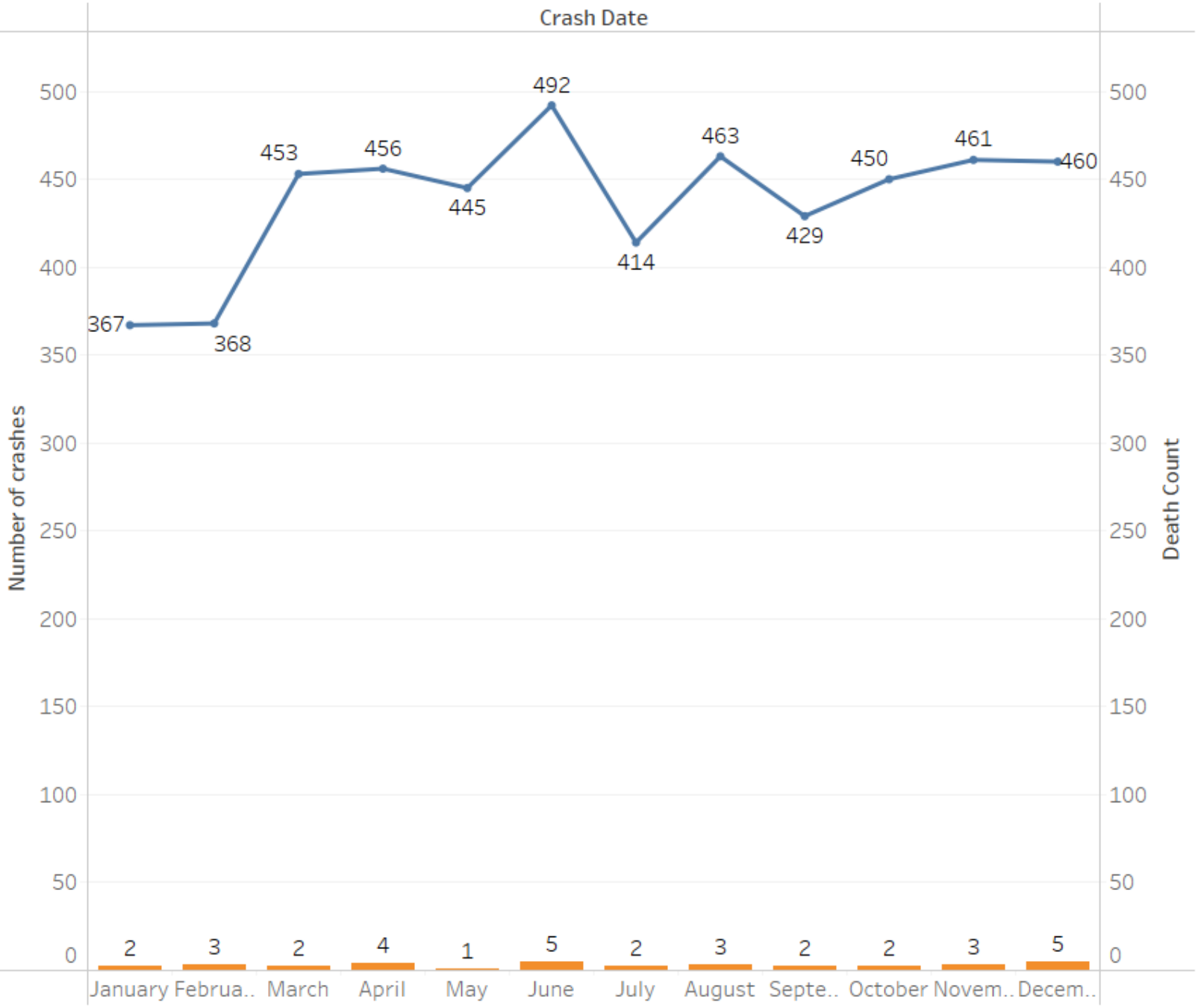
An in-depth analysis of the motor vehicle crash Data in Texas for 2013

