WASHTENAW AREA TRANSPORTATION STUDY

200 N. Main
Ann Arbor, MI 48103
phone: 734.994.3127
website: miwats.org
email: wats@miwats.org

NOTICE OF MEETING

TECHNICAL COMMITTEE

DATE: February 7, 2024
TIME: 9:30 am
PLACE: 200 N. Main, Ann Arbor - Lower Level Conference Room
PUBLIC PARTICIPATION LINK: https://us06web.zoom.us/j/85363141740?pwd=SHhBbUZNZ21kb2dBcTk1eVZjR2ZCZz09

AGENDA:

1. Call to Order/Introductions
2. Approval of the Agenda
3. Approval of Minutes – November 1, 2023, Meeting Minutes (attached) – Action
4. Public Participation
5. Communications and Announcements
6. Old Business
7. New Business
   A. 2022 Washtenaw County Crash Report - Information
   B. Safety Target Performance Measures - Action

8. Agency Reports

Ann Arbor DDA	Pittsfield Township	City of Milan
City of Ypsilanti	The Ride	Washtenaw County
Ypsilanti Township	MDOT Planning	City of Chelsea
City of Ann Arbor	MDOT Region/TSC	SEMCOG
City of Saline	City of Dexter	EMU
Dexter Township	U of M	FHWA
WCRC	Environmental	Equity
Non-motorized	People with Disabilities	Senior

9. Adjournment

The Washtenaw Area Transportation Study (WATS) financed the preparation of this document through grants from the U.S. Department of Transportation in cooperation with the Michigan Department of Transportation and contributions from local government, public transit, and educational unit members of the Washtenaw Area Transportation Study. The views and opinions expressed herein do not necessarily state or reflect those of the U. S. Department of Transportation.

WASHTENAW AREA TRANSPORTATION STUDY

200 N. Main
Ann Arbor, MI 48103
phone: 734.994.3127
website: miwats.org
email: wats@miwats.org

MEETING MINUTES

TECHNICAL COMMITTEE

DATE: November 1, 2023
TIME: 9:30 AM
LOCATION: 200 N. Main, Ann Arbor - Lower Level Conference Room (Virtual Option Provided)

Members Present:
Washtenaw County - Nathan Voght *(Chair)*
City of Ypsilanti - Bonnie Wessler *(Vice Chair)*
AAATA - Madison Merzlyakov
City of Ann Arbor - Trevor Brydon
City of Saline - Tesha Humphriss
MDOT, University Region - Mike Davis
Representative: Environmental - Evan Pratt
Representative (People with Disabilities) - John Waterman
Washtenaw County Road Commission - Brent Schlack

Members Absent:
City of Dexter - Justin Breyer
City of Milan - Vacant
Dexter Township - Vacant
Representative: Equity - Vacant
Representative: Seniors - Vacant
Southwest Washtenaw Council of Governments - Michael Sessions
University of Michigan - Steve Dolen
Ypsilanti Township - Jason Iacoageli
Eastern Michigan University - Dieter Otto
Pittsfield Township - Matt Best
Representative (Non-Motorized) - Sarah Walsh

Others Present: Dina Reed (AAATA), Doug Anderson (People's Express), Aaron Berkholz (WCRC), Michelle Ford (WCRC), Nate Murphy (WCRC), Ryan Buck (WATS), Nick Sapkiewicz (WATS), Maggie Huntley (WATS), Anton Schauerte (WATS)

1. CALL TO ORDER / INTRODUCTIONS

Chair Voght called the meeting to order at 9:49 AM and led the group in introductions.

2. APPROVAL OF THE AGENDA

A motion was made by Mr. Waterman, supported by Ms. Wessler, to approve the meeting agenda. The motion carried unanimously.

3. APPROVAL OF THE MINUTES

A motion was made by Ms. Wessler, supported by Mr. Waterman, to approve the September 6, 2023 meeting minutes. The motion carried unanimously.

4. PUBLIC PARTICIPATION

No public participation.

5. COMMUNICATIONS AND ANNOUNCEMENTS

Mr. Sapkiewicz provided the following updates:

- The Regional Transit Authority (RTA) is currently updating the region-wide Coordinated Human Services Plan
- Updates on the FY2025 Buyout program are currently in flux, but WATS anticipates to learn more within the next month
- Long Range Transportation Plan projects are due to WATS by November 13th

6. OLD BUSINESS

There was no old business.

7. NEW BUSINESS

A. 2023-2026 Transportation Improvement Program Amendments

Mr. Sapkiewicz stated that details regarding the first call for amendments for FY2024 are provided in the packet and an overview of the proposed project changes was given. A discussion followed regarding equity areas and opportunity areas, sidewalk fill projects, and LRTP projects.

A motion was made by Ms. Wessler, supported by Mr. Davis, to recommend the Policy Committee approve the first call for FY2024 amendments. The motion carried unanimously.

B. 2023-2026 Transportation Improvement Program (TIP) Modifications

Mr. Sapkiewicz indicated that the list of modifications is included in the packet and provided as information.

C. 2020 Adjusted Census Urban Boundary (ACUB)

Mr. Schauerte indicated that every 10 years following the decennial census, urban area boundaries are adjusted. WATS, in conjunction with local agencies, went through the readjusting process in August. Mr. Schauerte stated that the proposed adjusted boundaries are included in the packet, as well as an interactive map that shows both the 2010 Urban Areas and the proposed 2020 Urban Areas. It was noted that the biggest proposed change was the Dexter area being removed from the Ann Arbor urban area and becoming Washtenaw County's third Small Urban area.

A motion was made by Mr. Schlack, supported by Ms. Wessler, to recommend the Policy Committee approve the 2020 Adjusted Census Urban Boundary, as presented. The motion carried unanimously.

8. AGENCY REPORTS

WCRC:
- There will potentially be a mileage as part of the June 2024 primary

City of Saline:
- The results from the Transportation Asset Management Plan are going to City Council on December 4th

City of Ann Arbor:
- The Safe Streets for All grant work is ongoing
- The City has installed 50+ GridSmart intersections and these are the primary source to use for its near-miss analytics
- The first public meeting for the Miller Rd. utility project just occurred and discussions regarding the extension of the cycle track will be held soon
- A DDA Curb Management Study is nearing completion
- A Downtown Circulation Study is on-going

Representative: Environmental
- A whitepaper was presented at the October 18th County Board meeting that

discusses the idea of combining all county's millages into one

Representative: People with Disabilities

- Reminder that the days are getting shorter so be aware of users of non-motorized users

Washtenaw County Office of Community & Economic Development:

- The BOCC will take action on the appointment of Toni Kayumi as the OCED Director on November 1st

MDOT:

- Work continues on the Pittsfield project, the US-23 Environmental Assessment, and the M-17 Planning and Environmental Linkages (PEL) Study
- The Liberty St. bridge project is kicking off and is anticipated for construction soon

City of Ypsilanti:

- The MDOT and YUCA projects are going
- The Huron River Dr. project is almost complete and the Forest Ave bridge project is ongoing

9. Adjournment

A motion was made by Mr. Waterman, supported by Ms. Wessler, to adjourn the meeting. The motion carried unanimously.

WASHTENAW AREA TRANSPORTATION STUDY

200 N. Main
Ann Arbor, MI 48103
phone: 734.994.3127
website: miwats.org
email: wats@miwats.org

MEMORANDUM

To: Technical Committee

From: Maggie Huntley

Date: January 31, 2024

Re: 2022 Traffic Crash Report for Washtenaw County

Background

The WATS Traffic Crash Report is updated annually to include information on traffic crashes, fatalities, and serious injuries for communities in Washtenaw County. The report is provided as information to help guide transportation improvement decisions and policy. Similar to previous crash reports, the 2022 report includes 5-year crash trends for fatal and serious injury crashes, and evaluates crash factors including: lane departure crashes, intersections crashes, speeding related crashes, and crashes with young and older drivers. The data used for the intersection rankings uses the same method from the previous 2021 report.

The 2022 Traffic Crash Report is available for review here.

Key Traffic Crash Observations:

- There were 9,259 total reported crashes in 2022, up 6.9% from 2021. While the number of total crashes has increased, the annual VMT is still below pre-pandemic (2019) levels.
- There were 21 fatal crashes and 164 serious injury crashes in 2022.
- Crashes involving pedestrians remained the same at 79 for 2022 and 2021. 26.5% of pedestrian crashes were either fatal or serious injury crashes.
- There were 75 crashes involving bicyclists, up 21% from 2021. The majority (46.7%) of crashes involving bicyclists were minor injury crashes, and 7.3% of all serious injury crashes for the county.

