

Safety Performance Target Setting

Technical Committee

January 4, 2022

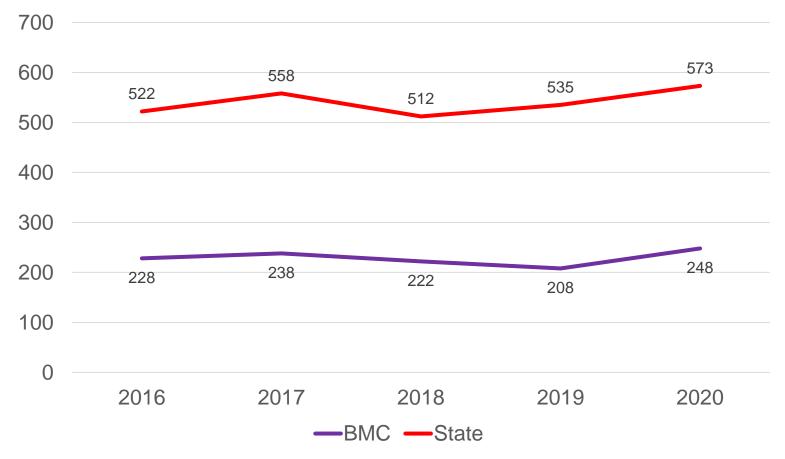


Safety in the Baltimore Region

BMC	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Fatalities	228	238	222	208	248
Serious Injuries	1,432	1,684	1,575	1,509	1,409
Total Injuries	25,824	26,374	26,022	25,292	19,591
Vehicle Miles Traveled (millions)	27,358	27,731	27,688	27,844	23,318
<u>State</u>					
Fatalities	522	558	512	535	573
Serious Injuries	3,167	3,347	3,233	3,122	2,718
Total Injuries	50,921	51,391	50,011	48,663	36,754
Vehicle Miles Traveled (millions)	58,974	59,892	59,629	60,136	50,592



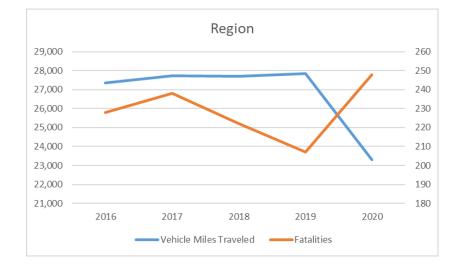
Fatalities

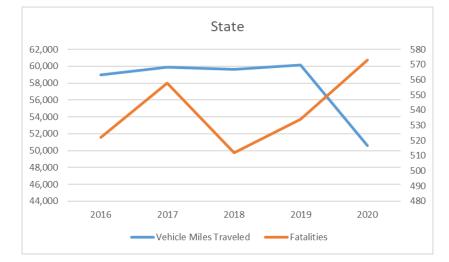






Vehicle Miles Traveled





-16.3% Vehicle Miles Traveled change 2019-2020

19.8% Crash fatalities change 2019-2020

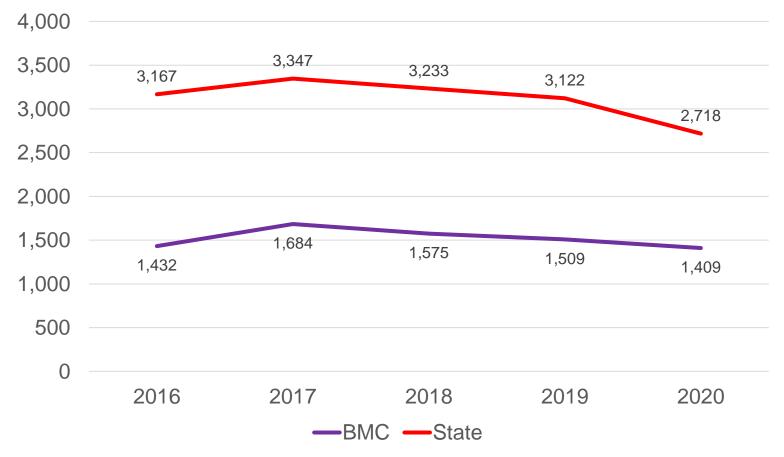
-15.9% Vehicle Miles Traveled change 2019-2020

