

Michigan Motorcyclist Safety

The choices we have made and the results of our choices

28th Annual Michigan Traffic Safety Summit
March 4-5, 2025
Grand Rapids, MI

Dan Petterson, Ed.D.

Skilled Motorcyclist Association – Responsible, Trained & Educated Riders, Inc

www.smarterusa.org

smarter-usa@gmail.com

Who/what is SMARTER

501 c 3 non-profit incorporated in MI in 2007, a national organization

The nations only one-stop spot for accessing motorcyclist safety research

More than 450 research reports in 24 categories - alcohol, crash causation, helmets, perception, licensing, roads, training

Richard H. Austin, 2020 Traffic Safety Award for Long Term Contributions and Commitment to Traffic Safety Programs

Who is Here?

Licensed motorcycle riders?

Currently own a motorcycle?

Investigator or reconstructionist? Special training in MC?

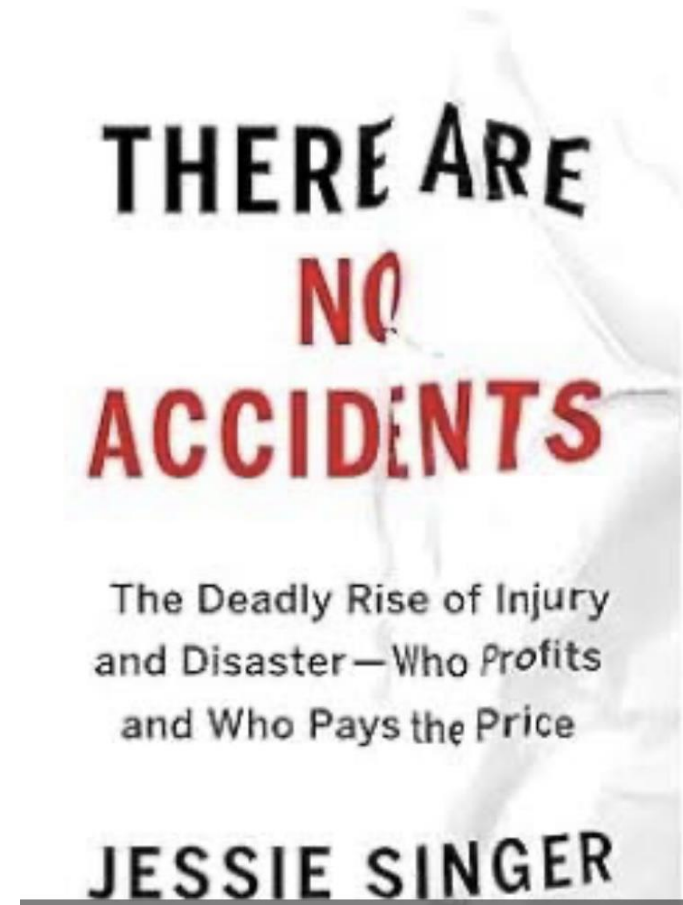
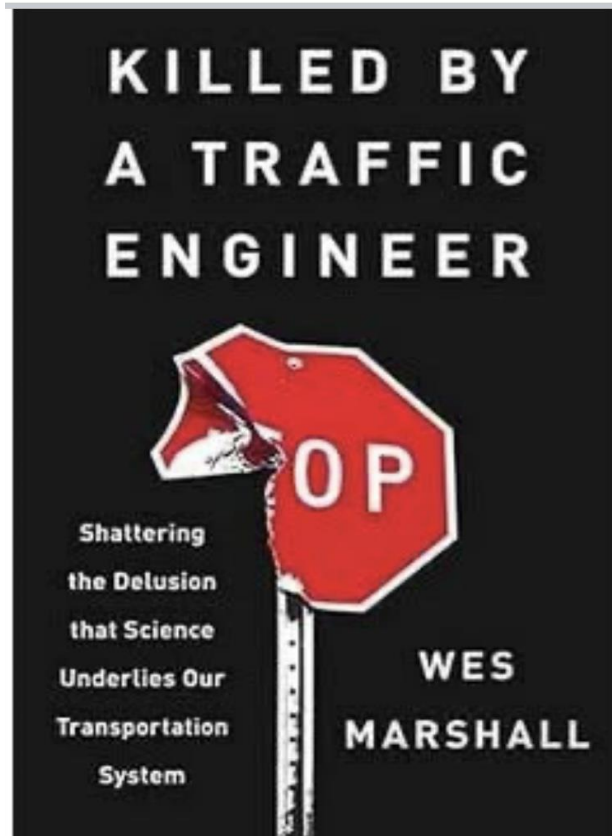
RiderCoaches?

Rider training programing managers?

OHSP or MDOS staff – MC safety responsibility?

Stuff in the newer part of my library

System driven problems



Agenda Items

Define meaning of comprehensive motorcyclist safety

Identify main components of MI's motorcyclist safety program

Review countermeasures that work, don't work & don't know

Compare what we do with what works, doesn't work & don't know

Evaluation vs. the goals of a comprehensive program

Q & A and discuss

TAKEAWAYS

- 1.) There is a disconnect between what the research tells us and what we do**
- 2.) We need more research and we need to use the research we have**
- 3.) Data driven is good however shaky assumptions sometimes drive us off course**
- 4.) Much of what we do has never been tested or evaluated.**
- 5.) We do the same things over & over and expect**

Comprehensive Motorcyclist Safety



MOTORCYCLE SAFETY STRATEGIES

SAFE ROAD USERS



-  **Manage a comprehensive motorcycle safety program** in Michigan in collaboration with safety partners and stakeholders.
-  **Educate motorcycle riders and passengers** of the benefits of protective gear including helmets.
-  **Encourage more motorcycle operators to seek out and take formal rider training** and to get their motorcycle endorsement.
-  **Provide rider education and training to students statewide** and provide the best professional development to rider training instructors.
-  **Educate riders of the dangers of impaired riding** and promote a culture of zero-tolerance.
-  **Encourage and support law enforcement agencies** to enforce laws, educate riders and motorists, and to promote motorcycle safety.

