

Transportation Performance Measures -- Safety --

Andy Henry, andrew.henry@durhamnc.gov, December 15, 2021

Background



- TPMS are required by MAP-21 and FAST ACT (federal transportation legislation)
- January 2019 -- MPO originally adopted Safety measures and targets along with TPMs for transit assets, bridge and pavement condition and system performance, and later, for transit safety
- Since that time, MPO has re-adopted Safety measures and targets annually
- MPO must re-adopt Safety targets by February 27, 2022 (other three TPMs are not due for re-adoption)

Background (continued)



- Two options:
 - MPO establish own measures
 MPO must manage data to calculate measure
 - Support NCDOT measures

In three TPMs, MPO adopted NCDOT target. Why? 1) can use NCDOT data; 2) targets are ambitious.

- NCDOT safety targets based on NCDOT's Strategic Highway Safety Plan (SHSP):
 - Reduce by 50% by 2035
 - Vison Zero by 2050
- At this point, no known consequences for MPO if targets not achieved

Safety Targets



	NCDOT 1					
Safety Measure	2018	2019	2020	2021*	2022	% change
Total Fatalities	5.0	5.6	6.2	4.2	12.2	143%
Fatality Rate	4.8	5.0	5.4	4.4	13.8	190%
Total Serious Injuries	5.1	6.8	8.5	3.2	19.8	288%
Serious Injury Rate	4.8	6.1	7.6	3.4	21.7	356%
Total Non-motorized	5.3	6.0	7.1	3.7	17.9	238%
Fatalities and Serious				1	1	
Injuries						

^{* 2021} reduction targets are much lower than previous years because the horizon year for reducing fatalities and injuries by one-half was changed from 2030 to 2035.

Current targets

Proposed targets

Safety Targets

Data for DCHC MPO



PLANNING TOMORROW'S TRANSPORTATION

Year	Fatalities (5 Year Average)	Fatality Rate (5 Year Average)	Serious Injuries (5 Year Average)	Serious Injury Rate (5 Year Average)	Non-motorized Fatalities and Serious Injuries (5 Year Average)
2008 - 2012	29.6	0.630	74.6	1.590	18.6
2009 - 2013	30.8	0.640	70.8	1.474	17.6
2010 - 2014	32.0	0.647	74.8	1.514	18.6
2011 - 2015	32.8	0.651	80.6	1.601	20.2
2012 - 2016	34.0	0.658	79.4	1.541	20.8
2013 - 2017	36.0	0.675	84.8	1.586	19.4
2014 - 2018	36.0	0.658	88.4	1.615	20.2
2015 - 2019	38.8	0.695	95.8	1.716	22.4
2016 - 2020	41.4	0.764	107.4	1.995	24.0
2022 Target	34.3	0.613	84.3	1.507	20.5

Fatalities and serious injuries – fastest increase

The rates (per miles traveled)
– steady increase

Non-motorized fatalities and serious injuries – fast increase

Recommendation



Support NCDOT 2022 Safety targets by resolution:

- Resolution: MPO agrees to plan and program projects so that they contribute toward the accomplishments of the NCDOT performance targets
- The proposed targets are ambitious, i.e., 50% reduction by 2035, zero fatality and serious injury by 2050
- Using the NCDOT targets allows the MPO to use NCDOT data