

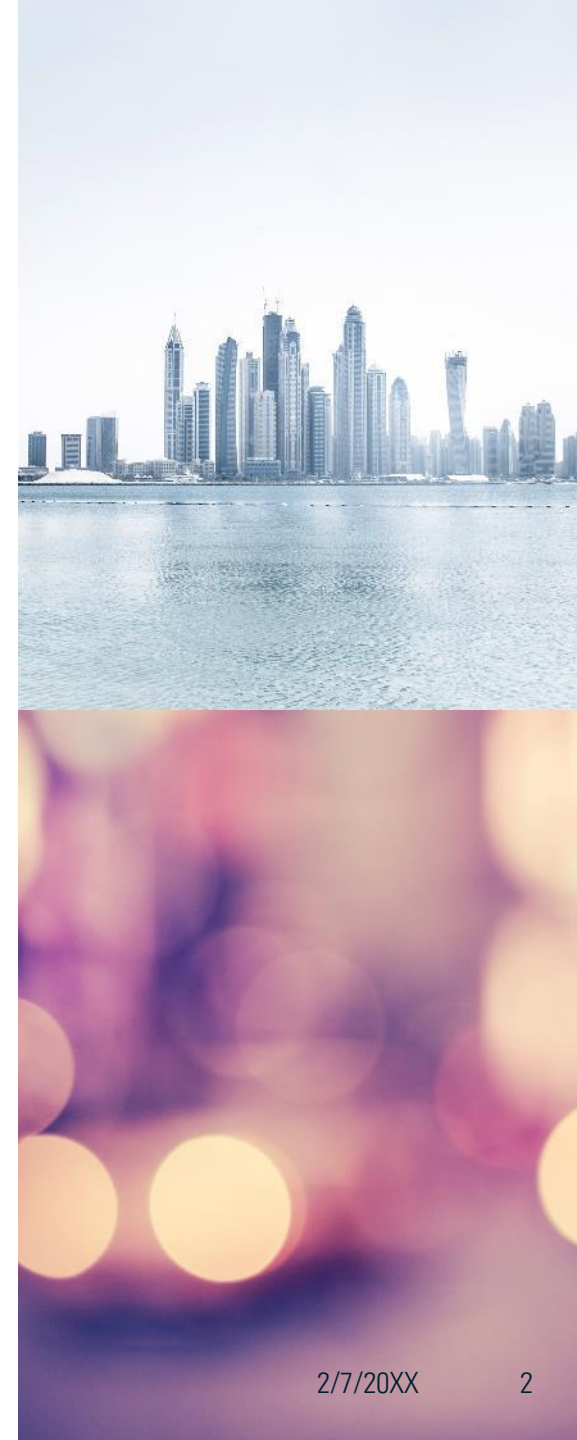
*OVERVIEW
OF
VENTURING
INTO
THE
AVIATION
BUSINESS*

By Tracy Rotich



AGENDA

- Introduction
- Summary of Data analysis
- Conclusions





INTRODUCTION

In this analyses, we will be reviewing data from the National Transportation Safety Board to determine and recommend if venturing into the aviation business is worthwhile.



SUMMARY OF DATA ANALYSIS

SUMMARY

- In this analysis we used this data :
<https://www.kaggle.com/datasets/khsamaha/aviation-accident-database-synopses>.
- The following were the questions we were using the data to answer in order to provide recommendations:

QUESTIONS:

1. As we are analysing data from 1962 to 2023, is there a certain improvement in the aircraft industry? e.g. Lower Accidents , Lower Fatalities , Lower Injuries.
2. Which purposes for using an aircraft exhibit the lowest risk?
3. Which type of aircraft it tied to the lower risks (Accidents, Injuries and Fatalities)?