The safety of motorcycle riders can be best protected by applying principles of shared responsibility for all users. Programs such as Michigan's *Look Twice. Save a Life* campaign encourage all motorists to be aware and alert of their surroundings. The MDOS, OHSP, and MSF continuously work together to increase the number of endorsed motorcyclists and number of qualified RiderCoaches so that riders are experienced and practice safe behaviors.

Comprehensive Motorcyclist Safety Defined

Reduce the number of crashes

Prevent/reduce deaths and injuries in the event of a crash

Reduce the severity of injuries in the event of a crash

Two Agencies

MI Department of State

- Rider training
- Formal motorist awareness

Office of Highway Safety Planning

- Support rider training
- Shadow Rider project
- Info & media campaigns

Michigan Department of State (MDOS)

Rider Education Program (MI -REP) Average 9,500 students

2023 eleven public sponsors + fifteen private sponsors

\$1,537,232.00 rider education (public sponsors)

\$302,500.00 purchase training motorcycles

MDOS – Motorist Awareness Program

**Public information and awareness communication
campaign**

“Look Twice – Save a Life”

Michigan.gov/LookTwice

**Driver educator tool kit
Inattentional blindness video**

Approximate annual: \$300,000.00

OHSP 2023 Annual Report

Public information and awareness campaigns

**Gear, Got your CY, Start Seeing Motorcyclists, Alcohol & Drug
Media Campaign**



**RiderCoach recruitment, RiderCoach preps,
RiderCoach PD, Range Aides**

Advanced rider education courses (164 students)

2023: \$900,000.00

Other - Legislation

MOM – Motorcycle Operator Manual – study guide for SOS K-test

Third party rider skill testing

Waiver of skill and K-test upon successful completion of Basic RiderCourse

Traffic law enforcement – speed and impairment

Helmet requirement only for under 21 years old or riders with limited experience or who have not taken a rider course.

Effectiveness ?

Rider training effectiveness?

Public information and awareness campaigns?

11th
EDITION
2023

Countermeasures That Work:

A Highway Safety Countermeasure Guide
For State Highway Safety Offices



Countermeasure Effectiveness - Five-star rating

******* Demonstrated to be effective by several high-quality evaluations with consistent results**

****** Demonstrated to be effective in certain situations**

***** Likely to be effective based on balance of evidence from high-quality evaluations**

**** Limited evaluation evidence, but adheres to principles of human behavior and may be effective if implemented well**

*** No evaluation evidence, but adheres to principles of human behavior and may be effective if implemented well**

Motorcycle Safety Countermeasures

Legislation and Licensing

| Countermeasure | Effectiveness |
|--------------------------------------|---------------|
| Universal Motorcycle Helmet Use Laws | ★★★★★ |
| GDL for Motorcyclists | ★★ |

Enforcement

| Countermeasure | Effectiveness |
|--|---------------|
| Alcohol-Impaired Motorcyclists: Detection, Enforcement, and Sanctions | ★★★ |

Other Strategies for Behavior Change

| Countermeasure | Effectiveness |
|--|---------------|
| Motorcycle Rider Training | ★★ |
| Strategies to Increase Rider Conspicuity and Use of Protective Clothing | ★ |

Approaches That Are Unproven or Need Further Evaluation

| Countermeasure |
|---|
| Motorcycle Helmet Use Promotion Programs |
| Communication Campaigns Aimed at Alcohol-Impaired Motorcyclists |
| Communication Campaigns to Increase Motorist Awareness of Motorcyclists |

