Governor's Attainment Report Advisory Committee Summary Report

FINAL | July 28, 2023

MDOT

MARYLAND DEPARTMENT
OF TRANSPORTATION™

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1. Introduction

The Maryland Department of Transportation (MDOT) plans, invests in, and evaluates the transportation system to ensure efficiency in meeting our goals and objectives in order to achieve our mission statement:

MISSION STATEMENT
The Maryland Department of Transportation is a customer-driven leader that delivers safe, sustainable, intelligent, exceptional, and inclusive transportation solutions in order to connect our customers to life's opportunities.

MDOT presents its strategic approach through the State Report on Transportation (SRT), which comprises three documents:

The Maryland Transportation Plan (MTP): A 20-year vision document for the state's transportation system.

The Consolidated Transportation Program (CTP): The six-year budget for transportation projects statewide, produced annually; and

The Annual Attainment Report on Transportation System Performance (AR): An evaluation of the performance of Maryland's transportation system.

This document summarizes the AR's purpose, related processes, and recommendations made by the Governor's Attainment Report Advisory Committee (ARAC) and MDOT staff, including the Modal Administration staff, for updating the AR to be responsive to the 2050 MTP.

Background and Legislative Requirements

The AR assesses how well MDOT is achieving our goals and objectives in the MTP through strategically aligned performance measures. It also provides an overview of the Maryland transportation system, system investment, and mobility and accessibility by land, water, and air. The AR must be presented annually to the Governor and General Assembly to assess our performance before MDOT advances the vision and selects projects for investment.

The AR provides an overview of the Maryland transportation system, system investment, mobility and accessibility. MDOT assesses progress toward achieving its overarching strategic goals by aligning performance measures and data with each MTP goal area. The AR must be presented annually to the Governor and General Assembly before they may consider the MTP and CTP.

State Requirements

Per Transportation Article of Annotated Code Section 2-103.1 of the Annotated Code of Maryland, enacted in 2000, the state is required to develop or update a comprehensive annual performance report on the attainment of transportation goals and benchmarks in the MTP and CTP. A key part of developing this annual report is the Governor's ARAC, a group of diverse stakeholders that represent interests that range from environmental advocates to disabled citizens. When the MTP is updated, an Advisory Committee (AC) is convened to provide guidance to MDOT in the development of the AR, which occurs at least every 4–5 years.

The primary role of the ARAC is to:

- Advise on the selection of performance measures.

- Advise on how well selected performance measures and supporting data communicate and respond to the AR.

- Recommend strategies and format updates to increase the effectiveness of the annual report for MDOT, citizens and legislators.

The Maryland Code mandates that MDOT and the Advisory Committee shall take into consideration:

- Transportation and population trends and their impact on the state's transportation system and priority funding areas.

- Past and present state funding devoted to the various transportation modes and demand management.

- The full range of unmet transportation needs in priority funding areas.

- The full range of transportation measures and facilities available, and their role, effectiveness, and cost effectiveness in providing travel choices and reducing congestion.

- A review of transportation performance indicators and their use in other states.

- A review of the coordination of state transportation investments with local growth plans for priority funding areas.

- The types of investments needed and their levels of funding for supporting the goals and objectives of the Maryland Transportation Plan.

- The impact of transportation investment on the following: 1) the environment; 2) environmental justice as defined in § 1-701 of the Environment Article; 3) communities; and 4) economic development.

- The goals required by the Climate Solutions Now Act of 2022 under § 2-1205(b) of the Environment Article.

The Equity in Transportation Sector law was passed in 2023 and became effective June 1, 2023. This law requires that equity be considered when state transportation plans, reports, and goals are developed. Equity was a main topic of discussions for the ARAC when considering performance measures. The committee was interested in ensuring that ARAC process was following the Equity in Transportation Sector requirements.

2. Attainment Report Advisory Committee

The ARAC is required to meet at least four times during the development of the MTP in order to address transportation needs, funding, and performance measures. The ARAC is composed of individuals appointed by the Governor based on the communities that they represent. Table 1 lists the representation required per state regulation, along with the name, title, and organization of the appointed representative. Those areas with an asterisk (*) indicate representation as required by state statute.

Table 1: ARAC Required Representation and Actual Membership

Representation	Name	Title	Organization
Maryland Business Community*	Alexander Austin	President/CEO	Prince George's County Chamber of Commerce
Disabled Citizens Community*	Derrick Waters	Supervisor Contact Representative	Department of Treasury IRS
Rural Interests*	Charlotte Davis	Executive Director	Rural Maryland Council
Auto Users Group*	Ragina Ali	Public; Government Affairs Manager	AAA Mid-Atlantic
Transit Users Group*	Jaime McKay	Deputy Director	Frederick County Transit Services
Transit Users Group*	Ben Groff	Chair	MTA Citizens Advisory Committee
Transit Users Group*	Sheila Somashekhar	Purple Line Coalition	University of Maryland
Goods Movement Industry*	Louis Campion	President/CEO	Maryland Motor Truck Association (MMTA)
National Expert: Pedestrian/Bike Transportation*	Chester Harvey, Ph.D.	Director, Transportation Policy Research Group	University of Maryland National Center for Smart Growth
National Expert: Transportation Demand Management*	Mansoureh Jeihani, Ph.D.	Director, National Transportation Center	Morgan State University
National Expert: Transportation Performance Management*	Ting Ma, Ph.D.	Standing Committee on Performance Management	Transportation Research Board

Representation	Name	Title	Organization
Environmental Advocacy Organization*	Lindsey Mendelson	Clean Transportation Representative	Sierra Club Maryland
Maryland Department of Planning*	Charles W. Boyd	Director of Planning Coordination	Maryland Department of Planning
Maryland Association of Counties*	Deborah Price	Demographic Planner	Harford County
Maryland Municipal League*	Dennis Enslinger	Deputy City Manager	City of Gaithersburg
Health Equity	Shima Hamidi, Ph.D.	Assistant Professor	John Hopkins University Department of Environmental Health & Engineering
Immigrant Community	Gustavo Torres	Executive Director	CASA Maryland
Transportation Labor Organization*	Brian Patrick Wivell	Legislative & Political Director	Maryland and DC AFL-CIO
NAACP*	Jacqueline Allsup	Vice President	Maryland NAACP
Transportation Construction Industry*	Robert A. Holsey, Jr.		International Union of Operating Engineers, Local 37

*   An asterisk (*) indicates those areas of representation required by state statute.

The ARAC reviewed the 2050 MTP goals, objectives, guiding principles, and key outcomes. The ARAC also reviewed and identified measures that they recommended for modification, addition, or realignment to an appendix. This process compared measures against AR performance measure selection criteria and reviewed draft targets. The ARAC also discussed potential improvements to the presentation of the AR materials. In calendar year 2023, the ARAC met four times. A high-level summary of those meetings follows.

Table 2: ARAC Meeting Summaries

Meeting #1: May 23, 2023
Objective: To become familiar with the State Report on Transportation, the AR update process, and discuss the MTP guiding principles, goals, and key outcomes.
Outcome: Participants were asked to review the Attainment Report and performance measure selection criteria. They also were asked to provide feedback on draft MTP goals.
Meeting #2: June 8, 2023
Objective: To discuss performance measures and collect feedback on as many of the four goals as time allows.
Outcome: The first two goals were addressed during Meeting #2.
Meeting #3: June 20, 2023
Objective: To continue the review of performance measures for the last two goals.
Outcome: The last two goals were addressed during Meeting #3.
Meeting #4: July 11, 2023
Objective: To confirm measures to include in the AR, review requirements, data and targets, review the ARAC Summary Report, and receive input on the AR report and dashboard interface.
Outcome: Overall measures and targets were confirmed, as well as a decision on the format of the AR.

All four meeting summaries are provided in Appendix D.

3. Performance Measures Framework

MDOT's mission is to be a "customer-driven leader that delivers safe, sustainable, intelligent, exceptional, and inclusive transportation solutions in order to connect our customers to life's opportunities." MDOT's mission serves as the foundation for the 2050 MTP. This mission will be realized through the guiding principles, goals, objectives, and performance measures incorporated into the MTP.

The guiding principles serve as overarching, cross-cutting ideas that MDOT strives for through each of the MTP's goals. They are:

- **Equity:** Integrate equity considerations in all aspects of transportation planning, programming, and operational processes.

- **Resilience:** Improve the transportation system's ability to provide reliable service throughout natural weather events and man-made threats.

- **Preservation:** Preserve the condition of the existing transportation system assets to provide safe and efficient movement.

- **Modernization:** Transform the transportation system by using proven technological improvements and exploring innovative new ideas.

- **Experience:** Improve the experience of all transportation system users.

In keeping with the mission and these principles, the 2050 MTP identifies four goals for the future of the transportation system in Maryland:

1. **Enhance Safety and Security:** Protect the safety and security of all residents, workers, and visitors.

2. **Deliver System Quality:** Deliver a reliable, high-quality, integrated transportation system.

3. **Serving Communities and the Economy:** Expand transportation options to allow Maryland's diverse communities to access opportunities and to support the movement of goods.

4. **Promote Environmental Stewardship:** Minimize and mitigate the environmental effects of transportation.

Equity Analysis

One of the 2050 MTP's guiding principles is equity, calling on MDOT to "integrate equity considerations in all aspects of transportation planning, programming, and operational processes." The 2023 Equity in Transportation Sector Law requires that equity be considered when state transportation plans, reports, and goals are developed. Further, the Climate Solutions Now Act (CSNA) (2022) is a state law with provisions to reduce negative environmental impacts on overburdened and underserved communities. Overburdened communities are defined as any census tract for which three or more of 21 environmental health indicators are above the 75th percentile.[1] Underserved communities are defined as any census tract where the most recent census survey shows:

- At least 25 percent of the residents qualify as low income.

- At least 50 percent of the residents identify as non-white.

- At least 15 percent of the residents have limited English proficiency.

MDOT staff and the ARAC discussed the methodology for assessing equity in performance measures. MDOT staff evaluated 6 state and federal analysis tools. Recognizing that equity analysis is an evolving practice, **MDOT staff recommends utilizing two tools to begin measuring performance through an equity lens:**

- The Maryland Department of the Environment (MDE) EJ Screening Tool that adheres strictly to CSNA definitions of overburdened and underserved communities; and

- The Equitable Transportation Community (ETC) Explorer provides transportation-centric metrics on factors pertinent to federal guidance and requirements.

In utilizing ETC Explorer, the website interface provides context on different types of disadvantage: health vulnerability, social vulnerability (including income, disability, and language isolation), environmental burden, transportation insecurity (such as access to transit), and climate and disaster risk burden. These factors are in line with many of the new performance measure developed under the equity principle of the 2050 MTP. Disadvantage is defined at a 65th percentile ranking or above (available at both state or federal levels; MDOT staff recommends using state-level data). This is a similar measurement of overburden in the CSNA-guided MDE screening tool, which evaluates 21 environmental factors at the 75th percentile ranking in defining communities as overburdened. **Both the MDE screening tool and ETC Explorer are available for download for deeper analysis.**

Additional discussion on environmental justice led to an ARAC request for a performance measure on criteria air pollutants in overburdened and underserved communities. Criteria air pollutants include ozone, carbon monoxide, nitrogen oxide, sulfur dioxide, particulate matter 2.5 (PM2.5), and particulate matter 10 (PM10). Both tools include factors for two of the criteria air pollutants: ozone and PM 2.5. This is in alignment with state law (CSNA), which includes 19 other environmental factors. MDOT will actively continue to explore appropriate performance measures. The agency will continue

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[1] Maryland General Assembly. Environment Article §1-701.

to evaluate the use of equity analysis tools in service of addressing historic impacts to overburdened and underserved communities.

Below, Table 3 outlines the principles, goals, and objectives that inform the organization of current performance measures and the development of new and updated measures.

Table 3: Proposed Goals, Objectives, and Guiding Principles

Goal	Objectives	Guiding Principles				
		Equity	Resilience	Preservation	Experience	Modernization
Enhance Safety and Security	Reduce the number of lives lost and injuries sustained on Maryland's transportation system			•	•	•
	Minimize disparities in safety across Maryland's diverse communities	•				
	Address multimodal safety needs to support a safe, low stress, and secure transportation system				•	•
	Maintain a safe system during adverse weather events, man-made threats, and other system disruptions		•	•		
Deliver System Quality	Increase the percentage of state-owned or funded facilities and assets in a state of good repair.		•	•	•	•
	Minimize travel delays and improve reliability and quality	•			•	•
	Provide a multimodal system resilient to changing conditions and hazards		•	•		•
	Accelerate project completion through improved project delivery		•	•		•

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Goal	Objectives	Guiding Principles				
		Equity	Resilience	Preservation	Experience	Modernization
Serve Communities and Support the Economy	Enhance Marylanders' satisfaction with the transportation system and MDOT services	●	●	●	●	●
	Apply enhanced technologies to improve communication and relay real-time information				●	●
	Increase transit use, active transportation, and transit-oriented development (TOD)	●			●	
	Improve quality of life by providing active transportation and transit access to jobs and opportunities	●			●	
	Prioritize the transportation needs of underserved and overburdened communities in project selection and scoping	●				
	Improve the efficiency and competitiveness of the Port of Baltimore and BWI Thurgood Marshall Airport	●	●	●	●	●
Promote Environmental Stewardship	Minimize fossil fuel consumption, reduce greenhouse gas emissions, and improve air quality	●		●	●	●
	Support the widespread adoption of alternative fuels, electric vehicles, and innovative technologies	●		●	●	●
	Protect and enhance the natural environment through avoidance, minimization, and mitigation of adverse impacts related to transportation infrastructure		●	●		●
	Employ resource protection and conservation practices in project development, construction, operations, and maintenance of transportation assets		●	●		●

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Performance measures in the AR are used to assess progress toward the goals and objectives established in the 2050 MTP. When determining performance measures, MDOT and the ARAC consider the requirements set forth in law and regulation, as well as national and regional demographic, economic, environmental, and technological trends. For example, the ARAC discussed the impacts of equity and climate change on transportation performance. As MDOT brings together all of the state's transportation agencies into one organization, the ARAC considered whether or not the performance measures reflected this ONE MDOT approach. To the extent feasible, performance measures were selected that represented MDOT's desired outcomes across the transportation system. Figure 1 shows criteria to assist the ARAC in consideration of performance measures for the AR.

Figure 1: Performance Measure Evaluation Criteria

State and / or Federally Required

- Is it required by state legislation?
- Is it required by federal legislation?
- Can there be efficiencies and alignment of metrics to avoid very similar metrics for statewide reporting vs. federal reporting?

Strategic (Alignment with the MTP)

- Does this measure align with MTP goals?
- Does the measure speak to one or more of the objectives?

Technically Feasible

- Is the Modal Administration already tracking this measure?
- Is the proposed measure quantitative?
- Is there existing data? Historical data?
- Is the data available on a yearly cycle/ consistent in quality and availability?
- What is the level of effort to collect and report this data?

Efficient, Comprehensive, and Balanced

- Is this the best way to measure/evaluate the topic?
- Does the measure speak to how well the system is performing?
- Does the measure change with investments from year to year - is it responsive enough to change annually for reporting in an annual report?
- Does the metric lend itself toward an AR that is balanced by mode or modal administration?

Understandable, Easily Communicated

- Is the measure easily understood by the public?
- Is the measure meaningful?

In meeting #2, MDOT staff shared that the audience is both the general public and the legislators and the ARAC discussed accessibility of the AR. In meeting #4, the ARAC noted that some of targets provided for the performance measures in Section 4 are aspirational to allow MDOT to strive towards loftier goals; however, depending on resources, some of these targets may be difficult to achieve.

4. ARAC Performance Measure Recommendations

The following performance measures integrate the mission, guiding principles, goals, and objectives of the 2050 MTP discussed in the previous section. Proposed key outcomes and proposed targets are listed, along with the MDOT modal administration that will report the data. Please note that the Key Outcomes will be further informed through the public survey process and finalized through the Maryland Transportation Plan process. Performance measures slated for the executive summary of the AR are shown in **bold** in the tables below. The AR full technical report will include all performance measures.

Enhance Safety and Security

Protect the safety and security of all residents, workers, and visitors.

Key Outcomes for this Goal to achieve through the 2050 MTP:

If we protect the safety of all residents, workers, and visitors, we will achieve zero traffic-related fatalities and serious injuries across all modes (roadway, active transportation, transit, at-grade railroad crossings).

Objective	Performance Measures	2030 Target / 2050 Target	Modal Administration
Reduce the number of lives lost and injuries sustained on Maryland's transportation system	**Annual number of fatalities and serious injuries on all roads in Maryland (MFR)**	Zero (0) / Zero (0)	MHSO
	Annual number of bicycle fatalities and serious injuries (MFR)	Zero (0) / Zero (0)	MHSO
	Annual number of pedestrian fatalities and serious injuries (MFR)	Zero (0) / Zero (0)	MHSO
	Annual number of transit passenger fatalities and serious injuries	Zero (0) / Zero (0)	MTA
	Annual number of at-grade railroad crossing incidents resulting in injury or fatality	Zero (0) / Zero (0)	TSO

Objective	Performance Measures	2030 Target / 2050 Target	Modal Administration
Minimize disparities in safety across Maryland's diverse communities	**Annual number of fatalities and serious injuries in historically disadvantaged communities on all roads in Maryland[2]**	Zero (0) / Zero (0)	MVA
Address multimodal safety needs to support a safe, low stress, and secure transportation system	Preventable incidents per 100,000 vehicle miles traveled on transit	Zero (0) / Zero (0)	MTA
	Percentage of state-owned roadway directional miles within urban areas that have sidewalks (MFR)	TBD annually / TBD	SHA
	Percent of sidewalks that meet ADA compliance	TBD / TBD	SHA
	Miles of lower level of traffic stress (LTS 2 or better)	TBD as this is a newer measure	TSO
Maintain a safe system during adverse weather events, man-made threats, and other system disruptions	Clearance times for weather events	90 minutes / 90 minutes	SHA
	Incident (CHART) response rates/times	15 minutes / 15 minutes	SHA

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[2]   Performance measure uses the U.S. DOT Equitable Transportation Community (ETC) Tool.

Deliver System Quality

Deliver a reliable, high-quality, integrated transportation system.

Key Outcomes for this Goal to achieve through the 2050 MTP:

If we deliver a reliable, high-quality, integrated transportation system, the budget will be effectively managed to deliver the greatest impact for our investments.

Objectives	Performance Measures	2030 Target / 2050 Target	Modal Administration
Provide a multimodal system resilient to changing conditions and hazards	**Preparedness of the transportation system for weather conditions and hazards**	Baseline trend for the first year Target / TBD as this is a new measure	SHA
	Percentage of lane-miles/fixed guideway transit-miles susceptible to flooding and storm surge	Baseline trend for the first year / TBD as this is a new measure	TSO
Increase the percentage of state-owned or funded facilities and assets in a state of good repair	**Unfunded State of Good Repair backlog**	Baseline trend for the first year / TBD as this is a new measure	TSO
	Percentage of the Maryland state highway network in overall preferred maintenance condition (MFR)	85% / TBD	SHA
	Overall Acceptable Pavement Condition (MFR)	90% / 95%	SHA
	Percentage of all Maryland Bridges that are in Poor Condition (MFR)	TBD / TBD	SHA
Minimize travel delays and improve reliability and quality	**Percent of all MDOT Transit Service Provided On Time (MFR)**	99% for all except Local Bus / 90%	MTA
	Truck hours of delay (all traffic hours of delay in full report) (MFR)	5.3 million hours / 5.3 million hours	SHA
	Annual Cost of Congestion (Billions) on the MDOT highway network (MFR)	$4.5 billion / $4.5 billion	SHA/MDTA
	User cost savings for the traveling public due to incident management (MFR)	$2.2 billion / $3 billion	SHA/MDTA

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Objectives	Performance Measures	2030 Target / 2050 Target	Modal Administration
Accelerate project completion through improved project delivery	**Percent of CTP program that is funded with Federal dollars**	Baseline in first year / TBD	TSO
	Percent of projects delivered on-time across MDOT	Baseline in first year / TBD	TSO
	Percent of projects delivered on-budget across MDOT	Baseline in first year / TBD	TSO
	Percent of toll transactions collected by *E-ZPass®* versus video tolls (MFR)	Baseline trends in first year to measure video tolls / TBD	MDTA
	MDOT MVA Alternative Service Delivery (ASD) Transactions as Percent of Total Transactions (MFR)	85% / 90%	MVA
	MDOT MVA Average Cost Per Transaction (MFR)	$18.31 / $18.00	MVA

Serve Communities and Support the Economy

Expand transportation options to allow Maryland's diverse communities to access opportunities and to support the movement of goods.

