



Eliminating Traffic Deaths in Our City of Madison
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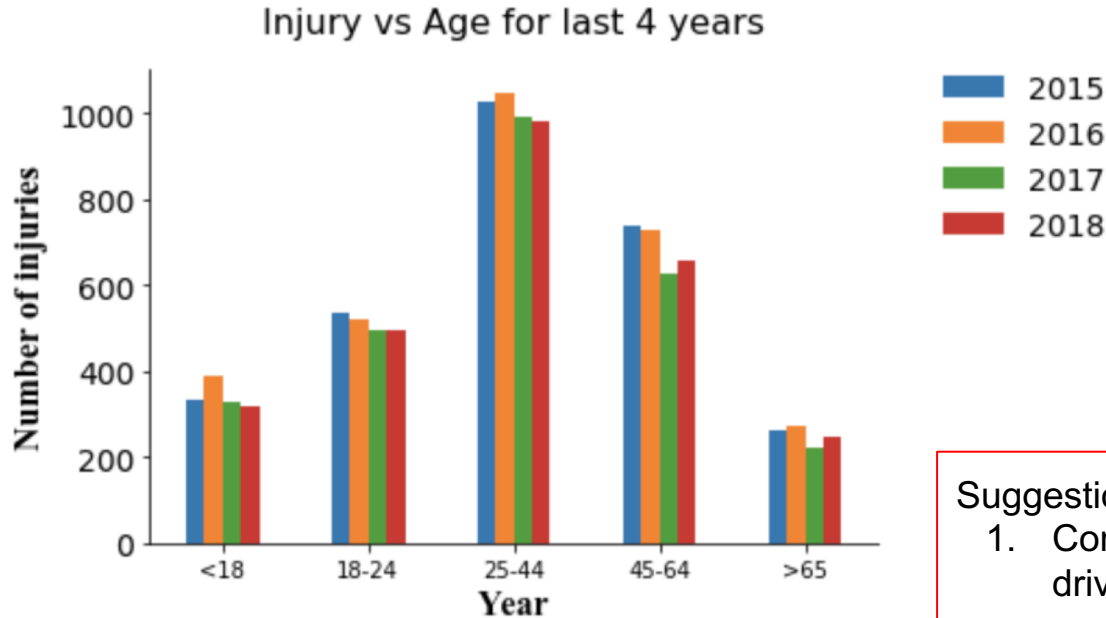


Vision Zero is a multi-national road traffic safety project that aims to achieve a highway system with **no fatalities** or **serious injuries** involving road traffic. It started in Sweden and was approved by their parliament in October 1997.

Some Facts of Crashes in Madison

1. **26%** of fatal accidents are the result of overspeed
2. Top three vehicles that caused most fatalities: Car (**70%**), Motorcycle (**9%**), Utility Truck (**7%**)
3. The percent of the population aged 20-30 is **25.6%** in Madison, but makes up **56.1%** of alcohol-related crashes.
4. **51.9%** of accident fatalities happened during the night time(20pm-6am) in Madison. Death rate during night time is **3** times as high as day time.
5. Over **50%** of accidents happened on only **6%** of streets in Madison, **E Washington Ave** has the greatest number of crashes

