

# **Data Presentation and Visualization**

## **Week 3 & 4**

### **2.3 Project Task**

### **Executive Summary**

**Professor : Dr. Catherine Williams**

**Assignment: Term Project 2.3 Executive Summary(Week 3&4)**

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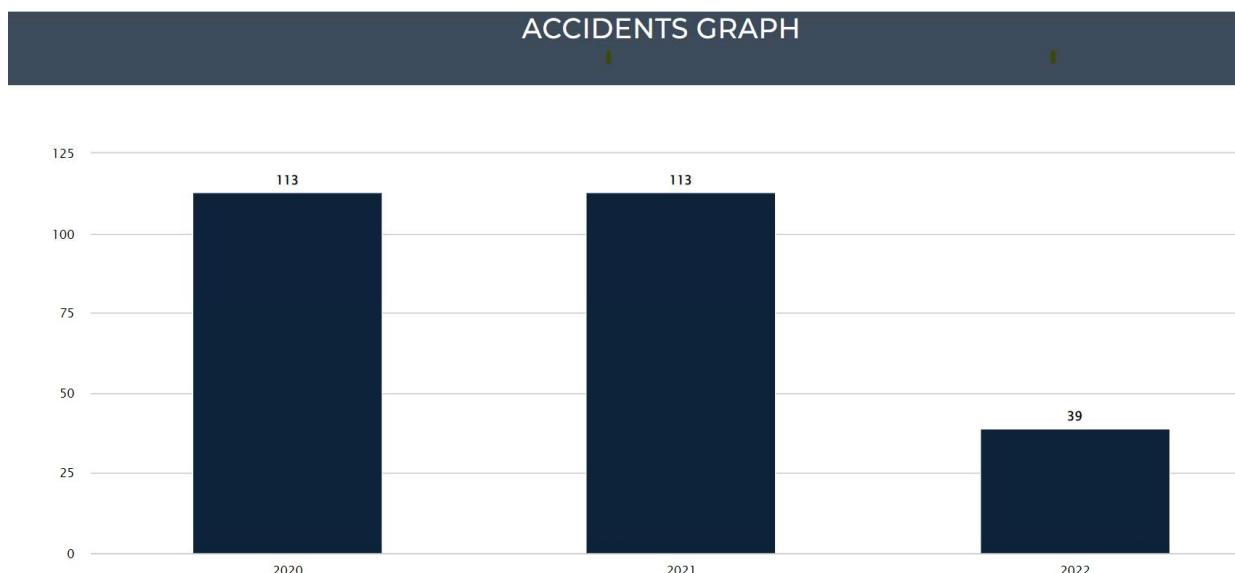
**Due Date: 07/02/2022**

# Highlights of Executive Summary

- The main purpose of this summary analysis was to provide important facts about Airline travels are safe.
- Especially due to COVID lot of travel industries airline booking and subsequent cancellations are causing airline partners owners the constant headache of losing business.
- Discuss about the impact of negative publicity by media on sales based on the sentiments.
- Comparing the analytical results of airline incidents and fatalities historical data is compared with latest data of worldwide airlines.
- Airlines economical data is considered to see if there is any impact of overall profit and public demand.
- Discuss about the ethical concerns of Assessing only relevant information required for this analysis.

