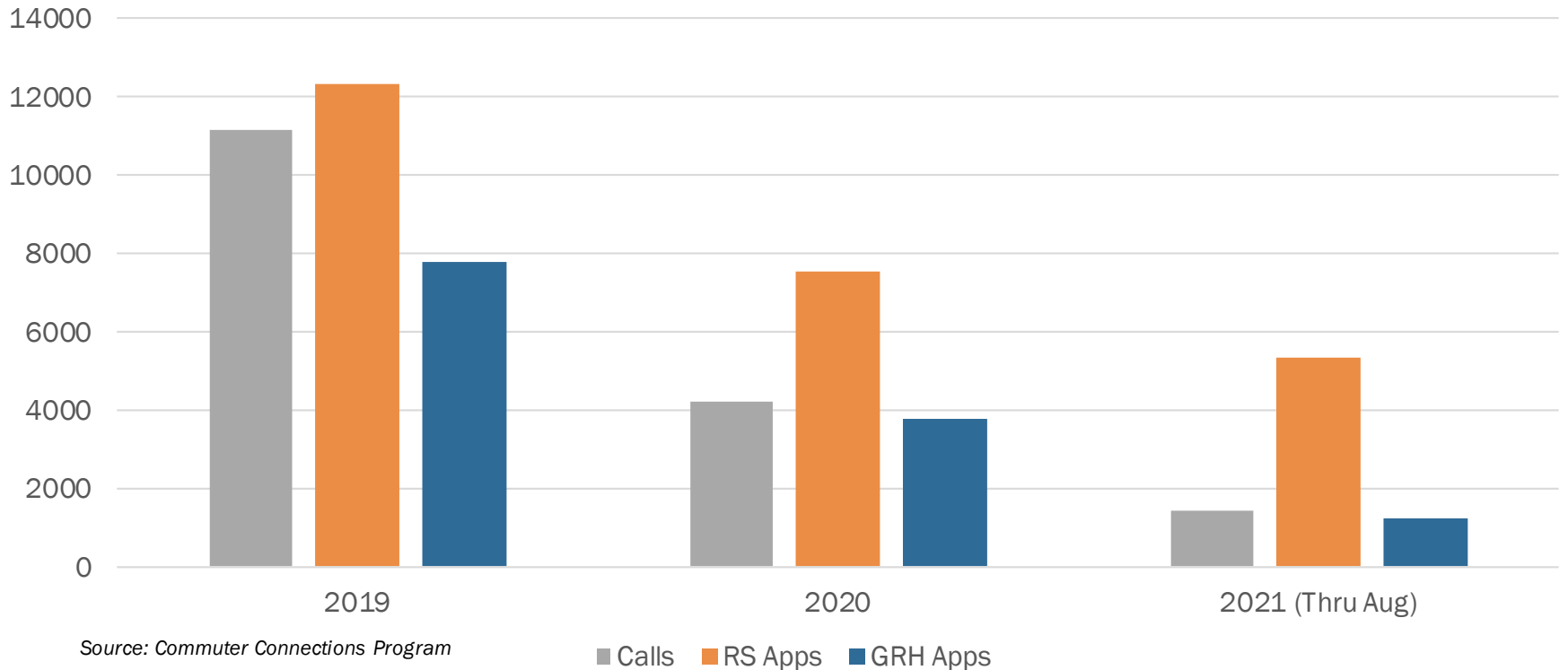
# Safety: Crashes (Northern Virginia 2019-21)



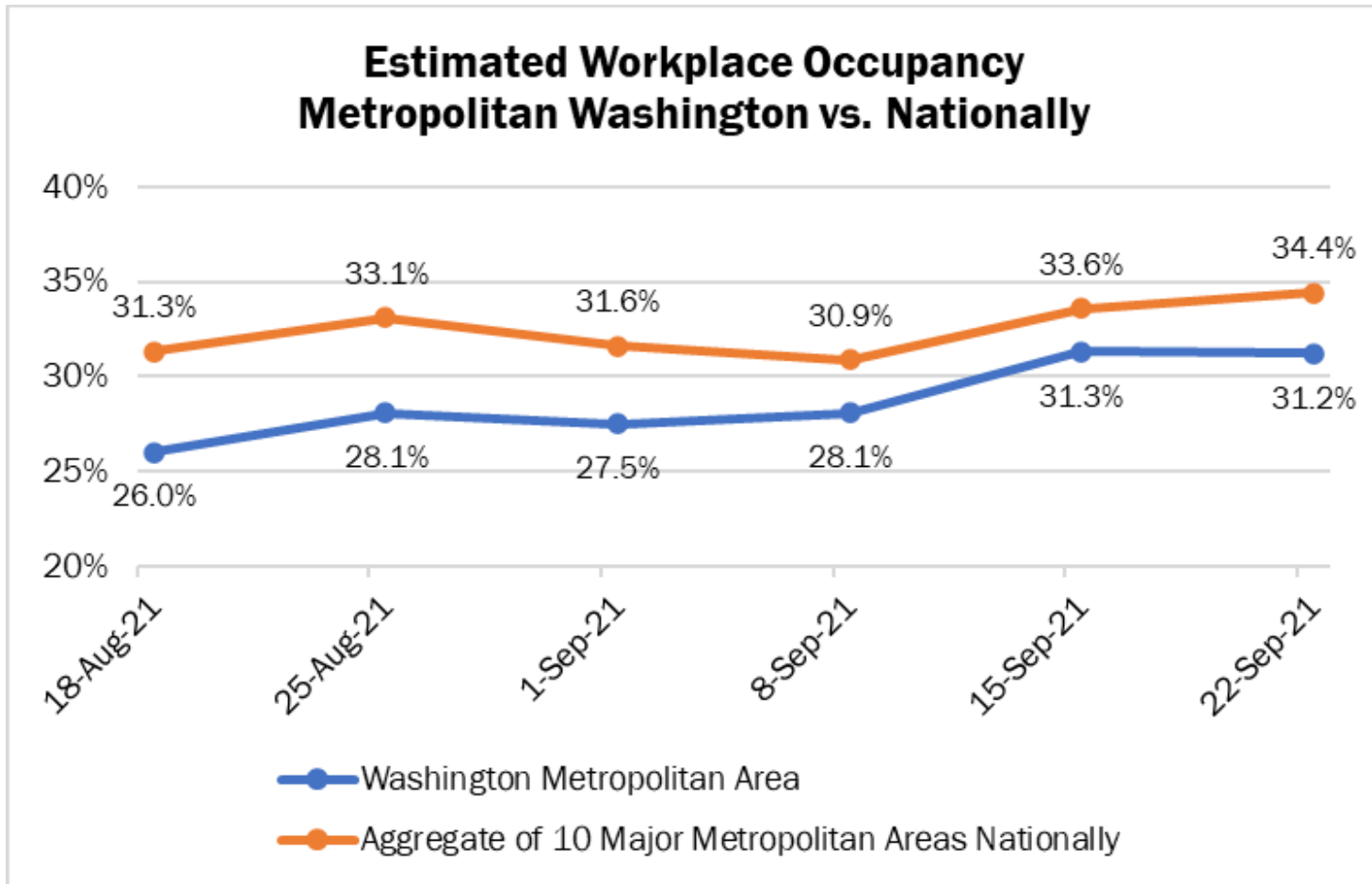
Data are preliminary. This chart reflects adjustments to previous data posted by VDOT; supersedes previous versions. Source: VDOT. (District of Columbia and Maryland data are anticipated to become available in the future.)

In 2020, fatal crashes generally were at about 2019 levels (even with reduced traffic volumes). Data available to date in 2021 show primarily increases in fatal crashes compared to 2019.