Additional Resources:

- All data for the crash report is obtained from the Michigan Traffic Crash Facts reporting tool. The data query tool is available at https://www.michigantrafficcrashfacts.org.
- SEMCOG also maintains a searchable map and database of crashes in Southeastern Michigan at http://www.semcog.org/Safety.aspx.

Action

Review the attached crash report and send any questions or comments to Maggie Huntley at huntleym@miwats.org.

WASHTENAW AREA TRANSPORTATION STUDY

200 N. Main
Ann Arbor, MI 48103
phone: 734.994.3127
website: miwats.org
email: wats@miwats.org

MEMORANDUM

To: WATS Technical Committee

From: Anton Schauerte

Date: January 29th, 2024

Re: CY 2024 Safety Targets

Background

Every year, the United States Department of Transportation (DOT) requires State DOTs and Metropolitan Planning Organizations (MPOs) to establish safety targets related to fatalities and serious injuries resulting from motor vehicle crashes for the upcoming calendar year.

After extensive collaboration with stakeholders from across the region, including WATS Committees/Staff and SEMCOG's Transportation Safety Action Committee, Transportation Safety Task Force, and Transportation Coordinating Council, SEMCOG set/approved its own regional safety targets for the first time in 2023. On 2/15/23, the WATS Policy Committee approved the SEMCOG targets.

The safety target methodology SEMCOG uses strives to achieve zero deaths and serious injuries on roadways within the SEMCOG planning area by 2050. The methodology utilizes a non-linear approach, meaning that initial targets begin conservative and gradually increase closer to 2050. The non-linear approach is more realistic than the linear reduction method because of the time required to implement policies and actions from the new *Southeast Michigan Transportation Safety Plan* (adopted 6/2023), as well as new technologies and advancements in vehicles. Once these actions are in place, the corresponding reductions in fatalities and serious injuries should increase over time.

Instead of adopting its own regional safety targets, MPOs may instead elect to support the targets developed by the applicable State DOT.

Table 1: SEMCOG Safety Targets for CY 2024

Safety Performance Measures	Baseline [1]	Targets[2]
1) Number of Fatalities	410.4	**406.4** ↓
2) Fatality Rate (per 100 million VMT[3])	0.976	**0.956** ↓
3) Number of Serious Injuries	2,126.8	**2,108.8** ↓
4) Serious Injury Rate (per 100 million VMT)	5.029	**5.009** ↓
5) Number of Non-Motorized Fatalities and Serious Injuries	376.0	**366.0** ↓

[1] *Baseline = 5-Year (CY 2018-2022) Rolling Average*
[2] *Targets = 5-Year (CY 2020-2024) Rolling Average, also known as the CY 2024 Safety Targets*
[3] *VMT = Vehicle Miles Traveled*

Table 2: MDOT Safety Targets for CY 2024

Safety Performance Measures	Baseline [1]	Targets[2]
1) Number of Fatalities	1,061.6	**1,109.2** ↑
2) Fatality Rate (per 100 million VMT[3])	1.099	**1.152** ↑
3) Number of Serious Injuries	5,681.8	**5,785.0** ↑
4) Serious Injury Rate (per 100 million VMT)	5.863	**5.999** ↑
5) Number of Non-Motorized Fatalities and Serious Injuries	734.0	**710.8** ↓

[1] *Baseline = 5-Year (CY 2018-2022) Rolling Average*
[2] *Targets = 5-Year (CY 2020-2024) Rolling Average, also known as the CY 2024 Safety Targets*
[3] *VMT = Vehicle Miles Traveled*

Methodology

SEMCOG used the following methodology for each target. First, the baseline for each measure was determined using the average of the last five years of available data, 2018-2022. Data from the Fatalities Analysis Report System was used for fatality related measures. The State of Michigan crash database was used for serious injury related measures. Vehicle Miles Traveled (VMT) was calculated using data from the Highway Performance Monitoring System. This is consistent with federal guidelines for establishing baseline values.

Next, to keep initial future projections realistic and achievable, an initial reduction number for 2023 and 2024 was determined for each measure based on the annual change in five-year rolling averages from the baseline years 2018 to 2022. Since we aspire to have reductions for each measure, only years with a reduction in the rolling average were considered.

The median reduction number from 2018 to 2022 was selected as the projected 2023 and 2024 reduction number for each measure. In cases of an even number of years with reductions, the lower

of the two middle numbers was used. Reduction numbers were rounded to the nearest whole number for fatalities and serious injuries. For rates, reduction numbers were rounded to the hundredths place.

After the two initial reduction numbers were set, the annual reduction needed to be increased to **reach zero by 2050**. A consistent year-over-year percent increase in the reduction number was calculated for each performance measure, rounded to the nearest half of a percent. The following tables and charts show these values for each performance measure.

Additional details regarding the SEMCOG methodology are presented on **pp. 12-16**. To view the equations used to populate the data on the following five pages, please refer to the "Equations Used for Target Setting" Google Sheet.

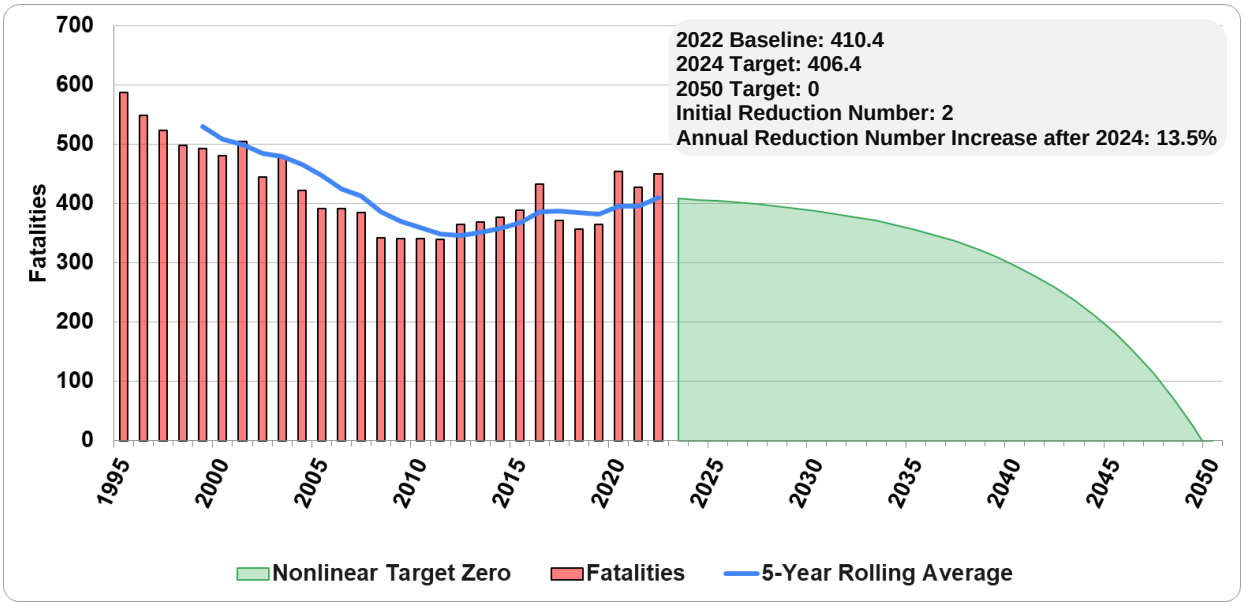
The methodology used to develop the MDOT safety targets are presented on **pp. 17-23**.

Action Requested

WATS staff recommends the Technical Committee review both the SEMCOG and MDOT CY 2024 Safety Targets and make a recommendation to the WATS Policy Committee.