Trend of injury vs age for the last 4 years



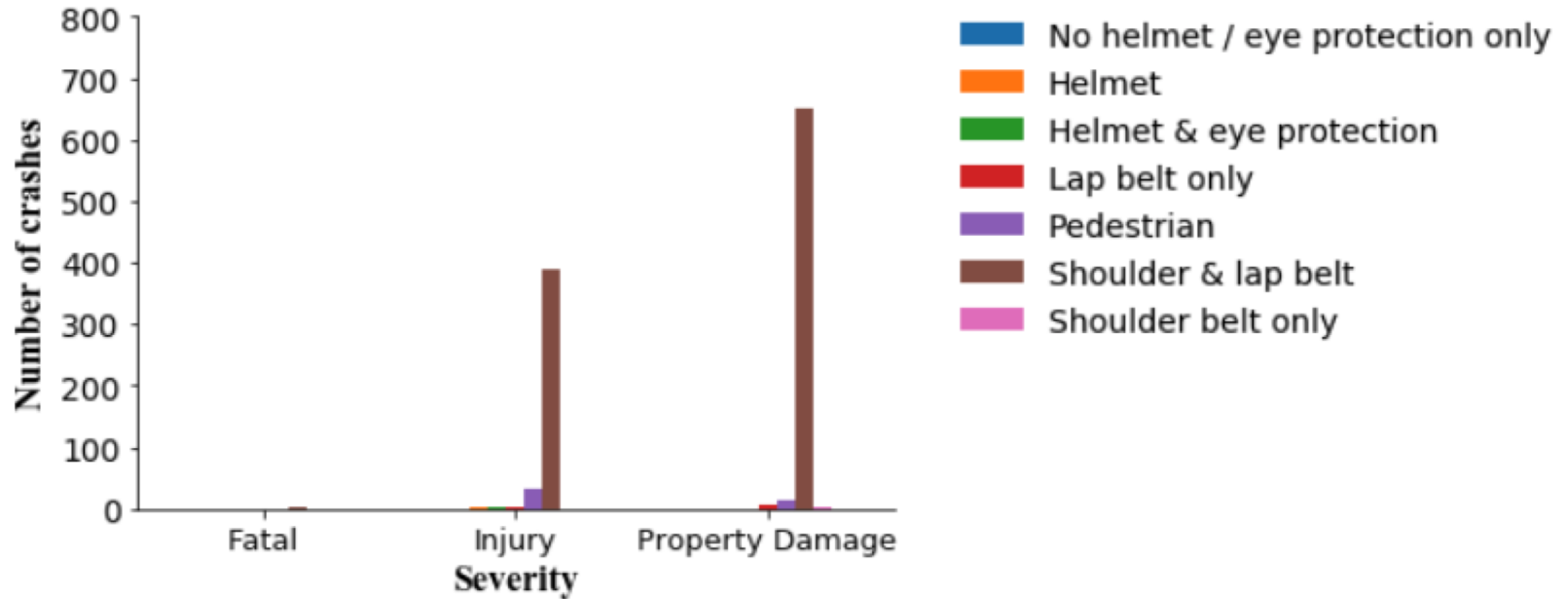
- People who are 25-44 years old cause the most injuries over the last 4 years
- There are still substantial amount of people who are older than 65 years old drive and cause injuries.
- There are even more people under 18 years old drive and cause injuries.

Suggestions:

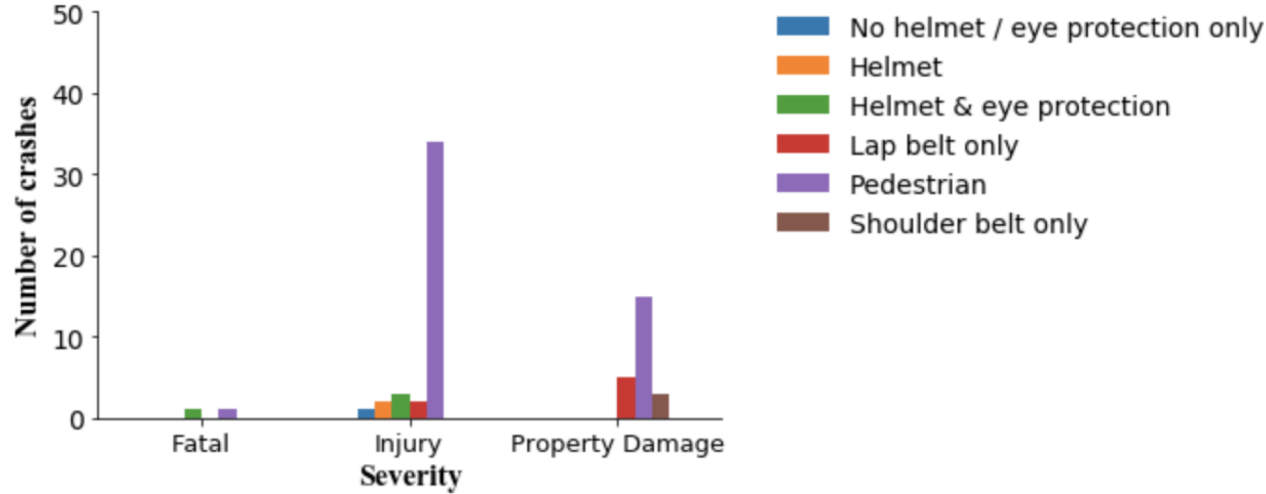
1. Control the amount of elder people (>65) to drive since their health condition or the amount of time they are able to concentrate their attention on road condition will decrease.