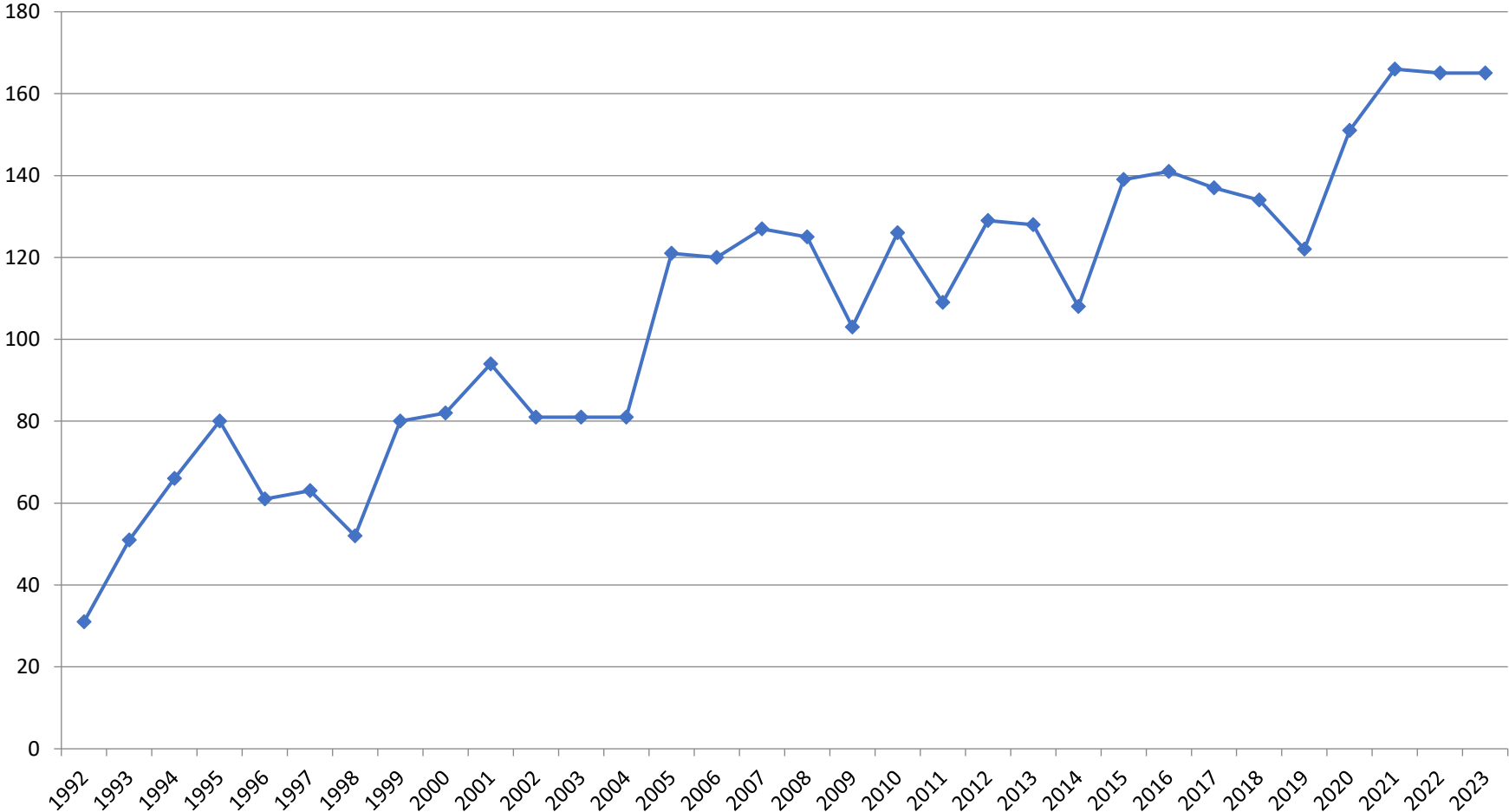
Michigan Data

The primary source is the Michigan State Police Criminal Justice Information Center, Traffic Crash Reporting System

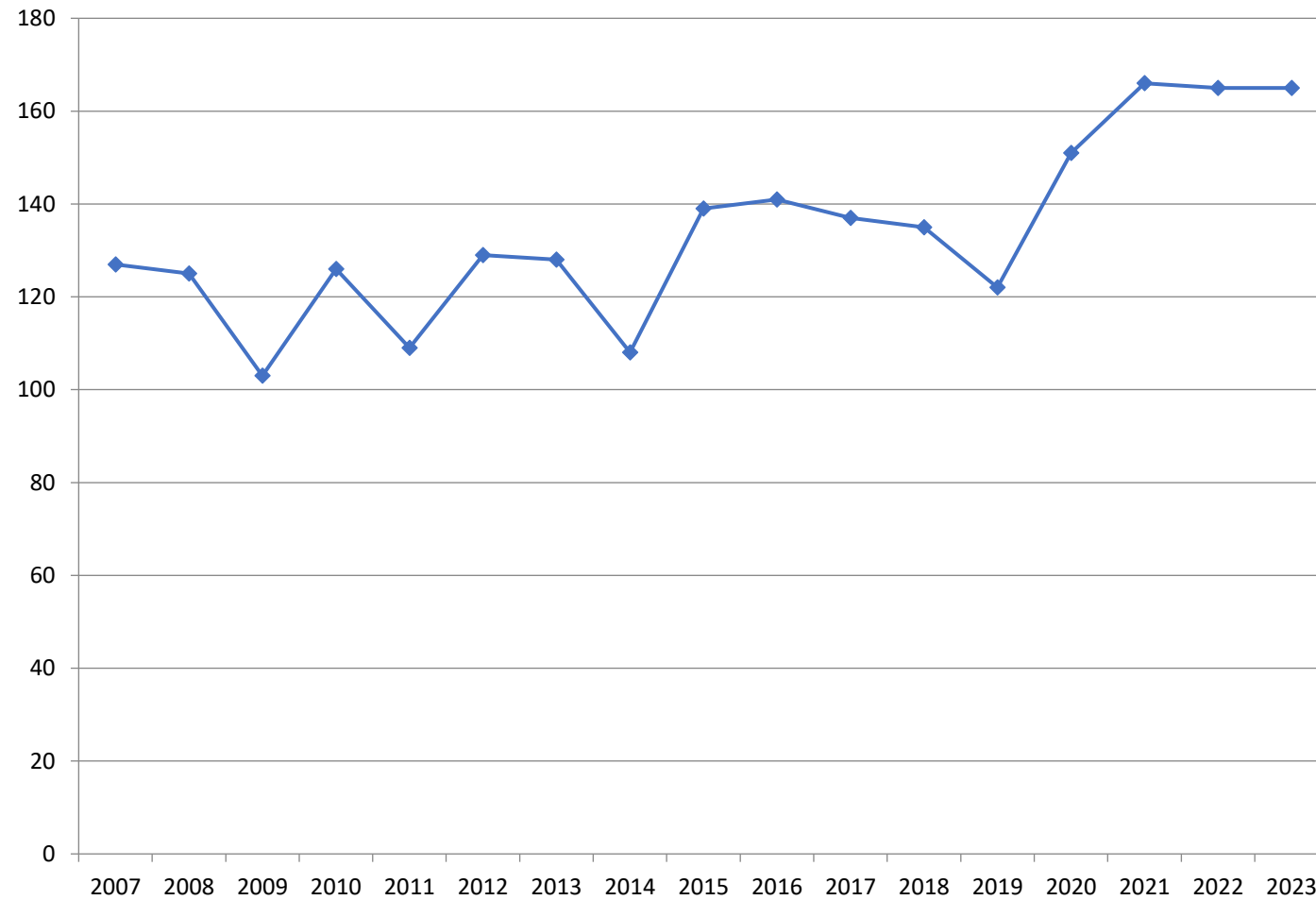
The report is the annual Motorcycle Helmet Traffic Crash Statistics

