Airline Trends and Metrics Supporting Documentation

Dashboard Metric Supporting Documentation

Although there have been recent unfortunate airline crashes and the media's promotion of statistics stating air travel is no longer a safe way to travel, overall revenue for the airline industry as a whole has been unaffected. Overall revenue has increased by almost 20% since 2015 with no sign of slowing down. In that same time period, domestic revenue has increased by 20% and international revenue has increased by 12%. Our bottom line has not been affected by the recent media stories around the potential risks of air travel.

Another factor that is helping grow our revenue is the downward trend in the number of airline incidents and fatalities over the past 15 years compared to the previous 15 years. From 1985 - 1999, the average fatalities per airline incident were about 0.30 people. Consequently, from 2000-2014, that number has dropped significantly to 0.19 average fatalities per airline incident. Although we would like to see that number drop to zero, the significant decrease over the past 15 years is encouraging nonetheless.

The media has also suggested it is safer to travel by automobile versus airplane. Based on our analysis, we believe this to be a false narrative. Not only does air travel reduce the amount of time a person must take to travel, but it also reduces the chance of a person being involved in an accident. From 2000 to 2014, a person was 43 times more likely to be involved in an automobile accident than an airplane incident. From 2000 to 2014, there were 1.31 incidents per 100 million miles driven in the United States. During that same time frame, there were 0.03 airline incidents per 100 million miles flown.

Overall, I feel that the media stories have not and will not affect our ability to generate positive revenue. Airline travel has never been safer and the time saving/safety increase for

travelers compared to automobile travel is a no-brainer. Airline travel will continue to generate positive revenue and not see a decrease due to these recent media stories.

Dashboard Methodology Justification

I chose to go with a simple color scheme for this dashboard as recommended by Cole Knaflic from our *Storytelling with Data* text book. The gray/blue colors do not create distractions from what the story I am trying to tell. I also chose to highlight the more recent data bars in blue and the historic data bars in gray to direct the audience's attention to the recent data and show the decreases for the more applicable years. For the line graphs, I removed axis labels and chart titles and labeled the data directly. As Cole Knaflic says decluttering is the best way to enhance your presentations. I also added the chart title and a brief description below the title in the top left hand side of the dashboard. I placed this information in the top left hand corner because this is typically the first spot a reader begins with your document. This is the most important location in a presentation and I felt the most important information was the title and description to give the reader an overview of what metrics were presented in the dashboard. Also, for the domestic/international revenue line graphs, I chose to put those in separate graphs instead of merging together as recommended by Cole Knaflic. This helped me show that both international and domestic revenue was increasing. I did not want the reader to assume I was trying to show the different volumes of of revenue generated by each business unit. I believe if I would have merged these two lines on the same chart, this would have muddled my message. For the sake of simplicity and consistency, I also did the same for the incidents per 100 million miles driven/flown horizontal bar charts at the bottom of the dashboard

Data Sources

Airline Fatality and Incident Data -
https://github.com/fivethirtyeight/data/blob/master/airline-safety/airline-safety.csv

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

Overall Airline Revenue Data - http://web.mit.edu/airlinedata/www/2019%2012%20Month%20Documents/Traffic%20and%20Capacity/System%20Total/Total%20System%20Revenue%20Passenger%20Miles.htm

Domestic Airline Revenue Data - http://web.mit.edu/airlinedata/www/2019%2012%20Month%20Documents/Traffic%20and%20Capacity/Domestic/Domestic%20Revenue%20Passenger%20Miles.htm

International Airline Revenue Data - http://web.mit.edu/airlinedata/www/2019%2012%20Month%20Documents/Traffic%20and%20Capacity/International/International%20Revenue%20Passenger%20Miles.htm

Github Link

https://github.com/kwwaite1129/Example-Project-Work/tree/master/Tableau%20Dashboard