

Driving Safety in the United States

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What is the safety of driving in the United States?

1 Possible Specific Subquestions

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| <ol style="list-style-type: none">1. Can we predict the severity of injuries from accidents based on the car model and type of accident?2. Can we determine the safety of specific car models? Which cars should drivers buy?3. What is the severity of injuries of young children vs. adults in accidents? | <ol style="list-style-type: none">4. How frequent are accidents, dependent on certain factors (location, time, drunk driving, etc.)?5. How do damages to the cars vary in single or double car accidents vs. 3+ car accidents?6. What is the severity of injuries or types of accidents in urban cities vs. rural areas? |
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2 Importance of the Problem

This problem is important as it relates to the public safety of drivers, passengers, and pedestrians on the road. Each year thousands of accidents occur which impact the lives of so many. For some, these accidents could mean annoying delays on their way to work and for others it could be a matter of life and death. We believe that determining the safety of certain vehicle makes and models as it applies to accidents will help people be more aware about the risks they take when being on the road. Hopefully, our analysis could help people stay safe and reduce injuries.

3 Dataset

The dataset is the Crash Report Sampling System (CRSS) report from 2016 to 2020 produced by the National Highway Traffic Safety Administration (NHTSA). It contains information on 259,007 U.S. traffic accidents across the country, sampled from police-reported crashes of all types. For each year in the time frame, there are three files:

1. Accident Information

This contains information about the accidents, including the location, time, weather conditions, and other contributing factors, as well as how many people were involved, how many vehicles were involved, how many were injured, etc.

2. Individual Information

This contains information about the individuals involved in the crashes, including demographic information as well as whether or not the individual was drinking or was using drugs, went to the hospital, etc.

3. Vehicle Information

This contains information about the vehicles involved in the crashes, including the make and model, the VIN number, whether or not it had to be towed, and the damage occurred to the vehicle.

This dataset is very useful in answering our questions, as it gives a thorough report on all aspects of the crashes, including the make and model of the cars, the injuries were incurred, and where the accident happened, all of which will allow us to assess public safety as it relates to traffic accidents and vehicle crashes.