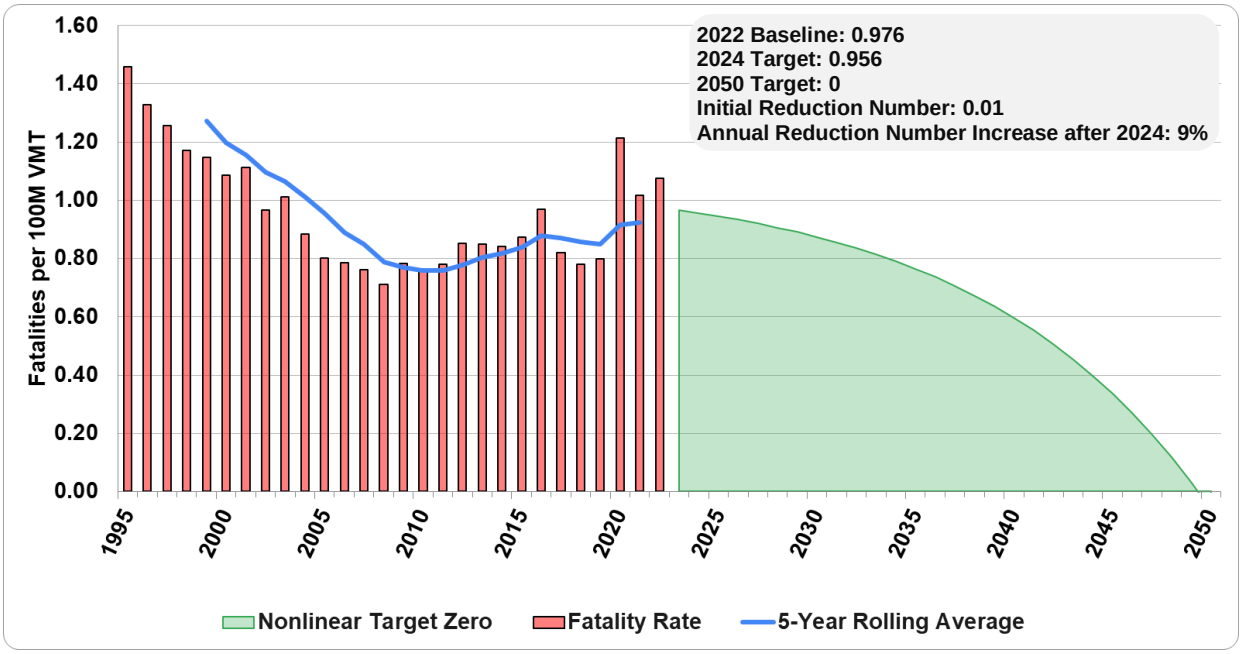
Number of Fatalities

Year	Annual Total	5-Year Rolling Average	Change from Prior Year	Nonlinear Target	Nonlinear Reduction	Reduction from Prior Year	Percent Reduction from Prior Year
2018	357	384.8	-2.4				
2019	364	382.4	-2.4				
2020	454	395.6	13.2				
2021	427	394.6	-1.0				
2022	450	410.4	15.8				
2023				408.4	2.0	2.0	0.5%
2024				406.4	4.0	2.0	0.5%
2025				404.1	6.3	2.3	0.6%
2026				401.6	8.8	2.6	0.6%
2027				398.6	11.8	2.9	0.7%
2028				395.3	15.1	3.3	0.8%
2029				391.5	18.9	3.8	1.0%
2030				387.3	23.1	4.3	1.1%
2031				382.4	28.0	4.9	1.3%
2032				376.9	33.5	5.5	1.4%
2033				370.7	39.7	6.3	1.7%
2034				363.6	46.8	7.1	1.9%
2035				355.5	54.9	8.1	2.2%
2036				346.4	64.0	9.1	2.6%
2037				336.0	74.4	10.4	3.0%
2038				324.2	86.2	11.8	3.5%
2039				310.9	99.5	13.4	4.1%
2040				295.7	114.7	15.2	4.9%
2041				278.5	131.9	17.2	5.8%
2042				258.9	151.5	19.5	7.0%
2043				236.7	173.7	22.2	8.6%
2044				211.6	198.8	25.2	10.6%
2045				183.0	227.4	28.6	13.5%
2046				150.6	259.8	32.4	17.7%
2047				113.8	296.6	36.8	24.4%
2048				72.0	338.4	41.8	36.7%
2049				24.6	385.8	47.4	65.9%
2050				-29.2	439.6	53.8	219.1%



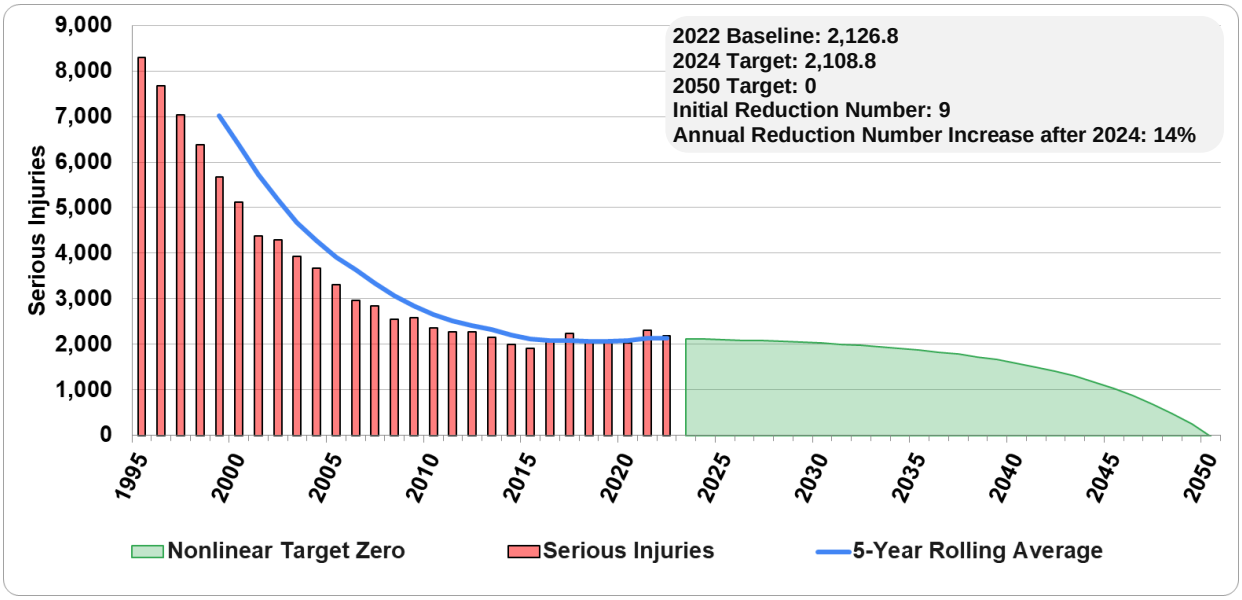
Rate of Fatalities per 100M VMT

Year	Annual Total	5-Year Rolling Average	Change from Prior Year	Nonlinear Target	Nonlinear Reduction	Reduction from Prior Year	Percent Reduction from Prior Year
2018	0.781	0.857	-0.014				
2019	0.798	0.848	-0.009				
2020	1.213	0.916	0.067				
2021	1.018	0.925	0.009				
2022	1.074	0.976	0.051				
2023				0.966	0.010	0.010	1.0%
2024				0.956	0.020	0.010	1.0%
2025				0.945	0.031	0.011	1.1%
2026				0.933	0.043	0.012	1.3%
2027				0.920	0.056	0.013	1.4%
2028				0.906	0.070	0.014	1.5%
2029				0.891	0.085	0.015	1.7%
2030				0.874	0.102	0.017	1.9%
2031				0.856	0.120	0.018	2.1%
2032				0.836	0.140	0.020	2.3%
2033				0.814	0.162	0.022	2.6%
2034				0.790	0.186	0.024	2.9%
2035				0.765	0.211	0.026	3.3%
2036				0.736	0.240	0.028	3.7%
2037				0.706	0.270	0.031	4.2%
2038				0.672	0.304	0.033	4.7%
2039				0.636	0.340	0.036	5.4%
2040				0.596	0.380	0.040	6.2%
2041				0.553	0.423	0.043	7.3%
2042				0.506	0.470	0.047	8.5%
2043				0.454	0.522	0.051	10.2%
2044				0.398	0.578	0.056	12.3%
2045				0.337	0.639	0.061	15.3%
2046				0.271	0.705	0.067	19.7%
2047				0.198	0.778	0.073	26.8%
2048				0.119	0.857	0.079	39.9%
2049				0.033	0.943	0.086	72.5%
2050				-0.061	1.037	0.094	286.9%



