

Memorandum

To: MPO-Policy Board
From: Lucinda Shannon, Transportation Planning Manager
Date: January 22, 2020
Reference: Safety Performance Target Letter to VDOT from MPO

Purpose: Each year the Charlottesville Albemarle Metropolitan Planning Organization submits a safety target letter to the Virginia Department of Transportation (VDOT) to fulfill the March 2016 FHWA final rulemaking (23 CFR 490) for National Performance Measures for the Highway Safety Improvement Program (HSIP) target setting requirements.

Background: The Safety Performance rulemaking requires MPOs to agree to contribute to meeting the State DOT safety targets or to establish safety targets for each of the five safety measures including:

- number of fatalities,
- rate of fatalities per 100 million vehicle miles traveled (VMT),
- number of serious injuries,
- rate of serious injuries per 100 million VMT,
- and number of non-motorized fatalities and non-motorized serious injuries.

VDOT provides a workbook and letter template for MPOs to use. The completed workbook and letter are attached for the boards review.

Action Item: MPO staff recommends a motion to approve the safety letter and send it to VDOT.

If there are any questions or comments, please contact Lucinda Shannon at lshannon@tjpd.org or (434) 979-7310 Ext.113.



**Charlottesville-Albemarle Metropolitan Planning Organization
of the Thomas Jefferson Planning District Commission**
POB 1505, 401 E. Water St, Charlottesville, VA 22902 www.tjpd.org
(434) 979-7310 phone; (434) 979-1597 fax; info@tjpd.org email

January 22, 2020

Mr. Raymond Khoury, P.E.
State Traffic Engineer
Traffic Engineering Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Dear Mr. Khoury:

The Charlottesville Albemarle Metropolitan Planning Organization submits this letter to the Virginia Department of Transportation (VDOT) to fulfill the March 2016 FHWA final rulemaking (23 CFR 490) for National Performance Measures for the Highway Safety Improvement Program (HSIP) target setting requirements. The Safety Performance rulemaking requires MPOs to agree to contribute to meeting the State DOT safety targets or to establish safety targets for each of the five safety measures including number of fatalities, rate of fatalities per 100 million vehicle miles traveled (VMT), number of serious injuries, rate of serious injuries per 100 million VMT, and number of non-motorized fatalities and non-motorized serious injuries.

The selected methodology and selected targets are outlined below acknowledging acceptance to support the VDOT target, to set a numerical target for each performance measure specific to the MPO planning area, or any combination of these two methods for all five safety performance targets.

By supporting any of the VDOT targets we agree to plan and program projects to contribute toward achieving the State target, and must not only consider safety, but increase the safety of the transportation system. Details of the methodology used to estimate VMT for our MPO area within Virginia for establishing our rate targets is provided in the additional information section below.

Methodology Summary

	VDOT	MPO	If MPO, applicable data analysis method
Number of fatalities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Rate of fatalities per 100 million vehicle miles traveled (VMT)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Number of serious injuries	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Rate of serious injuries per 100 million VMT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Number of non-motorized fatalities and non-motorized serious injuries	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Choose an item.

Additional Information on Methodology

Enter data analysis and summary information here if other method was selected above.



Selected Targets

Future Target Annual Percent Reductions

The MPO may adopt the statewide percent reductions for 5-year averages if desired.

Target Description	*Statewide Target Annual Percent Reduction	*MPO Target Annual Percent Reduction
Fatalities	-4.29%	-4.29%
Serious Injuries	0.58%	0.58%
Non-Motorized Fatalities and Serious Injuries	0.64%	0.64%
Vehicle Miles Traveled (VMT)	-1.70%	-1.70%

*A positive value represents a reduction and a negative value represents an increase.

2020 Safety Performance Targets

The following target values were calculated using the target annual percent reductions:

Target Description	Target Value
Fatalities	9
Fatality Rate	0.73%
Serious Injuries	88
Serious Injury Rate	7.41%
Non-Motorized Fatalities and Serious Injuries	13

We acknowledge MPO targets are reported to VDOT and will be made available to FHWA upon request. Our 2020 safety targets are submitted for each performance measure on all public roads within 180 days after the VDOT reported its statewide targets, which falls on January 27, 2020.

For questions or comments, please contact me at lshannon@tjpd.org and 434-979-0654 .

