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 1, 2022
TIME: 9:30 am
PLACE: 200 N. Main, Ann Arbor - Lower Level Conference Room
PUBLIC PARTCIPATION LINK: https://us06web.zoom.us/j/85363141740?pwd=SHhBbUZNZ21kb2dBcTk1eVZjR2ZCZz09

AGENDA:

1. Call to Order/Introductions
2. Approval of the Agenda
3. Approval of Minutes – September 7, 2022, Meeting Minutes (attached) – Action
4. Public Participation
5. Communications and Announcements
6. Old Business
7. New Business
   A. Regional Safety Transporation Performance Measures - Action
   B. 2045 Long Range Transportation Plan Reaffirmation - Action
   C. 2021 Crash Report for Washtenaw County - Information

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.

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MEETING MINUTES

TECHNICAL COMMITTEE

DATE: September 7, 2022
TIME: 9:30 am
PLACE: 200 N. Main, Ann Arbor - Lower Level Conference Room

Members Present:	Washtenaw County – Nathan Voght, Chair City of Ypsilanti - Bonnie Wessler City of Ann Arbor - Suzann Flowers (for Raymond Hess) Disability Representative - John Waterman Pittsfield Township - Matt Best Eastern Michigan University – Dieter Otto MDOT University Region - Mike Davis Environmental Representative - Evan Pratt City of Saline – Jeff Fordice, Tesha Humphriss TheRide – LaTasha Thompson Pittsfield Township - Matt Best Washtenaw County Road Commission - Matt MacDonell Ypsilanti Township - Brenda Stumbo (for Jason Iacoangeli)
Members Absent:	Ann Arbor DDA – Amber Miller City of Dexter – Dan Schlaff Dexter Township - Vacant Equity Representative - Weneshia Brand Non-motorized Representative - Sarah Walsh City of Chelsea - Vacant Senior Representative - Vacant City of Milan - Vacant University of Michigan – Steve Dolen
Others Present:	WATS – Nick Sapkiewicz, Maggie Huntley WCRC - Brent Schlack MDOT - Max Gierman

1. Call to Order/Introductions
Chair Voght called the meeting to order at 9:33 AM and led the group in introductions.

2. Approval of the Agenda
Mr. Best made a motion to approve the meeting agenda, Mr. Pratt supported the motion, motion approved.

3. Approval of Minutes
Mr. Voght made a motion to approve the March 3, 2021 meeting minutes, Ms. Wessler supported the motion, motion approved.

4. Public Participation
Nobody from the public wished to address the Committee.

5. Communications and Announcements
Mr. Sapkiewicz provided the following updates:
- There was an informal gathering in June (no quorum) and the Policy Committee took action on the 3rd call FY 2022 Amendments and 2023-2026 TIP which will be active October 1, 2022
- Those present at the June gathering beheld a presentation on the Climate Action Plan for the County
- Ms. Lynch has left WATS after a brief tenure and WATS is again looking to hire new staff
- Action on WATS bylaws was taken at the June Policy Committee meeting to reduce quorum issues
- FY 2023 Carbon Reduction Program call will be for transit projects only
- WATS will be hosting the 2023 MTPA conference

6. Old Business
No old business.

7. New Business
A. MDOT Five-Year Plan
Mr. Davis introduced and discussed details on several of the projects in MDOT's five-year plan, as well as other upcoming projects significant to Washtenaw County, and public participation opportunities. A list of MDOT projects can be found at:

Five-Year Plan
https://www.michigan.gov/mdot/programs/planning/five-year-transportation-program

STIP
https://experience.arcgis.com/experience/f3a4872ac4444f5eac3adf4c656d0a53/page/TransportationProjPortal/?views=Five-Year-Transportation-Program

Mr. Voght asked about additional public participation opportunities. Mr. Davis explained that

a dedicated portal on Washtenaw's PEL studies would be available soon. https://m14-bartonpel.com/

Ms. Flowers asked how the state is able to add the additional capacity of flex-lanes give the strain of increasing costs, etc. Mr. Davis explained the maintenance of flex-routes is being added to existing programs and additional roadway capacity is often paid for through bonding.

B. Federal Aid Buyout Program

Mr. Sapkiewicz reported that local agencies are now able to exchange the federal funds in TIP approved projects for state funds at a rate of 90% payback. The program can help streamline the implementation of projects, and provide flexibility in project design. Mr. Sapkiewicz added that while not fully utilized at a statewide level, it is first come first serve and more projects/agencies are likely to apply in future years.

WATS will designate each project participating in the buyout program as regionally significant, which will maintain its visibility and mappability amongst other TIP projects.

Mr. MacDonell explained that the buyout program is allowing WCRC to deliver their program at a lower cost, with increased flexibility and that WCRC are pursuing more straightforward mill-and-fill projects.

Mr. Voght questioned the funding sources programmed to projects. Mr. MacDonell explained the buyout program swaps previously committed funding sources.

C. Technical Committee Annual Meeting

Mr. Sapkiewicz explained that the Committee uses the annual meeting as an opportunity to establish its officers, and to revisit the monthly meeting time and location.

Mr. Voght agreed to continue as Chair, Ms. Wessler agreed to continue as Vice-Chair, and Ms. Humphriss agreed to accept the position of 2nd Vice-Chair.

Mr. Pratt made a motion to approve the slate of Committee officers, Mr. Waterman supported the motion, motion approved.

Mr. MacDonell offered WCRC meeting space if needed and questioned the viability of hybrid meetings for the Technical Committee. Mr. Sapkiewicz explained that Mr. Buck is exploring whether the Technical Committee can meet virtually/hybrid. Mr. Davis suggested that the current meeting location be held through December 2022 and if hybrid meeting technology is not available a new location be sought.

Mr. MacDonell made a motion to hold the meeting time and location while exploring options for hybrid meetings. Mr. Davis supported the motion, motion approved.

8. Agency Updates

A. City of Ypsilanti

Ms. Wessler reported:

- The City is working through its watermain replacement program
- Bridge work in City going well, but bids coming in high
- Finishing design work on Huron River Drive, construction in 2023

B. City of Ann Arbor

Ms. Flowers reported:

- Ann Arbor is coordinating a grant for safety project implementation.

C. People with Disabilities Representative

Mr. Waterman reported:

- PEAC is working TheRide on integrating new technology and services into its travel training programs.

D. Pittsfield Township

Mr. Best reported:

- Pittsfield is working with WCRC and MDOT on US23/US12 improvements.
- State Street is being evaluated for improvements to connectivity with Ann Arbor.

E. Environmental Representative

Mr. Pratt reported:

- The County is looking at opportunities to integrate with ReImagine Washtenaw improvements.

