DSC 640: Week 7 & 8 Assignment

02/23/2023

Blog Post Write-up

Due to a recent plane crash, news and media outlets have circulated rumors surrounding airplane safety, which has caused public panic and negatively impacted the aviation industry. Therefore, the blog post aims to shed light on airplane safety with accurate statistics to ease the panic and regain public confidence. The blog post was written from a Data Scientist's perspective working at Delta Airlines. The blog post was divided into three sections for compelling storytelling through data: airplane records, comparing motor vehicle and airplane fatality rates, and frequency of air travel.

I created a horizontal bar chart comparing the 1985-1999 to the 2000-2014 fatality rate for each airline to show that the latest technology and new regulations have made air travel safer. A similar horizontal bar chart was created but only displayed Delta Airlines to highlight their safety performance improvement in recent years. The line charts illustrated the fatality trend between motor vehicles and airplanes for a direct comparison. The motor vehicle line chart showed an upward trend with 45,000 deaths per year, while the airplane line chart shows a downward trend with 500 or fewer deaths in recent years. The line charts strongly supported my case as they depicted the safe nature of air travel compared to motor vehicles. Lastly, the traveler frequency line chart shows how comfortable and safe people feel as air travel has gained popularity. The last line chart was included because skeptics are more inclined to agree to an experience if others have done it in the past. Therefore, people are more likely to have a favorable opinion about airplanes if they are statistically shown that others trust to travel by air.

The visualizations created for the blog post differed vastly from those made for the internal campaigns. Along with comparing the airplane and car fatality statistics, the internal campaigns also focused on convincing the team and senior managers about the leading cause (primitive technology) behind crashes, especially in developing countries, and providing suggestions to address the issues. An ethical consideration was to remain transparent with the data since biases and manipulation could risk public safety and trust in air travel. Additionally, the line charts were started at the origin in a Cartesian plane to avoid exaggeration. When two visuals were utilized for comparison, they were created using the same formula, and the quantitative variables used were represented in their proper proportions.