

MESILLA VALLEY METROPOLITAN PLANNING ORGANIZATION

RESOLUTION NO. 21-14

A RESOLUTION AMENDING *MOBILITY 2045* TO ADOPT THE MESILLA VALLEY MPO SAFETY PERFORMANCE TARGETS FOR CALENDAR YEAR 2022

The Mesilla Valley Metropolitan Planning Organization (“MPO”) Policy Committee is informed that:

WHEREAS, the Mesilla Valley Metropolitan Planning Organization is the transportation planning agency for the City of Las Cruces, the Town of Mesilla, and the urbanized area of central Doña Ana County; and

WHEREAS, Title 23 CFR §450.322 requires that all MPO’s throughout the country adopt a minimum 20-year Metropolitan Transportation Plan for their respective jurisdictions; and

WHEREAS, the MPO adopted *Mobility 2045*, its Metropolitan Transportation Plan for 2020 on July 15, 2020; and

WHEREAS, federal law under Moving Ahead for Progress in the 21st Century (MAP-21) required states and metropolitan planning organizations to develop Safety Performance Targets; and

WHEREAS, the federal law under Fixing America’s Surface Transportation Act (FAST Act) maintains this requirement; and

WHEREAS, 23 CFR 490 requires states to set annual safety targets for five performance measures: number of fatalities, rate of fatalities per one-hundred million vehicle miles travelled (VMT), number of serious injuries, rate of serious injuries per one-hundred million VMT, and number of non-motorized fatalities and serious injuries; and

WHEREAS, federal regulations require metropolitan planning organizations to adopt Safety Targets on an annual basis; and

WHEREAS, the State of New Mexico requires that the annual safety targets be amended into the existing Metropolitan Transportation Plan; and

WHEREAS, the Bicycle and Pedestrian Facilities Advisory Committee recommended supporting the NMDOT Safety Targets for 2022 at their October 19, 2021 meeting; and

WHEREAS, the Technical Advisory Committee recommended supporting the NMDOT Safety Targets for 2021 at their November 4, 2021 meeting; and

WHEREAS, the Policy Committee has determined that it is in the best interest of the MPO for the Mesilla Valley MPO support the NMDOT Safety Targets for 2022.

NOW, THEREFORE, be it resolved by the Policy Committee of the Mesilla Valley Metropolitan Planning Organization:

(I)

THAT the Mesilla Valley Metropolitan Planning Organization adopts the Safety Targets for 2021, as contained in Exhibit "A", which are the NMDOT Safety Targets for 2021, which are attached hereto and made part of this resolution.

(II)

THAT the information contained in Exhibit "A" be included as part of Appendix A in *Mobility 2045*.

(III)

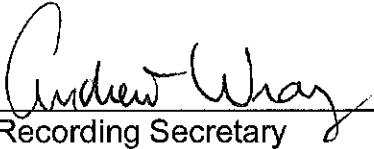
THAT staff is directed to take appropriate and legal actions to implement this Resolution.

DONE and **APPROVED** this 10th day of November, 2021.

APPROVED:


Chair

ATTEST:


Recording Secretary

Motion By: Dist. Eng. Doolittle	
Second By: Trustee Garcia	
VOTE:	
Chair Vasquez	Yes
Vice-Chair Sanchez	Yes
Mayor Barraza	Abs
Councilor Bencomo	Abs
Commissioner Chaparro	Abs
Dist. Eng. Doolittle	Yes
Trustee Garcia	Yes
Trustee Johnson-Burick	Yes
Commissioner Murillo-Trujillo	Abs
Councilor Sorg	Abs

Performance Measure (PM) Target Report – PM 1 2022 Safety Targets

This document outlines the 2022 Targets for Safety (PM 1) for New Mexico, as required by the 23 CFR 490, Final Rule on the Highway Safety Improvement Program (HSIP) published March 15, 2016 (effective April 14, 2017). The New Mexico Department of Transportation (NMDOT) Multimodal Planning and Programs Bureau (MPPB) is responsible for coordinating the setting of PM 1 targets.