# Number of Commuter Connections Calls and Program Applications Received

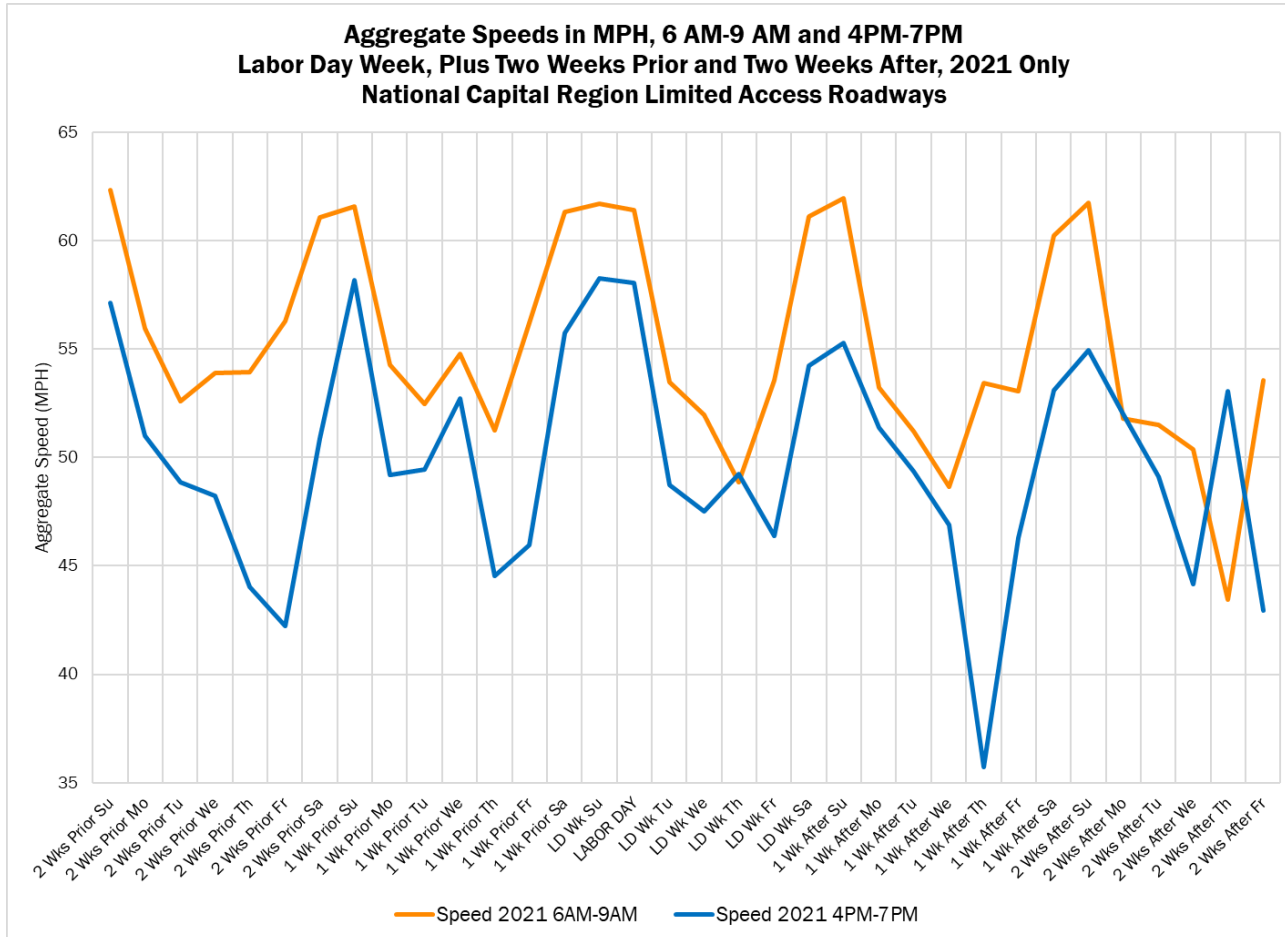


# Workplace Occupancy



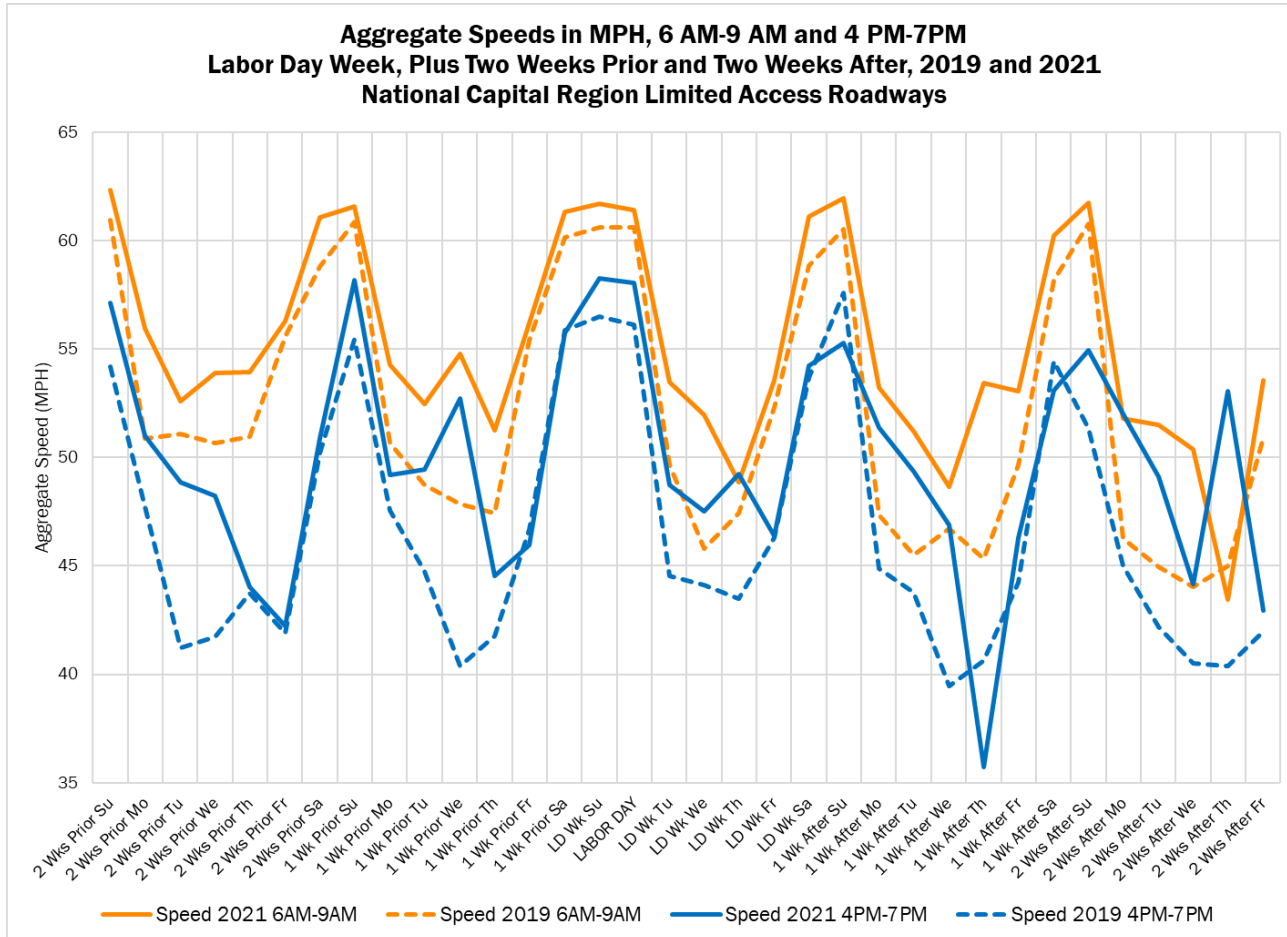
Source: Estimated workplace presence, published weekly by Kastle Systems, operating “keycard, fob and KastlePresence app access data from the 2,600 buildings and 41,000 businesses we secure across 47 states”, [www.kastle.com](http://www.kastle.com).

# 2021 AM and PM Speeds



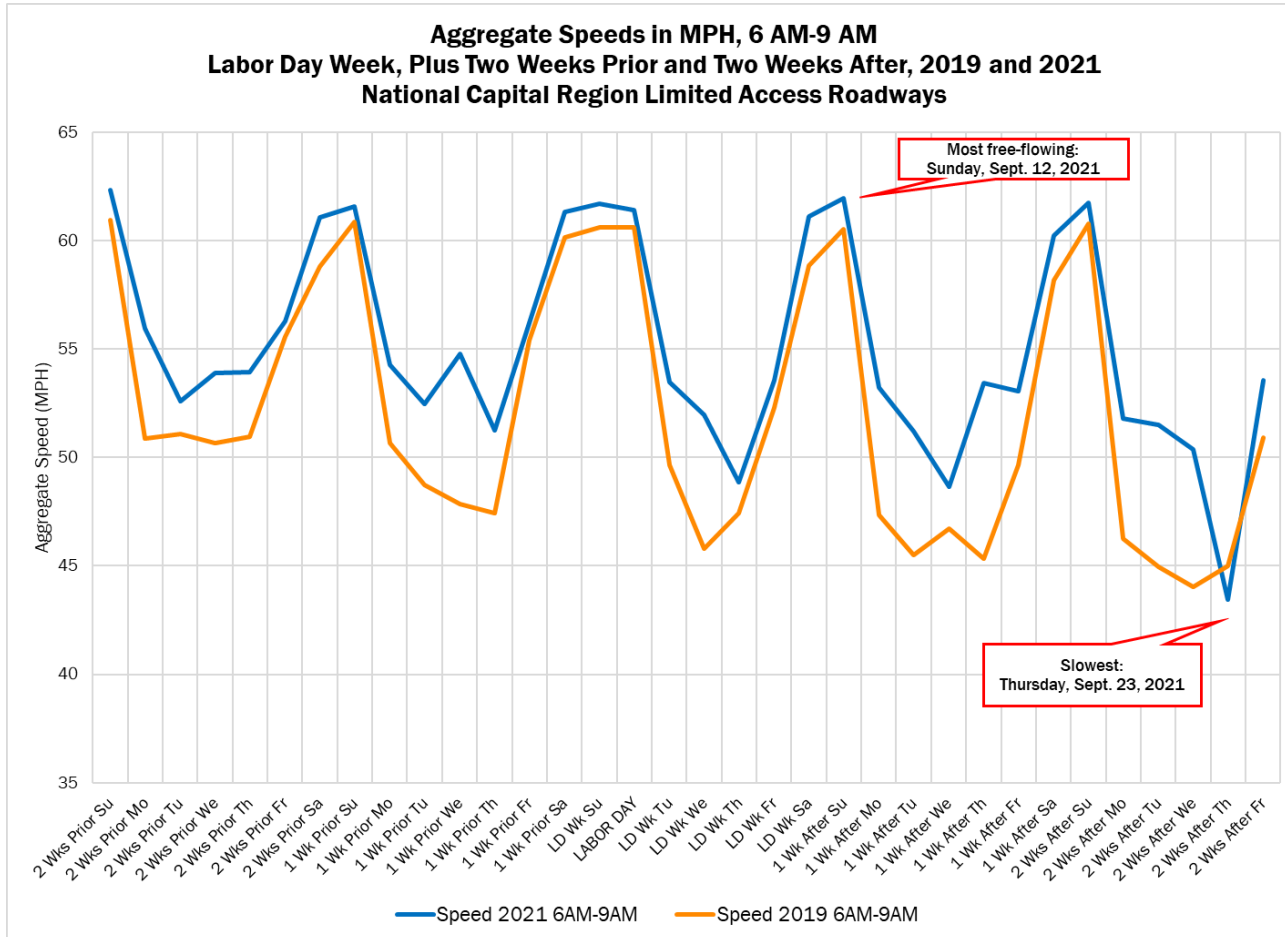
Source: COG/TPB staff analysis of the University of Maryland Probe Data Analytics Suite Data Set. Some limited access highway segments excluded due to data availability. Data are preliminary and subject to change.

# 2019 & 2021 AM and PM Speeds



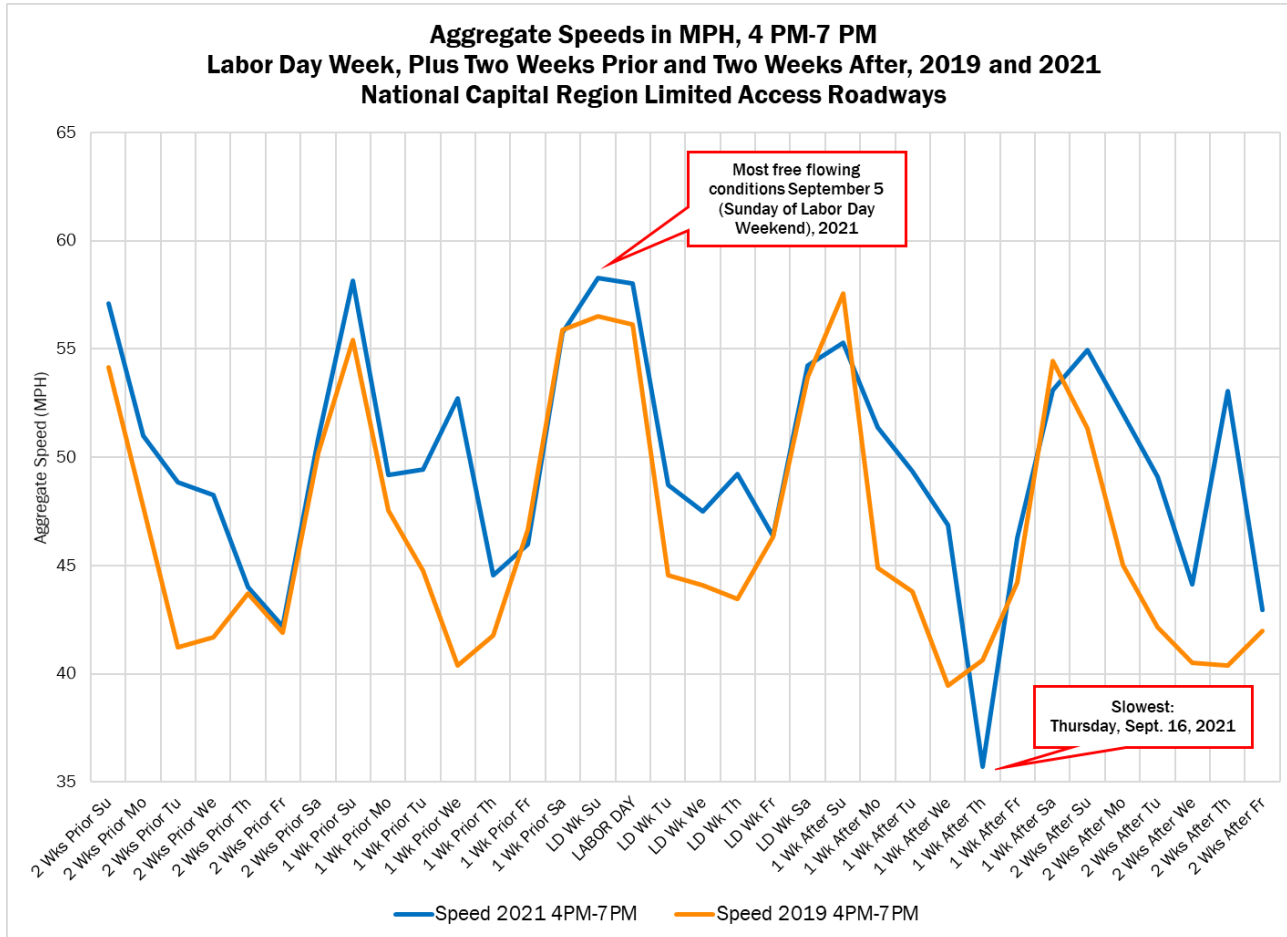
Source: COG/TPB staff analysis of the University of Maryland Probe Data Analytics Suite Data Set. Some limited access highway segments excluded due to data availability. Data are preliminary and subject to change.

# 2019 & 2021 AM Speeds



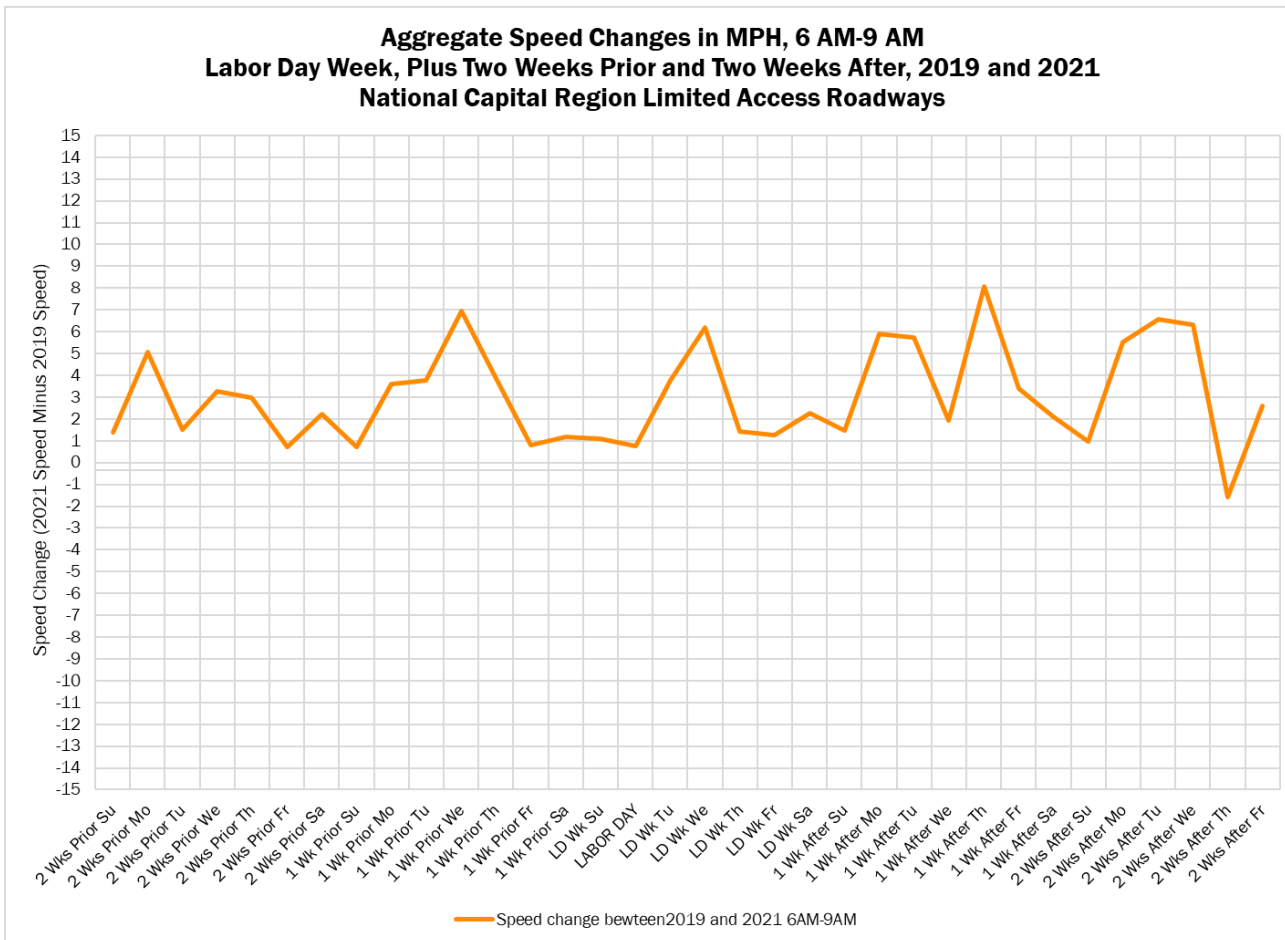
Source: COG/TPB staff analysis of the University of Maryland Probe Data Analytics Suite Data Set. Some limited access highway segments excluded due to data availability. Data are preliminary and subject to change.