Respectfully,

Lucinda Shannon, Transportation Program Manager

*Charlottesville Albemarle MPO
401 East Water Street Charlottesville, VA 22902*



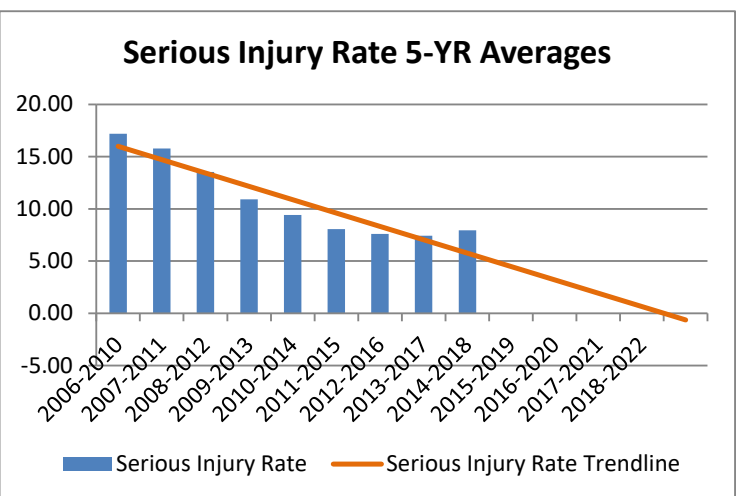
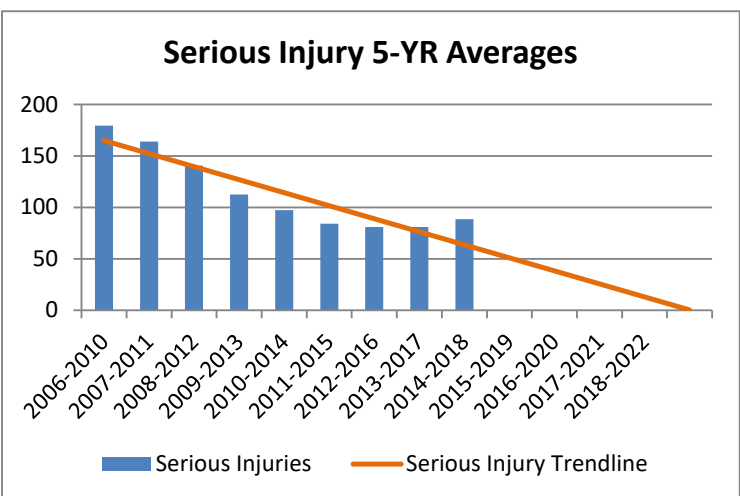
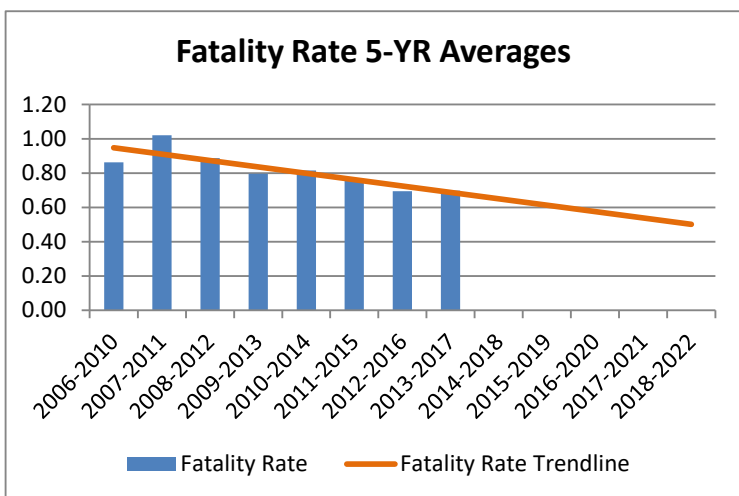
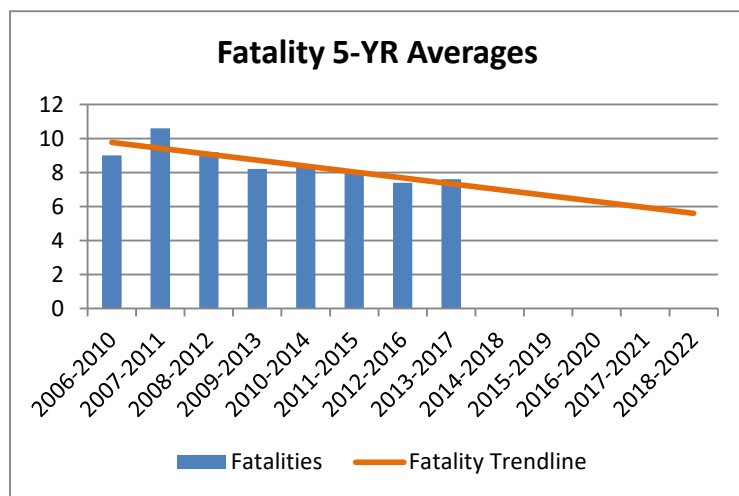
Directions:

View data in tables and graphs. Set goal percent reductions and resulting targets in **yellow cells**.