By Jackie Harmon

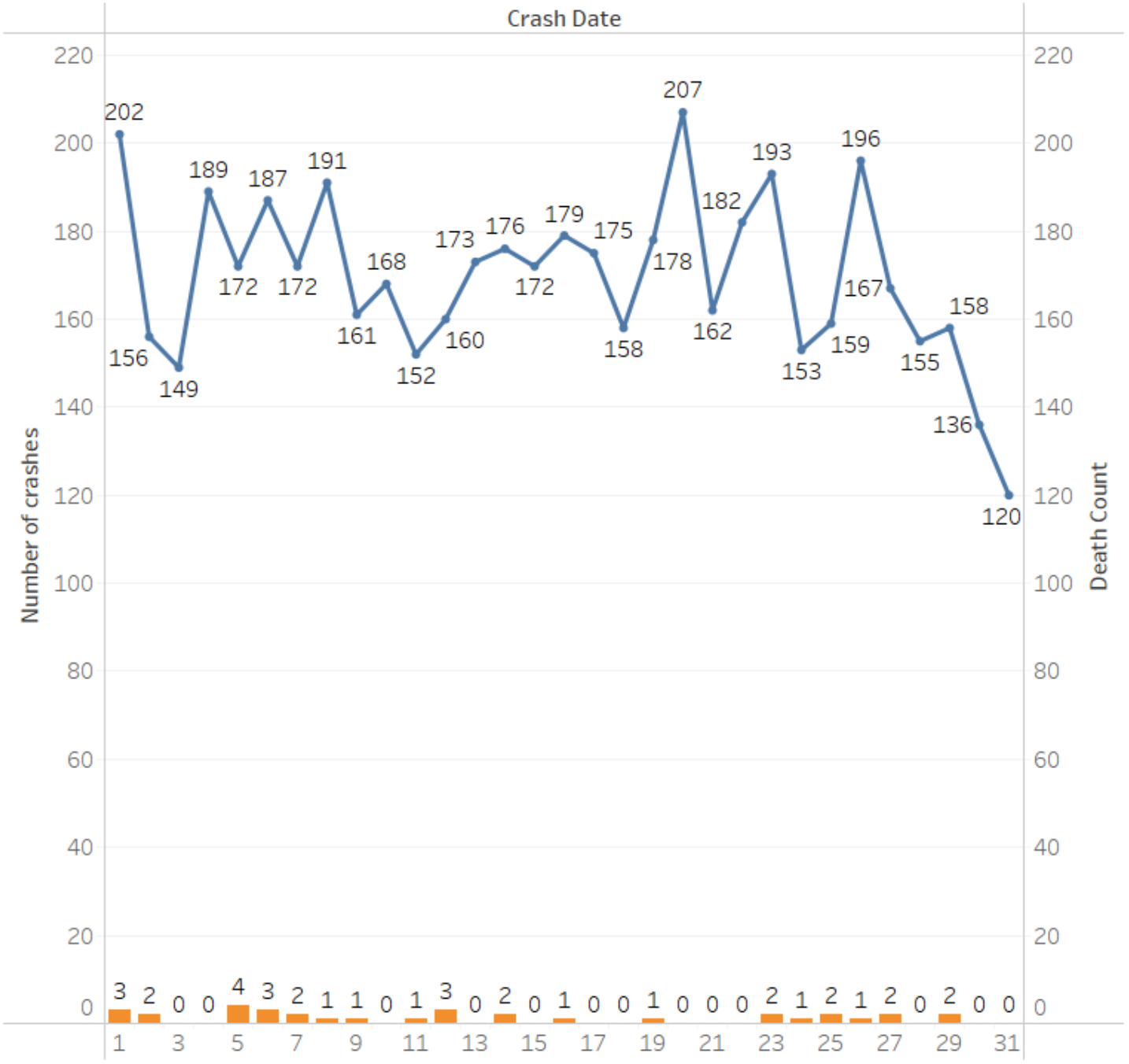
Crashes and deaths by month

- 5,258 total crashes
- 34 deaths
- Highest crashes in June and August – most likely due to summer starting/ending; more vacations; more family trips; students out of classes for the summer
- Highest deaths in June and December – adding December most likely due to higher traffic numbers since traveling for the holidays