Intersection of John Nolen Drive and Blair Street

Number of Crashes of Severity by Different Protectors



Number of Crashes of Severity by Different Protectors



- Pedestrians do not have any protectors like helmet, seat belt or eye protection. Therefore, it is very easy for them to die or get injured.
- There have trains passing through. But there is no signs for pedestrians to be care of the trains.



Suggestions:

1. Set train warning signs for pedestrians.

Severity caused by Wreckers Overspeed by Gender



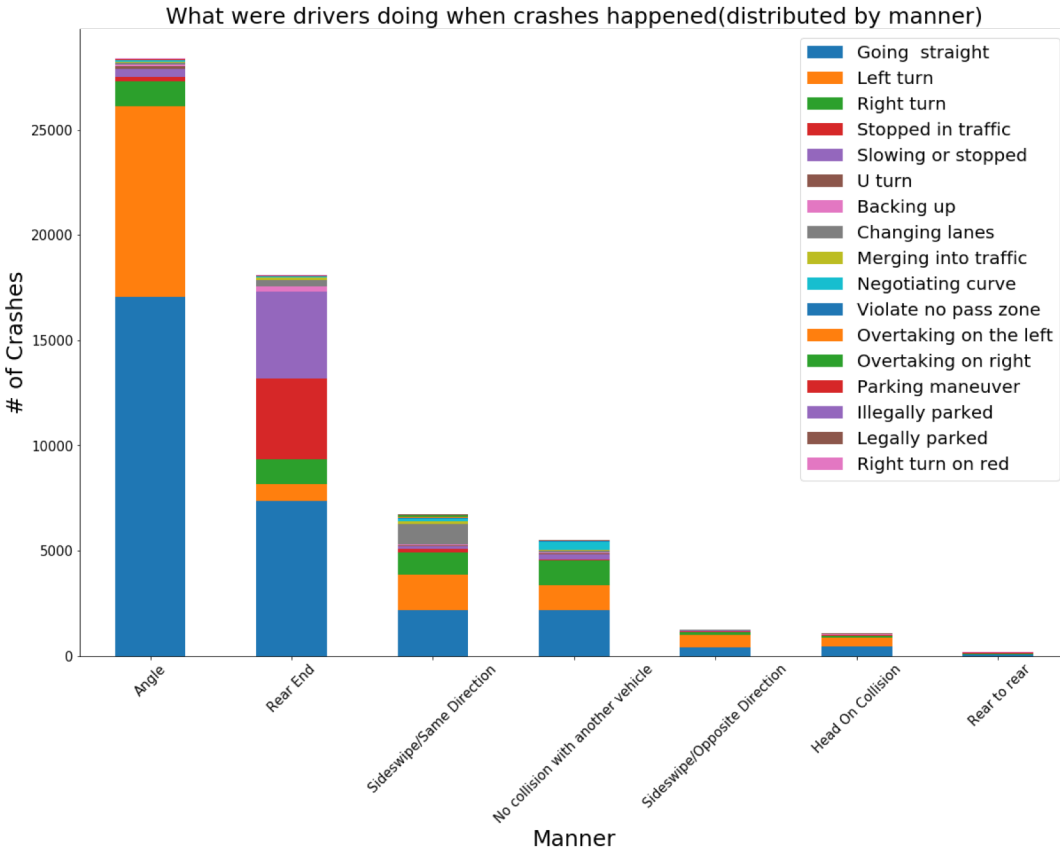
- Male wreckers always have much overspeed behavior than female wreckers.