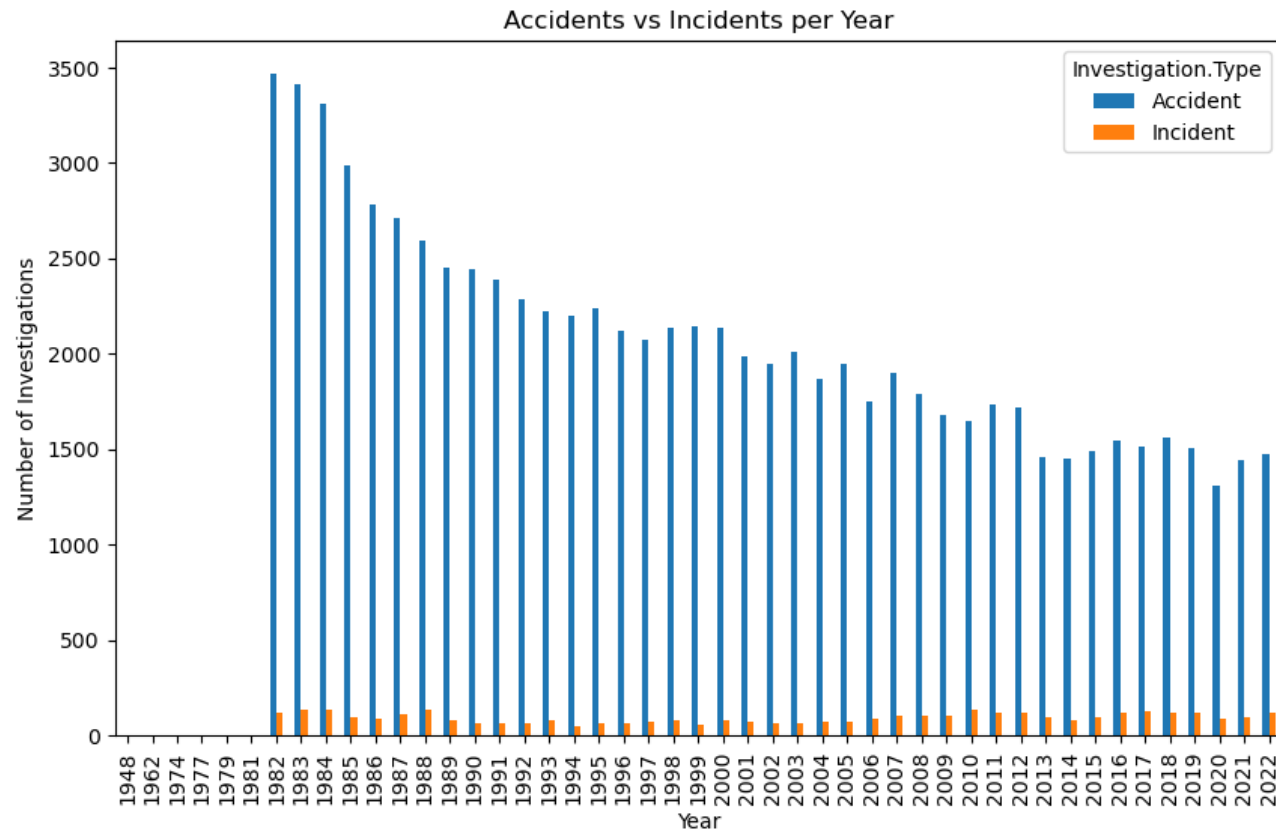
SUMMARY OF DATA ANALYSIS

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