My primary goals in this project were to show the straight numerical facts as well as the comparisons of those values with the other values available in the data. This data provides another excellent example of my personal aphorism, “Numbers matter, but their context matters more!” as well as providing further evidence of the importance of ethical reporting when performing data analysis, as unclear details lead to false assumptions. All charts are chosen to best demonstrate their data in the manner that best demonstrates their trends when immediately viewed, while the colors were specifically chosen to account for color-blindness as well as designed to properly stand out against one another.

The supplementary data which I chose is the “Accident Rates per Year” from the Bureau of Aircraft Accident Archives and the “Accidents and Fatalities Per Year” document from Google docs. Noting that both charts on the left side are using a logarithmic scale, we can see by the chart in the upper left corner (“Fatal Accidents & Fatalities by Airline, 1985 – 2014”) that there have been a great number of fatal accidents and fatalities during the time frame established by the “Airline Safety” dataset; however, those airlines with a greater number of accidents and fatalities also happen to be the largest airlines, one with the largest number of aircraft in their fleets.

However, by the chart in the lower left corner (“Accidents & Fatalities, 1985 – 2014”), we can see that although the numbers of fatalities and accidents are fairly high, the values are trending downward over the course of those 30 years. This is better demonstrated the chart in the upper right corner (“Accident Rankings by Year”), which shows the rankings by number of accidents of every year from 1918 to 2020, with the period of 1985 – 2014 specifically highlighted; it can be easily seen that the ranking of accidents during that timeframe has dropped rapidly as comparison of accidents year after year have decreased steadily over the years.

The most poignant indicator, however, is the chart in the lower right corner (“Accidents vs. Traffic, 1985 - 2014”), which shows a comparison of the number of departures internationally each year in the specified period, as well as a noting the how many flights internationally equate to one accident – this shows that as the number of flights worldwide have increased, the ratio of total flights to accidents and also tended to increase, indicating that even as the numbers of accidents have increased, the *rate* at which those accidents occur have actually decreased. Overall, the data indicates that – when the context and numbers are properly reviewed – traveling by air is actually improving in safety.