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DSC640 Data Presentation & Visualization

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As the dashboard insights prepared in Tableau was well received by the team, I worked on a presentation that has some more visualizations to be able to summarize my findings and to tell the story of what I have found in front of the Executive Committee of Bellevue Airlines.

I considered the feedback from professor on my previous dashboards and merged the Airline and Car fatalities for a better comparison. Also, I have synced the axes so that both of them are at the same scale. I made sure that all the visualizations are properly labeled. I considered a color palette with blue and orange as my primary colors to include audience with color blindness. I primarily used white font on the blue back background and black font on the light blue background so that both the font and the background can be easily distinguished.

I chose line charts to show trends over time. I used Area charts to compare between the Airline and Car fatalities to signify the difference between them. A bubble chart is used to highlight the top contributing factors for the overall cost. I used a bar chart to depict the flight phases with significant Accidents.

I will brief the executive team on the recent trends of the Airlines and how they are different from what media has been highlighting. For eg: upward trend in the Air traffic (barring covid) and the downtrend of accidents. I will give some suggestions on how accidents can be reduced further by training pilots on the critical phases of flight where there were more accidents and how manual labor is causing the overall costs to raise. By exploring ways to reduce it, net profit can also be increased.

Few ethical considerations that were taken while doing the research include, not including any PII/PHI information. Also, the information was publicly available and no new information was added. One thing to note is that Covid may have some impact on the data as flight operations were significantly minimal during that period.

References:

https://aviation-safety.net/statistics/phase/stats.php

https://www.airlines.org/dataset/annual-results-world-airlines/

https://www.airlines.org/impact/

https://github.com/fivethirtyeight/data/tree/master/airline-safety

https://www-fars.nhtsa.dot.gov/Trends/TrendsGeneral.aspx