Overview of PM 1 Measures

The state is required to set annual targets for five performance measures:

1. Number of Total Fatalities
2. Number of Serious Injuries
3. Fatalities per 100 million vehicle miles travelled (VMT) or fatality rate
4. Serious Injuries per 100 million VMT or serious injury rate
5. Number of Non-motorized Fatalities and Serious Injuries

The first three are common measures and must be identical to the targets established for the Highway Safety Plan (HSP).

Coordination with Metropolitan Planning Organizations (MPOs)

The NMDOT undertook a coordinated effort with the Metropolitan Planning Organizations (MPOs), the HSP team and other stakeholders to set the targets.

1. Internal meetings took place in spring of 2021 between staff of the NMDOT MPPB and Traffic Safety Division, responsible for the HSP, to review and analyze crash data and trends. A representative of the University of New Mexico (UNM), contracted by NMDOT to maintain the state's crash database, attended the meetings and provided crash data and analysis.
2. On May 26, 2021, the NMDOT Traffic Safety Division held a meeting with stakeholders to discuss and adopt the targets required in the HSP. The targets were revised following the meeting, to reflect updates to the crash datasets provided by UNM.
3. On June 15, 2021, MPPB staff presented the targets to the MPOs and emailed the proposed targets to the MPOs for review and comments.
4. On June 24, 2021, the NMDOT Safety Committee reviewed and approved the 2022 Safety Targets as outlined in this report for submittal in the 2021 HSIP Annual Report.
5. On September 1, 2021, MPPB staff emailed this report, outlining the adopted state PM1 targets, to the MPOs.
6. The MPOs have until February 28, 2022 to formally adopt the NMDOT PM 1 targets or set their own quantifiable targets.

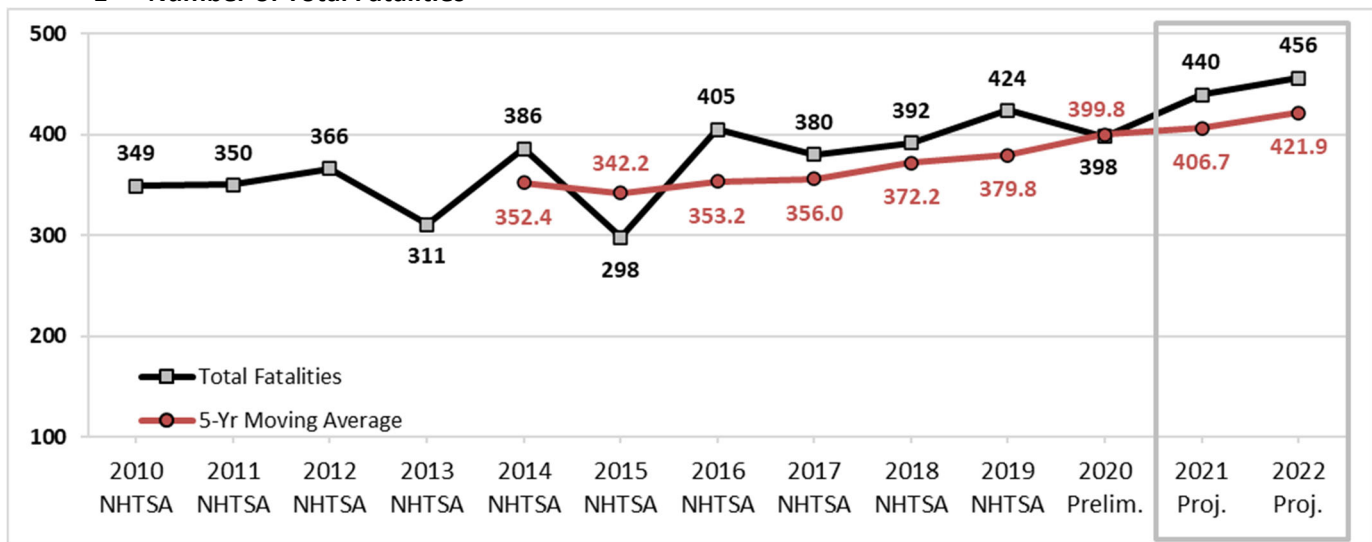
Data Methodologies and Assumptions

In setting the 2022 safety targets, NMDOT and stakeholders did not rely solely on the data projections but used the data in combination with their discussions regarding other relevant factors and their assessment of the potential safety impacts of various strategies and projects. NMDOT worked with UNM to determine methodologies and assumptions required to set the targets. These are as follows:

