Chapter 3:
Current Transportation System Performance

The National Capital Region has an extensive, multimodal transportation network with new components continuously being added to improve system performance. Despite these advancements, people experience challenges when moving throughout the region. Challenges create barriers to achieving shared regional goals, but they also show planners and decision-makers where to focus and prioritize collective improvement efforts and limited resources.

Regional transportation challenges include multimodal accessibility of destinations, congestion's effect on roadway and transit travel time reliability, safety while navigating the transportation system, infrastructure and equipment maintenance, and managing transportation system operations efficiently. These challenges, particularly for public transportation, walking, and bicycling, have rendered travel by personal automobile the most used means of navigating the region, effectively limiting alternatives for both residents and visitors. The TPB works to address these challenges by both building upon the existing foundation and creating opportunities to make changes to the system in an effective, efficient, and sustainable manner.

The TPB has adopted a set of goals to guide its work on addressing the region's transportation challenges. The TPB is also guided by federally required or regionally developed targets related to transportation and other sectors such as land use, environment, and economy. The TPB tracks the system's performance using a set of measures to assess progress towards these adopted goals and targets. This chapter reports on the performance of the current transportation system and the extent to which TPB is meeting its goals and targets. The findings allow the region to reflect on past transportation investments and policies, as well as a few non-transportation strategies (e.g., land use), and identify changes to the approaches to help the region address the remaining challenges in a manner that will sustain and enhance the system into the future. Chapter 5 presents planned investments to improve current conditions, and Chapter 7 identifies key challenges beyond what this plan can accomplish.

NOTE: As one reviews this chapter, 2022 represents a period in the region when the travel and commute patterns were beginning to readjust after the massive disruption to travel caused by the 2020 COVID-19 pandemic. The pattern of travel prior to the pandemic was disrupted and has yet to be re-established. As available at the time of this writing, observed data is provided in this chapter; where observed data is not available, modeled data is provided for the base year, 2025.

Access

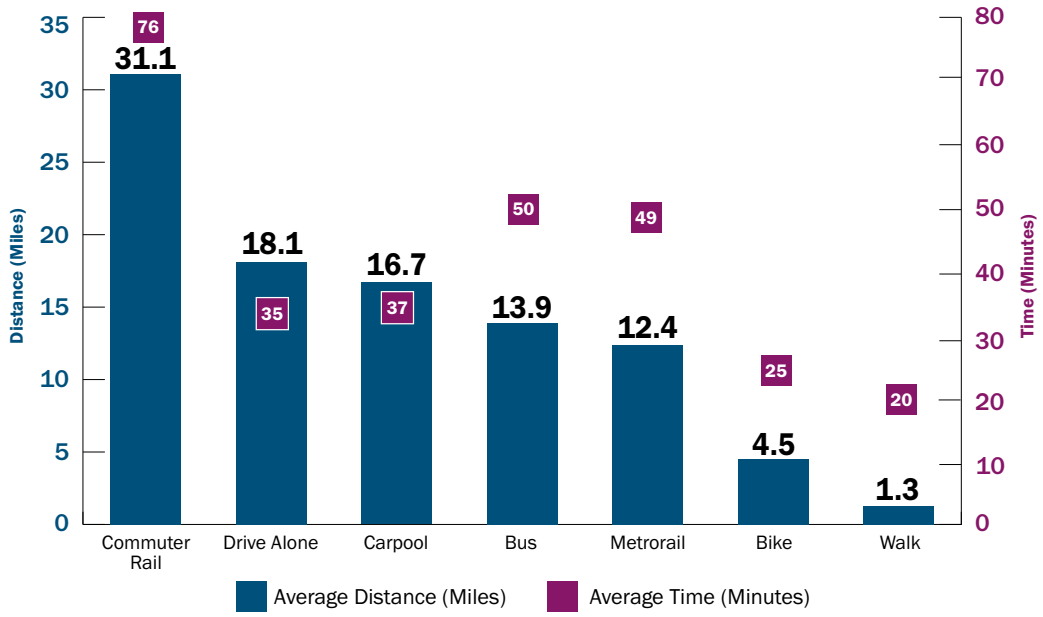
Accessibility to destinations is a fundamental need shared by everyone and is often measured by the ease with which a person can access various destinations by one or more modes of travel, such as auto or transit, during a defined period. Whether the purpose of the trip is to get to work, meet family and friends, or interact with services, there are plenty of reasons people need to travel, and the region's transportation system offers many options, though there is still room to improve destination accessibility.

NOTE: When referenced in this section, the accessibility analysis uses travel time information from the TPB's Regional Travel Demand Forecasting Model (TDFM), the Gen2/Ver. 2.4.6 Travel Model, and land use information comes from the COG Cooperative Forecasts (Round 10.0).

Many people travel to work, and much of this travel occurs in the A.M. and P.M. peak periods. The TPB's 2022 State of the Commute Survey identified average commute distance and commute times by primary mode as shown in Figure 3.1.[1]

1 Metropolitan Washington Council of Governments (August 14, 2023). *2022 State of the Commute Survey Report*. **https://www.mwcog.org/documents/2023/08/14/state-of-the-commute-survey-report--carsharing-state-of-the-commute-telework-travel-surveys/**

Figure 3.1: Average Commute Distance and Commute Time by Primary Mode



Commuter rail has the longest average travel distance (31 miles) and average travel time (76 minutes) per commute. The mode of travel with the second longest commutes by distance is Drive Alone while Bus and Metrorail have second longest commutes by time. Travelers generally choose a mode of travel based on travel time, travel cost, or convenience.

Drivers and Passengers

Most residents in the region use personal motor vehicles as their primary mode of transportation, driving, or sharing rides to reach their daily destinations. Access to jobs by auto varies throughout the region and is influenced by travel conditions and people's proximity to jobs.

According to the current accessibility analysis, in 2025, on average about one million jobs are accessible by auto within 45 minutes for a resident of the region, during the A.M. peak period.[2] The distribution (by traffic analysis zone) of accessibility to jobs by auto is shown in the map, **Current and Future Accessibility to Jobs**.[3]

A vast majority, 92 percent, of the households in the region have one or more motor vehicles available, with 39 percent owning two, 34 percent having one, and 19 percent with three or more vehicles (Figure 3.2).[4] Whether by choice or necessity, eight percent of regional households do not own a vehicle. Within the core, where density and transportation options are among the highest in the region, about one-quarter of households have no vehicle available.[5]

2 System performance analysis of Visualize 2050, 2025 simulation, which made use of the Gen2/Ver. 2.4.6 Travel Model and the Round 10 Cooperative Forecasts of land activity

