



2019-2022

TSEAT

Traffic Safety Engineering Action Team

The intent of this action plan is to lay the base framework to support and enhance the ability of the SHSP, GTSAC, the associated agencies and the public in the reduction of fatal, severe and total crashes in the drive Toward Zero Deaths

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1.0.0 Introduction

The reduction of fatal, severe and total crashes relies on everyone regardless of their association with the transportation industry and its associated partners. Communication, outreach, opportunities, recognition and research are key points for the Traffic Safety Engineering Action Team (TSEAT) to address to be impactful in the drive Toward Zero Deaths in this action plan through 2022.

From 2013 through 2017, 4,882 people lost their lives on Michigan roadways. An additional 26,775 people were severely injured over the same time frame. In these five years there were over 1.5 million total crashes. Of these crashes there have been similar but different performance characteristics of statewide, trunkline and non-trunkline roadways regarding crash types. The following tables show the top five crash types for statewide, trunkline and non-trunkline roads for both segments and intersections.

2.0.0 Michigan Crash Data

Crash data is currently one of the greatest assets available in the data driven process of the reduction in risk to the public throughout statewide infrastructure. Michigan has been and continues to be a national leader in all aspects of crash data and the processes that support it. Crash information displayed in this section is a direct representation of reporting and processing values.

2.1.0 Crash Data Charts, Tables and Values

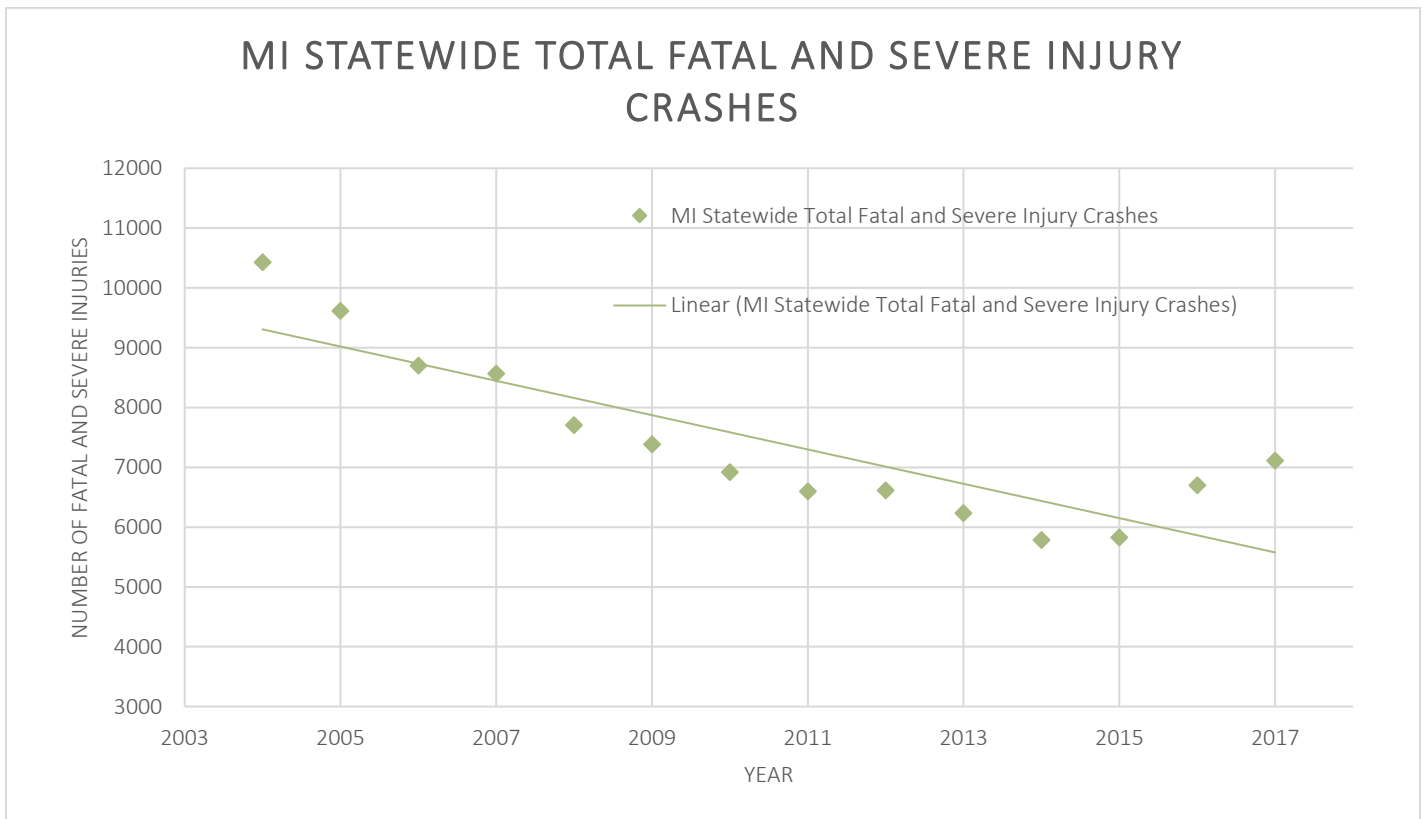


Figure 1: 2004-2017 Statewide Fatal and Severe Injuries

Table 1: Statewide Top 5 Segment Crash Types

Top Five KA Crash Types by System - Segments			
2013-2017 Crash Data			
	Statewide	Trunkline	Non-Trunkline
1	Fixed-Object	Fixed-Object	Fixed-Object
2	Rear-End Straight	Rear-End Straight	Pedestrian
3	Overturn	Overturn	Head-On
4	Pedestrian	Head-On	Overturn
5	Head-On	Pedestrian	Rear-End Straight
% of Total KA Crashes	71.6%	70.8%	72.2%

Table 2: Statewide Top 5 Intersection Crash Types

Top Five KA Crash Types by System - Intersections			
2013-2017 Crash Data			
	Statewide	Trunkline	Non-Trunkline
1	Angle-Straight	Angle-Straight	Angle-Straight
2	Head-On Left-Turn	Pedestrian	Head-On Left-Turn
3	Pedestrian	Head-On Left-Turn	Pedestrian
4	Rear-End Straight	Rear End Straight	Fixed-Object
5	Angle-Turn	Angle-Turn	Angle Turn
% of Total KA Crashes	69.4%	71.9%	69.1%