- NMDOT uses Excel to plot a linear best fit line based on 6-years of actual data to project for future years.
- Vehicle Miles Travelled (VMT) - The annual VMT is from the FHWA Highway Statistics Series (<https://www.fhwa.dot.gov/policyinformation/statistics/2019/pdf/vm2.pdf>). Within this link, simply replace '2019' with the desired year to obtain the VMT for the year of interest.
 - Appendix A of this document displays the annual VMT from the FHWA Highway Statistics Series using a unit of 100 Million VMT (HVMVT). FHWA guidance documents insist on using HVMVT for calculating fatality rates and serious injury rates, hence, Appendix A displays the annual VMT adjusted to HVMVT.
- The preliminary Annual VMT for 2020 is provided by the Data Management Bureau of the NMDOT Planning Division.
- Crash Data for 2020 is preliminary and provided by UNM.
- The source data table is attached as Appendix B. This data was used to calculate the linear regression equations that yield the 2020 and 2021 projections. It also contains the data that was used to calculate the five-year moving averages.

NMDOT PM 1 (Safety) 2022 Targets

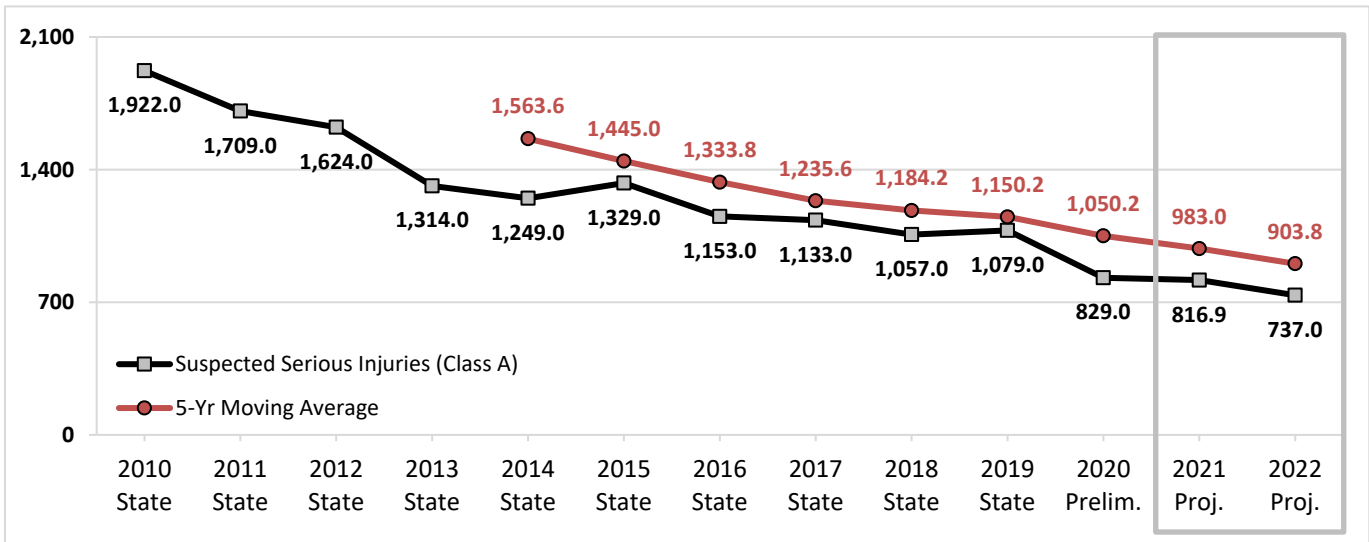
1 Number of Total Fatalities



NMDOT 2022 Target for Number of Total Fatalities: 421.9

NMDOT Justification: Although the preliminary reported number of fatalities declined 6.1 percent in 2020 from 2019. The five-year average fatalities are projected to rise 5.6 percent by 2022 compared to the preliminary reported 2020 number. Despite preliminary VMT dropping by 14.7 percent between 2019 and 2020, due to COVID-19 public health travel restrictions, fatalities only declined 6.1 percent. With fatalities projected to keep rising the five-year average projection of 421.9 is determined to be the 2022 target.