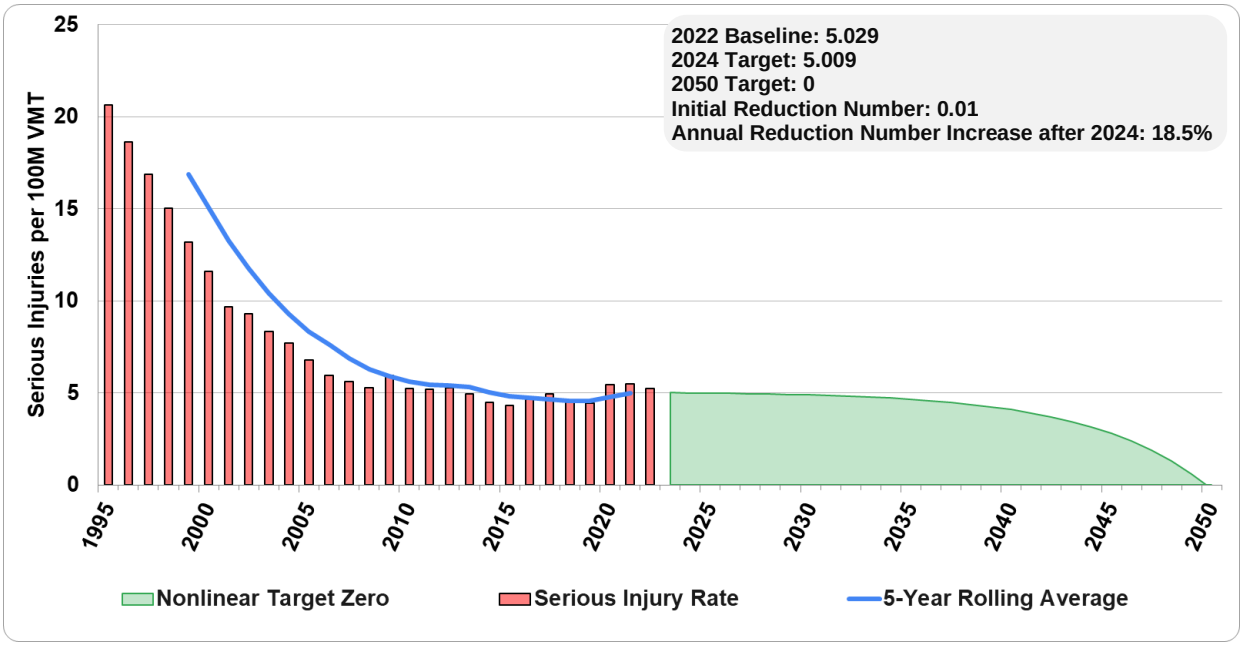
Number of Serious Injuries

Year	Annual Total	5-Year Rolling Average	Change from Prior Year	Nonlinear Target	Nonlinear Reduction	Reduction from Prior Year	Percent Reduction from Prior Year
2018	2,069	2,059.0	-15.2				
2019	2,031	2,064.8	5.8				
2020	2,036	2,089.4	24.6				
2021	2,309	2,136.0	46.6				
2022	2,189	2,126.8	-9.2				
2023				2,117.8	9.0	9.0	0.4%
2024				2,108.8	18.0	9.0	0.4%
2025				2,098.5	28.3	10.3	0.5%
2026				2,086.8	40.0	11.7	0.6%
2027				2,073.5	53.3	13.3	0.6%
2028				2,058.3	68.5	15.2	0.7%
2029				2,041.0	85.8	17.3	0.8%
2030				2,021.2	105.6	19.8	1.0%
2031				1,998.7	128.1	22.5	1.1%
2032				1,973.0	153.8	25.7	1.3%
2033				1,943.8	183.0	29.3	1.5%
2034				1,910.4	216.4	33.4	1.7%
2035				1,872.4	254.4	38.0	2.0%
2036				1,829.0	297.8	43.4	2.3%
2037				1,779.6	347.2	49.4	2.7%
2038				1,723.2	403.6	56.4	3.2%
2039				1,659.0	467.8	64.2	3.7%
2040				1,585.7	541.1	73.2	4.4%
2041				1,502.3	624.5	83.5	5.3%
2042				1,407.1	719.7	95.2	6.3%
2043				1,298.6	828.2	108.5	7.7%
2044				1,174.9	951.9	123.7	9.5%
2045				1,033.9	1,092.9	141.0	12.0%
2046				873.1	1,253.7	160.7	15.5%
2047				689.9	1,436.9	183.3	21.0%
2048				481.0	1,645.8	208.9	30.3%
2049				242.8	1,884.0	238.2	49.5%
2050				-28.7	2,155.5	271.5	111.8%



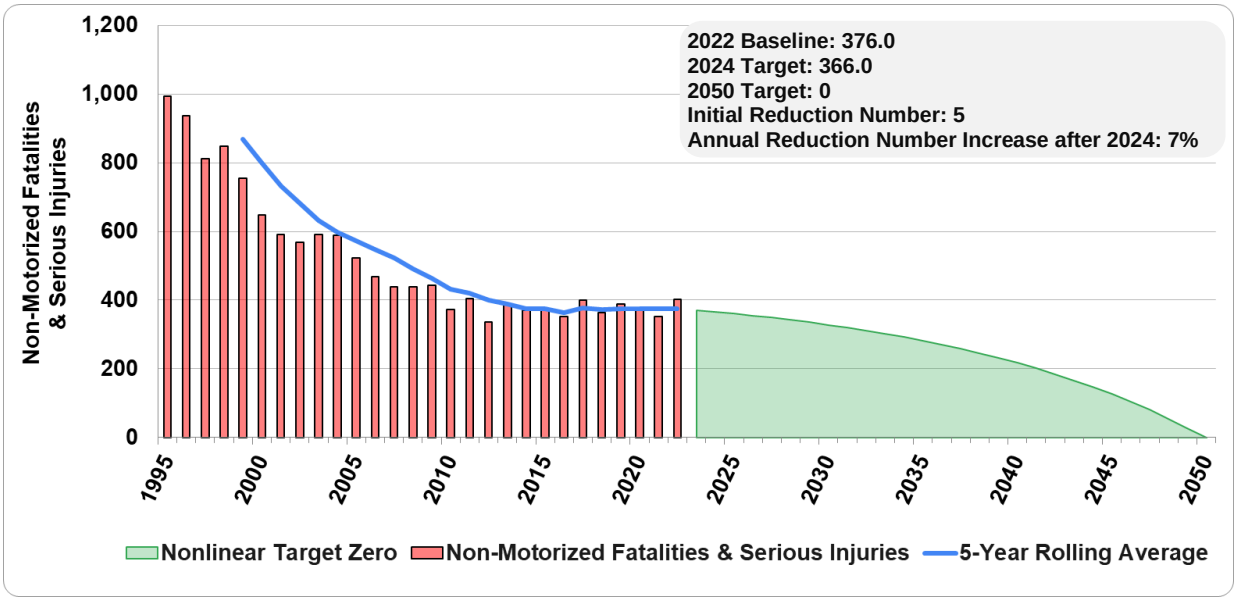
Rate of Serious Injuries per 100M VMT

Year	Annual Total	5-Year Rolling Average	Change from Prior Year	Nonlinear Target	Nonlinear Reduction	Reduction from Prior Year	Percent Reduction from Prior Year
2018	4.524	4.582	-0.083				
2019	4.454	4.577	-0.005				
2020	5.440	4.803	0.226				
2021	5.504	4.972	0.169				
2022	5.224	5.029	0.057				
2023				5.019	0.010	0.010	0.2%
2024				5.009	0.020	0.010	0.2%
2025				4.997	0.032	0.012	0.2%
2026				4.983	0.046	0.014	0.3%
2027				4.966	0.063	0.017	0.3%
2028				4.947	0.082	0.020	0.4%
2029				4.923	0.106	0.023	0.5%
2030				4.896	0.133	0.028	0.6%
2031				4.863	0.166	0.033	0.7%
2032				4.824	0.205	0.039	0.8%
2033				4.778	0.251	0.046	1.0%
2034				4.723	0.306	0.055	1.1%
2035				4.659	0.370	0.065	1.4%
2036				4.582	0.447	0.077	1.6%
2037				4.491	0.538	0.091	2.0%
2038				4.383	0.646	0.108	2.4%
2039				4.256	0.773	0.128	2.9%
2040				4.105	0.924	0.151	3.6%
2041				3.926	1.103	0.179	4.4%
2042				3.713	1.316	0.212	5.4%
2043				3.462	1.567	0.252	6.8%
2044				3.164	1.865	0.298	8.6%
2045				2.810	2.219	0.353	11.2%
2046				2.392	2.637	0.419	14.9%
2047				1.896	3.133	0.496	20.7%
2048				1.308	3.721	0.588	31.0%
2049				0.611	4.418	0.697	53.3%
2050				-0.214	5.243	0.825	135.0%