Key Outcomes for this Goal to achieve through the 2050 MTP:

If we expand transportation options to allow Maryland's diverse communities to access opportunities and to support the movement of goods, we will expand transit and active transportation use, and drive a regional economy.

Objectives	Performance Measures	2030 Target / 2050 Target	Modal Administration
Enhance Marylanders' satisfaction with the transportation system and MDOT services	**Overall Satisfaction with MDOT (survey)**	Baseline and trend first year / TBD	TSO/MTA
	Percentage of MVA Branch Offices with a Wait Time under 10 Minutes (MFR)	90% in under 10 minutes by 2030 and 100% in under 10 minutes by 2050	MVA
Apply enhanced technologies to improve communication and relay real-time information	Percentage of modal administration services that provide real-time information	Baseline trend in first year / TBD	All Modal Admins
Prioritize the transportation needs of underserved and overburdened communities in project selection and scoping	**Access to transit (within ½ mile of a transit station/stop) by people who live in an overburdened and underserved areas as defined by CSNA**	Baseline trend in first year / TBD	MTA
	Relative percentage of CTP investment that is in overburdened and underserved communities	Baseline trend in first year	TSO
Improve quality of life by providing active transportation and transit access to jobs and opportunities	**Commute mode share**	No Target	TSO
	Multimodal access to essential services/destinations	May be a first-year measure / executive summary to show a statewide map of this.	TSO/MDP

Objectives	Performance Measures	2030 Target / 2050 Target	Modal Administration
Increase transit use, active transportation, and transit-oriented development (TOD)	**Annual transit ridership— Contracted services and LOTS (thousands) (MFR), including paratransit ridership**	Overall Increase	MTA
	Population within ½ mile of a transit station/stop	Baseline trend in first year / TBD	MTA
	Number of jobs within ½ mile of a transit station/stop	Baseline trend in first year / TBD	MTA
	MDOT MTA average weekday transit ridership (MFR)	Overall Increase	MTA
	Annual Transit ridership—MDOT MTA direct-operated services (thousands) (MFR)	Overall Increase	MTA
	Fixed-route ridership by seniors and people with disabilities (a combined data point)	TBD	MTA
	Total Maryland—only WMATA annual ridership (MFR)	Overall Increase	WMATA
	Annual revenue vehicle miles of MDOT MTA service provided (MFR)	Overall Increase	MTA
Improve the efficiency and competitiveness of the Port of Baltimore and BWI Thurgood Marshall Airport	**Port of Baltimore foreign cargo tonnage and MPA general cargo tonnage (MFR)**	No Target	MPA
	Percentage of MPA Operating budget recovered by revenues (MFR)	No Target	MPA
	BWI Marshall Airport total annual passengers (MFR)	Increase	MAA
	Comparative airline cost per enplaned passenger (CPE) (MFR)	Below the mean of comparable airports	MAA
	Freight originating and terminating in Maryland by mode—total tonnage	No Target	TSO
	Freight originating and terminating in Maryland by mode—total value	No Target	TSO

Objectives	Performance Measures	2030 Target / 2050 Target	Modal Administration
	Number of nonstop airline markets served (MFR)	80 / TBD	MAA

Promote Environmental Stewardship

Minimize and mitigate the environmental effects of transportation.

Key Outcomes for this Goal to achieve through the 2050 MTP:

If we minimize and mitigate the environmental effects of transportation, we will achieve a 20 percent reduction in vehicle-miles traveled per capita and a 40 percent reduction in transportation sector GHG emissions by 2031 to net-zero by 2045.

Objectives	Performance Measures	2030 Target / 2050 Target	Modal Administration
Protect and enhance the natural environment through avoidance, minimization, and mitigation of adverse impacts related to transportation infrastructure	Percent of MDOT's 5-year MS4 Permits attained	Baseline trends first year / TBD	TSO/OE
Employ resource protection and conservation practices in project development, construction, operations, and maintenance of transportation assets	Diversion rate and cost of disposing construction, demolition, and maintenance materials in landfills and incinerators	Baseline trends first year / TBD	TSO/OE
	Annual Dredged Material Capacity Remaining for Harbor and Poplar Island Material (cubic yards) (millions) (MFR)	Long-term: 20-year capacity	MPA
	Increase the Beneficial Use and Innovative Reuse of Dredged Materials	Long-term: 500,000 cubic yards of dredged	MPA

Objectives	Performance Measures	2030 Target / 2050 Target	Modal Administration
Minimize fossil fuel consumption, reduce greenhouse gas emissions, and improve air quality and support the growth of alternative fuels.	**VMT/VMT per capita (MFR)**	Decrease of VMT per capita 10% by 2030 and 20% by 2050	TSO/SHA
	Number of employee partners in statewide TDM programs	500 / 1,000	TSO
	Transportation-Related Air Pollution Reduction (TPM)	Overall decrease	TSO
	GHG emissions from LDV VMT (light-duty) vehicles and MHDV VMT (medium-heavy-duty) vehicles	Baseline target in first year	TSO
	Statewide VEIP testing compliance rate	100% / 100%	MVA
Support the widespread adoption of alternative fuels, electric vehicles, and innovative technologies	**Percentage of MDOT fleet composed of EVs**	Baseline trend in first year / TBD	TSO
	Percent of Electric Vehicles (EVs) registered from Total Registered Vehicles (MFR)	Baseline trend in first year (1 million of the total in 2050)	MVA
	Level 2 and DC Fast Charging ports per 1000 residents	Baseline trend in first year / TBD	TSO

5. ARAC Recommendations on AR Format

The audience for the AR ranges from community members, state government leadership and staff, as well as legislators. The ARAC and MDOT staff have discussed three options for presenting the AR Report. As discussed below, MDOT staff recommend both of the first two options be advanced for the AR.

1. High-Level Visual Executive Summary PDF: This method involves creating a visually appealing executive summary document of select performance measures (bolded in the previous section) that is no more than 12 pages in length. Visual elements such as charts, graphs, and infographics would be used to enhance understanding and engagement.

2. Full Technical Report: This method is a PDF of all of the performance measures with a hosted webpage for users to delve into modal administration information. The full report will provide a transparent platform on the methodologies, trends, and strategies aligned with the MTP.

3. Online Dashboard: Another method of communication is to develop an online dashboard that provides an interactive summary of the AR Report. Users could navigate through different sections, drill down into specific data points, and interact with charts and graphs for a comprehensive understanding of the report's findings. However, the ARAC and MDOT staff both expressed concerns that the data is updated annually and does not change often enough to provide the value-add of a dashboard, nor is the current AR story map visited often.

After much consideration of the options, MDOT staff recommends the first and second option: a high-level executive summary and a full technical report. MDOT staff decided to discontinue the online dashboard, which has a low volume of engagement by the public.

The ARAC also recommended that MDOT host a webpage that provides links to all of the MDOT modal administrations' performance management resources.

Appendix A—ARAC Meeting Attendance

ARAC Member	Meeting 1	Meeting 2	Meeting 3	Meeting 4
Alexander Austin	●	●	●	●
Ben Groff	●	●	●	●
Brian Patrick Wivell	●		●	●
Charlotte Davis			●	●
Dr. Chester Harvey	●	●	●	●
Deborah Price	●	●	●	●
Dennis Enslinger	●	●	●	●
Derrick Waters	●	●		
Gustavo Torres	●	●	●	●
Jacqueline Allsup		●		
Jaime McKay	●	●	●	●
Lindsey Mendelson	●	●	●	●
Louis Campion	●		●	●
Dr. Mansoureh Jeihani	●	●		●
Regina Ali	●		●	
Robert A. Holsey, Jr	●	●	●	●
Sheila Somashekhar	●	●	●	
Shima Hamidi	●	●		●
Dr. Ting Ma	●	●	●	●
Valdis Lazdins[3]	●			
Charles Boyd[4]		●	●	●

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[3] Valdis Lazdins represented Dept of Planning, Maryland for the first ARAC Meeting.

[4] Charles Boyd represented Dept of Planning, Maryland for all ARAC Meetings except the first one.

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Appendix B—Summary of New and Updated Performance Measures

Updated and New Performance Measures

MDOT conducted an internal review of performance measures. The process uncovered performance measures in which targets had been met or results were flat and therefore not as useful, surveys were discontinued, or methodologies required updating. Additionally, through the update of the 2050 MTP, goals and objectives had changed and rendered some performance measures obsolete. The ARAC provided recommendations that were incorporated into the final AR performance measures. The following tables describe the updated and new performance measures. Performance measures in bold indicate that they planned for inclusion in the executive summary as well as the full technical report.

Table 4: Enhance Safety and Security: Updated and New Performance Measures

New Measure	Rationale
Annual number of fatalities and serious injuries on all roads in Maryland (MFR)	Aligns crash types across equity and statewide measures
Annual number of bicycle fatalities and serious injuries (MFR)	Aligns crash types across equity and statewide measures
Number of pedestrian fatalities and serious injuries (MFR)	Aligns crash types across equity and statewide measures
Annual number of fatalities and serious injuries on all roads in Maryland in historically disadvantaged communities	Aligns with 2030 goal from legislature
Miles of lower level of traffic stress (LTS 2 or better)	This measure was introduced in previous ARs (2022 and 2023) but had not been measured
Annual number of transit passenger fatalities and serious injuries	Aligns crash types across equity and statewide measures
Number of at-grade railroad crossing incidents resulting in injury or fatality	This measure is captured in the Maryland State Rail Plan
Preventable incidents per 100,000 vehicle miles traveled on transit	Wording clarifies that the incidents are related to transit
Clearance times for weather events	Clarifies from roadway clearance times to include all modes
Incident (CHART) response rates/times	This metric is captured in CHART's annual report released in August

Table 5: Deliver System Quality: Updated and New Performance Measures

New Measure	Rationale
Preparedness of the transportation system for weather conditions and hazards	Added measure aligned with resilience principle and new goal
Percentage of lane-miles/fixed guideway transit-miles susceptible to flooding and storm surge	Added measure aligned with resilience principle and new goal
Unfunded State of Good Repair Backlog	Added measure for transparency and alignment with goal
Truck hours of delay (All traffic hours of delay in full report)	Updated from truck travel time reliability index for better tracking
Percent of CTP program that is funded with Federal dollars	Added measure for transparency and alignment with goal
Percent of projects delivered on-time across MDOT	Added measure to incorporate internal performance metrics to align with goal
Percent of projects delivered on-budget across MDOT	Added measure to incorporate internal performance metrics to align with goal

Table 6: Serve Communities and Support the Economy: Updated and New Performance Measures

New Measure	Rationale
Percentage of MPA operating budget recovered by revenues (MFR)	Aligned with similar measure for BWI Marshall Airport and already captured in the MFR
Access to transit (within $\frac{1}{2}$ mile of a transit station/stop) by people who live in an area of overburdened and underserved areas as defined by CSNA	Aligned with equity and experience principles as well as new goal
Overall Satisfaction with MDOT (survey)	Updated methodology to University of Maryland survey
Percentage of MVA Branch Offices with a wait time under 10 Minutes (MFR)	Updated from reporting of wait times to include target wait time within performance measure
Percentage of modal administration services that provide real-time information	Replaced survey of transportation system users with modal administration reporting of real-time information provision
Ratio of percentage of CTP investment that is in overburdened and underserved communities to the percentage of the statewide population	Aligned with equity principle and new goal
Multimodal access to essential services/destinations	Aligned with equity and experience principles as well as new goal
Population within ½ mile of a transit station/stop	Aligned with equity and experience principles as well as new goal

New Measure	Rationale
Number of jobs within ½ mile of a transit station/stop	Aligned with equity and experience principles as well as new goal
Fixed-route transit ridership by seniors and people with disabilities	Aligned with Equity in the Transportation Sector (2023) law.

Table 7: Promote Environmental Stewardship: Updated and New Performance Measures

New Measure	Rationale
Percent of vehicles registered in the state that are alternative fuel, electric, or hybrid electric (MFR)	Updated methodology from number of EVs to represent proportion of vehicles statewide
Percentage of MDOT fleet comprising EVs	Added to provide internal performance measure aligned with goal
Percent of MDOT's five-year MS4 Permits attained	Updated from previous measure of impervious surface restoration to a measure that tracks MDOT processes (permits)
Increase the beneficial use and innovative reuse of dredged materials	Updated to "increase" the types of use for dredged materials
Greenhouse gas (GHG) emissions from light-duty vehicle (LDV) vehicle miles traveled (VMT) and medium-heavy-duty vehicles (MHDV) VMT	Added tracking of segments of vehicle types contributing to GHG emissions through VMT
Number of employee partners in statewide transportation demand management (TDM) programs	Updated to focus MDOT TDM partnerships
Level 2 and DC fast charging ports per 1,000 residents	Aligned with the 2022 Climate Solutions Now Act (CSNA) and goal

Appendix C—MTP Survey Results

1. Introduction/Overview

Maryland launched an effort to create a new long-range transportation plan, the 2050 Maryland Transportation Plan (MTP). The new 2050 MTP establishes a 20-year vision for statewide transportation and provides policy direction to inform transportation investments. The Maryland Department of Transportation (MDOT) conducted outreach to Maryland's transportation system users and residents between June 8th and July 10th, 2023.

As part of the MTP process, MDOT conducted extensive engagement both internally throughout MDOT and externally with its local, state, and regional planning partners and the wider public.

Outreach Methods

Survey #2 was provided via a hyperlink on MDOT's website. It was promoted on MDOT social media, paid social media through MDOT News, and via email blasts. In person promotion was made available through signs and bookmarks placed at libraries across the state. MDOT also coordinated with local Government agencies and partner organizations to encourage a wide range of experience and perspectives from participants. An inactive version of the survey can be viewed here.

2. Public Feedback

Public Surveys

The public provided feedback on the draft strategic direction, transportation needs, and budget allocation. Over 2,000 survey responses were collected from the public survey effort. Participants also submitted a total of 3,072 comments that provided additional insight into their transportation priorities. Surveys were developed in MetroQuest and were available in Spanish, French, and an accessible fillable Word document. MDOT also coordinated with local Government agencies and partner organizations to encourage a wide range of experience and perspectives from participants. The accessible fillable version of the survey received four responses. There have been 11 submissions from Maryland local, state, and regional planning partners and elected officials.
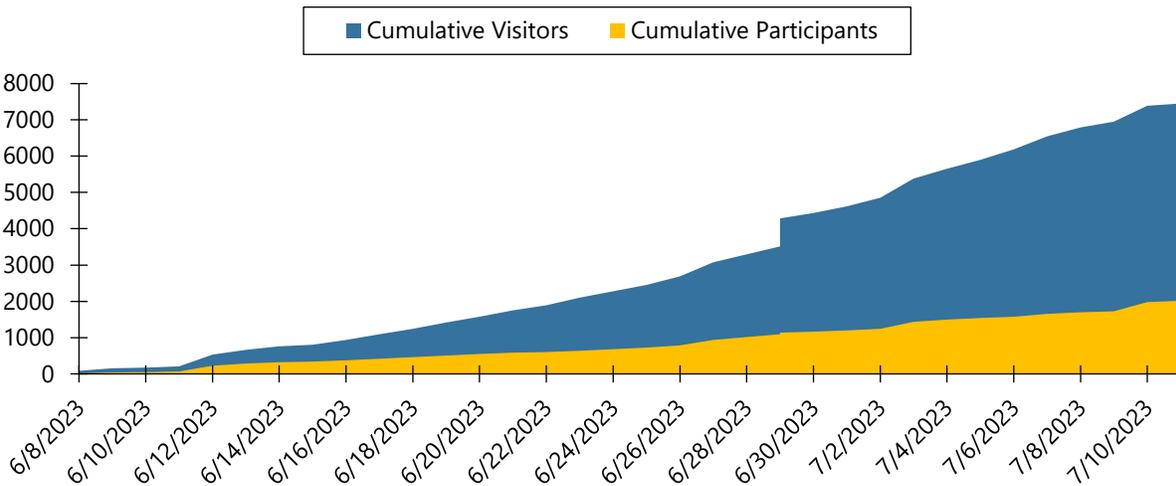
Survey #2 Traffic

The survey received 2,017 responses. In general, the more traffic the survey received, resulted in more participation.

Survey #2 Daily Traffic and Participation
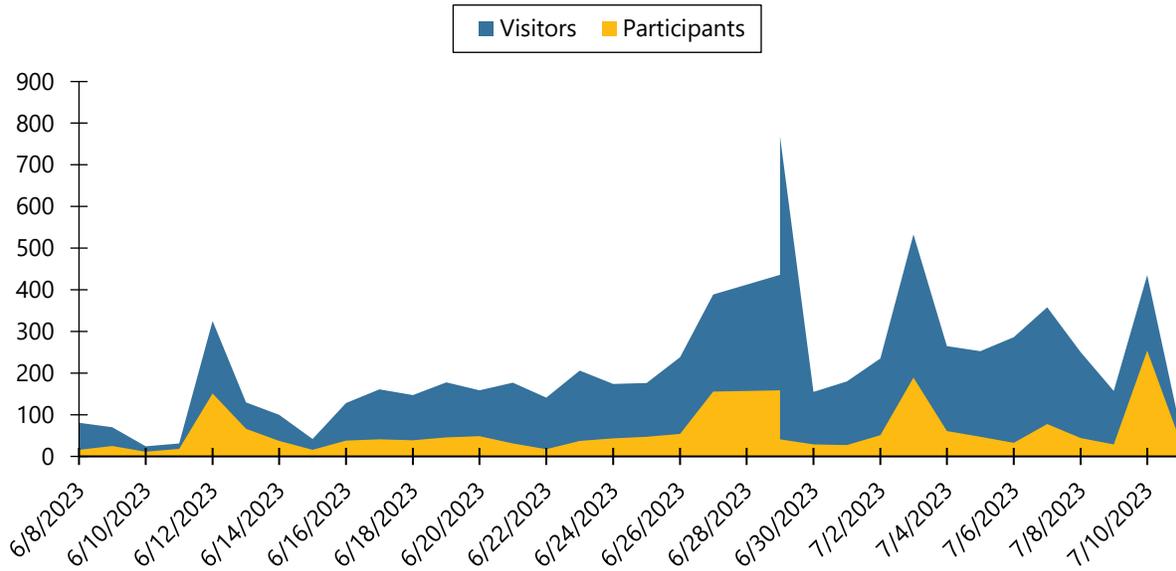
## Survey #2 Cumulative Traffic and Participation