7.3% Crash fatalities change 2019-2020





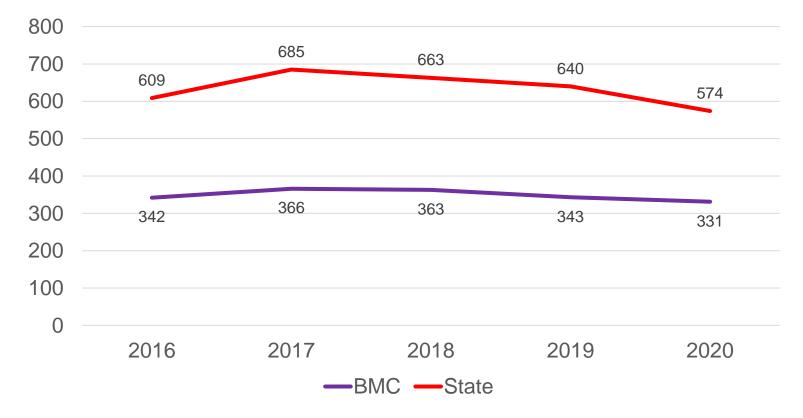
Serious Injuries







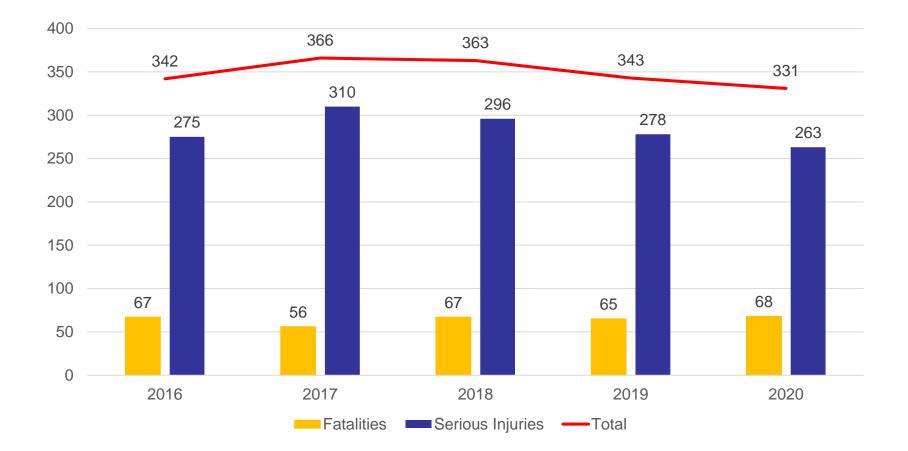
Non-motorist Fatalities and Serious Injuries







Non-motorized Serious Injuries and Fatalities (BRTB region)

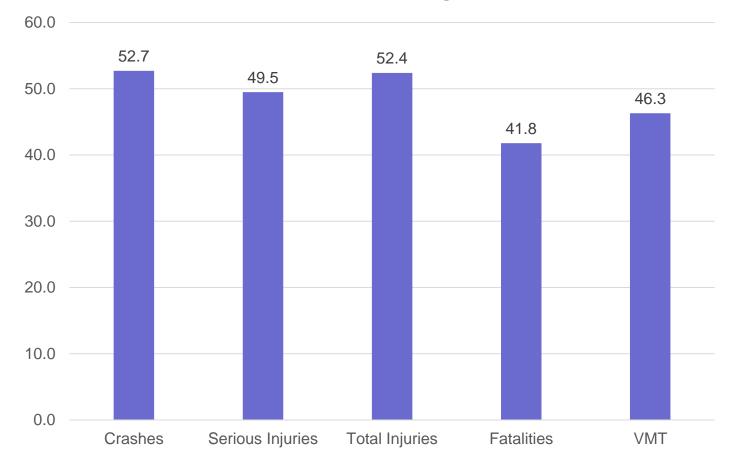






BRTB Percent of State

2018-2020 average







Safety Performance Targets

- Federal regulations state that MPOs must set safety performance targets 180 days after the State HSIP Report is submitted.
- Initial BRTB safety targets were set in January 2018 and updated each January since then.