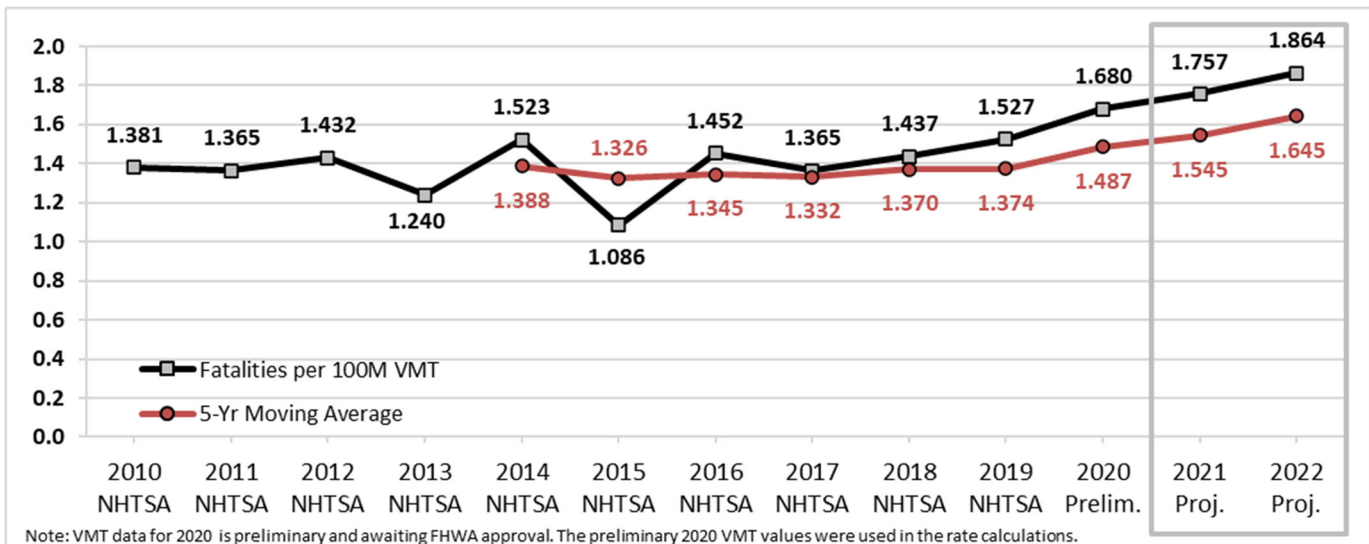
2 Number of Serious Injuries



NMDOT 2022 Target for Number of Serious Injuries: 1,030.5

NMDOT Justification: Preliminary suspected serious injury numbers show a decrease of roughly 23% from 2019 to 2020. This can partially be attributed to lower VMT in 2020, due to the COVID-19 pandemic. In order to adjust to these fluctuations, we will use the targets that were set in the summer of 2020, prior to any COVID-19 considerations and impacts.