F. City of Saline

Ms. Humphriss reported:

- Saline is reevaluating its upcoming projects for appropriate treatments.
- Clark in 2023 has become a reconstruction project.
- City looking for a renewal of its local .5 mil millage on next ballot.

G. TheRide

Ms. Thompson reported:

- All but one route have been restored.
- Football shuttle service has begun.
- New budget, including millage revenues/long range plan, is being adopted.

H. Washtenaw County Road Commission

Mr. MacDonell reported:

- WCRC is concluding 2022 projects and preparing for 2023 projects.

I. Ypsilanti Township

Ms. Stumbo reported:

- The Huron I-94 project is running several weeks behind schedule. Ramps should be open in November.
- Lighting and a non-motorized path have been installed along Huron River Dr. and are being enjoyed by the community.
- Biotech/hydrogen fuel company moving into ACM site.

J. MDOT

Mr. Gierman reported:

- MDOT is acclimating to various staffing changes

K. Washtenaw OCED

Mr. Voght reported:

- Transit super-stop location will be coming online in the next several months.
- OCED is planning to help support Washtenaw Ave PEL work.

9. Adjournment

Chair Voght adjourned the meeting at 10:52 AM.

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MEMORANDUM

To: WATS Technical Committee

From: Anton Schauerte

Date: January 24th, 2023

Re: 2023 Performance Measures Targets: Safety

Background

As discussed at the most recent Technical and Policy Committee meetings (November 2022), every year, the United States Department of Transportation (DOT) requires State DOTs and Metropolitan Planning Organizations (MPOs) to establish safety targets for the upcoming calendar year (CY). These safety targets pertain to fatalities and serious injuries resulting from motor vehicle crashes.

MDOT was required to submit CY 2023 safety targets by August 31st, 2022. MPOs have until February 27th, 2023 (180 days later) to take formal action on adopting safety targets. MPOs have the option to either, (1) adopt the targets already set by their State DOT, or, (2) adopt their own targets. Although WATS adopted the state's targets each year between 2018 and 2021, WATS Committees have expressed their interest in setting more aspirational targets since as early as 2019.

Since the federal transportation performance measures (TPMs) were first implemented in 2018, WATS has adopted the state-developed measure for safety every year, but has also acknowledged the need for a more aspirational, vision-zero-oriented approach to goal setting. After extensive collaboration between a number of stakeholders, including WATS Committees/staff, SEMCOG's Transportation Safety Action Committee, SEMCOG's Transportation Safety Task Force, and SEMCOG'S Transportation Coordinating Council, SEMCOG staff have developed a safety target-setting methodology based on the MPO for the Philadelphia, PA area.

Table 1 and Table 2, shown on the following page, highlight MDOT's and SEMCOG's CY 2023 safety targets, respectively.

The newly-developed safety target methodology 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 are more conservative and gradually increase closer to 2050. This approach is more realistic than a linear reduction method, the latter assuming a consistent reduction year-over-year. This is due to the time required to implement policies and actions from the new

Southeast Michigan Transportation Safety Plan, to be adopted in June 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.

Safety Targets - MDOT, SEMCOG

Table 1: MDOT Safety Targets - CY 2023

Safety Performance Measures	Baseline Average (CY 2017 - CY 2021)*	MDOT Safety Targets (CY 2019 - CY 2023)*
Number of Fatalities	1,041.8	**1,105.6** ↑
Fatality Rate (per 100 million VMT*)	1.071	**1.136** ↑
Number of Serious Injuries	5,742.2	**5,909.2** ↑
Serious Injury Rate (per 100 million VMT**)	5.878	**6.058** ↑
Number of Non-Motorized Fatalities and Serious Injuries	752.0	**743.4** ↓

**Baseline and Proposed Targets utilize 5-year rolling averages, **Vehicle Miles Traveled*

Table 2: SEMCOG Safety Targets - CY 2023

Safety Performance Measures	Baseline Average (CY 2017 - CY 2021)*	SEMCOG Safety Targets (CY 2019 - CY 2023)*
Number of Fatalities	394.2	**390.2** ↓
Fatality Rate (per 100 million VMT*)	0.925	**0.905** ↓
Number of Serious Injuries	2,136.0	**2,106.0** ↓
Serious Injury Rate (per 100 million VMT**)	4.972	**4.812** ↓
Number of Non-Motorized Fatalities and Serious Injuries	375.4	**365.4** ↓

**Baseline and Proposed Targets utilize 5-year rolling averages, **Vehicle Miles Traveled*

Methodology

The following methodology was used for each target. First, the baseline for each measure was determined using the average of the last five years of available data, 2017-2021. 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 (HPMS). This is consistent with federal guidelines for establishing baseline values.

Next, to keep initial future projections realistic and achievable, an initial reduction number for 2022 and 2023 was determined for each measure based on the annual change in five-year rolling averages from 2015 to 2019. Since we aspire to have reductions for each measure, only years with a reduction in the rolling average were considered. Crash data from 2020 and 2021 were excluded, as those years were highly influenced by the COVID-19 pandemic. SEMCOG's future projections for travel demand and other forecasting currently exclude COVID data, so the same approach was used for safety target projections.

The median reduction number from 2015 to 2019 was selected as the projected 2022 and 2023 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.

Tables 3-7, shown on the following pages, illustrate additional details of the methodology for each of the five safety performance measures. Additionally, the MDOT 2023 Safety Targets Newsletter provides additional information on safety targets and is included following Tables 3-7.

Action Requested

WATS staff recommends the Technical Committee recommend approval of SEMCOG's CY 2023 Safety Targets to the WATS Policy Committee, as outlined in Table 2.

Table 3: 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
2015	388	367.4	9.6				
2016	432	386.0	18.6				
2017	371	387.2	1.2				
2018	357	384.8	-2.4				
2019	364	382.4	-2.4				
2020	453	395.4	13				
2021	426	394.2	-1.2				
2022				392.2	2.0	2.0	0.5%
2023				390.2	4.0	2.0	0.5%
2024				388.0	6.3	2.3	0.6%
2025				385.4	8.8	2.5	0.7%
2026				382.6	11.6	2.8	0.7%
2027				379.4	14.8	3.2	0.8%
2028				375.8	18.4	3.6	1.0%
2029				371.7	22.5	4.1	1.1%
2030				367.1	27.1	4.6	1.2%
2031				362.0	32.2	5.1	1.4%
2032				356.2	38.0	5.8	1.6%
2033				349.7	44.5	6.5	1.8%
2034				342.4	51.8	7.3	2.1%
2035				334.2	60.0	8.2	2.4%
2036				325.0	69.2	9.2	2.8%
2037				314.6	79.6	10.4	3.2%
2038				302.9	91.3	11.7	3.7%
2039				289.7	104.5	13.2	4.3%
2040				274.9	119.3	14.8	5.1%
2041				258.2	136.0	16.7	6.1%
2042				239.5	154.7	18.7	7.3%
2043				218.4	175.8	21.1	8.8%
2044				194.7	199.5	23.7	10.9%
2045				168.0	226.2	26.7	13.7%
2046				137.9	256.3	30.0	17.9%
2047				104.2	290.0	33.8	24.5%
2048				66.2	328.0	38.0	36.5%
2049				23.4	370.8	42.8	64.6%
2050				-24.7	418.9	48.1	205.6%

