

Maryland Department of Transportation
State Highway Administration

**Baltimore Metropolitan Council
Congestion Management Process
Committee Meeting**

**Transportation Performance
Management (TPM) Program:**

**2nd Performance Period PM 2 & 3 Target Setting
and Reporting**

June 7, 2022



**TRANSPORTATION PERFORMANCE MANAGEMENT (TPM)
ESTABLISHED TARGETS FOR MARYLAND**

The Maryland Department of Transportation (MDOT) established performance targets for Safety, Infrastructure Performance, and Congestion Mitigation and Air Quality (CMAQ), as specified under 23 U.S.C. 1502(b)(2)(B) National Performance Management Measures.

TPM 2: INFRASTRUCTURE CONDITION

Infrastructure condition targets for the National Highway System (NHS) in Maryland were developed through the Transportation Asset Management Plan (TAMP) process for the entire system, regardless of ownership. The NHS in Maryland is owned and maintained by federal, state, and local agencies.

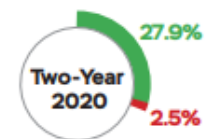
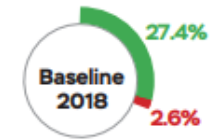
GOOD POOR



NHS BRIDGE CONDITION*



296
2030 GOAL



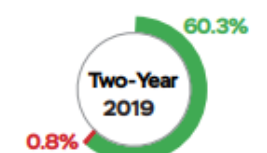
*Baselines were generated using conditions as reported in 2019 with best information available on federally-owned bridges.



INTERSTATE PAVEMENT CONDITION



2,272
2030 GOAL



Purpose

1. Review the target setting process and requirements for TPM2 and TPM3
2. Inform BRTB of progress to date on setting statewide targets
3. Outline plan to complete target setting for all measures
4. Present baseline data that is currently available that can inform future target setting decisions (optional)

Meeting Agenda

01

TPM & Target Setting Overview

TPM requirements and context

02

PM2: Measure & Target Details

Draft Infrastructure Condition targets as established in the 2022 TAMP update

03

PM3: Measure & Target Details

Details and differing requirements around System Performance targets

04

Baseline Performance Review

Review of the baseline performance data that is currently available

TPM Effort Overview

Requirements & Context

Transportation Performance Management (TPM)

23 CFR § 490.105

(d) Target scope.

(1) State DOTs and MPOs shall establish statewide and metropolitan planning area wide targets...as specified in 23 CFR sections -

- (i) 490.303 for the condition of pavements on the Interstate System*
- (ii) 490.303 for the condition of pavements on the NHS (excluding the Interstate)*
- (iii) 490.403 for the condition of bridges on the NHS*
- (iv) 490.503(a)(1) for the Travel Time Reliability*
- (v) [Reserved]*
- (vi) 490.603 for the Freight Reliability measure specified in § 490.607; and*
- (vii) 490.803 for the Total Emissions Reduction*



U.S. Department
of Transportation

**Federal Highway
Administration**



Federal TPM Measures

	Program Area	Performance Measures	MPO Target Option
TPM1	Safety	1. Number of Fatalities	BRTB has 180 days to choose: 1. Set own or 2. Support state
		2. Rate of Fatalities	
		3. Number of Serious Injuries	
		4. Rate of Serious Injuries	
		5. Number of Non-Motorized Fatalities and Serious Injuries	
TPM2	Infrastructure Condition (NHS Bridge and Pavement)	6. Percent of Pavements of the Interstate System in Good Condition	BRTB has 180 days to choose: 1. Set own or 2. Support state
		7. Percent of Pavements of the Interstate System in Poor Condition	
		8. Percent of Pavements of the Non-Interstate NHS in Good Condition	
		9. Percent of Pavements of the Non-Interstate NHS in Poor Condition	
		10. Percent of NHS Bridges classified as in Good Condition	
		11. Percent of NHS Bridges classified as in Poor Condition	
TPM3	Highway & Freight Reliability	12. Interstate Travel Time Reliability	BRTB has 180 days to choose: 1. Set own or 2. Support state
		13. Non-Interstate Travel Time Reliability	
		14. Freight Reliability	
	Traffic Congestion	15. Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita	BRTB coordinates with MDOT to set one target for applicable urbanized areas
16. Percent of Non-Single Occupancy Vehicle Travel			
Emissions Reduction	17. Total Emissions Reduction		BRTB has 180 days to choose: 1. Set own or 2. Support state
			CMAQ Performance Plan required

TPM Deliverables for 2022

Due October 1st

1. Full Performance Period Report submit by MDOT SHA to FHWA:

For Performance Period 1 (PP1)