# 2019 & 2021 PM Speeds



Source: COG/TPB staff analysis of the University of Maryland Probe Data Analytics Suite Data Set. Some limited access highway segments excluded due to data availability. Data are preliminary and subject to change.

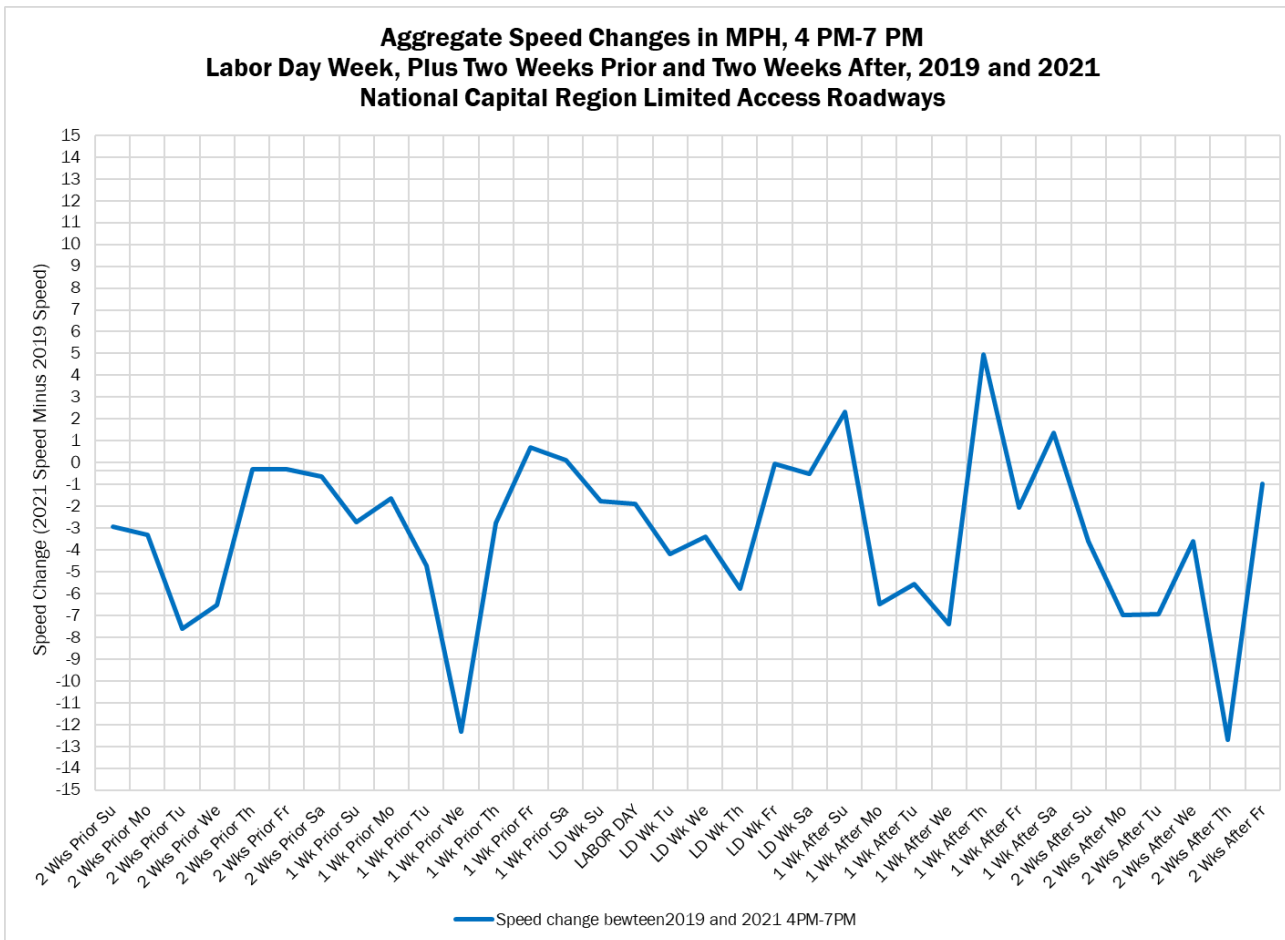
# 2021 AM Speeds Difference from 2019



Source: COG/TPB staff analysis of the University of Maryland Probe Data Analytics Suite Data Set. Some limited access highway segments excluded due to data availability. Data are preliminary and subject to change.



# 2021 PM Speeds Difference from 2019



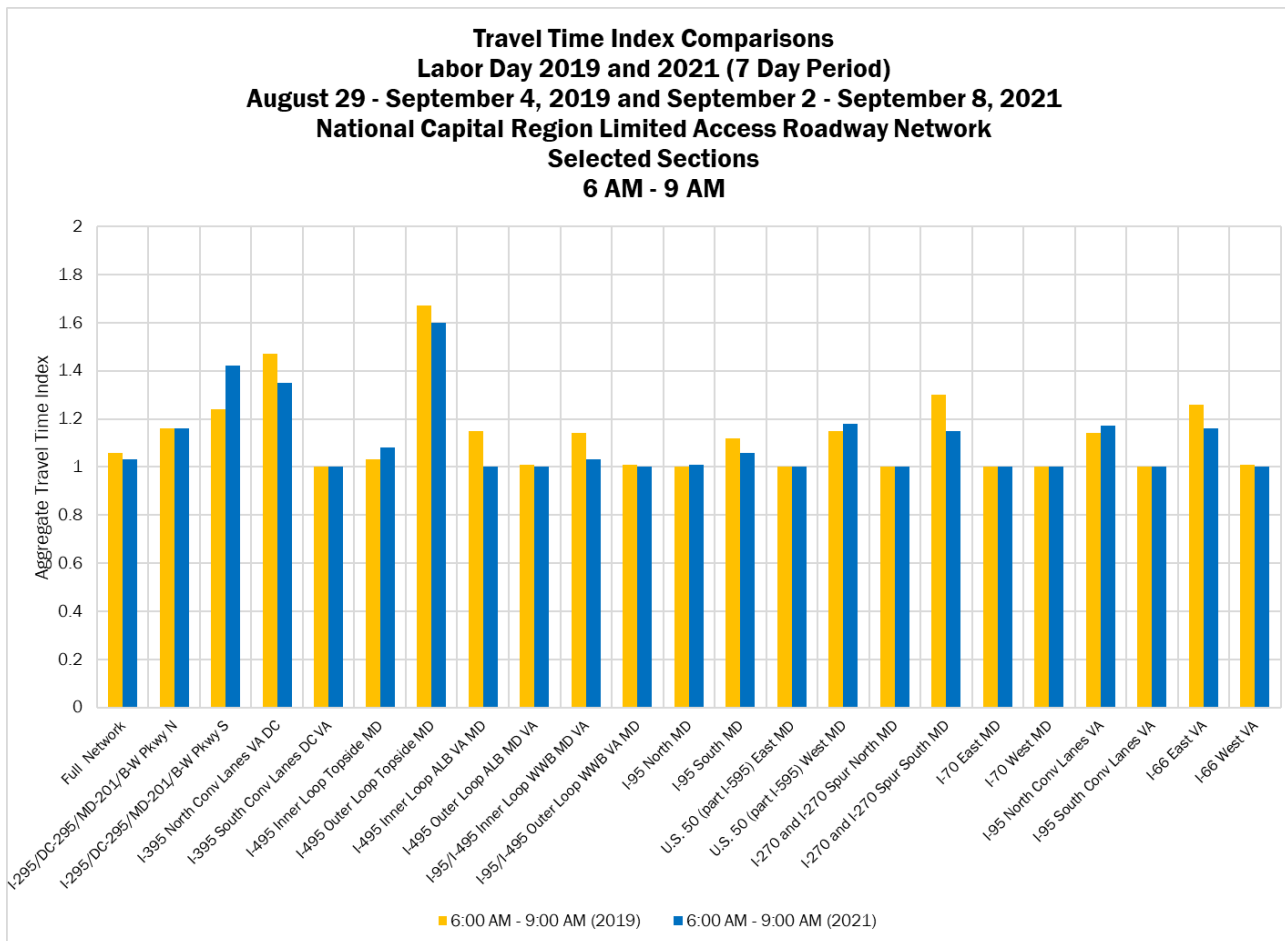
Source: COG/TPB staff analysis of the University of Maryland Probe Data Analytics Suite Data Set. Some limited access highway segments excluded due to data availability. Data are preliminary and subject to change.

# Labor Day Period Traffic Volumes

	All Stations	Core Area Stations	Inner Jurisdiction Stations	Outer Jurisdiction Stations
2019 Thursday - Friday before Labor Day Average Percent Difference from AADT	11.3%	1.3%	12.6%	15.3%
2020 Thursday - Friday before Labor Day Average Percent Difference from Same 2019 Period	-16.6%	-21.9%	-16.8%	-13.4%
2021 Thursday - Friday Before Labor Day Average Percent Difference from Same 2019 Period	-6.8%	-5.3%	-8.7%	-4.5%
2019 Labor Day Weekend Saturday to Monday Average Percent Difference from AADT	-15.6%	-26.1%	-16.5%	-6.5%
2020 Labor Day Weekend Saturday to Monday Average Percent Difference from Same 2019 Period	-8.2%	-8.3%	-8.9%	-6.9%
2021 Labor Day Weekend Saturday to Monday Average Percent Difference from Same 2019 Period	-2.0%	2.3%	-2.9%	-2.9%
2019 Tuesday - Wednesday after Labor Day Average Percent Difference from AADT	5.8%	-0.6%	8.3%	5.0%
2020 Tuesday - Wednesday after Labor Day Average Percent Difference from Same 2019 Period	-19.4%	-26.8%	-19.7%	-15.1%
2021 Tuesday - Wednesday after Labor Day Average Percent Difference from Same 2019 Period	-8.8%	-13.6%	-9.4%	-4.7%