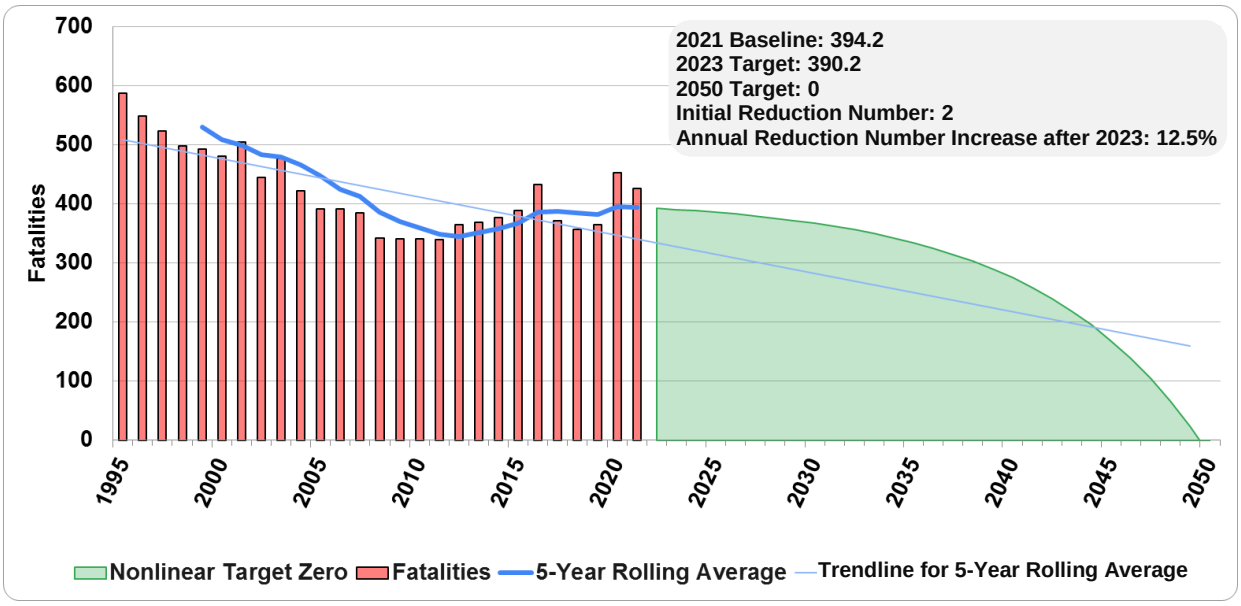


Table 4: Rate of Fatalities per 100M VMT

Year	Annual Total	5-Year Rolling Average	Change from Prior Year	Nonlinear Target	Nonlinear Reduction	Reduction from Prior Year	Percent Reduction from Prior Year
2015	0.874	0.839	0.023				
2016	0.969	0.877	0.038				
2017	0.820	0.871	-0.007				
2018	0.781	0.857	-0.014				
2019	0.798	0.848	-0.009				
2020	1.210	0.916	0.067				
2021	1.015	0.925	0.009				
2022				0.915	0.010	0.010	1.1%
2023				0.905	0.020	0.010	1.1%
2024				0.894	0.031	0.011	1.2%
2025				0.882	0.042	0.012	1.3%
2026				0.870	0.055	0.013	1.4%
2027				0.856	0.069	0.014	1.6%
2028				0.842	0.083	0.015	1.7%
2029				0.826	0.099	0.016	1.9%
2030				0.809	0.116	0.017	2.1%
2031				0.790	0.135	0.019	2.3%
2032				0.770	0.155	0.020	2.5%
2033				0.748	0.176	0.022	2.8%
2034				0.725	0.200	0.023	3.1%
2035				0.700	0.225	0.025	3.5%
2036				0.673	0.252	0.027	3.9%
2037				0.643	0.282	0.029	4.4%
2038				0.612	0.313	0.032	4.9%
2039				0.577	0.348	0.034	5.6%
2040				0.540	0.385	0.037	6.4%
2041				0.500	0.424	0.040	7.4%
2042				0.457	0.468	0.043	8.6%
2043				0.411	0.514	0.047	10.2%
2044				0.360	0.565	0.050	12.3%
2045				0.306	0.619	0.054	15.1%
2046				0.247	0.678	0.059	19.2%
2047				0.184	0.741	0.063	25.6%
2048				0.115	0.810	0.068	37.3%
2049				0.041	0.884	0.074	64.1%
2050				-0.038	0.963	0.080	192.9%