Demographics

Location

Survey responses were concentrated in the center of the state. Baltimore City (130) and Montgomery County (177) had the largest response rate with more than 50 responses each. The survey also was taken by 185 participants that listed their residence as "out of state."
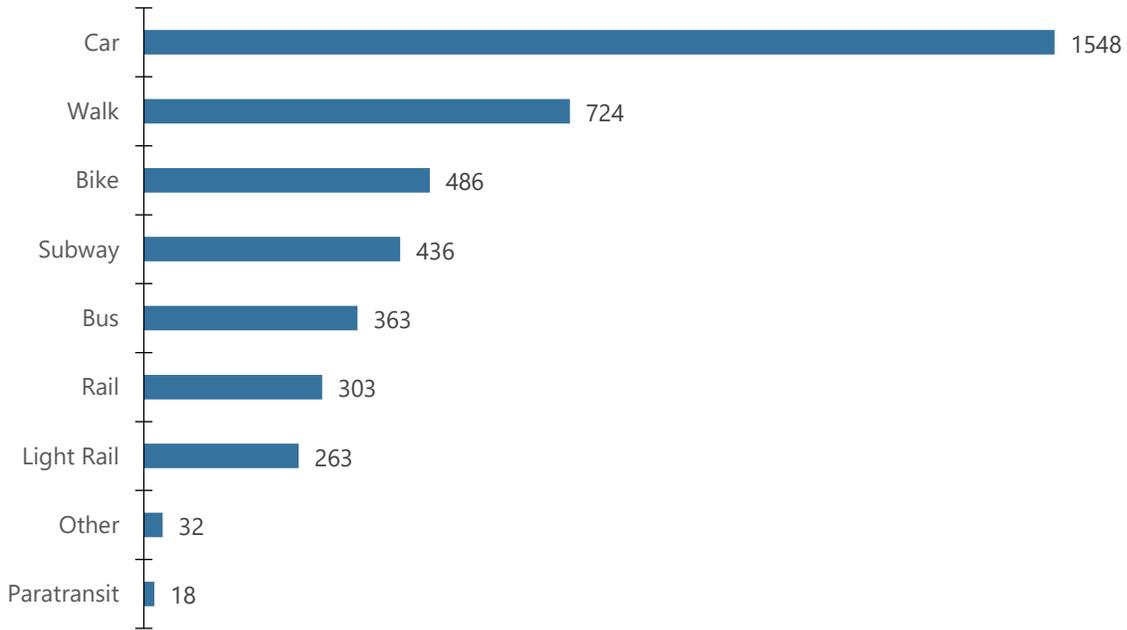
Zooming in further reveals urban center concentrations other than the Washington, DC and Baltimore areas. Smaller green highlighted areas reveal that many responses also were from smaller centers such as Hagerstown, Frederick, Owings Mills, Kent Island, and Fort Washington, among others.
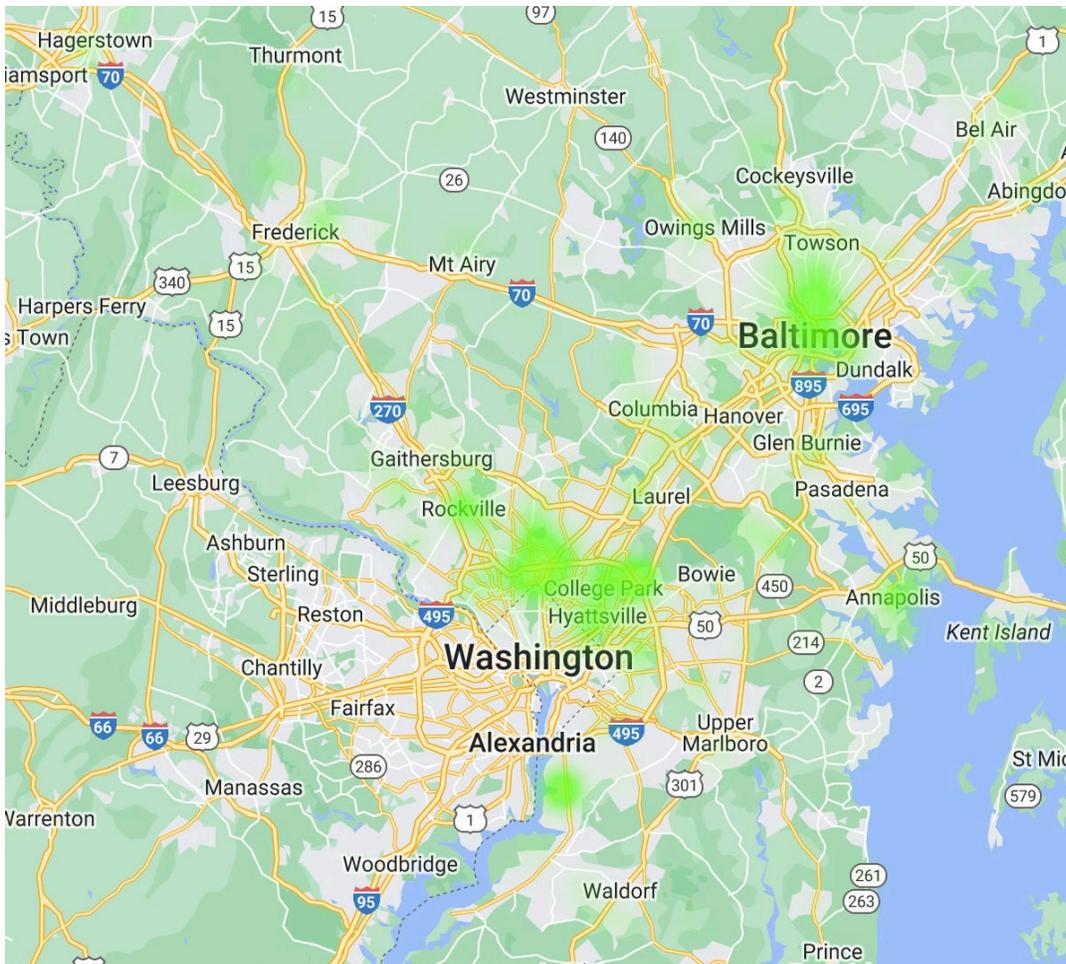
Mode Use

Participants were asked to select all of the transportation modes they use on a regular basis. Cars were the most used transportation mode, followed by walking and biking.

Mode	Value
Car	1548
Walk	724
Bike	486
Subway	436
Bus	363
Rail	303
Light Rail	263
Other	32
Paratransit	18

Age

Participants' ages ranged from 15 to 75+. Most responses were from participants that were between the ages of 35 and 74.
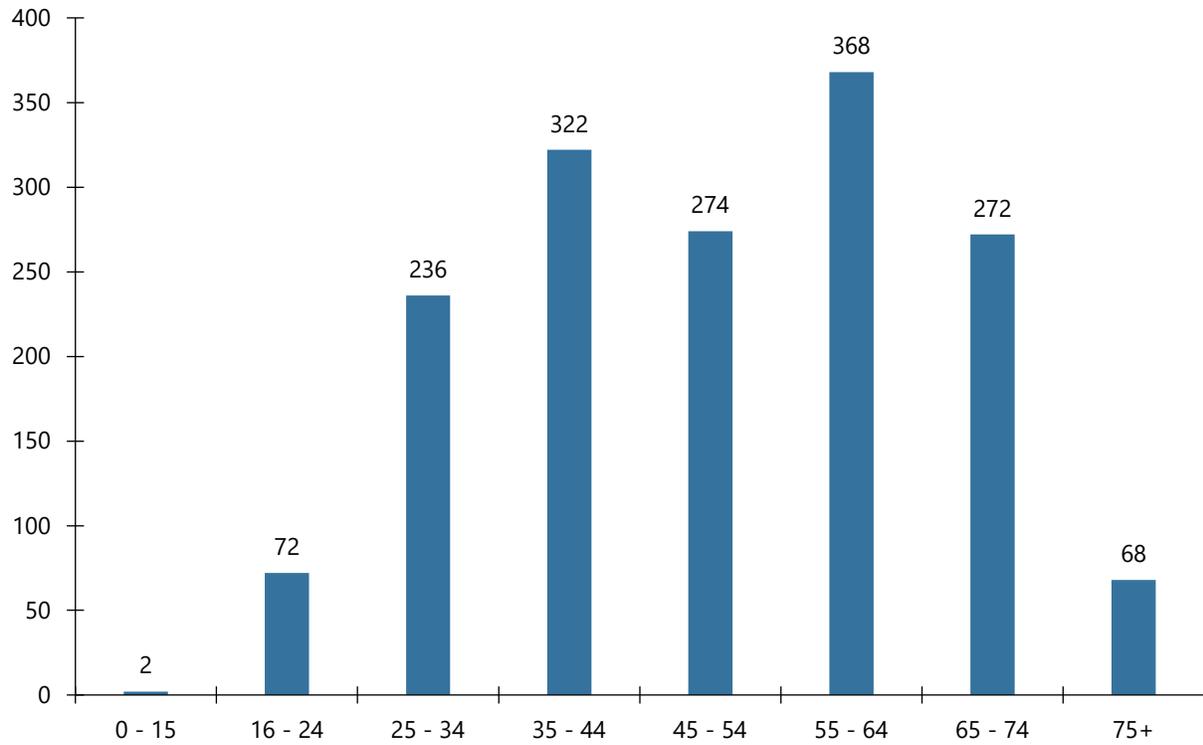
Work Environment

Out of 1,273 responses, most participants work in either a hybrid (33 percent) or remote (17 percent) work environments. A little under a fourth of participants work in a fully in-person work environment (23 percent).
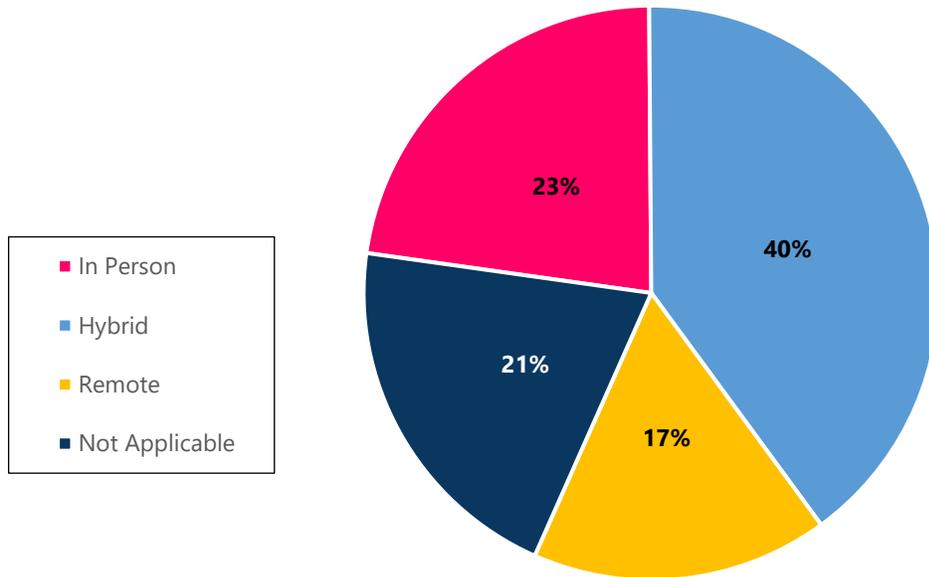
Language

The 2050 MTP Survey was offered in three languages: English, French, and Spanish. Of the 2,017 survey participants, 2,009 completed the survey in English, one in French and seven in Spanish.
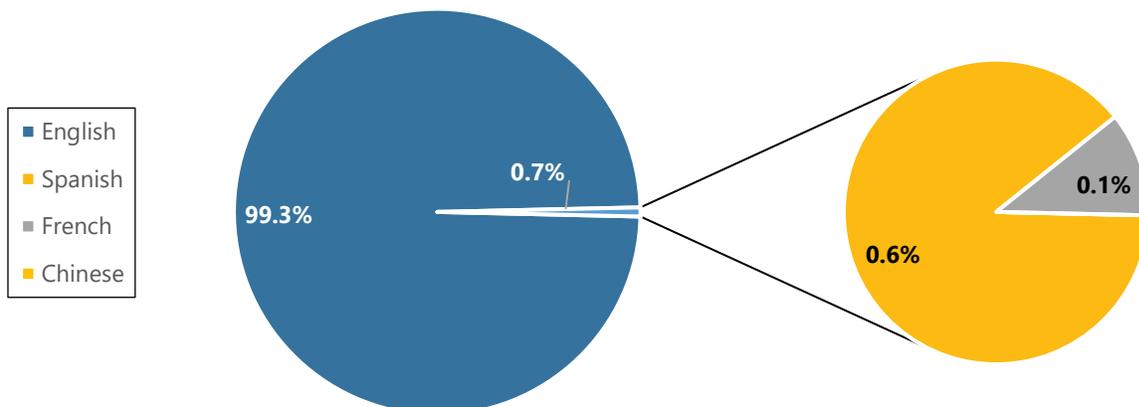
3. Survey Results

Key Outcomes

Key outcomes were measured at both the halfway mark and end of the survey. During that time, the leading key outcome remained the same throughout. The charts below list the top key outcome from each category.
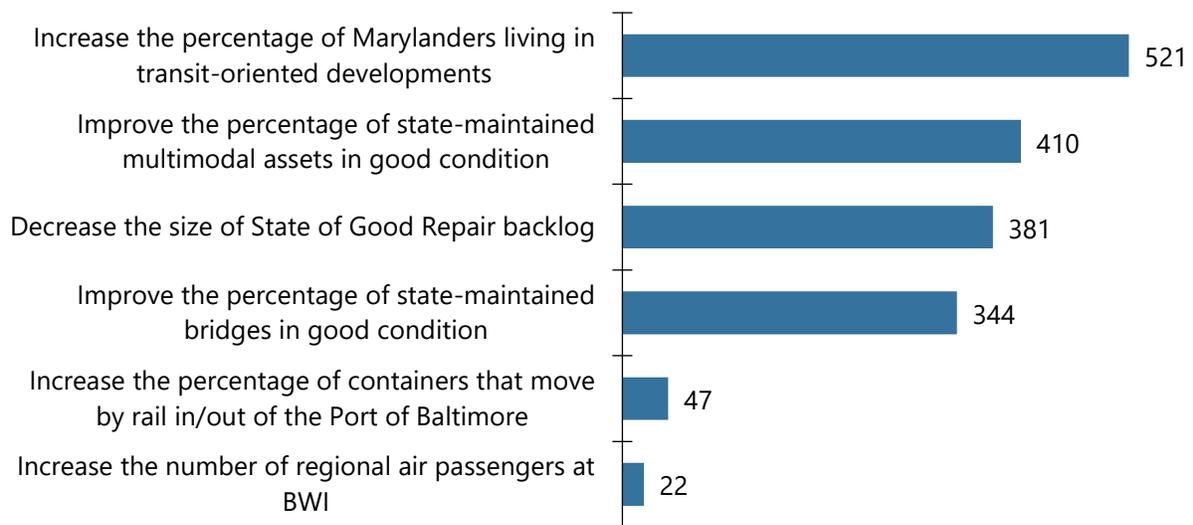
Figure 2: Delivery System Quality

Outcome	Value
Increase the percentage of Marylanders living in transit-oriented developments	521
Improve the percentage of state-maintained multimodal assets in good condition	410
Decrease the size of State of Good Repair backlog	381
Improve the percentage of state-maintained bridges in good condition	344
Increase the percentage of containers that move by rail in/out of the Port of Baltimore	47
Increase the number of regional air passengers at BWI	22

Figure 3: Enhance Safety and Security

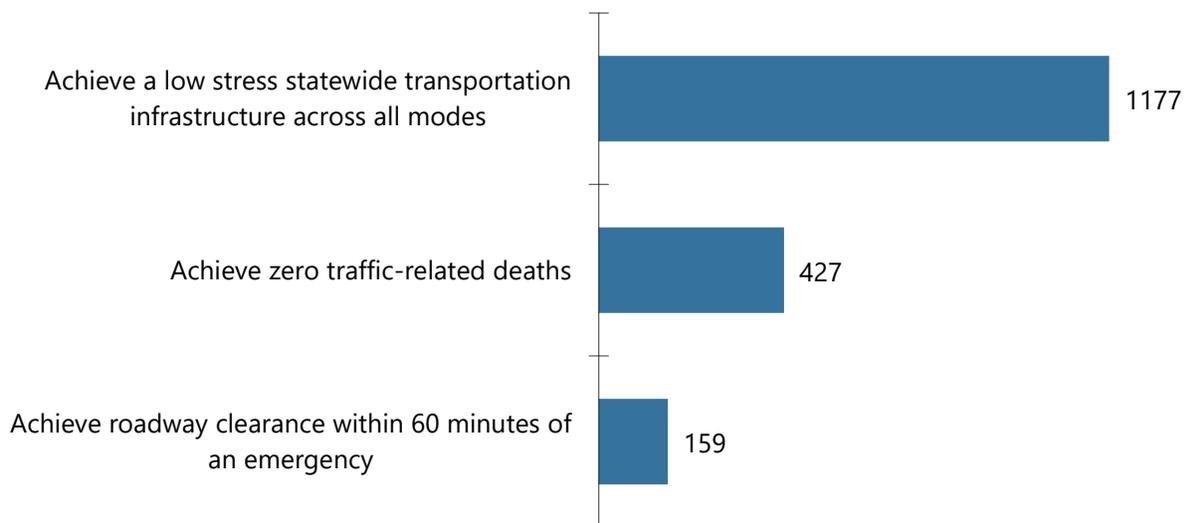| Outcome	Value
Achieve a low stress statewide transportation infrastructure across all modes	1177
Achieve zero traffic-related deaths	427
Achieve roadway clearance within 60 minutes of an emergency	159

MARYLAND DEPARTMENT OF TRANSPORTATION

Figure 4: Promote Environmental Stewardship

Goal	Value
Reduce vehicle-miles-of-travel (VMT) per capita	610
Ensure that there are alternative fuel stations within 50 miles on all Maryland roadways	392
Reduce transportation sector GHG emissions towards net-zero emissions by 2045	280
Reduce transportation GHG emissions towards overall reduction of 60% by 2031	253
Improve Vehicle Emissions Inspection Program Testing compliance rate	97

Figure 5: Serve Communities and Support the Economy

Goal	Value
Increase the mode share of non-single occupant vehicle modes of travel (pedestrian, transit, bicycling, etc.)	781
Increase the percentage of population within 60 minutes of a job center (via transit or non-auto modes)	435
Increase the percentage of real-time info available for all transportation facilities/services	434

MARYLAND DEPARTMENT OF TRANSPORTATION
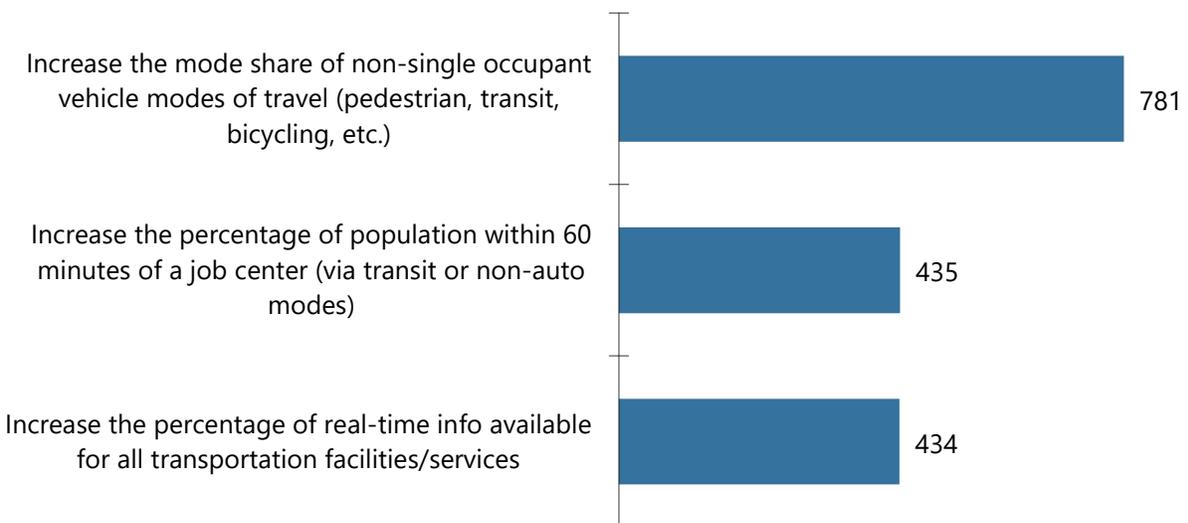
Allocate a Budget

Participants were asked to assign a budget based on a finite amount represented by coins that could be placed in given budget categories. Participants also were able to make custom comments about the survey exercise. Public transit, maintenance, safety and complete streets and trails were the top budget choices by a wide margin over all other options. Highway expansion was the top choice for the bottom half of the budget and MDOT buildings and facilities received the least amount of funding.