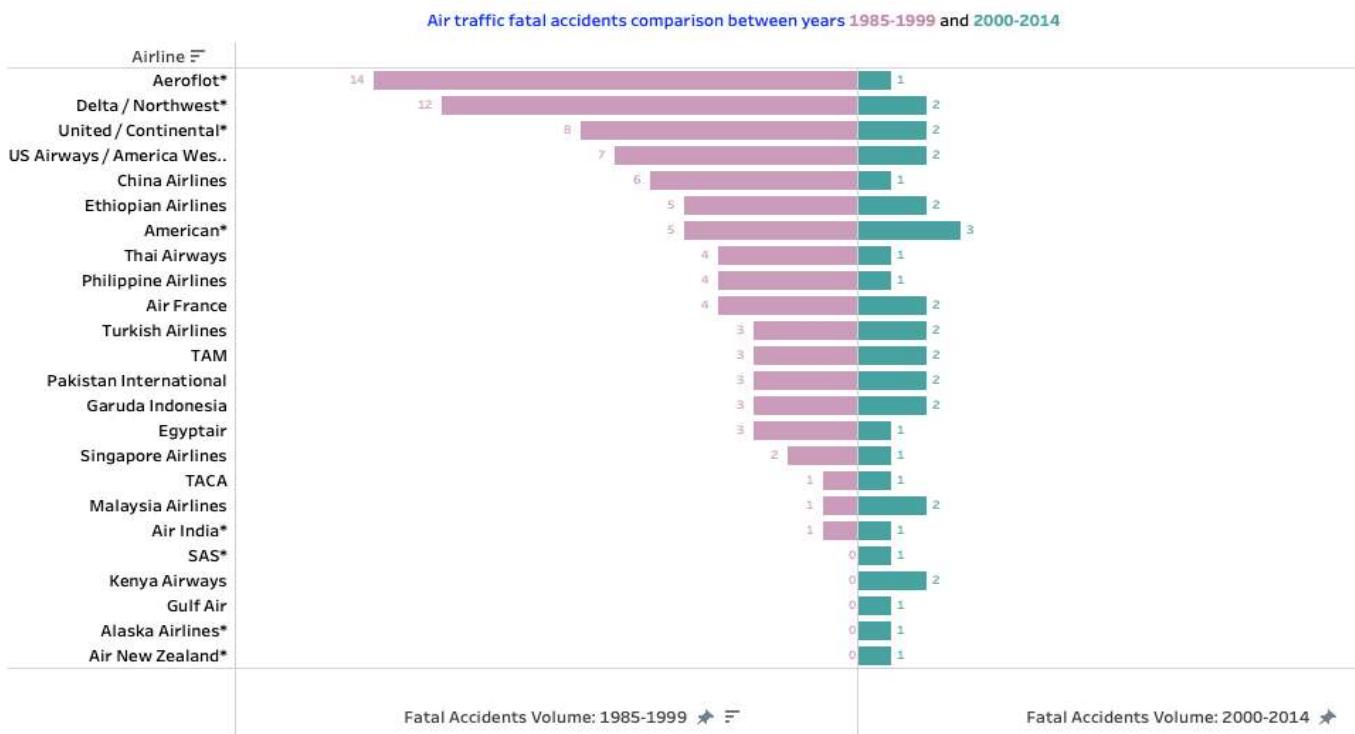
# How safe to travel in Airline ?

- The Airlines accidents are **ONLY 0.07%** of motor vehicles
- Fatality Rate of Airlines for Year 2022 is much lesser than Roadways
- Based on these number of accidents Air travel is one of the safest form of transport



