

Exploration of Factors Associated with Car Accidents in the U.S from 2016-2023

Joseph.jaiyeola@utsa.edu

Joseph A. Jaiyeola
The University of Texas at San Antonio, San Antonio TX

Overview

- Accidents are characterized by unexpected or unintended occurrences that often result in injury, damage, or loss of life.
- Many accidents occur due to distracted driving or driving under the influence of alcohol or drugs.
- Poorly designed and maintained roads, coupled with inadequate signage, can confuse drivers, and increase the risk of accidents.
- In recent years, car manufacturers have focused on producing safer vehicles, incorporating advanced safety features to comply with regulations.

Research Questions

- What is the trend of car accidents in the US
- Are there spatial differences in car accidents in the US?
- Does the distribution of accident severity level vary by weather in the United States?
- What factors are associated with the occurrence of car accidents in the United States?

Data & Methods

Data:

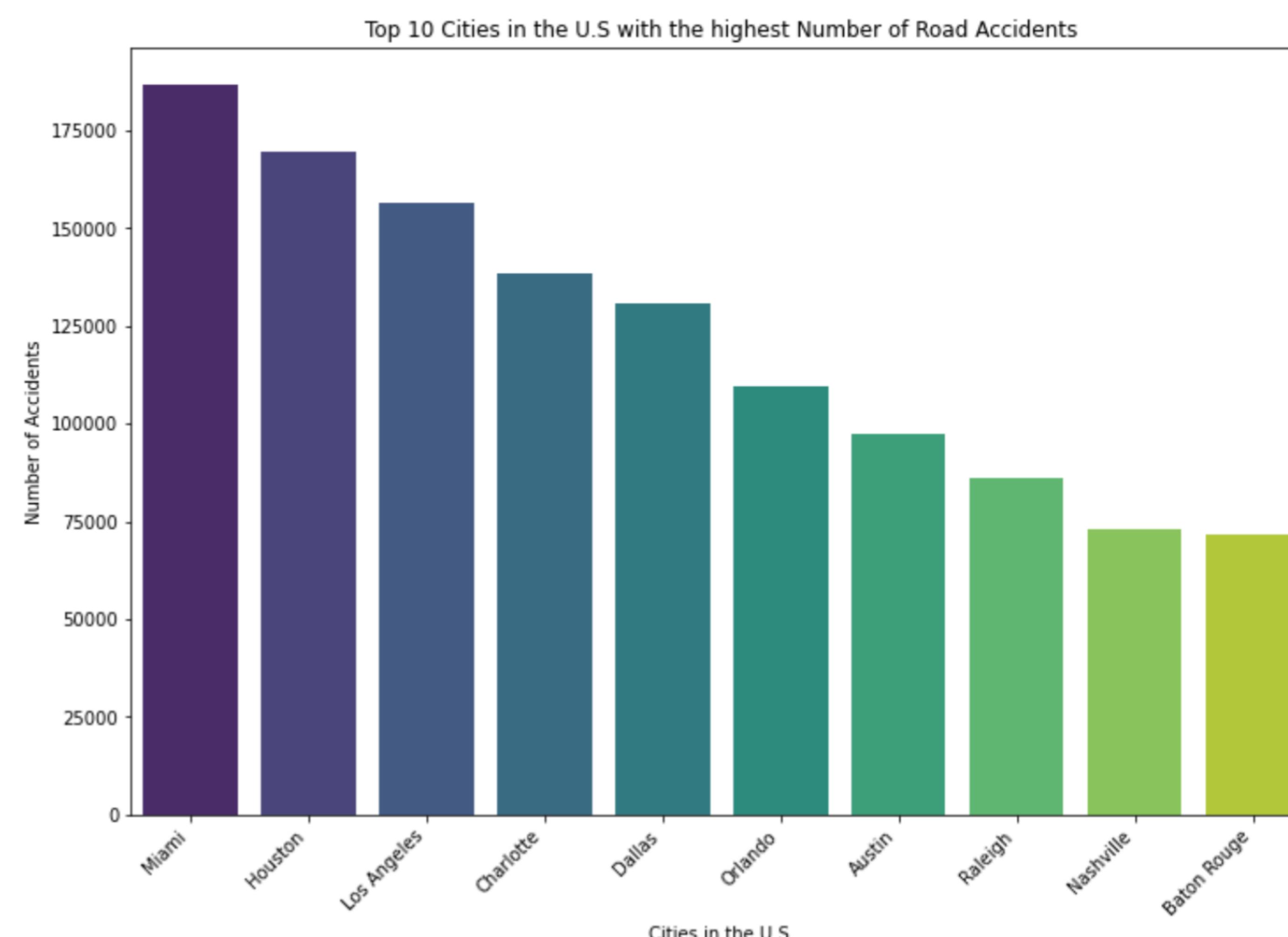
Countrywide Traffic Accident Dataset which was collected from February 2016 to March 2023).