Suggestions:

1. Install speeding test equipment to control driver's speed.
2. Set harsher punishment for overspeed drivers.



What were drivers doing when crashes happened at interactions in Madison?



Most crashes happened at interactions are **angle(side) collisions** and **rear end collisions**.

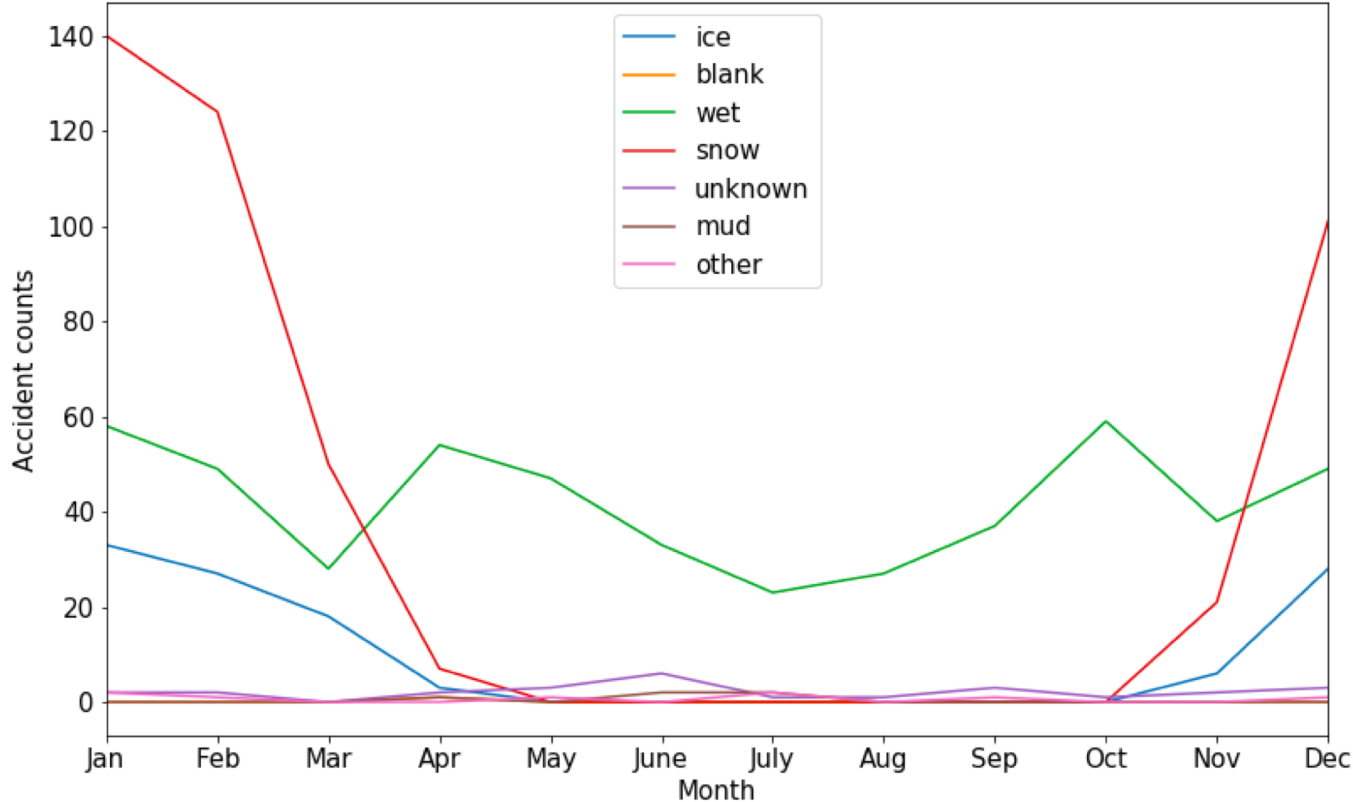
Rather than going straight, **left turn** and **right turn** are more easily to cause angle collisions. **Stopped in traffic** and **slowing** are more easily to cause rear end collisions.