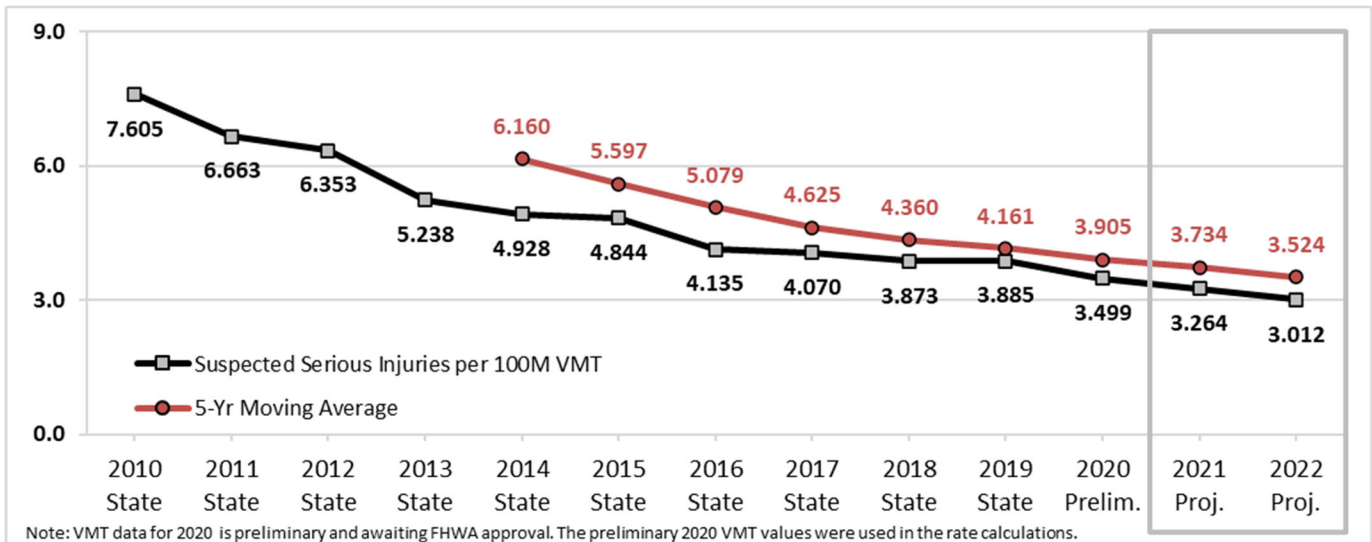
3 Rate of Fatalities



NMDOT 2022 Target for Rate of Fatalities: 1.645

NMDOT Justification: The projected rate of fatalities for 2022 increased due to the decline in 2020 VMT and the fact the preliminary total fatalities did not show much decline. This keeps the five year moving average on a consistent trend. In fact, much as we see nationally, the five year average rate of fatalities are projected to rise in 2022, thus the projected five year moving average of 1.645 is the target.