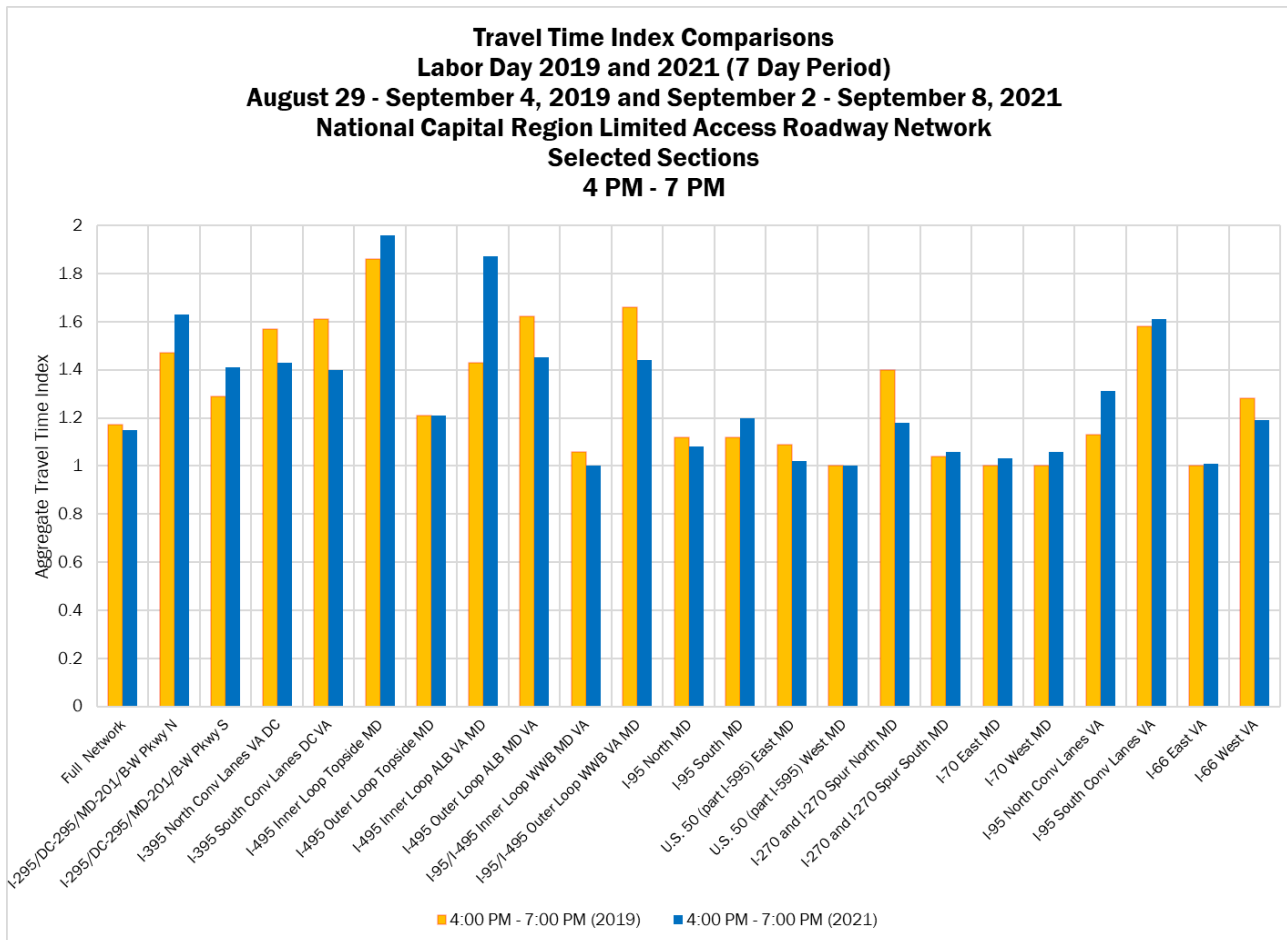
Source: COG/TPB compilation of DDOT, MDOT-SHA, and VDOT data, September 2 through 8, 2021, as of September 13, 2021, from up to 22 continuous count stations at locations around the TPB region. Data are preliminary and subject to change.

# TTI for Selected Locations, 6 AM – 9 AM



Source: COG/TPB staff analysis of the University of Maryland Probe Data Analytics Suite Data Set. Some limited access highway segments excluded due to data availability. Data are preliminary and subject to change. TTIs >1 indicate significant congestion.

# TTI for Selected Locations, 4 PM – 7 PM



Source: COG/TPB staff analysis of the University of Maryland Probe Data Analytics Suite Data Set. Some limited access highway segments excluded due to data availability. Data are preliminary and subject to change. TTIs >1 indicate significant congestion.

# Observations

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- “Re-peaking” – return of some rush hour peaking characteristics
  - Reflects both increased volumes and redistribution of volumes
  - Mostly Tuesdays, Wednesdays, and especially Thursdays
  - More congestion in P.M. than A.M.
- Traffic volumes – overall mostly recovered, but still down the most in the region’s core compared to elsewhere
- Transit ridership – overall about 45% of pre-pandemic ridership; Metrobus ~2/3 of pre-pandemic; Metrorail ~28% of pre-pandemic; long-distance commuter rail/bus still down the most (~12% of pre-pandemic)
  - Transit service levels are near pre-pandemic levels (>90%)
- Workplace occupancy, especially given federal and military guidelines to employees, significantly drives traffic/transit/commute numbers

## **Timothy Canan, AICP**

TPB Planning Data and Research Program Director

(202) 962-2380

[tcanan@mwkog.org](mailto:tcanan@mwkog.org)

[mwkog.org/tpb](http://mwkog.org/tpb)

## **Andrew Meese, AICP**

TPB Systems Performance Planning Program Director

(202) 962-3789

[ameese@mwkog.org](mailto:ameese@mwkog.org)

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Metropolitan Washington Council of Governments

777 North Capitol Street NE, Suite 300

Washington, DC 20002



Metropolitan Washington  
Council of Governments

# Additional Slides



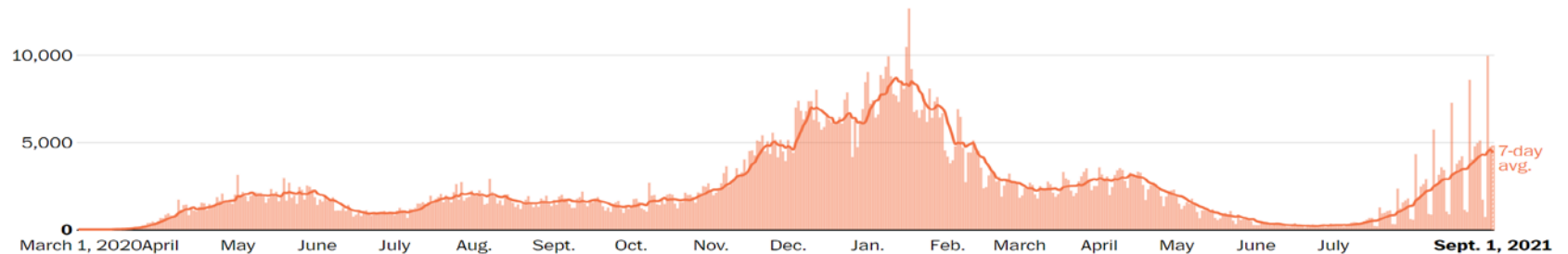
# COVID Cases & Deaths in Washington, DC Metro Area

## New daily reported cases in D.C., Maryland and Virginia

At least 1,323,649 have been reported since Feb. 29.

Show by

Deaths  Cases

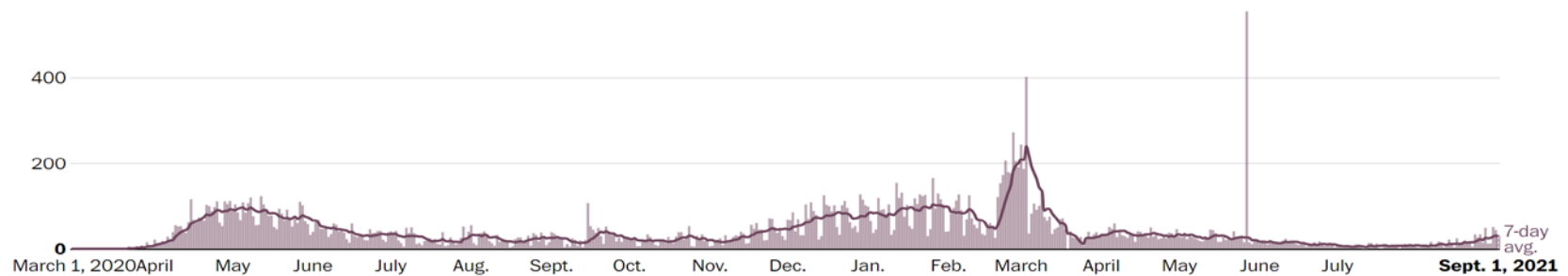


## New daily deaths reported in D.C., Maryland and Virginia

At least 23,045 have been reported since Feb. 29.