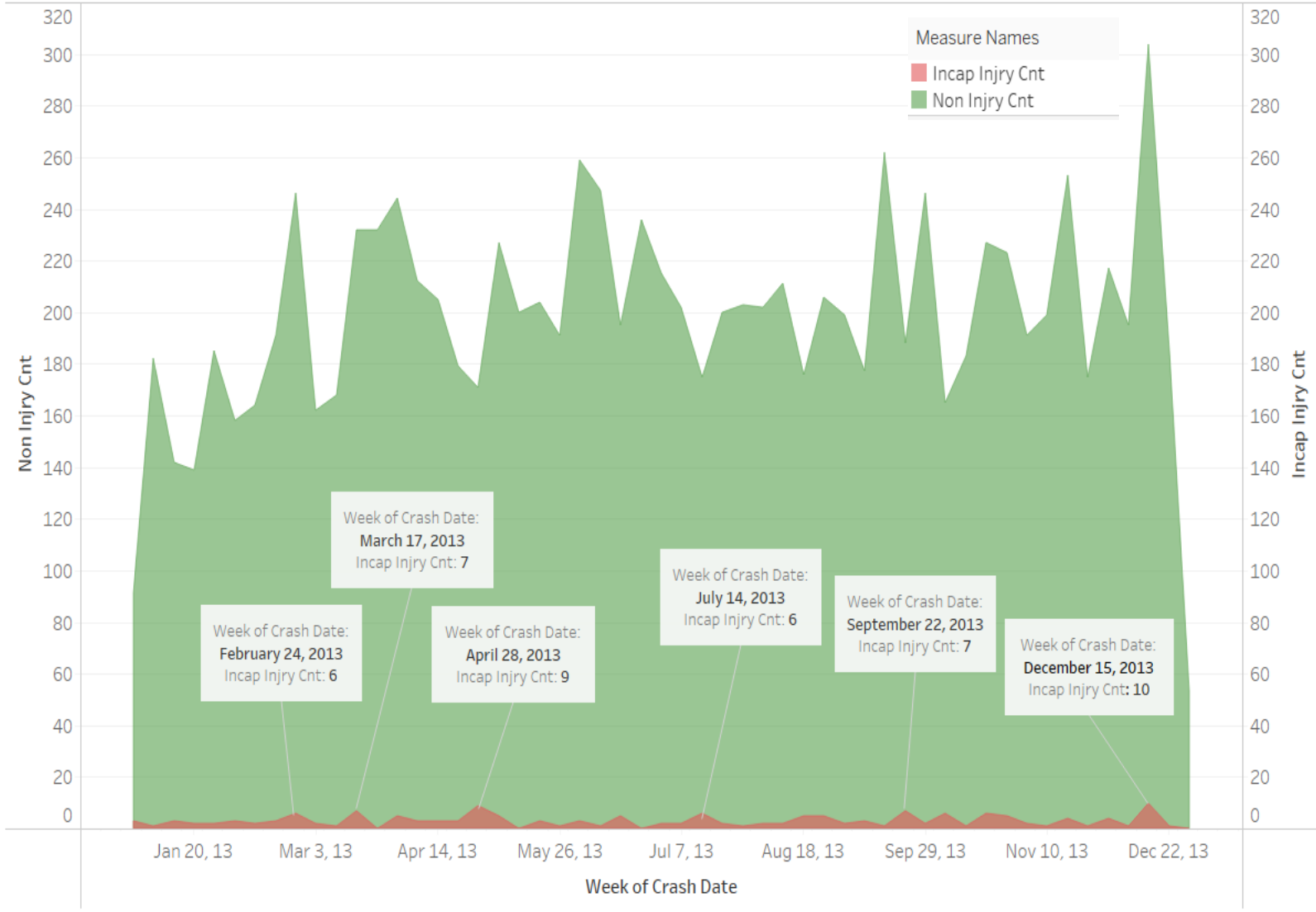
Crashes and deaths by date in month

- The beginning of the month tends to have higher crashes, while the end of the month tends to have a lower amount of crashes
  - There is a spike in crashes towards the end of the month, but at the end, it is the lowest
- There is no specific pattern in the deaths per crash and the date in the month