Number of Non-Motorized Fatalities and Serious Injuries

Year	Annual Total	5-Year Rolling Average	Change from Prior Year	Nonlinear Target	Nonlinear Reduction	Reduction from Prior Year	Percent Reduction from Prior Year
2018	363	371.8	-5.0				
2019	388	375.2	3.4				
2020	374	375.4	0.2				
2021	352	375.2	-0.2				
2022	403	376.0	0.8				
2023				371.0	5.0	5.0	1.3%
2024				366.0	10.0	5.0	1.3%
2025				360.7	15.4	5.4	1.5%
2026				354.9	21.1	5.7	1.6%
2027				348.8	27.2	6.1	1.7%
2028				342.2	33.8	6.6	1.9%
2029				335.2	40.8	7.0	2.0%
2030				327.7	48.3	7.5	2.2%
2031				319.7	56.3	8.0	2.4%
2032				311.1	64.9	8.6	2.7%
2033				301.9	74.1	9.2	3.0%
2034				292.1	83.9	9.8	3.3%
2035				281.6	94.4	10.5	3.6%
2036				270.3	105.7	11.3	4.0%
2037				258.2	117.8	12.0	4.5%
2038				245.4	130.6	12.9	5.0%
2039				231.6	144.4	13.8	5.6%
2040				216.8	159.2	14.8	6.4%
2041				201.0	175.0	15.8	7.3%
2042				184.1	191.9	16.9	8.4%
2043				166.0	210.0	18.1	9.8%
2044				146.7	229.3	19.3	11.7%
2045				126.0	250.0	20.7	14.1%
2046				103.8	272.2	22.2	17.6%
2047				80.1	295.9	23.7	22.8%
2048				54.8	321.2	25.4	31.7%
2049				27.6	348.4	27.1	49.6%
2050				-1.4	377.4	29.0	105.1%



TRANSPORTATION PERFORMANCE MANAGEMENT

HIGHWAY SAFETY IMPROVEMENT PROGRAM SAFETY PERFORMANCE MEASURES

In March 2016, the Federal Highway Administration (FHWA) published in the Federal Register (81 FR 13722) a final rule revising 23 CFR part 924 and 23 U.S.C. 148 Highway Safety Improvement Program (HSIP) to incorporate new statutory requirements of MAP-21 and the FAST Act. The HSIP focuses on reducing fatalities and serious injuries on all public roads through targeted investment in infrastructure programs and projects to improve safety.

On the same date, FHWA published a companion Safety Performance Management (Safety PM) final rule (81 FR 13881) to support national safety goals and carryout the HSIP. The safety PM final rule has been codified in a new regulation 23 CFR Part 490, Subpart B. The purpose of the Safety PM is to improve transparency through use of a public reporting system using common data standards and elements, and aggregating progress toward the national goal of reducing traffic fatalities and serious injuries. The five safety performance measures identified in the regulation are applicable to all public roads regardless of jurisdiction.

In 2018, the National Highway Traffic Safety Administration (NHTSA) published the final Uniform Procedures for State Highway Safety Grants Program (83 FR 3466) and updated Highway Safety Plan (HSP) requirements. The purpose of the safety grants is to focus investments on reducing fatalities, injuries, and economic loss resulting from vehicle crashes through behavioral traffic safety programs.

The FHWA and NHTSA coordinated the final rules to identify three common performance measures (1 through 3 below) for which the annual performance targets must align as much as possible when reported in the HSIP and HSP. The measures/targets are reported as five-year rolling averages.

1. **Number of Fatalities**
2. **Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)**
3. **Number of Serious Injuries**
4. Rate of Serious Injuries per 100 million VMT
5. Number of Non-motorized Fatalities and Serious Injuries

TARGET SETTING COORDINATION

The 23 CFR Part 490, Subpart B communicates the process for which State DOTs and Metropolitan Planning Organizations (MPOs) are to establish and report on the five HSIP safety targets, and the criteria FHWA will use to assess whether State DOTs have met or made significant progress toward meeting their safety targets.

With three common safety performance measures reported in the annual HSIP and HSP, establishing targets is a coordinated effort between the Michigan Department of Transportation (MDOT), the Strategic Highway Safety Office (SHSO), and Michigan Metropolitan Planning Organizations (MPOs). The coordination and target requirements promotes working collaboratively to achieve the targets.

The annual timeline for establishing and reporting targets is as follows:

April/May: One or more coordination sessions between MDOT and MTPA members to develop safety targets for the next calendar year.

July 1: SHSO reports targets for the next calendar year to NHTSA through the HSP, including "coordinated" targets for the three common performance measures.

August 31: MDOT reports targets for the next calendar year to FHWA through the HSIP.

February 27 (following year): MPOs report targets for the current calendar year to MDOT. Refer to the MPO section for details regarding MPO target elections and reporting. MDOT must provide FHWA MPO targets, upon request. [Regulation Timeline: August 31 + 180 Days]

Annual targets should support the Long-Range Transportation Plan and Strategic Highway Safety Plan (SHSP) goals.

MPO TARGET SETTING

The MPO must report their safety targets to MDOT by February 27 of the year following MDOT reporting the State safety targets to FHWA (August 31 + 180 days). The target establishment and reporting process for MPOs was jointly developed, documented, and mutually agreed upon by the MPO and MDOT.

The MPO must establish annual targets for each of the five measures by either (1) agreeing to plan and program projects so that they contribute toward the accomplishment of the State safety target for that performance measure, or (2) committing to a quantifiable target for that performance measure for their metropolitan planning area. For each of the five measures, the MPO can make different elections to agree to support the State's targets or establish a quantifiable target.

MPOs must also report safety targets in their System Performance Report.

TARGET ACHIEVEMENT, CONSEQUENCE/PENALTY

FHWA will determine whether a State has met or made significant progress at the end of the following calendar year when target-year data is available and will report findings to the State and the public. A State is considered to have met or made progress when at least four out of five safety targets are met, or the actual safety performance is better than the baseline performance for the period for four out of the five.

If the State did not meet or make significant progress toward targets, the State (MDOT) must (1) submit an HSIP Implementation Plan (consequence) and (2) use obligation authority equal to or greater than the HSIP apportionment for the prior year only for highway safety improvement projects (penalty).

There is no federal- or state-imposed consequence or penalty for an MPO that does not demonstrate they have met or made significant progress toward target achievement.

2024 MICHIGAN SAFETY TARGETS

Existing Trend

The first step in developing annual safety targets is to establish the 5-year rolling average baseline trend. FHWA prescribes the calculation as follows: For each measure, sum the most recent five consecutive years actual performance, ending in the year the targets for the next year are being developed, divide by five, and round to the tenth decimal place. For each rate measure, first calculate the number of fatalities or serious injuries per 100 million VMT, then divide by five, and round to the thousandth decimal place.

Data for calculation: The Fatalities Analysis Report System (FARS) is to be used for fatality related measures, and the State of Michigan Crash database is used for serious injury related measures. The VMT is calculated annually from the Highway Performance Monitoring System (HPMS).

Exogenous Factors

The next step in the target development process is to consider how exogenous factors influence/impact traffic fatalities and serious injuries. The respective parties have agreed to utilize a fatality prediction model developed and maintained by the University of Michigan Transportation Research Institute (UMTRI). The UMTRI model relies on results of a completed research report titled Identification of Factors Contributing to the Decline of Traffic Fatalities in the United States, which was completed as part of the National Cooperative Highway Research Program project 17-67 (presentation). The model, predicting the change in counts of fatalities, relies on the correlation between traffic crashes, vehicle miles traveled (VMT), and risk. UMTRI identified four factors that can influence the outcome: the economy, safety and capital expenditures, vehicle safety, and safety regulations. Within the model, economic factors such as the Gross Domestic Product (GDP) per capita, median annual income, the unemployment rate among 16 to 24-year old's, and alcohol consumption had the greatest impact at approximately 85 percent. Preliminary findings indicate individual acceptance of risk appears to have a greater impact on the number

of fatalities and serious injuries than fluctuations in traffic volume. In other words, the better the economy, the greater the level of risk individuals are willing to take.

2023-2024 Target Overview

To determine a forecasted value for the five-year rolling average for the first four measures listed above, the decision was made to use the change model created by UMTRI used for establishing previous targets. The UMTRI change model predicts 1,109 fatalities in 2023 and 1,092 fatalities in 2024.