Show by

Deaths  Cases

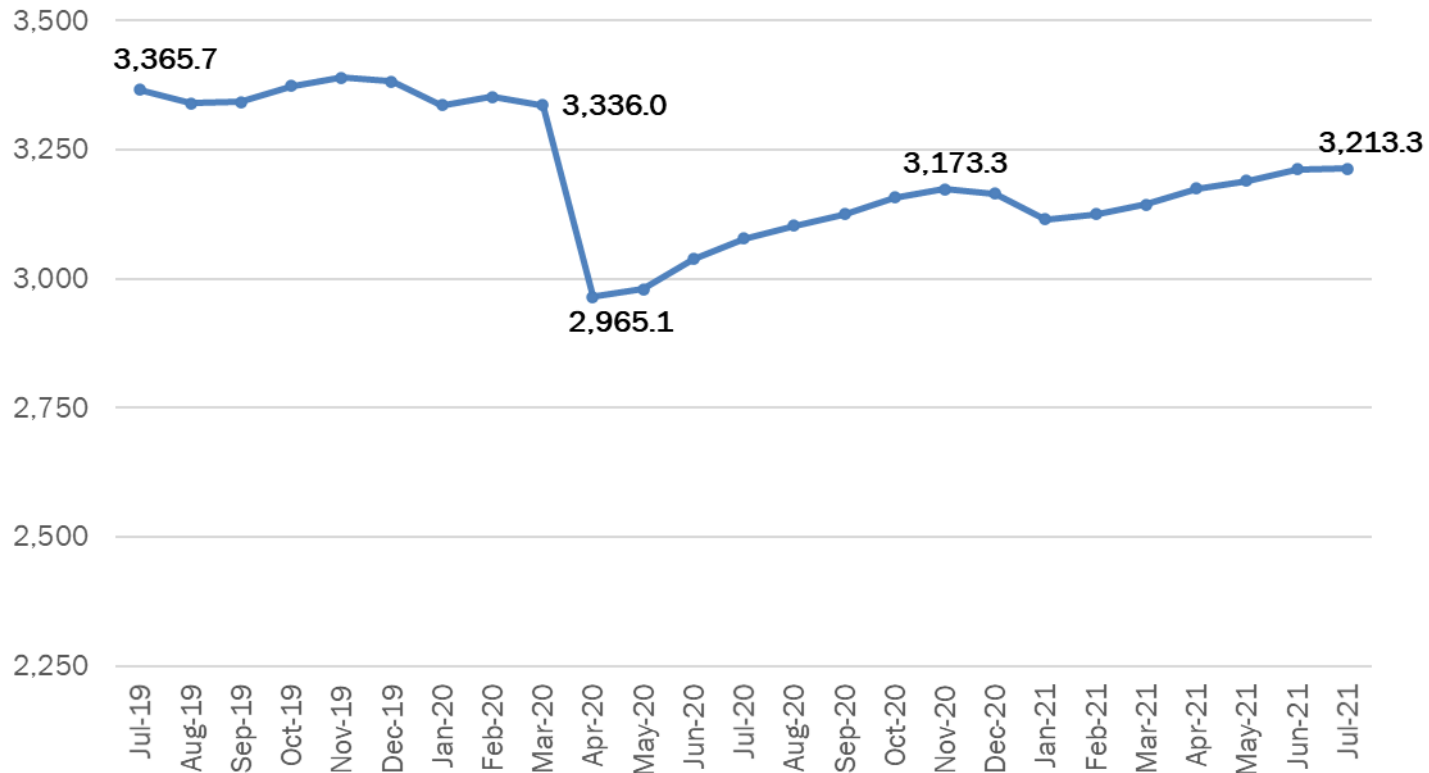




# Non-Farm Jobs (000s) - Washington MSA

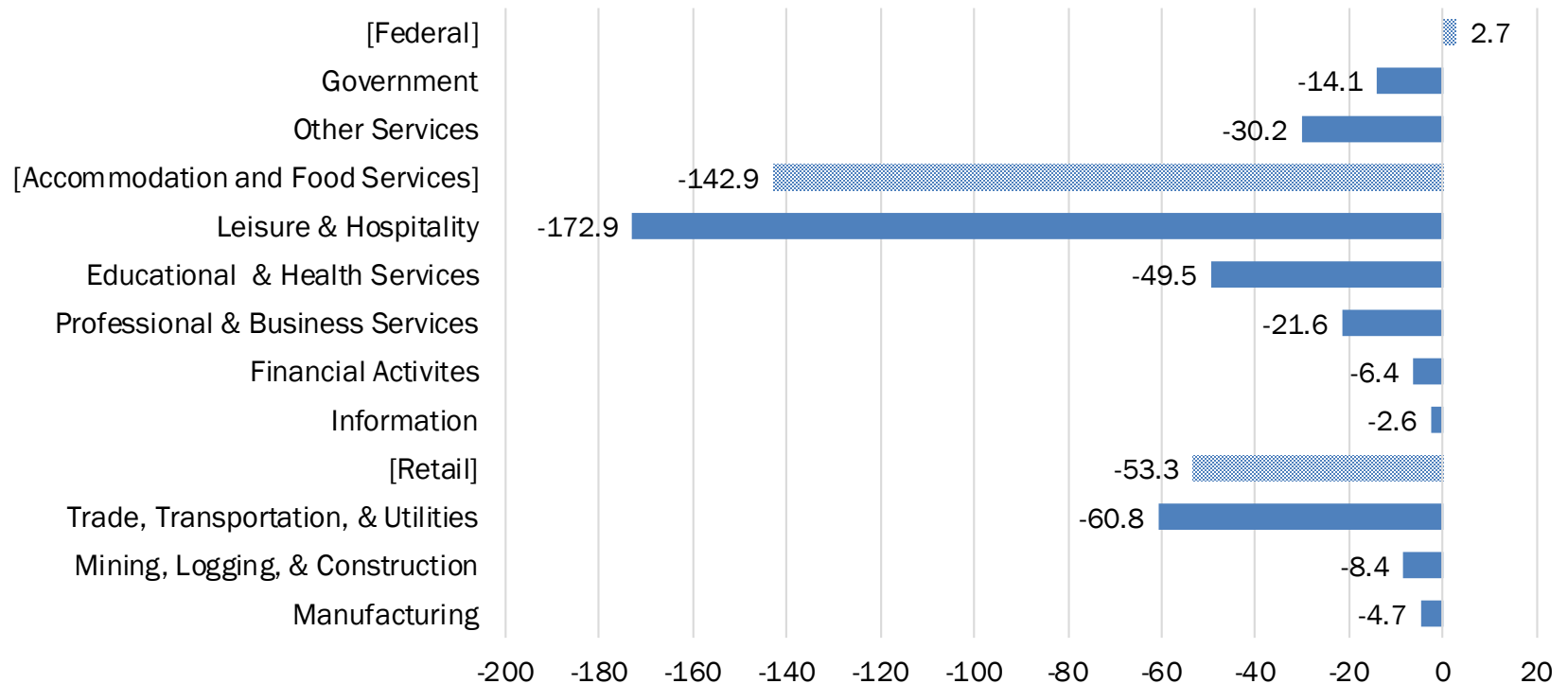
July 2019 to July 2021

(Bureau of Labor Statistics, Not Seasonally-adjusted, Thousands)



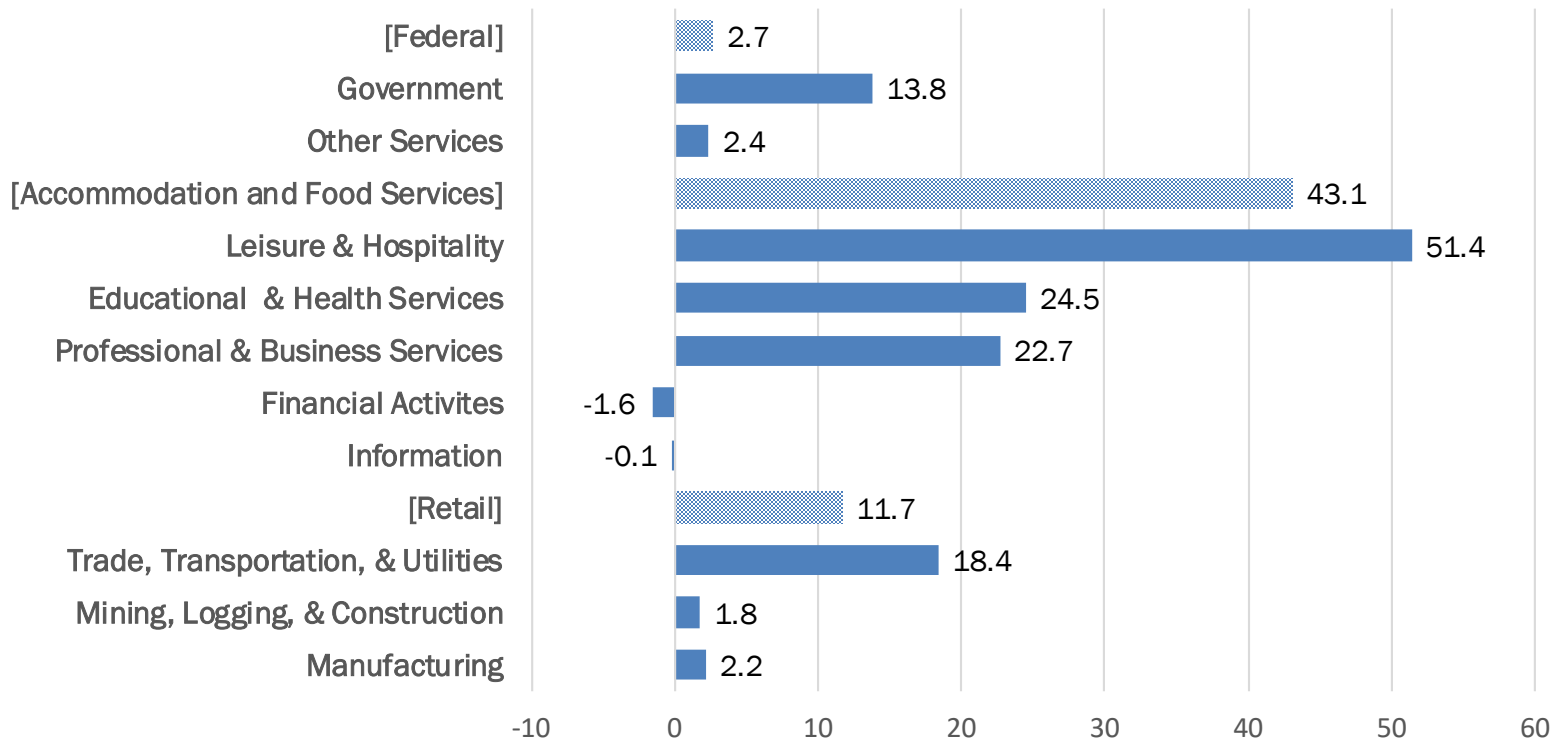
Revised BLS data show the region lost 370,900 jobs between March and April of 2020. As of July 2021, 248,200 jobs have been added during our partial reopening.

# Over-the-year Job Change By Sector May 2020 vs May 2019 Washington MSA (Thousands)



May 2020 employment data (May 2020 – May 2019) shows job losses in nearly every sector especially in hospitality, retail, and several service industry sectors.

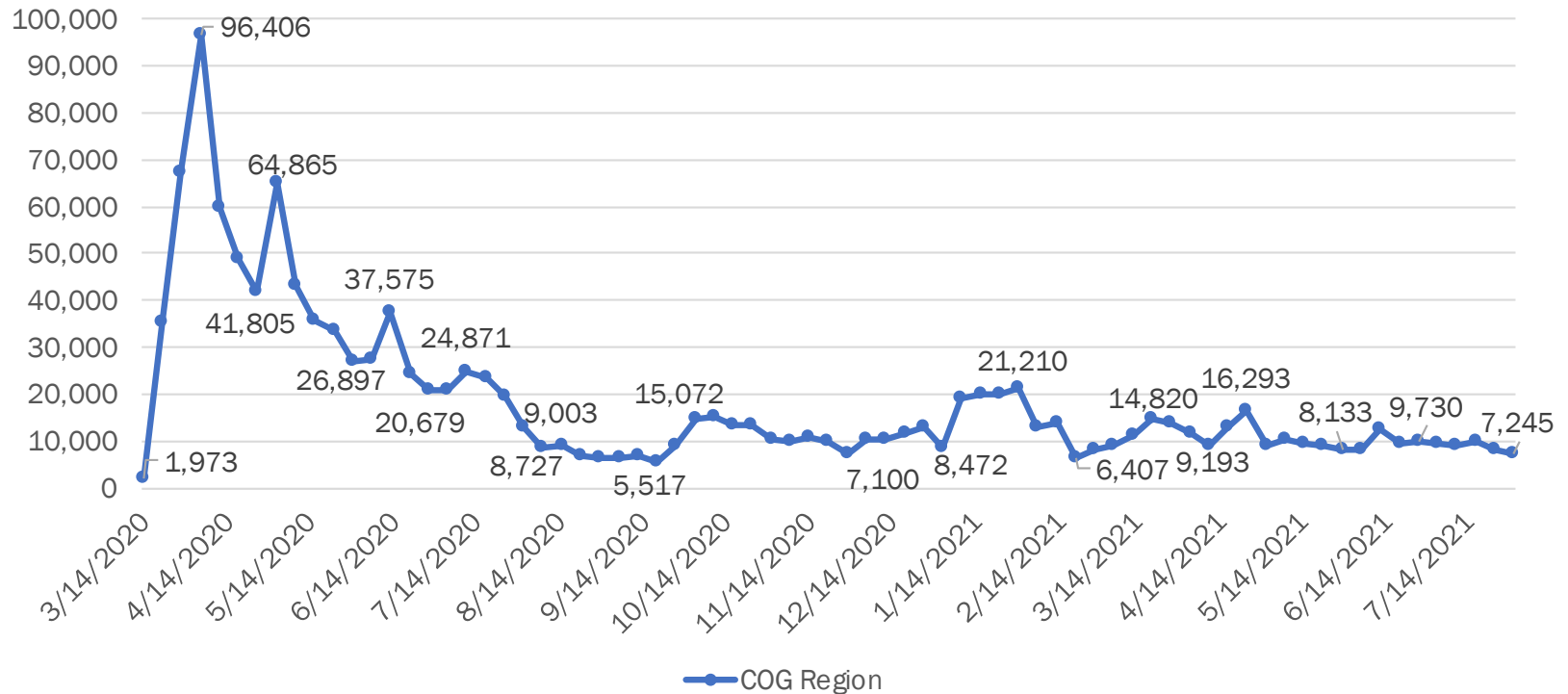
# Over-the-year Job Change By Sector July 2021 vs July 2020 Washington MSA (Thousands)



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

# Unemployment Insurance Claims

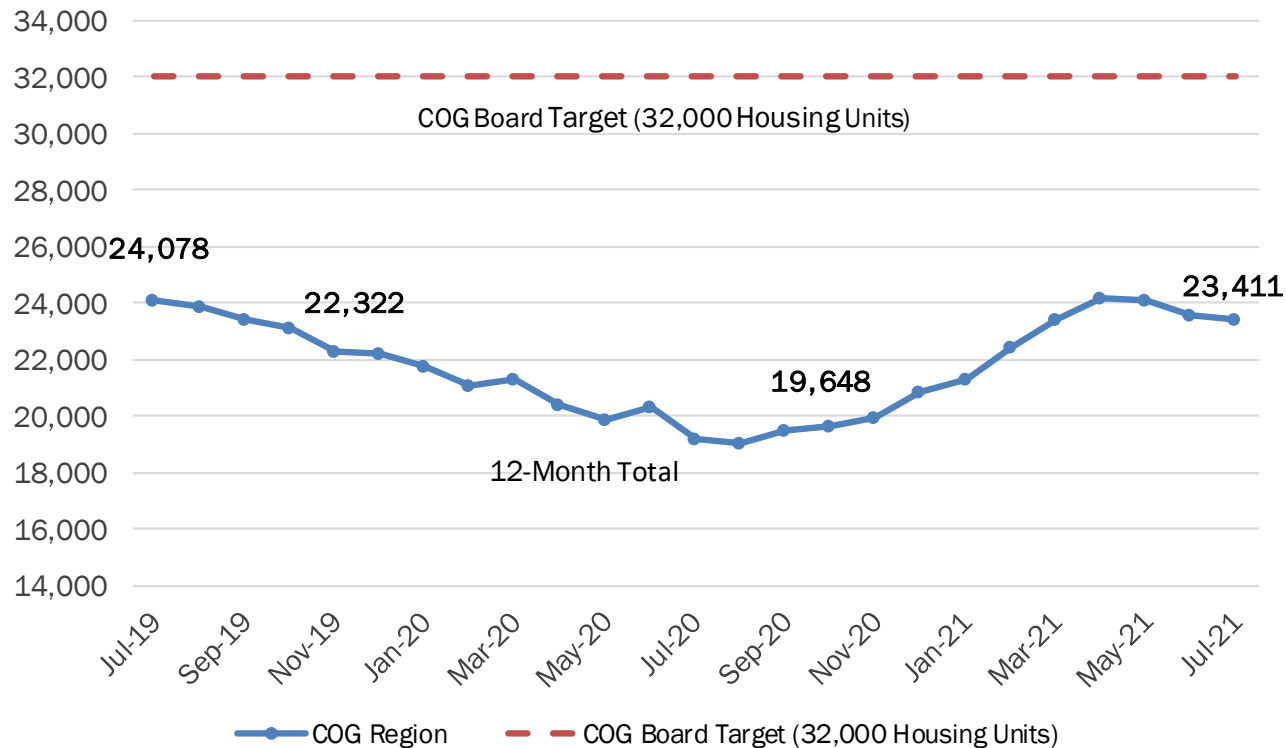
(DC Department of Employment Services, Maryland Department of Labor, Licensing, and Regulation, and Virginia Employment Commission)



Weekly unemployment insurance claims peaked during April 2020, declined through much of 2020, but recently has shown a steady decrease down to 7,245 for the week of July 25.