[Click here for more information.](#)

Historical Crash Data	Crash Year	FARS Non-											Injury Crashes	VMT (100 Million)
		FARS Fatal People	Motorist Fatal People	A People	B People	C People	Persons Injured	K Crash	A Crash	B Crash	C Crash	PDO Crash		
<p>Notes: The Fatality Analysis Reporting System (FARS), created by the National Highway Traffic Safety Administration (NHTSA), is used to report fatalities. FARS data is available through 2017.</p> <p>The Department of Motor Vehicles (DMV) crash data is used to report injury (Types A, B, and C) and property damage only (PDO) crashes. DMV data is available through 2018.</p> <p>All fatality and injury totals are based on the most recent MPO boundary.</p>	2006	4	0	175	127	492	794	6	123	92	334	1,332	549	10.4
	2007	13	1	213	124	418	755	12	147	92	287	1,183	526	10.5
	2008	11	1	233	207	696	1,136	11	182	156	472	1,722	810	10.6
	2009	7	2	135	210	624	969	4	115	166	408	1,392	689	10.3
	2010	10	2	141	210	601	952	11	119	169	396	1,416	684	10.4
	2011	12	1	98	222	615	935	9	80	183	386	1,517	649	10.2
	2012	6	1	95	512	356	963	7	82	373	227	1,620	682	10.4
	2013	6	2	94	654	242	990	6	72	481	124	1,629	677	10.2
	2014	8	1	58	683	216	957	7	51	490	55	1,603	596	10.3
	2015	8	0	75	720	190	985	9	57	517	40	1,577	614	11.0
	2016	9	2	83	674	154	911	8	69	504	39	1,649	612	11.4
	2017	7	0	95	641	186	922	5	82	491	47	1,580	620	11.6
	2018	--	--	132	261	756	1,149	8	118	209	525	1,426	852	11.4

Calculated Five-Year Averages	Five-Year Period	Fatalities	% Change	Fatality Rate	% Change	Serious Injuries	% Change	Serious Injury Rate	% Change
<p>Notes: This table contains the five-year averages based on the historical crash data. Fatality data is available up through the 2013-2017 five-year period. Serious injury data is reported up through the 2014-2018 five-year period.</p>	2006-2010	9	--	0.86	--	179	--	17.19	--
	2007-2011	11	17.8%	1.02	18.2%	164	-8.6%	15.77	-8.3%
	2008-2012	9	-13.2%	0.89	-13.0%	140	-14.4%	13.54	-14.2%
	2009-2013	8	-10.9%	0.80	-10.3%	113	-19.8%	10.93	-19.3%
	2010-2014	8	2.4%	0.81	2.4%	97	-13.7%	9.43	-13.7%
	2011-2015	8	-4.8%	0.77	-5.9%	84	-13.6%	8.05	-14.6%
	2012-2016	7	-7.5%	0.69	-9.5%	81	-3.6%	7.60	-5.6%
	2013-2017	8	2.7%	0.70	0.5%	81	0.0%	7.43	-2.2%
	2014-2018	--	--	--	--	89	9.4%	7.96	7.0%



Projected 5-Yr Average Based on Historical Trendline	Description	2018	2019	2020	Yearly Change	Average Percent Reduction*
Notes: This table projects the five-year average for future years based on the historical trendline.	Fatalities	7	7	7	-0.22	4.9%
	Fatality Rate	0.69	0.65	0.61	-0.03	5.6%
	Serious Injuries	--	64	51	-2.02	19.9%
	Serious Injury Rate	--	5.76	4.48	-0.36	22.2%

*A negative number represents a percent increase

Goal Percent Reductions	Description	Statewide Percent Reduction	Goal Percent Reduction*
Instructions: Enter a goal percent reduction in the yellow cells. The goal reductions will be used to develop the 2020 MPO safety targets in coordination with historical data in the table below. The statewide percent reductions are provided for reference. The MPO may adopt the statewide percent reductions if desired.	Fatalities	-4.29%	-4.29%
	Serious Injuries	0.58%	0.58%
	VMT	-1.70%	-1.70%