Figure 6: All Inputs Average Bar Chart

Category	Value
Public Transit	16.89
Passenger and Commuter Rail	14.45
Maintenance	14.36
Safety	13.27
Complete Streets and Trails	12.24
Highway Expansion	7.76
Technology	6.04
Airports	3.54
Freight Rail	3.19
Port	2.69
MDOT Buildings and Facilities	1.8
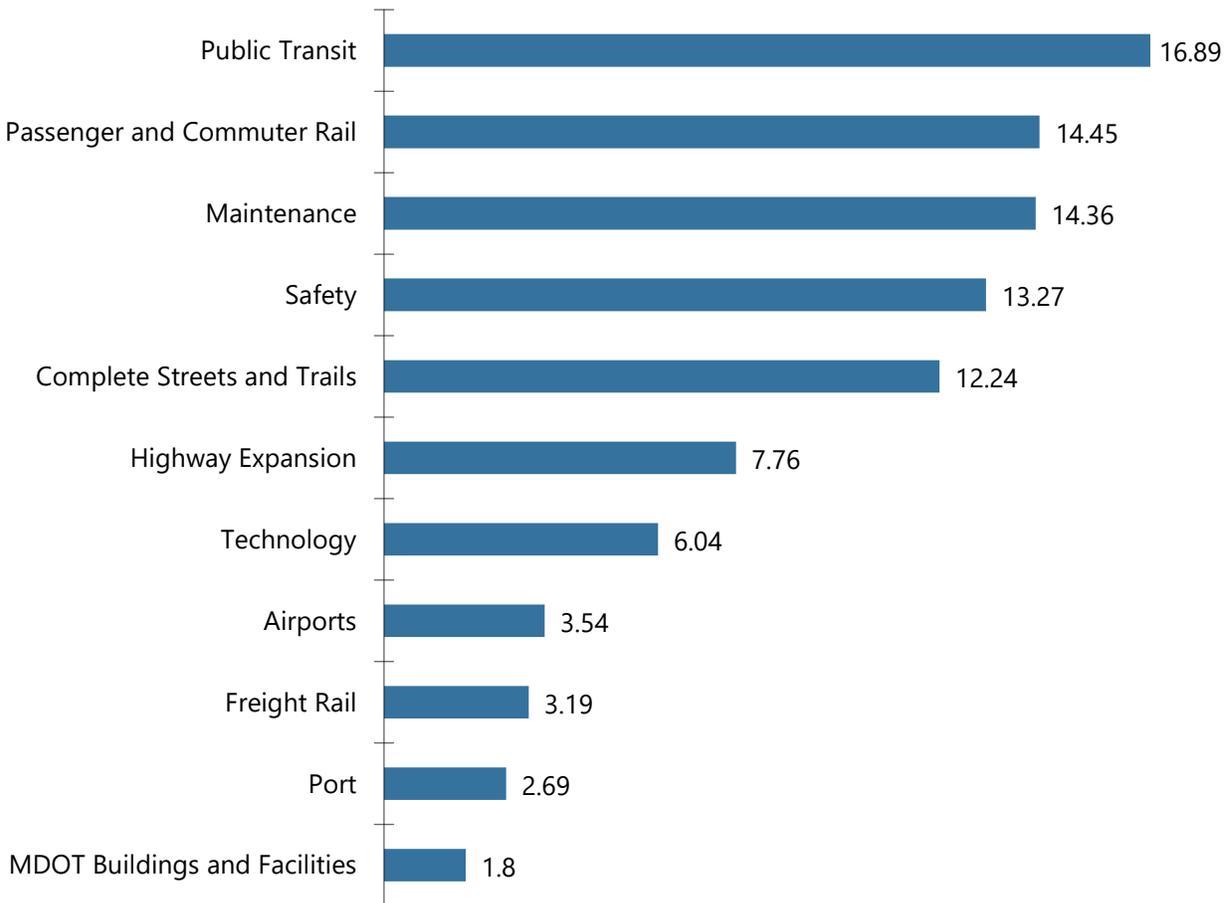
Mapping Transportation Needs

Participants were asked to place markers indicating areas needing transportation improvement. Six categories were provided with a seventh category offered to provide participants with a custom input option. Transit, biking, and road issues were the top pins placed on the map.
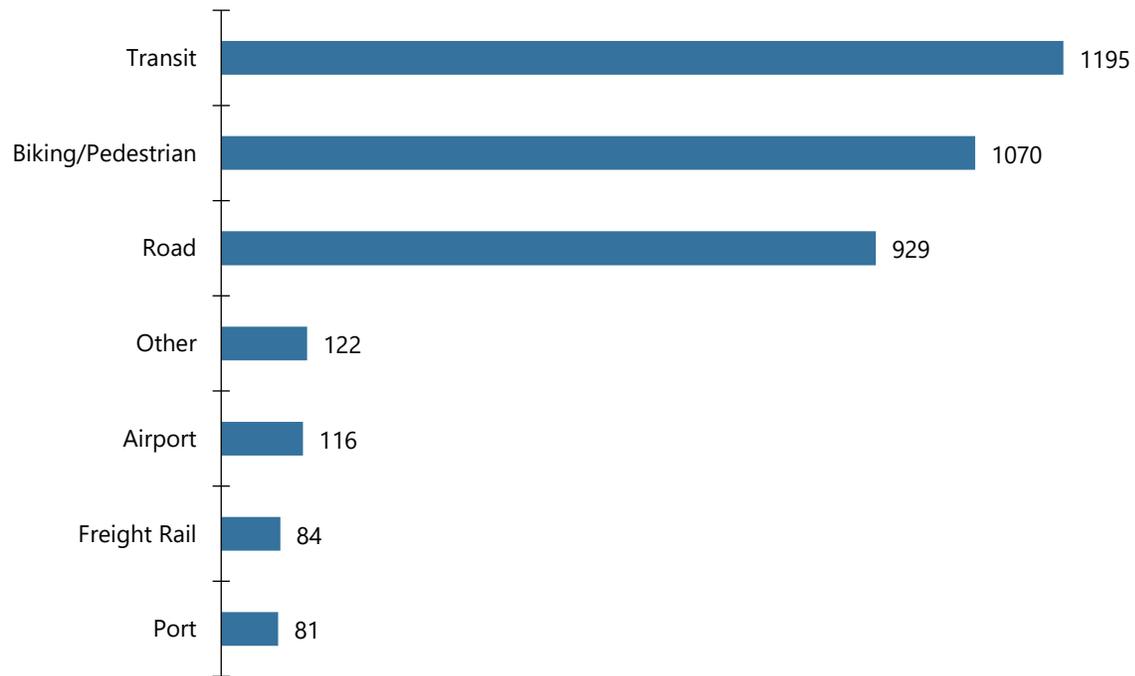
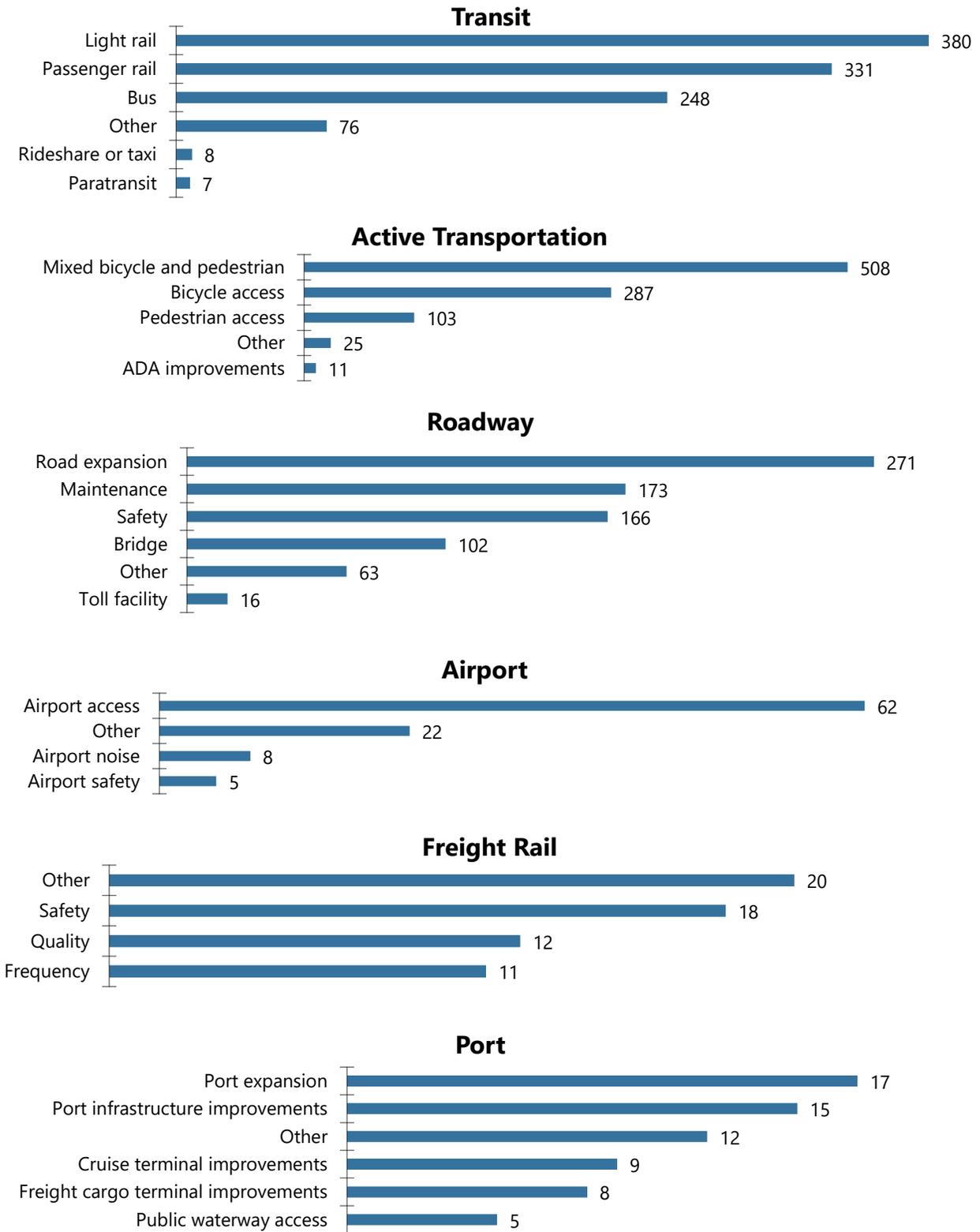*Figure 7: Transportation Needs by Category*

Category	Count
Transit	1195
Biking/Pedestrian	1070
Road	929
Other	122
Airport	116
Freight Rail	84
Port	81

Figure 8. Needs by Category of Improvement

Transit

Category	Value
Light rail	380
Passenger rail	331
Bus	248
Other	76
Rideshare or taxi	8
Paratransit	7

Active Transportation

Category	Value
Mixed bicycle and pedestrian	508
Bicycle access	287
Pedestrian access	103
Other	25
ADA improvements	11

Roadway

Category	Value
Road expansion	271
Maintenance	173
Safety	166
Bridge	102
Other	63
Toll facility	16

Airport

Category	Value
Airport access	62
Other	22
Airport noise	8
Airport safety	5

Freight Rail

Category	Value
Other	20
Safety	18
Quality	12
Frequency	11

Port

Category	Value
Port expansion	17
Port infrastructure improvements	15
Other	12
Cruise terminal improvements	9
Freight cargo terminal improvements	8
Public waterway access	5

The figures below demonstrate how MDOT received suggestions from throughout the state and throughout the Washington and Baltimore metropolitan areas.
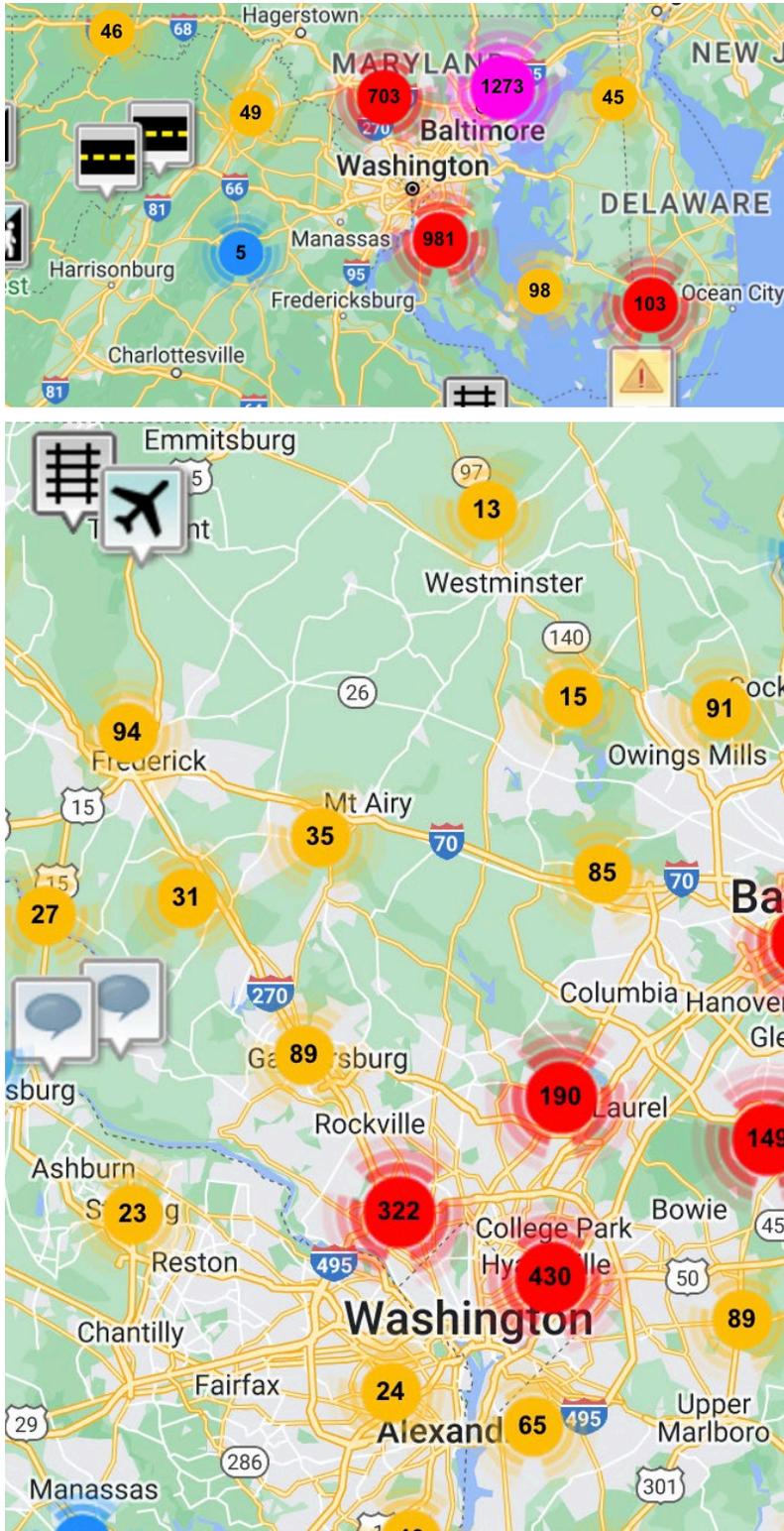
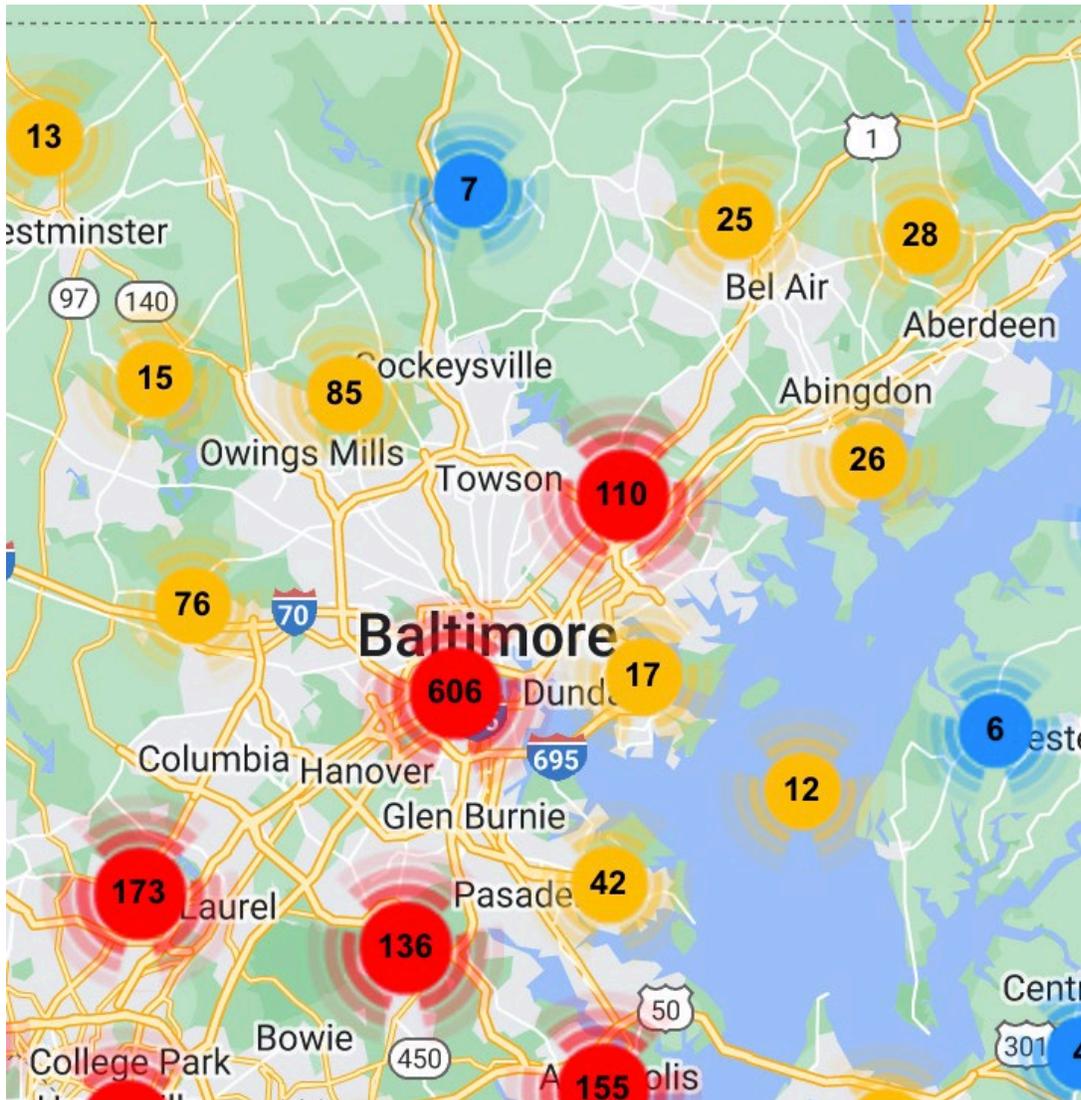*Figure 9: Central Maryland—Washington, DC*

Figure 10: Central Maryland—Baltimore
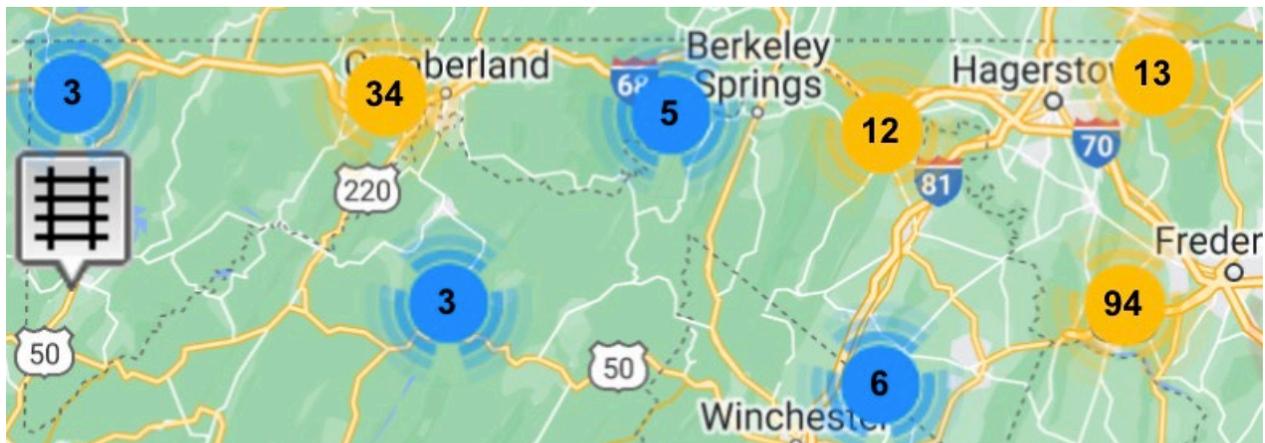

Figure 11: Western Maryland
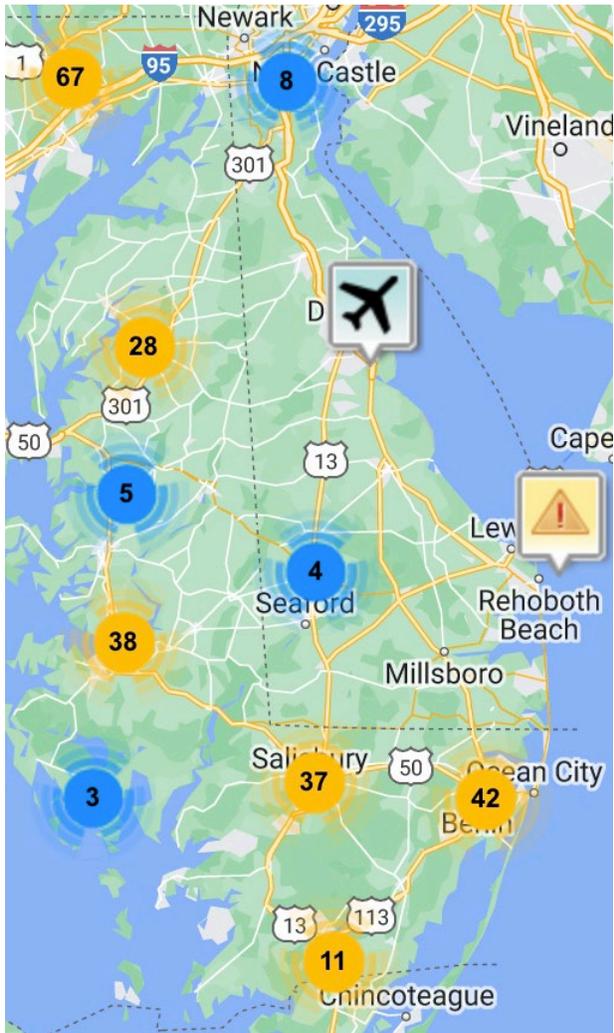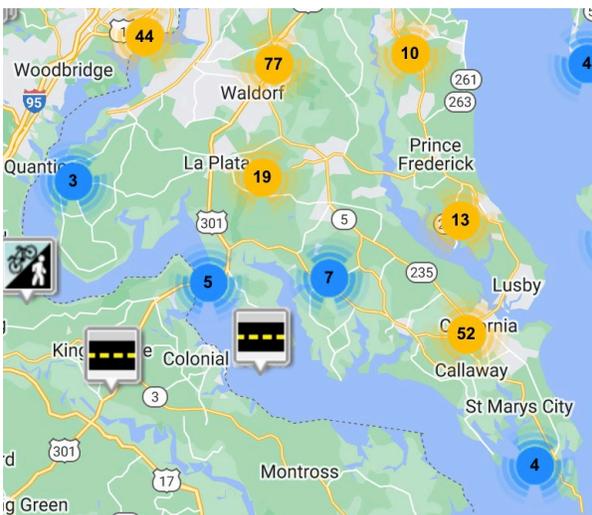
Figure 12: Eastern Shore Maryland

