

IC23 Abstract

We will be answering what percentage of fatal crashes occurs locally to the driver's home by comparing the location of the driver's residence to the location of the accident and determining whether the distance is less than 45km. Visually, we will represent this with a histogram showing the count of crashes within a set of predetermined distances. We will investigate the behavioral differences between people who crashed locally vs non-locally by finding whether the people who crashed used drugs or alcohol and comparing the proportions of those who use those substances. This will be visually represented with a bar graph. We will draw conclusions about what demographics tend to produce high risk drivers by finding the residence zip codes of drivers that account for the largest number of crashes and researching commonalities across their demographics. This will be visually represented with bar graphs comparing the demographics of the zip codes producing the highest risk drivers with the average Washington state demographics. We will include python and libraries such as pgeocode, arcgis, and pandas for data analysis and some charts and graphs. We will also use excel and tableau for the larger portion of charts and graphs. Lastly, we will use arcgis to produce maps that include data such as hotspots and clusters.