SAFETY TRENDS AND ECONOMIC BENEFITS OF AIR TRAVEL

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DSC 640 DATA PRESENTATION AND VISUALIZATION

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Overview

This project's objective is to analyze and visualize safety trends in air and motor vehicle travel, showing the superior safety and economic benefits of commercial aviation. By examining historical data on accidents and fatalities, the analysis illustrates significant improvements in air travel safety over time and compares these trends with motor vehicle safety.

**Visualization Choices**

We chose line charts with trend lines to effectively display changes over time, highlighting the number of accidents and fatalities in both air and motor vehicle travel. The dual-axis line chart was particularly useful for comparing safety trends between the two modes of transport. We used distinct colors (green for air travel and red for motor vehicles) to enhance readability and quickly convey safety messages.

**Presentation Plan**

The presentation to the executive committee will start with an overview of the project objectives and the significance of the analysis. We will then walk through each visualization, explaining trends and insights. The focus will be on how the data supports air travel's safety and economic viability. The conclusion will emphasize implications for business strategy and potential areas for further improvement.

In the presentation we included the details to be shared for stakeholders and media to gain trust and reliability on air travel and explaining the importance and economic benefits of air travel. We also included special discount programs to maximize the business and bring more people to fly and experience our service.

**Findings**

Our findings show a steady decline in air travel accidents and fatalities, highlighting the industry's progress in safety measures. Motor vehicle accidents have also declined, but fatalities remain relatively high, underscoring the superior safety record of air travel.

**Ethical Considerations**

Ensuring the accurate representation of data was paramount to avoid bias. The dashboard and visualizations were reviewed by the compliance team and stakeholders before publishing to maintain integrity and trustworthiness.

References

* Federal Aviation Administration, <https://www.faa.gov/>
* Primary dataset utilized for the project, [air travel accidents and fatalist per year](https://docs.google.com/spreadsheets/d/1SDp7p1y6m7N5xD5_fpOkYOrJvd68V7iy6etXy2cetb8/edit#gid=1448957446).
* Supplemental data utilized for the project, CRSS [Crash Stats & Reports](https://one.nhtsa.gov/Data), and FARS - [Fatality Analysis Reporting System (FARS)](https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars), NHTSA
* Airlines of America, airlines economic impact [www.airlines.org](http://www.airlines.org/)