Figure 13: Southern Maryland

Appendix D—ARAC Meeting Summaries

Attainment Report Advisory Committee (ARAC) on Goals, Benchmarks, and Indicators: Summary of Meeting #1

May 23, 2023: 1:00 PM – 3:00 PM, Virtual

Attendees

- Alexander Austin – Prince George's Chamber of Commerce
- Ben Groff – MTA Citizens Advisory Committee
- Brian Wivell – Maryland State & DC AFL-CIO, Legislative & Political Director
- Chester Harvey – National Center for Smart Growth, University of Maryland
- Deborah Price – Demographic Planner, Harford County
- Dennis Enslinger – Gaithersburg Deputy City Manager
- Derrick Waters – US Treasury IRS
- Gustavo Torres – Executive Director, CASA Maryland
- Jaimie McKay – Transit Services Division, Frederick County
- Lindsey Mendelson – Sierra Club Maryland
- Louis Campion – Maryland Motor Truck Association
- Dr. Mansoureh Jeihani – Morgan State University
- Ragina Ali – AAA Mid-Atlantic, Maryland & Washington DC.
- Robert Holsey Jr., International Union of Operating Engineers, Local 37
- Sheila Somashekhar – University of Maryland, Purple Line Coalition
- Dr. Shima Hamidi – Johns Hopkins University, Environmental Health & Engineering
- Dr. Ting Ma – TRB Standing Committee on Performance Management
- Valdis Lazdins – Assistant Secretary, Maryland Department of Planning

Unavailable for Meeting #1
- Charlotte Davis – Executive Director, Rural Maryland Council
- Jacqueline Allsup – Vice President, Maryland State NAACP

Other
- Aviva Klugh, MDOT
- Christopher Parris, MDTA
- Clay Barnes, CS/ARAC Consultant
- Cole Greene, MTA
- Corey Stottlemyer, MDOT
- Deron Lovaas, MDOT
- Joe McAndrew, MDOT
- John Thomas, MDOT
- Kaiqi Zhang, FS/ARAC Consultant

- Dominic Scurti, MPA
- Doug Mowbray, MHSO
- Emma Stockton, CS/ARAC Consultant
- Erin Dean, HS/MTP Consultant
- Heather Murphy, MDOT
- Jacqueline Djomo, MVA
- Marty Baker, MDOT
- Michelle Martin, MDOT
- Nate Evans, MDOT

- Nimisha Deshwal, CS/ARAC Consultant
- Ryan Caro, HS/MTP Consultant
- Sophia Cortazzo, MDOT

- Sydney Joseph, HS/MTP Consultant
- Tom Harrington, CS/ARAC Consultant
- Toria Lassiter, SHA

Public
- Michael Scepaniak, Member of the Public

Introductions

Assistant Secretary Joe McAndrew introduced himself, congratulated everyone on their appointments to the ARAC, and then introduced the Chair, Dr. Mansoureh Jeihani.

Dr. Mansoureh Jeihani is a professor and the director of the National Transportation Center at Morgan State University and the Urban Mobility & Equity Center — a USDOT Tier-1 University Transportation Center. She has a multidisciplinary background in Civil Engineering/Transportation System, Economics, and Computer Engineering. Dr. Jeihani has more than 20 years of experience in applied research in transportation planning and modeling, traveler behavior, intelligent transportation systems, connected and automated vehicles, traffic safety, artificial intelligence, and equity. She also serves as chair and an active member of numerous committees and councils across Maryland and the federal transportation sector focusing on innovation, CAV, behavioral traffic and distracted driving.

Dr. Jeihani introduced herself, and then asked each of the ARAC members to introduce themselves with their camera on. Each of the MDOT staff and the consultant representatives introduced themselves in the chat. She provided an overview of the ARAC resources and links – noting that MDOT will be using the [ARAC webpage](#) to share information. She then turned over the presentation to Assistant Secretary Joe McAndrew to review virtual meeting housekeeping, including how to participate and provide comments.

Transportation in Maryland

Assistant Secretary Joe McAndrew provided an overview of MDOT, which is centralized with a Secretary's Office and five modal administrations and the Transportation Authority — it is set up similar to the US DOT. The Secretary serves as chair of the Maryland Transportation Authority, chair of the Port and Airport commissions and serves as a member of the WMATA Board. MDOT is responsible for all statewide transportation planning for all modes of transportation, working with all five modal administrations and the Transportation Authority towards one shared mission.

The mission of MDOT is to be a customer-driven leader that delivers safe, sustainable, intelligent, exceptional, and inclusive transportation solutions in order to connect our customers to life's opportunities.

Assistant Secretary McAndrew then discussed the Maryland Transportation Plan (2050 MTP). The statewide long-range transportation plan is both state and federally mandated and required to be updated every five years to address statewide needs and future challenges. The MTP provides transportation policies and priorities in order to guide transportation investment decisions. Maryland has a policy-based plan, meaning it does not include specific projects, rather it highlights strategies, programs, and priority areas. The MTP is required in order to receive federal funding, and since it was last published in 2019, it is required to be updated by January of 2024. The Bicycle and Pedestrian Master Plan is updated at the same time.

Over the last year, Phase 1 of the MTP included an assessment of best practices and existing conditions and trends. The MTP provides the statewide framework of goals and objectives. Therefore, Phase 1 of the MTP also included an assessment of all MDOT plans, which we call our "Family of Plans," in coordination with our partner plans — all of which should work in collaboration with each other (i.e., freight plans, rail plans, transit plans, MPO plans, etc.). The MTP informs, and is informed by, various multimodal plans and reports across MDOT, linking these plans to the MTP.

Phase 2 of the MTP began this winter with drafting goals, guiding principles and objectives and priorities and public interaction through the website, surveys, and other outreach. Phase 2 also includes the development of strategies, needs, revenues, and gaps. Our next public survey in June will focus on transportation needs, key outcomes and investment priorities. This committee will provide input into Phase 2 as well.

In Phase 3, MDOT will develop the draft plan later this summer/early fall, and share it for public input, with a final report anticipated this winter. Public outreach is key to the Plan development.

Assistant Secretary McAndrew then provided statistics about Maryland, including population, economy, employment, and travel trends.

Maryland's transportation challenges were briefly introduced, including public health, equity, transportation demand management (getting people out of driving alone), shared mobility, e-commerce, disconnected transportation and land use plans, electric vehicles (EV), telework, connected and automated technology, an aging population, and support for distressed economic regions.

The Chair introduced a poll using Mentimeter (www.menti.com): "What transportation trend do you see as the most challenging" The most common answers were congestion, equity and EVs.

Figure 1. Responses to poll "What transportation trend do you see as most challenging?"

State Report on Transportation

Michelle Martin, Deputy Director of the MDOT Office of Planning and Capital Programming provided an overview of the State Report on Transportation.

The State Report on Transportation, includes the following:

- MTP, the 20-year plan;
- CTP, or Consolidated Transportation program, is the six-year transportation capital program, or budget document; and
- AR, Attainment Report on Transportation System Performance, is the annual document to report how the Department of Transportation is performing to meet the MTP goals and objectives.

The goals are important not only to performance management, but also to guide the Family of Plans, like the freight and rail plans, bike and pedestrian master plan and other modal plans.

Nate Evans, Active Transportation Planner at MDOT gave a brief overview on the Bicycle and Pedestrian Master Plan (BPMP), which is being updated at the same time as the MTP, every five years. It will include more data, focused on level of traffic stress (LTS). He also highlighted the schedule of adoption.

Michelle Martin reviewed the Draft Guiding Principles and Draft Goals. The Draft Guiding Principles align the mission, values, and capabilities and serve as overarching, cross-cutting ideas that MDOT strives for through each of the goals. The five initially proposed guiding principles include: **Equity**, **Resilience**, **Preservation**, **Innovation**, and **Experience**. The Draft Goals are broad statements with desired results that reflect the overall MDOT mission statement. The six initially proposed goals include: **Safety and Security**, **System Quality, Environmental Stewardship**, **Choice and Accessibility, Economic Development**, and **Best Practices**.

Role of the Advisory Committee

Michelle Martin discussed the importance of performance measures to monitor the progress towards our goals. The role of the ARAC is to advise MDOT on the selection of goals, performance measures, and targets to help guide the long-range transportation plan and the annual Attainment Report (AR).

MDOT uses performance measures in the AR as well as the Department of Budget and Management's annual Managing for Results (MFR) report, which has some overlap with AR performance measures. Both reports are mandated by the legislature, but the AR is intended more as a calendar year report with more text, and generally more for the general public, while the MFR is more of a fiscal year report or booklet in support of the budget process, and generally more focused for the legislature.

Performance measures are aligned with the Goals and Objectives, and the performance measure targets are set to measure progress towards achieving our goals. Performance measurement is important to understanding our progress based on historical data and trends, helping to identify areas of improvement and success, and helping in deciding on the allocation of resources to ensure our performance trends head in the right direction through budget, staff, programs, and projects. We measure our progress annually in the AR.

Attainment Report: Overview & Requirements

Michelle Martin walked through the history and content of the Attainment Report. Since 2002, MDOT has used the AR to report transportation performance, assessing progress towards achieving our strategic goals and objectives as outlined in the long-range transportation plan. This allows MDOT and the modal administrations to invest based on trends, or even add newer or more improved measures, like bicycle level of traffic stress in the BPMP.

Discussion: MTP Guiding Principles, Goals, and Key Outcomes

Michelle Martin and Clay Barnes facilitated discussion of the Revised Draft Guiding Principles, Goals, and Key Outcomes. The MTP Draft guiding principles and goals were informed by our existing Family of Plans, the MPO plans, federal and state priorities, policy direction, and public input.

An MTP survey open to the public concluded in early May with over 500 responses. Michelle Martin provided high-level insights to the ARAC:

- Guiding Principles: We were encouraged to change innovation to modernization, to have the customer focus on the individual users and to add GHG reduction into the resilience description, as well as to better define equity considerations.
- Goals: We were encouraged to add mitigation to the Environmental stewardship goal, to focus on the experience of all users, not just vehicles, and to remove any internal goals or objectives to MDOT.

The resultant proposed goals were refocused to 4 goals—best practices was considered too internal facing; economic development and choice and accessibility were too redundant and were combined into "Serve Communities and Support the Economy".

Discussion about Proposed Guiding Principles

During the meeting, several key points were discussed. It was noted that the narrative should include a vision for 2050, and safety should be considered as a guiding principle. The language regarding the economy in the goals needed clarification. The topic of equity prompted the need for a clear definition that recognizes different stakeholder needs. Resilience and mitigation were discussed, and their fit within the existing principles was considered. Regarding preservation, suggestions were made to use "sustainability," and the importance of maintaining existing assets for future modernization was emphasized. Alternative terms such as "maintenance," "asset management," "caretaking," "preservation," or "stewardship" were proposed. Balancing modernization and preservation were acknowledged as challenging, with "modernization" deemed a better term. Lastly, it was noted that engagement should be supported in the subtext, and the last principle should consider encompassing public health and quality of life impacts, beyond just experience.

Questions

- Lindsey Mendelson.: Can Justice40 be a part of the Equity guiding principle?
  - Justice40 will be considered as a tool for assessing performance measures.

- Deborah Price: Could the sections of resilience and preservation be put under sustainability of the entire system?
  - We will consider if it makes sense to combine these guiding principles into sustainability but will want to make sure we do not lose any of the intended meaning.
- Dr. Shima Hamidi: We have resiliency but what about mitigation? Does it fit within the existing list of principles?
  - Mitigation is addressed in the Environmental Stewardship goal.

Discussion about Proposed Goals

In discussing the proposed goals, safety and serving communities received positive feedback, while the relationship between guiding principles and goals require clarification. Under "Enhance Safety and Security," the suggestion to use "ensure" instead of "enhance" was discussed, along with the inclusion of quality words like convenient, seamless, and integrated. For "Deliver System Quality," the need for a better definition of "high-quality" was highlighted, focusing on user experience or system performance, as well as to add "integrated." In "Promote Environmental Stewardship," the explicit reference to advancing environmental justice and improving climate, air, and water quality was suggested. Finally, no specific comments were made for "Serve Communities and Support the Economy."

Discussion about Key Outcomes

In the meeting, several important points were discussed across different topics. The need for consistency in displaying outcomes with quantifiable numbers was highlighted, along with the suggestion to rearrange goals and outcomes to better align their focus. Specific discussions revolved around enhancing safety and security, clarifying terms like "clearance time" and reconsidering the timeline for Vision Zero. Delivering system quality involved considerations such as public transit reliability, active network connectivity, and inclusivity of all modes. Promoting environmental stewardship encompassed updating emission reduction targets, incorporating electric vehicles and infrastructure, and pursuing sustainable infrastructure transformation. Serving communities and the economy emphasized equitable access, walking and biking infrastructure, transit improvements for disadvantaged areas, and the adoption of decentralized and renewable energy. These discussions contributed to refining the goals and outcomes for the 2050 MTP, ensuring a comprehensive and impactful transportation plan for the future.

Enhance Safety and Security

The key discussion focused on the following topics, which will be considered as we develop the 2050 MTP Key outcomes and the performance measures working with this Committee and with consideration of the public feedback.

- Clarification needed on the term "clearance time" and its relevance to safety.

- The timeline for Vision Zero should be reconsidered, as 2050 seems too distant for meaningful impact.
    - We can include the 2030 Vision Zero goal/target here.
- The concentration of fatalities in underserved areas and the use of data-driven tools to identify high-risk areas were proposed.

Deliver System Quality

- Consideration of public transit reliability, including on-time performance and addressing ghost buses.
- Proposal for a metric to evaluate active network connectivity, such as sidewalk saturation and bike lane connectivity.
- Inclusion of all modes, including ports and freight rail, in the evaluation of system quality.

Promote Environmental Stewardship

- Updating GHG emission reduction targets to align with regional goals.
- Addition of electric vehicles (EV), EV infrastructure, and electrification of public transit as outcomes.
- Focus on sustainable infrastructure transformation, integrating green elements and prioritizing investments in public transit and active transportation.

Serve Communities and Support the Economy

- Attention to disadvantaged communities and equitable access.
- Encouragement of walking and biking through improved infrastructure for pedestrians and bicyclists.
- Consideration of transit-dependent communities and setting specific measures for transit improvements.
- Proposal for decentralized and renewable energy as a focus area.
- It was noted that much of the state's walking/biking infrastructure is owned by a combination of local and state jurisdictions, which should be considered when developing key outcomes and performance measures.

Next Steps

The Chair noted that the team will be sharing the initial list of performance measures in about a week to review in advance of the next meeting, which is scheduled for June 8th at 1 pm.

Upcoming meetings

- Thursday, June 8th – Meeting #2 – overview and guidelines of performance management selection and facilitated discussion of goals and their proposed performance measures
- Tuesday, June 20th – Meeting #3 – any follow up from Meeting #2 and facilitated discussion of any remaining goals and their proposed performance measures
- Tuesday, July 11th – Meeting #4 – review of recommendations and draft report, review of AR requirements, data, and targets, and discuss any suggested improvements to the AR document and to the AR dashboard

Public Comments

Mike Scepaniak said he was confused by the timeline. He sees that the MTP engagement is occurring in the summer. Is this before or after the Committee is done? He does not see an opportunity for the public to shape the MTP.

Michelle Martin responded that MTP public outreach includes comments on surveys and the draft plan throughout this summer and fall, which will include this group's recommendations for goals, guiding principles, key outcomes, performance measures (PM) and targets. While this group will complete their work by July 11, these meetings, they surveys, and the public review of the draft report are when the public will have the opportunity to interact and provide comments.

Mike Scepaniak asked how one can submit comments in writing. He is on the mailing list for the survey but did not see public statement about the ARAC.

Michelle Martin responded that comments can be sent to MDOTMTP@mdot.maryland.gov. Regarding the ARAC meeting series, they were announced on the MDOT website and ARAC website but MDOT did not put out a press release. Michelle will follow up on this.

Question

- Will there be a press release for each ARAC meeting or the meeting series?
  - o All of the ARAC meetings have been posted online.
  - o MDOT will evaluate the possibility of a press release related to the MTP and ARAC.

Meeting Conclusion

The Chair concluded the meeting. The meeting summary will be posted online and emailed to the Committee. If the ARAC has any questions, please contact Michelle Martin.

Attainment Report Advisory Committee (ARAC) on Goals, Benchmarks, and Indicators: Summary of Meeting #2

June 8, 2023: 1:00 PM – 3:00 PM, Virtual

Attendees

- Alexander Austin – Prince George's Chamber of Commerce
- Ben Groff – MTA Citizens Advisory Committee
- Charles Boyd – Director of Planning Coordination, Maryland Department of Planning
- Chester Harvey – National Center for Smart Growth, University of Maryland
- Deborah Price – Demographic Planner, Harford County
- Dennis Enslinger – Gaithersburg Deputy City Manager
- Derrick Waters – US Treasury IRS
- Gustavo Torres – Executive Director, CASA Maryland
- Jacqueline Allsup – Vice President, Maryland State NAACP
- Jaimie McKay – Transit Services Division, Frederick County
- Lindsey Mendelson – Sierra Club Maryland
- Dr. Mansoureh Jeihani – Morgan State University
- Robert Holsey Jr., International Union of Operating Engineers, Local 37
- Sheila Somashekhar – University of Maryland, Purple Line Coalition
- Dr. Shima Hamidi – Johns Hopkins University, Environmental Health & Engineering
- Dr. Ting Ma – TRB Standing Committee on Performance Management

Unavailable for Meeting #2
- Brian Wivell – Maryland State & DC AFL-CIO, Legislative & Political Director
- Charlotte Davis – Executive Director, Rural Maryland Council
- Louis Campion – Maryland Motor Truck Association
- Ragina Ali – AAA Mid-Atlantic, Maryland & Washington DC

Other
- Aviva Klugh, MDOT
- Christopher Parris, MDTA
- Clay Barnes, CS/ARAC Consultant
- Cole Greene, MDOT
- Corey Stottlemyer, MDOT
- Deron Lovaas, MDOT
- Dominic Scurti, MDOT
- Doug Mowbray, MHS

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- Drew Morrison, MDOT
- Eddie Lukemire, MDOT
- Emma Stockton, CS/ARAC Consultant
- Jacqueline Djomo, MVA
- Jessica Shearer, Blackwater/SHA Consultant
- Kaiqi Zhang, FS/ARAC Consultant
- Kenneth Good, MTA
- Lisa Shemer, SHA
- Nimisha Deshwal, CS/ARAC Consultant
- Megan Jansen, MDOT
- Michelle Martin, MDOT
- Peter Moe, MDOT
- Ross Turlington, MDOT
- Ryan Caro, HS/MTP Consultant
- Sophia Cortazzo, MDOT
- Sydney Joseph, HS/MTP Consultant
- Tom Harrington, CS/ARAC Consultant
- Toria Lassiter, MDOT

Public
- Staci Hartwell, NAACP
- Michael Scepaniak, Strong Towns Baltimore
- Bill Pugh, Coalition for Smarter Growth
- Brian O'Malley, Central Maryland Transportation Alliance

Introductions / Roll Call / Meeting #1 Overview

Michelle Martin, Deputy Director of the MDOT Office of Planning and Capital Programming, let everyone know that Assistant Secretary Joe McAndrew was not able to make today's meeting due to a conflict with a WMATA Board Meeting, and that he sent his regrets. She encouraged MDOT staff, MDOT consultant staff and any members of the public to introduce themselves in the chat. The Chair, Dr. Mansoureh Jeihani welcomed the Committee and conducted roll call of the ARAC members. For Committee members who were not able to attend the first meeting, Dr. Jeihani gave them a chance to introduce themselves: Jacqueline Allsup, Vice President of the Maryland NAACP and new member Chuck Boyd (replacing Val Lazdins) with the Maryland Department of Planning. Louis Campion, who arrived late to the last meeting and Charlotte Davis were not present to introduce themselves.