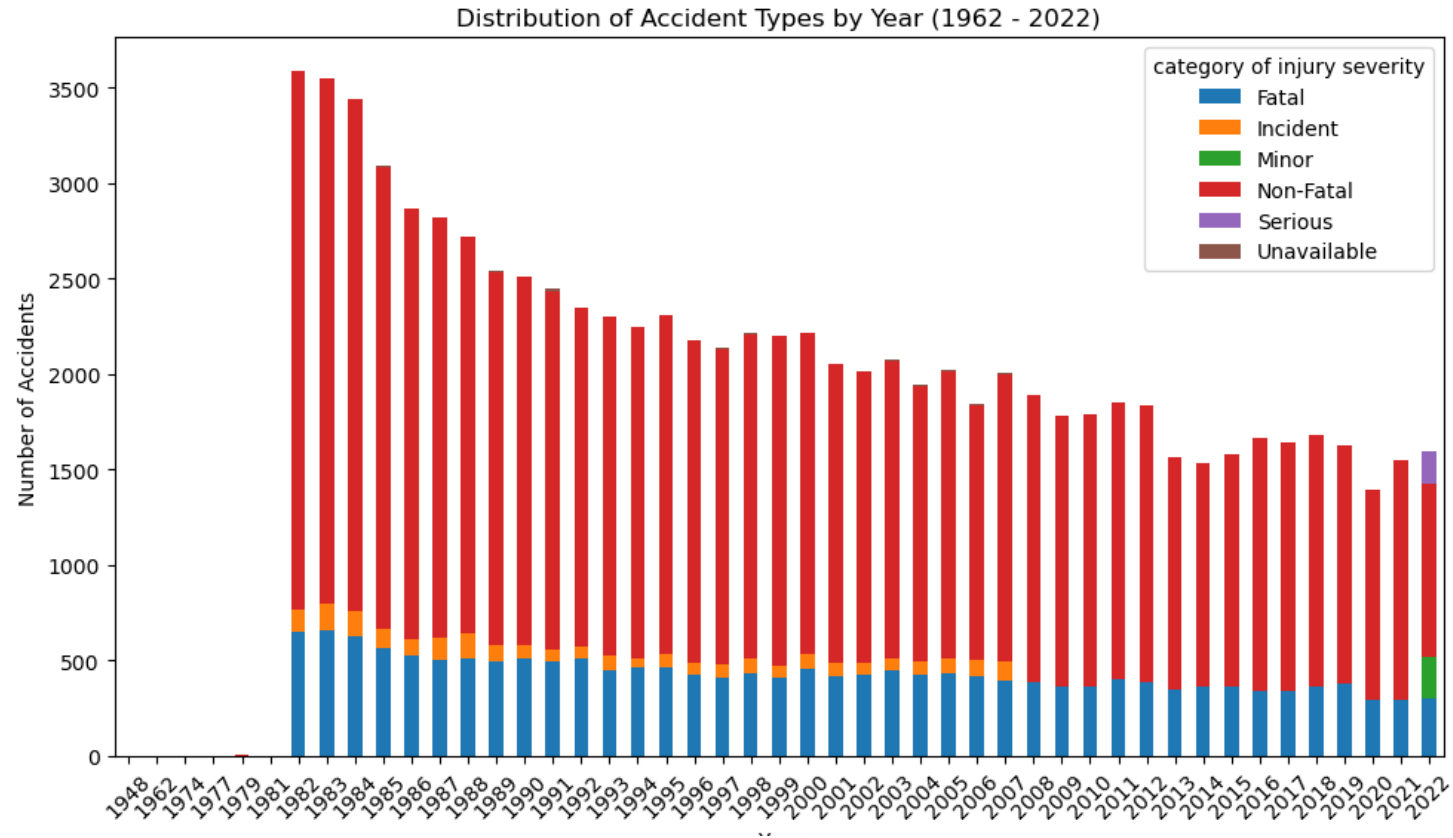
Assumptions used in data cleaning:

- Where data was missing, we either used mean or mode to replace missing values.

