Final Project One Page Summary
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Tools Used

For this project, I used Jupyter Notebook to perform my data analysis. I used BeautifulSoup to scrape the data from the Insurance Information Institute website, Pandas to clean the data, and Matplotlib and Seaborn to create my data visualizations.

Questions Asked

In this project, I was trying to answer these four data science questions:

- How has the number of motor vehicle fatalities progressed from 2013-2022 compared to the number of pedalcyclist fatalities over that same time period?
- Which Texas city had the highest number of traffic incidents in 2022, and how does this compare to the overall traffic fatality rate for each city?
- What sport, activity, or piece of equipment is the most and least harmful for children aged younger than 5?
- Which state had the most motor vehicle traffic crash fatalities out of all traffic fatalities recorded in 2022?

Insights Gained

- From 2013-2022, the number of motor vehicle fatalities and pedalcyclist fatalities have both steadily increased, with both forms of injury increasing rapidly from 2019-2021.
- The Texas *city* with the highest number of traffic incidents in 2022 was Houston, due to it having the largest population. However, the city with the highest traffic fatality *rate* (per 100,000 people) was Dallas.
- The sport/activity/piece of equipment that contributes to the most injuries for children under the age of five is playground equipment, while the sport/activity/piece of equipment that contributes to the least injuries is volleyball.
- Out of all the states, California and Texas had the highest number of traffic fatalities in 2022, due to them being the most populated states in the US.

Recommendations

If I were presenting this information to a potential client from the Insurance industry, I would recommend that they use the visualized results of this study to determine what populations they could increase insurance rates for, such as drivers in certain cities/states with large numbers of traffic incidents, or homes containing equipment known for causing injuries.

Future Work

In the future, I'd like to take advantage of the large amounts of archived data on the III website and compare it to the current data (which most of my project is based on) to see if there are any trends or patterns that appear over a longer period of time.