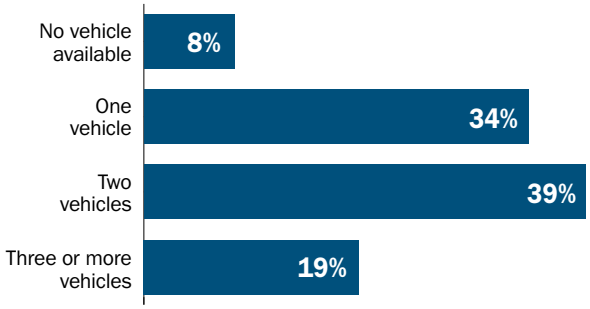
3 TPB (2025). *Visualize 2050: Access to Jobs by Auto (A.M. Peak, 45-Minute Commute)* [Interactive Map]. **www.mwcog.org/V50JobAccessForecastMap**

4 National Capital Region Transportation Planning Board (2019). *2017/18 Regional Travel Survey*. **https://www.mwcog.org/transportation/data-and-tools/household-travel-survey/**

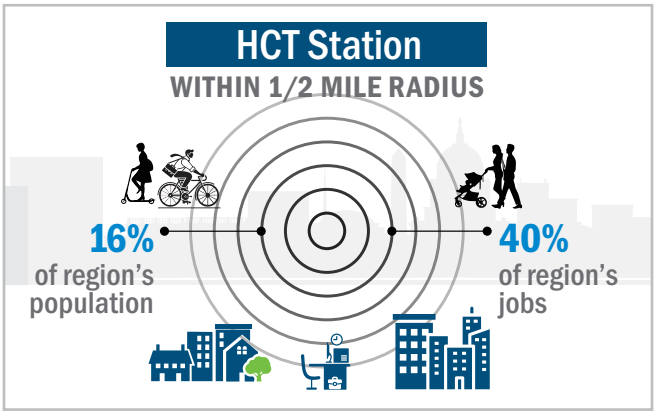
5 National Capital Region Transportation Planning Board (April 22, 2022). *Regional Travel Survey In-Depth Analysis*. **https://www.mwcog.org/documents/2022/04/22/regional-travel-survey-in-depth-analysis-featured-publications-regional-travel-survey/**

The 2023 vehicle registration data indicates there are approximately 4.2 million registered motor vehicles in the region.[6]

Figure 3.2: Household Vehicle Ownership in the Region



The choice to travel by auto is affected by many other considerations including vehicle availability, driving ability, convenience, weather, distance, cost, or the number of people or things to transport. The housing location choice, which is also dependent on several factors, affects the travel mode choice. Living further away from multimodal transportation options makes it more challenging to reach opportunities and daily needs without access to a vehicle. Vehicle ownership presents high fixed costs that not everyone can afford. The development and investment legacy has led to a high reliance on personal automobile travel in the inner and outer jurisdictions. The region demonstrates the effectiveness of investing in public transportation and development more conducive to active modes of travel, especially in its core jurisdictions where well-connected multimodal options offer attractive alternatives to personal auto use and ownership.



Rail and Bus Transit Riders

The region's HCT system is nationally recognized and frequently used by residents, employees, and visitors to access destinations every day.[7] Intercity and commuter rail and bus service—often combined with local transit travel—are available options, though multi-modal transit trips may involve longer wait times and indirect routes, resulting in lengthy trips.

According to the TPB's current accessibility analysis, in 2025, on average about 400,000 jobs are accessible by transit within 45 minutes for a resident of the region during the A.M. peak period, much less than the one million accessible by auto travel with the same travel time. This is because 40 percent of the region's jobs are located within a half mile of HCT transit stations while only 16 percent of the population reside within this area.[8] The varying levels of job accessibility by transit is shown in the map, **Current and Future Accessibility to Jobs**.[9]

Transit service is designed to provide access to many opportunities in the region, which enhances the region's economic competitiveness. For example, low-income households in the region have relatively good access to bus stops, with 74 percent living within a quarter mile of a stop compared to only

6 National Capital Region Transportation Planning Board Technical Committee (October 4, 2024). *Agenda Item 9: Analysis of 2023 Vehicle Registration Data*.

7 HCT, often used synonymously with fixed-guideway transit, is defined as Metrorail, commuter rail, light rail, streetcar, and bus rapid transit (BRT).

8 System performance analysis of Visualize 2050, 2025 simulation, which made use of the Gen2/Ver. 2.4.6 Travel Model and the Round 10 Cooperative Forecasts of land activity

9 TPB (2025). *Visualize 2050: Access to Jobs by Transit (A.M. Peak, 45-Minute Commute)* [Interactive Map]. **http://www.mwcog.org/V50JobAccessForecastMap**

Pierre Gaunaurd/COG

Low-income households have better access to bus stops and transit service with a 15-minute or better frequency compared to the whole region.

60 percent of the region overall. Additionally, 31 percent of low-income households have access to transit service with a 15-minute or better frequency during the morning peak period, compared to only 21 percent for the whole region. Low-Income household transit access on the weekend, defined as midday Saturdays with thirty-minute service, is 46 percent compared to 32 percent for the whole region.[10]

The travel needs of people with disabilities are often served with paratransit or on-demand services. This form of public transportation often provides door-to-door service from origin to destination, making transit a more viable option by connecting all parts of the trip. Curbside management and optimized ADA design features improve connections at transit stops. WMATA's MetroAccess is the largest paratransit operator but many of the local bus systems in the region provide this service as well. Additionally, there are several public serving non-profit organizations that provide such a service including those that are supported by funding from the TPB's Enhancement Mobility program. The full list of specialized service providers is included in the ***List of Stations, Systems, and Providers (2023)*** available on the Visualize 2050 website.

Challenges with transit in the region do exist, a survey conducted during the DMVMoves Initiative identified distance to and from transit stops and service frequency as top challenges when using rail transit. For bus transit riders, service frequency is identified as a bigger challenge in the core and inner suburbs whereas distance to and from stops is a bigger challenge for people in outer suburbs.[11] The variety of transit providers, fare systems, and travel modes can also make it difficult for visitors and residents to navigate transfers and estimate total trip costs. The DMVMoves Initiative aims to improve fare integration, traveler information, and the overall user experience across the region.

Pedestrians

An interconnected network of sidewalks, shared-use paths, and trails allows residents to travel short distances without the need for a car, transit trip, or bicycle. In urban areas and many of the Regional Activity Centers (RACs), pedestrian facilities and low traffic speeds support walking. According to the 2017-2018 Regional Travel Survey, the District of Columbia, Arlington County, and City of Alexandria boast walk shares ranging from 17 to 33 percent. In the region's inner suburban jurisdictions, where most of the region's travel originates, 6 to 9 percent of all trips are made by foot, primarily concentrated in

10 National Capital Region Transportation Planning Board (October 19, 2022). *Agenda Item 9: Bus Transit Service Equity Study.* **https://www.mwcog.org/events/2022/10/19/transportation-planning-board/**

11 DMVMoves Initiative (October 2024). *DMVMoves Survey.* **https://dmvmoves.org/wp-content/uploads/2024/12/DMVMoves_SurveyReport_FullDeck_Oct-16.pdf**

areas with well-integrated pedestrian infrastructure such as RACs and job centers.

