AIRCRAFT SAFETY SURVEY

- **INTRODUCTION**
- The aircraft business has got a lot of choices .They all differ in size , performance , price and safety . In this analysis the aim is to look into the safety of different aircrafts using the accidents data from the Aviation Data.csv.

Problem Statement

- Identify the safest aircraft for the airline to use.

Main objective

- The primary objective is to identify the aircraft that has the lowest risk for the business.

Business questions regarding safety

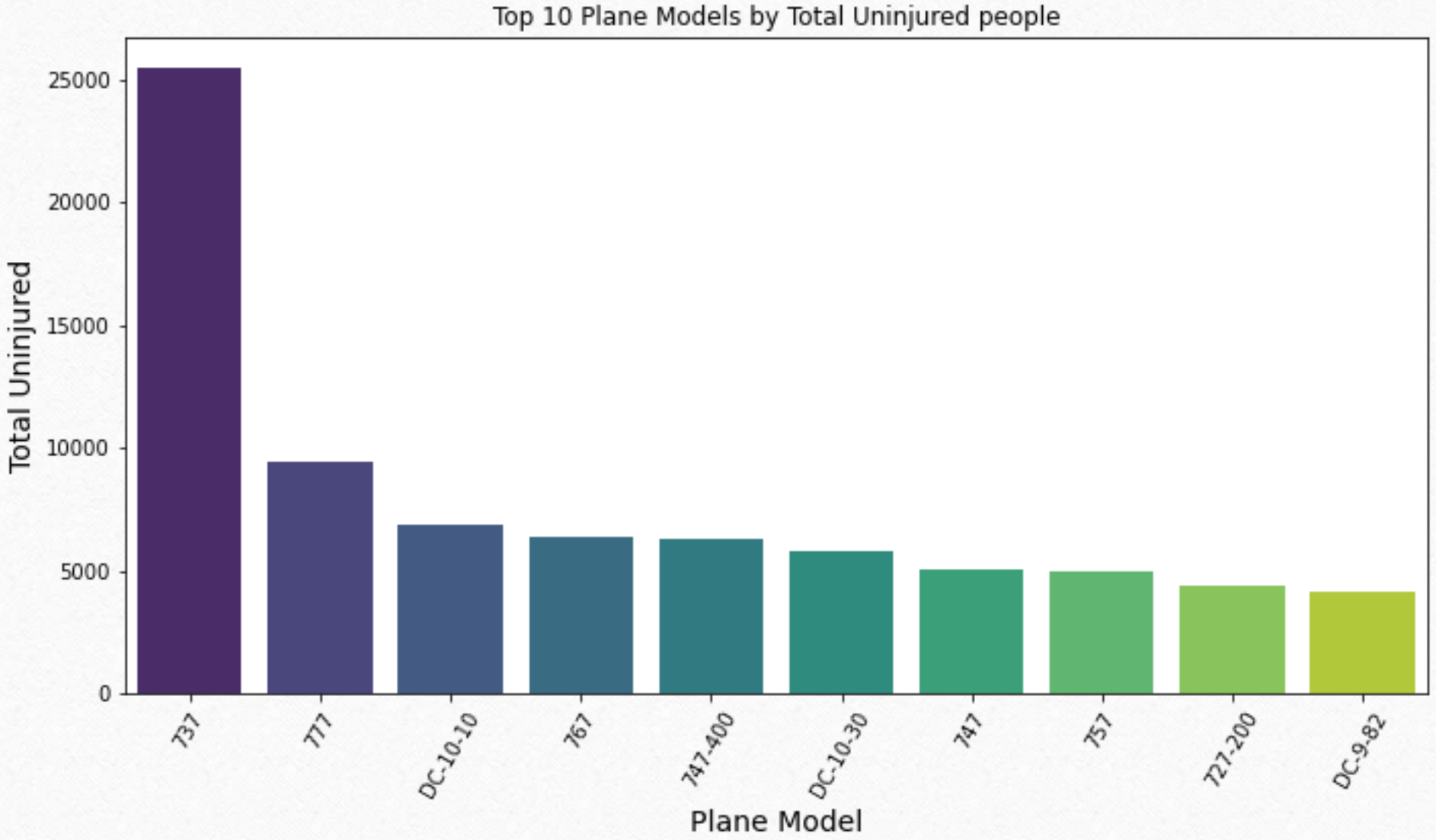
- What is the safest plane model in the market?
- What is the safest plane Make among those involved?
- How many engines are sufficient for our craft safety?
- What engine type should be considered from those in the market?