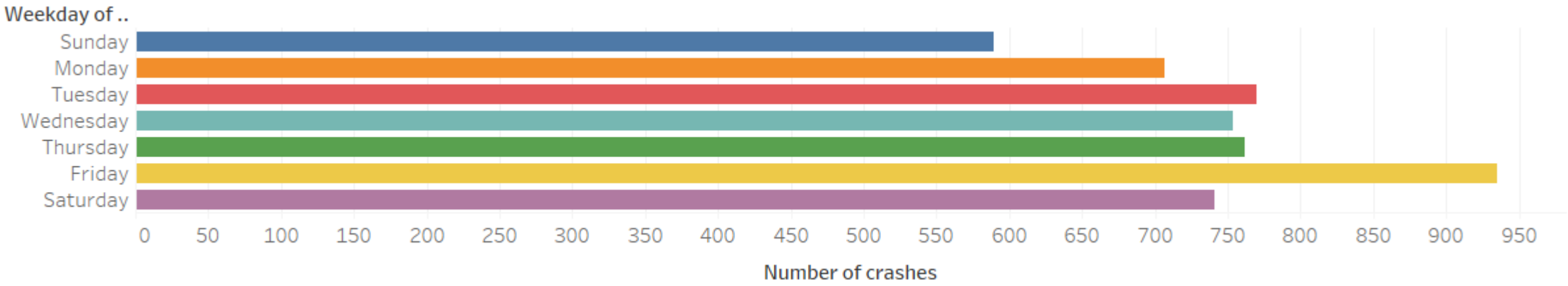
Crashes and injury/noninjury by week

- There tends to be more crashes not resulting in injuries at the end of the year, with a lesser amount at the beginning of the year, but no obvious pattern in between
- There is no specific pattern in whether the crash results in an injury and the week of the year
  - There are several spikes of incap injuries, which are annotated in the graphic
  - These spikes of injuries do not necessarily correspond to any of the major holidays, but they are a week or so in difference



