





2021 Travel Monitoring Report (formerly Mobility Assessment Report)

	Russell Provost, Transportation Planner Coordinator, Russell.Provost@montgomeryplanning.org , 301-495-4638
	Jonathan Ryder, Senior Transportation Planner, Jon.Ryder@montgomeryplanning.org , 301-495-4596
	Eric Graye, Transportation Planning Supervisor, Eric.Graye@montgomeryplanning.org , 301-495-4632
	Jason Sartori, Division Chief, Jason.Sartori@montgomeryplanning.org , 301-495-2172

Completed: 07/08/2021

OVERVIEW

The purpose of this briefing is to provide an overview of the 2021 Travel Monitoring Report (TMR). The 2021 TMR is a multi-prong product that includes a white paper on emerging and disruptive technologies in the transportation sector, a report summarizing transportation trends, a corridor infographic series that summarizes selected transportation system performance metrics at the corridor level and the introduction of the TMR dashboard series – a web-based tool used to organize, store, and display travel system performance information from multiple data sources into one, easy-to-access place. This briefing will provide a summary of each product and facilitate a discussion regarding possible changes to future iterations of the TMR.

INTRODUCTION

The Planning Board Draft of the 2020 Growth and Infrastructure Policy (GIP) recommended the biennial TMR serve as “a key travel monitoring element” of the GIP. The document describes that the TMR’s purpose is to “inform residents and public officials of how the transportation system is changing, evolving, and performing within the county.” As an element of the County Council’s review of the 2020 GIP this past fall, the Council concurred with the Board’s recommendation to continue to produce the TMR on a biennial schedule. The 2021 TMR is a continuation and rebranding of the previous Mobility Assessment Report (MAR) and continues the legacy of monitoring transportation performance and usage throughout the county. As with each edition of the TMR, the report strives to explore and leverage new alternative transportation datasets and analytical tools that help provide a clearer vision of how the county is meeting its transportation goals, objectives, and metrics defined in master plans and functional plans as well as the GIP. The TMR is constantly evolving as the county’s methods to assess transportation progress evolve to be more equitable, inclusive, and diverse.

BACKGROUND

Transportation planning is often driven by data intensive modeling “black boxes” and other computational methods centered around vehicular capacity. Recent planning efforts in Montgomery County have adopted a more person-centric view of the transportation system. Performance indicators such as safety on our roadways, comfort on our bicycle and pedestrian facilities, and access to jobs and transit have become important indicators to measure the performance of the transportation system. With each subsequent edition of the TMR, it is the aim of staff to better align this report’s findings with metrics that drive policy decisions and discussions within the Planning Department. A sampling of these metrics is provided below (Table 1). The 2021 TMR is the latest edition in a history of monitoring reports produced by the Countywide Planning and Policy Division dating back to 2004.

Table 1: Sampling of Transportation Metrics Previously Vetted by the Planning Board

Policy Document	Metric/Progress Measure	Included in This TMR Edition
Vision Zero Work Program	Number of serious and fatal injury crashes along the High Injury Network	Partial
	Number of total intersections with new traffic safety treatments	No
	Miles of separated bicycle facilities built	Yes
	Linear feet of sidewalk built	No
	Annual vehicle miles traveled	Yes
	Travel mode split	Yes
	Percent of transit stops along multi-lane roads found at or near a protected crossing	No
Thrive 2050 (Pending)	Non-Auto Driver Mode Share (NADMS)	Yes
	Person Trip accessibility for pedestrians and bicyclists	No
	Number of traffic-related severe injuries and fatalities	Yes
	Transportation system's GHG emissions	No
	Miles of auto travel lanes per capita	No
	Teleworking	Yes
	Motor vehicle parking per unit of development	No

Policy Document	Metric/Progress Measure	Included in This TMR Edition
Bicycle Master Plan	Percentage of transit boardings during the AM peak period where the transportation mode of access is bicycle	Pending Bicycle Monitoring Report Update
	Percentage of potential bicycle trips that will be able to be made on a low-stress bicycling network by policy area	Pending Bicycle Monitoring Report Update
	Percentage of dwelling units within 2 miles of various points of interest on a low-stress bicycling network	Pending Bicycle Monitoring Report Update
Growth and Infrastructure Policy	Vehicle System Adequacy: Intersection Level of Service (Delay and CLV)	Yes
	Pedestrian System Adequacy: Pedestrian Level of Comfort (PLOC) completeness, Street Lighting Coverage, and ADA Compliance	Pending Completion of the Pedestrian Master Plan
	Bicycle System Adequacy: Level of Traffic Stress (LTS) Completeness	Partial
	Bus Transit System Adequacy: Bus shelter coverage	Partial

2021 TMR

This edition of the TMR is a multi-prong product designed to provide residents and public officials with a variety of resources. Below is a summary of each product.

- Summary Report:** The TMR summary report is an abbreviated version of previous travel monitoring reports with an added focus on recent impacts of the COVID-19 pandemic and economic inefficiencies caused by single occupancy vehicle (SOV) travel. The summary report is for residents and public officials who are interested in tracking legacy countywide metrics and data (vehicle miles traveled, congestion, intersection level of service, transit ridership, etc.).