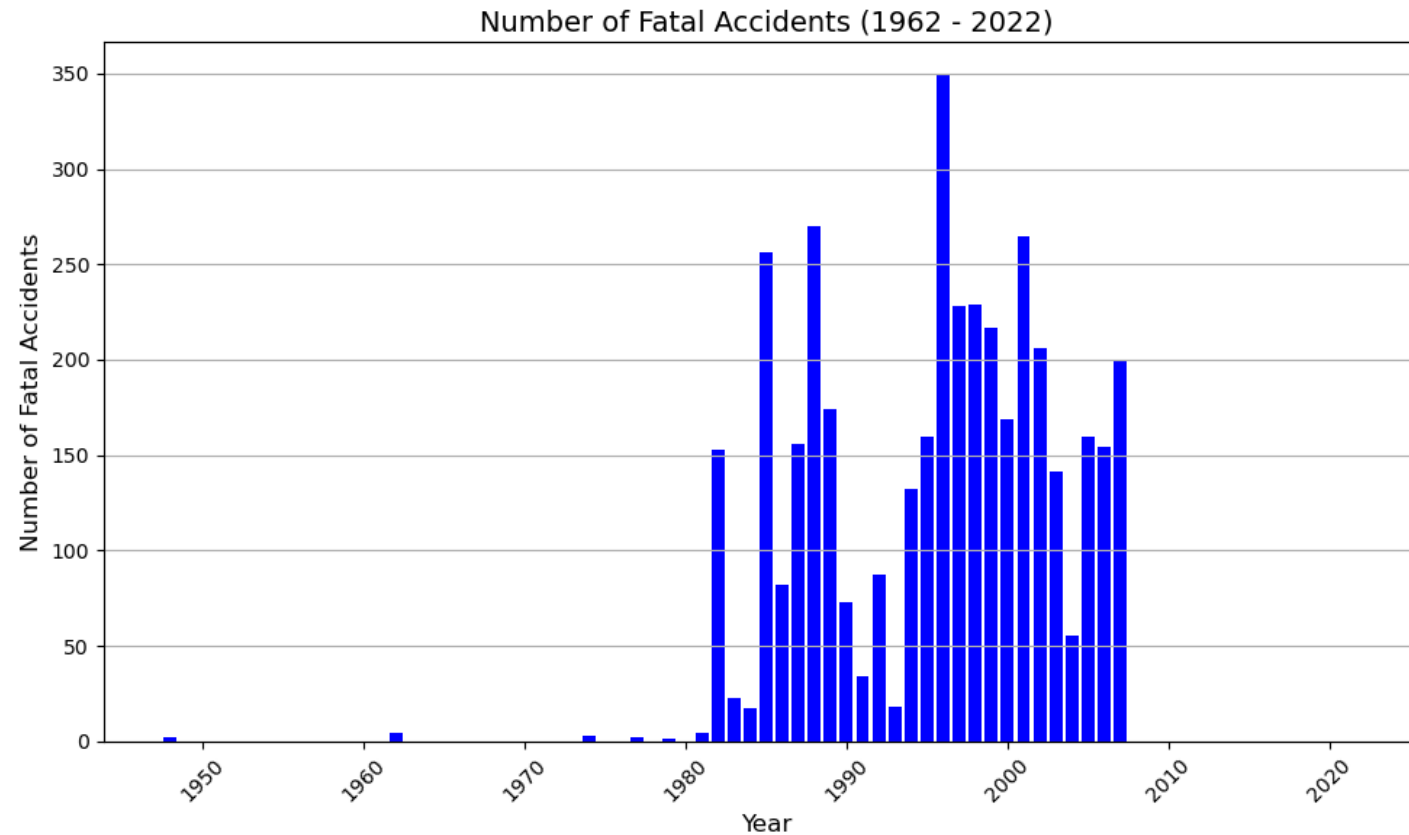
- *QUESTION 1: RESULTS (A) - AS WE ARE ANALYSING DATA FROM 1962 TO 2023, IS THERE A CERTAIN IMPROVEMENT IN THE AIRCRAFT INDUSTRY? LOWER ACCIDENTS AND INCIDENTS*