To improve access to transit throughout the region, the TPB adopted Resolution R4-2021 approving a list of 49 Transit Access Focus Areas (TAFAs). The TAFAs include transit stations that have the greatest potential for increasing ridership through improved pedestrian access.

(National Capital Region Transportation Planning Board (July 22, 2020). Agenda Item 10 – Action: Approval of Regional List of Transit Access Focus Areas. https://www.mwcog.org/events/2020/7/22/transportation-planning-board/)

The National Capital Trail Network, discussed in Chapter 2, provides a regional off-street system that makes walking a safe and accessible option, particularly for residents who live within proximity to the network. Approximately 63 percent of the region's residents live a half mile from the existing portions of the network.[12] Additionally, 125 of the region's 145 RACs are located within this same distance of the existing trail network, further enhancing connectivity and access to key destinations.[13] Wide street crossings, long distances to destinations, unmet mobility accommodations, high-speed roadways, and aggressive or speeding drivers are some of the many barriers to walking for community members.

Bicyclists and Micromobility

Throughout the region, there are dense networks of on-street bicycle facilities and shared micromobility fleets (bicycles and scooters) connecting housing and jobs. RACs are places more likely to have access to a variety of bicycle facility types including shared-use paths, buffered and protected bike lanes, cycle tracks, protected intersections, and exclusive bus/bicycle lanes. Shared micromobility fleets and facilities play a significant role in serving shorter trips within the core jurisdictions of DC, Arlington, and Alexandria including Capital Bikeshare (traditional and e-bikes), dockless scooters, and dockless e-bikes.

Shared micromobility ridership has been growing rapidly. Capital Bikeshare had a record 6,097,896 trips in 2024, while private dockless e-bike and e-scooter systems had over one million riders in the month of July.[14]

Neighborhoods around downtown DC within easy biking/micromobility distance to many employment opportunities have the highest bike mode share in the region, with bike commute rates ranging from 10 to 15 percent.[15] Census tracts adjacent to existing segments of the National Capital Trail Network, such

BeyondDC/Flickr

12 Staff analysis of National Capital Region Transportation Planning Board (February 21, 2024). *Agenda Item 8: National Capital Trail Network Update Approval*. **https://www.mwcog.org/events/2024/2/21/transportation-planning-board/** (May 16, 2025). See here for mapping resource: **https://national-capital-trail-network-mwcog.hub.arcgis.com/**

13 Staff analysis of source in footnote 12 (National Capital Trail Network Update) and Metropolitan Washington Council of Governments (May 14, 2025). *RACs Maps*. **https://www.mwcog.org/documents/2025/05/14/regional-activity-centers-maps-activity-centers-land-use-region-forward/** (May 28, 2025)

14 National Capital Region Transportation Planning Board (June 30, 2025). *Dockless Micromobility Workshop Agenda Item 2: DDOT Dockless Micromobility and Capital Bikeshare*. **https://www.mwcog.org/events/2026/6/30/dockless-micromobility-workhsop/**

15 National Capital Region Transportation Planning Board (May 18, 2022). *Bicycle and Pedestrian Plan for the National Capital Region*. **https://www.mwcog.org/documents/2022/05/18/bicycle-and-pedestrian-plan-for-the-national-capital-region--bicycling-bike-to-work-day-bikesharing-walking/**

as the C&O (Frederick County, Montgomery County, and DC), the W&OD (Arlington County, Fairfax County, and Loudoun County), and the Mt. Vernon Trails (Fairfax County, Arlington County, and Alexandria) tend to have higher levels of bicycling compared to surrounding suburban tracts.

However, bicycling is not a feasible mode of transportation for many community members due to safety concerns and connectivity challenges. Identified barriers include a lack of direct and complete routes, insufficient protected bike lanes, limited access to shared-use paths/trails, and the absence of showers at work or school.[16]

Remote Access

During the pandemic, services and jobs had to adapt to stay-at-home policies. Today, the tools developed during the pandemic are still widely used and provide important options for many people. Time can be saved for certain tasks, trips taken can be reduced, and people now have opportunities to access services remotely without needing to travel.

TELEWORK

Many workers in the region sometimes telework instead of physically traveling to their place of employment. In 2022, 66 percent of regional commuters said they teleworked at least occasionally compared to 35 percent of commuters in 2019.[17] As a result of pandemic telework patterns, employers have adopted a variety of policies: some continue to offer full teleworking, others provide hybrid schedules with both in-office and teleworking options, and some have returned entirely to the office.

The pandemic presented a unique opportunity to observe the effects of widespread teleworking on the region's transportation system. Looking ahead, the challenge lies in balancing the benefits of teleworking with the benefits of in-person collaboration in addition to the need to support and enhance public transit.

TELEHEALTH

The use of telehealth also increased during the pandemic. Today, it continues to be an option with more prevalence than before the pandemic. Telehealth provides access to healthcare without having to travel, making it easier and saving time for people with barriers to transportation to get the care they need.

VIRTUAL LEARNING

Similar to telehealth, students of all ages transitioned to online learning environments. The change in routine transportation of students across the region eliminated the need for the public bus services and reduced trips for parents. Although in-person schooling returned, virtual learning services continue to provide access to education without having to travel. This has expanded opportunities for people to earn college degrees while working, attend distant universities with online programs, and provide supplemental education for children.

ONLINE SHOPPING

The rise in online shopping and smartphone app-based delivery services has replaced trips to stores and restaurants. This was especially true at the peak of the pandemic, when 70 percent of survey respondents said their online ordering increased, and 58 percent said they expected their online shopping habits to continue even one year after the pandemic was over.[18] Years after the pandemic peak, online shopping remains widespread with consumers increasingly demanding fast delivery.

16 National Capital Region Transportation Planning Board (March 16, 2021). *Voices of the Region Survey Report*. **https://www.mwcog.org/documents/2021/03/16/voices-of-the-region-survey-visualize-2045/**

17 Metropolitan Washington Council of Governments (August 14, 2023). *2022 State of the Commute Survey Report*. **https://www.mwcog.org/documents/2023/08/14/state-of-the-commute-survey-report--carsharing-state-of-the-commute-telework-travel-surveys/**

18 National Capital Region Transportation Planning Board (March 16, 2021). *Voices of the Region Survey Report*. **https://www.mwcog.org/documents/2021/03/16/voices-of-the-region-survey-visualize-2045/**

Rachel Beyerle/COG

As the trend of online shopping continues to increase, vehicle delivery types will change over time. More recently, there has been an increase in the number of delivery drivers using mopeds and scooters, especially in core urban areas of the region. Planning decisions may need to more thoughtfully consider class 1 vehicle types (all two or three-wheeled motorized vehicles) when redesigning streets. These smaller vehicles, delivery trucks, and vans are competing for limited roadway and curbside space and exacerbating curbside management challenges. In the long run, this trend could significantly impact regional planning, prompting shifts from conventional delivery vehicles to drones or smaller vehicles, reimagining street designs to meet evolving demands, and adopting land use policies that address changes in retail space needs.

