

Support document

In my presentation, I stated with a little bit of the background of the public concern over airline safety. Specifically, I used the US federal aviation association's list on 737 Max, and I also mentioned the air crashes, the Indonesian Lion Air's 610 which happened in 2018 and killed 181 people, the Ethiopian airline 301 which killed 157 in 2019, and the Ukrainian Flight 752 in which 176 people lost their lives. From here I raised the question is airline still the safest in United States. I did it in this way because I think this presentation is for general audience instead of internal audience, and I think some of the general audience might not understand the background quite well, start with three well-known air tragedies, and list the number of death might help attract the attention from the audience.

Then I used a bar plot of the total number of death from 2000 to 2014 over the airline capacity measured by the available seat kilometer per week for each airline, specifically, I addressed the United State (US) based airline does not appear in the top 10, and I pointed out that the highest ranked US based airline is the US Airways, sitting at number 20, with a quite small value. In this way, I tried to pass the information that the US airlines are relatively safer as compared to other airlines worldwide.

Next, I used another bar plot for the death rate of the common transportation means, namely, buses, railways, light duty vehicles (like sedans, SUVs, etc.) and scheduled airlines. Because if one does not choose airlines, it has to be something else. Using this comparison, I pointed out that the airline death rate is much lower than others, especially the buses and railways, which are generally known as relatively safe ways of transportation. To further strength the airline safety, I used the trends of the number of airline accidents from 2000 to 2018. The point is even though the airline death rate is already extremely low as compared to other transportation means, the number of air accidents is still decreasing while the fatal accident remains very low. In this way, I emphasized the safety of airline itself, as well as compared to other transportations.

Finally, I plotted the change of the number of domestic airline passengers from 1970 to 2019 and the domestic load factor from 1995 to 2019, which is a measure of the utilization of the capacity of airline services provided in United States. The purpose of doing so it to show the audience what is the response of other people regarding the airline safety. In general, I believe most people tend to do what others do. From the plots, I showed an almost linear relationship of the number of passengers over the time period from 1970 to 2019, telling the audience the number of people in United States choosing to travel with Airlines is almost increasing at a constant rate. Also, I showed the utilization of the airline services is at a high level and is gradually increasing from 1995 to 2019. By doing so, I showed the audience there are an increasing number of people choose to travel with airline, aiming to further mitigate the concern over the airline safety, and emphasize the safety of airline.

In the end, I re-emphasize that the airline is still trustworthy.