NYC Car Accidents in relation to Holidays

Problem Context

The NYC government wants to reduce the amount of car accidents that occur within city limits. The city population is growing and the safety of their citizens is of utmost importance. Government officials believe that holidays create situations where car accidents are more likely. They want to know which holidays create the most accidents, that way they can better prepare around those situations.

Criteria for Success

We are able to find which holidays have the most accidents and provide as much in depth information about the situation as we can. This will help the city of New York create seasonal laws that they can implement for certain holidays or times of day to reduce car accidents. These changes can be implemented with a lower speed limit, caution signs, or even blocked off roads.

Scope of Solution Space

We have the NYC car accident information and holiday dates, we will compare the correlation between each item and the rate of car accidents to predict the most likely situations for car accidents.

Constraints

Car accidents are usually human error which can occur at any moment. These accidents can occur almost randomly which may skew our data. Finding the actual reason behind each accident will be difficult to do.

Stakeholders

NYC government
The people of New York

DataSource:

Kaggle
Google Calendar

Plan:

I will use regression analysis and confidence interval testing to show the correlation between car accident statistics such as; date, time, location, and severity against the rate of car accidents for these variables. I will then add holidays as a variable to find the correlation between holidays and accidents to see how the data compares to non-holiday days. This information can be used to help the city of New York to adjust their speed limits or caution signs during days with high accident potential.