Overall, the benefits of remote access have been realized and are being applied as needed to meet personal and business goals. Higher levels of remote access than pre-pandemic are anticipated to continue given the knowledge and tools now available.

Reliability & Congestion

Every day, people and goods travel millions of miles along the region's roads and rails to reach their destinations. On roads alone in 2025, the region experiences 122 million daily vehicle miles traveled.[19] Traffic congestion in the nation's capital is common; it requires people to make choices about when, how, or even whether to travel. More time spent traveling means less time for other activities and can impact personal budgets, heighten stress, and raise business costs.

Travel times are often longer due to expected congestion or non-recurring events. When unexpected delays occur, the resulting unreliability can jeopardize timely arrivals. People or goods may arrive late having spent more time traveling than intended, potentially causing negative consequences.

Roadways

Roadway congestion impacts the majority of the region's travelers and is frustrating even when it is expected and common. Even though only 10 percent of all roadway lane miles were congested daily when considering both A.M. and P.M. peaks in 2023, congestion was concentrated on interstates and experienced by many people.[20] Despite the long commutes, across all trip types and times of day, the average daily delay is estimated by the TPB's travel demand model to be 4.1 minutes in 2025, suggesting that shorter trips tend to be more time reliable and occur on non-interstate roads that are less prone to congestion.[21]

19 System performance analysis of Visualize 2050, 2025 simulation, which made use of the Gen2/Ver. 2.4.6 Travel Model and the Round 10 Cooperative Forecasts of land activity

20 National Capital Region Transportation Planning Board (November 19, 2024). *2024 Congestion Management Process (CMP) Technical Report*. **https://www.mwcog.org/documents/2024/11/19/congestion-management-process-cmp-technical-report-congestion-congestion-management-process/**

21 System performance analysis of Visualize 2050, 2025 simulation, which made use of the Gen2/Ver. 2.4.6 Travel Model and the Round 10 Cooperative Forecasts of land activity

PERFORMANCE IS MEETING TPB-APPROVED TARGETS.

PERFORMANCE IS NOT MEETING TPB-APPROVED TARGETS.

Highway Travel Time Reliability in 2022

66.2%
of Interstates with Reliable Travel Times 59.6% target (2022)

89.2%
of Non-Interstates with Reliable Travel Times met 77.6% target (2022)

2.31
Truck Travel Time Reliability Index met 2.59 target (2022)

Even though congestion slows traffic, it can still provide predictable travel times, helping people plan their day. Travel time reliability (TTR) is primarily influenced by highway system demand and daily decisions made by millions of drivers, rather than by deficiencies in the highway infrastructure itself. Additionally, delays caused by weather, incidents, roadwork and major construction projects can affect reliability.

The overall trends indicate travelers typically need to budget twice as much time during peak travel periods (6:00 -10:00 A.M. and 3:00 -7:00 P.M.) compared to non-peak periods to ensure on-time arrivals.[22] Looking back, interstate TTR improved significantly from 58.2 percent in 2018 to 85.8 percent in 2020 due to people's reduced travel during the COVID-19 pandemic.[23] Since 2020, interstate travel and congestion have increased and interstate TTR has declined while still performing better than pre-pandemic levels. The 2022 predicted performance

Travel time on the region's major roads is generally reliable. Travelers should plan for twice as much time when travelling during peak periods compared to nonpeak periods.

Rachel Beyerle/COG

of at least 59.6 percent of interstate roadways with reliable travel time was met with an observed 66.2 percent of travel on interstates being reliable.

In addition to affecting TTR, congestion negatively impacts freight delivery. In 2016, the American Transportation Research Institute (ATRI) estimated that nationally, congestion added over $74.5 billion in operational costs and resulted in 1.2 billion hours of delay.[24] Additionally, delays can create challenges for truck drivers who are subject to federal driving time limits and mandated breaks but face a truck parking shortage. Both the 2015 Virginia Truck Parking Study and the 2020 Maryland Statewide Truck Parking Study note a lack of truck parking in the vicinity of the National Capital Region.

22 National Capital Region Transportation Planning Board (November 19, 2024). *2024 Congestion Management Process (CMP) Technical Report*. **https://www.mwcog.org/documents/2024/11/19/congestion-management-process-cmp-technical-report-congestion-congestion-management-process/**

23 National Capital Region Transportation Planning Board Technical Committee (June 7, 2024). *Item 6: PBPP Highway Asset and Travel Reliability 2022-2025*. **https://www.mwcog.org/events/2024/6/7/tpb-technical-committee/**

24 American Transportation Research Institute (October 2018). *Cost of Congestion to the Trucking Industry: 2018 Update*. **https://truckingresearch.org/2018/10/cost-of-congestion-to-the-trucking-industry-2018-update/**

Non-interstate National Highway System roads (e.g., major arterials) have experienced declining TTR since 2021 due to the rebound in automobile travelers and recurring post-pandemic congestion. As of 2022, non-interstate congestion was better than pre-pandemic levels when TTR of 89.2 percent met the target goal of 77.6 percent.[25]

Truck TTR and Peak Hour Excessive Delay also follow similar trends where performance for both measures remain better than pre-pandemic levels and has met set targets.[26] The percentage of non-single occupancy vehicle travel on the National Highway System increased from 37 percent in 2019 to 44.3 percent in 2022.[27]

Highway Delays in 2022

13.1 Annual Hours per Capita of Peak Hour Excessive Delay met
22.4 Annual Hours per Capita target (2022)
44.3% Non-SOV Travel on the National Highway System met 37.3% target (2022)

Targeted spot improvements and the gradual expansion of the highway system have resulted in a regional transportation network where travel demand is consistent with travel reliability. Targeted improvements include innovative intersection designs that have made a positive impact to relieve congestion along corridors and at spot locations. A recent example is the Diverging Diamond Interchange at Prince William Parkway and Balls Ford Road completed in 2023.

Prince William County Police Department

Through the Congestion Mitigation and Air Quality (CMAQ) program, the TPB estimates total emissions reduction (kg/day) for VOCs and NO_x for projects funded through this program. The two-year target for FFY 2022-2023 of 0.610 kg/day for VOCs and 2.830 kg/day for NO_x was met, with funded projects achieving emissions reductions of 2.866 kg/day for VOCs and 3.093 kg/day for NO_x.

Air Quality in 2022-2023

CMAQ projects reduce VOCs by 2.866 kg/day met the emissions reduction target of 0.610 kg/day
CMAQ projects reduce NO_x by 3.093 kg/day met the emissions reduction target of 2.830 kg/day

More information about air quality can be found in Chapter 4.

25 National Capital Region Transportation Planning Board Technical Committee (June 7, 2024). *Item 6: PBPP Highway Asset and Travel Reliability 2022-2025*. **https://www.mwcog.org/events/2024/6/7/tpb-technical-committee/** (June 2024 Technical Committee Item 6 PBPP)

26 Peak hour excessive delay (PHED) is typically defined as annual hours of person time per capita spent at a speed of 20 miles per hour or less on the National Highway System during peak morning and evening periods.