- Reflects on progress made toward the targets initially set in 2018
- Reports 4-year performance and key narrative elements

1a. CMAQ Performance Plan submit by BMC to MDOT SHA for inclusion in the report to FHWA

2. Baseline Performance Period Report submit by MDOT SHA to FHWA:

For Performance Period 2 (PP2)

- Establishes a new set of 2- and 4-year targets
- Reports new targets along with key narrative elements

2a. CMAQ Performance Plan submit by BMC to MDOT SHA for inclusion in the report to FHWA

TPM Timeline

2022 TPM Reporting and Target Development

Spring

Summer

Fall

PP2
Targets

Baseline
Performance Report

PM2 MDOT Target Setting

May

TPM2 Draft
Targets

TPM3 Emissions
Draft Targets

TPM3 Target
Coordination

July 15

TPM3 Reliability
Draft Targets

July

TPM3 Congestion
Draft Targets

September 1

Final TPM 2 and 3
Targets

MPO CMAQ PP
due to MDOT

Performance Period 2
Targets Due October 1

WE ARE HERE

Coordination on PP1 Narrative

MDOT SHA Draft
Narrative Responses

August 31

Performance Period 1
Report Due October 1

PP1
Narrative

Full Performance
Period Report



TPM 2

Federal TPM Measures

	Program Area	Performance Measures	MPO Target Option
TPM1	Safety	1. Number of Fatalities	BRTB has 180 days to choose: 1. Set own or 2. Support state
		2. Rate of Fatalities	
		3. Number of Serious Injuries	
		4. Rate of Serious Injuries	
		5. Number of Non-Motorized Fatalities and Serious Injuries	
TPM2	Infrastructure Condition (NHS Bridge and Pavement)	6. Percent of Pavements of the Interstate System in Good Condition	BRTB has 180 days to choose: 1. Set own or 2. Support state
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		9. Percent of Pavements of the Non-Interstate NHS in Poor Condition	
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		14. Freight Reliability	
	Traffic Congestion	15. Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita	BRTB coordinates with MDOT to set one target for applicable urbanized areas
16. Percent of Non-Single Occupancy Vehicle Travel			
Emissions Reduction		17. Total Emissions Reduction	BRTB has 180 days to choose: 1. Set own or 2. Support state
			CMAQ Performance Plan required

TPM 2

Coordination Plan

MDOT leads statewide target setting



MPO set own or support state targets

- MDOT will have updated pavement targets in July
- Draft final TPM2 targets provided to MPOs in August
 - MPO has 180 days from October 1st State reporting to determine targets; no FHWA reporting required
- MPO-specific baseline condition data available from MDOT's ArcGIS Data Portal
 - <https://data-maryland.opendata.arcgis.com/datasets/pavement-condition-nhs/explore?location=89.331295%2C-106.726025%2C0.00>



TPM 3

Federal TPM Measures

	Program Area	Performance Measures	MPO Target Option
TPM1	Safety	<ol style="list-style-type: none"> 1. Number of Fatalities 2. Rate of Fatalities 3. Number of Serious Injuries 4. Rate of Serious Injuries 5. Number of Non-Motorized Fatalities and Serious Injuries 	BRTB has 180 days to choose: <ol style="list-style-type: none"> 1. Set own or 2. Support state
TPM2	Infrastructure Condition (Bridge and Pavement)	<ol style="list-style-type: none"> 6. Percent of Pavements of the Interstate System in Good Condition 7. Percent of Pavements of the Interstate System in Poor Condition 8. Percent of Pavements of the Non-Interstate NHS in Good Condition 9. Percent of Pavements of the Non-Interstate NHS in Poor Condition 10. Percent of NHS Bridges classified as in Good Condition 11. Percent of NHS Bridges classified as in Poor Condition 	BRTB has 180 days to choose: <ol style="list-style-type: none"> 1. Set own or 2. Support state
	Highway & Freight Reliability	<ol style="list-style-type: none"> 12. Interstate Travel Time Reliability 13. Non-Interstate Travel Time Reliability 14. Freight Reliability 	BRTB has 180 days to choose: <ol style="list-style-type: none"> 1. Set own or 2. Support state
TPM3	Traffic Congestion	<ol style="list-style-type: none"> 15. Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita 16. Percent of Non-Single Occupancy Vehicle Travel 	BRTB coordinates with MDOT to set one target for applicable urbanized areas
	Emissions Reduction	<ol style="list-style-type: none"> 17. Total Emissions Reduction 	BRTB has 180 days to choose: <ol style="list-style-type: none"> 1. Set own or 2. Support state CMAQ Performance Plan required