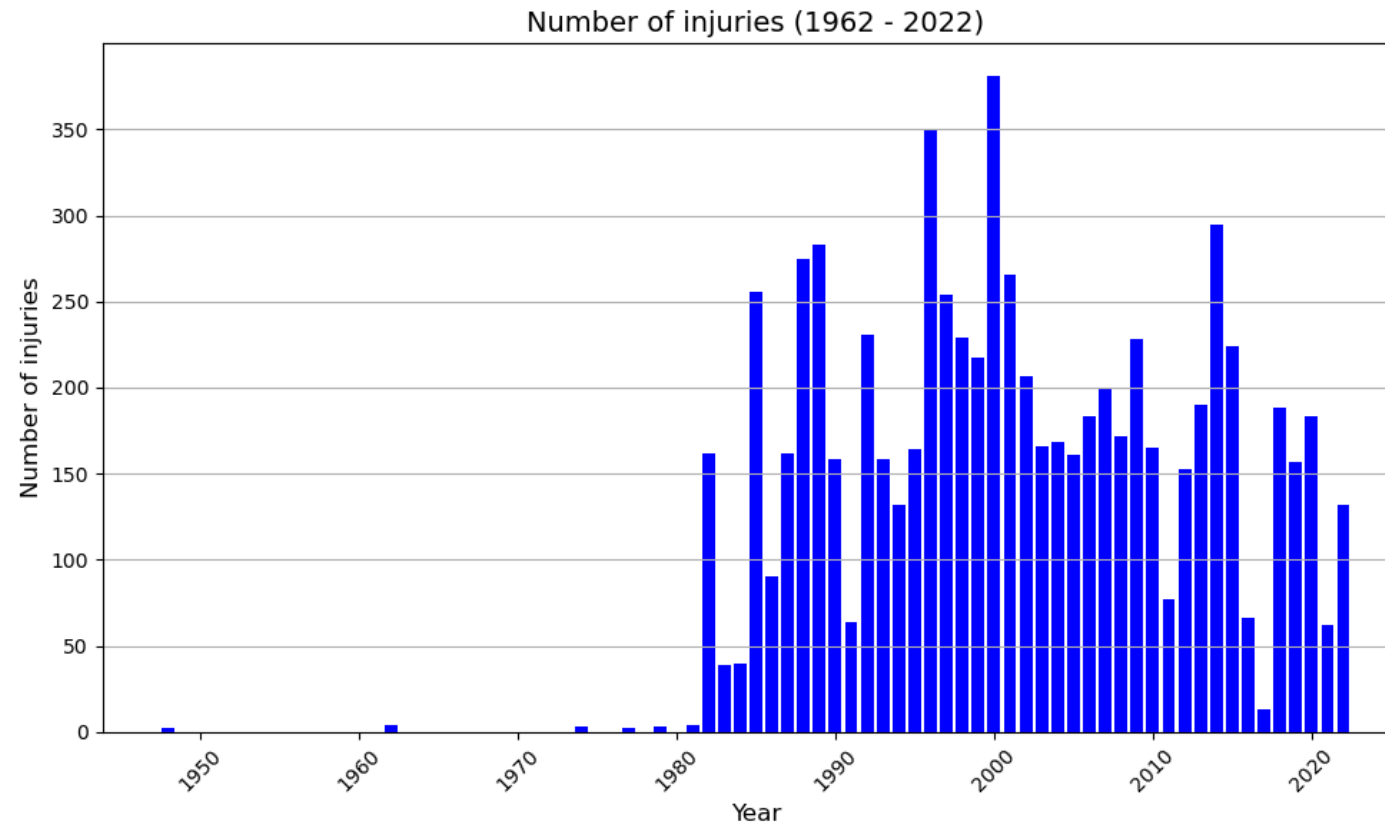
*QUESTION 1: RESULTS (B) - AS WE ARE ANALYSING DATA FROM 1962 TO 2023, IS THERE A CERTAIN IMPROVEMENT IN THE AIRCRAFT INDUSTRY?
LOWER INJURIES*



QUESTION 1: RESULTS (C)- AS WE ARE ANALYSING DATA FROM 1962 TO 2023, IS THERE A CERTAIN IMPROVEMENT IN THE AIRCRAFT INDUSTRY?
NUMBER OF FATAL ACCIDENTS OVER THE YEARS