The report provides total motorcyclist crashes, total motorcyclists involved wearing a helmet, total motorcyclist involved without a helmet, percents within the population, total fatalities with and w/o helmets or helmet wear unknown, injury breakdown by severity or unknown

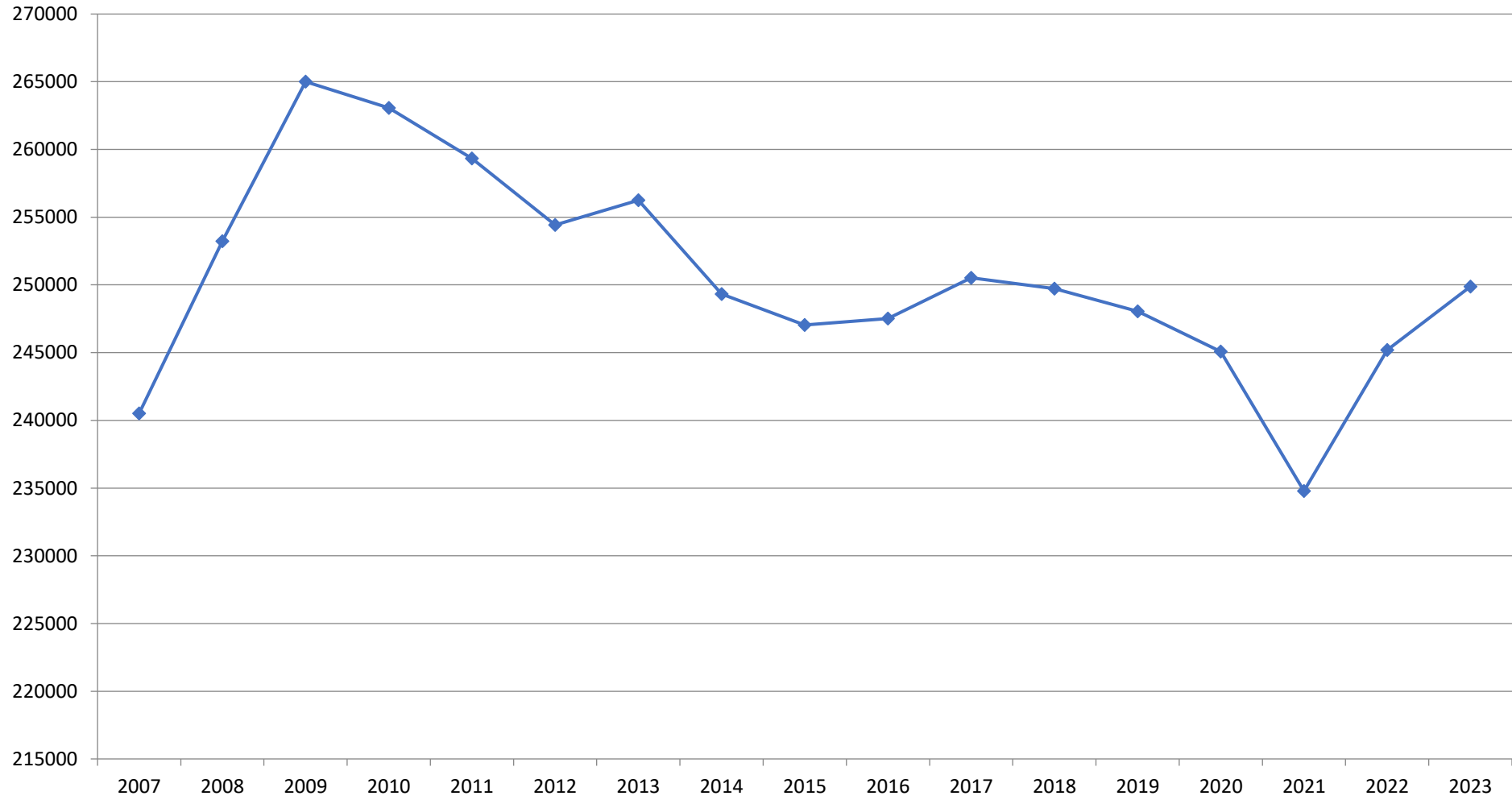
Michigan Motorcyclist Fatalities 1992- 2023