TPM 3

Highway & Freight Reliability

MDOT leads statewide targets



MPO set own or support state

- Baseline conditions available in NPRDMS
- Forecasts in development with drafts by July 15th
- MDOT can provide MPO-specific baseline performance by July 5th
- Final statewide targets selected by August 15th
 - MDOT reports via FHWA Performance Management Form (PMF) by October 1st
 - MPO has 180 days to determine targets; no FHWA reporting required

TPM 3

Traffic Congestion

Single unified target set collaboratively by MDOT and applicable MPOs

- Baseline conditions available in NPRDMS
- MDOT will schedule a series of meetings with BRTB to select targets
 - Draft final targets by August
 - MDOT reports via FHWA Performance Management Form (PMF) by October 1st
 - MPO reports via CMAQ Performance Plan by October 1st
 - Draft to MDOT by September 1st appreciated

TPM 3

Emissions

Total Emissions Reduction

State and MPO targets calculated based on programmed CMAQ projects

- Memo shared with MPOs in May
- Discussions can take place as needed
- Final statewide targets are complete
 - MDOT reports to FHWA via Performance Management Form (PMF) by October 1st
- Final MPO targets by September
 - MPO reports to MDOT via CMAQ Performance Plan by September 1st

Baseline Conditions

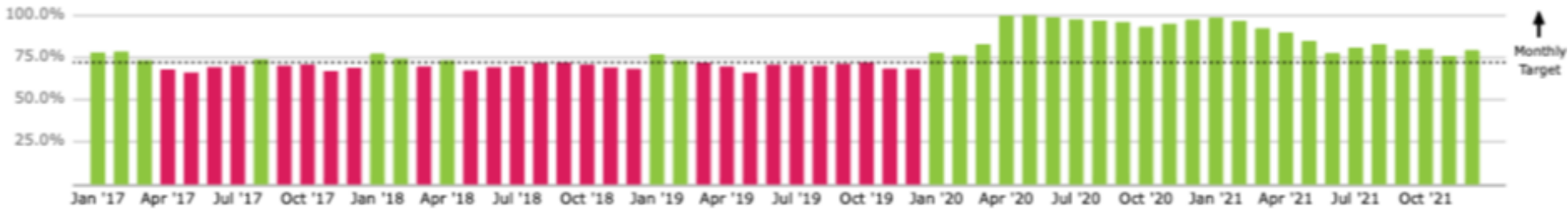
Highway Reliability

