DSC 640 – Data Presentation & Visualization

Professor: Catherine Williams

Week 1&2 Project Task

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**The scenario/Business Problem:**

Due to recent unfortunate airline crashes, the media has been promoting statistics stating air is no longer a safe way to travel. The news and media outlets have been bombarding the public with reports and figures about the trends in airline safety and that things are not looking good. What was previously thought as the safest way to travel, especially when compared to automobiles, is now being presented as one of the most dangerous to the public. But are any of these claims based on facts?

You work for an airline on the data science team as a data analyst and are a resident data visualization expert. You have been tasked with helping multiple groups in the organization combat this negative publicity and help tell the airline's side of the story. There is a fear internally about what this type of media coverage will do to airline sales and how it could impact the future of the company. Not only do they need you to help create some internal communications, but you will also be tasked with what is published to the public and the media.

Several aspects, such as the frequency of accidents, deaths, and the overall safety measures used for each form of transportation, must be considered when comparing airplane accidents versus traffic accidents. Below are few critical elements for comparison:

**Accident frequency**

* Road accidents: Because there are so many vehicles on the road, road accidents happen more frequently. They can happen for a number of causes, including human mistakes on the part of the driver, technical issues, or bad weather.
* Airline accidents: Compared to traffic collisions, airline accidents are very uncommon. To reduce the danger of accidents, commercial airlines follow stringent safety standards, intense pilot training programs, and meticulous maintenance procedures.

Airline Accident Graph

A picture containing screenshot, text, diagram, rectangle

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**Fatalities:**

* Road accidents: Around the world, a substantial number of people die as a consequence of road accidents. The seriousness of injuries and deaths might depend on a variety of variables, including speed, vehicle size, and the usage of safety devices like seatbelts.
* Airline accidents: Despite being less common, airline accidents can be more deadly when they do happen. However, it is crucial to remember that when compared to car accidents, the total death toll from aviation mishaps is quite modest.

**Safety precautions:**

* Road accidents: Traffic rules, driver training programs, car safety restrictions, and law enforcement are all ways to prevent traffic accidents. Nevertheless, there may be regional and national differences in how these measures are followed.
* Airline accidents: Globally, aviation safety regulations and standards are quite strict. They include stringent licensing and maintenance requirements for pilots, frequent inspections and maintenance of aircraft, air traffic control systems, and extensive emergency protocols.

It's also important to understand that, despite the fact that aviation accidents may have a higher mortality rate, road accidents cause substantially more deaths overall owing to their greater frequency. The severity of car accidents has also decreased over time because of improvements in vehicle safety technologies including better seatbelts, airbags, and collision avoidance systems. Below is the data comparison to show the Motor accidents versus Airline accidents in the last couple of years. Based on the data and relevant facts, it can be easily stated that Airline travel is safer and has better safety measures compared to road vehicles.

A screenshot of a graph

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**REFERENCES**

Tutorials for Power BI :

<https://learn.microsoft.com/en-us/power-bi/fundamentals/power-bi-overview>

Airline Travel accidents : https://www.baaa-acro.com/crash-graph?created[min]=2020-01-01&created[max]=2029-12-31