

# Speeding Crashes in Michigan

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## Abstract

Speeding crashes in Michigan, contributing to a high number of injuries each year. Inexperienced drivers speed due to overconfidence and lack of understanding of road safety, while experienced drivers underestimate the risks due to familiarity with driving. DUI drivers impaired by alcohol, frequently lose control of their speed and judgment.

## Research Topic

Speeding crashes are one of the major public health issues in Michigan due to driving being essential for people to achieve their needs and daily activities. There is a high rate of crashes each year as a result of risky driving and ignoring safety instructions. “In fact, it is larger than the risk on higher-speed roads. While the effects of speed on crash severity are well understood and controlled by basic laws of physics, driver perception may be inappropriately discounting the different type of crash risks in lower speed driving” (NCSA, 2020). The most common type of drivers involved in speeding crashes are new drivers, due to their short driving experience and overconfidence. On the other hand, experienced drivers are involved in speeding crashes because they believe that knowing how to drive is enough to avoid being a victim of crashes—but unfortunately, this is misleading. DUI drivers also have high accident rates at night compared to noon, during the times they drink, which makes them too weak to drive safely. Road modifications can help reduce these crashes by installing early warning and lighted signs, widening narrow roads, and using IRAP to make all the necessary changes in areas that need improvement.

## Methods

I used Michigan Traffic Crash Reports that has yearly data and references from PubMed.com to analyze the factors that caused speeding crashes.

## Findings

I found speeding crashes are more than half of the total crash reports. “Drivers involved in fatal accidents and drivers stopped for risky driving had violated traffic regulations more often than other drivers” (Williams et al. (2006). Factors that contribute to this high-rate novice drivers and non-novice drivers who exceed the speed limit. “The ISA Tilburg test shows that great deal of public support can be gained” (Almqvist, 2006) . Driving cars with older models that have weak safety equipment is another factor, as newer cars are equipped with technology devices that alert the driver before an accident occurs. “The social learning process begins for the young driver when they *differentially associate* with their parents and friends who, as similar-aged peers, are likely to be young novice drivers”(Krohn et al., 1985). Close family members driving with speeding habits may influence new drivers, who sometimes take advantage of this behavior. “Crashes occurring between 6:00 p.m. and 11:59 p.m. had lower odds (0.34) of serious injury than did crashes occurrences between 12:00 a.m. and 5:59 a.m.” (Y. C. Li et al. Citation2013). Driving at night, when lighting conditions are poor, can also reduce the driver's visibility and ability to react to sudden situations.

## Knowledge Product

Based on the information I found, there are some strategies that can be used to help reduce speeding crashes, such as requiring new drivers to commit to following basic driving rules. “Speeding is a prevalent and risky behavior that not only increases the likelihood of a crash, but also the severity of the injury if a crash were to occur” (Schagen, 2006). Experienced drivers must not consider the years of experience as advantage that will prevent them from having speeding crashes if they exceed the speed limit. Drivers must not speed due to breaking the law; secondly, they risk their lives for things that can be achieved without rushing themselves. “System that makes it impossible to drive faster than the speed limit” (Elvik, 2012). There are some tools that can be used for all drivers to drive safely for all road users, such as driving new cars with new technology like ISA, LDW, and FCW. It is wise for new drivers to start with new cars, which help them in moments of fatigue or when a sudden mistake may happen. “The legal blood alcohol concentration (BAC) limits, varying among countries, are between 0.01 and 0.08%” (Leporati et al., 2015). DUI drivers significantly have high-speed crashes at nighttime due to the weak ability to control and consume alcohol over the limit. “The factor age group was significant for the alcohol-affected crash severity, and 50- to 60-year-old drivers” (Kweon, 2006). Adults are involved in these crashes more than young drivers, which gives us insight into how being under the influence plays a factor in speeding crashes. “IRAP provides tools and training to assist countries to make roads safe” (Frame, 2009). While some areas have high crashes, others possibly reduce speeding crashes by designing IRAP due to the lighting signs, ahead signs, and improvements in roads that need to be so. Driving during the night is dangerous due to weak light; drivers’ vision cannot see clearly, but by using IRAP, it is possible to make it safer, which is a method that will light areas and help drivers stay on track.

## References

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