

## Airline Safety Dashboard Overview

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### **Data Sets, Tools and Methodology**

A total of 4 datasets were initially chosen to create this dashboard:

- Airline Safety [1] from the Aviation Safety Network.
- Airplane Crashes 1908-2009 [2] from the Data.world.
- Air transport, passengers carried [3] curated by World Bank.
- Air transport, registered carrier departures worldwide [4] curated by World Bank

All data sets were downloaded from their respective sites. We then reviewed the files and used Python to import the data, perform the necessary data transformations and cleaning to produce a final dataset. All data sets and Python are included in the ZIP file provided above.

Tableau was used to create the final Dashboard. At the time of this writing, there is no Mac OS X version of PowerBI Desktop. With our data set at hand, three visualizations were created which showcase the following metrics:

- Fatalities and Accidents from 1970 to 2019.
  - A line chart because we are trying to display these as a trend over time.
- Total Number of Passengers and Flights from 1970 to 2019.
  - Also, a line chart as we are trying to display another set of trends.
- Incident versus Fatal Accident Percentage across several air providers.
  - Stacked bar chart. One argument could be made to remove the airline carrier information and just compare the total incidents against fatal accidents as a Pie Chart.

The following design choices were made:

- Blue color scale to denote the various measures. The grades/tones are distinctive enough and presents no color-blind issues.
- Black Background with white fonts. Black backgrounds hold well in several levels of illumination. One notable drawback I perceive is that the this is not printer friendly (it's an ink-killer). The counterargument: There could be changes to the dashboard in terms of design and data source, which effectively puts the print version out of date.

### **Conclusions: Thoughts and Next Steps.**

This is the first in of the multifaceted project introduced during this course. Pending instructor review and feedback, I will make any necessary adjustments to Dashboard to ensure it works as intended – which is to help deliver accurate information to our audience. This document, along with the Dashboard and final data source will be included in my Github data repository [5]. Feel free to reach out if you have any questions.

**References:**

- [1] Airline Safety Network. Airline Safety. Github. Data Set. Added 7 Years ago. Retrieved from <https://github.com/fivethirtyeight/data/tree/master/airline-safety>.
- [2] Hozefa Haveliwala. Airplane Crashes 1908-2009. Data.world. Data Set. Posted 5 Years ago. Retrieved from <https://data.world/hhaveliw/airplane-crashes-1908-2009>.
- [3] The World Bank. Air transport, passengers carried. Data Set. Retrieved from <https://data.worldbank.org/indicator/IS.AIR.PSGR>.
- [4] The World Bank. Air transport, registered carrier departures worldwide. Data Set. Retrieved from <https://data.worldbank.org/indicator/IS.AIR.DPRT>.
- [5] GitHub Repository. [https://github.com/ammalagonc/dsc\\_640](https://github.com/ammalagonc/dsc_640).