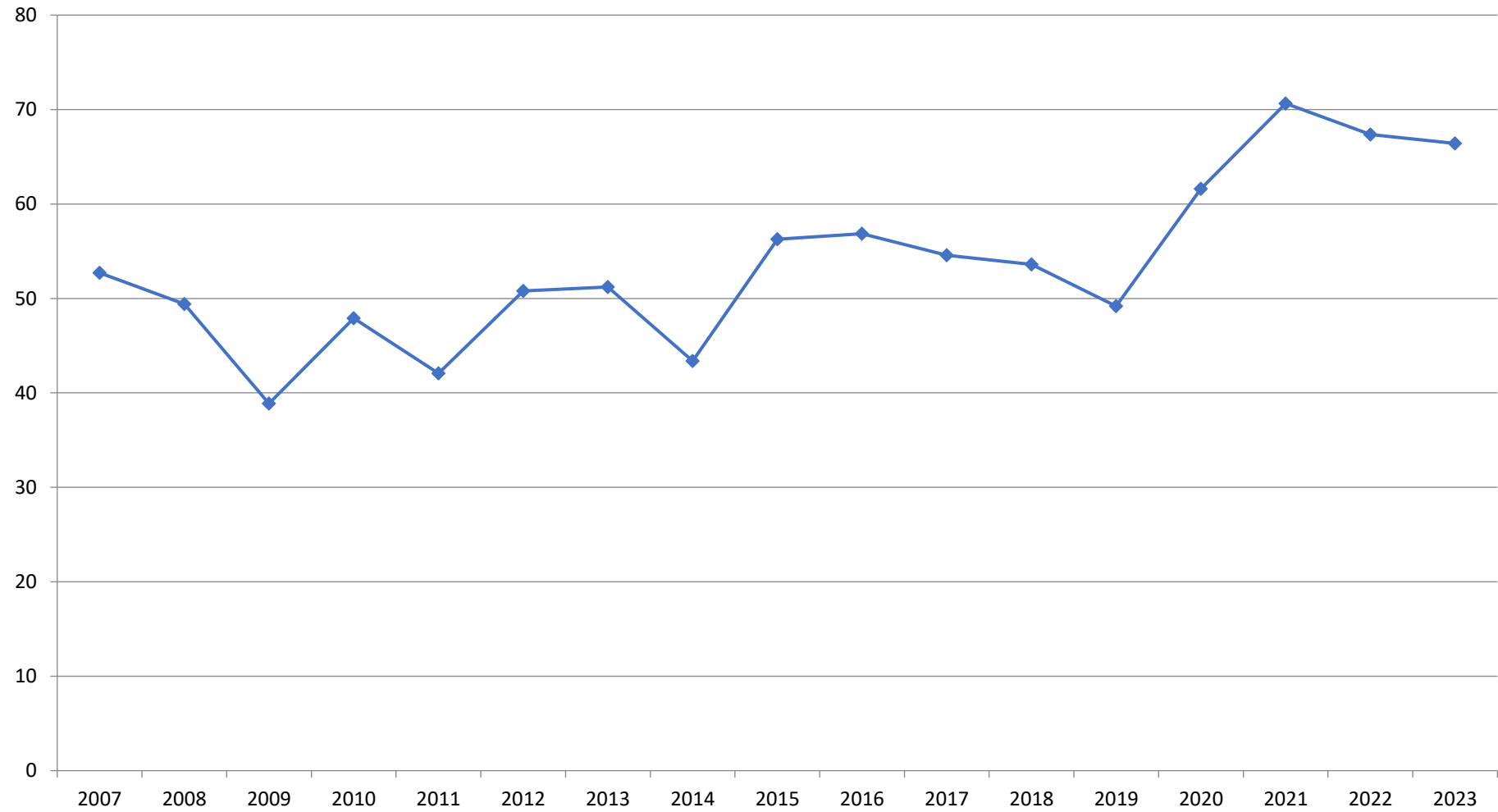
Michigan Motorcyclist Fatalities per Year 2007 - 2023



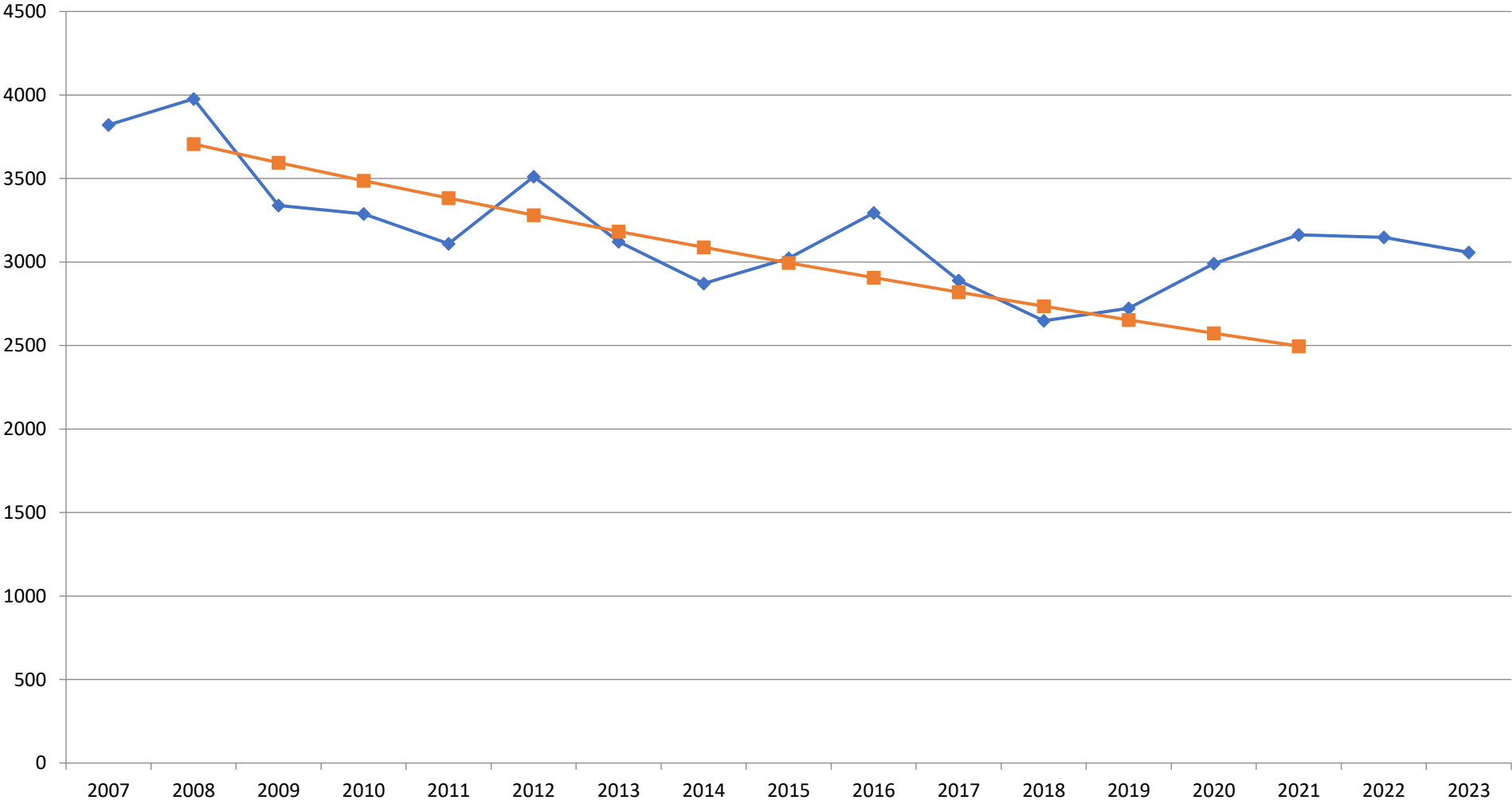
Michigan Motorcycle Registrations per Year 2007 - 2023