The change model predicts change in fatalities from the previous year based on several predictors. This log-change regression model is tied closely to whatever happened recently, so it cannot diverge very far from the current time unless we predict many years out into the future. The change model predicts a steady (slow) decrease in fatalities. The dataset is a collection of differences from one year to the next within the state, expressed as a percentage of the previous year. Thus, the predictors can influence exposure and/or risk.

Alternatively, the count model directly predicts counts so it could diverge from observed by a lot if the patterns change in the real world. Based on known factors, the count model shows a steady increase in fatalities through 2025. As this is not what is expected the change model was selected in developing the targets.

While serious injuries have fluctuated over the past several years, the linear relationship of the ratio of serious injuries and fatalities (A/K) going back to 2003 is still evident. However, this trend suggests a greater reduction in serious injuries than being observed. Therefore, a quadratic model was used which projects an increase in relation to the increase of fatalities. The model predicts 5,882 serious injuries in 2023 and 5,849 in 2024.

VMT values have been predicted for CYs 2022, 2023 and 2024. VMT estimates predict VMT has recovered to pre-2020 levels. Using the fatal and serious injury values, along with the respective predicted VMT, the forecasted fatality rates are 1.107 for CY 2023, and1.077 for CY 2024, and annual serious injury rates of5.870 for CY 2023 and 5.768 for CY 2024. Results from the UMTRI model (the fatality and serious injury relationship) were also used to generate non-motorized forecasted annual values of 722 for CY 2023 and 696 for CY 2024.

The above annual forecasted values for CY 2023 and CY 2024 along with the actual values from CY 2020 to 2022 to determine the 2024 Targets (five-year rolling average) are shown in the 2024 Target Summary table. In addition, actual values dating back to CY 2018 are included as part of the determination of the 2022baseline condition.

2024 Predictions (Targets)

Number of Fatalities	1,109.2
Rate of Fatalities per 100M VMT	1.152
Number of Serious Injuries	5,785
Rate of Serious Injuries per 100M VMT	5.999
Number of Non-Motorized Fatalities and Serious Injuries	710.8

Strategic Highway Safety Plan (SHSP)

While MDOT and the SHSO are responsible for setting the targets in collaboration with Metropolitan Planning Organizations (MPOs), traffic fatalities and serious injuries are a State of Michigan issue that requires awareness and intentional action from all levels of government and the public to change the overall safety culture. Over 90 percent of fatal crashes are the result of human behavior, and the most effective safety feature is changing user behavior to be more risk adverse. Crashes are not accidents.

Michigan's Strategic Highway Safety Plan (SHSP) is the blueprint for addressing both fatalities and serious injuries. Under the guidance of the Governors Traffic Safety Advisory Commission (GTSAC), the SHSP has adopted the vision of Toward Zero Deaths (TZD). The strategy is a statewide campaign to positively enhance road user's behavior and safety. Over 1,000 people do not return home in Michigan annually due to traffic crashes. The TZD strategy invokes enhancing driver education, emergency response, enforcement,

engineering, policy, communications, and other efforts that will move Michigan closer to zero facilities and serious injuries. By incorporating safety into all facets of transportation, Michigan can achieve this vision. To get there, the GTSAC has adopted interim goals to reach every four years. To carry forth the SHSP is focused on four broad emphasis areas:

1. High-Risk Behaviors
2. At-Risk Road Users
3. Engineering Infrastructure
4. System Administration

Within these emphasis areas, 11 action teams provide more targeted guidance on area-specific safety issues. Structuring these action teams under the broad umbrella of these four emphasis areas creates efficiencies given the degree of overlap amongst the teams. Updated goals, strategies, objectives, and activities for each are based on current traffic crash data. More information on the GTSAC and the SHSP can be found at the GTSAC website.

All citizens of Michigan are welcome and encouraged to participate in the action teams and attend the annual Safety Summit to learn more about the SHSP and what part they can play in changing the safety culture of Michigan. MDOT offers scholarships for local officials and MPOs to attend the summit.

Michigan is committed to the goal of reducing traffic crashes and eliminating serious injuries and fatalities. MDOT implements countermeasures such as intersection-related improvements including signalization and geometric changes by converting traditional intersections to roundabouts where feasible. Other improvements include converting four-lane roadways to three lanes, restriping improvements, installation of centerline and shoulder rumble strips, guardrail upgrades, clear zone improvements, delineation, vulnerable road user improvement projects, signing and other projects that target locations that have experienced fatal and incapacitating injury crashes. These projects, along with other research and systemic and systematic safety improvements, including safety funding for local agencies for road safety audits, have provided the foundation for deeper understanding of crash characteristics and prospective countermeasures.

Regarding the numbers, annual fatalities had decreased from 1,031 in 2017 to 986 in 2019 (as reported by FARS) but increased in 2020 and 2021 to a high of 1,136 and declined again in 2022 to 1,123. This is reflected in the five-year average or target of 1,109.2 for CY 2024. For the same time, serious injuries rose to a high of 5,979 in CY 2021 leading to the five-year average of 5,785 for CY 2024.

Below is a chart comparing the targets since their inception. In addition, the crash data for 2014 to 2022 are shown. Imagine what these could be if all participated in driving the numbers down.

Targets Reported to FHWA

Year	Fatality Reported Target	Fatality Rate Reported Target	Serious Injury Reported Target	Serious Injury Rate Reported Target	Non-Motorized Fatality/ Serious Reported Target
2018	1,003.2	1.020	5,136.4	5.230	743.6
2019	1,023.2	1.020	5,406.8	5.410	759.8
2020	999.4	0.970	5,520.4	5.340	735.8
2021	968.6	0.982	5,533.6	5.609	771.2
2022	1,065.2	1.098	5,733.2	5.892	791.6
2023	1,105.6	1.136	5,909.2	6.058	743.4
2024	1,109.2	1.152	5,785.0	5.999	710.8

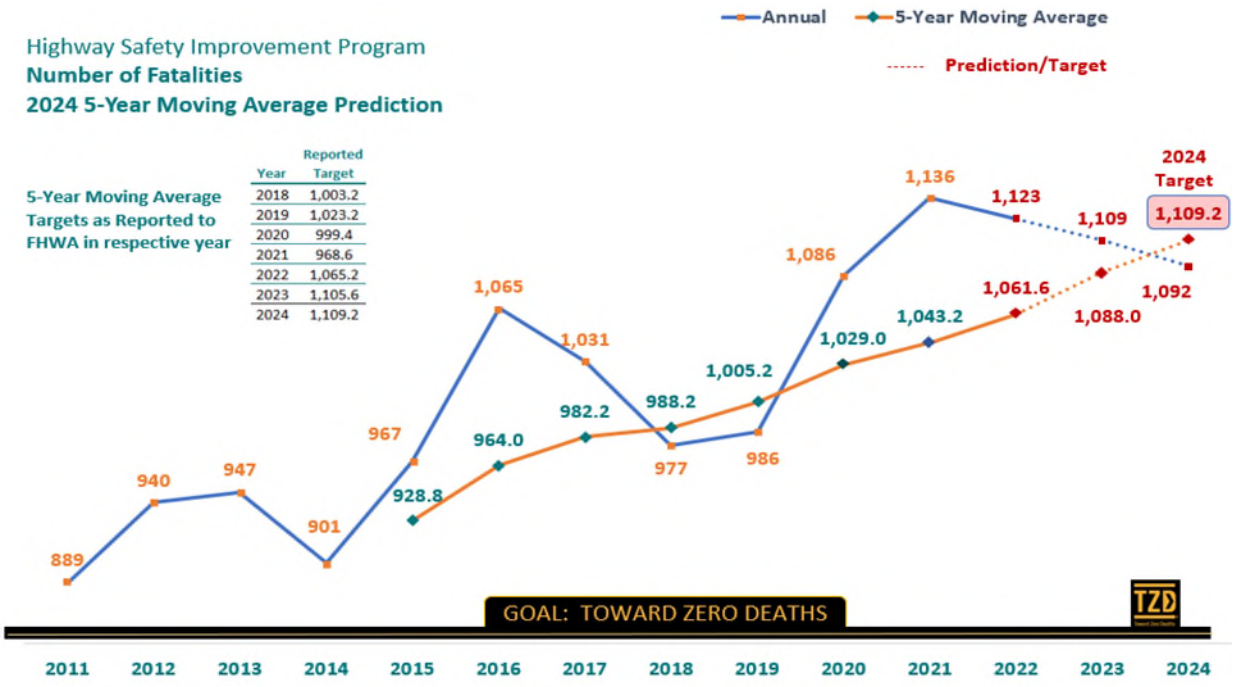
Targets as reported to FHWA for the respective year