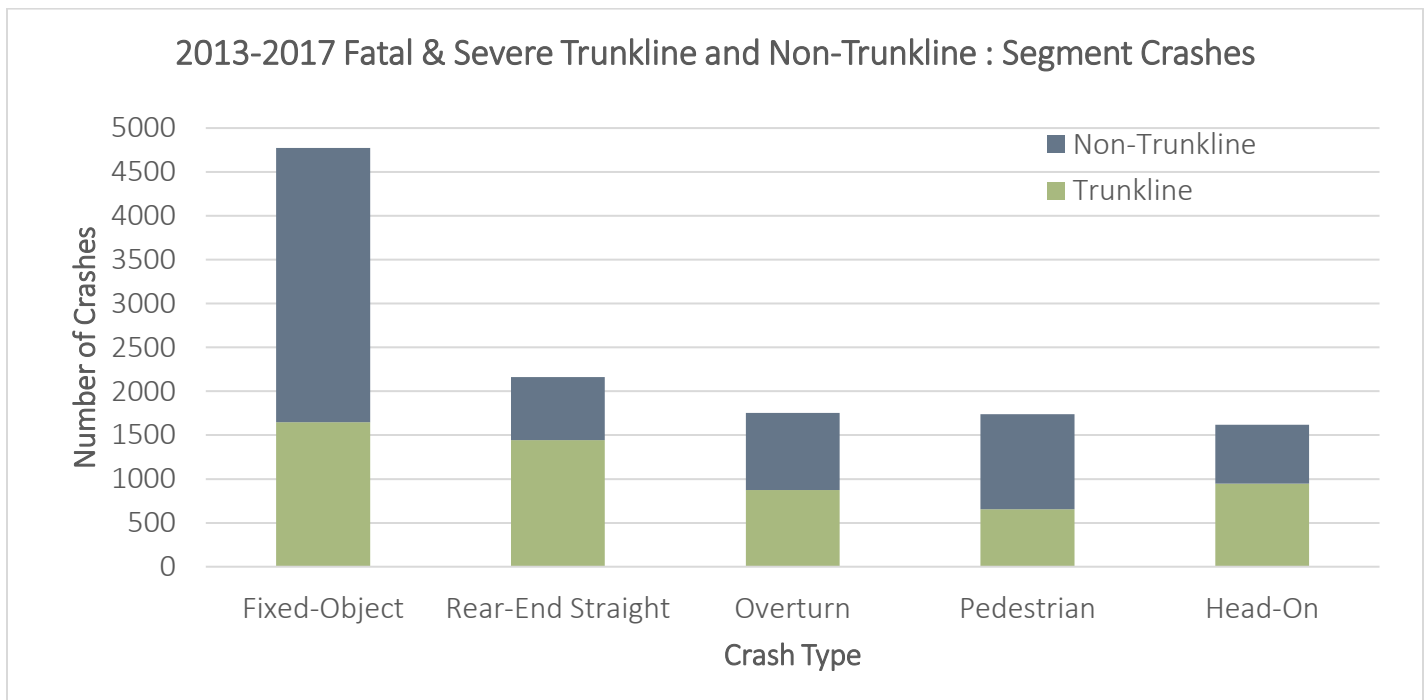


Figure 2: Statewide Segments - Top Five Crash Type Values

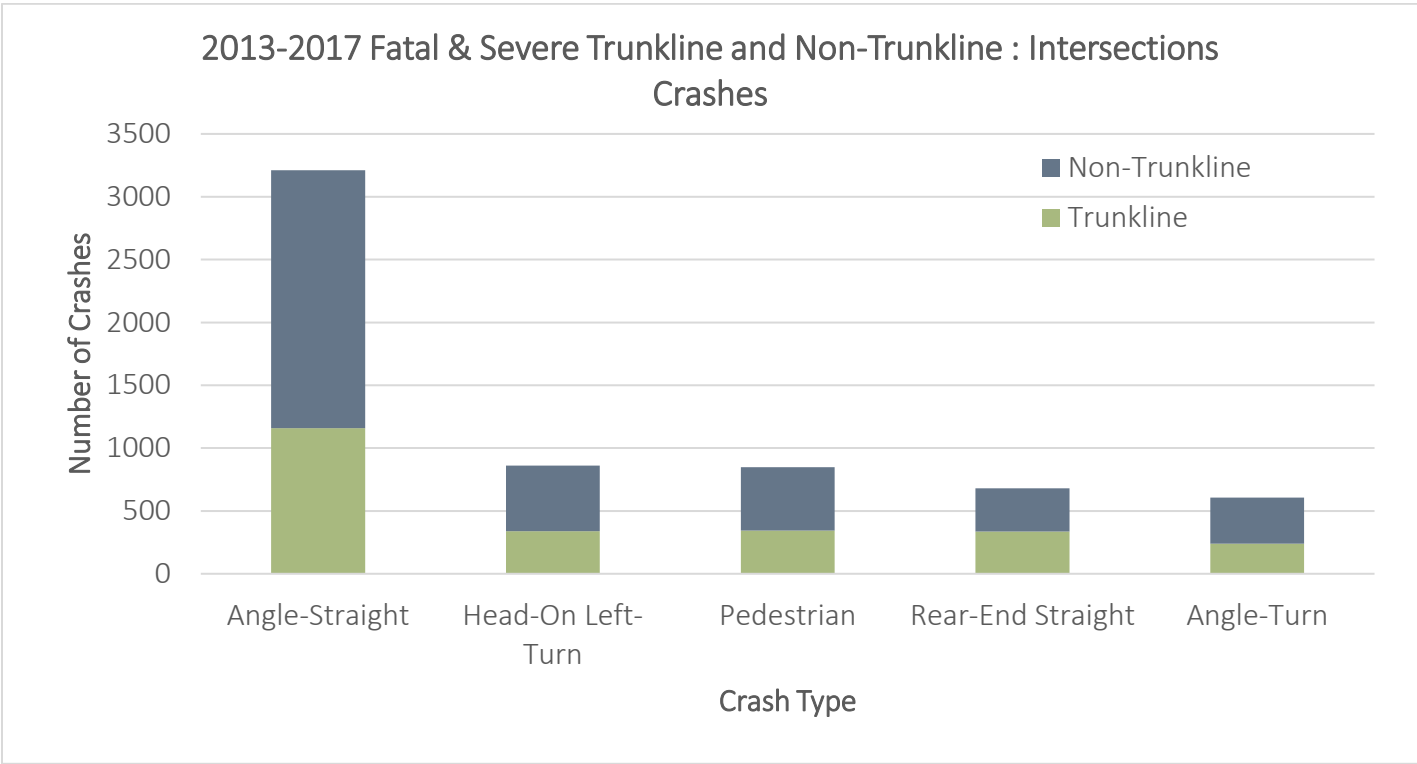


Figure 3: Statewide Intersections - Top Five Crash Type Values

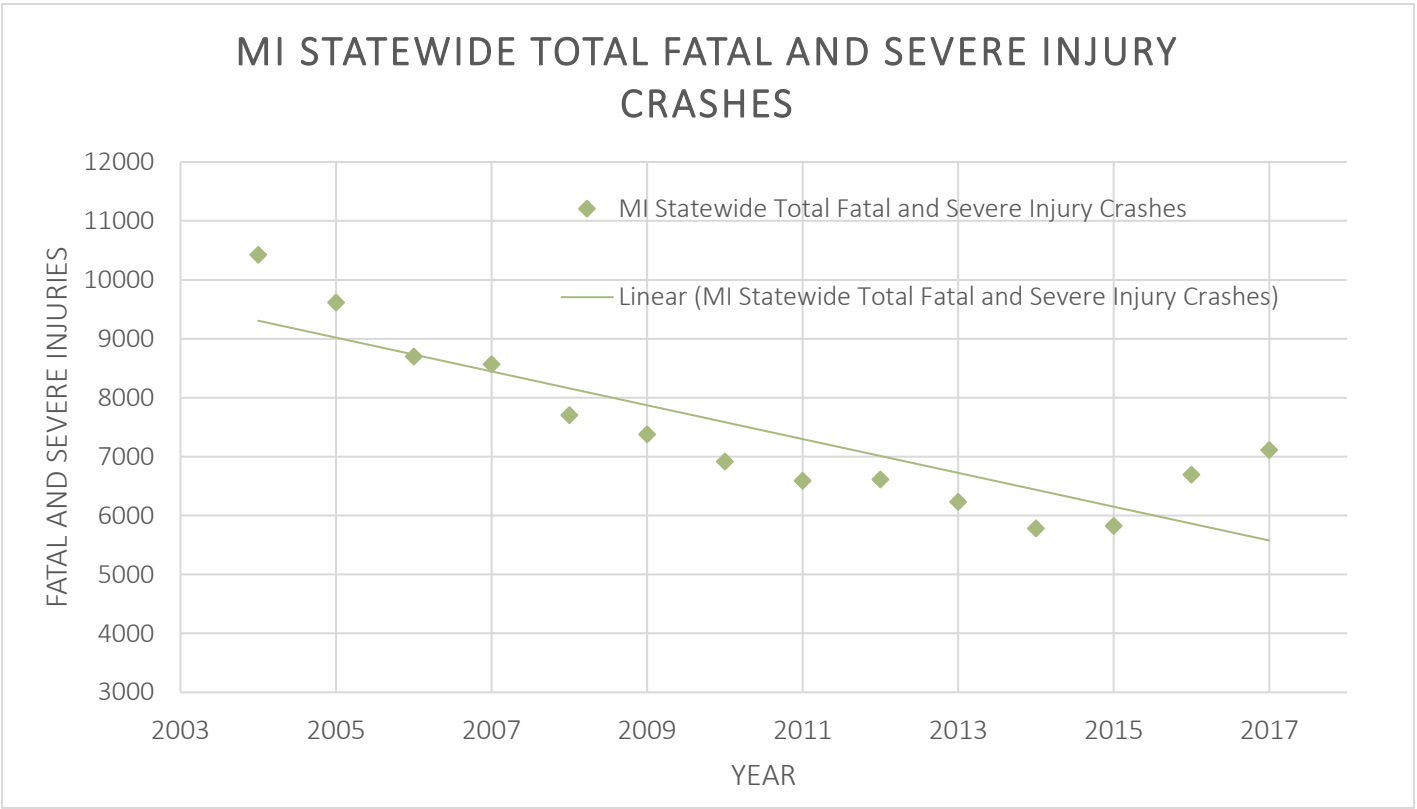


Figure 4: Statewide Fatal and Severe Injury Trend

MI STATEWIDE SEGMENT FATAL AND SEVERE INJURY CRASHES

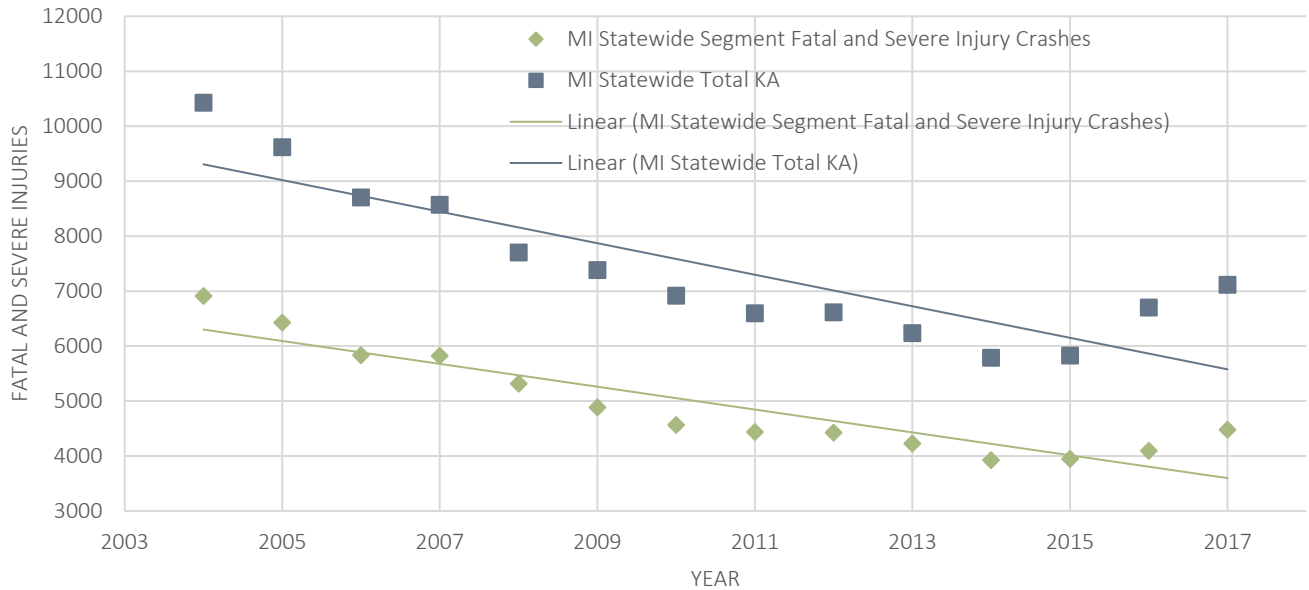


Figure 5: Statewide Segment Fatal and Severe Crash Trend