Michigan Motorcyclist Fatality Rate per 100,000 Motorcycle Registrations

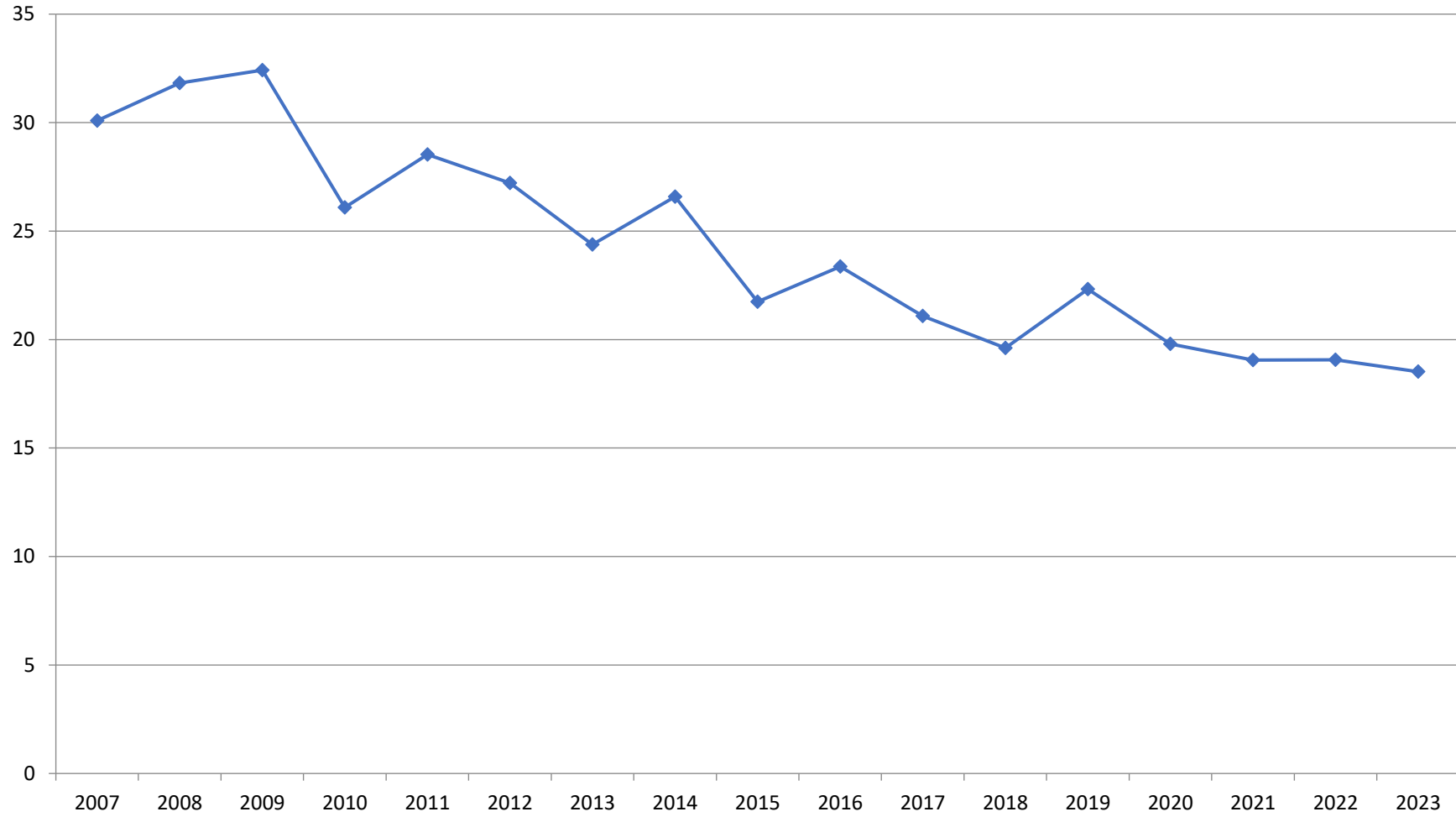


Michigan Total Motorcyclist Crashes per Year 2007-2023

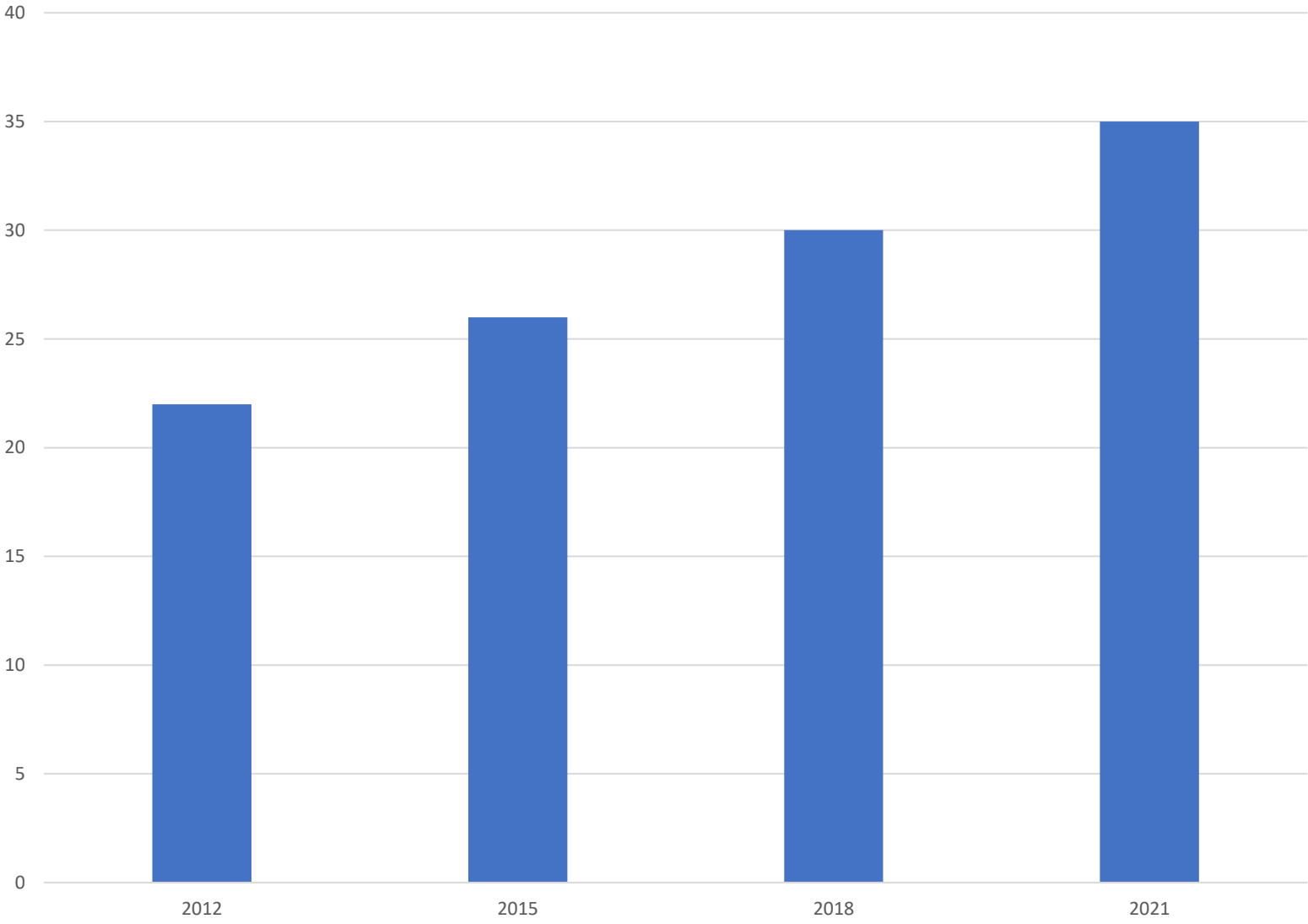


Michigan Crash/fatality Ratio 2007 - 2023

