

The general sections of the dashboard are Airline Trends, Transportation Fatalities, and Covid-19 Impact. The layout of the dashboard is in three columns where each column contains two visuals. This allows the audience to take in the information naturally; left to right and top to bottom. The color palette was determined by the Colorblind safe theme in Power BI.

### **Airline Trends**

The first visualization in the Airline Trends section displays key safety metrics; incidents, fatal accidents, and fatalities combined over a recent 30-year time span. Only US carriers were included in from the data in order to easily compare to the other visualization; Operating Revenue. Data labels were added to incidents only, as adding labels to fatalities and fatal accidents became redundant and messy. Different shades of color were used for the two different visualizations because the color for fatalities needed to be consistent with the Transportation Fatalities section. X and Y-axis titles were not used in either visualization because they were either stated in the title of the section or obvious. The story behind these two data visualizations was to look at the revenue trends by airline next to their fatality statistics.

### **Transportation Fatalities**

This section of the dashboard was placed in the center as it is meant to be the focal point. The two visualizations show that air fatalities are far fewer than highway fatalities and most air fatalities happen in the general aviation category, not airlines for the general public. A different color was needed for the bottom visual since different shades of the fatalities color would cause confusion with the Incidents, Fatalities, and Fatal Accidents 1985-2014 visualization. X and Y-axis titles were not used in either visualization because they were either stated in the title of the section or obvious.

### **Covid-19 Impact**

This section of the dashboard highlights the recent aviation trends and its relation to the Covid-19 pandemic. There are actually two different visualizations, but since the x-axis was the same for each, the x-axis was hidden for the first one. The y-axis was necessary for both visualizations to be able to easily understand what the line graph was showing. A new color was used for the distinction between 2019 and 2020 as a color had not yet been used to indicate a year. This visualization was meant to compare the number of flights between 2019 and 2020 as well as with the number of Covid-19 cases.

### **Data Sources**

BTS. (n.d.). *Airlines Hit On-Time High in September while Scheduled, Operated Flights Decrease*. Bureau of Transportation Statistics. <https://www.bts.gov/data-spotlight/airlines-hit-time-high-september-while-scheduled-operated-flights-decrease>

BTS. (n.d.). *Transportation Fatalities by Mode*. Bureau of Transportation Statistics. <https://www.bts.gov/content/transportation-fatalities-mode>

FiveThirtyEight. (2018, February 9). *Airline Safety*. Github. <https://github.com/fivethirtyeight/data/tree/master/airline-safety>

MIT. (n.d.). *Revenue and Related*. Global Airline Industry Program. <http://web.mit.edu/airlinedata/www/Revenue&Related.html>

The COVID Tracking Project. (2021). *Data Download*. <https://covidtracking.com/data/download>