- **TMR Dashboard Series:** The TMR Dashboard Series is several interactive online dashboards that allow users to filter various datasets via maps and other attribute filters. The dashboards are segmented by the following subject matter:
 - **Census Data:** The Census Data Explorer focuses on commuting trends throughout the county. Each data point is taken from that year’s American Community Survey 5-year estimate. For example, a data point for 2018 is derived from samples collected from January 2014 through December 2018.
 - **Metropolitan Washington Council of Governments (MWCOG) Travel Survey:** MWCOG conducts a decennial regional travel survey that collects information regarding household demographics and travel behavior. The data collected from this effort is imperative to MWCOG’s travel modeling activities required as part of the region’s air conformity analysis and other key program activities. This dashboard focuses on households and trips within Montgomery County and is summarized from the publicly available files provided by MWCOG.
 - **Roadway Metrics:** The Roadway Metrics Dashboard is largely a corridor level summary of “big data” sources such as cell phones and navigation devices. Included in the dashboard is a “Corridor Peak Period Summary” list ranked by the 2020 Travel Time Index (TTI), a time series chart that displays the average weekday TTI, travel time, and Planning Time Index (PTI) across time, a “Peak Hour Excessive Delay Per Capita” chart, and a “Level of Travel Time Reliability” chart.
 - **Intersection Metrics:** The intersections dashboard contains information from our transportation monitoring database and bottleneck summaries from “big data” sources such as cell phones and GPS devices. The dashboard includes historical intersection delay and Critical Lane Volume (CLV) information via interactive charts and lists that rank intersections according to CLV, delay, and bottleneck intensity.
 - **Transit:** The transit dashboard contains ridership and accessibility data. Ridership data is broken down by system (Ride-On and WMATA) and type (rail vs bus). Transit accessibility is presented using a couple of metrics and visualizations. Thirty-minute transit sheds are visualized that represent the areas accessible from the selected transit station(s) via walking and transit at various points in the day. The number of jobs accessible by transit (30 minutes travel time) across time is also provided. Another metric is transit coverage. Transit coverage represents the total area within a one-quarter mile walkshed of a bus and/or rail station categorized by the level of service (number of trips per hour) for various times of day.
 - **Safety:** The Montgomery County Interactive Crash Map was previously developed by the Countywide Planning and Policy Division’s Multimodal team. The map displays Montgomery County crashes from 2015 to 2019 with data to allow users to understand crash trends by neighborhood and provided for monitoring continuity.
- **Emerging and Disruptive Technologies White Paper:** The transportation industry is at a synergistic crossroads of multiple technological advancements. Innovations in big data, communications, energy production and storage, computer processing, sensor-perception systems, machine learning, and artificial intelligence are revolutionizing the transportation

industry. It is estimated that the levels of disruption and innovation in the transportation industry in the next 12 years will exceed those in the previous 50.¹ Huge investments are being made in technologies and companies that aim to make Mobility as a Service (MaaS) mainstream and profitable. This may have profound impacts on Montgomery County's ability to meet various transportation goals in the future. This white paper examines recent disruptive and emerging technology trends in the transportation sector of which planners and public officials should be aware.

- **Corridor Infographics Series:** The corridor infographics series is a collection of graphics that summarize several metrics at the corridor level. Growth corridors are a reoccurring theme in Thrive Montgomery and monitoring various transportation metrics into the foreseeable future along them seems prudent. Metrics included in this edition of the infographic series include:
 - Transit coverage by time of day and level of service
 - Changes in miles of bicycle facilities
 - Changes in the number of serious and fatal crashes
 - Changes in average weekday travel times

RECOMMENDATIONS/DISCUSSION

In recent editions, the TMR has become very expansive to include a variety of metrics that are operational in nature and do not necessarily drive policy discussions and decisions within the Planning Department. Countywide Planning and Policy (CPP) Division staff would like to have a discussion pertaining to whether future iterations of the TMR should solely focus on previously vetted transportation metrics that are designed to measure progress towards the county's goals of a safe, equitable, and efficient transportation system. The TMR could serve as an umbrella monitoring apparatus to coalesce ongoing and future functional transportation monitoring efforts within the department.

This includes metrics as part of the Bicycle Monitoring Report, Thrive Montgomery, the Vision Zero Work Plan, benchmarks in the Complete Street Guidelines, and future monitoring efforts as part of the Pedestrian Master Plan. This may mean foregoing other data points such as transit ridership data (which is readily available via other sources) and congestion/travel time metrics. Furthermore, the TMR could serve as a preliminary investigatory tool to begin the quadrennial review of the Growth and Infrastructure Policy. The TMR could provide preliminary recommendations regarding changes to existing procedures to determine transportation adequacy during development review. This would provide staff and the Planning Board with a "primer" to begin assessing metrics that should be fully vetted during the GIP update process. Staff welcomes any other feedback regarding future changes to the TMR.

ATTACHMENTS

TMR Summary Report

¹ <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/the-trends-transforming-mobilitys-future#>