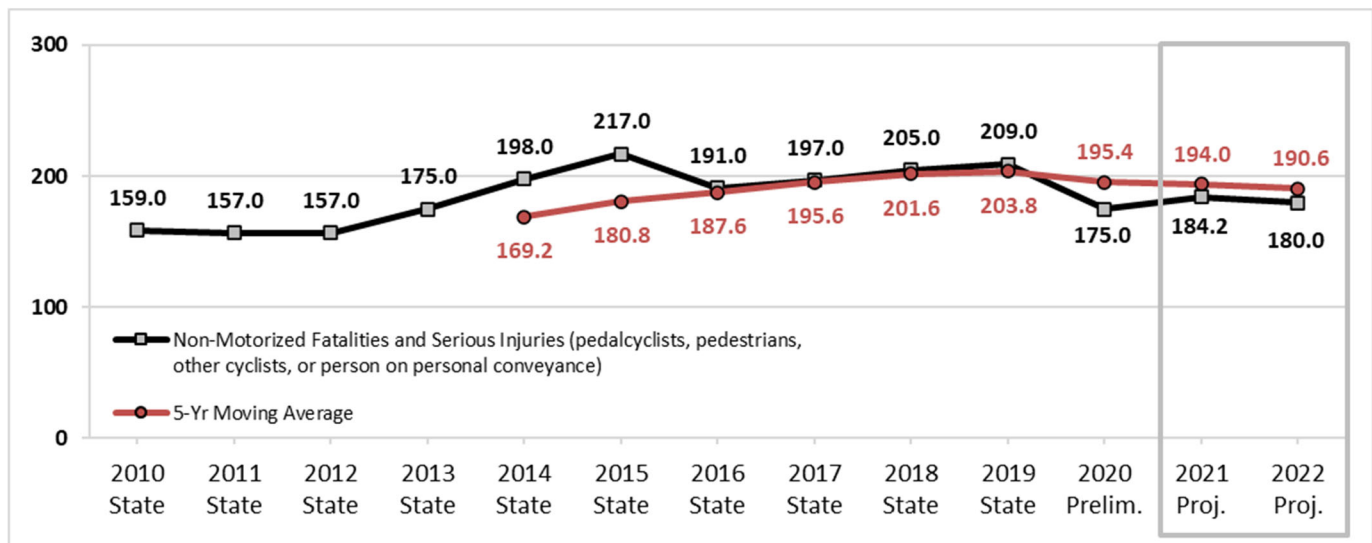
4 Rate of Serious Injuries



NMDOT 2022 Target for Rate of Serious Injuries: 3.842

NMDOT Justification: Preliminary VMT numbers show a decrease of roughly 15% from 2019 to 2020. This can partially be attributed to the COVID-19 pandemic. In order to adjust to these fluctuations, we will use the 2021 target set in the summer of 2020, prior to any COVID-19 considerations and impacts.

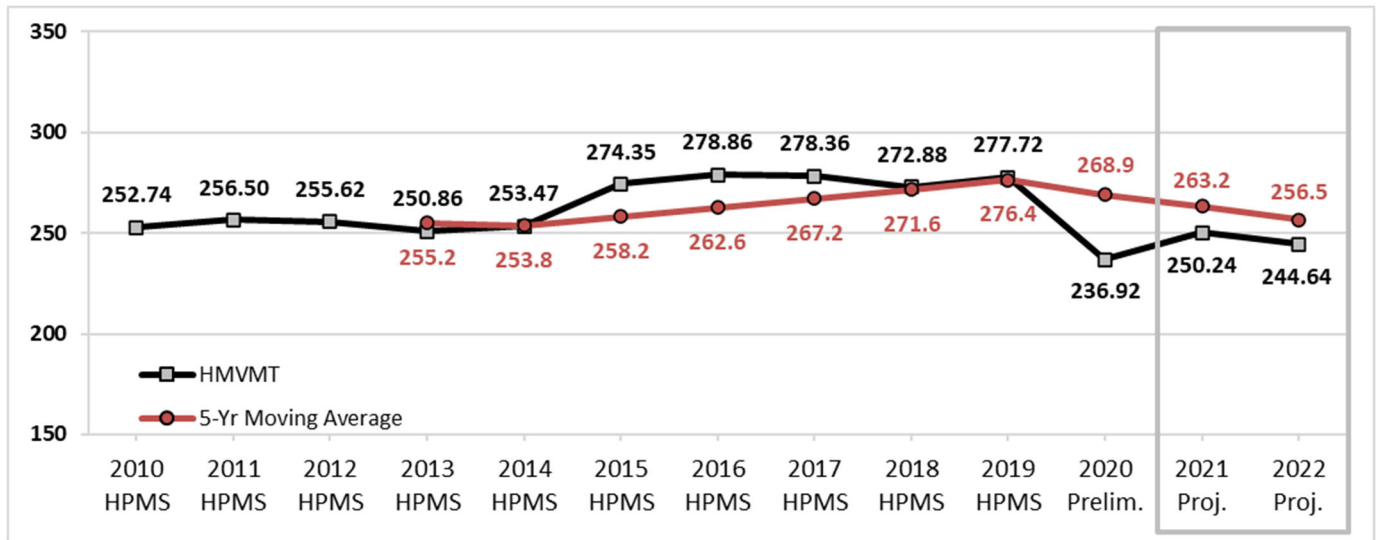
5 Number of Non-motorized Fatalities and Serious Injuries



NMDOT 2022 Target for Number of Non-motorized Fatalities and Serious Injuries: 190.6

NMDOT Justification: Five-year average non-motorized fatalities and serious injuries was pulled down by the 2020 reduction in the number of non-motorized fatalities and serious injuries. With the easing of public health restrictions related to Covid-19 the number the number of non-motorized fatalities and serious injuries is projected to rise. The five-year average projection of 190.6 is the 2022 target.