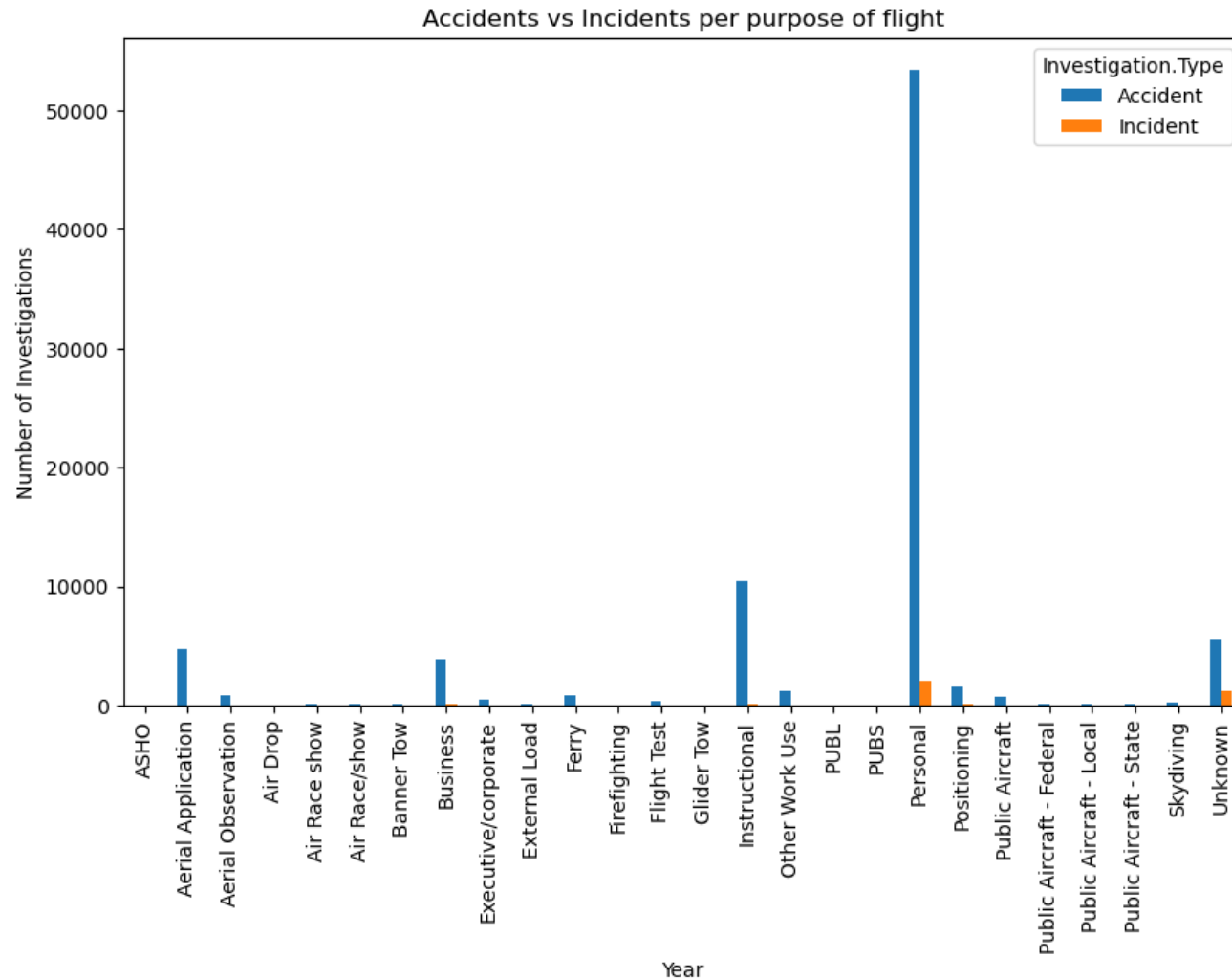
QUESTION 1: RESULTS (D) - AS WE ARE ANALYSING DATA FROM 1962 TO 2023, IS THERE A CERTAIN IMPROVEMENT IN THE AIRCRAFT INDUSTRY?
NUMBER OF INJURIES OVER THE YEARS



CONCLUSION AND RECOMMENDATIONS

- ❑ Accidents and Incidences according to the first plot have significantly reduced over the years
- ❑ Fatalities and Injuries show almost similar projection however we see that starting in the years after 2010 there seems to be less fatalities and Injuries
- ❑ We also note that there is a high level of fatalities and injuries from the 1990s to 2000s mainly because of increased aircraft activity with advancement in technology
- ❑ It is therefore recommended that we anticipate however much less accidents in the future therefore less risks