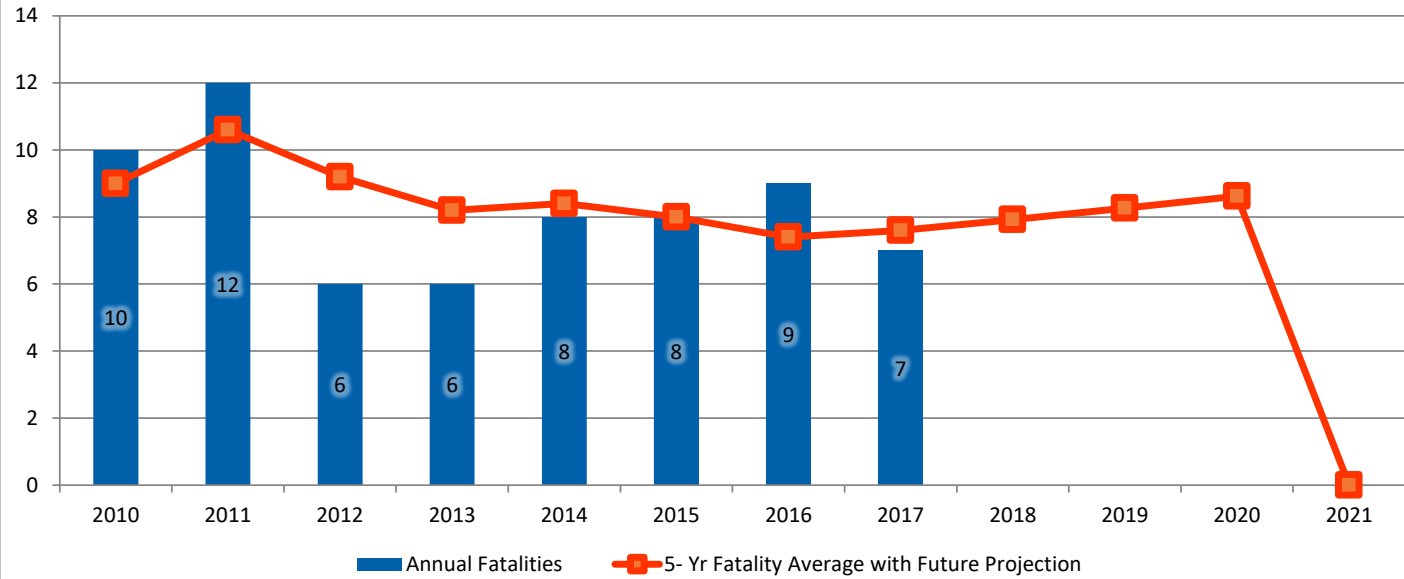
*A negative number represents a percent increase

Projected 5-Yr Average Based on Goal Reductions and Projected VMT Change	Description	2018	2019	2020
Instructions: This table projects the five-year average for future years based on the most recent five-year averages and the goal percent reductions. Graphs for this data are shown in the <i>Graphs_Fatal_SI</i> tab.	VMT (100 Million)*	11.42	11.62	11.82
	Fatalities	8	8	9
	Fatality Rate	0.69	0.71	0.73
	Serious Injuries*	89	88	88
	Serious Injury Rate*	7.96	7.58	7.41