The Chair then provided a summary of the first ARAC Committee Meeting, which included an overview of MDOT, Transportation in Maryland, the Maryland Transportation Plan, the Bicycle and Pedestrian Master Plan, and the Attainment Report (AR), and a more detailed interactive discussion on the MTP Guiding Principles, Goals, and Key Outcomes. Michelle Martin noted there was great feedback from the Committee, which is still being addressed by the MDOT team but some feedback has already been incorporated. The Chair asked if there were any issues or questions with the Meeting Summary sent by email, with no additional comments provided.

The Chair also noted that the second MTP survey is now live and everyone should have received an email. The survey is open to the public and available on the MTP web page, or can be found directly at: https://metroquestsurvey.com/vj71u. The survey is focused on seeking key outcomes for the 2050 MTP, transportation needs using a map drag and drop feature, and gaining insight on transportation investments priorities. She encouraged everyone to share the survey with their Maryland colleagues, family, and friends. The survey will be available through July 10.

Questions

- Dr. Ting Ma: I do not think I have received the survey through email. Is there a mailing list that I can join?
    - The press release was shared just before the meeting, so you may not have received anything in advance of the meeting.
    - We will add the ARAC to the email distribution to ensure everyone received the email.

Overview of Performance Measurement

The Chair turned the meeting over to Michelle Martin and the ARAC Consultant team. Michelle Martin let the Committee know she had sent hard copies of the AR to those who requested them and to let her know if anyone would still like one.

Michelle Martin provided an overview of performance measurement, specifically focusing on the selection of performance measures and their relation to the goals outlined in the AR. The Committee's objective for this meeting was help with making sure measures are effective, measurable, and understandable. It was noted that there are currently too many performance measures in the AR and that it is necessary to identify a select number of impactful measures that truly illustrate the performance of the transportation system. Ideally, the aim is to have no more than 1-3 performance measures per objective, with some exceptions. The Committee was encouraged to share their ideas on proposed performance measures, including the possibility of moving some measures to an online appendix.

Michelle Martin discussed the selection criteria utilized in identifying and recommending performance measures for the annual AR. These criteria included:

- Compliance with state and federal requirements, considering legislation and any alignment opportunities for statewide and federal performance reporting.
- Alignment with the goals and objectives of the 2050 MTP and the evaluation of their effectiveness in achieving these objectives.
- Technical feasibility, including the availability of current or historical data, existing tracking systems, and the effort required to collect and report the data.
- Efficiency, comprehensiveness, and balance in measuring the overall performance of the transportation system, as well as responsiveness to annual changes and the creation of a balanced report by mode.
- Understandability and ease of communication to the public.

Michelle Martin highlighted the desired outcomes when selecting measures, such as linking them clearly to MDOT goals, measuring what is important, ensuring their understandability, and quantifying complex issues. It was emphasized that the data should be consistent and available, indicating a clear direction for improving performance.

While setting targets for performance measures was not discussed in detail during the meeting, it was noted that targets should be challenging yet attainable. Historical data and performance trends, as well as desired policies and outcomes, should be taken into consideration when setting targets. The challenges associated with setting targets, such as the availability and impact of external factors beyond MDOT's control, were also acknowledged.

Presentation with Interactive Discussion: Performance Measures by Goals

Michelle and the ARAC Consultant team presented slides containing performance measures for each goal and engaged in an interactive discussion with the Committee members. The discussion was based on the Performance Measure summary document that the ARAC received via email the previous week. Utilizing the raised hand functionality to facilitate discussion, they reminded the attendees that the goals had been slightly adjusted and would continue to be refined based on public comments. They also reminded the attendees of the color coding used in the document:

- Yellow – existing measure, keep in AR
- Blue – existing measure, move to an online appendix
- Green – proposed new measure based on research, best practices, and modal administration input

Chester Harvey asked whether moving the (blue) existing performance measures to an online appendix was due to a space issue. Michelle explained it was not a space issue but rather a focus to include the most impactful measures for assessing how the transportation system is performing. While the blue measures are still valuable, they are not directly aligned with the key goals and objectives. The intention is to keep the report concise, readable, and understandable, as opposed to extending it to 60 pages.

The presentation included slides for all four goals, but the group focused on the first two goals in this meeting and will finish the remaining two goals in Meeting #3.

Questions

- Jacqueline Allsup raised a question about the absence of performance measures for environmental justice (EJ) and pollution-impacted communities in the previous meeting. She mentioned that some of the new proposed draft performance measures focus on underserved and overburdened communities.
    - o Michelle Martin explained that Meeting #1 reviewed key outcomes and not performance measures. There are several proposed performance measures that address EJ and pollution-impacted communities that will be covered in this meeting.
- Gustavo Torres asked why race and equity are not key criteria for the performance measures.
    - o Michelle Martin clarified that race and equity are guiding principles for the measures. The equity guiding principle will cross over with many of the performance measures, as will the other guiding principles. Additionally, equity metrics and measures are cascaded throughout the goals, and they will be discussed in more detail.

Goal: Enhance Safety & Security

Objectives/Focus Areas to Measure	Guiding Principles				
	Equity	Resilience	Preservation	Experience	Modernization
Prioritize efforts that will reduce the number of lives lost and injuries sustained on Maryland's transportation system.			X	X	X
1. Annual Number of Fatalities and Injuries on All Roads in Maryland (MFR)					
2. Annual Number of Bicycle Fatalities and Injuries (MFR)					
3. Annual Number of Transit Passenger Fatalities and Injuries					
4. Number of Pedestrian Fatalities and Injuries (MFR)					
5. Number of at-grade railroad crossing incidents resulting in injury or fatality					
Minimize disparities in safety across Maryland's diverse communities.	X				
1. Traffic fatalities and serious injuries in historically disadvantaged communities					
Address multimodal safety needs to support a safe and secure transportation system.	X			X	X
1. Preventable Incidents Per 100,000 Vehicle Miles on Transit					
2. Miles of lower level of traffic stress (LTS 2 or better)					
Maintain a safe system during adverse weather events, man-made threats, and other system disruptions.		X	X		
1. Roadway clearance times					
2. Incident (CHART) response rates/times					

Objective 1 - Prioritize efforts that will reduce the number of lives lost and injuries sustained on Maryland's transportation system

It was suggested that transit-related incidents should not be place in the online appendix, as it may create the perception that transit safety is not a priority. Instead, incorporating transit-related data into the report's narrative was suggested to address this concern. The focus on preventable accidents/incidents was highlighted as crucial, but opinions differed on whether to combine bicycle, transit, and pedestrian fatalities into one indicator or maintain separate measures. Maintaining separate measures was discussed based on the classification of transit riders as passengers and the existence of specific safety plans for pedestrians and bicyclists. Lastly, there was a proposal to showcase a metric across different modes to demonstrate transit safety and provide a breakdown of fatalities and injuries at the beginning of the report, potentially calculated per 1,000 miles for transit.

Objective 2 – Minimize disparities in safety across Maryland's diverse communities

During the discussion, several important points were raised regarding the prioritization and reporting of safety measures in the context of underserved or overburdened communities. Primarily, there were questions from the Committee on why the Objective 2 measure focuses on serious injuries and fatalities, while Objective 1 focuses on fatalities and all injuries. It was explained that a focus on serious injuries, as opposed to all injuries, aligns with the safe system approach. The aim is not to prevent all crashes but to prevent all serious injuries and fatalities. This discussion was continued in Objective three and resulted in a proposal to consider three measures: fatalities, serious injuries, and injuries of all severity types.

Objective 3 – Address multimodal safety needs to support a safe and secure transportation system

During the discussion, several important points were raised regarding the inclusion of language access (particularly for Spanish-speakers), consistency in measuring railroad incidents, and the focus on serious accidents for diverse communities. A consistency issue was identified regarding the measurement of at-grade railroad crossing incidents. There were some Committee member questions on why we might add this measure, while moving the transit preventable incidents to the online appendix, especially if both have lower numbers; however, at-grade railroad crossing incidents is a federally required metric. Continuing the conversation on injury severity from Objective 2, the proposal to differentiate the severity level for transit passengers and other modes was suggested, leading to the proposal of three measures: fatalities, serious injuries, and injuries of all severity types. The ultimate goal of zero fatalities and serious injuries was emphasized, and it was clarified that while the goal measures the most severe crashes, program planning considers all injury crashes. The inclusion of new modes, such as e-scooters and e-bikes, was discussed, with the explanation that scooter riders are currently counted as non-motorists/pedestrians on crash reports, making it challenging to separate them as a distinct category. The proposed measure "Miles of lower level of traffic stress (LTS 2 or better) has been moved to the "Serve Communities and Support Economies" goal, so there was not a discussion of this measure in this meeting.

Objective 4 – Maintain a safe system during adverse weather events, man-made threats, and other system disruptions

No Committee members had questions or comments for the measures in this objective.

Below are the results of a poll ranking the new, proposed performance measures.

Figure 1. ARAC ranking of new proposed performance measures for the goal " Enhance safety and Security"

* *"Miles of lower level of traffic stress (LTS 2 or better) has been moved to the "Serve Communities and Support Economies" goal.*

Goal: Deliver System Quality

Objectives/Focus Areas to Measure	Guiding Principles				
	Equity	Resilience	Preservation	Experience	Modernization
Provide a multimodal system resilient to changing conditions and hazards.		X	X		X
1. Preparedness of the transportation system for weather conditions and hazards 2. Percentage of lane-miles/transit-miles that cannot withstand a storm + sea level rise (100-year storm)					
Preserve and maintain State-owned or funded facilities in a state of good repair.		X	X	X	X

1. Unfunded State of Good Repair Backlog
  2. Percentage of the Maryland State Highway Network in Overall Preferred Maintenance Condition (MFR)
  3. Overall Acceptable Pavement Condition (MFR)
  4. Percent of all Maryland Bridges that are in Poor Condition (MFR)					

Minimize travel delays and improve reliability and quality on all modes.	X			X	X

1. Annual Cost of Congestion (Billions) on the MDOT highway network (MFR)
  2. User cost savings for the traveling public due to incident management (MFR)
  3. Percent of all MDOT Transit Service Provided On Time (MFR)
  4. Percent of VMT in Congested Conditions on Arterials in Maryland During the Evening Peak Hour (MFR)
  5. Percent of VMT in Congested Conditions on Freeways/Expressways in Maryland During the Evening Peak Hour (MFR)
  6. Percentage of State-Owned Roadway Directional Miles Within Urban Areas that Have Sidewalks (MFR)
  7. Truck Hours of Delay (All traffic hours of delay in appendix) (MFR)					

Accelerate project completion through improved project delivery.		X	X		X

1. Percent of toll transactions collected by E-ZPass® vs. video tolls (MFR)
  2. MDOT MVA Alternative Service Delivery (ASD) Transactions as Percent of Total Transactions (MFR)
  3. MDOT MVA Average Cost Per Transaction (MFR)					

4. Percent of program funds in the CTP that are leveraging partnership and discretionary grant program dollars
  5. Percent of On-time project delivery across MDOT (determine how best to measure)
  6. Percent of on budget projects delivered across MDOT (determine how best to measure)					

Improve the efficiency of the Port of Baltimore and BWI Thurgood Marshall Airport with respect for surrounding communities.	X	X	X	X	X

1. Port of Baltimore Foreign Cargo Tonnage and MPA General Cargo Tonnage (MFR)
  2. Freight Originating and Terminating in Maryland by Mode – Total Tonnage
  3. Freight Originating and Terminating in Maryland by Mode – Total Value
  4. BWI Marshall Airport Total Annual Passengers (MFR)
  5. Airline Cost Per Enplaned Passenger (CPE) (MFR)
  6. Number of Nonstop Airline Markets Served (MFR)
  7. MPA's Operating Cost (TBD)					

Objective 1 - Provide a multimodal system resilient to changing conditions and hazards

It was suggested by a Committee member that we add the 3 feet above the 100-year floodplain standard for determining the percentage of lane-miles/transit-miles that cannot meet that elevation. They recommended looking into what other states are doing in terms of capital investment standards and that the Maryland Department of the Environment (MDE) has mapping resources for coastal and riverine areas that could be applied to assess all infrastructure.

Objective 2 - Preserve and maintain State-owned or funded facilities in a state of good repair

Performance Measure 2a: *Unfunded State of Good Repair Backlog*

Further context was provided on the Unfunded State of Good Repair (SOGR) and how it is compiled, its accuracy, and how it is measured. Michelle Martin explained that the SOGR is converted into dollars and compared to the Consolidated Transportation Program (CTP). She mentioned that they are still figuring out how to measure this accurately. There was apprehension about removing the other three measures related to SOGR, as the public is accustomed to seeing them and understands them. The Committee members emphasized the importance of explaining this change, especially to the national press. Michelle Martin acknowledged the need to explain the change well and stated that this new measure would capture all relevant aspects. A question was asked if the unfunded state of repair backlog would be broken down by modal administration. Michelle Martin responded that this is not necessarily the case; but it possible could be broken down by asset classification or mode. Another Committee member asked what modes are included in the backlog. Michelle Martin explained the backlog is for all the modes at MDOT and does take into consideration facilities as well. Cole Greene provided reference information for the MTA Capital Needs/SOGR Backlog. A Committee member said that they love this backlog measure.

Performance Measures 2b-d:
Tom Harrington mentioned that these objectives have been tracked over time and will continue to be tracked. The focus now is on finding effective ways to communicate the findings.

Objective 3 - Minimize travel delays and improve reliability and quality on all modes

During the discussion, several important points were raised regarding the on-time performance measure. There was interest in tracking the condition of state-owned roadways, adding a bicycle measure, and adding an airline/airport on-time performance measure. There were some questions on the online appendix, and the importance of local connectivity and transit coverage in the AR. Suggestions were made to have a separate measure for local buses, tracking on-time performance at specific stops, and considering late arrivals (or no arrival) as not meeting the on-time performance measure. The question of tracking the condition of state-owned roadways in disproportionately impacted communities was raised, and it was agreed that further research should be given to this suggestion. The inclusion of a bicycle measure and the measurement of airline/airport on-time performance were discussed, with plans to follow up on these suggestions. The suggestion of moving the Percentage of State-Owned Roadway measure to the appendix was acknowledged. The importance of local connectivity beyond MDOT's right of way was highlighted, with discussions on considering incentives for connecting sidewalks to transit systems and recognizing the holistic system. The importance of assessing the coverage and frequency of public transit over time was emphasized by the Committee, with mentions of measuring a frequent transit network, the number of jobs/households within its radius, and addressing access to Transit-Oriented Development (TOD) and the overall transit coverage area, which is actually covered by some of the new proposed measures.

Objective 4 - Accelerate project completion through improved project delivery

During the discussion, a Committee member expressed satisfaction with the new measures under Objective 4. There was a question about the definition of on-time project delivery, to which Michelle Martin clarified that it refers to projects being delivered on schedule (compared to construction notice to proceed). Another Committee member asked questions about the inclusion of average cost per motor vehicle transaction and the use of E-ZPass in measuring tolls. Michelle Martin explained that E-ZPass transactions are less expensive for Maryland, while video collection tolls are more expensive, and the average cost per transaction at the MVA is measured at the Maryland Motor Vehicle Administration (MVA). Hesitancy was expressed regarding the partnerships measure since less affluent communities might not have the resources to participate. Michelle Martin clarified that the intention behind partnerships is to maximize state dollars through other funding sources, and in particular federal funding sources. The Committee noted concern for the perception of this measure and asked MDOT to focus on the federal funding. With the uncertainty of federal grants and what year to allocate funding, it might be best to simplify the measure to assess federal and state funding as an overall percentage of the program (CTP).

Objective 5 - Improve the efficiency of the Port of Baltimore and BWI Thurgood Marshall Airport with respect for surrounding communities

A question was raised asking whether Baltimore/Washington International Thurgood Marshall Airport (BWI) freight should be included in the measures. Michelle Martin acknowledged the growth in BWI freight and noted that cargo at the airport is noted in one of the cargo measures.

There was a comment on the "MPA's Operating Cost" performance measure, noting that not all freight mileage in transit is the same, and this can skew towards heavier freight (by volume). For example, freight movement in the Northeast Corridor is different from the Beltway. We will continue to explore the best measure for MPA operating efficiencies. Deron Lovaas shared a mapping tool on climate change vulnerability of Maryland's transportation system for consideration.

Below are the results of the poll ranking new, proposed performance measures for the goal "Deliver System Quality."

Figure 2. Results of ARAC poll ranking new, proposed performance measures for the goal "Deliver System Quality"
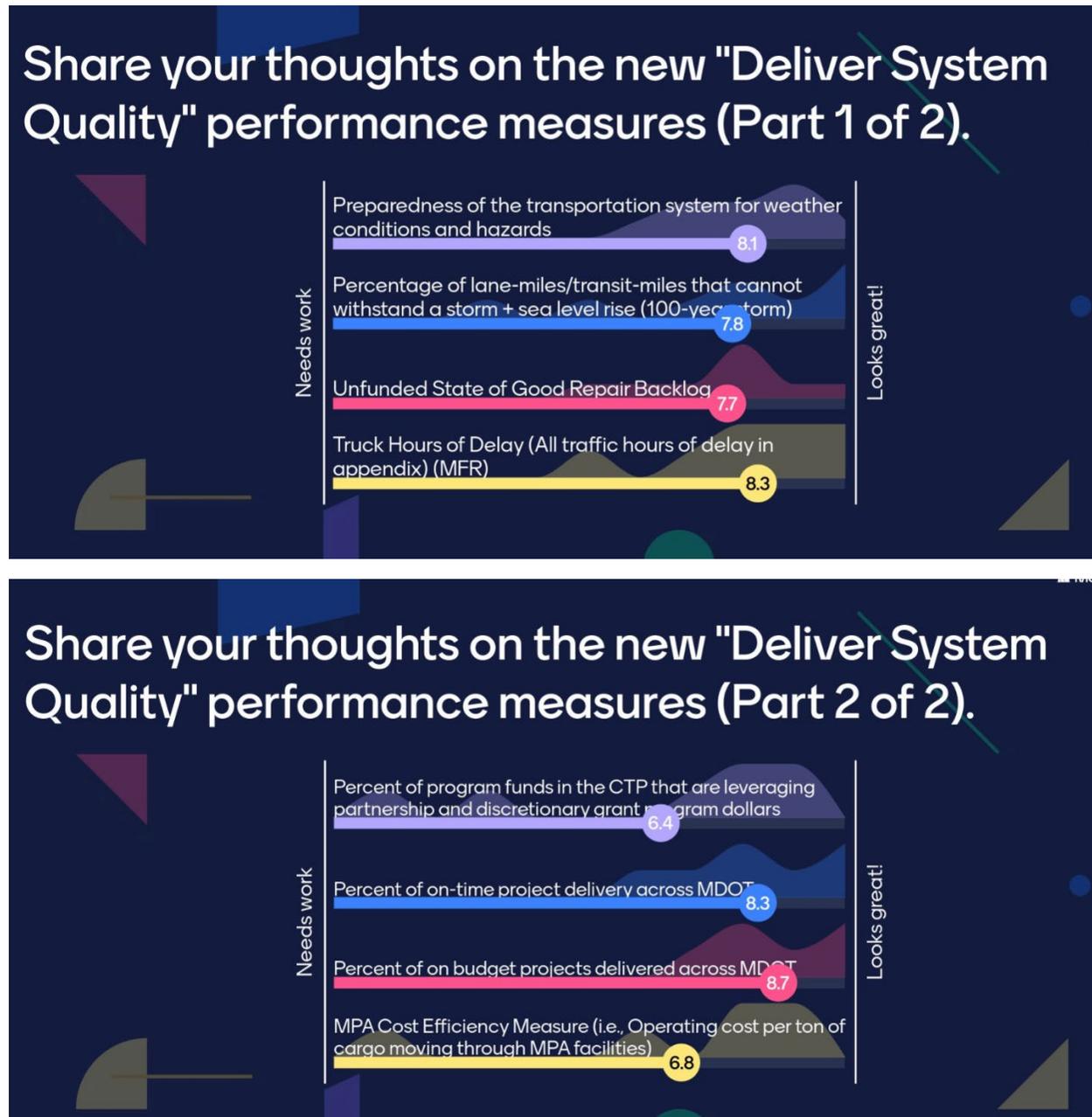
Next Steps

Michelle Martin said that the remaining two goals, "Serve Communities and Support the Economy" and "Promote Environmental Stewardship," would be discussed in the next meeting and ARAC members can review the slides before the next meeting. The goal order was based on

how many MFR measures each goal had as that is an upcoming Department of Budget and Management (DBM) deadline.