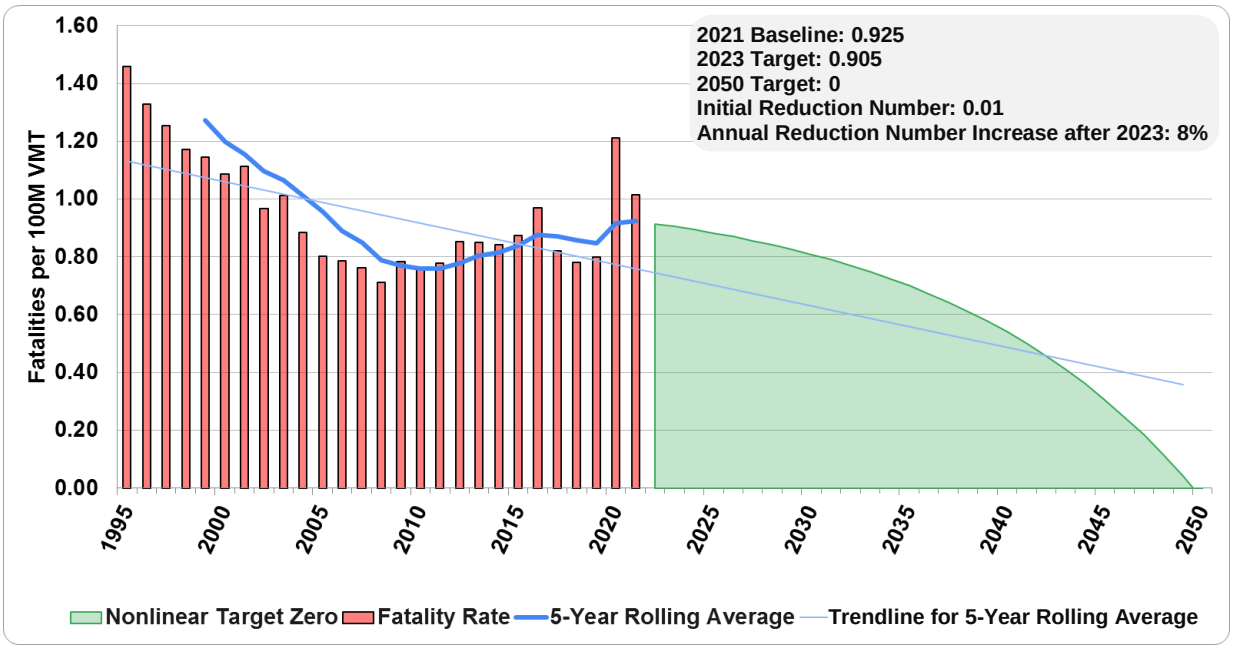


Table 5: Number of Serious Injuries

Year	Annual Total	5-Year Rolling Average	Change from Prior Year	Nonlinear Target	Nonlinear Reduction	Reduction from Prior Year	Percent Reduction from Prior Year
2015	1,913	2,118.0	-88.8				
2016	2,076	2,080.6	-37.4				
2017	2,235	2,074.2	-6.4				
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				2,121.0	15.0	15.0	0.7%
2023				2,106.0	30.0	15.0	0.7%
2024				2,089.4	46.6	16.6	0.8%
2025				2,071.1	64.9	18.3	0.9%
2026				2,050.9	85.1	20.2	1.0%
2027				2,028.5	107.5	22.4	1.1%
2028				2,003.8	132.2	24.7	1.2%
2029				1,976.5	159.5	27.3	1.4%
2030				1,946.3	189.7	30.2	1.5%
2031				1,913.0	223.0	33.3	1.7%
2032				1,876.1	259.9	36.8	1.9%
2033				1,835.4	300.6	40.7	2.2%
2034				1,790.4	345.6	45.0	2.5%
2035				1,740.7	395.3	49.7	2.8%
2036				1,685.8	450.2	54.9	3.2%
2037				1,625.1	510.9	60.7	3.6%
2038				1,558.0	578.0	67.1	4.1%
2039				1,483.9	652.1	74.1	4.8%
2040				1,402.0	734.0	81.9	5.5%
2041				1,311.5	824.5	90.5	6.5%
2042				1,211.5	924.5	100.0	7.6%
2043				1,101.0	1,035.0	110.5	9.1%
2044				978.9	1,157.1	122.1	11.1%
2045				844.0	1,292.0	134.9	13.8%
2046				695.0	1,441.0	149.1	17.7%
2047				530.2	1,605.8	164.7	23.7%
2048				348.2	1,787.8	182.0	34.3%
2049				147.0	1,989.0	201.1	57.8%
2050				-75.2	2,211.2	222.3	151.2%

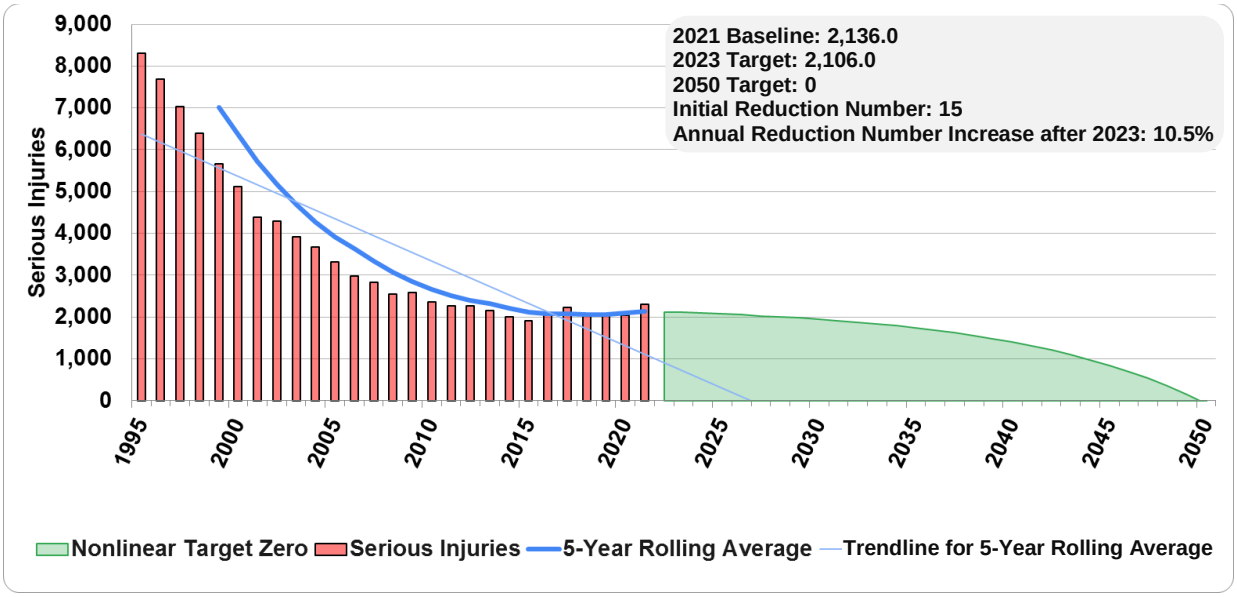


Table 6: Rate of Serious Injuries per 100M VMT

Year	Annual Total	5-Year Rolling Average	Change from Prior Year	Nonlinear Target	Nonlinear Reduction	Reduction from Prior Year	Percent Reduction from Prior Year
2015	4.310	4.846	-0.190				
2016	4.657	4.737	-0.109				
2017	4.941	4.665	-0.071				
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				4.892	0.080	0.080	1.6%
2023				4.812	0.160	0.080	1.6%
2024				4.728	0.244	0.084	1.8%
2025				4.639	0.333	0.089	1.9%
2026				4.545	0.427	0.094	2.0%
2027				4.446	0.526	0.099	2.2%
2028				4.341	0.631	0.105	2.4%
2029				4.231	0.741	0.110	2.5%
2030				4.115	0.858	0.116	2.8%
2031				3.992	0.981	0.123	3.0%
2032				3.862	1.110	0.130	3.2%
2033				3.726	1.247	0.137	3.5%
2034				3.581	1.391	0.144	3.9%
2035				3.429	1.543	0.152	4.2%
2036				3.269	1.703	0.160	4.7%
2037				3.100	1.873	0.169	5.2%
2038				2.921	2.051	0.179	5.8%
2039				2.733	2.240	0.188	6.5%
2040				2.534	2.438	0.199	7.3%
2041				2.324	2.648	0.210	8.3%
2042				2.103	2.869	0.221	9.5%
2043				1.869	3.103	0.233	11.1%
2044				1.623	3.349	0.246	13.2%
2045				1.363	3.609	0.260	16.0%
2046				1.089	3.883	0.274	20.1%
2047				0.800	4.172	0.289	26.5%
2048				0.495	4.477	0.305	38.1%
2049				0.173	4.799	0.322	65.0%
2050				4.892	5.139	0.340	196.1%

