Dashboard Summary
DSC 640
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This visualization was done to show trends in how airplane fatalities and accidents have been decreasing over time, while also presenting data that shows that airplane travel is actually safer than traveling by car. We were given a few datasets to work with and also required to do some research to find more in order to present to executives what information we can use to encourage people to continue to travel by air. Due to the Covid-19 outbreak, there was a huge plummet in airplane travel due to it being unsafe as well as borders being closed for travel restrictions. Now that people are being vaccinated and restrictions are being lifted, there is an increase in travel by plane. While this is good news for airline companies, there still needs to be more done to lessen the stigma and fears associated with traveling by plane. Not only is it necessary to prove that airplane travel is statistically safer than car travel, we also need to know what our target audience is to convey this message.

With the provided and gleaned datasets, I made dataframes that only included the data that I needed to make the graphics that I wanted to portray to the executives. Then I converted those dataframes into csv format to use with Tableau to create useful graphs. I found data showing the amount of air travel that has occurred from 2004 to currently, including the specific time points "before Covid-19" and "after Covid-19" which is referencing when vaccinations first started to be dispersed. There are also graphs that depict plane accidents and fatality totals from 1945 to 2020, showing the steady decrease in both. Below is a graph that shows the most recent years (2017-2020) showing the summary of how many fatal airliner accidents and fatalities. On the most right it shows by airline how over the last fifteen years, airlines have decreased in their occurences of fatalities compared to the previous fifteen. This is depicted for each airline, and as you scroll down for the 1985-1999 section, the formatting is such that airlines with no fatalities are at the top and increase as you scroll down. This way, when you scroll all the way down, you can see comparatively to the next fifteen years how these airlines have drastically improved in the amount of fatalities that occur. I put a text in that tells us how many people approximately die from car related crashes per year, which is an incredible 1.3 million people (World Health Organization, n.d.).

Below that text is the death rate from 1990 to 2015; although it shows a steady decrease, the amount of people that die from car crashes is so drastically higher than what we see from plane crashes. Lastly, I show the age groups of people that travel the most by plane. This is to aid our executives to fund the disbursement of this data in the form of advertisements to target the people that are most likely to actually use plane travel. More useful information in this regard is that business travelers, although only making up 12% of an airline's passengers, account for 75%

of the profit that airlines receive (Anthony, 2021). This is also something that is useful in the post-pandemic world, where people are still weary of traveling in crowded planes. The funding in advertisements can then be focused to these 25-54 year old business travelers in order to gain the most profits.

Something to note for the PowerPoint version of my Dashboard is that you are unable to scroll on the "Fatalities Decrease in Recent 15-Year Segment (by Airline)" graphic, which is the only way to see the two 15-year segments split as well as all of the airlines.

References:

Anthony, J. (2021, April 5). *105 Critical Business Travel Statistics: 2021/2022 Spending & Concerns Analysis*. Financesonline.com. https://financesonline.com/business-travel-statistics/.

World Health Organization. (n.d.). *Road traffic injuries*. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries.

Flights from 2004-2021 https://financesonline.com/number-of-flights-worldwide/
Age Distribution of Travelers by Plane https://financesonline.com/number-of-flights-worldwide/
Airline Safety https://github.com/fivethirtyeight/data/tree/master/airline-safety
Airplane Crashes Since 1908 https://data.world/data-society/airplane-crashes