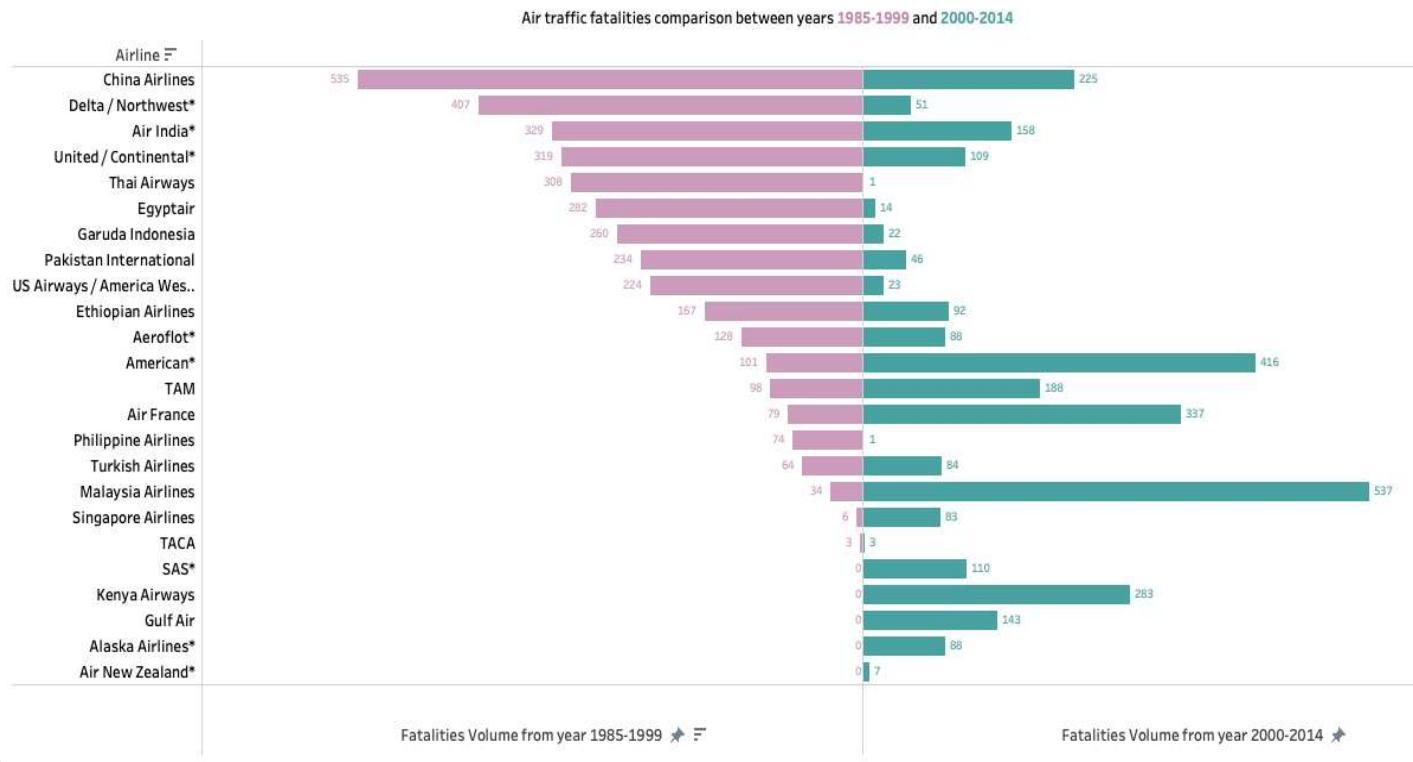
# Fatal incidents comparison vs recent years?

- Considerably very less in 20<sup>th</sup> century (2000-2014) compared to prior years of 19<sup>th</sup> century(1985-1999)