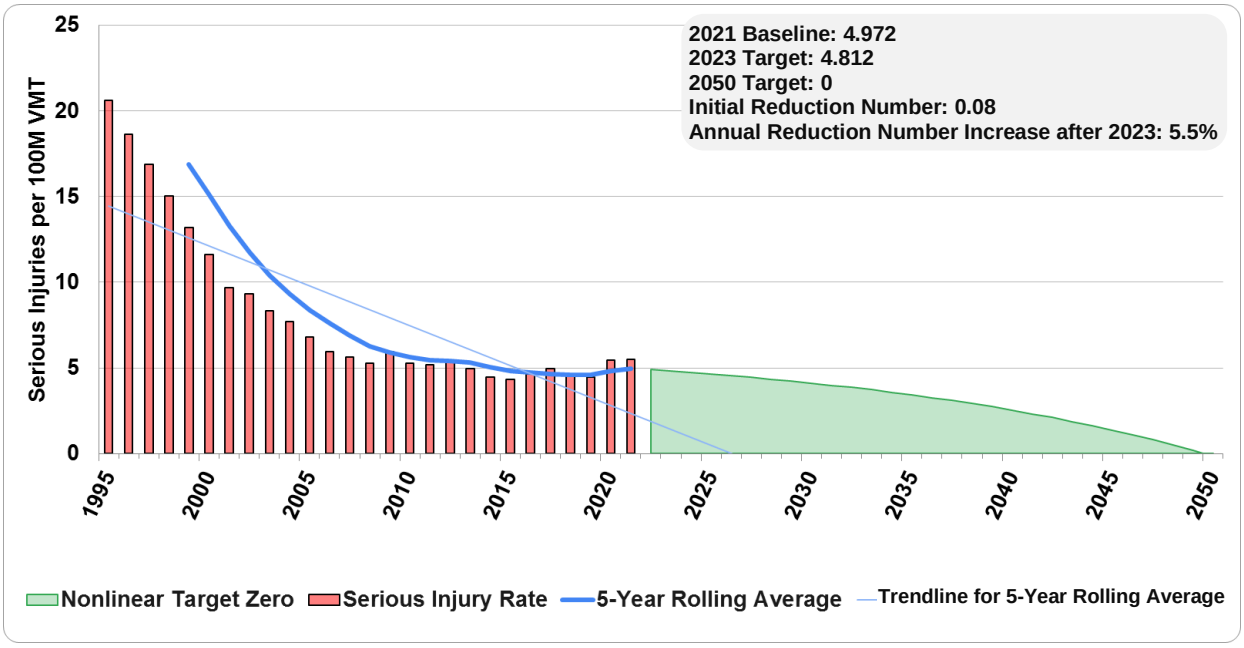
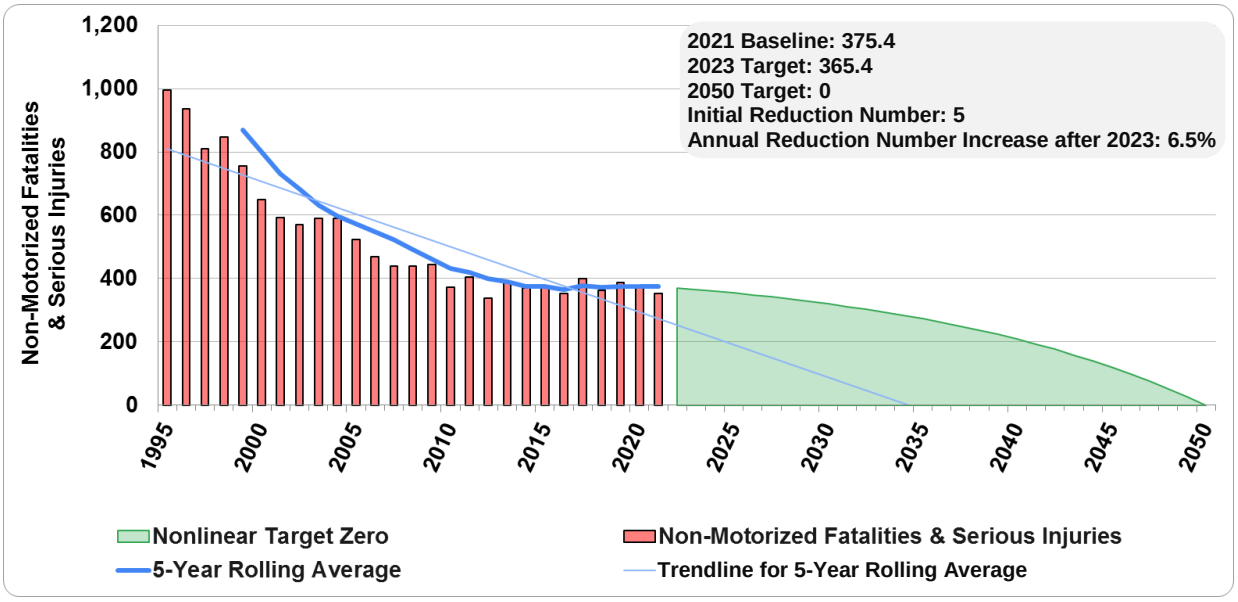


Table 7: Number of Non-Motorized Fatalities and Serious Injuries

Year	Annual Total	5-Year Rolling Average	Change from Prior Year	Nonlinear Target	Nonlinear Reduction	Reduction from Prior Year	Percent Reduction from Prior Year
2015	373	374.6	0.0				
2016	353	364.4	-10.2				
2017	399	376.8	12.4				
2018	363	371.8	-5.0				
2019	388	375.2	3.4				
2020	374	375.4	0.2				
2021	353	375.4	0.0				
2022				370.4	5.0	5.0	1.3%
2023				365.4	10.0	5.0	1.3%
2024				360.1	15.3	5.3	1.5%
2025				354.4	21.0	5.7	1.6%
2026				348.4	27.0	6.0	1.7%
2027				341.9	33.5	6.4	1.8%
2028				335.1	40.3	6.9	2.0%
2029				327.8	47.6	7.3	2.2%
2030				320.0	55.4	7.8	2.4%
2031				311.7	63.7	8.3	2.6%
2032				302.9	72.5	8.8	2.8%
2033				293.5	81.9	9.4	3.1%
2034				283.5	91.9	10.0	3.4%
2035				272.9	102.5	10.6	3.8%
2036				261.6	113.8	11.3	4.2%
2037				249.5	125.9	12.1	4.6%
2038				236.6	138.8	12.9	5.2%
2039				222.9	152.5	13.7	5.8%
2040				208.3	167.1	14.6	6.5%
2041				192.8	182.6	15.5	7.5%
2042				176.3	199.1	16.5	8.6%
2043				158.7	216.7	17.6	10.0%
2044				139.9	235.5	18.8	11.8%
2045				119.9	255.5	20.0	14.3%
2046				98.6	276.8	21.3	17.7%
2047				76.0	299.4	22.7	23.0%
2048				51.8	323.6	24.1	31.8%
2049				26.1	349.3	25.7	49.6%
2050				-1.3	376.7	27.4	104.8%