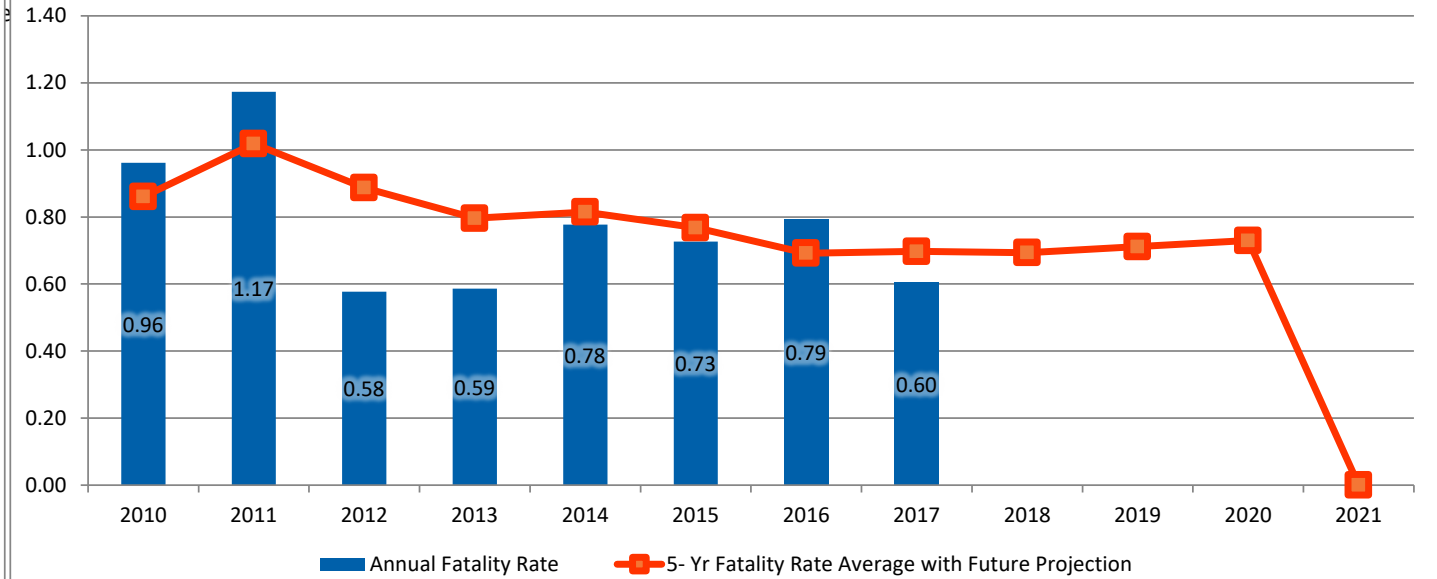
*Historical data provided for 2018. Projections reported for 2019-2020

2020 MPO Targets	Description	2020
Instructions: Once goal percent reductions have been agreed upon, enter the resulting 2020 5-year average target values (from the table above).	Fatalities	9
	Fatality Rate	0.73
	Serious Injuries	88
	Serious Injury Rate	7.41

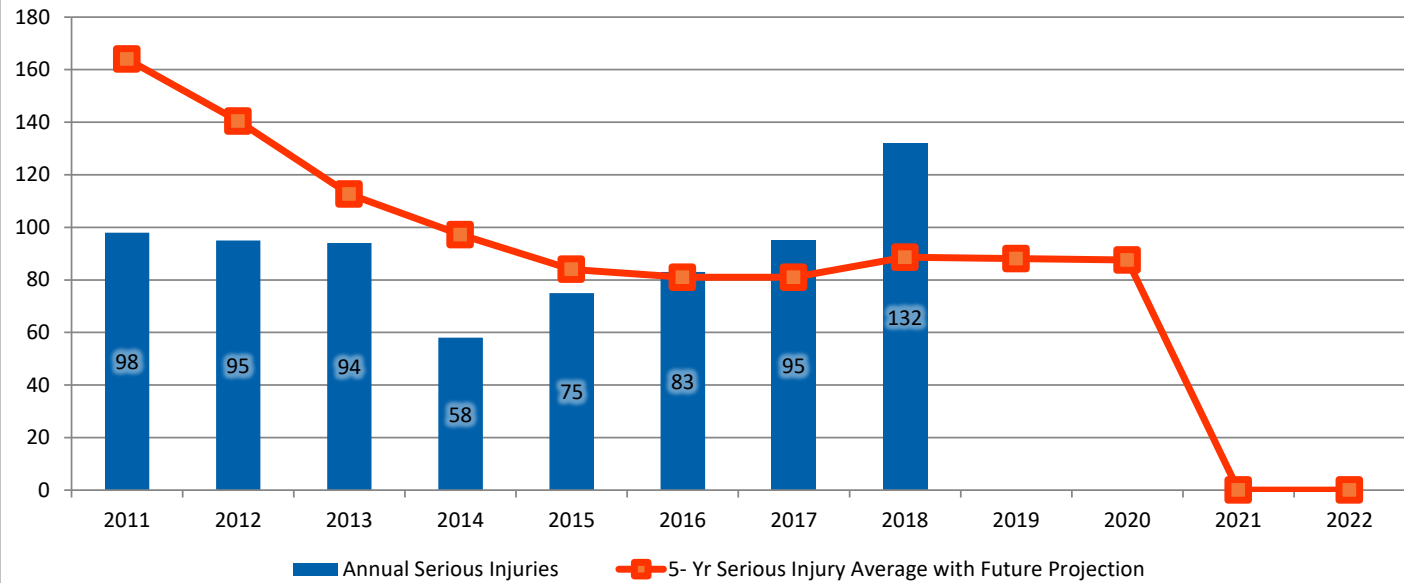
Annual Fatalities and 5-Year Avg Fatalities