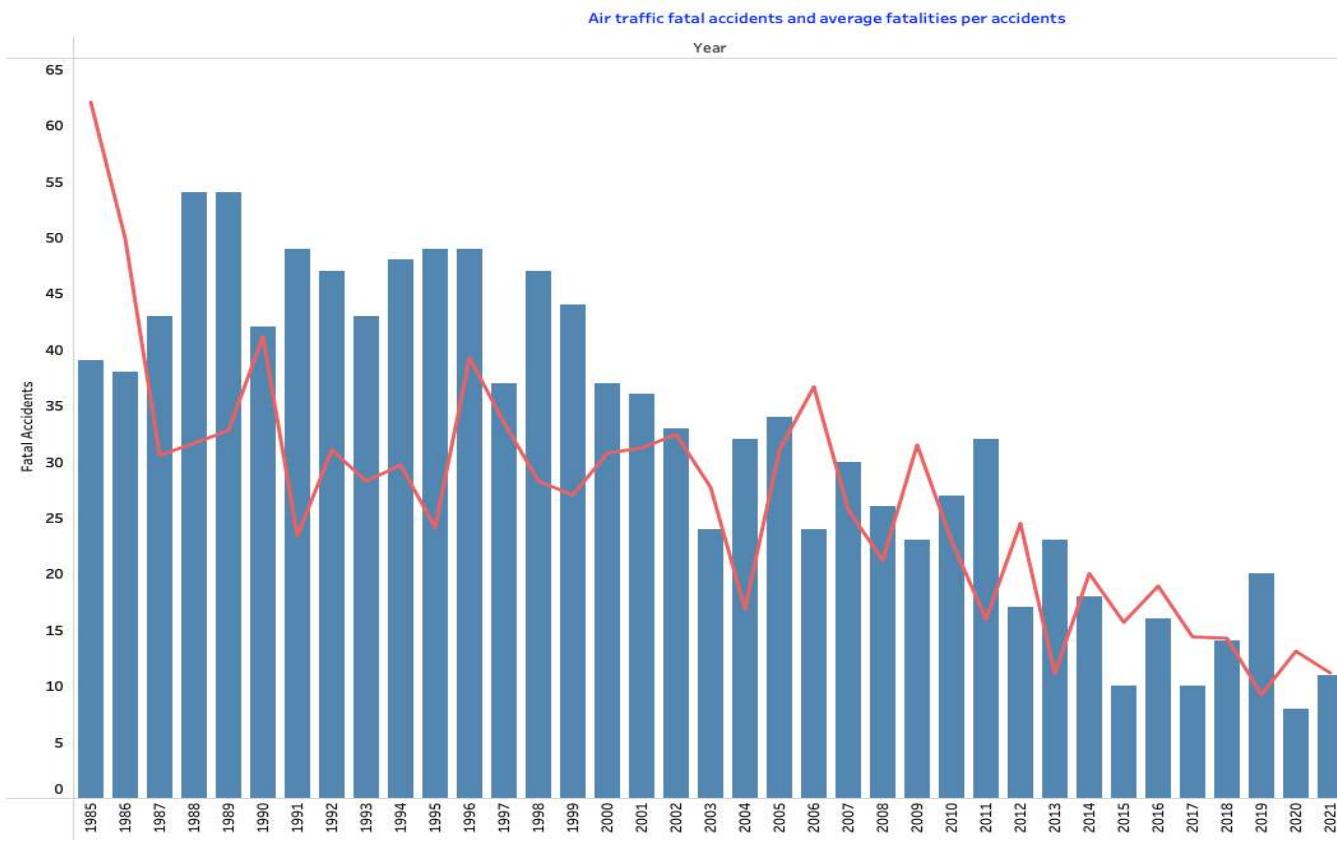
# Summary of air traffic fatalities

- Fatalities caused by air traffic accidents are gone down and its very less in the 20<sup>th</sup> century (2000-2014) compared to prior years of 19<sup>th</sup> century(1985-1999)