# New Housing Units Authorized 12-month total for COG Region

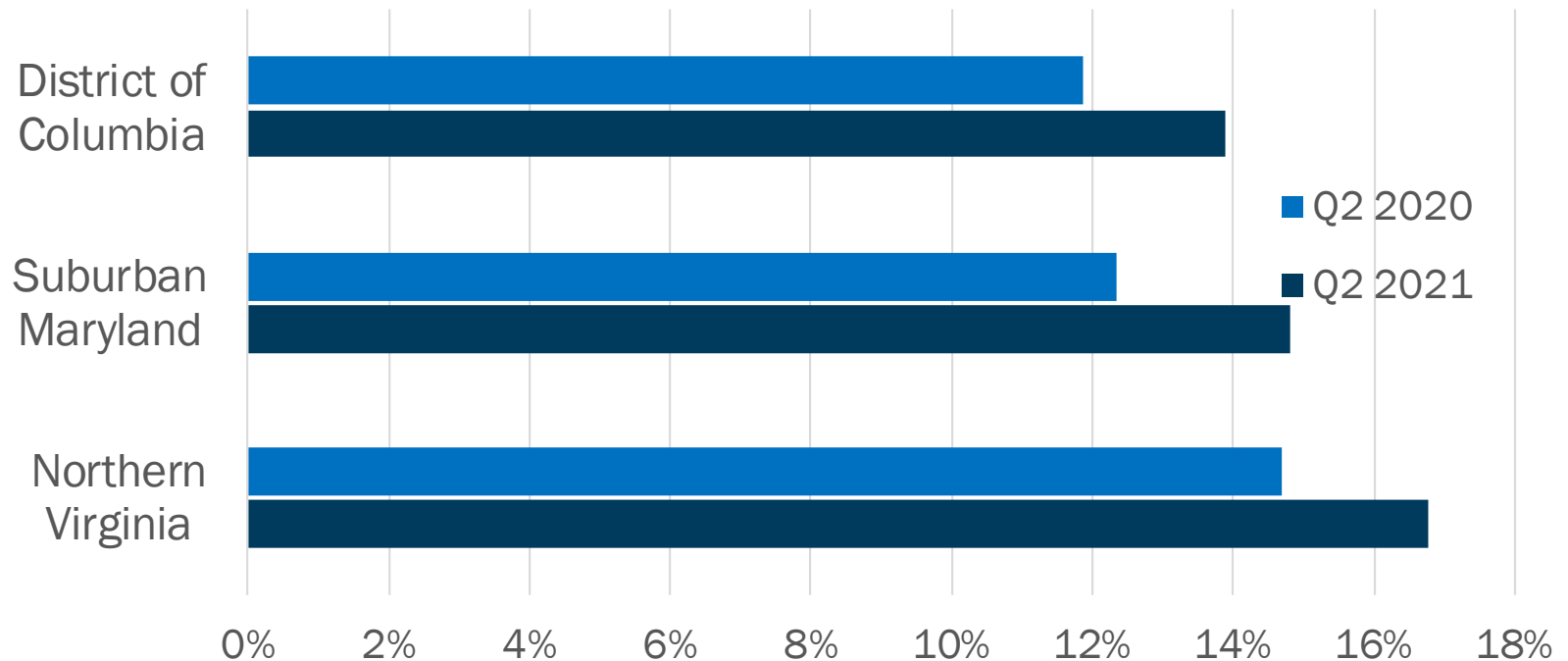
(Source: US Census C-40 data)



The number of new housing permits declined monthly from July 2019 through mid-2020. This was followed by an upward trend from late 2020 through spring of 2021, but again registered declines in the second quarter of 2021.

# Change in Office Vacancy Rates Q2 2020 vs Q2 2021

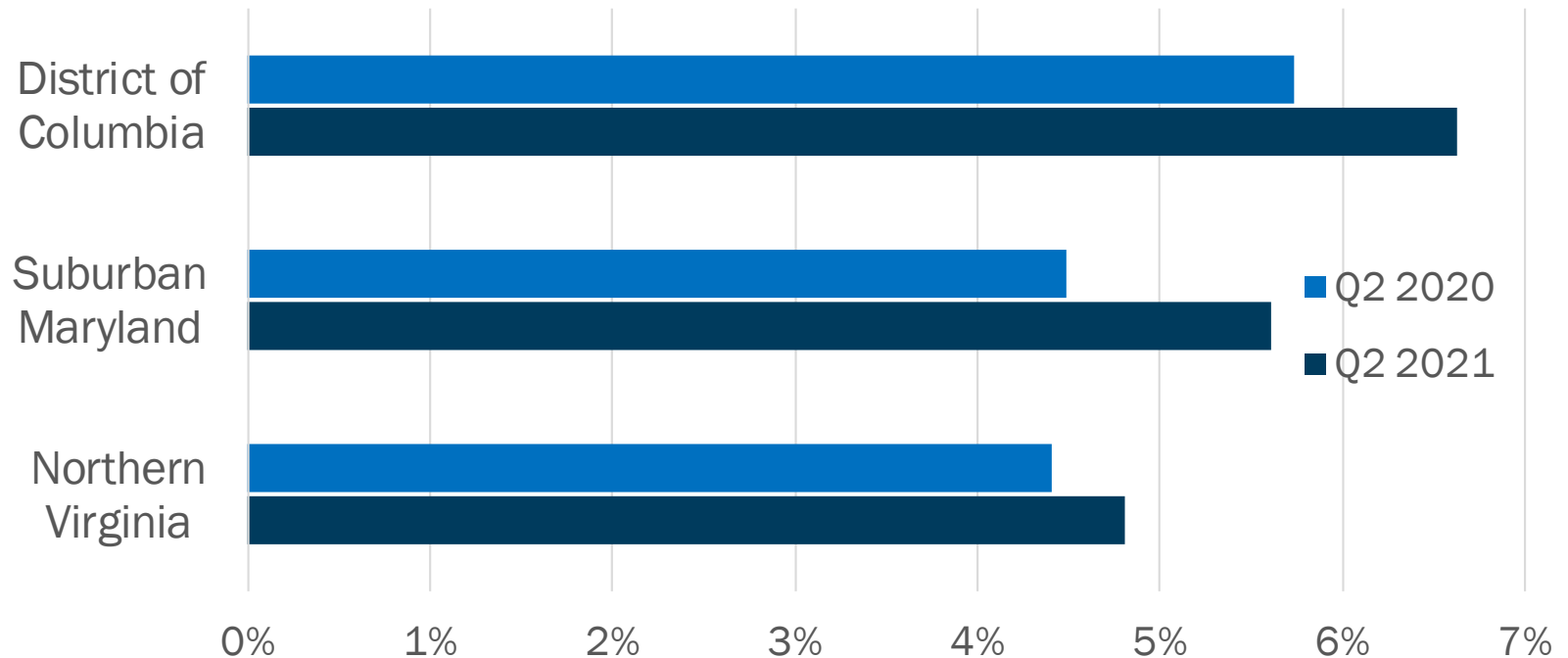
(Source: CoStar)



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

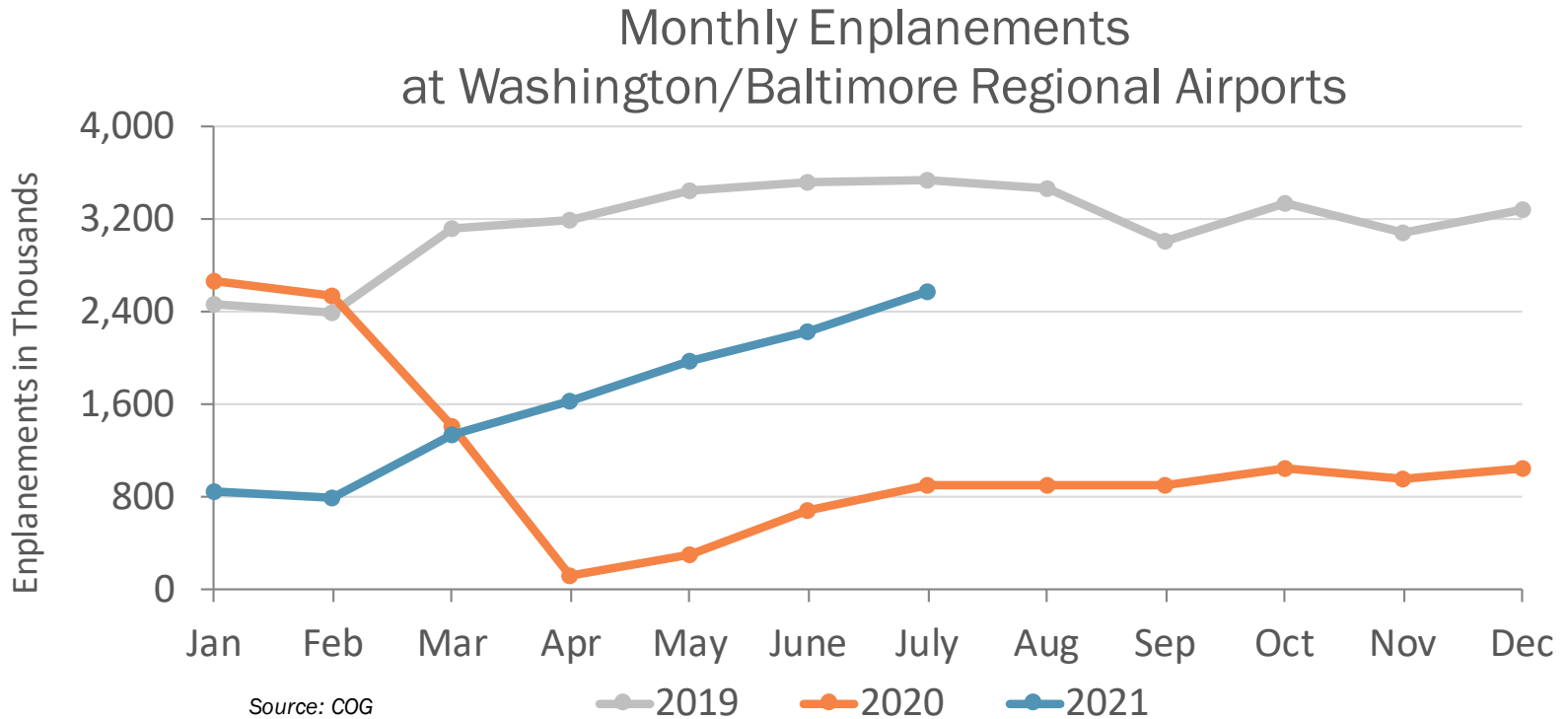
# Change in Retail Vacancy Rates Q2 2020 vs Q2 2021

(Source: CoStar)



Retail vacancy rates have also increased slightly throughout the region. Retail space is very susceptible to COVID-related closures and will also be monitored.