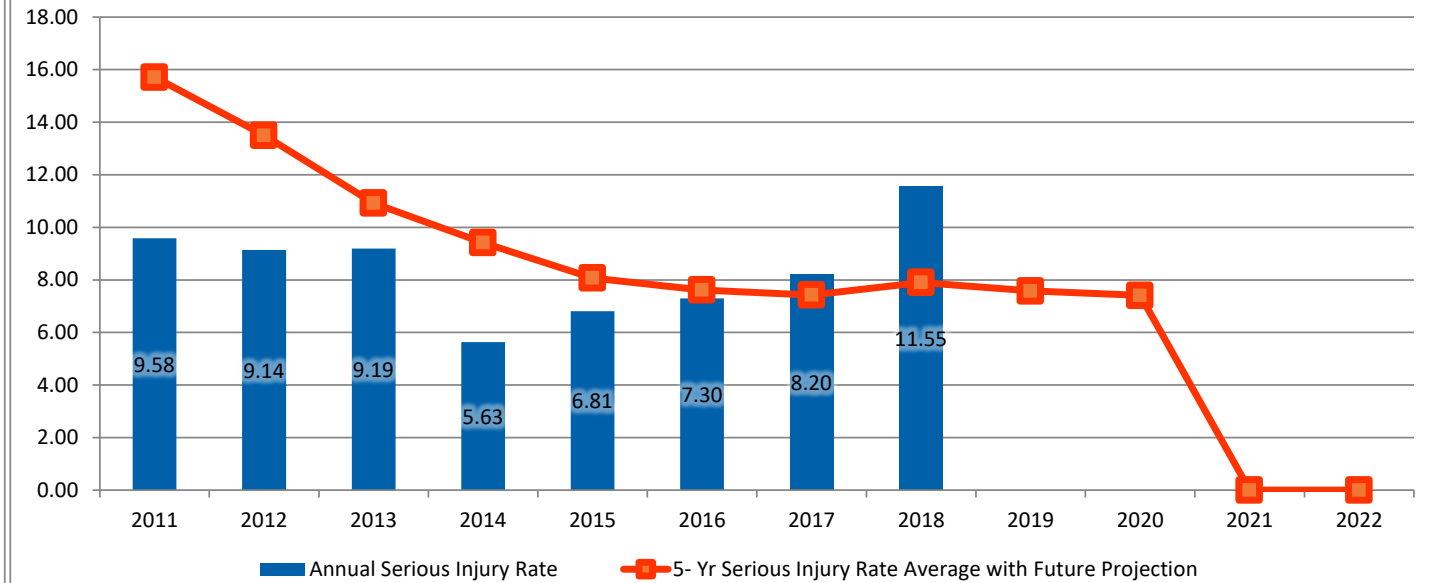
Annual Fatality Rate and 5-Year Avg Fatality Rate



Annual Serious Injury and 5-Year Avg Serious Injury



Annual Serious Injury Rate and 5-Year Avg Serious Injury Rate





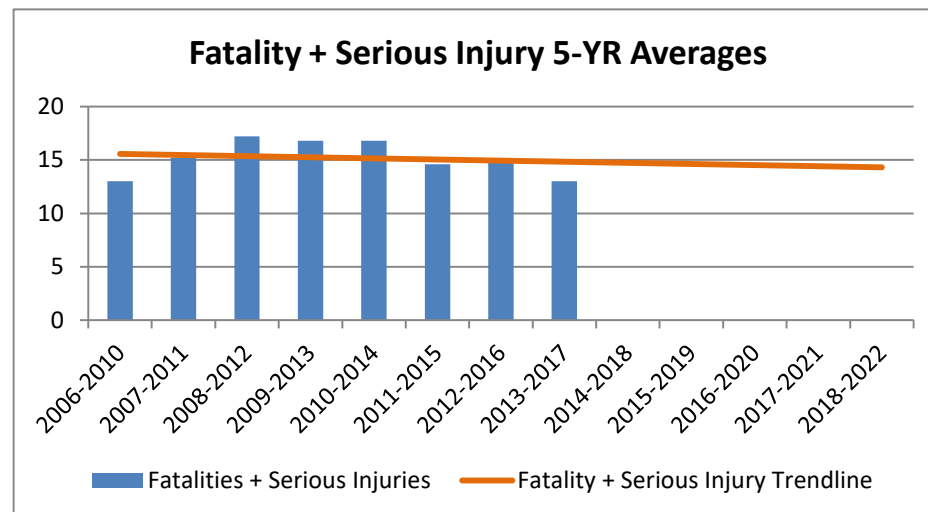
Directions:

View data in tables and graphs. Set goal percent reductions and resulting targets in **yellow cells**.