Baseline Performance

Percent of person-miles traveled that are reliable

Interstates

Target: At least 72.1% of the system should have a LOTTR less than 1.50



Target: > 72.1%

Year's Performance

2017 71.0%

2018 70.7%

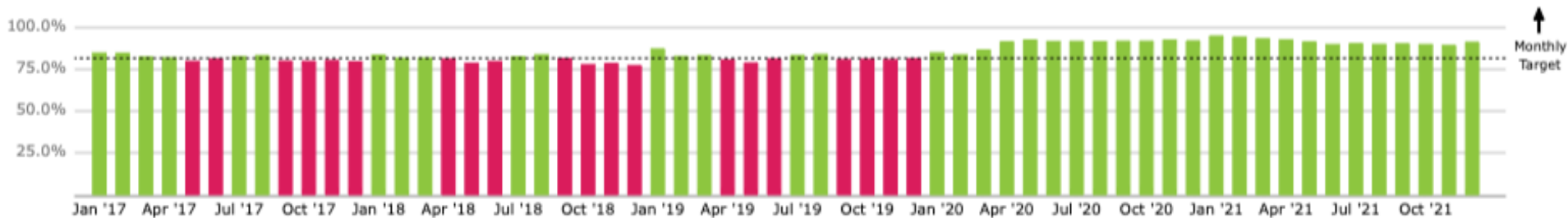
2019 69.0%

2020 93.5%

2021 84.7%

Non-Interstate NHS

Target: At least 81.7% of the system should have a LOTTR less than 1.50



Target: > 81.7%

Year's Performance

2017 82.7%

2018 82.2%

2019 82.8%

2020 92.3%

2021 92.4%

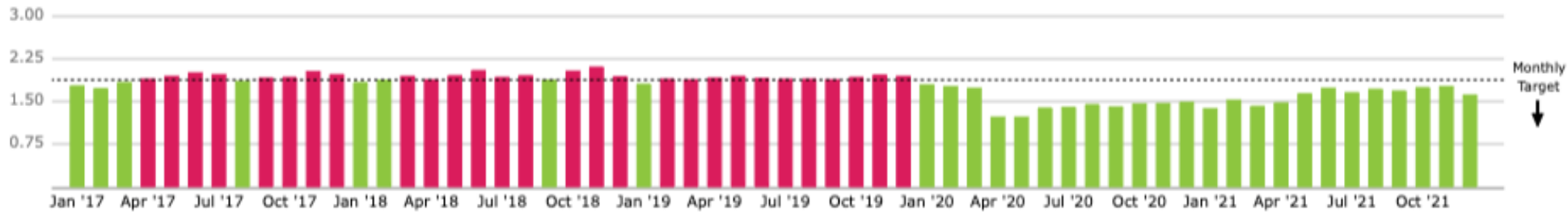
Freight Reliability

Baseline Performance

Truck travel-time reliability index

Interstates

Target: The system should have a TTTR less than 1.88



Target: < 1.88

Year's Performance

2017 1.89

2018 1.90

2019 1.86

2020 1.55

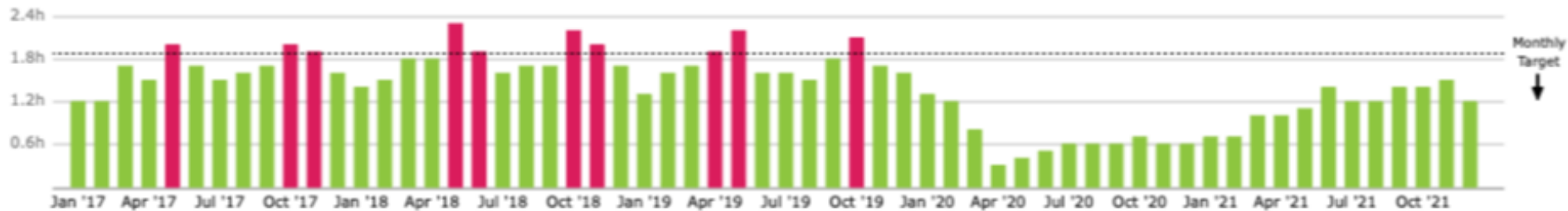
2021 1.60

Traffic Congestion – Peak Hour Excessive Delay

Baseline Performance

Baltimore UZA

Target: The system should have a PHED per capita less than 22.6h annually (1.883h for each month)



Target: > 72.1%

Year's Performance

2017	19.7h
2018	21.5h
2019	20.6h
2020	8.4h
2021	13.9h

Aberdeen UZA

Target: The system should have a PHED per capita less than 22.6h annually (1.883h for each month)



Target: N/A*

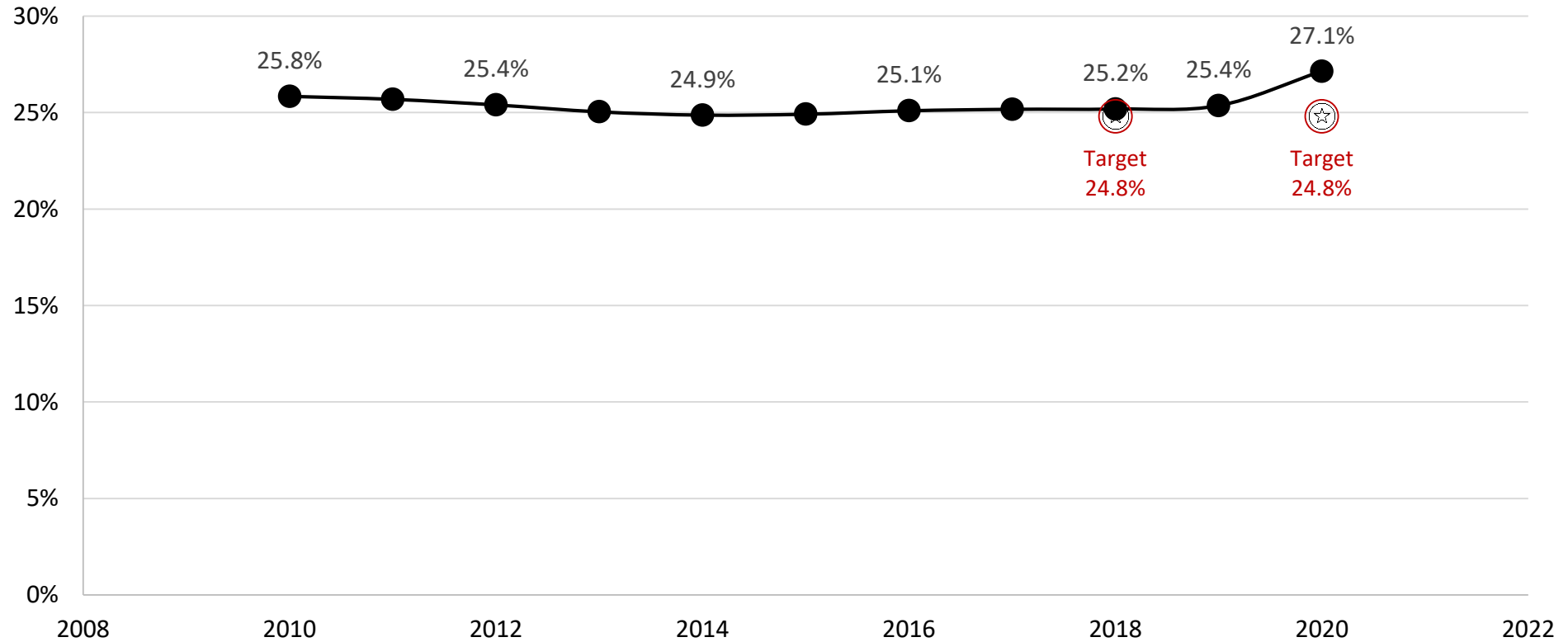
* Targets were not required for Aberdeen in the first performance period