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 be identical as 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 that must have identical targets 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 "identical" 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 five measures.

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.

2023 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.

2022-2023 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. UMTRI predicts 1,168 fatalities in CY 2022, and 1,159 in 20232.

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 6,287 serious injuries in CY 2022, and 6,218 in CY 2023.

VMT values have been predicted for CYs 2020, 2021 and 2022. VMT estimates for CY 2020 and CY 2021 are reduced due to COVID-19. Using the fatal and serious injury values, along with the respective predicted VMT, the forecasted fatality rates are 1.187 for CY 2021, and 1.133 for CY 2022, and annual serious injury rates of 6.266 for CY 2021, and 5.959 for CY 2022.

Results from the UMTRI model (the fatality and serious injury relationship) were also used to generate non-motorized forecasted annual values of 763 for CY 2022, and 732 for CY 20232.

The above annual forecasted values for CY 2022 and CY 2023 along with the actual values from CY 2019 to 2021 to determine the 2023 Targets (five-year rolling average) are shown in the 2023 Target Summary table. In addition, actual values dating back to CY 2017 are included as part of the determination of the 2021 baseline condition.

2023 Predictions (Targets)

Number of Fatalities	1,105.6
Rate of Fatalities per 100M VMT	1.136
Number of Serious Injuries	5,909.2
Rate of Serious Injuries per 100M VMT	6.058
Number of Non-Motorized Fatalities and Serious Injuries	743.4

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. 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. By incorporating safety into all facets of transportation, Michigan can achieve this vision. But 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 resulting 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, the installation of centerline and shoulder rumble strips, guardrail upgrades, clear zone improvements, delineation, 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 made an increase in 2021 with 1,131. This is reflected in the five-year average or target of 1,105.6 for 2023. For the same time serious injuries have remained constant from 6,084 to 5,979 and is reflected in the five-year target of 5,909.2.

Below is a chart comparing the targets since their inception. In addition, the crash data for 2014 to 2021 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

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	1,084	1.256	5,433	6.295	740
2021	1,131	1.165	5,979	6.158	688

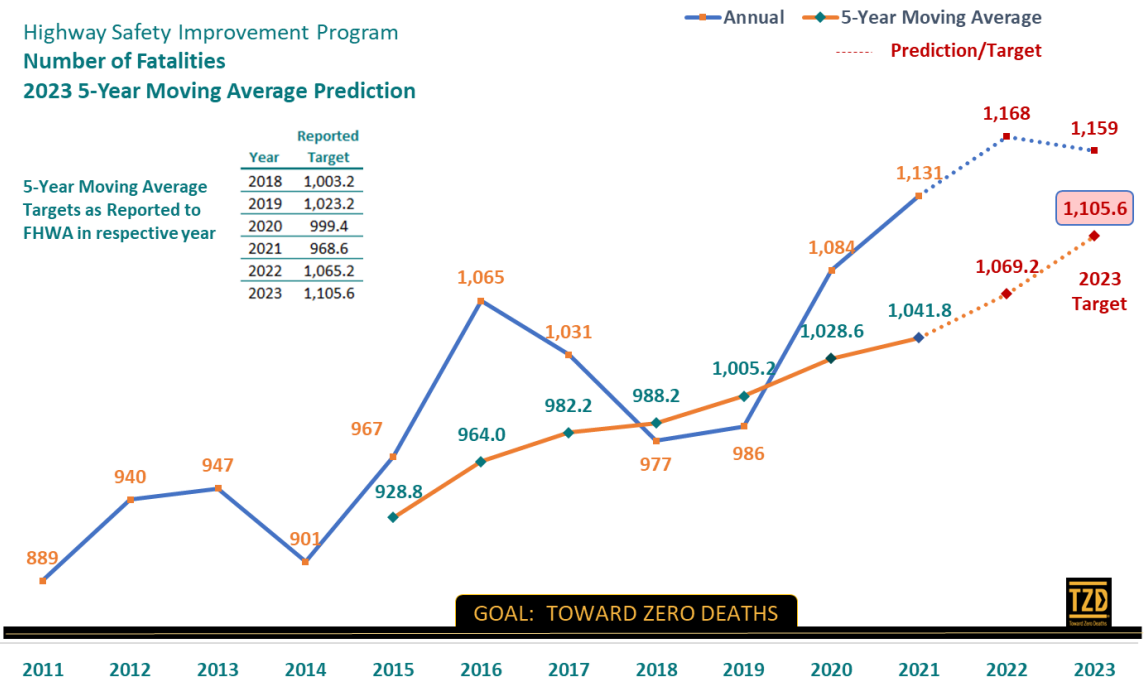
Reference:

- 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

Highway Safety Improvement Program

Number of Fatalities

2023 5-Year Moving Average Prediction



5-Year Moving Average Targets as Reported to FHWA in respective year

Year	Reported Target
2018	1,003.2
2019	1,023.2
2020	999.4
2021	968.6
2022	1,065.2
2023	1,105.6