Annual Crash Data

Year	Fatality	Fatality Rate	Serious Injury	Serious Injury Rate	Non-Motorized Fatality/ Serious Injury
2014	901	0.925	4,909	5.040	691
2015	967	0.989	4,865	4.974	761
2016	1,065	1.074	5,634	5.679	740
2017	1,031	1.013	6,084	5.976	798
2018	977	0.954	5,586	5.455	740
2019	986	0.965	5,629	5.508	794
2020	1,086	1.258	5,433	6.295	742
2021	1,136	1.175	5,979	6.183	674
2022	1,123	1.141	5,782	5.876	720

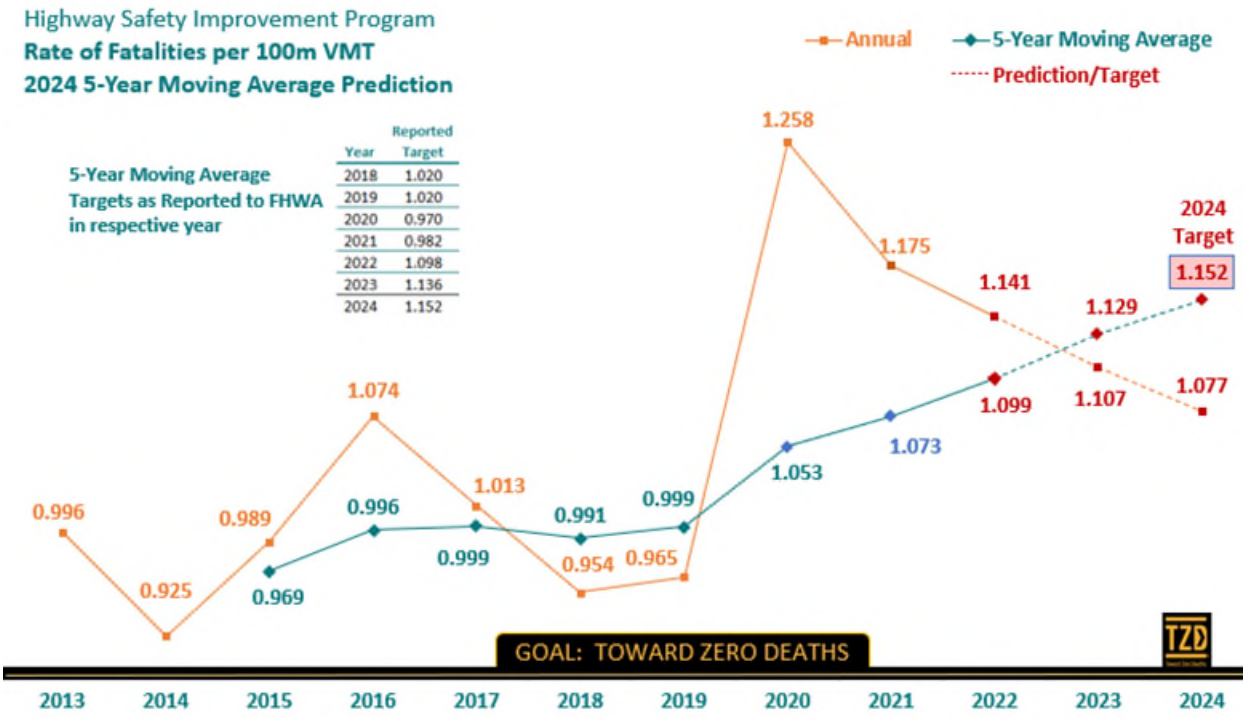
Reference:

- Safety Performance Measure Final Rule
- HSIP Final Rule
- Planning Final Rule
- NHTSA Uniform Procedures for Safety Highway Safety Grants Program Final Rule
- FHWA Procedure for Safety Performance Measure Computation and State Target Achievement Assessment
- Strategic Highway Safety Plan
- FARS
- Michigan Traffic Crash Facts
- Highway Safety Improvement Program/ Dashboard



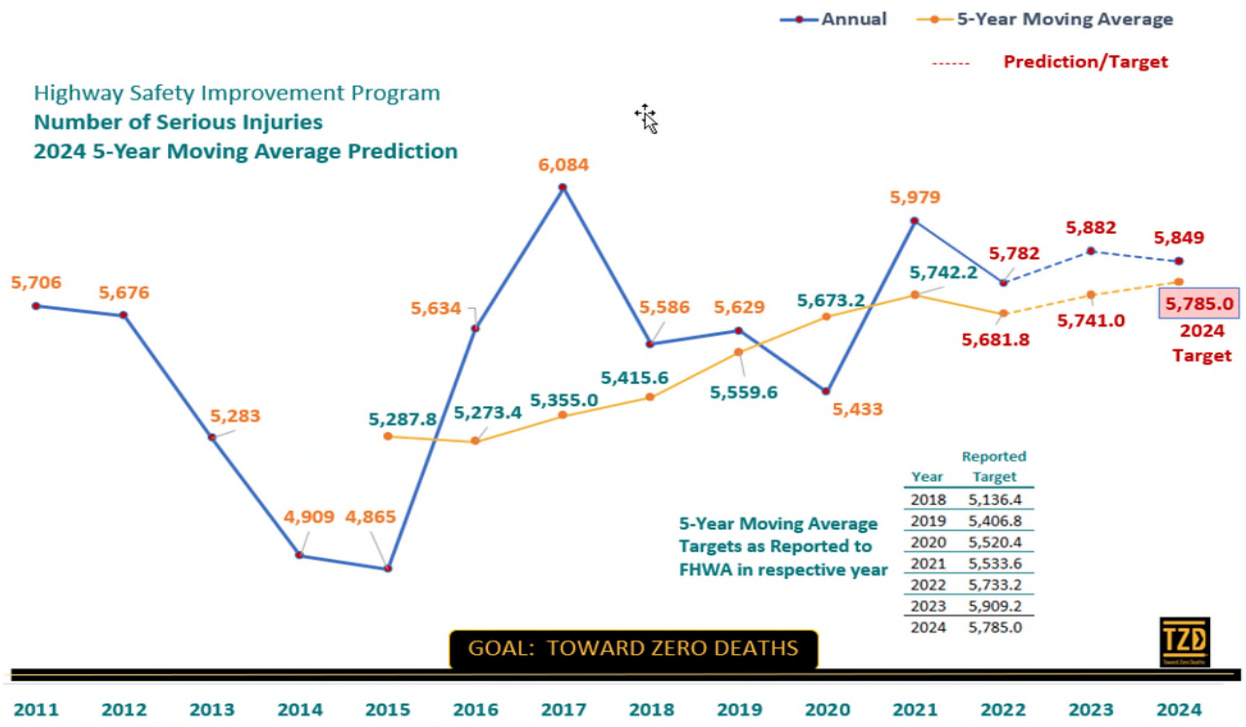
NOTE: 2023 and 2024 forecasted values are based on (1) 2018-2022 5-year rolling average, (2) UMTRI Change-Model prediction for establishing the CY 2024 target, and (3) accounts for exogenous factors and safety programming outcomes