Dr. Jeihani provided an overview of the upcoming meetings:

- Tuesday, June 20th – Meeting #3 – discuss any follow up items from Meeting #2 and performance measures for the last two goals, "Serve Communities and Support the Economy" and "Promote Environmental Stewardship"
- Tuesday, July 11th – Meeting #4 – review recommendations and draft report, review of AR requirements, data, and targets, and discuss any suggested improvements to the AR document and to the AR dashboard

Public Comments

Dr. Jeihani invited the public attendees to raise their hand if they had any questions or comments.

Staci Hartwell inquired if the survey was open to the public, if equity metrics and measures would be covered, and about the prioritization of underserved or overburdened communities and the provision of remedies/recommendations.

MDOT responded that the survey is open to the public. Equity metrics and measures as well as potential performance measure edits were discussed, and this would help the agency field recommendations or strategies.

Bill Pugh from the Coalition for Smarter Growth encouraged the Committee and MDOT to consider an AR target for Vehicle Miles Traveled (VMT) in the context of state climate goals. He emphasized the need for progress in both electric vehicle adoption and reducing VMT to meet climate targets. He cited research from the Washington Metropolitan Transportation Board and the Rocky Mountain Institute. Bill Pugh also suggested reframing the airline passenger target for BWI as a share of regional air passengers. He also recommended diverting short-haul flights to more efficient rail travel to align with the state's rail goals.

Brian O'Malley from the Central Maryland Transportation Alliance expressed his appreciation for the AR as he uses it often and echoed Bill's point about setting a target for VMT reduction per capita. He highlighted the urgent need for action due to the inequitable climate crisis and emphasized that reducing VMT can help achieve various goals, especially in reducing greenhouse gas emissions. He mentioned the importance of better transportation and land-use policies to shorten and reduce trips through modes like walking, biking, and transit. He noted that relying solely on electric vehicles would not be enough to combat climate change.

ARAC members Lindsey Mendelson, Gustavo Torres, and Ben Groff expressed agreement and emphasized the importance of having a numerical VMT target.

Meeting Conclusion

The Chair concluded the meeting. The meeting summary will be posted online and emailed to the Committee. If the ARAC has any questions, please contact Michelle Martin.

Attainment Report Advisory Committee (ARAC) on Goals, Benchmarks, and Indicators: Summary of Meeting #3

June 20, 2023: 1:00 PM – 3:00 PM, Virtual

Attendees

- Alexander Austin – Prince George's Chamber of Commerce
- Ben Groff – MTA Citizens Advisory Committee
- Brian Wivell – Maryland State & DC AFL-CIO, Legislative & Political Director
- Charles Boyd – Director of Planning Coordination, Maryland Department of Planning
- Charlotte Davis – Executive Director, Rural Maryland Council
- Chester Harvey – National Center for Smart Growth, University of Maryland
- Deborah Price – Demographic Planner, Harford County
- Dennis Enslinger – Gaithersburg Deputy City Manager
- Gustavo Torres – Executive Director, CASA Maryland
- Jaimie McKay – Transit Services Division, Frederick County
- Lindsey Mendelson – Sierra Club Maryland
- Louis Campion – Maryland Motor Truck Association
- Ragina Ali – AAA Mid-Atlantic, Maryland & Washington DC.
- Robert Holsey Jr., International Union of Operating Engineers, Local 37
- Sheila Somashekhar – University of Maryland, Purple Line Coalition
- Dr. Ting Ma – TRB Standing Committee on Performance Management

Unavailable for Meeting #3
- Derrick Waters – US Treasury IRS
- Dr. Mansoureh Jeihani – Morgan State University
- Dr. Shima Hamidi – Johns Hopkins University, Environmental Health & Engineering
- Jacqueline Allsup – Vice President, Maryland State NAACP

Other
- Aviva Klugh, MDOT
- Christopher Parris, MDTA
- Clay Barnes, CS/ARAC Consultant
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- Jacqueline Djomo, MVA
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- Kaiqi Zhang, FS/ARAC Consultant
- Kevin Clarke, MAA
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- Parto Mazdeyasni, MPA
- Ross Turlington, MDOT
- Sophia Cortazzo, MDOT
- Sydney Joseph, HS/MTP Consultant
- Tom Harrington, CS/ARAC Consultant
- Toria Lassiter, MDOT

Public
- Michael Scepaniak, Strong Towns Baltimore

Introductions / Roll Call / Meeting #2 Overview

Michelle Martin, Deputy Director of the MDOT Office of Planning and Capital Programming, let everyone know that the Chair Dr. Mansoureh Jeihani was not able to make the meeting. She encouraged MDOT staff, the MDOT Consultant team, and any members of the public to introduce themselves in the chat.

Michelle Martin then provided a summary of the first and second ARAC Committee Meetings, including an overview of MDOT, Transportation in Maryland, the Maryland Transportation Plan, the Bicycle and Pedestrian Master Plan, and the AR, and a more detailed interactive discussion on the MTP Guiding Principles, Goals and Key Outcomes. The second ARAC Committee Meeting covered the performance measures proposed for the first and second goals. Michelle Martin noted there was great feedback from the Committee, which is still being addressed by the team. However, some comments have already been incorporated into revised performance measures.

Michelle Martin also noted that the second MTP survey is now live and everyone should have received an email notification. The survey is open to the public and available on the MTP web page through July 10. It is focused on seeking key outcomes for the 2050 MTP, transportation needs using a map feature, and gaining priorities on transportation investments. She encouraged everyone to share the survey with their Maryland colleagues, family, and friends.

Michelle Martin noted that this third ARAC Committee meeting's objective was to continue discussion on performance measures for the third and fourth goals.

Questions

- Chester Harvey inquired about the target guidance aspect. Where does the target for measures related to VMT exist?
  - o These targets will be addressed in the upcoming goals and in the discussion on AR requirements. All recommended targets will be provided in the next meeting after subject matter experts within MDOT have helped to formulate them.

Presentation with Interactive Discussion: Performance Measures by Goals

Michelle Martin and the ARAC Consultant team presented slides containing performance measures for the last two goals and engaged in an interactive discussion with the Committee members. The discussion was based on the Performance Measure summary document that the ARAC received via email the previous week. The team reminded the attendees that the performance measures had been slightly adjusted and would continue to be refined based on their input and public comments. They also reminded the attendees of the color coding used in the document:

- Yellow – existing measure, keep in AR
- Blue – existing measure, move to an appendix
- Green – proposed measure based on research, best practices, and modal administration input

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Goal: Serve Communities and Support the Economy

Objectives	Guiding Principles				
	Equity	Resilience	Preservation	Experience	Modernization
Enhance Marylanders' satisfaction with the transportation system and MDOT services.	X	X	X	X	X
1. Overall Satisfaction with MDOT – U of M survey results OR MDOT MTA Customer Satisfaction Survey Results 2. MVA Branch Office Wait Time under 15 Minutes (MFR)					
Apply enhanced technologies to improve communication and to relay real-time information.				X	X
1. Percentage of modal administration assets that provide real-time information					
Prioritize the transportation needs of underserved and overburdened communities in project selection and scoping.	X				
1. Investment in equity emphasis areas (determine how best to measure progress towards equity goals) 2. Access to Jobs within 45 minutes by car/60 minutes by transit for residents in equity emphasis areas					
Deliver a system that improves access to opportunities and quality of life by non-auto modes.	X			X	

1. Access to Jobs within 60 minutes by transit
   2. Percent of 10 largest job centers in Maryland within 0.5 miles of a transit stop served by all-day frequent transit service
   3. Percent of Sidewalks that Meet ADA Compliance (MFR)
   4. ~~Vehicle Miles Traveled (VMT) (MFR)~~ – moved to Environmental Stewardship
   5. ~~Number of MDOT SHA centerline mileage with a LTS score of 1~~ – updated to Miles of lower level of traffic stress (LTS 2 or better)
   6. MDOT MTA Average Weekday Transit Ridership (MFR)
   7. Transit Ridership – MDOT MTA direct-operated services (thousands) (MFR)
   8. Transit Ridership – Contracted services and LOTS (thousands) (MFR)
   9. Total Maryland – only WMATA annual ridership (MFR)
  10. Annual Revenue Vehicle Miles of MDOT MTA Service Provided (MFR)
  11. Commute Mode Share					

Increase transit-oriented development.	X			X	

1. Percentage of all residents and residents 30% AMI and below living within a half mile of a transit service station, stop or hub
   2. Percent of higher educational centers within 0.5 miles of a transit stop served by all-day frequent transit service
   3. Percent of head start centers within .5 miles of transit stop served by all-day frequent transit service					

Objective 1 – Enhance Marylanders' satisfaction with the transportation system and MDOT services.

Megan Jansen commented on the graphs in the presentation pointing out that wait time includes the visit time, so the data values should be visually stacked and labelled as a summation. Megan Jansen assured the ARAC that their team is working on adjusting and/or reducing the 15-minute goal. Any further changes will be communicated to the MDOT/ARAC Consultant team.

Objective 2 – Apply enhanced technologies to improve communication and to relay real-time information.

The discussion centered on clarifying available data on real-time information for the traveling public. Michelle Martin pointed out that a survey developed by the university is no longer available and lacks data on aviation or freight. Dr. Ting Ma inquired about the target audience for the real-time information, to which Michelle Martin explained that it considers the traveling public across all modes. Dr. Ting Ma and Cole Greene followed up by inquiring about the definition of "asset" in terms of the percentage of modal administration assets providing real-time information is questioned. Michelle Martin acknowledged the importance of these

questions and clarified that the focus is on real-time information for customers and the traveling public, excluding facility assets. Regarding the percentage of assets, it was suggested to review the metadata for clarification. Dennis Enslinger proposed that in order to demonstrate leadership, it would be beneficial to emphasize the availability of information in public/mobile apps.

Objective 3 – Prioritize the transportation needs of underserved and overburdened communities in project selection and scoping.

The discussion focused on equity emphasis areas, measuring accessibility gains, and job accessibility. The definition of equity emphasis areas was discussed, with considerations for options such as MWCOG and the CSNA. The complexity of defining equity and the need for deliberate research and time was also highlighted. The importance of differentiating between "accessibility" and physical/built environment accessibility was also emphasized. There was also a discussion about considering economic inflation and land use limitations. The conversation noted the need for consistency in defining and measuring equity across the state, with an acknowledgement of the impact that defining equity characteristics can have on addressing inequities.

In the discussion, the participants talked about several important aspects related to equity emphasis areas and accessibility in transportation planning. Sheila Somashekhar inquired whether equity emphasis areas are already defined by the state. Dennis Enslinger pointed out that measuring prioritization requires a comparison to something other than just the investment itself. Jamie McKay emphasized the distinction between "accessibility" and physical/built environment accessibility for residents of equity emphasis areas. Chester Harvey suggested considering the MWCOG definition and other measures, with ongoing discussions about the best approach. Lindsey Mendelson recommended incorporating the "overburdened and underserved" definition from the CSNA, particularly regarding pollution exposure. Douglas Mowbray acknowledged the complexity of defining equity emphasis areas and proposed mode-specific equity models rather than a statewide definition. The conversation also touched upon the need to differentiate between "access to jobs" and "number of jobs accessible" and how to account for economic inflation. Michelle Martin emphasized providing transportation options while working within existing development patterns. Chuck Boyd suggested considering the EJ Screen tool for evaluating equity consistently across the state. Cole Greene suggested considering the number of jobs or a normalized matrix. Chester Harvey reiterated the significance of equity emphasis areas and their impact on addressing various inequities. Overall, the participants agreed that equity is a top priority, but it required intentional research and deliberation to ensure inclusivity and fairness in transportation planning.

Objective 4 – Deliver a system that improves access to opportunities and quality of life by non-auto modes.

The discussion focused on the distribution and presentation of numbers related to routes, mode share, and job accessibility within a certain timeframe. Jaimie McKay raised the question of whether to distribute the numbers by routes or consolidate them into a single sum. Michelle Martin agreed with considering distribution by routes. Cole Greene suggested collecting data from the local operating system and coordinating with Jaimie McKay for the ideal output. Dennis Enslinger emphasized the importance of considering non-auto mode shares. Tom Harrington clarified that bikes are still included in the mode share analysis. A participant asked for clarification on the unit of measurement for "Jobs within 60 minutes by transit." Tom Harrington briefly explained the methodology used, and noted challenges with using a statewide accessibility measure for trend comparisons across years. Dr. Ting Ma expressed concern about the under-representation of bike mode share and suggested using a more multi-modal analysis. Chuck Boyd highlighted the significance of pedestrian accessibility when assessing job opportunities.

Objective 5 – Increase transit-oriented development.

The discussion began with Cole Greene asking about the proposed measures that are focused on higher education and Head Start centers (within ½ mile of transit) rather than healthcare and senior living. Michelle Martin explained that it was a recommendation to prioritize higher education, but ensured that the team will consider other types of destinations. Cole Greene suggested that the measure should consider other community centers such as hospitals instead of solely focusing on higher education. Sheila Somashekhar agreed with Cole Greene's comment, expressing the need to broaden the definition of points of interest and consider access to a wider range of facilities. Dr. Ting Ma agreed with Cole Greene's suggestion as well. Dennis Enslinger added that daycares and kindergartens should also be taken into consideration, as there is a growing demand for their services. Dr. Ting Ma raised a question about the distance criteria used, asking why they are using 0.5 mile instead of the commonly recommended 0.25 mile, which is considered a reasonable walking distance for planning purposes. Michelle Martin explained that they typically use 0.5 mile for Transit-Oriented Development (TOD) evaluation.

Goal: Promote Environmental Stewardship

Objectives	Guiding Principles				
	Equity	Resilience	Preservation	Experience	Modernization
Protect and enhance the natural environment through avoidance, minimization, and mitigation of adverse impacts related to transportation infrastructure.		X	X		X
1. Water Quality Treatment to Protect and Restore the Chesapeake Bay – updated to Percent of MDOT's 5-year MS4 Permits attained					
Employ resource protection and conservation practices in project development, construction, operations, and maintenance of transportation assets.		X	X		X
1. Diversion rate and cost of disposing construction, demolition, and maintenance materials in landfills and incinerators					
2. Annual Dredged Material Capacity Remaining for Harbor and Poplar Island Material (cubic yards) (millions) (MFR)					
Minimize fossil fuel consumption, reduce greenhouse gas emissions, improve air quality, and support the growth of alternative fuels.	X		X		X
1. Utility Electricity Use & Renewable Energy Generation – updated to Percent of Transportation Energy Used from Renewable Energy Sources					
2. Transportation-Related Air Pollution Reduction (TPM)					
3. VMT/VMT per capita (MFR)					
4. Percent of Electric Vehicles (EVs) registered from Total Registered Vehicles (MFR)					
5. Percentage of MDOT fleet comprised of EVs (data not readily available)					
6. GHG emissions from LDV VMT (light duty) vehicles and MHDV VMT (medium heavy duty) vehicles **OR GHG emissions (lbs. CO_2 EE – emissions equivalent) per personal miles traveled**					
7. Level 2 and DC Fast Charger charging ports per 1000 residents					
8. Total number of EV AFCs/number that are certification-ready					
9. Number of employee partners in Statewide TDM programs					
10. Number of stations along EV Alternate Fuel Corridors (AFCs) that comply with federal minimum requirements/targets					
11. Number of Vehicles Tested at VEIP (MFR)					
12. VEIP Testing Compliance Rate of Vehicles Registered in Non - Attainment Counties					

Objective 1 – Protect and enhance the natural environment through avoidance, minimization, and mitigation of adverse impacts related to transportation infrastructure.

No Committee members had questions or comments for the measures in this objective.

Objective 2 – Employ resource protection and conservation practices in project development, construction, operations, and maintenance of transportation assets.

Dennis Enslinger raised a concern over tree removal in station development and recommended that using BMP might help to include tree removal into the accounting.

Objective 3 - Minimize fossil fuel consumption, reduce greenhouse gas emissions, improve air quality, and support the growth of alternative fuels.

The discussion covered various topics related to alternative fuels and transportation goals. Lindsey Mendelson asked for clarification on the definition of alternative fuels, particularly in regard to hydrogen. Sophia Cortazzo agreed to double-check and provide an answer to this. Lindsey Mendelson emphasized the importance of using VMT per capita and recommended a

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20% reduction goal. She also suggested considering the scale of pollution in equity emphasis communities. Michelle Martin agreed to verify the data source for granularity. Dennis Enslinger expressed concerns about the number of objectives and suggested narrowing them down. Michelle Martin acknowledged the comments to reduce the objectives to less than six. Dennis Enslinger asked whether the inventory of EVs are at the state-owned or statewide level and Michelle Martin clarified that the goal is statewide and focused on mapping. Sophia Cortazzo confirmed the availability of data on publicly available stations. Cole Greene raised MTA-related questions, including the percentage of ZEBs in the bus fleet and the source of electricity for electric rail systems, highlighting the importance of clean sources. Michelle Martin said that the ZEB count is covered, and efforts will be made to make that clearer in the report. Louis Campion advised considering the percentage of chargers available to registered vehicles, especially for freight. The conversation delved further into topics such as measurement goals, narrowing objectives, clarifying scope, electricity sources, and charger availability. Chester Harvey shared that UMD has a study underway on mapping equitable access to charging stations throughout the state which might be useful.

Next Steps

Michelle Martin proposed a Google Form for any feedback after having more time to think through these measure and provide if have any further questions. Michelle Martin announced that in the fourth ARAC meeting, the recommendations will be finalized and then include in the main body of the draft report. Clay Barnes said the recommendations and targets package will be sent to everyone on July 5th, prior to the fourth ARAC meeting. Further comments on the AR are welcome through Friday, June 23 : https://forms.office.com/r/BewH8DX3c5.

Next meeting:

- Tuesday, July 11th – Meeting #4 – review recommendations and draft report, review of AR requirements, data, and targets, and discuss any suggested improvements to the AR document and to the AR dashboard.

Attainment Report Requirements

Michelle Martin recapped the requirements of the AR:

- Discuss transportation and population trends
- Discuss transportation modes, demand management and unmet needs (State of Good Repair backlog)
- Discuss Performance Measures in providing travel choices and reducing congestion

- Review of performance indicators and key outcomes
- Review of transportation investments (related to the State Report on Transportation)
- Discuss the impact of transportation on the environment/climate action plan goals; environmental justice; communities; and economic development

She then discussed the potential approaches of generating the report, including the design and length of the report, visualization. She asked for the input from the committee members. Dr. Ting Ma inquired about the click count on the dashboard. Dennis Enslinger proposed to separate the report and the data as a separate appendix.

As a general comment, the population trends of the state was mentioned. Aging population and remote working were brought up as potential future considerations.

Public Comments

Michael Scepaniak said that community activists do not want just another marketing brochure. He said detailed information was needed. While a high-level summary is useful, it is crucial to understand the methodology behind the recommendations and measures. Therefore, a comprehensive and detailed report would be greatly appreciated.

Meeting Conclusion

Michelle Martin concluded the meeting and informed the panel that the recommendations package will be released before the next meeting. Any further comments on the ARAC are welcome through June 23rd for incorporation into the final report.

The meeting summary will be posted online and emailed to the Committee. The panel will next convene for the final time on Tuesday, July 11th. Any further questions can be sent to Michelle Martin.