MI STATEWIDE INTERSECTION FATAL AND SEVERE INJURY CRASHES

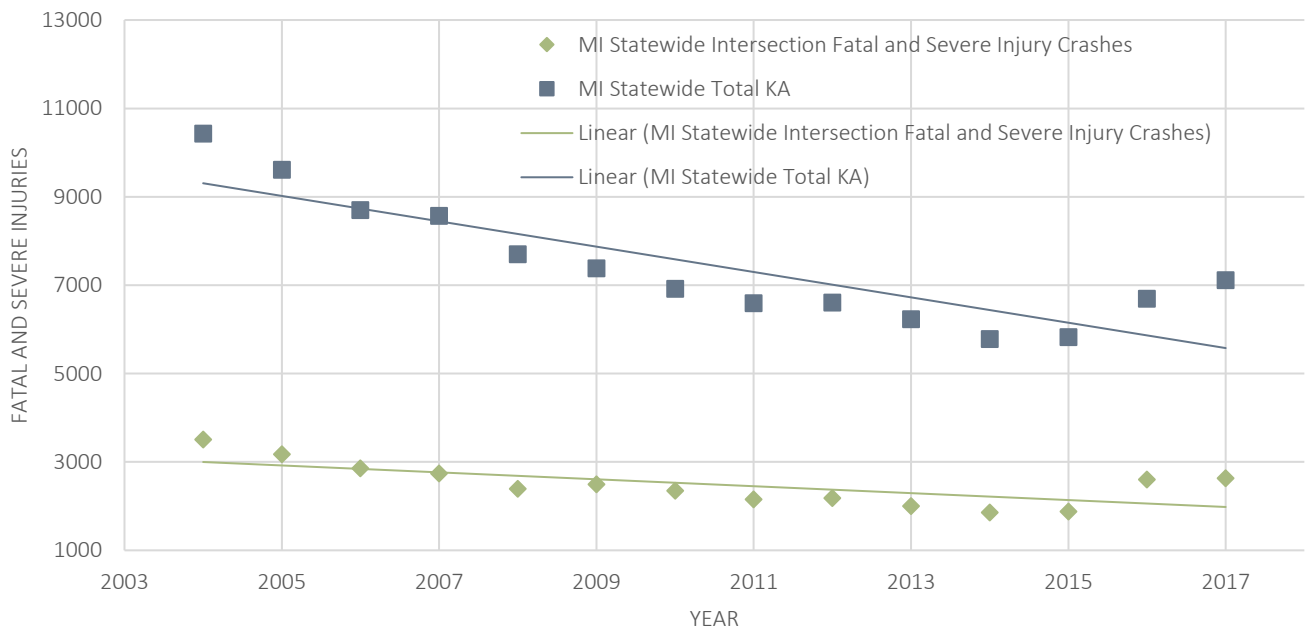


Figure 6: Statewide Intersections Fatal and Severe Trend

MI STATEWIDE SEGMENT LANE DEPARTURE FATAL AND SEVERE INJURY CRASHES

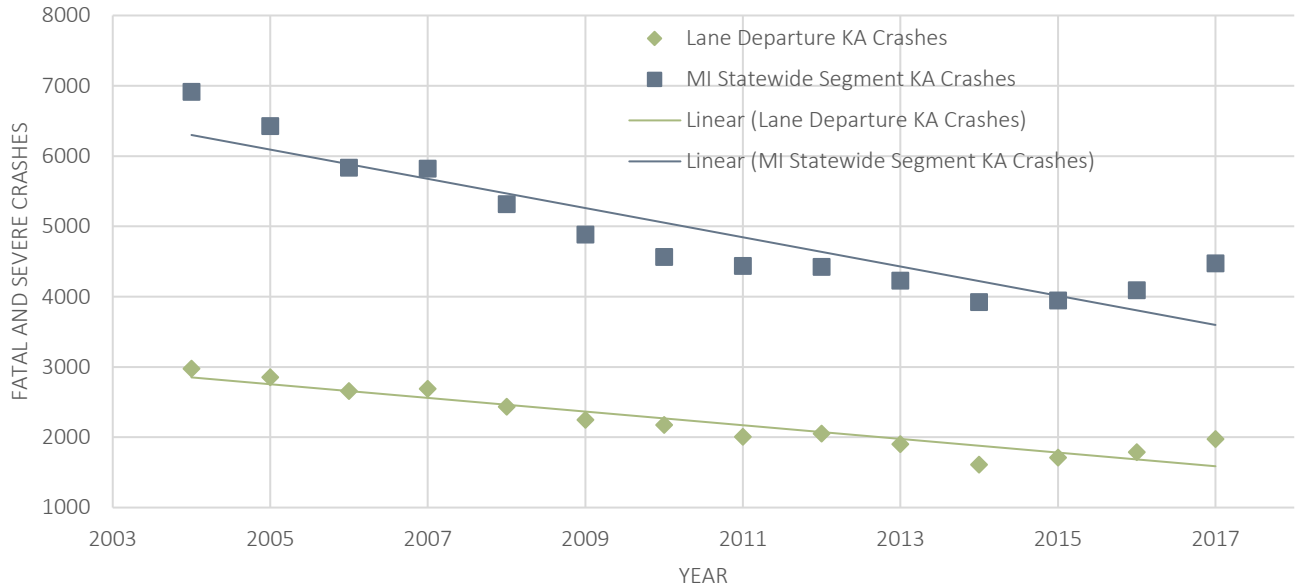


Figure 7: Statewide Segment Lane Departure Fatal and Severe Injury Trend

MI STATEWIDE INTERSECTION ANGLE FATAL AND SEVERE INJURY CRASHES

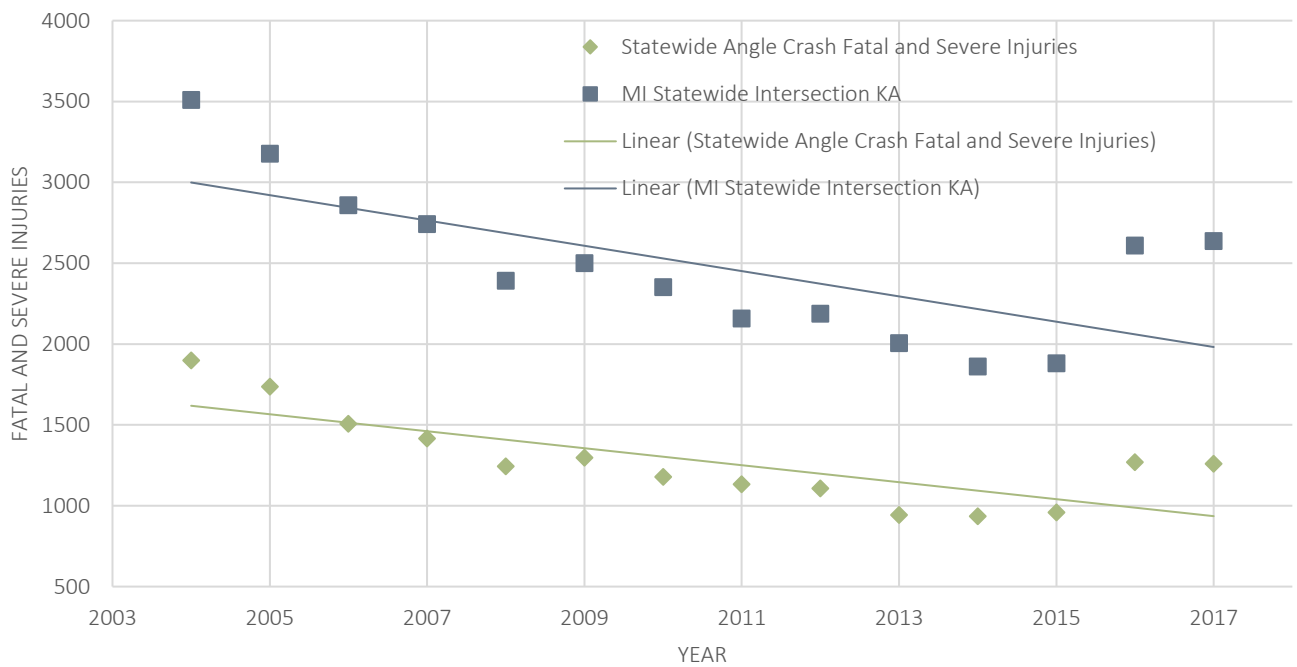


Figure 8: Statewide Intersection Fatal and Severe Injury Trend