Suggestions:

1. Update Traffic light system, for example make pedestrian lights light up first than turn signals.
2. More isolation strip to avoid drivers to go on the wrong side of the road.
3. Requiring regular brake lamp and fog light check for drivers to avoid rear end collisions

When do crashes happen in a year?

Accidents Caused by Failure to Control the Vehicle and Road Conditions



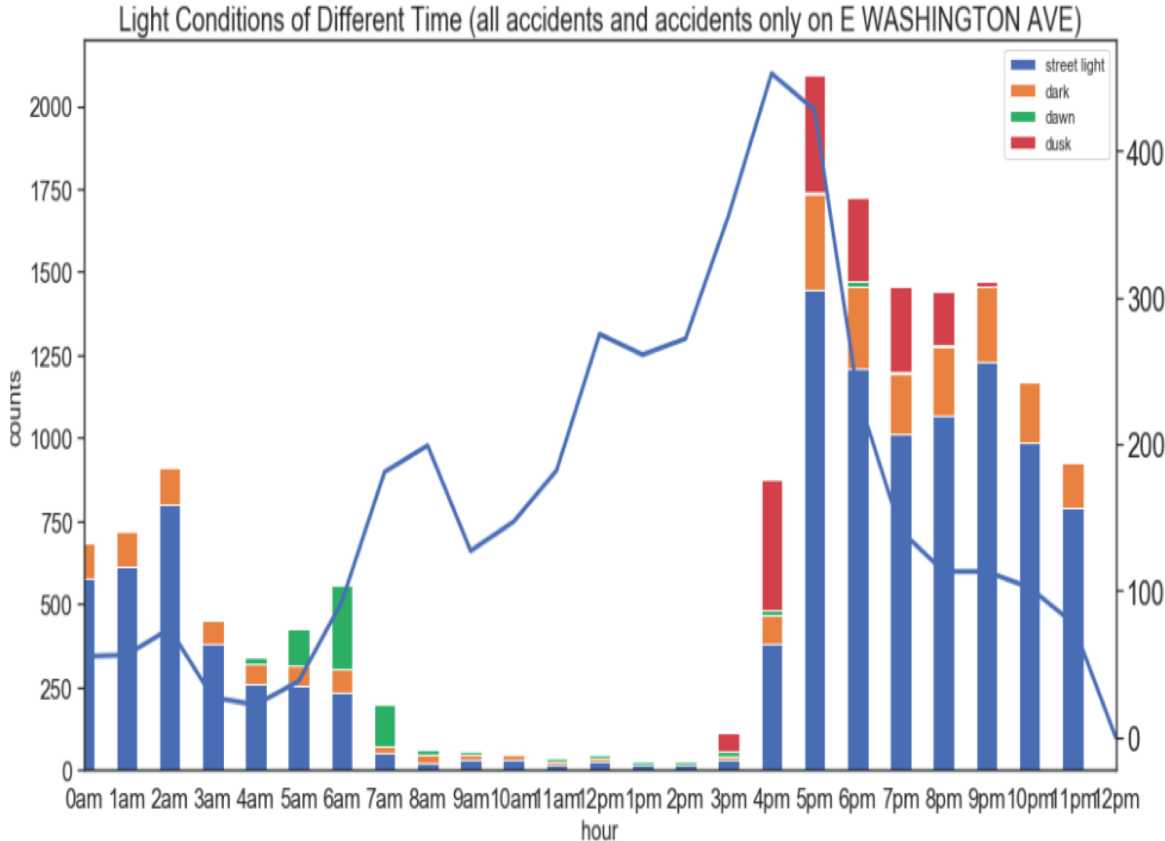
Findings:

1. From October to March, lines for snow and ice go up

2. In April, when the temperature goes up, ice begin to melt and the road become wet
line for wet goes up in April

Suggestion:
Sprinkle salt on the road to accelerate the melting of snow in April

When do crashes happen in a day?