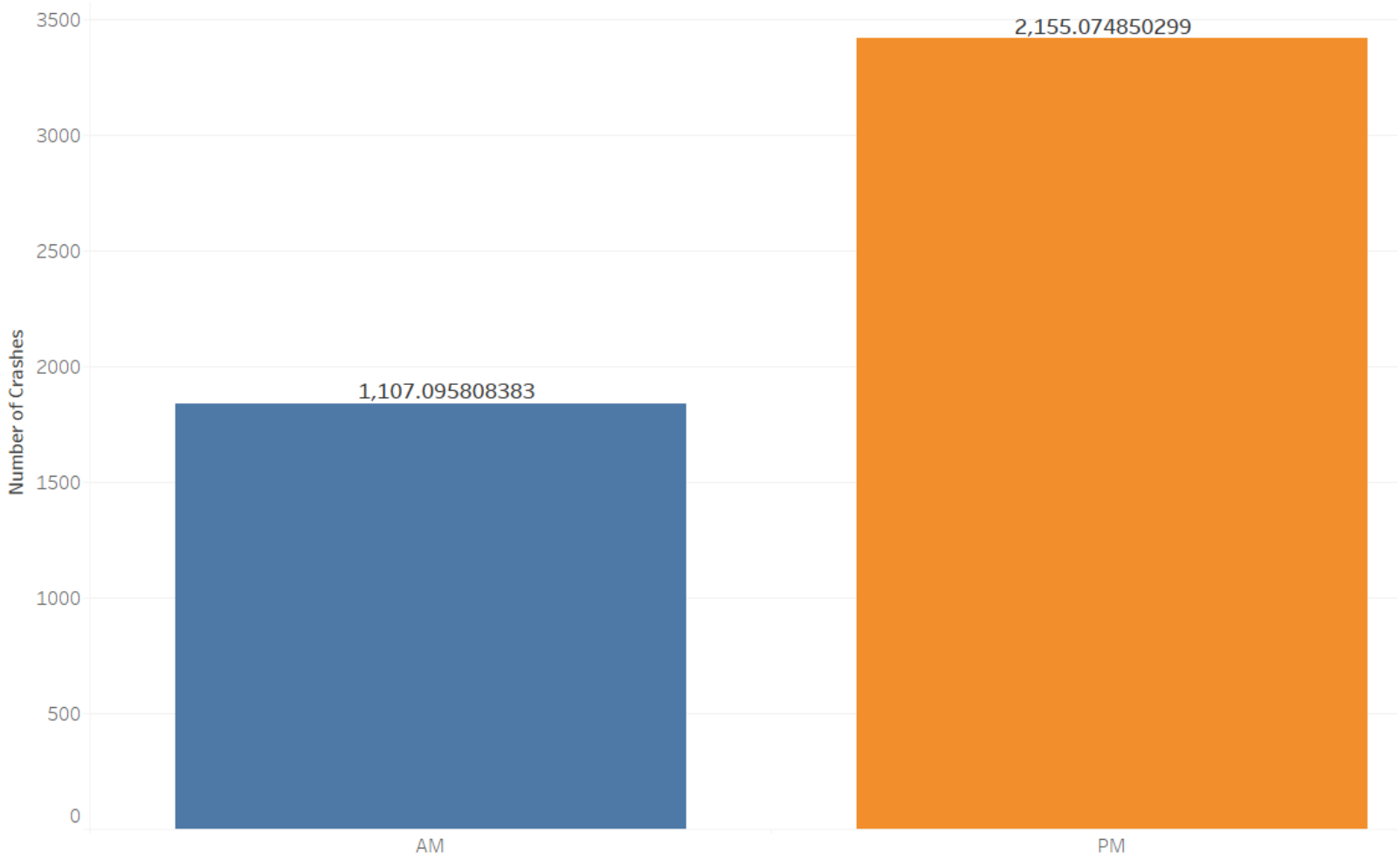
Number of crashes per day of the week

- In Texas in 2013, Sundays had the least amount of crashes while Fridays had the most amount of crashes.
- The rest of the days had around the same amount of crashes as each other
- This could be due to the population having the same schedule during the work days, but going out or traveling on Fridays and staying home on Sundays



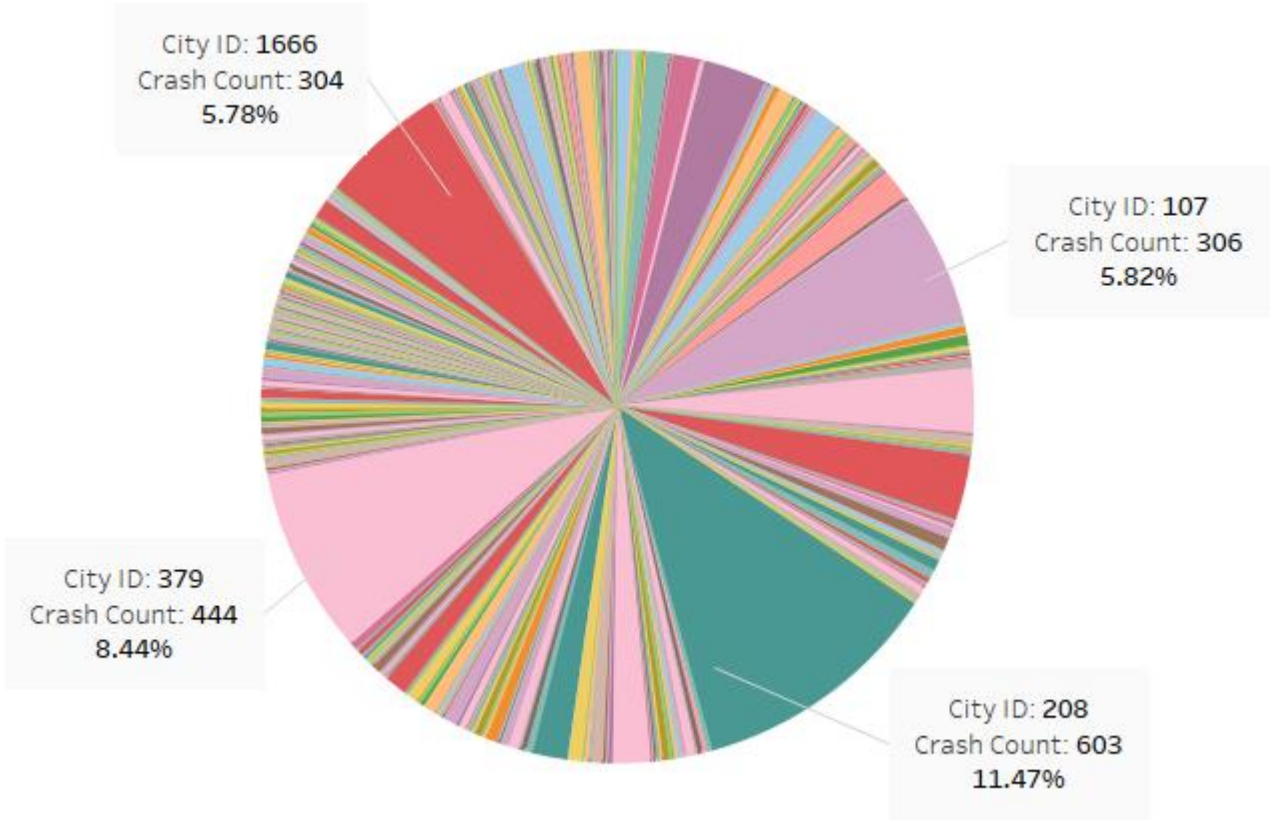
Time of day of the crashes

- There are almost double the amount of crashes in the afternoon as in the morning



