Victoria Hall

4/11/2022

DSC640

U.S. Flight Safety

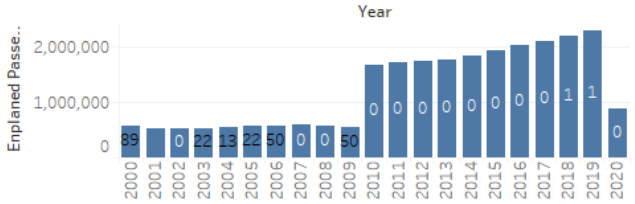
Increased depictions and reporting of airline travel as dangerous has produced risk in sales and revenue. To combat this, I have created a series of visualizations to prove this negative media attention wrong. I have focused on a series of line and bar plots that highlight the downward trend in accidents and fatalities as well as the relative safety compared to other forms of travel. For simplicity I've chosen to use shades of blue for the plots that highlight flight information. There is one plot that is inclusive of car fatality information, and I have chosen to highlight that in orange. At the top of the graphic there are three bar charts. The first shows the number of airline passengers by year. Each bar is annotated to show the number of airline accident fatalities for that year. This is being used to show the difference between these two numbers and highlight that the relative risk is low. The second bar plot looks at airplane fatalities for 2021 by country. As a US company, our customers can feel safe knowing that the US has the second lowest amount of airline accident fatalities. The final plot looks at airline accidents by airliner and is highlighted to show which airlines had more fatal accidents. The second row of graphics shows US flight fatalities over time. Other than one large bump, which is annotated to call out the terror incident that occurred, US flight fatalities have stayed around 0 for the past 20 years. The second line graph shows airline accidents over time and the purpose of this is to show that accidents have continued to trend downward. The final graphic along the bottom shows the number of automobile accident fatalities per year compared to airline fatalities. This is to demonstrate that car travel is still more dangerous than flying in a plane.

*I put all six plots on one dashboard because of the assignment parameters but in an actual business setting I think these six graphics all on one page is overwhelming and conceals helpful information. I would probably separate them onto a couple of pages so that all scales can be clearly shown and all data is more clearly depicted.

## U.S Airline Passenger Total

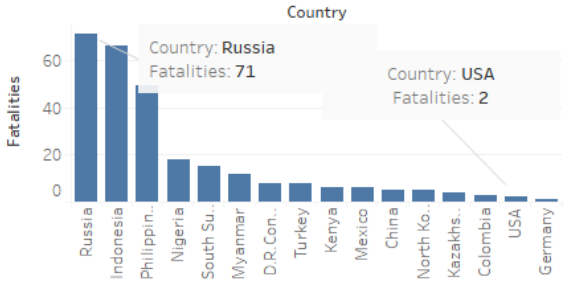
*(2000-2020)*

*(MIT Global Airline Industry Program)*




Sum of Airplane Passengers for each Year. The marks are the number of actual fatalities

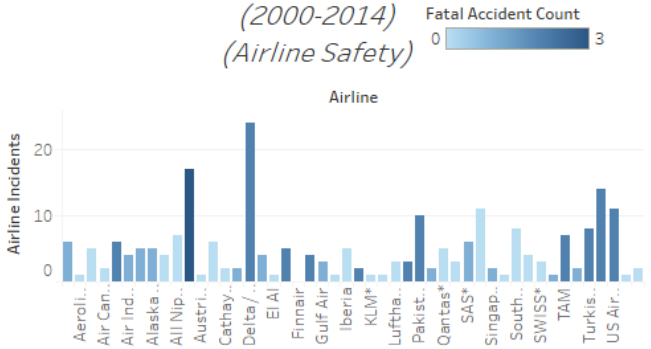
## 2021 Airplane Accident Fatalities by Country




## Airliner Incidents by Airline

*(2000-2014)*

*(Airline Safety)*




## US Flight Fatalities

*(2000-2020)*

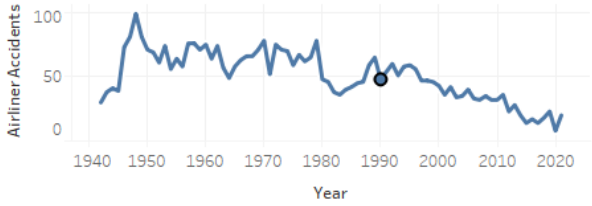
*https://www.airlines.org/dataset/safety-record-of-u-s-air-carriers/*


## U.S. Flight Safety in Recent History

## Airline Accidents Over Time

*(1942-2021)*

*( Flight Safety Foundation, Aviation-Safety.net)*




## U.S. Car Accident Fatalities vs. Global Airplane Accident Fatalities

*(National Highway Traffic Safety Administration (NHTSA) Motor Vehicle Crash Data Querying and Reporting)*