27 National Capital Region Transportation Planning Board Technical Committee (June 7, 2024). *Item 6: PBPP Highway Asset and Travel Reliability 2022-2025*. **https://www.mwcog.org/events/2024/6/7/tpb-technical-committee/** (June 2024 Technical Committee Item 6 PBPP)

Bus Transit

Most buses in the region operate in mixed traffic with cars, making their reliability highly dependent on overall traffic conditions. Relieving roadway congestion not only improves general traffic flow but also benefits bus transit by maintaining trip predictability and reducing bus bunching at stops.

Recent infrastructure investments have successfully alleviated some of the impacts of roadway congestion. On I-66, the completion of express lanes to Gainesville, VA enabled the addition of new and enhanced bus operations by reducing traveler delays and operating costs, ultimately improving reliability and increasing ridership. Similarly, the growing Bus Rapid Transit (BRT)/Transitway network provides communities with more dependable travel times and an improved rider experience, as seen with Montgomery County's Flash BRT on Route 29. Additionally, technology-driven solutions such as transit signal priority and queue jumps at intersections in the District of Columbia have further improved bus operations in congested areas.

I-66 Express Mobility Partners

Congestion affects not only roadway conditions but also conditions onboard transit vehicles. Buses can become overcrowded during rush hours; however, higher frequency service and larger buses have helped mitigate overcrowding on some corridors.

In addition, expanded fleets and central bus storage/layover sites in core areas and Activity Centers are critical in providing efficient, on-time service. Examples include WMATA's Northern Bus Garage reconstruction project and the new Arlington Operations and Maintenance Facility.

Railways

Rail transit users may experience congestion from on-board overcrowding or delays due to track capacity where different rail lines share space, such as the Metrorail Blue/Orange/Silver lines corridor between Virginia and the District of Columbia. Even though rail crowding has not been as prevalent in the post-pandemic environment, return to office mandates have increased the number of commuters on transit services during peak periods.

Overcrowding is especially present during rush hours on Metrorail lines in the regional core, where it can be difficult for passengers to board or ride comfortably. Multimodal transit centers historically encounter congestion due to high volumes of passengers including the Gallery Place-Chinatown and Metro Center Metrorail stations and at Union Station, the region's largest transportation center, where passengers may line the interior corridors waiting to board Amtrak trains.

BeyondDC/Flickr

MARC and VRE trains each share track space with Amtrak and freight cars, presenting timing and congestion challenges that come with sharing critical space. For example, the two-track Long Bridge over the Potomac River is the largest freight/passenger rail bottleneck on the east coast and carries both VRE and Amtrak traffic. Where and when demand is high, insufficient track capacity leads to delays.

Rail transit reliability is also often impacted by maintenance work or incidents that require trains to single track until resolved. Extreme weather conditions can further disrupt service, with excessive heat forcing speed restrictions and delays while flooding or fallen trees can halt or delay rail operations.

Safety & Security

In 2023, vehicles in the region traveled over 44 billion miles, alongside countless unmeasured miles by pedestrians and cyclists. While the region has achieved some of its safety targets, persistent challenges continue to make the desired safety performance difficult to attain.[28] Addressing the complex issues of traveler behavior, such as distraction, impairment, speeding, and seat belt use requires ongoing efforts to enhance safety outcomes and reduce risks for all travelers and maintenance and operations personnel.

As emphasized at an October 2024 Regional Safety Summit, traveler safety and security are a priority for the TPB. Members have repeatedly expressed great concern over the number of traveler fatalities and serious injuries in the region. Aside from traffic-related fatalities and injuries, emergencies in transportation are also tied to major disasters and extreme weather, cybersecurity threats, political related emergencies, and crime.

Drivers, Passengers, Pedestrians, and Bicyclists

The safety of all roadway users continues to be a significant concern regionally and nationally. Between 2018 and 2022, the number of fatalities increased by an average of 6.1 percent annually while the fatality rate [fatalities per vehicle miles traveled (VMT)] increased by 7.8 percent per year. Between 2019 and 2020 alone, the fatality rate increased by 30.2 percent despite a decrease in VMT due to COVID-19 restrictions.[29]

The increase in the number and rate of roadway fatalities in the region reflected national trends. During to COVID-19 mitigation efforts, more people stayed at home and fewer vehicle trips were made. It has been suggested that reduced congestion and other factors led more people to speed and drive aggressively; impaired driving was also a contributor to the fatality increases. While the implementation of safety countermeasures has improved safety at individual locations, addressing changes in driver behavior has been identified as essential to reducing fatalities, serious injuries, and rates per 100 million VMT, which as of 2022 did not meet the five-year rolling average targets.

Fatalities and Serious Injuries in 2018-2022

335 roadway fatalities did not meet the maximum 253 target
0.804 fatality rate did not meet the maximum 0.588 target
2,214.6 roadway serious injuries did not meet the maximum 1,889.7 target
5.305 serious injury rate did not meet the maximum 3.867 target (5-yr. rolling average, 2018-2022)

28 National Capital Region Transportation Planning Board (2023). *2023 Vehicle Miles Traveled Data Analysis*. **https://rtdc-mwcog.opendata.arcgis.com/datasets/ae0be1d6d98b461faf2359cae8178214/about**

29 National Capital Region Transportation Planning Board (November 15, 2023). *Item 7: Draft Annual Regional Transit and Highway Safety Targets*. **https://www.mwcog.org/file.aspx?&A=3ZPRcfh6jIhFvvAXToy5UrvfrZE0D9T%2fmmyChS4IqXw%3d**

Pedestrians and bicyclists are the most vulnerable road users, as even minor contact with a higher-speed vehicle or traveler can lead to severe consequences. A new, concerning trend has been that pedestrian and bicyclist fatalities are becoming a larger portion of all roadway fatalities. From 2008 to 2017, the region had a near constant number of pedestrian fatalities. However, since 2018, pedestrian fatality numbers have increased and remain elevated compared to previous years.[30] In addition, over the five-year period from 2018 to 2022, non-motorist (pedestrian and bicyclist) fatalities and serious injuries initially declined by 20 percent from 2018 to 2020 but then surged by 44 percent from 2020 to 2022 during the COVID-19 pandemic.[31]

Non-Motorist Fatalities and Serious Injuries in 2018-2022

549.8 non-motorist fatalities and serious injuries did not meet the maximum 492.4 target (5-yr. rolling average, 2018-2022)

Common infrastructure improvements such as sidewalks, pedestrian priority crossing signals, cycle tracks, and bike lanes have been effective at providing dedicated spaces for pedestrians and bicyclists within roadway right-of-way, making walking and biking safer. Street improvement projects have incorporated countermeasures such as narrow lanes, chicanes, and bus bulbs to help reduce vehicle speeds. Where destination proximity exists and off-road right-of-way has been attained, off-road shared-use trails have provided attractive transportation alternatives to reach destinations.