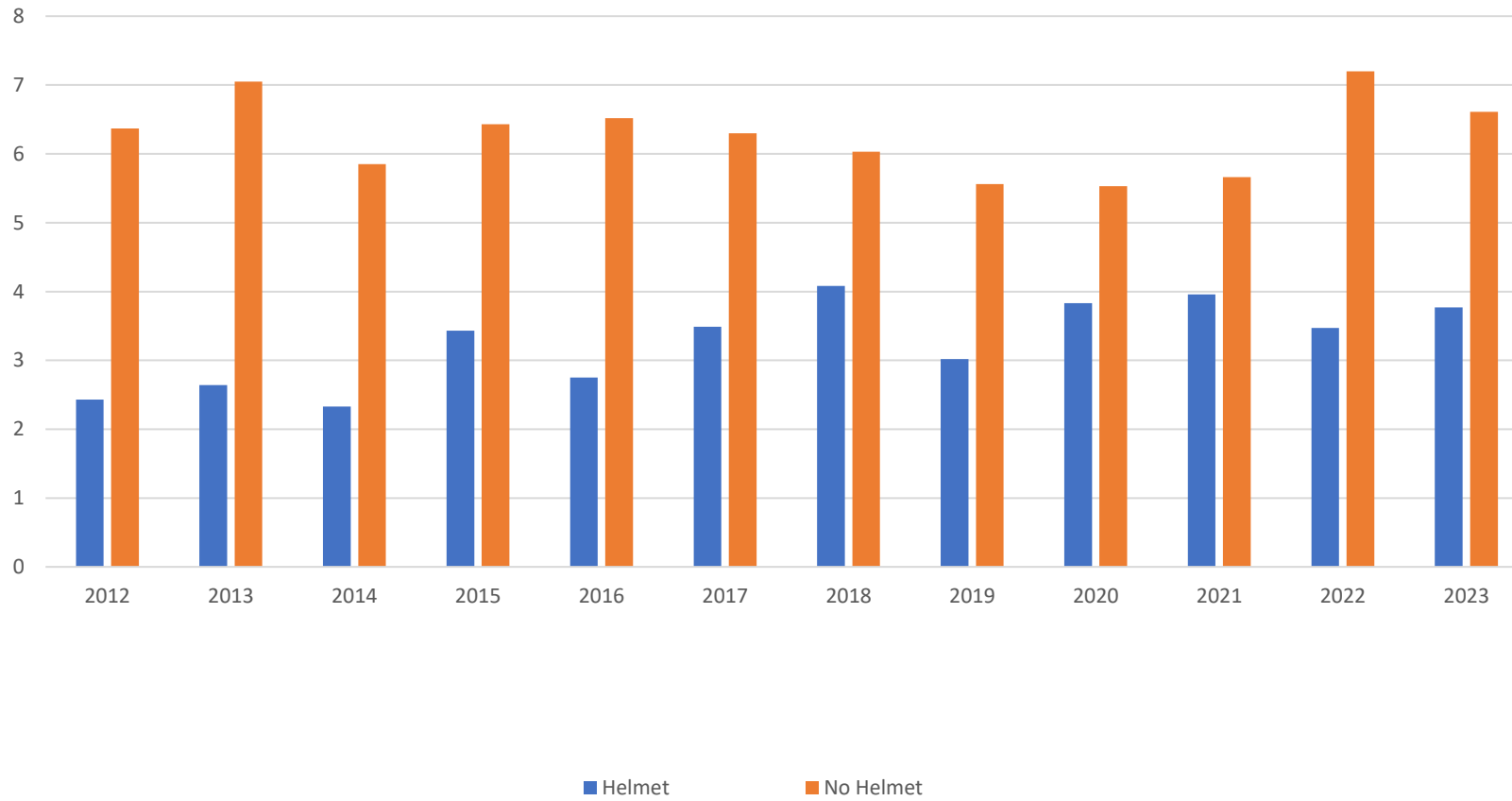
Crashing is Getting More Dangerous



Percent of Helmetless Riders in Crashes



Fatalities per 100 Crashes 2012-2023



Estimated Number of Motorcyclist Killed in Crashes Due to Rider Choice to Not Wear a Helmet