Traffic Congestion – Non-SOV Travel

Baseline Performance

Baltimore UZA

Percent of Non-SOV Travel



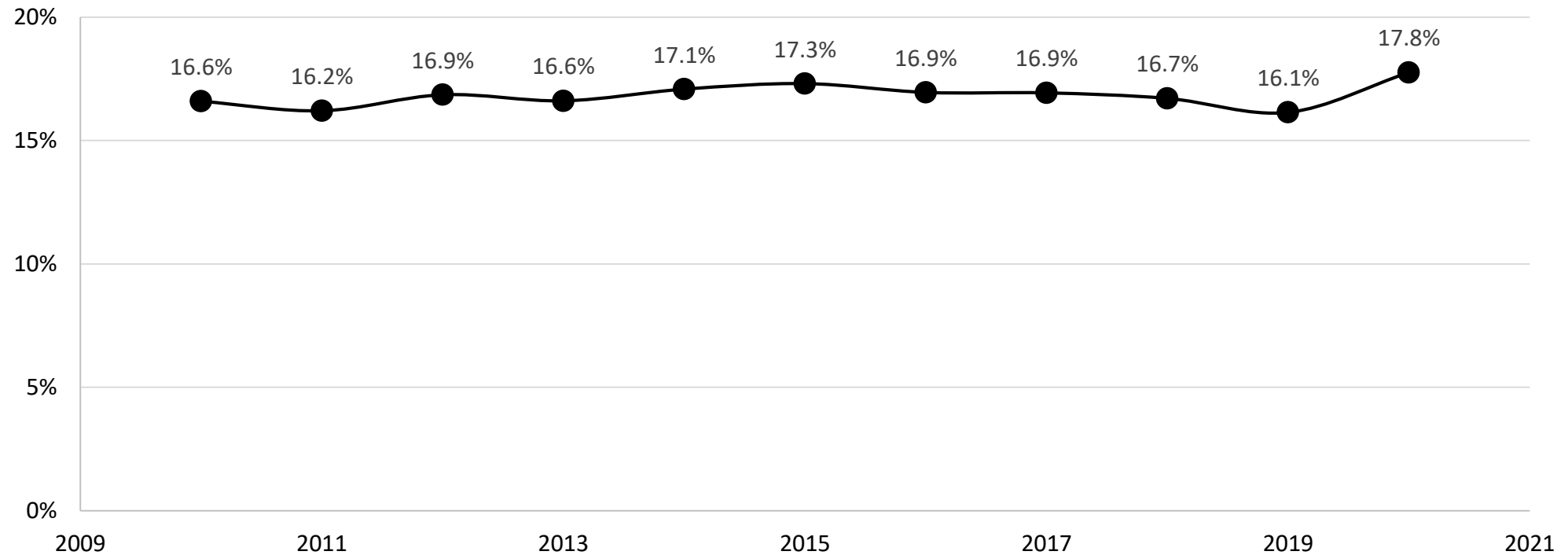
Data Source: US Census Bureau, ACS 5-Year Estimates, Table DP03, Commuting to Work

Traffic Congestion – Non-SOV Travel

Baseline Performance

Aberdeen UZA

Percent of Non-SOV Travel



Data Source: US Census Bureau, ACS 5-Year Estimates, Table DP03, Commuting to Work