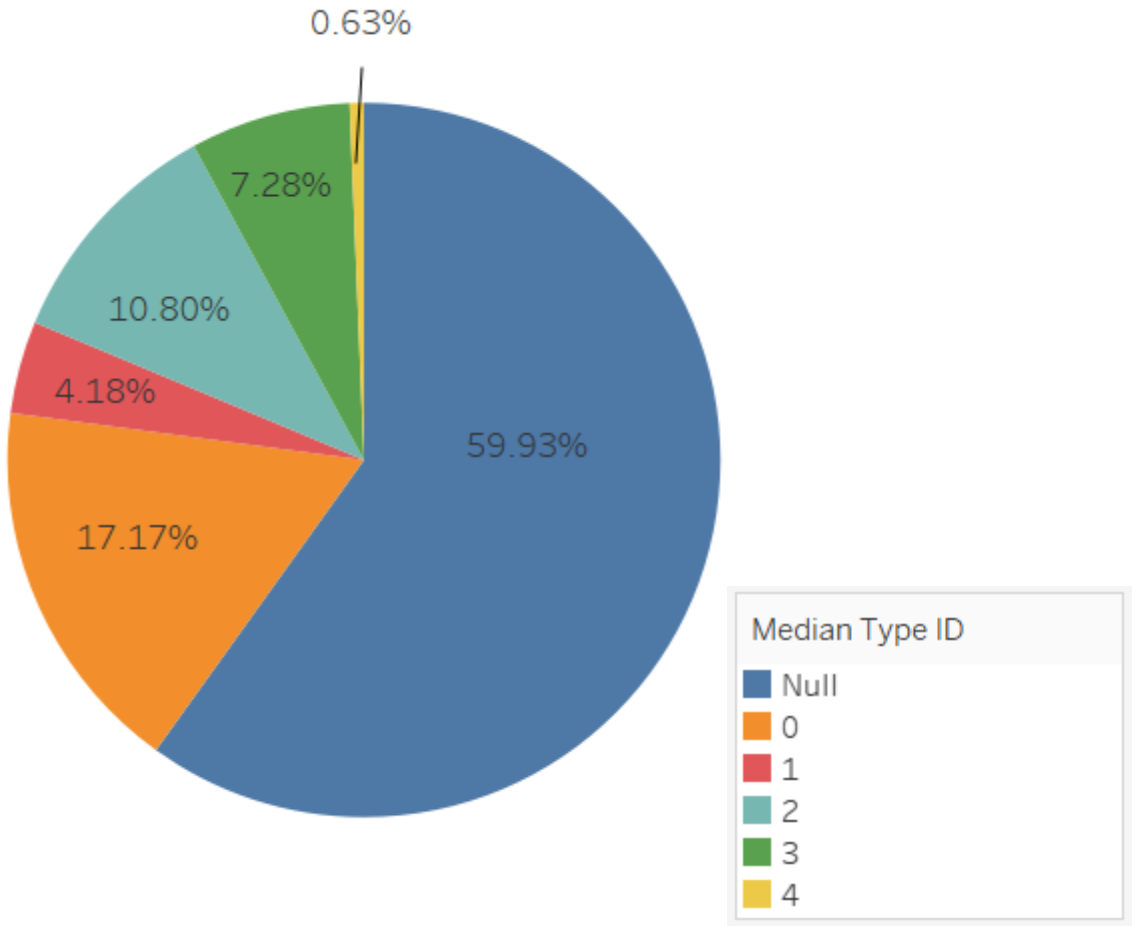
City IDs with the most crashes

- The top four cities have ID numbers: 208, 379, 107, and 1666
- Together, these four cities make up around one-third of the crashes in all of Texas in 2013