Methods

- **Descriptive:** Graphs and Maps
- **Inferential:** Correlation and Linear Regression

Results

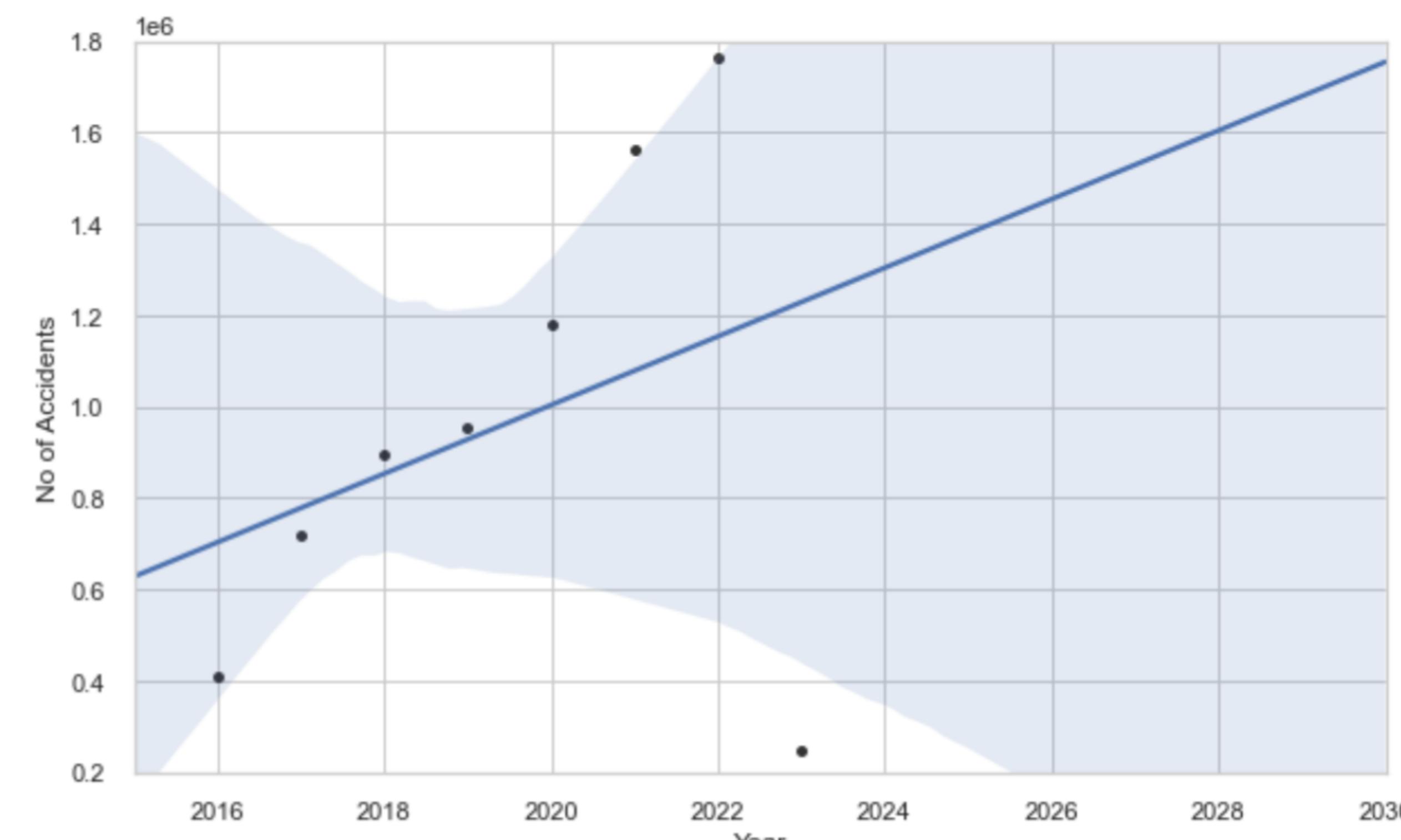
Number of car accidents vary in the United States specifically higher in metropolitan cities and states



US Road Accident by State from 2016 - 2023



There is a positive association between the number of accidents and year. As the year goes by the accident increases



Conclusion & Recommendation

- The result in the study shows that the number of accidents is not evenly distributed, and metropolitan or major cities are more likely to experience increase in accidents compared to rural areas
- The severity of accident is dependent on the weather and also differs based on geography.
- The findings show the need for policy makers and stakeholder to ensure road are safer to the American people.