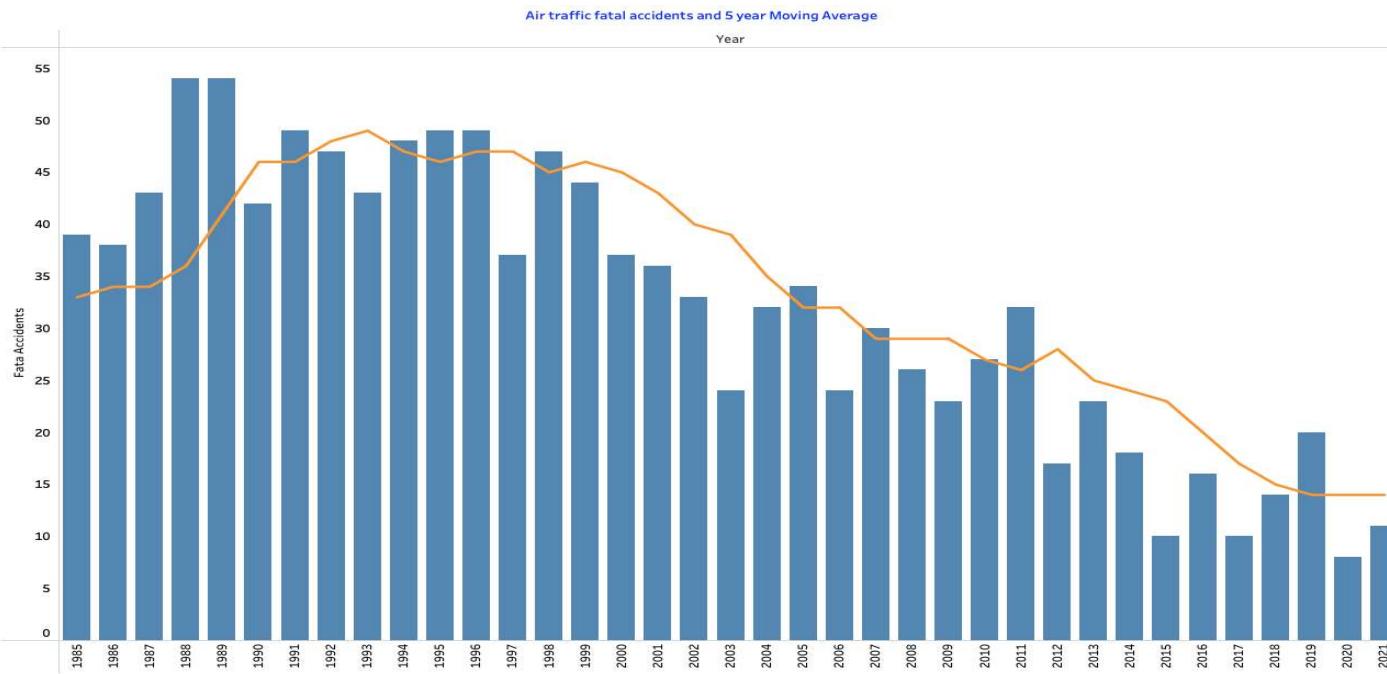
# Average fatalities rates trend

- The trend is down towards the recent years of Airlines fatal accidents which is an indication of higher in safety sentiments.



# Moving average trend for 5 years.

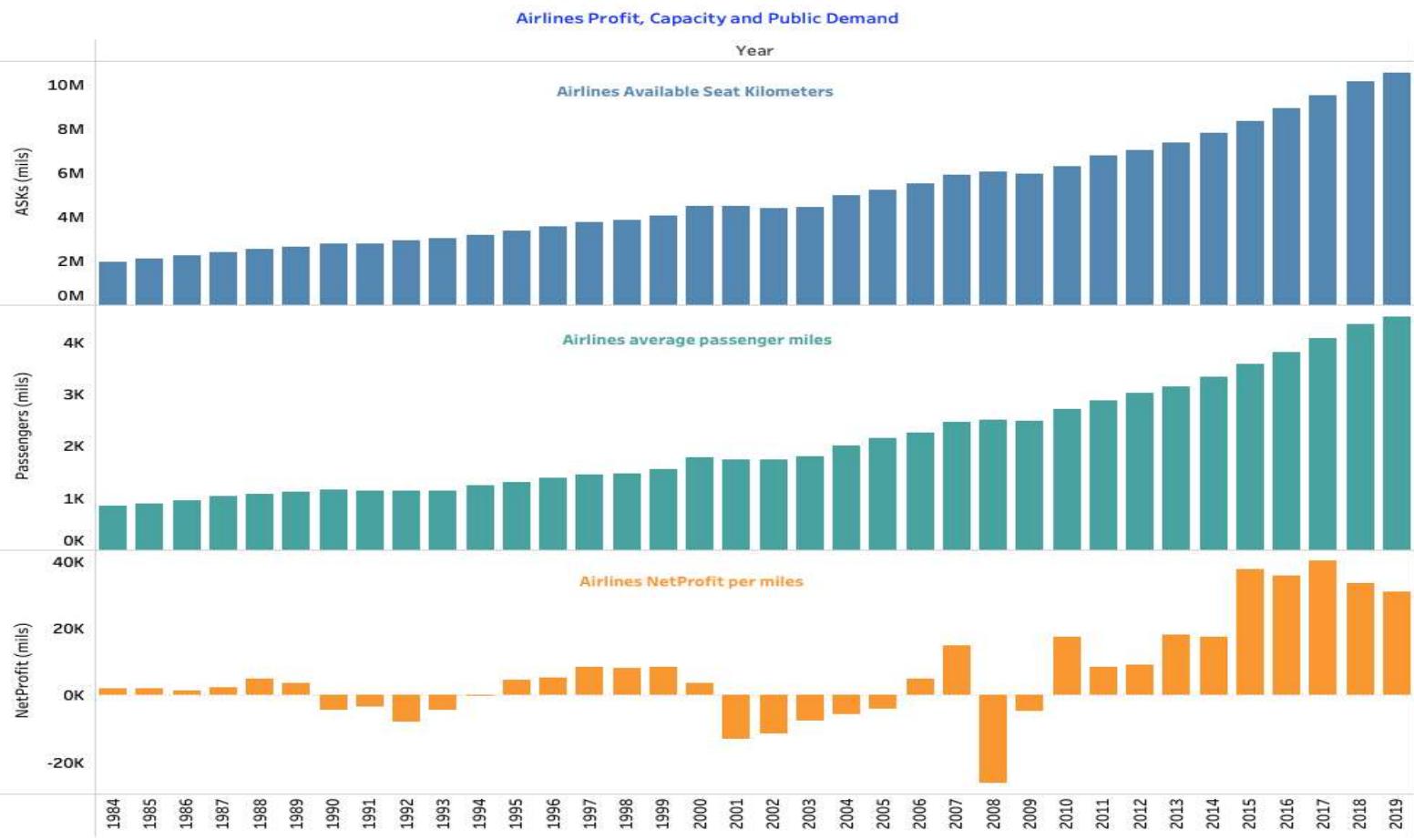
- The Airlines fatal accidents and 5-year moving average are drastically down