3.0.0 Funding

3.1.0 Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program was first signed into existence under the Safety Accountable Flexible Efficient Transportation Equity Act – Legacy for Users (SAFETEA-LU) in 2005. The purpose of the program is to achieve a significant reduction in fatal and severe injuries on all public roads. The HSIP also provided the requirement for the creation of the Strategic Highway Safety Plans by all states. Prior to this there were efforts tied to the federal transportation funding bills, but not specifically the HSIP. Other programs that are or have been tied to the HSIP are the Rail-Highway Crossing Program and the High Risk Rural Roads Program.

3.2.0 High Risk Rural Roads Program (HRRR)

FHWA HRRR Website: (<https://safety.fhwa.dot.gov/hsip/hrrr/>)

FHWA HRRR Guide: (<https://www.fhwa.dot.gov/map21/guidance/guidehrrr.cfm>)

HRRR Overview

In 2006 the Safety Accountable Flexible Transportation Equity Act – Legacy for Users (SAFETY-LU) enacted the High Risk Rural Roads (HRRR) program. The intent was to reduce fatalities on rural roads, which at the time accounted for two-thirds of the over 43,000 annual national roadway fatalities. Since the HRRR program as defined in SAFETY-LU has been superseded by language in the Moving Ahead for Progress in the 21st Century (MAP-21) act that was passed in 2012.

MAP-21 eliminated the \$90M set-aside for the HRRR program as defined in SAFETY-LU. At the same time, it established a Special Rule for high risk rural road safety under 23 USC 128(g). This information can be found in the FHWA HRRR Guide provided in the link above. This change allowed States the ability to determine their HRRR program regarding the same roadway functional classes as defined under SAFETY-LU. MAP-21 also stated that the Special Rule applies to a State if the fatality rate on rural roads increases over the most recent two-year period (using FARS and HPMS data).