Despite these infrastructure improvements, the number of pedestrian and bicyclist fatalities and serious injuries do not meet target levels. While many TPB member agencies have adopted Vision Zero or similar "zero deaths" goals and policies, significant challenges persist.

Rail and Bus Transit Riders

The safety and security of rail and transit riders is fundamental. Public transportation providers that are Federal Transit Administration (FTA) Section 5307 funding recipients and subrecipients, including WMATA, PRTC, VRE, and transit systems in the District of Columbia and suburban Maryland, collect and analyze data to establish and report transit safety targets and performance annually to improve safety and security on and around transit operations.

Fatalities in 2022

✓	**No fatalities** on Streetcar, Commuter Bus, Demand, Response and Vanpools
!	**2 fatalities** on Heavy Rail did not meet target of 0 (0.004 fatalities per revenue vehicle mile
	4 fatalities on Urban Bus did not meet target of 0 (0.01 fatalities per revenue vehicle mile)

In 2022, the region met its safety targets of having no fatalities on Streetcar Rail, Commuter Bus, Demand Response, and Vanpools but did not meet its safety targets for Heavy Rail and Urban Bus.

30 National Capital Region Transportation Planning Board (November 20, 2024). *Item 7: Draft Annual Regional Transit and Highway Safety Targets*. **https://www.mwcog.org/file.aspx?&A=wZwn2fYVNUxTz7dVkRHBKhY9ryNN1yJzyQVO3wL6h9Q%3d**

31 National Capital Region Transportation Planning Board (November 15, 2023). *Item 7: Draft Annual Regional Transit and Highway Safety Targets*. **https://www.mwcog.org/file.aspx?&A=3ZPRcfh6jIhFvvAXToy5UrvfrZE0D9T%2fmmyChS4IqXw%3d** (TPB November 2023 Item 7)

Injuries in 2022

✓	**81** injuries met no more than 255 injuries target for Heavy Rail (0.15 of 0.29 target rate)
✓	**257** injuries met maximum 268 injuries target for Urban Bus (0.45 of 0.49 target rate)
✓	**0** injuries met no more than 4 injuries target on Commuter Bus (0 of 0.06 target rate)
✓	**35** injuries met maximum 46 injuries target on Demand Response (0.17 of 0.24 target rate)
✓	**0** injuries met no more than 4 injuries target on Vanpools (0 of 0.04 rate)
!	**1** injury did not meet 0 injuries target on Streetcar Rail (0.82 did not meet 0 target rate)

Additionally, in 2022, the region had no injuries or fewer than expected injuries on all transit modes except Streetcar Rail. Rates shown are per 100,000 revenue vehicle miles.

Major Safety Events in 2022

✓	**No major safety events** met the target for Vanpools
✓	**252** major safety events met 404 targets for Urban Bus (0.44 met 0.74 target rate)
!	**3** major safety events did not meet target of 2 for Commuter Bus (0.04 did not meet 0.03 target rate)
!	**7** major safety events did not meet target of 4 for Streetcar Rail (5.72 did not meet 0.27 target rate)
!	**103** major safety events did not meet target of 23 for Heavy Rail (0.19 did not meet 0.04 target rate)
!	**63** major safety events did not meet target of 39 for Demand Response (0.31 did not meet 0.20 target rate)

For the number of safety events, the 2022 data showed that the region met its targets for vanpools and urban buses but did not meet the targets for the other transit modes.[32]

Transit staff and customers benefit from the same roadway countermeasures that improve safety for private drivers and passengers, as well as updated vehicle safety features, driver training, and routine maintenance of transit vehicles and tracks. Other ongoing transit safety enhancements include bus stop placement and improvements, along with curbside management. Increased demand for use of the curb requires coordination to maintain safe, easy, and accessible transit vehicle boarding and alighting for customers at bus stops, particularly for customers with mobility needs.

32 National Capital Region Transportation Planning Board (November 15, 2023). *Item 7: Draft Annual Regional Transit and Highway Safety Targets*. **https://www.mwcog.org/file.aspx?&A=3ZPRcfh6JlhFvvAXToy5UrvfrZE0D9T%2fmmyChS4IqXw%3d** (TPB November 2023 Agenda Item 7)

Due to the public nature and infrastructure footprint of public transportation, the personal security of transit staff and customers is a more unique challenge when compared to the risks posed in and around a private vehicle. Improvements to increase riders' personal safety, such as increased presence of security officers, have been correlated to a decrease in crime and an increase in Metrorail and Metrobus ridership.[33]

BeyondDC/Flickr

Maintenance

The National Capital Region's extensive transportation network demands consistent maintenance to uphold the high infrastructure standards travelers rely on. Proper upkeep of roads, transit vehicles, shared mobility devices, and public rights-of-way are essential for ensuring traveler safety and maintaining reliable travel times. Overall, the region is successfully meeting most of its maintenance performance targets.[34]

Roadways

Many state and local employees work tirelessly to keep the region's roadways in good condition, performing tasks ranging from repaving and landscaping to major structural replacements. The TPB tracks the acceptability of roadway maintenance based on pavement conditions, which can be interactively viewed in the **Maintenance of Roadways and Bridges** map.[35] Federal regulations require State DOTs and MPOs to set targets every four years for pavement in good condition and in poor condition (not to exceed), for the Interstate system and for the rest of the National Highway System (NHS). In 2018, the TPB set targets for 2021—the most recent year for which actual performance data is now available.

Online Resource

In 2021, 55.2 percent of the region's pavement lane miles were in good condition, meeting the target of 44.8 percent. With only 0.1 percent of interstate pavement miles in poor condition, the region also met its target of no more than 1.6 percent.[36]

The target to not exceed 7.0 percent for non-interstate pavement miles in poor condition was met in 2021 with 4.7 percent. However, non-interstate pavement miles in good condition did not meet the minimum target of 31.1 percent as actual performance was 24.3 percent.[37]

33 Washington Metropolitan Area Transit Authority (Feb 21, 2024). *Metro enhances safety with increased police patrols on trains and buses, more than 30,000 cameras in use systemwide*. [News Release]. **https://wmata.com/about/news/Metro-enhances-safety-with-increased-police-patrols-on-trains-and-buses.cfm**

34 National Capital Region Transportation Planning Board (June 2024). *Highway Asset Performance Measures* [Interactive Map]. **https://trap-mwcog.hub.arcgis.com/apps/40ecfeb4cc604dd78583b7ecf12f18cc**

35 TPB (2025). Visualize 2050: Maintenance of Roadway and Bridges [Interactive Map]. **www.mwcog.org/V50RoadAndBridgeMaintenanceMap**

36 National Capital Region Transportation Planning Board Technical Committee (June 7, 2024). *Item 6: PBPP Highway Asset and Travel Reliability 2022-2025*. **https://www.mwcog.org/events/2024/6/7/tpb-technical-committee/** (TPB Technical Committee June Item 6 PBPP)

37 National Capital Region Transportation Planning Board Technical Committee (June 7, 2024). *Item 6: PBPP Highway Asset and Travel Reliability 2022-2025*. **https://www.mwcog.org/events/2024/6/7/tpb-technical-committee/** (TPB Technical Committee June Item 6 PBPP)

Highway Assets in 2021

55.2% of Interstate Pavement in Good Condition met minimum 44.8% target (2021)	**24.3%** of Non-Interstate Pavement in Good Condition did not meet the minimum 31.1% target (2021)
0.1% of Interstate Pavement in Poor Condition met maximum 1.6% target (2021)	**4.7%** of Non-Interstate Pavement in Poor Condition met maximum 7.0% target (2021)

When major pavement replacement projects occur, they can impede traffic flows by causing temporary delays in lane reductions or roadway closures. Despite the inconvenience, maintaining roadway pavements and clear rights-of-way are crucial for user safety and predictable surface and sightline conditions.