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Attainment Report Advisory Committee (ARAC) on Goals, Benchmarks, and Indicators Summary of Meeting #4
July 11, 2023: 1:00 PM – 3:00 PM, Virtual

Attendees
- Alexander Austin – Prince George's Chamber of Commerce
- Ben Groff – MTA Citizens Advisory Committee
- Brian Wivell – Maryland State & DC AFL-CIO, Legislative & Political Director
- Charlotte Davis – Executive Director, Rural Maryland Council
- Dr. Chester Harvey – National Center for Smart Growth, University of Maryland
- Deborah Price – Demographic Planner, Harford County
- Dennis Enslinger – Gaithersburg Deputy City Manager
- Gustavo Torres – Executive Director, CASA Maryland
- Jaimie McKay – Transit Services Division, Frederick County
- Lindsey Mendelson – Sierra Club Maryland
- Louis Campion – Maryland Motor Truck Association
- Dr. Ting Ma – TRB Standing Committee on Performance Management
- Dr. Mansoureh Jeihani – Morgan State University
- Dr. Shima Hamidi – Johns Hopkins University, Environmental Health & Engineering
- Charles Boyd – Director of Planning Coordination, Maryland Department of Planning
- Robert Holsey Jr., International Union of Operating Engineers, Local 37

Unavailable for Meeting #4
- Derrick Waters – US Treasury IRS
- Jacqueline Allsup – Vice President, Maryland State NAACP
- Ragina Ali – AAA Mid-Atlantic, Maryland & Washington DC
- Sheila Somashekhar – University of Maryland, Purple Line Coalition

Other
- Joe McAndrew, MDOT TSO
- Drew Morrison, MDOT TSO
- Michelle Martin, MDOT TSO
- Deron Lovaas, MDOT TSO
- Peter Moe, MVA
- Kevin Clarke, MAA
- Dominic Scurti, MPA
- Aviva Klugh, MDOT TSO
- Jacqueline Djomo, MVA
- Megan Jansen, MVA

- Kelley Dolan, MDOT TSO
- Corey Stottlemyer, MDOT TSO
- Parto Mazdeyasni, MPA
- Christopher Parris, MDTA
- Toria Lassiter, SHA
- Virginia Burke, MDOT TSO
- Caitlin S.
- Jessica Shearer, Blackwater/SHA Consultant

- Cole Greene, MTA
- Doug Mowbray, MVA
- Ross Turlington, MTA
- Tom Harrington, CS/ARAC Consultant
- Emma Stockton, CS/ARAC Consultant
- Monika Pal, CS/ARAC Consultant
- Nimisha Deshwal, CS/ARAC Consultant
- Kaiqi Zhang, FITP/ARAC Consultant

Introduction & Overview

The fourth meeting of the ARAC (Attainment Report Advisory Committee) was held on July 11th 2023. The meeting was called to order by the Chair, Dr. Mansoureh Jeihani, who welcomed all the Committee members and guests in attendance. The Chair initiated a roll call to ensure all members were present. The Chair requested that all Maryland Department of Transportation (MDOT) staff, MDOT consultant staff, and any members of the public introduce themselves through the Teams chat feature.

Assistant Secretary Joe McAndrew thanked everyone for their participation and feedback in all of the ARAC meetings. There has been a wealth of thoughtful engagement and consideration made by the participants towards the development of the Maryland Transportation Plan (MTP) and the development of the Attainment Report (AR) performance measures. He indicated that the Secretary joins him in thanking ARAC members for their time and efforts.

Joe McAndrew noted that the feedback received through this group and through the public surveys will continue to shape the MTP. Joe confirmed that a large part of the feedback will be reflected in the Attainment Report, although much of the feedback will also inform the MTP strategies for implementing the statewide long-range transportation plan in the short, near and long-term. Joe McAndrew concluded that he was confident that the MTP will allow MDOT to be more sustainable, more equitable and make continued progress towards our shared goals.

Dr. Jeihani then handed the meeting over to Michelle Martin from MDOT, who provided a concise overview of the initial MTP survey #2 results and elaborated on some ARAC follow up items.

Michelle Martin shared that the ARAC survey received a total of 2,017 responses, the second survey was focused on getting public input about the desired outcomes of the MTP, and on the transportation needs and investment priorities of the State. She shared a heat map that illustrated really good geographic coverage with the majority of responses from

central Maryland. She further provided an overview of the main insights derived from the survey in relation to the four goals and key outcomes.

Next, Michelle Martin led a discussion on the ARAC follow up items. During the discussion on the definition and tools for equity, Dr. Chester Harvey inquired upon the distinction between overburdened communities and underserved communities, and whether both the overburdened and underserved criteria need to be met. Michelle Martin responded that the data being discussed are considered together and a community that meets either definition would be included. Tom Harrington from Cambridge Systematics agreed, and confirmed after the meeting that this was true. The discussion moved to pollution in overburdened communities with Michelle Martin sharing that since air quality is assessed at a statewide level, isolating localized impacts at present is difficult however the team has flagged it as a candidate for future measures. Additionally, after internal discussions to address the Committee's concern on job access, the team has chosen to condense these measures into two measures that will be discussed later in the meeting. Michelle Martin then elaborated on Vehicle Miles Traveled (VMT) per capita targets and presentation mediums for the executive summary and the appendix.

On the follow up for VMT per capita measure, Lindsey Mendelson expressed appreciation on the addition of the performance measure and target but shared that it would be beneficial if there was also a 2030 target for VMT per capita to help achieve emission reductions. Michelle Martin agreed to further explore the possibility of including this target. Dr. Chester Harvey and Ben Groff both expressed support for the 2030 target, referencing research that suggests a need for a 20% reduction from the 2019 baseline by 2030 to meet state and regional climate goals.

The group discussed House Bill 009 (2023), which focuses on Equity in the Transportation Sector and became effective as of June 1st, 2023. The Committee generally identified that data on persons with disabilities is harder to obtain than other equity indicators. The AR team investigated whether the Council on Climate & Economic Justice Screening Tool (CEJST) for equity analysis clearly tracks persons with disabilities. Disabilities are not clearly tracked in CEJST, but federal tools are currently updating analysis tools. MDOT is committed to evaluating analysis tools as the modal administrations analyze performance measures under the 2050 MTP. MDOT staff noted that several proposed AR measures do track benefits to persons with disabilities, such as ADA-compliant sidewalks, transit ridership by persons with disabilities, and level of traffic stress.

Lindsey Mendelson suggested including the percentage of ADA accessible stops/stations as a possible measure. Cole Greene from MTA confirmed that MTA does track ADA compliance at the station level, however this data is not updated annually. Additionally, since most bus stops are under local jurisdiction, MDOT can partner with them on investments but cannot actively intervene. Lindsey Mendelson provided the reference to the target in the Central Maryland Regional Transit Plan and requested consideration of this

measure/target (based on baseline, 2025 target, and 2045 target):
https://rtp.mta.maryland.gov/docs/Connecting_Our_Future_RTP_CentralMD.pdf.

Percent of stops and stations that are ADA accessible	19%	30%	100%

Dennis Enslinger inquired whether the current performance measures are in compliance with the goals outlined in the new Climate Solutions Now Act (CSNA) of 2022. Michelle Martin confirmed that it was a requirement for the AR Report to be compliant with the CSNA.

Review of Performance Measures Recommendations with Proposed Targets

Objective Summary: Goal - Enhance Safety & Security

Michelle Martin and the consultant team shared any changes in the performance measures and the recommendations with the Advisory Committee. The team discussed current definitions, changes to objectives and performance measures as well as proposed targets to the Committee. Comments from the ARAC included:

- Dennis Ensliger inquired whether "serious" injuries should be included in the railroad grade crossing and in the equity measure. Michelle Martin agreed to follow up with relevant departments for further clarification. After consultation with modal administrations, measures will reflect the injury scale that they each must be reported. For example, railroads have a different reporting scale for injuries than highway injuries. The injury scales will be included in the AR report as well as a footnote explaining why the types of injuries reported is different. The equity safety measure will be comparing the difference between statewide outcomes and overburdened/underserved areas.
- Dr. Ting Ma inquired if disadvantaged areas was different from Underserved and Overburdened Communities and whether the distinction was reported in the report. Tom Harrington shared that certain terms were kept to maintain the integrity of their definitions as defined by federal standards. However, in such cases, a footnote has been provided in the report for the purposes of clarity. Doug Mowbray from MHSO elaborated that data acquired from entities and tools outside MDOT comes with the caveat of following a completely new methodology. In such cases using terminology consistent with the tool or entity is the best course of action.
- Dennis Enslinger suggested that the team ensure consistency in uniform nomenclature for the performance measures. He also inquired if it was possible to

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increase the annual target for Performance Measures 3b[1] and 3c[2] to reach them faster. For example, for measures with a short-term target of 2% per year, will the long-term target of 100% be achieved? Michelle Martin agreed to bring uniformity to the Target language and follow up with the subject matter expert on the annual targets. Due to recent updates from SHA, the targets that were not consistent have been changed and are now consistent when feasible.

- Dennis Enslinger also raised a concern on how realistic or aspirational the performance measures were. Examples mentioned were the measures on roadway clearance times and incident response. He advised MDOT to keep the performance measures as realistically achievable as possible.

Key discussion points included:

1. Definition of serious injuries: Why "serious" injuries was the measure for equity results. Further clarification was sought regarding the definition and its alignment with data reporting, and the current performance measures match the needs of MDOT for state and federal requirements.
2. Overburdened/underserved communities: There was a suggestion that the term "historically disadvantaged" should be changed to be consistent with "overburdened/underserved" communities. However, MDOT staff indicated that this discrepancy is due to different reporting language and is appropriate as it is currently written in the performance measures. MDOT will clarify the distinction in the footnotes of the ARAC Report and the AR Report. Additionally, the AR Report will also include a discussion of equity measures and language.
3. Feasibility of targets: There were concerns raised about the achievability of the 15-minute and 20-year targets, suggesting the importance of setting realistic expectations rather than solely aspirational goals.

Based on follow-up discussions after the fourth meeting, performance measures with targets as "TBD" will have targets added wherever possible into the ARAC Report, some after the baseline data is collected. Additionally, all MTA-operated Baltimore-area buses are to be referred to as "Local Buses" in all Performance Measures instead of "Core Buses."

Objective Summary: Goal - Deliver System Quality

Michelle and the consultant team shared any changes in the performance measures and the recommendations with the Advisory Committee associated with the second goal. Overall, the discussion revolved around evaluating the realism of targets and ensuring the inclusion of relevant metrics to capture the reliability of transit service. Michelle shared that two

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[1] Percentage of State-Owned Roadway Directional Miles Within Urban Areas That Have Sidewalks (MFR)

[2] Percents of Sidewalks that Meet ADA Compliance (MFR)

performance measures have been dropped to keep the report crisp and clear. Comments from the ARAC included:

- Dennis Enslinger reiterated the importance of having realistic targets that are achievable. Drew Morrison assured the Committee that most targets are realistic though aspirational targets are also set to encourage the Department to strive towards being better. Some measures with very high targets are due to historical data.
- Two measures should be clarified: Truck hours of delay – should be clear that this target is in hours, not dollars, and MVA Cost Per Transaction should be tracked in constant dollars (or noted if different). The truck hours of delay target will be updated to include "hours" and after internal discussions at MDOT, all cost measures will continue to be reported in current dollars and noted as so with the exception of the CTP totals which already reports in current and constant dollars.
- Lindsey Mendelson inquired on whether MDOT Transit Service Provided On-Time incorporated the delivery of service. Cole Greene explained that the measure typically focuses on on-time performance (OTP) percentage. Lindsey Mendelson followed up by asking for the inclusion of service delivery percentage to capture the full picture of reliability. Lindsey Mendelson also highlighted concerns regarding buses not showing up on time and schedules not being met due to operator shortages and other issues. The discussion generally emphasized the importance of setting achievable goals while also addressing the broader aspects of service delivery. Cole Greene agreed to look into including service delivery percentage in the reporting. However, MTA is not able to report out service delivery data at this time.

The key points in the discussion included:

1. Realistic targets: Targets should be realistic as well as achievable and not entirely aspirational.
2. Capturing reliability issues: Reliability issues related to service delivery and operations are not currently captured in the on-time performance measure, additional metrics might be needed to address service delivery.

Objective Summary: Serve Communities and Support the Economy

Michelle and the consultant team shared any changes in the performance measures and the recommendations associated with serving the communities and supporting the economy. Michelle acknowledged that changes have been made to some terms for suitability reasons. Comments from the ARAC included:

- Dr. Chester Harvey inquired whether there was an intent behind presenting the commute mode share without a target and whether it can be set consistent with the 20% VMT reduction requirement. Michelle Martin clarified that there was no target

set for commute share and it was largely reported for the purposes of tracking mode share from a TDM perspective. Dr. Chester Harvey offered to come up with a recommended target. After internal deliberation, MDOT decided to add targets for the commute mode share performance measure and will continue to sharing the performance measures without targets in the MFR and AR for tracking purposes.

- Dr. Chester Harvey and Dennis Enslinger expressed concerns about including measures without established targets, as it seems incongruous with the purpose of performance measures. They emphasized the importance of having specific targets to guide progress. Michelle Martin clarified that some measures are designated as having no target since they are essentially numeric trends, such as volume.
- Dominic Scurti explained that certain factors, like those related to the Port are beyond their control and influence, making it challenging to set targets for those measures. Louis Campion suggested focusing only on MPA terminals as opposed to all terminals to circumvent the data that is beyond the purview of MDOT.
- A question was raised about measures with no targets. Dr. Ting Ma shared that for DC they have two types of performance measures – key performance indicators (KPIs) with targets and contextual/output measures without targets. The workload/contextual measures exist to track the performance and activities to understand the situation but with no obvious target.
- Dr. Shima Hamidi inquired about how the TOD objective is being captured in the performance measures. Michelle Martin clarified that two performance measures associated with access had a TOD component though it was not explicitly mentioned: % of population and jobs within a ½ mile/walking distance of transit.
- Concerns were raised about language clarity in specific measures. Dr. Ting Ma suggested dropping the word "area" from a measure related to access to transit by overburdened/underserved areas, and also highlighted the redundancy in the language used in the measure of "Ratio of percentage of CTP investment that is in overburdened and underserved communities to the percentage of the statewide population." The ARAC team will update the transit measure with an extra "area" and have updated the second measure to "Relative percentage of CTP investment that is in overburdened and underserved communities."

Overall, the discussion centered around the need for clear targets in measures, challenges with setting targets for certain factors, and suggestions for improving the language and clarity of specific performance measures. The key points in the discussion included:

1. Targets for measures: Targets need to be set for performance measures in order to track progress. Contextual statistics should be avoided since they do not have an achievable target defined or they should be noted as such.

Objective Summary: Promote Environmental Stewardship

Michelle and the consultant team shared any changes in the performance measures and the recommendations associated with the environmental goal. Comments from the ARAC included:

- Dr. Chester Harvey and Lindsey Mendelson expressed the need for clarity and consistency in setting a VMT per capita reduction target. Dr. Harvey noted that the 20% reduction goal by 2030, consistent with other policies, is reasonable. Lindsey Mendelson emphasized the need for a 2030 target for implementing the Climate Solutions Now Act - 20% VMT per capita reduction is aggressive for 2030, it should be 15% or so.
- Dr. Chester Harvey suggested that if the horizon year was 2050 then maybe an interim target would be useful as well. Dr. Jeihani suggested that the targets could be revised to a 15% reduction by 2030 and a 30% reduction by 2050. Michelle Martin shared that an aggressive target would require significant state resources to achieve.
- Deron Lovaas confirmed that the baseline for the VMT per capita reduction target is 2019, which was considered a "normal year." Dennis Enslinger stressed the importance of using the same baseline for consistency in measuring progress (in 2030 and 2050).
- Dennis Enslinger suggested the alternative of using staggered targets of 5%, 7%, and 9%.
- Dr. Chester Harvey advocated for keeping targets aspirational instead of realistic in the case of VMT since it will help drive the Department towards the overarching climate goals. He noted the aspirational goal for safety where it is also statistically unreasonable for us to expect 0 deaths by 2030, or ever, but that is the policy goal. The CSNA targets 40% carbon reductions over 2006 by 2031, so the AR should be consistent with that goal for VMT per capita reductions to contribute half of the transportation contribution toward that goal, even if it's somewhat aspirational. Dr. Jeihani agreed with aspirational goal concept. Dr. Harvey noted that we should at least have some target for 2030 for consistency with other policies - a low goal is better than no goal at all.

Overall, the discussion centered around the accuracy of a VMT per capita target in the near term and long term.

1. VMT per capita reduction target: The 20% VMT per capita reduction goal by 2030, consistent with other policies, should be considered.
2. Baseline and consistency: The Committee agreed upon using 2019 as the baseline for the purposes of staying consistent in 2030 and 2050.
3. Ambitious goals: The Committee argued in favor of setting ambitious goals, citing the example of the aspirational policy goal of zero deaths by 2030. It was suggested

that an aspirational VMT per capita reduction target could contribute significantly to overall transportation goals, even if it may be statistically challenging.

4. Proposed reduction targets: Several alternatives for the VMT per capita reduction targets were presented. The Committee also supported the idea of having some form of 2030 goal if the horizon 2050 was maintained. After internal discussions at MDOT, the VMT per capita reduction targets will be 10% by 2030 and 20% by 2050.

5. "Public" will be added in references to charging ports in the Environmental goal.

Review of the Draft Report

During the discussion, Dennis Enslinger suggested that providing year-to-year comparisons on the online dashboard would offer more contextual information. He mentioned that this approach would help users understand that the visualization is cumulative. Michelle Martin acknowledged that typically, the dashboard contains 10-year data trends. Dennis Enslinger stated and the Committee agreed that having MDOT-wide performance data, or links to other MDOT performance websites, accessible from one website location would be helpful. This idea will be added to the ARAC report.

Dennis Enslinger also suggested that it must be acknowledged somewhere in the report that some targets are aspirational since MDOT may not have the resources to bring it to fruition. Chuck Boyd agreed and emphasized upon the importance of considering budget limitations. It was noted that the ARAC report may want to highlight this issue – that MDOT should look at the funding needed to achieve targets.

Chuck Boyd also suggested minimizing the production of physical copies that would end up in libraries and instead keeping most of the information in a digital format. Michelle Martin agreed, noting that the Executive Summary (ES) would be available in both hard copy (limited prints) and online formats, while the full report would be exclusively available online. She also shared that they will be discontinuing the AR Story Map due to low traffic in the past.
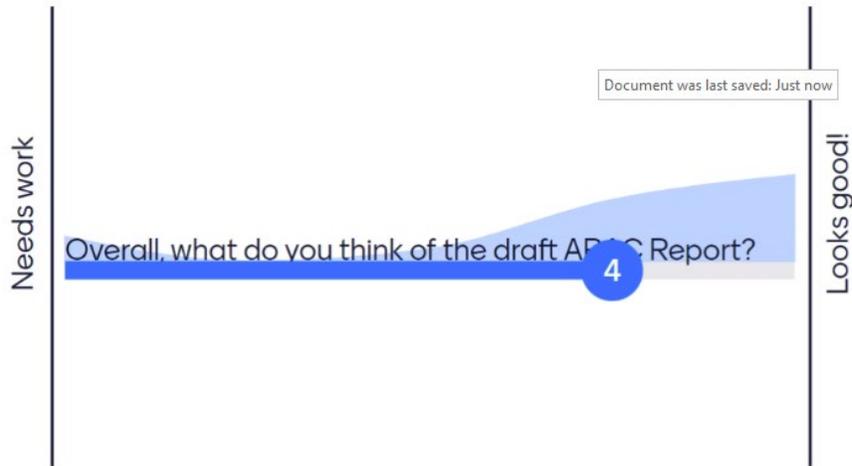
The team then asked the Committee to respond to polls inquiring about their overall thoughts on the draft report as well as the most useful features of the Attainment Report.
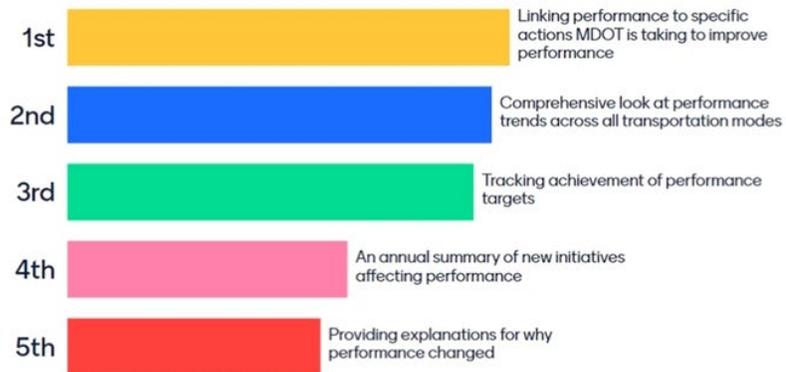
RESULTS OF THE POLL

Join at menti.com use code 5187 6980

Draft ARAC Report

Needs work — Overall, what do you think of the draft ARAC Report? — 4 — Looks good!

Document was last saved: Just now

Which features of the Attainment Report do you find most useful?

1st	Linking performance to specific actions MDOT is taking to improve performance
2nd	Comprehensive look at performance trends across all transportation modes
3rd	Tracking achievement of performance targets
4th	An annual summary of new initiatives affecting performance
5th	Providing explanations for why performance changed

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Public Comments

Jennifer Kunze, representing the Environmental Clear Water Action, brought attention to the Transportation Equity Act recently passed and enacted on June 1st. She emphasized the importance of the Committee recommending measurable transportation indicators to address racial, disability, and low-income disparities. She highlighted the need to incorporate equity considerations into transportation planning and decision-making processes. Michelle Martin agreed and noted that the Committee had some discussions earlier in the meeting.

Meeting Conclusion

Dr. Jeihani concluded the meeting and informed the attendees that the meeting summaries would be posted online and emailed to the Committee. She encouraged the participants to send their final comments on the draft ARAC by July 14th to Michelle Martin. ARAC Members will be sent the Final Report by the end of July.