BRTB Target-Setting Process



- Follow new Maryland methodology
 - Exponential forecast from 2005-2009 average
 - Annual 2% reduction in cases of increasing trends
 - Single year target is midpoint of five-year average (e.g. 2020 target = 2018-2022 average)
- Set five targets specific to the BRTB region
- Updated targets to be approved no later than February 28, 2022
 - Incorporate new year of data into five-year rolling averages





Resolution #22-10

Baltimore Region Yearly Highway Safety Targets

Performance Measure	2005- 2009 Baseline	2019 Actual	2020 Actual	Change 2019-2020	2018-2022 Target	2040 Goal
Number of Fatalities	244	208	248	19.2%	208	194
Number of Serious Injuries	2,094	1,509	1,409	6.6%	1,166	882
Fatality Rate per 100 Million VMT	0.94	0.75	1.06	42.4%	0.75	0.67
Serious Injury Rate per 100 Million VMT	8.06	5.42	6.04	1 11.5%	4.23	3.04
*Number of Non-motorized Fatalities & Serious Injuries	290	342	331	1 11.7%	333	272

*Increasing trend, so two percent annual reduction applied.





State Trends

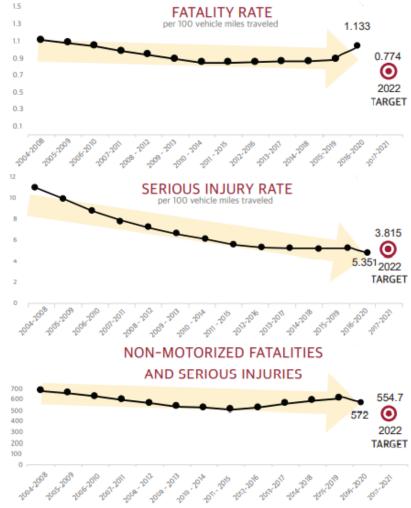
Performance Measure	2019 Actual	2020 Actual	Change 2019-2020
Number of Fatalities	535	573	† 7.10%
Number of Serious Injuries	3,122	2,718	12.94%
Fatality Rate per 100 Million VMT	0.89	1.13	26.97%
Serious Injury Rate per 100 Million VMT	5.19	5.37	1 3.47%
Number of Non-motorized Fatalities & Serious Injuries	640	574	10.31%



TPM 1: SAFETY

As part of Maryland's "Zero Deaths" approach to addressing highway safety, MDOT applies an exponential trend analysis to the five-year rolling averages to establish safety targets, as documented in the 2021-2025 Maryland Strategic Highway Safety Plan. Targets are updated annually and reported in the Highway Safety Improvement Program.

TOTAL FATALITIES 700 573 600 466.6 500 Θ 400 2022 300 TARGET 200 100 0 2004-2008 7,000 TOTAL SERIOUS INJURIES 6,000 5,000 4,000 2,263.9 700 600 Θ 3,000 500 400 2,000 2022 2,707 300 TARGET 1,000 200 100 0 2004-2008 1056-100 001-101 000-101 000-1000 000-1000 001-1000 001-200 00-201 00+200 208-2020 205-208 1017-2021



BMC



BRTB Strategies

- What have we done?
 - Incorporated measures and targets into the Transportation Improvement Program (TIP)
 - Enhanced safety in project scoring for the LRTP
 - Complete Streets Policies for MD and several Jurisdictions
 - Congestion Management Process
 - Local Strategic Highway Safety Plans
 - Four in place, three more to begin spring 2022
 - Pedestrian/Bicycle Coordinators in most Jurisdictions
 - Continuing Look Alive campaign
- New ideas?



For More Information

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Resolution #21-13

Baltimore Region Yearly Highway Safety Targets

Performance Measure	2008 Baseline	2018 Actual	2019 Actual	Change 2018-2019	2017-2021 Target	2030 TZD Goal
Number of Fatalities	242	223	207	7.17%	179	121
Number of Serious Injuries	1,868	1,566	1,509	3.64%	1,203	934
Fatality Rate per 100 Million VMT	0.93	0.81	0.74	8.64%	0.68	0.47
Serious Injury Rate per 100 Million VMT	7.21	5.66	5.42	4.24%	4.55	3.60
Number of Non-motorized Fatalities & Serious Injuries	286	363	343	5.51%	223*	143

*Based on the methodology this target would be 227. However, the recommendation is to keep the lower target from Resolution #20-10 of 223.

Sources: Maryland State Police crash database, MDOT MVA Highway Safety Office Benchmark Reports, MDOT SHA Mileage Reports