# Air Travel

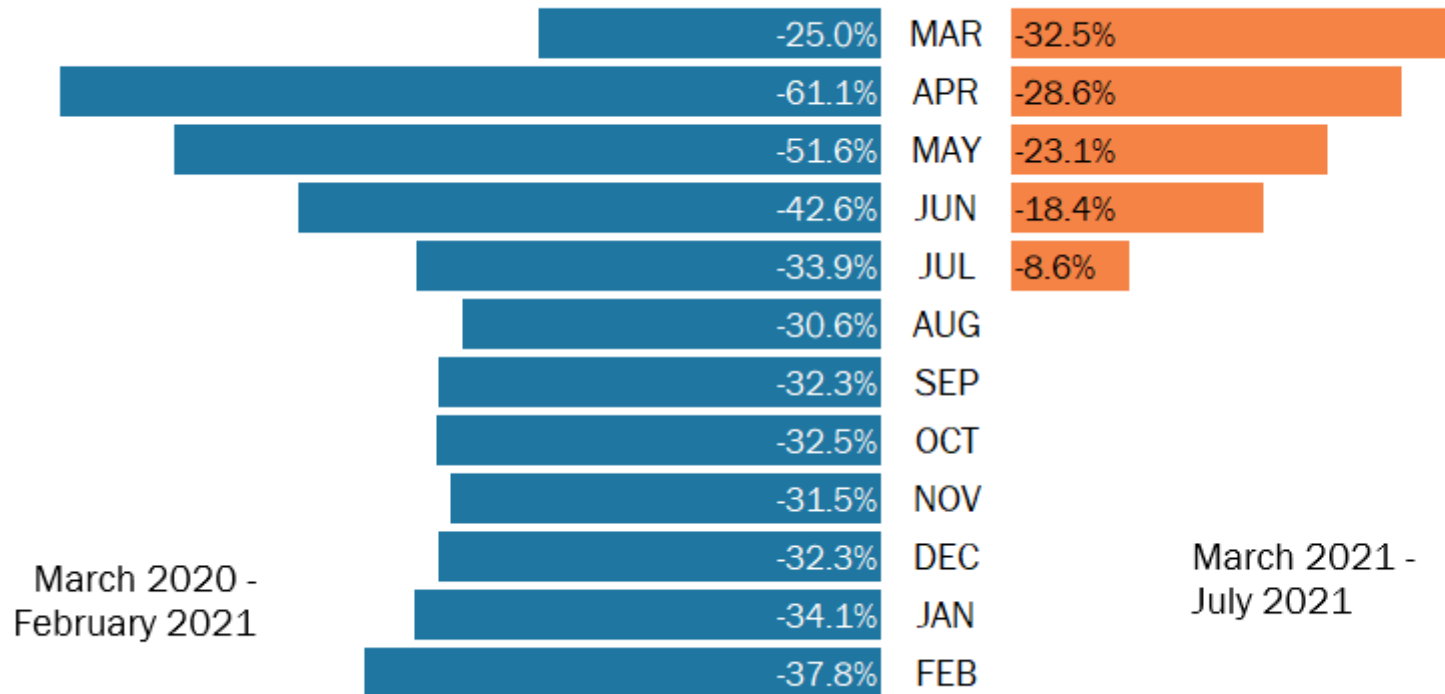


Air travel made notable increases since February 2021 at the region's three major airports, approaching pre-pandemic levels



# Roadway Traffic Volumes: Regional Core

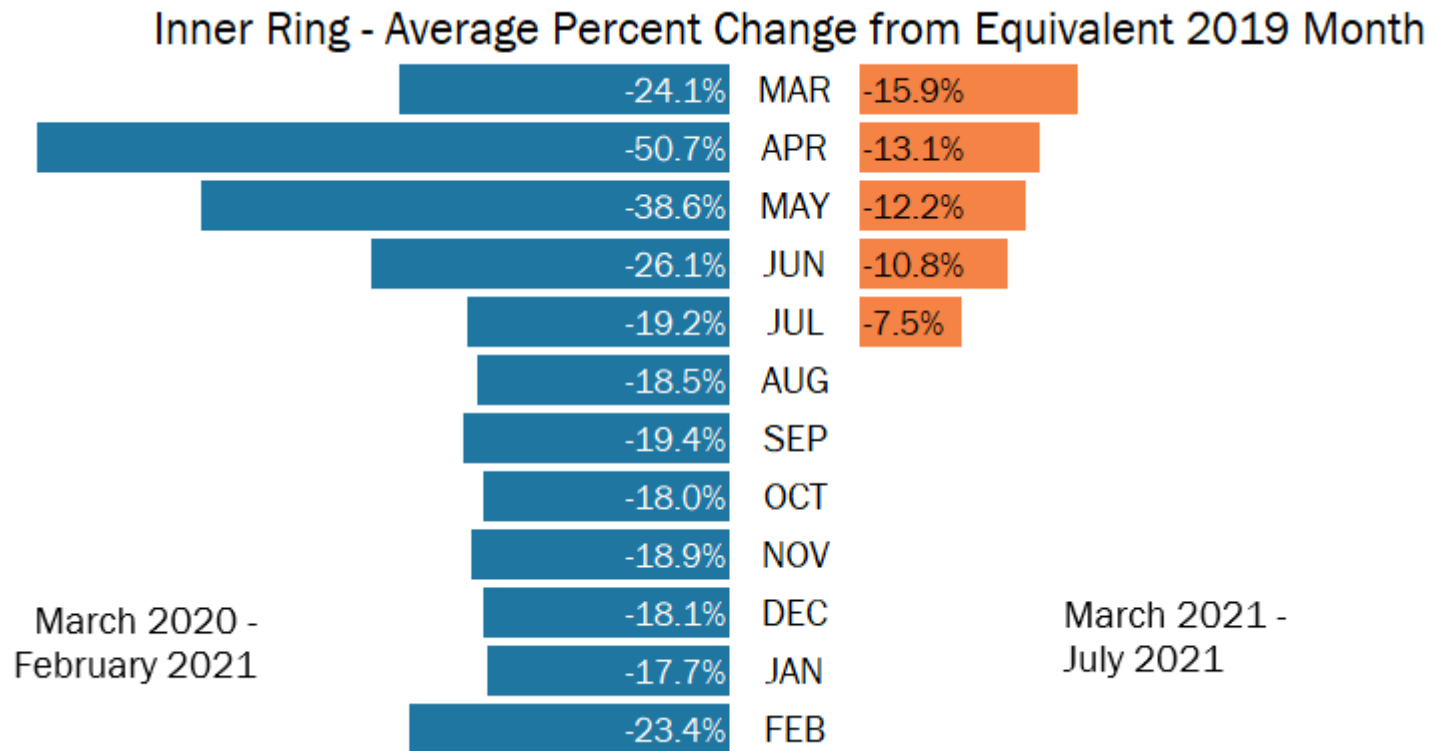
Regional Core - Average Percent Change from Equivalent Pre-pandemic Month



Source: COG/TPB

Traffic Volumes in the Regional Core decreased by more than 60% over the year in April 2020 and have recovered more slowly compared to the region overall. By July 2021, volumes in the core were down 9% compared to May 2019.

# Roadway Traffic Volumes: Inner Suburbs

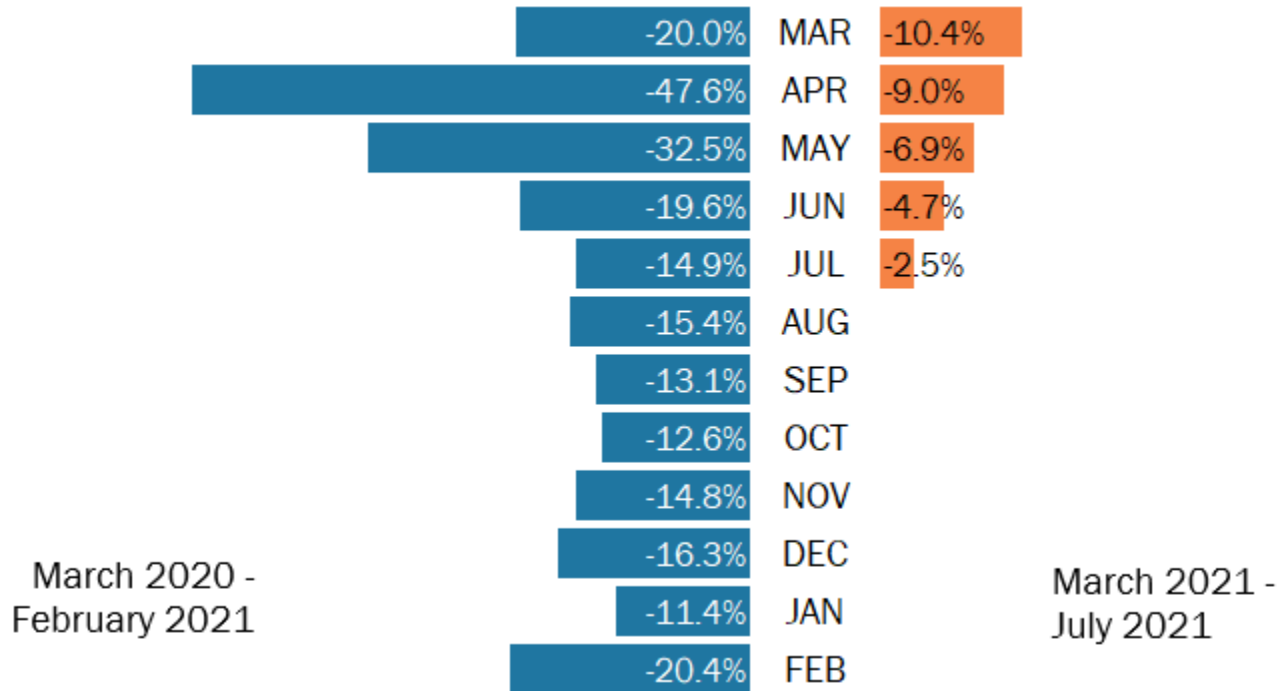


Source: COG/TPB

After decreasing by more than 50% in April 2020 compared to the previous year, traffic volumes in the inner suburbs recovered to 93% of 2019 levels by July 2021. Sub-regional variations continue to be observed.

# Roadway Traffic Volumes: Outer Ring

Outer Ring - Average Percent Change from Equivalent 2019 Month

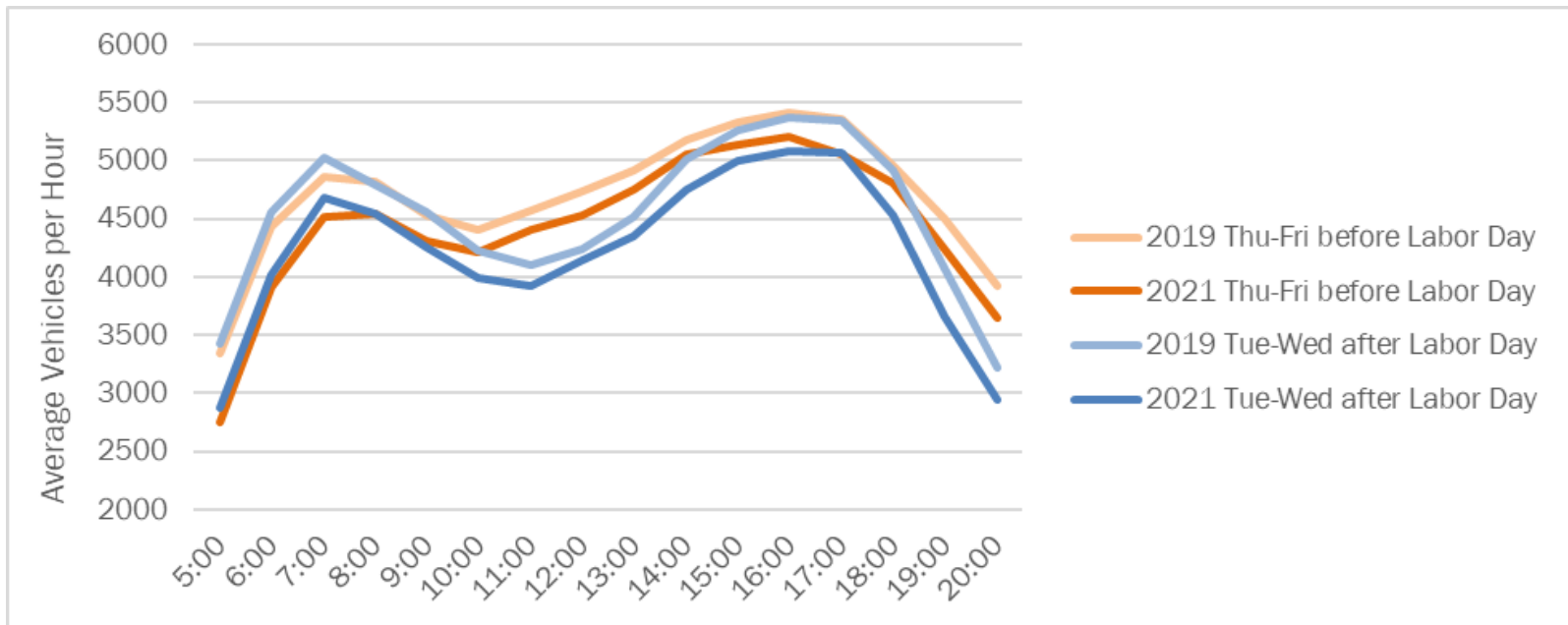


Source: COG/TPB

Traffic volumes in the outer ring sustained the smallest peak decrease in April 2020 of 47.6% and by July 2021, volumes in the outer ring were nearly 97% of July 2019 levels, indicating near full recovery.