Rachel Beyerle/COG

Bridges

Bridges in the region provide critical links across physical obstacles to connect communities along roadways, railroads, and trails. Within the interstate system, bridges function as links across natural barriers, passages over railroads, and as connections to other freeways.

In 2023, there were 1,443 bridges on the National Highway System in the region. The current deck area conditions of the region's bridges can be explored in the **Maintenance of Roadways and Bridges** map.[38] Recent maintenance replacements and rehabilitations such as the 11th Street Bridge in DC, the Frederick Douglass Bridge, and the Arlington Memorial Bridge have been effective in keeping travelers moving efficiently.

Online Resource

While the region's bridge deck conditions declined between 2018 and 2021, improvements were observed in 2022 and 2023. By 2023, the region met its target of 26.1 percent for interstate bridge deck area in good condition, achieving 41.2. Similarly, the 2023 target of keeping poor bridge deck area below 3.7 percent was met, with only 1.8 percent of bridges classified as poor condition.[39] Recent maintenance work since 2019 and 2020 have contributed to these improvements in bridge conditions.

Bridge Assets in 2023

41.2% Interstate Bridge Deck Area in Good Condition met minimum 26.1% target (2023)
1.8% Interstate Bridge Deck Area in Poor Condition met maximum 3.7% target (2023)

38 TPB (2025). Visualize 2050: Maintenance of Roadway and Bridges [Interactive Map]. **www.mwcog.org/V50RoadAndBridgeMaintenanceMap**

39 National Capital Region Transportation Planning Board Technical Committee (June 7, 2024). *Item 6: PBPP Highway Asset and Travel Reliability 2022-2025*. **https://www.mwcog.org/events/2024/6/7/tpb-technical-committee/** (TPB Technical Committee June Item 6 PBPP)

Balancing the need for bridge reconstruction with the demands of a heavily congested highway segment is a significant regional challenge. As aging infrastructure requires ongoing attention to maintain a reliable travel network, routine maintenance, rehabilitation, and eventual replacement are essential investments to ensure continued mobility over physical barriers.

The American Legion Memorial Bridge, connecting Maryland and Virginia on I-495, is over 62 years old and is a regional priority for replacement. Extensive repairs—including rehabilitation of the deck and concrete replacement—are necessary to maintain this Potomac River crossing in a state of good repair.

Virginia Department of Transportation/Flickr

Rail and Bus Transit

Availability, reliability, and safety are hallmarks of efficient public transportation service and form the foundation for a positive transit passenger experience. The TPB transit asset management (TAM) performance analysis aims to ensure that regional buses and trains are well-maintained and run safely.

The age and conditions of fleets and rolling stock are contributors to state of good repair. Buses, vans, autos, locomotives, and other rail vehicles are examples of rolling stock, also known here as revenue vehicles. Non-revenue service vehicles include cranes, lifts, and tow trucks. Fixed-guideway infrastructure includes rail signals, tracks, and systems. Stations, parking garages, and terminals are types of stations and facilities. By setting these targets, the region creates benchmarks for how all its combined transit assets should be maintained in order to support a good state of repair and quality service.

BeyondDC/Flickr

Most revenue vehicles in the region are in good shape as they are being procured and delivered on a planned schedule. Several asset classes of rolling stock which have higher TAM targets are also types of vehicles that are more prominent in agency fleets across the region, such as buses, cutaway buses, vans, and over-the-road buses. Some of

these vehicles are also more challenging to procure quickly than in the past due to a smaller number of manufacturers available to provide them. As a result, some agencies may continue using revenue or service vehicles past their useful life benchmark (ULB) until replacements can be acquired.

Percent of revenue vehicles in 2022 at or past their useful life benchmark

✓	Articulated Bus (2.1% met maximum 2.5% target)
	Bus (6.1% met maximum 6.9% target)
	Over-the-road Bus (8.1% met maximum 12.4% target)
	Automobile, Commuter Rail Locomotive, Commuter Rail Passenger Coach, Heavy Rail Passenger Car, Light Rail Vehicle (0% met 0% target)
	Minivan and Sports Utility Vehicle had no 2022 targets.
!	Cutaway (6.6% did not meet maximum 0.7% target)
	Van (41.6% did not meet 0% target)

The region's specially designed steel wheel service vehicles for use on railways in 2022 met the 46.3 percent target with only 23.3 percent at or past their useful life benchmark. Service automobiles, trucks and other rubber tire vehicles did not meet their targets in 2022.

Percent of service vehicles in 2022 at or past their useful life benchmark

✓	Steel Wheel Vehicles (23.3% met maximum 46.7% target)
!	Automobiles (44.1% did not meet maximum 41.8% target)
	Trucks and other Rubber Tire Vehicles (34.2% did not meet maximum 25.0% target)

In 2022, no streetcar rail track miles were under performance restrictions. For heavy rail track segments, 4.3 percent were under performance restrictions, which was just over the regional target of 3.5 percent.

Percent of rail track miles under performance restriction in 2022

✓	Streetcar Rail (0% met maximum 5% target)
!	Heavy Rail (4.3% did not meet maximum 3.5% target)

Lastly, most of the region's rated transit facilities did meet their set targets in 2022 of having a condition assessment below three.[40] One reason for this is new construction. For example, many new facilities have opened since 2021 including:

- OmniRide's Western Bus Maintenance and Storage Facility (2021).
- Metrorail's Dulles Railyard (2021).
- Transit Services of Frederick County's administrative and maintenance facility (2021).

40 National Capital Region Transportation Planning Board (March 15, 2022). *Item 9: PBPP Transit Asset Management Targets*. **https://www.mwcog.org/events/2022/3/16/transportation-planning-board/**

- Ride On's Brookville Smart Energy Bus Depot for battery-electric buses (2022).
- MARC's Riverside Heavy Maintenance Facility (2022).
- VRE's Lifecycle Overhaul and Upgrade Facility (LOU) (2023).
- Fairfax County Monumental Drive Commuter Parking Garage and Transit Center (2024), and
- Arlington Transit Operations and Maintenance Facility (2024).