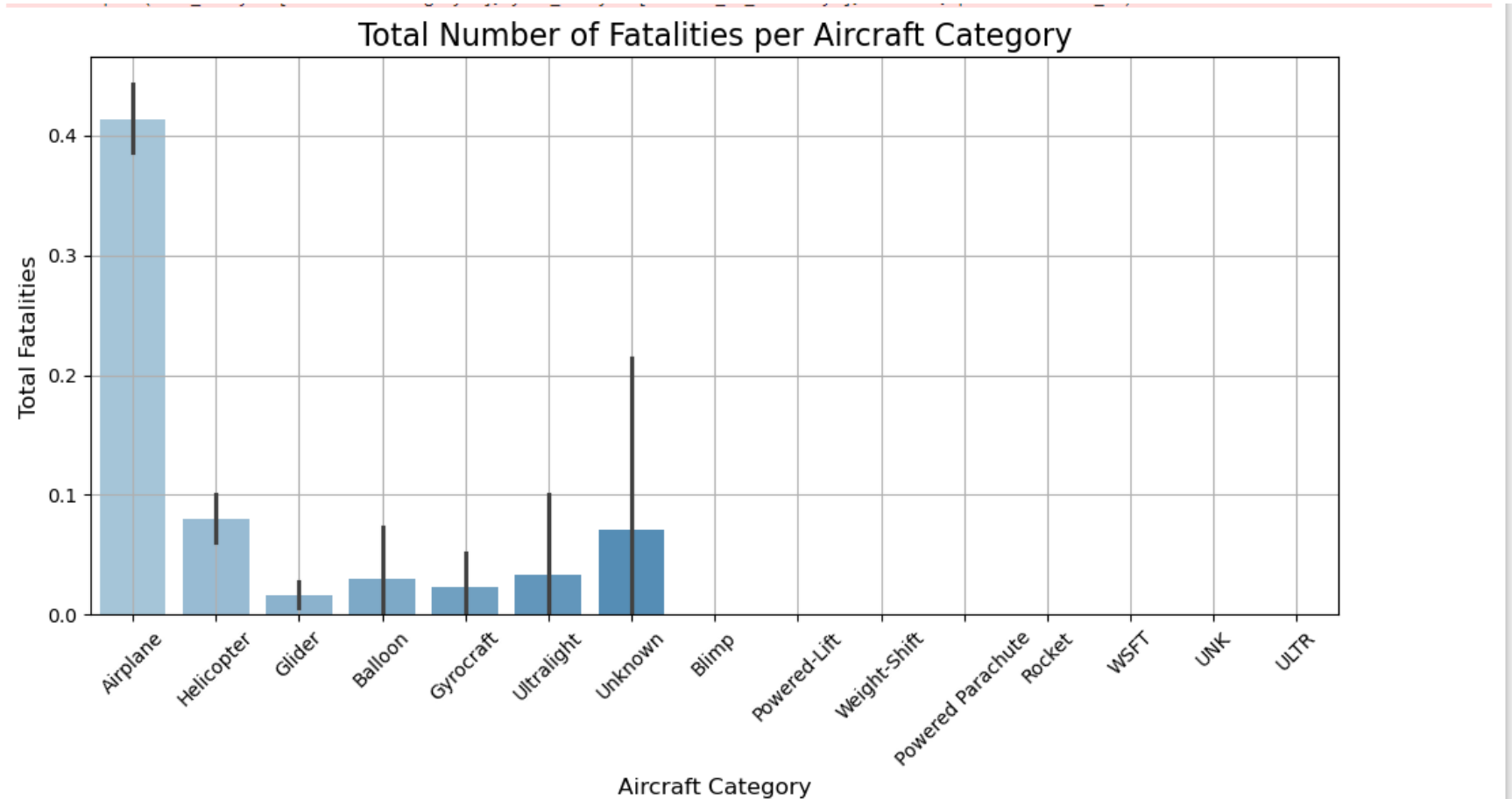
QUESTION 2: RESULTS (A)- WHICH PURPOSES FOR USING AN AIRCRAFT EXHIBIT THE LOWEST RISK?