| Year | Rider Deaths |
|-------------|---------------------|
| 2012 | 34 |
| 2013 | 37 |
| 2014 | 29 |
| 2015 | 26 |
| 2016 | 20 |
| 2017..... | 26 |
| 2018 | 17 |
| 2019 | 25 |
| 2020 | 20 |
| 2021 | 24 |
| 2022..... | 49 |
| 2023 | 31 |

Estimated Lives Lost by Unhelmeted Motorcycle Riders Michigan 2012-2023*

**Total estimated number of motorcyclists deaths due to
riders choosing to not wear a helmet 2012-2023 = 358.**

Average of 30 deaths per year

***<https://smarter-usa.org/wp-content/uploads/2024/07/1.-Estimated-Lives-Lost-by-Unhelmeted-Riders-Michigan.pdf> ----- page 4**

The human cost of allowing unhelmeted motorcycling in the United States

October 2024

Eric R. Teoh

If all states had all-rider helmet laws throughout the 1976–2022 study period, 22,058 fewer motorcyclists would have died in crashes.

267 for MI 2012 - 2022



Insurance Institute for Highway Safety

4121 Wilson Boulevard, 8th floor

Arlington, VA 22203

researchpapers@ihs.org

+1 703 247 1000

ihs.org



Value of a Life

**HHS Standard Values for
Regulatory Analysis
January, 2024**

\$13.1 Million

**Societal Costs of Traffic Crashes
and Crime in Michigan
2023 Update – UMTRI
in 2021 \$**

\$10.7 Million

Countermeasures with Evidence Showing Lack of Effectiveness

Novelty helmets, Loud Pipes Save Lives, Lay it down as an avoidance measure

Posters, billboards, and/or TV communication campaigns - any stand-alone communication campaign w/o an enforcement component (especially w/o a behavior that can be explicitly defined)

Helmet requirements only for young age groups or for motorcyclists who meet specific requirements. Such requirements are not enforceable and have results like not having any helmet use requirements at all.

Countermeasures w/o Research Evidence or the Evidence is Mixed

Motorcycle operator manual

License endorsement

Campaigns to increase the percent of endorsed riders

Lane splitting/filtering

Rider education and training

Conspicuity enhancements

**Motorcycle autonomous emergency braking, motorcycle lane
change/collision avoidance sensors**

Motorcyclist graduated licensing

Rider Training Research – Mixed Results

9 studies between 1980-1990: 2 higher crash rates in trained group, 2 lower crash rates in trained group, 5 no difference

1996 Calif. : trained riders have fewer crash in 6 mo. following training but after 6 mo. differences level off to no difference between groups

2007 Indiana Study: found that individuals that took BRC were more likely to be involved in a crash than those who did not

2009 Lit. Review: 7 studies found no consensus for the common assumption that trained riders have fewer crashes

Rider Training Research – Mixed Results

2009 Highway Loss Data Institute: Collisions claims in states that require training >21 are 10% higher than states that do not require training

2010 Cochran lit. review: 23 studies, no conclusion because the research studies lacked high quality

2021 Maryland NHTSA: excellent data base for trained v. untrained, lack exposure data, strange results

2024 Post License Interventions: 11 studies, mixed results

Rider Training - More

Training that teaches riders to recognize, analyze and anticipate hazards has a positive effect on rider behavior

Perception, judgment & decision making have more impact on rider behavior than skill level

Countermeasures with Evidence of Effectiveness

All-rider helmet use requirements, and use of motorcyclist specific personal protective equipment (PPE)

Strict alcohol detection, sanctions and enforcement

Publicized high visibility sobriety checkpoints

Lower BAC Limits (.05 % or less)

Reduced speed limits, speed safety camera enforcement, publicized high visibility speed enforcement zones

Red-light cameras at signalized intersections

Road markings for motorcyclists on approaches to demanding curves

ABS and stability control equipped motorcycles

Michigan Countermeasure Summary

MI weakened our helmet use requirement in 2012 – opposite of research recommendation

Our primary countermeasures are:

(1) Information and communication campaigns which likely have no impact on behavior change. We don't evaluate our information and communication efforts for crash reduction effectiveness

(2) Rider training focused on acquiring operational skills – research shows mixed results at best

What we could do

- 1.) **Enact an all-rider motorcycle helmet use requirement**
- 2.) **Reduce the speed limits**
- 3.) **Lower the BAC from .08% to .05%**
- 4.) **Privatize operational skills rider training and redirect the public training funds**
- 5.) **Graduated licensing program including government funded training focused on hazard perception, judgment & decision making**
- 6.) **Require ABS on all MC's**

“We have been doing the same things over and over again for decades. Our data certainly tells us we are making no progress. It is long past time to reexamine what we are doing. We need to actually be data driven, not just put the words on paper plans. We need to use the research we have available, however limited. We need to be honest with ourselves.”

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???????Questions???????

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How You Can Help

US senator and representative

Ask for law change to allow for more flexibility in how federal funds for motorcyclist safety can be spent

State senator and representative

Request they advocate, propose & vote to reinstate our all-rider motorcycle helmet use requirement