All Michigan public roads



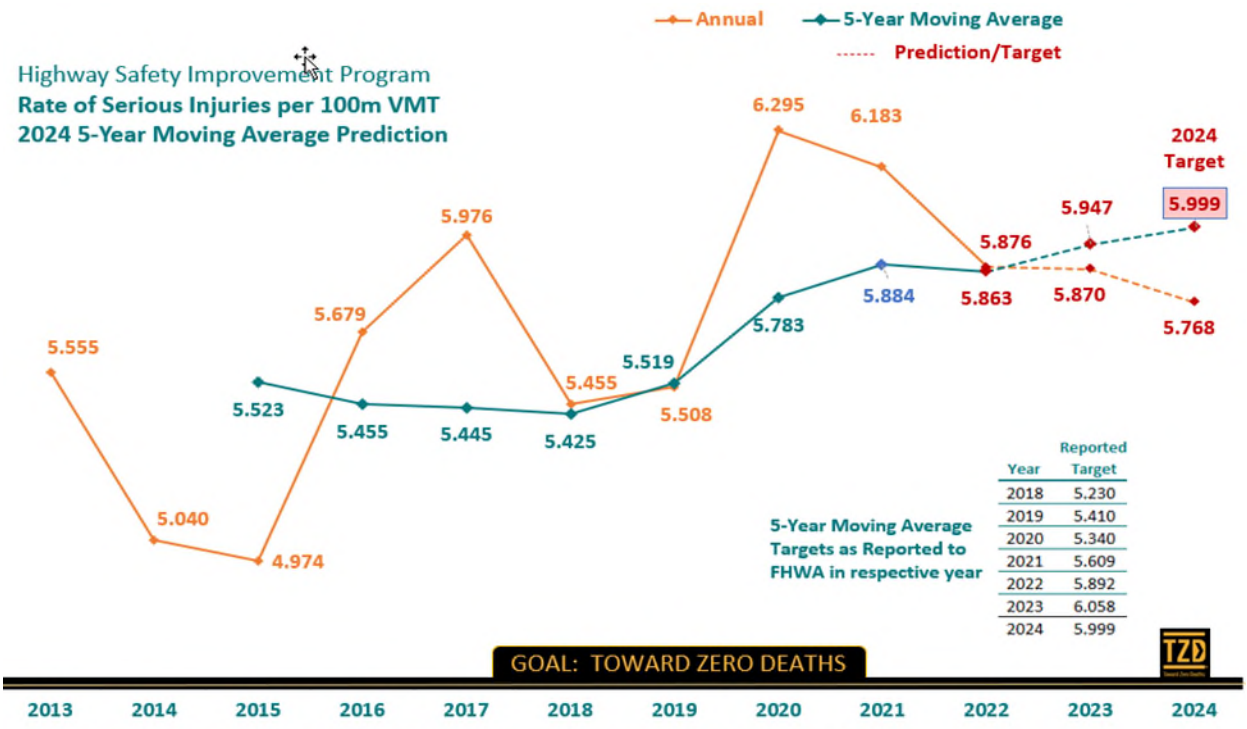
NOTE: 2023 and 2024 forecasted values are based on (1) 2018-2022 5-year rolling average, (2) UMTRI Change-Model prediction for establishing the CY 2024 target, and (3) accounts for exogenous factors and safety programming outcomes

All Michigan public roads



NOTE: 2023 and 2024 forecasted values are based on (1) 2018-2022 5-year rolling average, (2) UMTRI Change-Model prediction for establishing the CY 2024 target, and (3) accounts for exogenous factors and safety programming outcomes

All Michigan public roads

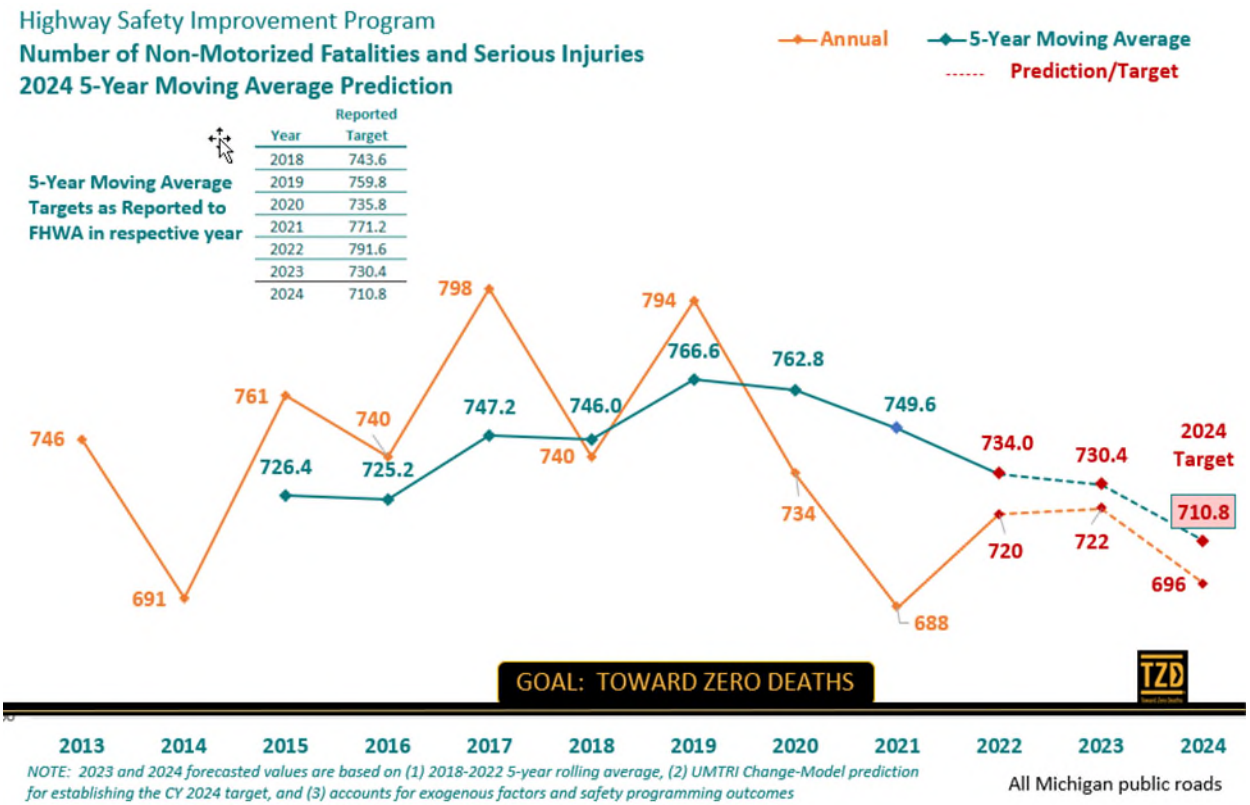


NOTE: 2023 and 2024 forecasted values are based on (1) 2018-2022 5-year rolling average, (2) UMTRI Change-Model prediction for establishing the CY 2024 target, and (3) accounts for exogenous factors and safety programming outcomes

All Michigan public roads

Highway Safety Improvement Program

Number of Non-Motorized Fatalities and Serious Injuries
2024 5-Year Moving Average Prediction



NOTE: 2023 and 2024 forecasted values are based on (1) 2018-2022 5-year rolling average, (2) UMTRI Change-Model prediction for establishing the CY 2024 target, and (3) accounts for exogenous factors and safety programming outcomes

All Michigan public roads

GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

BRADLEY C. WIEFERICH, P.E.
DIRECTOR

October 17, 2023

Dear Metropolitan Planning Organization Director:

The Michigan Department of Transportation (MDOT) is pleased to provide you with the state targets for the federally required safety performance measures for calendar year 2024. MDOT appreciates the efforts your Metropolitan Planning Organization (MPO) has made to participate in the coordination process for the safety performance measure.

State Safety Targets for Calendar Year 2024:

Safety Performance Measure (5 year rolling average)	Baseline Condition (2018-2022)	2024 Targets (2020-2024)
Fatalities	1,061.6	1,109.2
Fatality Rate Per 100 million Vehicle Miles Traveled (VMT)	1.099	1.152
Serious Injuries	5,681.8	5,785.0
Serious Injury Rate per 100 million VMT	5.863	5.999
Nonmotorized Fatalities and Serious Injuries (Pedestrian and Bicycle)	734.0	710.8

Federal Law and regulations require that MPOs establish targets not later than 180 days after the State Department of Transportation establishes and reports state safety targets in the State Highway Safety Improvement Program (HSIP) annual report. MDOT submitted Michigan's HSIP annual report on August 31, 2023. MPOs are now required to decide on their MPO safety targets for calendar year 2024 no later than February 27, 2024.

MPOs may support all the state safety targets, establish their own specific numeric targets for all the performance measures, or may support the state safety target for one or more individual performance measures and establish specific numeric targets for the other performance measures. Enclosed is a report documenting the background and analysis for the development of the safety targets.

Thank you for your participation in the performance measure coordination process.

If you have questions, please contact either me, or John Lanum, Supervisor, Statewide Planning Section, at 517-243-3554 or LanumJ@michigan.gov.

Sincerely,

Don Mayle, Manager
Statewide Planning Section

Enclosure

cc: J. Lanum, MDOT
A. Pickard, FHWA
D. Parker, MDOT
E. Kind, MDOT
M. Bott, MDOT
K. Travelbee, MDOT
T. White, MDOT
M. Toth, MDOT
C. Newell, MDOT