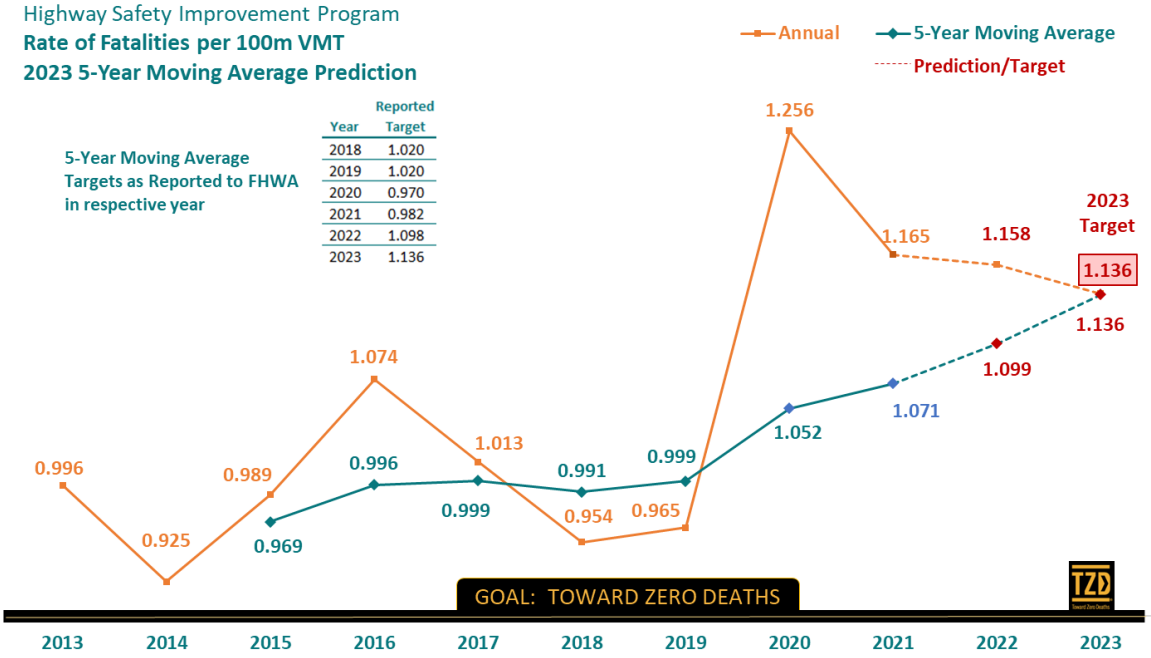
NOTE: 2022 and 2023 forecasted values are based on (1) 2017-2021 5-year rolling average, (2) UMTRI Change-Model prediction for establishing the CY 2023 target, and (3) accounts for exogenous factors and safety programming outcomes

All Michigan public roads

Highway Safety Improvement Program

Rate of Fatalities per 100m VMT

2023 5-Year Moving Average Prediction

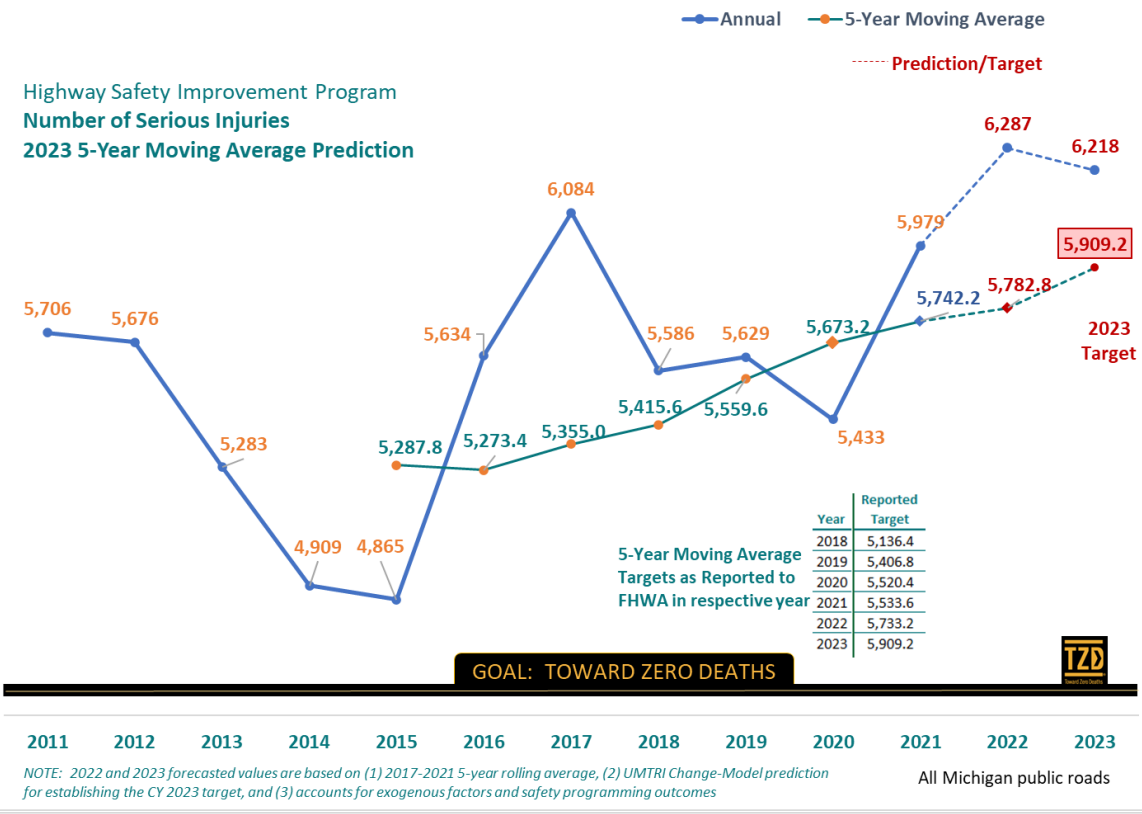


5-Year Moving Average Targets as Reported to FHWA in respective year

Year	Reported Target
2018	1.020
2019	1.020
2020	0.970
2021	0.982
2022	1.098
2023	1.136

NOTE: 2022 and 2023 forecasted values are based on (1) 2017-2021 5-year rolling average, (2) UMTRI Change-Model prediction for establishing the CY 2023 target, and (3) accounts for exogenous factors and safety programming outcomes