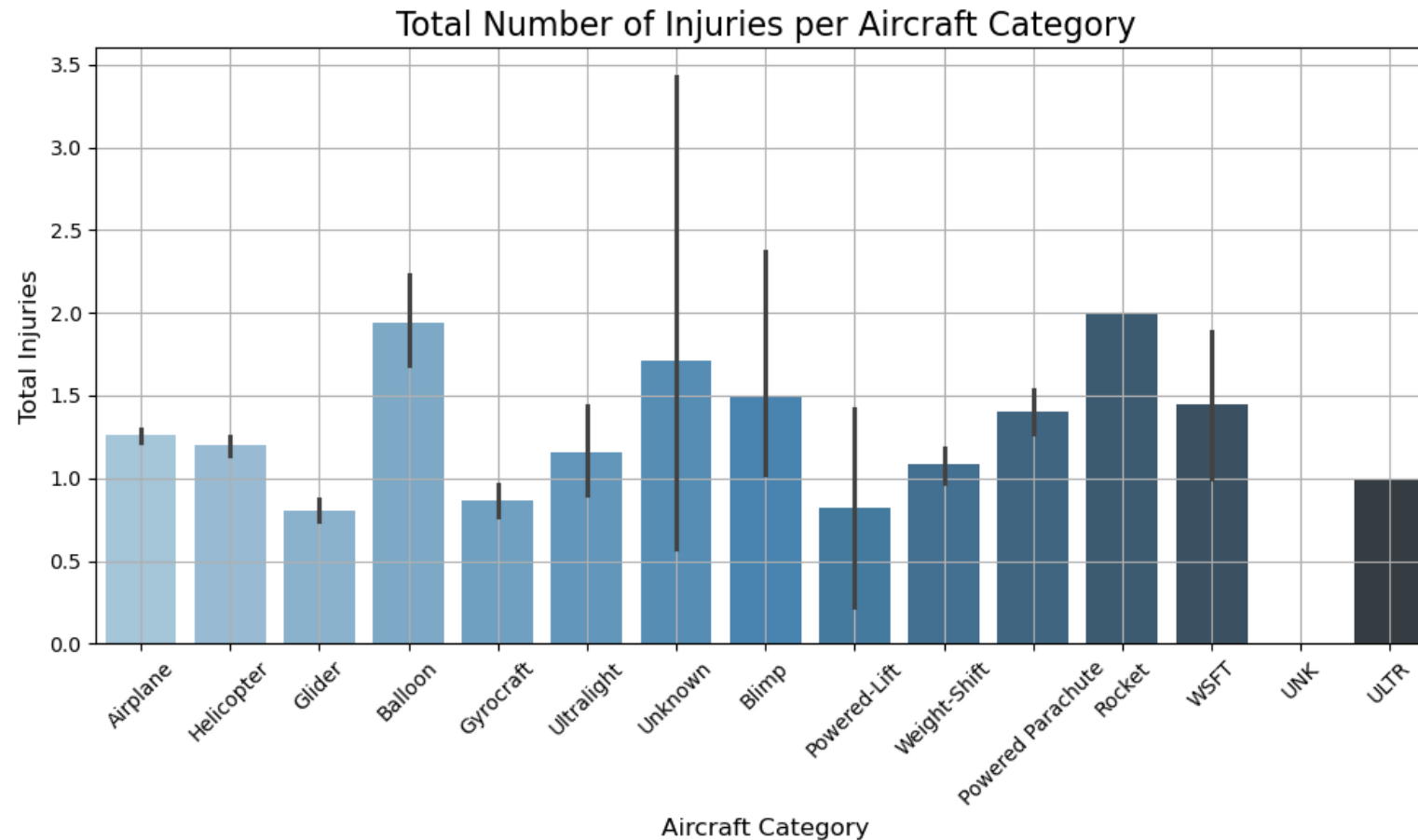
CONCLUSIONS AND RECOMMENDATIONS – QUESTION 2

- ☐ We can now see that most of the accidents observed are highly related to aircrafts used for personal purposes
- ☐ It is therefore recommended that we venture into aircraft business outside personal purposes e.g. Commercial purposes as these have much less accidents and less risks

QUESTION 3: RESULTS (A) - WHICH TYPE OF AIRCRAFT IT TIRED TO THE LOWER RISKS (ACCIDENTS, INJURIES AND FATALITIES)?



QUESTION 3: RESULTS (B)- WHICH TYPE OF AIRCRAFT IT TIRED TO THE LOWER RISKS (ACCIDENTS, INJURIES AND FATALITIES)?



CONCLUSIONS AND RECOMMENDATIONS

- ☐ We can now see that most of the accidents observed are highly related to Airplanes
- ☐ It is therefore recommended that we venture into aircraft business outside using Airplanes or less of Airplanes these have much less accidents and less risks



THANK YOU

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