This rule from MAP-21 was continued with the Fixing America's Surface Transportation Act (FAST-Act). The FAST-Act was signed in 2015 to last through 2020.

4.0 Goals

The goal of the TSEAT is to support the actions of the GTSAC in the drive Toward Zero Deaths. Efforts taken within the TSEAT will not be limited to any single list of crash types or categories but will encompass an approach that utilizes the strategies defined in this document across all modes of transportation.

- Through positive communication, outreach, opportunities, recognition and research assist in the reduction of fatal, severe and total crashes across trunkline, non-trunkline, urban and rural, high and low-speed segments and intersections.
 - Actions:
 - Host bi-annual training on network screening techniques,
 - Host bi-annual training on data-driven safety,
 - Annual assessment of research,
 - Annual summary of research,
 - Support multiple topic for the annual Traffic Safety Summit,
 - Support recognition of efforts for nomination at the annual Traffic Safety Summit,
 - Every 6 months provide a list of available associated meetings.

5.0.0 Strategies

*It is understood that there may be opportunities available in the efforts to reduce fatal, severe and total crashes beyond what is defined in these strategies along. The strategies that are being put forward are derived from the experience and input of a diverse, multi-agency, public and private sector group with a vested interest in the reduction of crashes.

5.1.0 Promote Safety

5.1.1 Objective: Relevant Activities

Identify, participate in and promote safety activities in support of TZD

5.1.2 Short-Term Activities (1-2 years):

Identify innovative approaches and engage government agencies, officials and the general public.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Dynamically consider the state of electronic resources and use them for the promotion of materials.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Through outreach and meeting structure, build a more diverse TSEAT membership across Michigan.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

5.1.3 Ongoing Activities:

Continue to emphasize the use of the Michigan Traffic Safety Summit in efforts to support goals.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Identify, research, recognize and promote actions that reduce crashes and suggest for award or recognition at the annual Michigan Traffic Safety Summit and or other traffic safety events or conferences.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Semiannual collection and update of presentations, speakers, and promotional materials.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Identify, communicate, develop and disseminate relevant training across diverse environments.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

5.2.0 Identify Data Opportunities

5.2.1 Objective: Data Enhancements and Monitoring

Monitor, support and report methodologies and research around the collection, attribution and administration of associated data, data systems, technologies and techniques.

5.2.2 Short-Term Activities (1-2 years):

Biannual updates to safety tools matrix.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Increase interaction with members of the Traffic Records Coordinating Committee.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Promote the importance of data within participating agencies.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

5.2.3 Ongoing Activities:

Monitor the types, uses, benefits and collection of roadway data and attributes.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Interact with enforcement community to maintain connections to the UD-10 data elements.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Participate in CDUG.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

5.3.0 Promote research on safety

5.3.1 Objective: Research Opportunities, Needs and Promotion

Identify safety research opportunities and needs that can be promoted through different funding options. Utilize the results of the research that was promoted from TSEAT and other external efforts for educational opportunities, promotion and implementation.

5.3.2 Short-Term Activities (1-2 years):

Biannual updates of Local, State, National and International relevant research in a matrix format.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Encourage TSEAT members and other GTSAC groups to publish efforts.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

5.3.3 Ongoing Activities:

Monitor and promote relevant Local, State, National and International research regardless of status.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Provide a summary of the annual TRB conference.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Determine potential opportunities for participation in pooled fund efforts.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

5.4.0 Increase the number of and understanding of countermeasures

5.4.1 Objective: Countermeasure Enhancement and Understanding

Monitor and promote accepted, proven and innovative countermeasures.

5.4.2 Short-Term Activities (1-2 years):

Promote resources and training such as FHWA's Every Day Counts.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

5.4.3 Ongoing Activities:

Monitor research undergoing in other states and by Federal agencies for countermeasures relevant to Michigan.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Promote Michigan-specific research by universities, non-profits, and consultants for consideration in current and future projects.

Lead Agency: MDOT

Contact Name: TSEAT Chairs

Promote implementations of innovative countermeasures by MDOT and Local Agencies.

Lead Agency: MDOT

Contact Name: TSEAT Chairs