DSC 640
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Executive Summary, Supporting Documentation

The data used for this presentation was pulled from **iihs.org** [1] and **bts.gov** [2], and were combined into a single excel spread sheet before being pulled into PowerBI to create visuals. These data sets included variables on miles traveled for each type of transportation within the US as well as fatal crashes and total fatalities.

Starting off the presentation with a simple overall look into fatality comparisons between automobiles and airlines I believe really speaks volumes. This is because within this visual, miles traveled or miles traveled per traveler is not taken into consideration and it merely shows the number of fatalities each type of travel has experienced (based in the US) over the past 30 years. Clearly without taking the miles traveled or number of passengers into consideration, automobiles will experience a much higher number of fatalities.

Beyond this measure the next two slides do take into consideration the average amount of miles traveled as well as the total number of fatal accidents per year. We can see even though the airlines have less mileage traveled, their number of average crashes and fatalities are significantly less because many years go without fatal crashes in the data.

The next slide demonstrates the rates of fatalities. For automobiles I have shown fatality rates per 100 million miles driven and for airlines I displayed fatality rates per 100 million passengers. I did not display the airline fatality rates per 100 million miles like I did with automobiles because typically there are many, many more passengers per mile on air travel than there are for auto travel.

Following this, I built a scatter plot to show the decrease in accidents and fatalities per year for air travel. This chart clearly demonstrates how air travel has had less accidents and fatalities as time went on, but once again didn't include the amount of miles traveled or passengers per year.

The last slide sums up the presentation with two bullet points listing air travel is safer than auto travel and it has gotten safer throughout time. Overall, I chose the colors of blue for this presentation to be soothing in a way which allows for more reassurance to be created subconsciously. In the first bar chart, the color for airlines (blue) was chosen to be calmer than the color for auto fatalities (bright yellow) which should be a more shocking reaction.

References

1. *Fatality facts 2019: Yearly snapshot*. IIHS. (n.d.). Retrieved October 9, 2021, from https://www.iihs.org/topics/fatality-statistics/detail/yearly-snapshot.

2. *U.S. Air Carrier Safety Data*. U.S. Air Carrier Safety Data | Bureau of Transportation Statistics. (n.d.). Retrieved October 9, 2021, from https://www.bts.gov/content/us-air-carrier-safety-data.