[Click here for more information.](#)

Historical Crash Data	Crash Year	FARS Fatal People	FARS Non-Motorist Fatal People	Non-Motorist A People	Non-Motorist B People	Non-Motorist C People	Non-Motorist Persons Injured	Non-Motorist K Crash	Non-Motorist A Crash	Non-Motorist B Crash	Non-Motorist C Crash	Non-Motorist PDO Crash	Non-Motorist Injury Crashes	VMT (100 Million)	K+A Non-Motorist People
	<p>Notes: The Fatality Analysis Reporting System (FARS), created by the National Highway Traffic Safety Administration (NHTSA), is used to report fatalities. FARS data is available through 2017.</p> <p>The Department of Motor Vehicles (DMV) crash data is used to report injury (Types A, B, and C) and property damage only (PDO) crashes. DMV data is available through 2018.</p> <p>All fatality and injury totals are based on the most recent MPO boundary.</p>	2006	4	0	4	5	1	10	1	3	4	1	0	8	10.4
2007		13	1	10	5	3	18	1	9	4	2	1	15	10.5	11
2008		11	1	19	23	25	67	1	19	21	20	0	60	10.6	20
2009		7	2	11	17	24	52	2	11	15	14	0	40	10.3	13
2010		10	2	15	33	25	73	2	15	31	24	0	70	10.4	17
2011		12	1	14	40	22	76	1	14	38	20	0	72	10.2	15
2012		6	1	20	42	23	85	1	20	40	16	1	76	10.4	21
2013		6	2	16	51	12	79	2	12	48	8	0	68	10.2	18
2014		8	1	12	57	16	85	1	11	53	4	1	68	10.3	13
2015		8	0	6	56	13	75	1	6	49	2	2	57	11.0	6
2016		9	2	15	35	9	59	2	11	31	4	1	46	11.4	17
2017		7	0	11	53	18	82	0	11	48	4	2	63	11.6	11
2018		--	--	16	18	27	61	0	16	18	27	0	61	11.4	--

Calculated Five-Year Averages	Five-Year Period	Fatalities	% Change	Serious Injuries	% Change	Fatalities + Serious Injuries	% Change
<p>Notes: This table contains the five-year averages based on the historical crash data. Fatality data is available up through the 2013-2017 five-year period. Serious injury data is reported up through the 2014-2018 five-year period.</p>	2006-2010	1	--	12	--	13	--
	2007-2011	1	16.7%	14	16.9%	15	16.9%
	2008-2012	1	0.0%	16	14.5%	17	13.2%
	2009-2013	2	14.3%	15	-3.8%	17	-2.3%
	2010-2014	1	-12.5%	15	1.3%	17	0.0%
	2011-2015	1	-28.6%	14	-11.7%	15	-13.1%
	2012-2016	1	20.0%	14	1.5%	15	2.7%
	2013-2017	1	-16.7%	12	-13.0%	13	-13.3%
	2014-2018	--	--	12	0.0%	--	--



Projected 5-Yr Average Based on Historical Trendline	Description	2018	2019	2020	Yearly Change	Average Percent Reduction
Notes: This table projects the five-year average for future years based on the historical trendline.	Non-Motorized Fatalities + Serious Injuries	15	15	15	-0.94	0.7%