Findings:

1. More accidents at night than at day

2. Peak for E WASHINGTON AVE at 4pm

Peak for all accidents at 5pm
time when we turn on the street light
is not appropriate

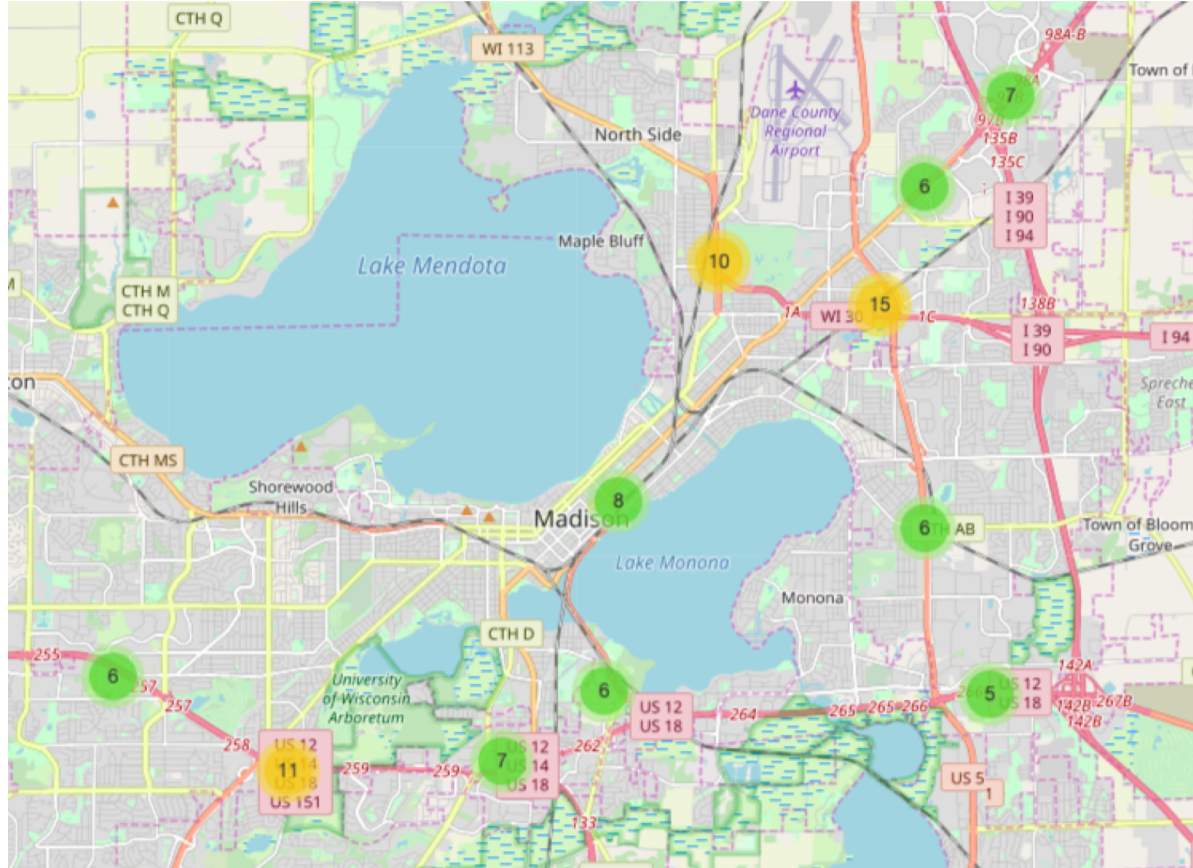
Suggestions:

Adjust the time when we turn on the
street light

(also notice different seasons)

Where do accidents happen?