Appendix A: Five-Year Moving Average of Hundred Million VMT (HMOVMT)



Appendix B: Data Values and Sources

Performance Measure	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fatalities*	361	349	350	366	311	386	298	405	380	392	424	398	440	456
Serious Injuries**	1,899	1,922	1,709	1,624	1,314	1,249	1,329	1,153	1,133	1,057	1,079	829.0	816.9	737.0
HMVMT†	260.13	252.74	256.50	255.62	250.86	253.47	274.35	278.86	278.36	272.88	277.72	236.92	250.24	244.64
Fatality rate (per HMVMT)	1.388	1.381	1.365	1.432	1.240	1.523	1.086	1.452	1.365	1.437	1.527	1.680	1.757	1.864
Serious injury rate (per HMVMT)	7.300	7.605	6.663	6.353	5.238	4.928	4.844	4.135	4.070	3.873	3.885	3.499	3.264	3.012
Number non-motorized fatalities***	44	41	46	68	55	78	62	81	81	95	92			
Number of non-motorized serious injuries**	117	118	111	89	120	120	155	110	116	110	117			
Non-motorized fatalities and serious injuries****	161	159	157	157	175	198	217	191	197	205	209	175	184	180
Fatalities 5YRA start @2014						352.4	342.2	353.2	356.0	372.2	379.8	399.8	406.7	421.9
Fatalities 5YRA start @2013						347.4	352.4	342.2	353.2	356.0	372.2	379.8	399.8	421.9
Serious Injuries 5YRA start @2014						1,563.6	1,445.0	1,333.8	1,235.6	1,184.2	1,150.2	1,050.2	983.0	903.8
Serious Injuries 5YRA start @2013						1,693.6	1,563.6	1,445.0	1,333.8	1,235.6	1,184.2	1,150.2	1,050.2	983.0
Fatality rate (per HMVMT) 5YRA start @2014						1.388	1.326	1.345	1.332	1.370	1.374	1.487	1.545	1.645
Fatality rate (per HMVMT) 5YRA start @2013						1.361	1.388	1.326	1.345	1.332	1.370	1.374	1.487	1.545
Serious injury rate (per HMVMT) 5YRA start @2014						6.160	5.597	5.079	4.625	4.360	4.161	3.905	3.734	3.524
Serious injury rate (per HMVMT) 5YRA start @2013						6.637	6.160	5.597	5.079	4.625	4.360	4.161	3.905	3.524
Number non-motorized fatalities 5YRA						57.6	61.8	68.8	71.4	79.4	82.2			
Number of non-motorized serious injuries 5YRA						111.6	119.0	118.8	124.2	122.2	121.6			
Non-motorized fatalities and serious injuries 5YRA start @2014						169.2	180.8	187.6	195.6	201.6	203.8	195.4	194.0	190.6
Non-motorized fatalities and serious injuries 5YRA start @2013						161.8	169.2	180.8	187.6	195.6	201.6	203.8	195.4	190.6
HMVMT 5YRA						255.2	253.8	258.2	262.6	267.2	271.6	276.4	268.9	256.5

*Source: 2009-2018 is from NHTSA: <https://cdan.nhtsa.gov/SASStoredProcess/guest>.

**Source: Dataset for 2013 to 2019 that was received from NMDOT on 2/1/2021.

***Source: <https://www-fars.nhtsa.dot.gov/People/PeopleAllVictims.aspx> & see image on "FARS_Screenshots" sheet for non-motorized fatality information.

****Non-motorized definition per FHWA: pedalcyclists, pedestrians, other cyclists, or person on personal conveyance.

†HMVMT source (change four-digit year to desired calendar year in link): <https://www.fhwa.dot.gov/policyinformation/statistics/2009/vm2.cfm>.

2020 crash data is preliminary and originates from 4/23/2021 dataset.

Linear regression (best fit straight line; $y = 16.257x + 325.93$) based on 2015-2020 fatalities.

Linear regression (best fit straight line; $y = -79.943x + 1,376.5$) based on 2015-2020 A-Injuries.

Linear regression (best fit straight line; $y = -4.2286x + 213.8$) based on 2015-2020 non-motorized fatalities and A-Injuries.

The VMT for 2021 and 2022 are the rolling average of the previous 5 years (as directed by Jessica on 4/28/2021).