Airline Statistics Dashboard

This dashboard was created for multiple groups within the Alaska Airlines organization to provide information that can be used to mitigate negative publicity against air travel. The colors follow the Alaska Air Group color palette and follow a theme of low-high, light-dark.

Total Incident and Fatality Counts by Year –

Data is displayed in a horizontal bar chart allowing for a quick recognition that both number of incidents and number of fatalities have decreased significantly over time.

Fatalities by Airline Country 1985-2014 –

Using a geographic heat map to display fatalities by country allows the user to select a particular country and view how many fatalities were related to crashes of airlines from that country. Example: 1,738 for the USA over the 20-year span.

Incidents by Airline –

By scrolling over this packed bubble chart, the user can see which airlines have had the most incidents. Example: Alaska Airlines is a small medium bubble and has 10 incidents over the 20-year span.

Deaths per 100 Million Travel Miles by Region –

This statistic is derived by taking the number of fatalities divided by the number of miles flown by passengers. This gives the user and idea of their odds when flying. For every 100,000 travel miles on a plane, North America has approximately 0.175 deaths.

Motor Vehicle Statistics –

This line chart is meant to give the user a reference point between USA's motor vehicle accident statistics and airline accident statistics. The top line provides the deaths per 100 million travel miles of motor vehicles and that can be compared to the same airline statistic provided in the chart above this one. Example: For every 100,000 travel miles in a motor vehicle, North America has approximately 1.08 deaths.

The bottom line chart provides the total number of fatalities associated with motor vehicles by year. Example: There were 32,744 motor vehicle related deaths in 2014 alone, compare that to the data from the neighboring geographic heat map, 1,738 deaths over 20 years. It makes it easy to see that motor vehicles are more dangerous than airplanes.

Alaska Airlines Departed Seats by Year –

This line chart provides a view of departed seats over time, making it easy to see the upward trend. Business and sales are not slowing down, they are increasing.

Data Sources:

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

https://www.nationsonline.org/oneworld/major_airlines.htm

https://www-fars.nhtsa.dot.gov/Main/index.aspx

http://web.mit.edu/airlinedata/www/Traffic&Capacity.html

GitHub Repository:

https://github.com/Myrarust/DSC640-DataVisualization/tree/main/Airline%20Project