Though all these facilities serve transit vehicles operating in the region, two are located outside the area: MARC Riverside—Baltimore, MD, and VRE's Life Overhaul and Upgrade—Spotsylvania County, VA.

Percent of facilities with a condition assessment below 3 in 2022 at or past their useful life

✓	At-Grade Fixed Guideway Station (0% met maximum 4.1% target)
✓	Bus Transfer Center (0% met maximum 4.1% target)
✓	Elevated Fixed Guideway Station (0% met maximum 4.1% target)
✓	Other, Passenger or Parking (0% met maximum 4.3% target)
✓	Parking Structure (0% met maximum 4.3% target)
✓	Surface Parking Lot (0% met maximum 4.3% target)
!	Underground Fixed Guideway Station (4.3% did not meet maximum 4.1% target)

Since 2015, WMATA has been upgrading its rolling stock from the 6000 series, introduced in 2006, to the 7000 series and, by 2027, plans to introduce the 8000 series cars.[41] These regular car upgrades ensure that Metro's rolling stock consistently features rail cars well within their useful lifespan. This commitment to modernizing transit extends beyond rail, as Fairfax County's Connecter fleet is also embracing upgrades with the introduction of battery-powered buses to replace aging combustion engine models.

System Management

Transportation system management offers an integrated approach to planning, engineering, and operating existing facilities. This approach maximizes a system's full-service potential and ultimately enhances the efficiency, safety, and reliability of the transportation network. Because system management makes use of existing infrastructure without increasing the physical footprint, it offers cost-effective and expedited implementation of solutions. The strategies are coordinated with others across multiple jurisdictions, agencies, and modes, making it an important regional tool.

Daily operations of the region's transportation network are monitored through the Metropolitan Area Transportation Operations Coordination (MATOC) Program, which was created following the September 11, 2001, attacks. For over two decades, the MATOC Program has enabled transportation agencies to share information, plan, and coordinate with each other to improve regional mobility and safety by responding to incidents and clearing the problem as quickly as possible.

Roadways

System management is often applied to roadways where investments in operations technologies and

41 Washington Metropolitan Area Transit Authority (2024). *Metro's Fleet of the Future*. **https://www.wmata.com/initiatives/plans/Fleet-Of-The-Future/index.cfm**

Upon being notified of the January 29, 2025 mid-air collision, Metropolitan Area Transportation Operations Coordination (MATOC) staff monitored traffic on Potomac River commuter corridors and tracked potential lane closures due to planned events/road work, unrelated incidents, or plane crash response efforts. MATOC staff notified the Operations Subcommittee and Transit Task Force to coordinate the anticipated operations and service plans.

functional design help move and smooth traffic without adding roadway capacity. Many roadway operations technologies exist, including dynamic congestion or parking pricing, ramp metering, managed/reversible lanes, traveler information communication, traffic surveillance, and coordinated or smart traffic signals.

For example, operations technologies such as parking pricing in DC is helping to address the competing parking needs of various groups, reduce congestion, and promote the use of public transit during peak periods. District Department of Transportation introduced the Performance Parking Zone in the greater U Street area as a demand-based pricing approach that leverages historical parking data to adjust rates and manage parking availability, leading to dynamic price changes throughout the day.[42] Similarly, congestion pricing along segments of I-495, I-395, and I-95 in Virginia have High-Occupancy Toll (HOT) lanes that use demand-based roadway pricing to maintain highway speeds and manage congestion.

Curb space management has become particularly valuable as the region has experienced an increase in delivery drivers and ride-hailing services on top of routine stock deliveries. In addition, outdoor restaurant seating, transit stops, and street parking are competing for the same space. Alexandria's Curb Data Specifications Pilot is an innovative approach to curbside management. By merging data from meters, garages, and other parking payment systems, a digital map for curb zones provides real-time occupancy data that displays parking availability and dynamically prices parking based on demand.

Cristina Finch/COG

Traveler information programs such as Maryland Department of Transportation's Coordinated Highways Action Response Team (CHART)[43] and Virginia 511[44] provide travelers with reliable, current traffic and road closure information, as well as weather related traffic events and conditions. Programs such as these allow drivers to choose the safest and most efficient routes to their destinations.

42 District Department of Transportation (December 3, 2024). DDOT Announces Implementation of New Greater U Street Performance Parking Zone. **https://ddot.dc.gov/release/ddot-announces-implementation-new-greater-u-street-performance-parking-zone**

43 Maryland Department of Transportation (n.d.). *CHART Web Maryland 511 Traveler Information Service*. **https://chart.maryland.gov/**

44 Virginia Department of Transportation (2025). *511 Virginia*. **https://www.511virginia.org/**

Functional design of roadways also greatly influences system management. Alternative intersection, interchange, and other street designs are implemented to retrofit roadways and provide more efficient vehicle movement. Street designs commonly found in the region's more densely populated areas, such as bike lanes and narrower intersections with tighter turning radii, pose challenges for trucks maneuvering turns and can obstruct access for pedestrians and cyclists during deliveries. As more trucks operate in the region's dense urban areas and deliver goods to homes on residential streets, the negative aspects of freight, such as unwanted noise, pollutants, and vibrations from the vehicles present challenges to communities.

Rail and Bus Transit

For rail and bus transit, systems management aims to improve the flow of passengers and freight, improve operations management, and optimize service schedules to make the best use of existing resources. Service frequency, hours of service, and routes are examples of choices made by the region's transit agencies to best meet public needs. Many solutions take place in a transit agency's operations control center where common challenges such as peak hour overcrowding or disruptions from non-recurring traffic events are addressed through continuous network monitoring.

The WMATA Better Bus Network planning initiative, launched in 2022 and implemented in 2025, is a notable example of system management. Many other smaller system efficiencies at each of the region's transit agencies are gained by routinely evaluating system operations.

Emma K Alexandra/Flickr

Every day, approximately 30 freight trains move through the heart of the region, sharing tracks with passenger trains and bringing unique challenges that require ongoing coordination and planning.[45]

Critical system management actions for rail include ensuring preparedness for emergency responses in case of an incident, evaluating safe rerouting options for hazardous materials, maintaining the integrity of rail lines and bridges, and balancing freight rail operations with the quality of life for nearby communities.

In Maryland, key corridors are shared by MARC, Amtrak, CSX, and Norfolk Southern, making it essential to manage bottlenecks and ensure safety, especially as efforts continue to improve freight rail access to the Port of Baltimore. Likewise, in Virginia, freight trains share tracks with Amtrak and VRE, prompting recent agreements with CSX that will allow Virginia to acquire hundreds of miles of tracks and right-of-way. This acquisition will enable the expansion of passenger rail services while maintaining critical freight operations, supporting both regional mobility and economic growth.

45 District of Columbia Department of Transportation (March 17, 2023). *District Freight Plan Update*. **https://www.transportation.gov/sites/dot.gov/files/2023-12/DC_DDOTFrtPlan_2023.06.12.pdf**