*A negative number represents a percent increase

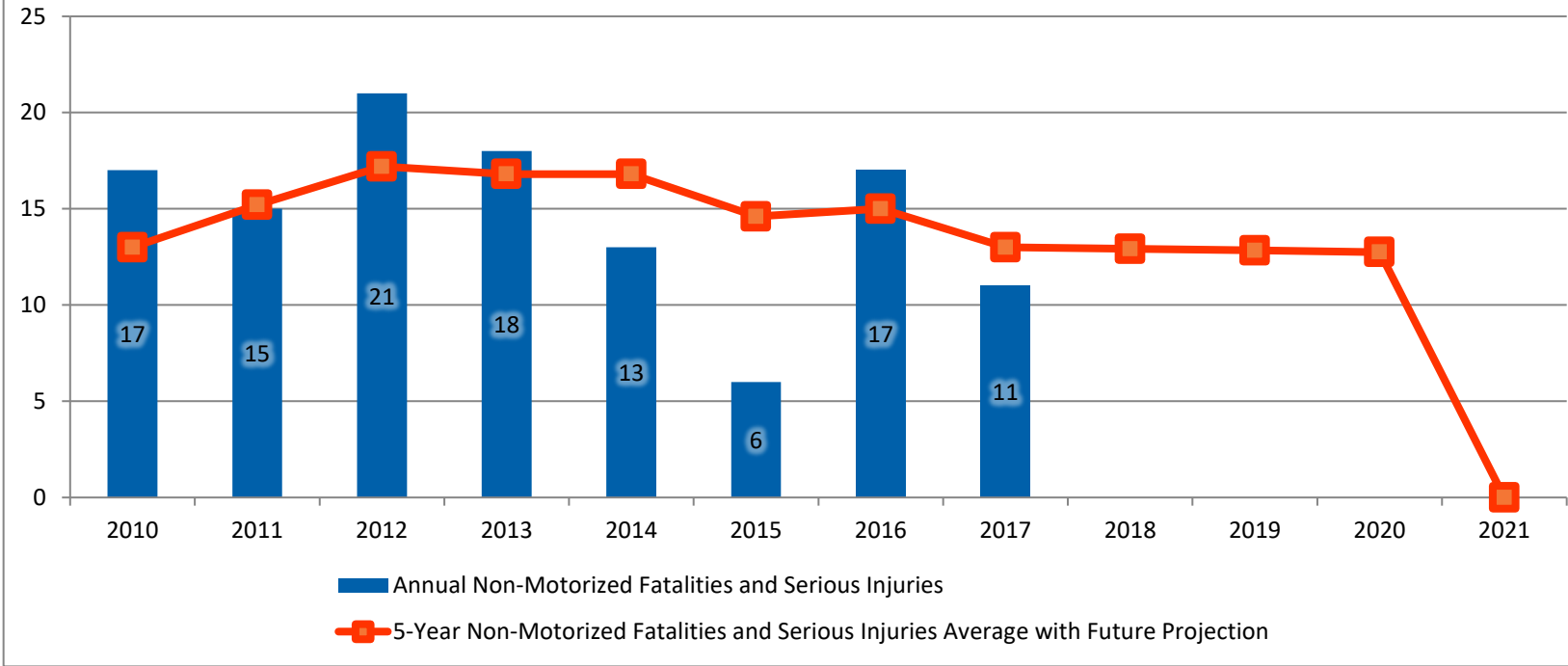
Goal Percent Reductions	Description	Statewide Percent Reduction	Goal Percent Reduction*
Instructions: Enter a goal percent reduction in the yellow cells. The goal reductions will be used to develop the 2020 MPO safety targets in coordination with historical data in the table below. The statewide percent reductions are provided for reference. The MPO may adopt the statewide percent reductions if desired.	Non-Motorized Fatalities + Serious Injuries	0.64%	0.64%

*A negative number represents a percent increase

Projected 5-Yr Average Based on Goal Reductions and Projected VMT Change	Description	2018	2019	2020
Instructions: This table projects the five-year average for future years based on the most recent five-year averages and the goal percent reductions. Graphs for this data are shown in the <i>Graphs_Bike_Ped</i> tab.	Non-Motorized Fatalities + Serious Injuries	13	13	13

2020 MPO Targets	Description	2020
Instructions: Once goal percent reductions have been agreed upon, enter the resulting 2020 5-year average target values (from the table above).	Non-Motorized Fatalities + Serious Injuries	13

Annual Non-Motorized Fatalities and Serious Injuries



KABCO Scale: A functional measure of the injury severity for any person involved as determined by law enforcement at the scene of the crash.

Injury Type	Common Identification	Full Definition
K	Fatal Injury	A fatal injury is an injury that results in death within 30 days after the motor vehicle crash in which the injury occurred.
A	Incapacitating Injury	Injury = Suspected Serious Injury which is any injury other than fatal, resulting in one or more of the following: a. Severe laceration resulting in exposure of underlying tissues, muscle, organs, or resulting in significant loss of blood b. Broken or distorted extremity (arm or leg) c. Crush injuries d. Suspected skull, chest, or abdominal injury other than bruises or minor lacerations e. Significant burns (second and third degree burns over 10 percent or more of the body) f. Unconsciousness when taken from the crash scene g. Paralysis
B	Non-incapacitating Injury	Minor/Possible Injury = Other Visible Injury, as Bruises, Abrasions, Swelling, Limping, etc.
C	Possible Injury	No Apparent Injury = No Visible Injury, But Complaint of Pain, or Momentary Unconsciousness
PDO Crash	Property Damage Only	Crash resulting in property damage of at least \$1500 to the motor vehicle or other property but without injury to any occupants or non-motorists. The damage amount prior to 2009 is \$1,000.