# Impacts caused by any negative media news?

- There is no negative media news of negative sentiments impacting the airline industry for sure.
- Airlines available seat multiplied by air miles is increasing, and increased in domestic travel volume.
- Air travelers are eagerly waiting for the COVID endemic to travel back as before.
- New regulations in place for safe travel during COVID and increased hospitality services with in the aircraft.
- The Airlines overall profit is growing in recent years
- Demand for Air travel is increasing as airlines average passenger miles is increasing
- Based on these airlines year over year net profit, its capacity and public demand to air travel increasing

# Impacts caused by any negative media news? Bar Charts



# Recommendations

Based on this analysis, we were able to clarify few things and could recommend to make more consumers to understand why air travel is safest:

- Airline travel is still safest way of travel should be carried to all country .
- You are nineteen times safer in a plane than in a car, these data sets needs to be carried to other countries.
- Airlines and airports should offer many forms of travel assistance that make air travel for seniors much easier to manage.
- There is no impact on net profit and public demand of air travel is increasing and will improve sales.
- Management can attract more passengers by providing some offers and compliments
- Today's airplane safety feature should be explained to passengers.
- Such as seat can successfully withstand 16 times gravity's force. In addition to that, the cushions and fabrics are self-extinguishing and don't emit any toxic smoke.

# Legal and Ethical Considerations

- ▶ Data obtained here from public domains and was no PII information on it.
- ▶ We are not using any passenger personal information such as address or geo locations to navigate these results.
- ▶ The data considered for the analysis are provided by government for public consumer benefits
- ▶ There are no private data has been disclosed here and no airline company highlighted
- ▶ Assessing only relevant information required for this analysis
- ▶ Publish and Validating the data with respect to the graph
- ▶ Communicating the results appropriately
- ▶ There are no restrictions to use this data for Analysis and academic purpose

# Conclusions

Based on this analysis, we were able to clarify and conclude few things:

- Airline travel is still safest way of travel.
- There is no impact on net profit and public demand of air travel is increasing and will improve sales.
- For all passengers the government regulation on seats on an airplane have met strict standards for head-impact safety and durability.
- You are nineteen times safer in a plane than in a car.
- Air travel resulted in 0.07 deaths for every 1 billion miles travelled compared to 212.57 for motorcycles and 7.28 for cars.

# References

Government and other website used for data collections and analyze the fatalities

- ▶ <https://cdan.dot.gov/SASStoredProcess/guest>
- ▶ <https://www.airlines.org/dataset/world-airlines-traffic-and-capacity-2/>
- ▶ <https://www.statista.com/statistics/263443/worldwide-air-traffic-fatalities/#professional>
- ▶ [https://docs.google.com/spreadsheets/d/1SDp7p1y6m7N5xD5\\_fpOkYOrJvd68V7iy6etXy2cetb8/edit#gid=1448957446](https://docs.google.com/spreadsheets/d/1SDp7p1y6m7N5xD5_fpOkYOrJvd68V7iy6etXy2cetb8/edit#gid=1448957446)