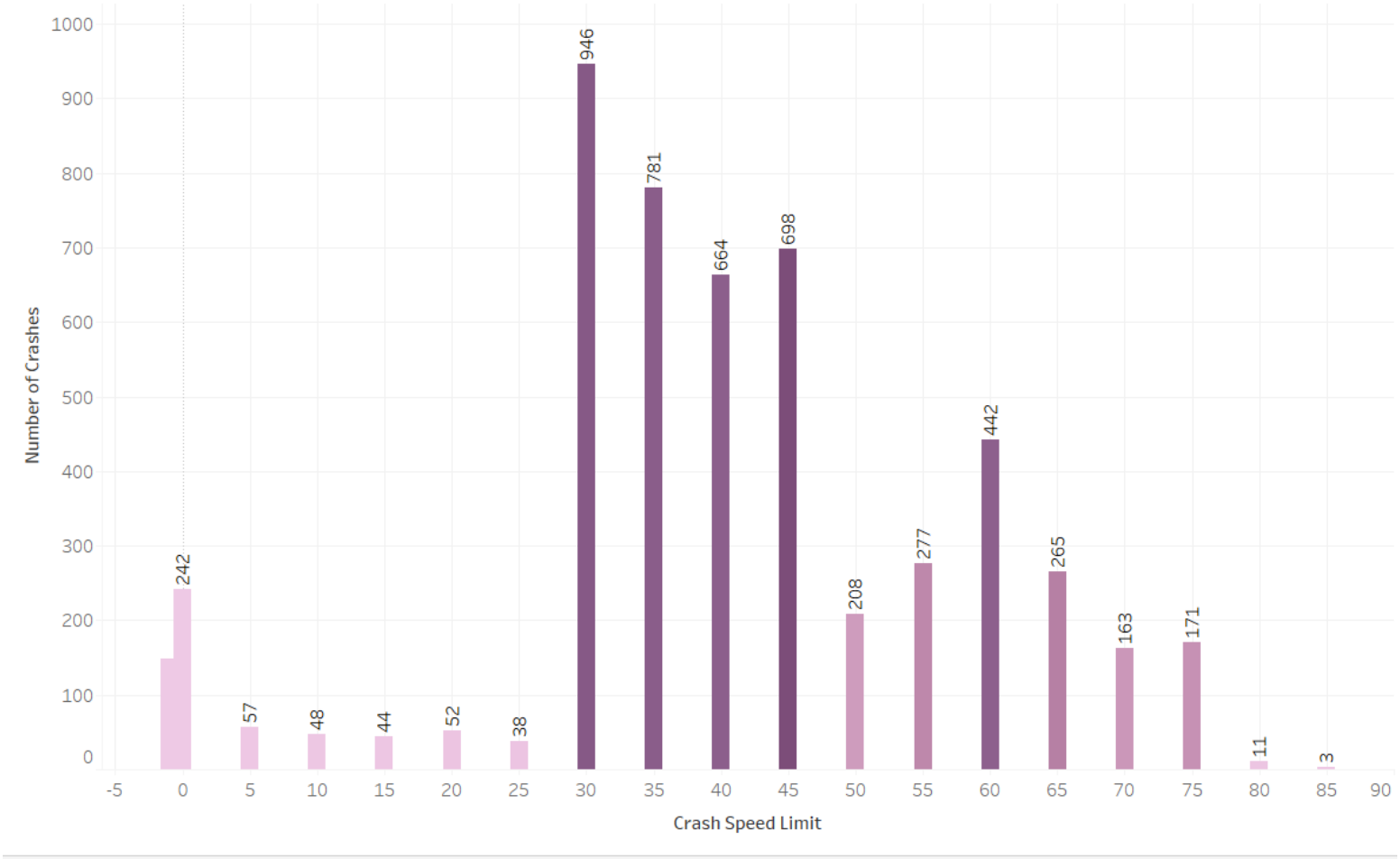
Median Types in the Car crashes

- 60% of the crashes happen on roads without medians



The speed limit in the areas of the crash

- The highest amounts of crashes occur when the speed limit is between 30 and 45 mph
- Speed limits higher than 45 miles per hour do not have a higher number of crashes
  - This could be due to lower speed limits not being appropriate, and cars trying to pass the slower cars



Call to Action

- The cities with the highest number of crashes should be examined to determine the reason for the crashes
  - Possibly need to add medians
  - Make sure the speed limits are appropriate for the type/location of the roads
- Further analysis should be done to pinpoint the time frames with the highest number of crashes, and a system implemented to allow certain jobs/schools to let out at earlier/later times so that there are less cars on the road at that time
- More information should be gathered in the future to have the size of the roads examined as well, to see if it fits the population density