Map of accidents happening on highways under the reason following too close



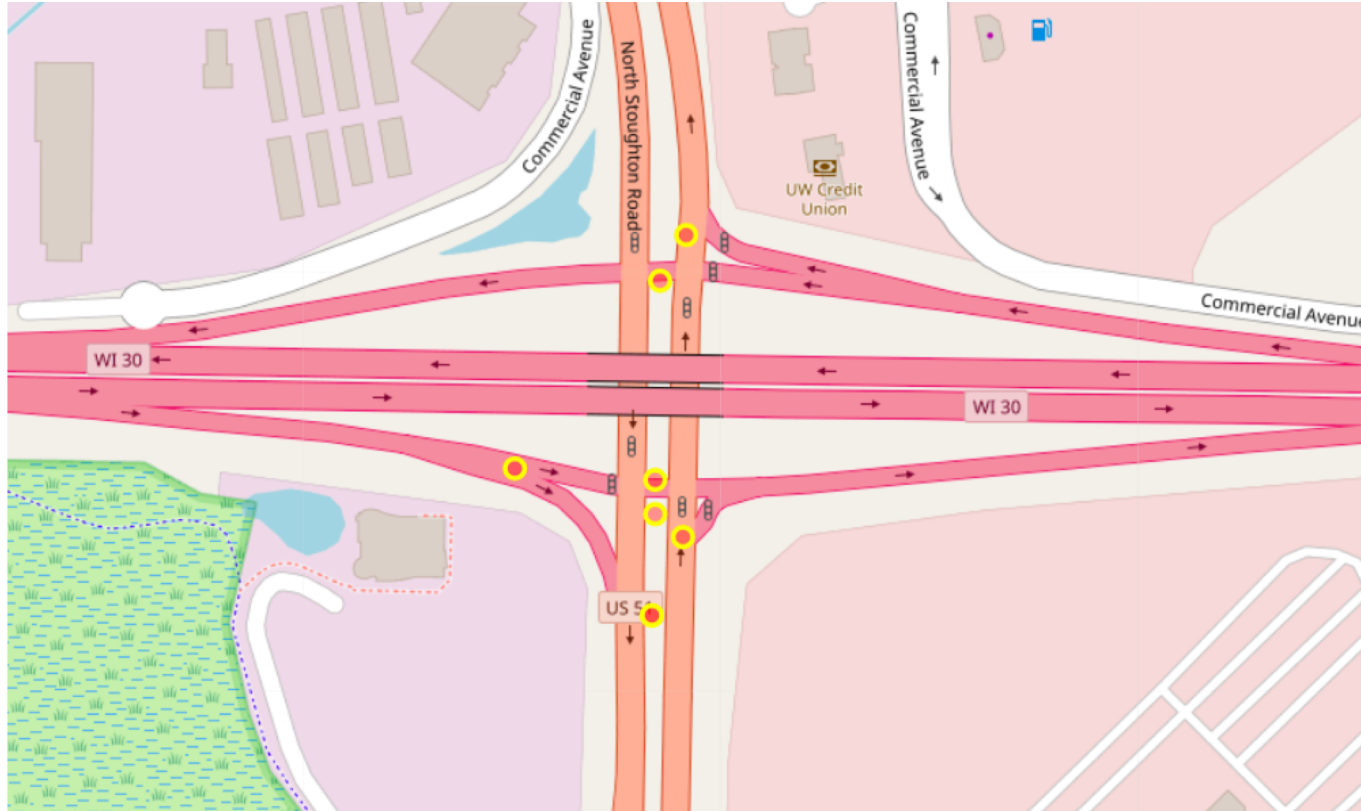
Findings:

Accidents are more common at intersections

Common intersections:

US 51 & WI 30
WI 113 & WI30
US 12&US 14
US 12& US 151

Intersection of US 51 and WI30



Two subreasons:
1. The entrance is too narrow, long lines before entrance

2. The time interval of signal light is not appropriate

Suggestion:
1. Expand the entrances at common intersections

2. adjust the time interval of signal light

Careful!

Which direction?



Questions?