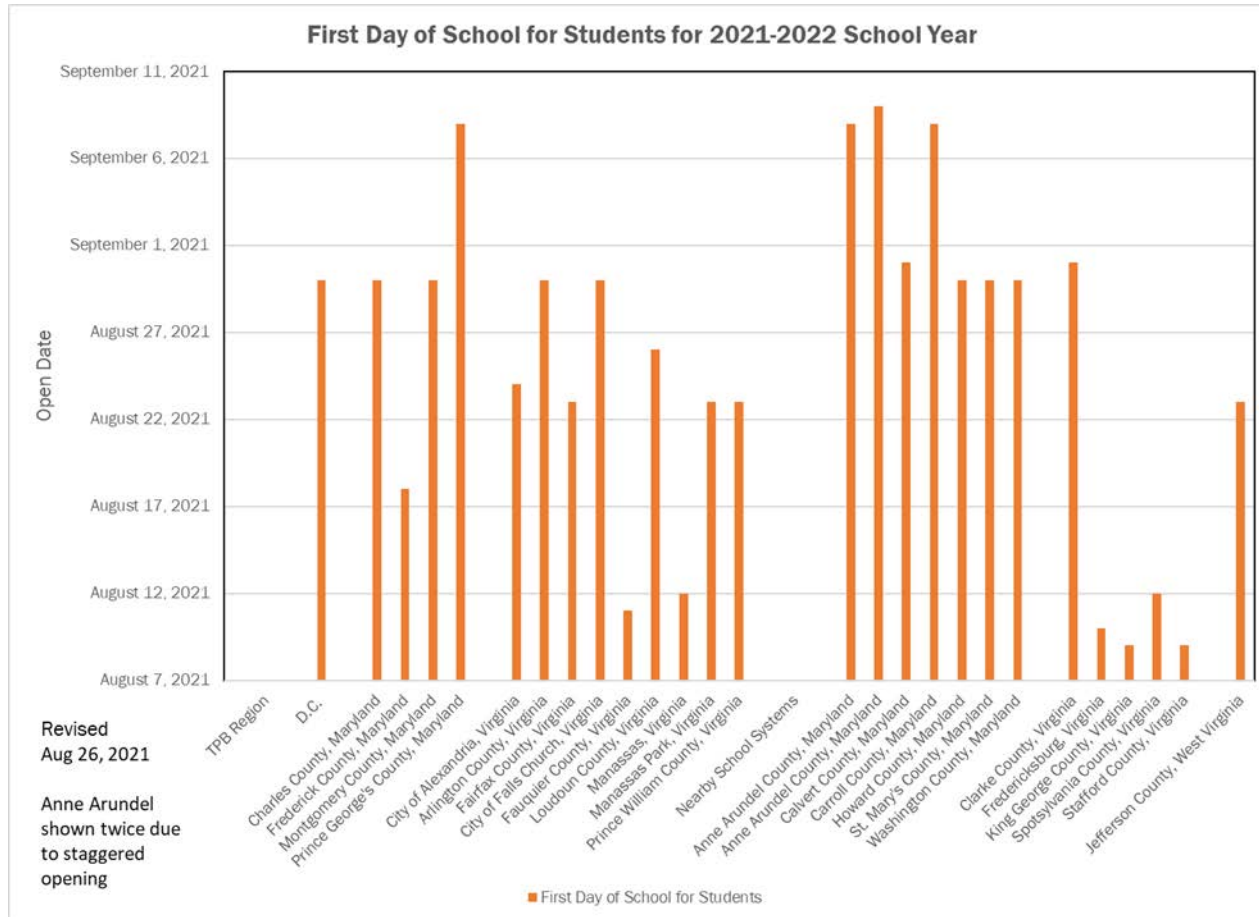
# Traffic Counts by Time of Day

**Traffic Counts by Time of Day for Weekdays Before and After Labor Day, 2019 and 2021**



Source: COG/TPB compilation of DDOT, MDOT-SHA, and VDOT data, September 2 through 8, 2021, as of September 13, 2021, from up to 22 continuous count stations at locations around the TPB region. Data are preliminary and subject to change.

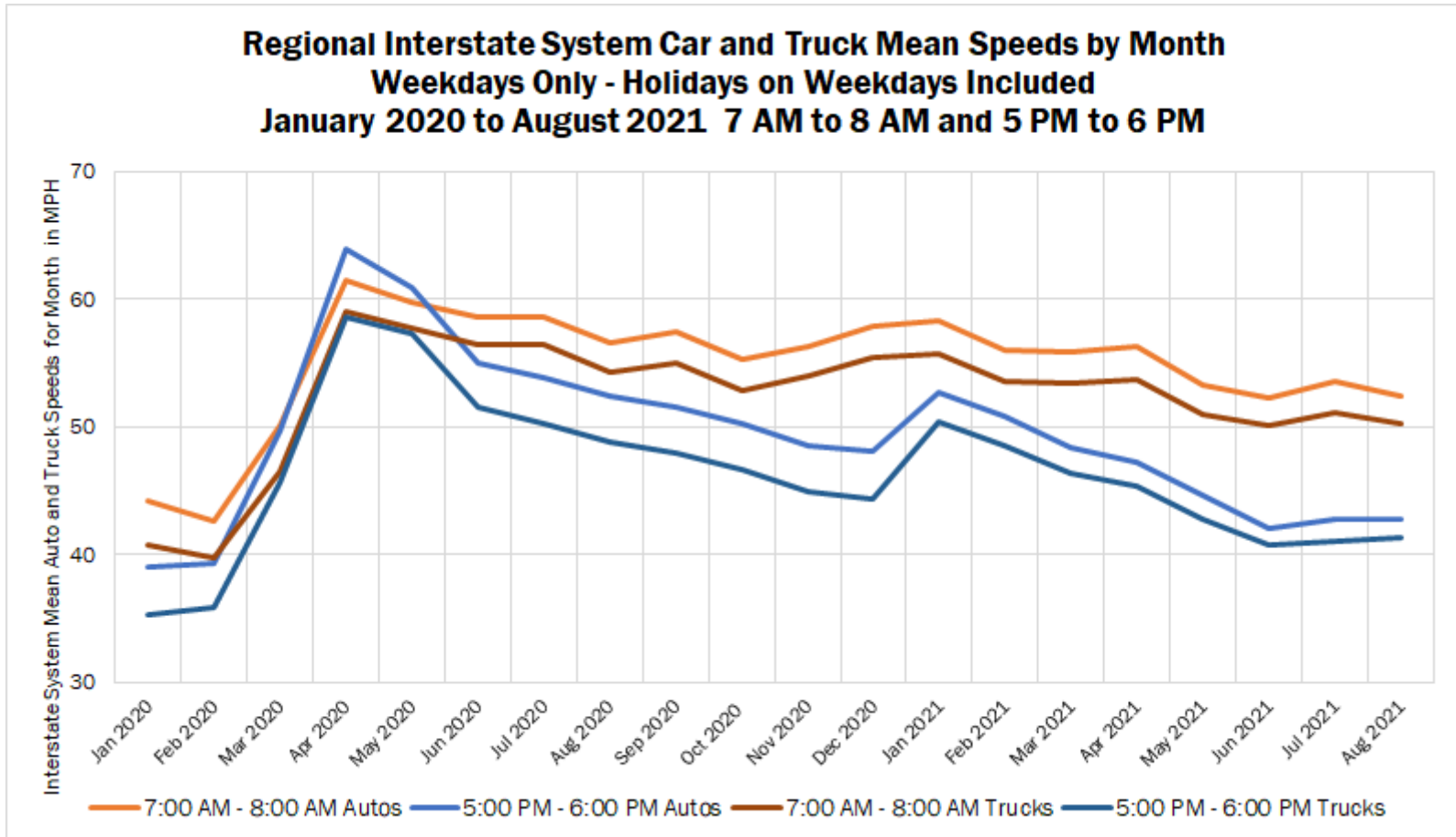
# First Day of School Summary



Source: COG/TPB Staff Review of School System Websites. Data are for the generally announced first day of school for the 2021-2022 academic year; there may be variations within school systems.

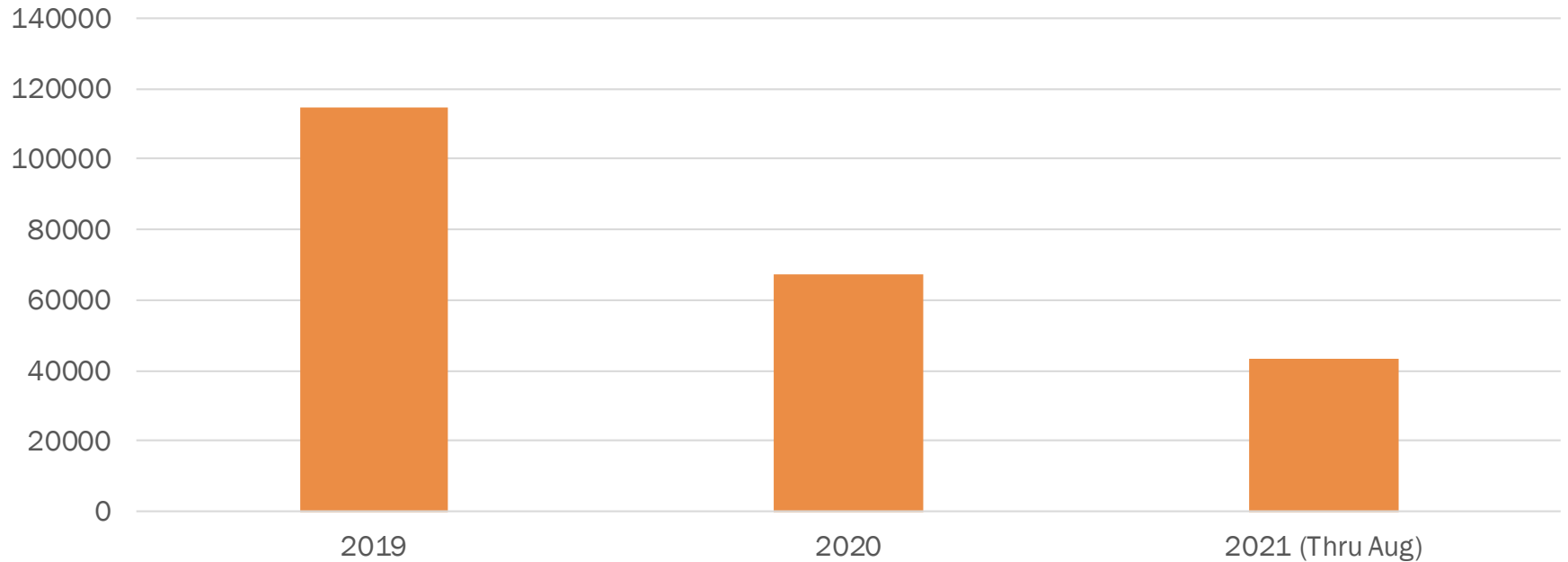


# Interstate Highway Speed Trends



Source: COG/TPB Analysis of the University of Maryland Probe Data Analytics Suite Data Set, National Capital Region. Certain regional Interstate highway segments excluded due to data availability.

# Commuter Connections Web Visits



Source: Commuter Connections Program

# Criteria Pollutants

- Ozone and fine particulate matter (PM2.5) levels are higher in 2021 compared to 2020, but still a bit lower compared to 2019 suggesting air quality is getting back closer to "normal" levels.
- There is still some impact of ongoing COVID-19 related restrictions and closures resulting in lower than "normal" reduced emissions in 2021.
- Weather was more favorable to the formation and build up of pollutants in 2021 compared to 2020.

Ozone Air Quality Index Days (March - September)			
Year	Code Green	Code Yellow	Code Orange
2021	123	53	8
2020	180	32	2
2019	123	81	10

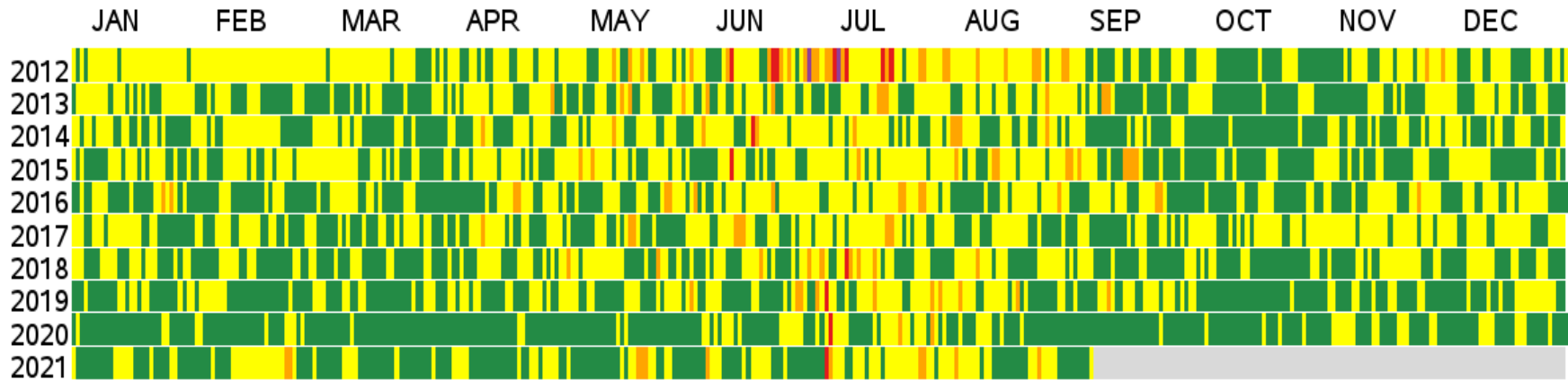
Note: 2021 data is for the period March-August, draft, and valid as of September 8, 2021. 2019 and 2020 data is for the period March-September.





# Criteria Pollutants

## Daily AQI Values, 2012 to 2021 Washington-Arlington-Alexandria, DC-VA-MD-WV



Source: U.S. EPA Air Data, generated September 8, 2021

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