

Washington Fatal Crash Files L4

Team number: IC23044

Ryan Zhang, Rhys Winter, Kaosi Unini, Micah Tracy

Abstract

Our team was given data of Washington vehicle crashes and we took upon the challenge to determine which resident zip codes produced fatal crashes at the highest rate. Because the problem mentioned how Washington experienced an unprecedented increase of traffic fatalities after the pandemic, the team decided it would be best to look at only the data after COVID began. Because the data was in a csv file, we tackled the problem using python's panda dataframes. Our team was able to find the zip codes/counties with the highest rate of high-risk drivers. The results indicated that in rural, less populated areas the rate of high-risk drivers is higher than denser, urban areas of the state. To gain better context of this data, we then decided to observe the five counties producing the highest number of high-risk drivers and the number of fatal crashes over time. The outcomes of these two parts showed that densely populated counties such as King County and Pierce County also had higher numbers of high-risk drivers and the number of crashes per month correlated with the lockdown time periods. We also briefly looked into whether or not road type or condition had any relevance, but it seemed to have insignificant correlation with fatal crashes. Our data suggests that the main cause for these fatal crashes is none other than the driver themselves, and our proposed solution at the time is to increase drivers' education, especially in the areas which produce a higher-rate of risky drivers.