All Michigan public roads



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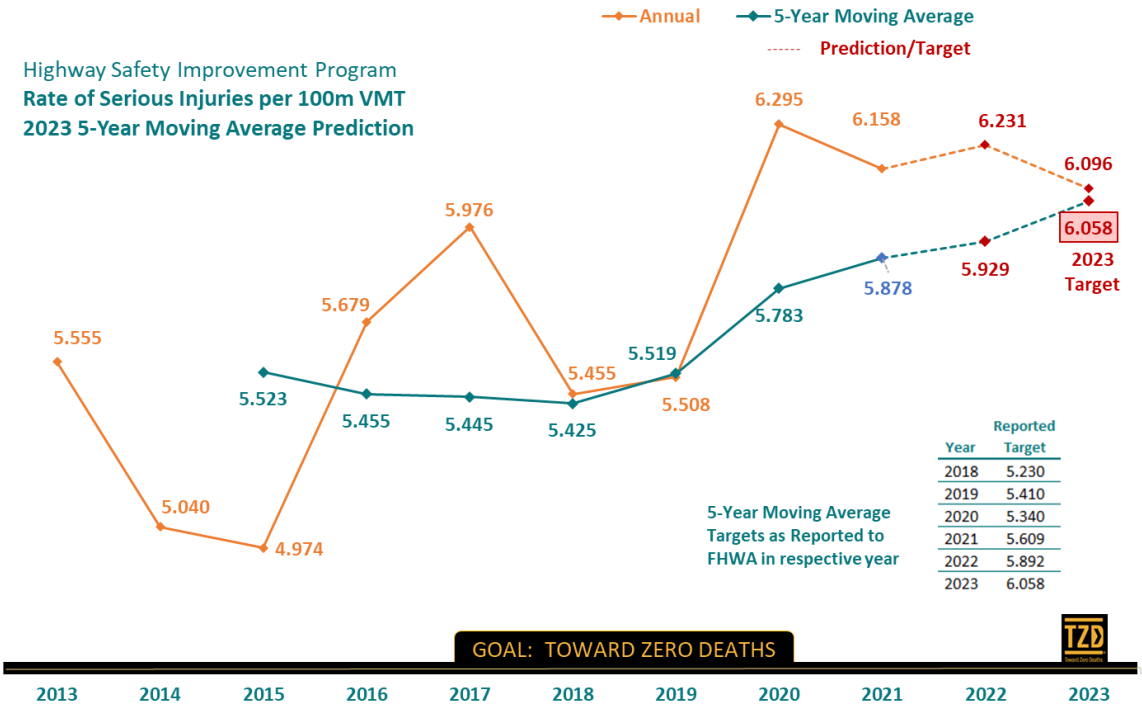
All Michigan public roads



NOTE: 2022 and 2023 forecasted values are based on (1) 2017-2021 5-year rolling average, (2) UMTRI Change-Model prediction for establishing the CY 2023 target, and (3) accounts for exogenous factors and safety programming outcomes

All Michigan public roads

Highway Safety Improvement Program

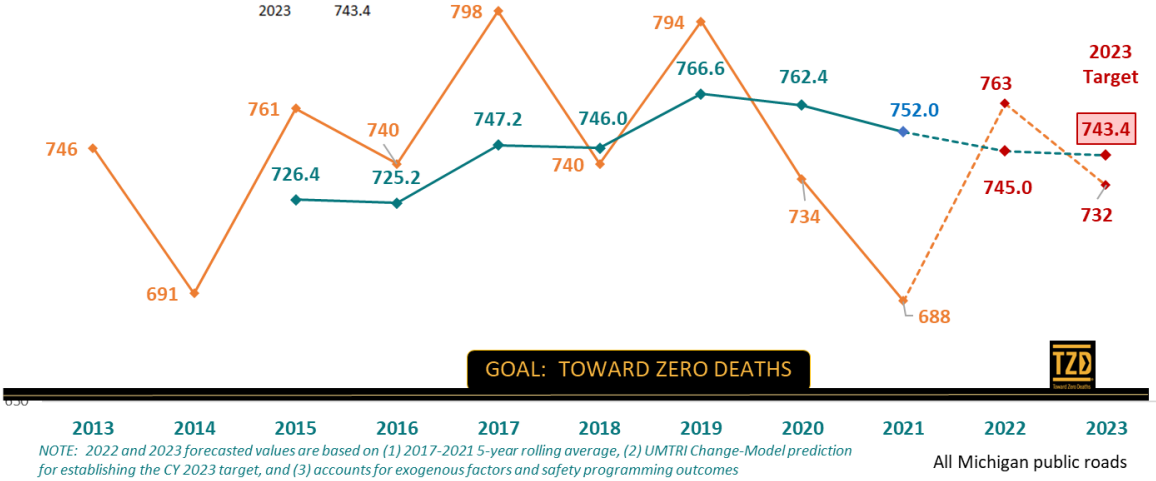
Number of Non-Motorized Fatalities and Serious Injuries

2023 5-Year Moving Average Prediction

Annual — 5-Year Moving Average — Prediction/Target

5-Year Moving Average Targets as Reported to FHWA in respective year

Year	Reported Target
2018	743.6
2019	759.8
2020	735.8
2021	771.2
2022	791.6
2023	743.4



NOTE: 2022 and 2023 forecasted values are based on (1) 2017-2021 5-year rolling average, (2) UMTRI Change-Model prediction for establishing the CY 2023 target, and (3) accounts for exogenous factors and safety programming outcomes

All Michigan public roads

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: Nick Sapkiewicz

Date: January 21, 2023

Re: 2045 Long Range Transportation Plan Reaffirmation

Background

Over the next several month's WATS and SEMCOG will be initiating development of the Washtenaw County 2050 Long Range Transportation Plan and the SEMCOG 2050 Metropolitan Transportation Plan. 2050 Plan development will be a robust process including Committee and public participation and outside agency consultation.

The 2045 Plan was approved in 2019. Federal law requires plans to be updated every 4 years, however, a process to reaffirm the existing plan was agreed upon by SEMCOG, WATS, and FHWA to allow the existing plan to continue to serve as the basis for transportation planning in Washtenaw County. A similar process was utilized as part of the 2035 Long Range Plan. The 2045 Plan represents a balance of policy objectives and investment levels that remain in line with the County's transportation goals. A reaffirmation of the 2045 Plan will help keep WATS compliant with federal regulations while data points such as final census numbers, redefined urbanized areas, updated National Functional Classification of roadways, etc are being developed and while the County has a recently approved Transportation Improvement Program (TIP - early programming years of LRTP) to work from.

Action

Staff request the Technical Committee recommend the Policy Committee reaffirm the 2045 Long Range Transportation Plan.

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 25, 2023

Re: 2021 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 2021 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 is different from previous years. For the 2021 report, intersection rankings were determined by using a crash shapefile export from roadsoft then using ArcGis, a centerpoint was placed at intersections with a 150 ft buffer to determine how many crashes were included in the buffer. This new method was utilized due to inconsistencies with the intersection data tool previously used.

The 2021 Traffic Crash Report is available for review here. A limited number of physical copies will be available for distribution at the meeting.

Key Traffic Crash Observations:

- There were 8,664 total reported crashes in 2021, up 20.9% from 2020. While the number of crashes increased, the severe crash rate decreased 5.8% from 4.43 in 2020 to 4.17 in 2021.
- There were 28 fatal crashes and 118 serious injury crashes in 2021.

- There were 79 crashes involving pedestrians, up 17.9% from 2020. The majority (92.4%) of crashes involving pedestrians were injury crashes, and were 10.7% of fatal crashes and 10.1% of all serious injury crashes.
- There were 62 crashes involving bicyclists, up less than 1% from 2020. The majority (50%) of crashes involving bicyclists were minor injury crashes, and 3.3% of all serious injury crashes.

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.