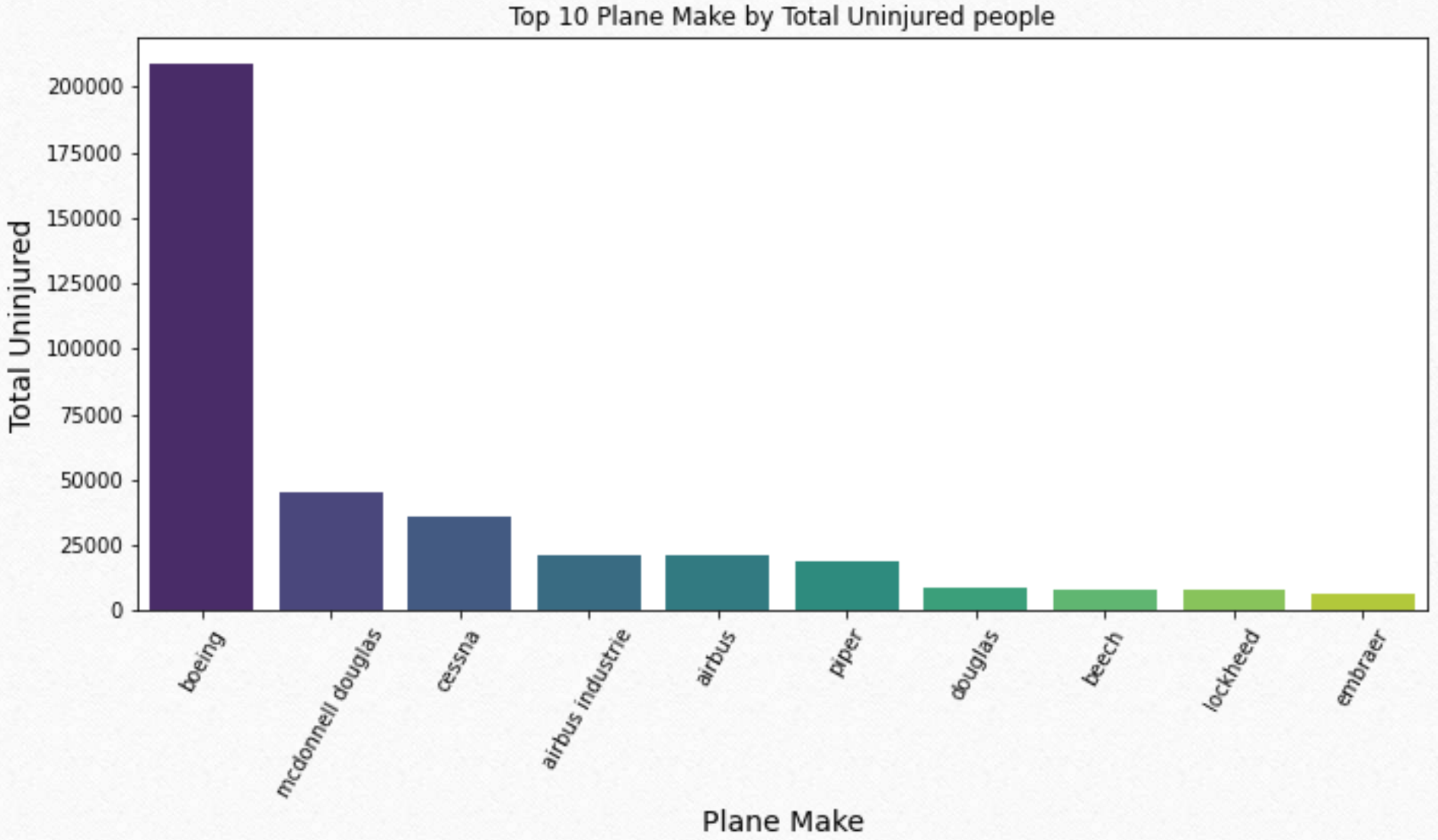
Data Source

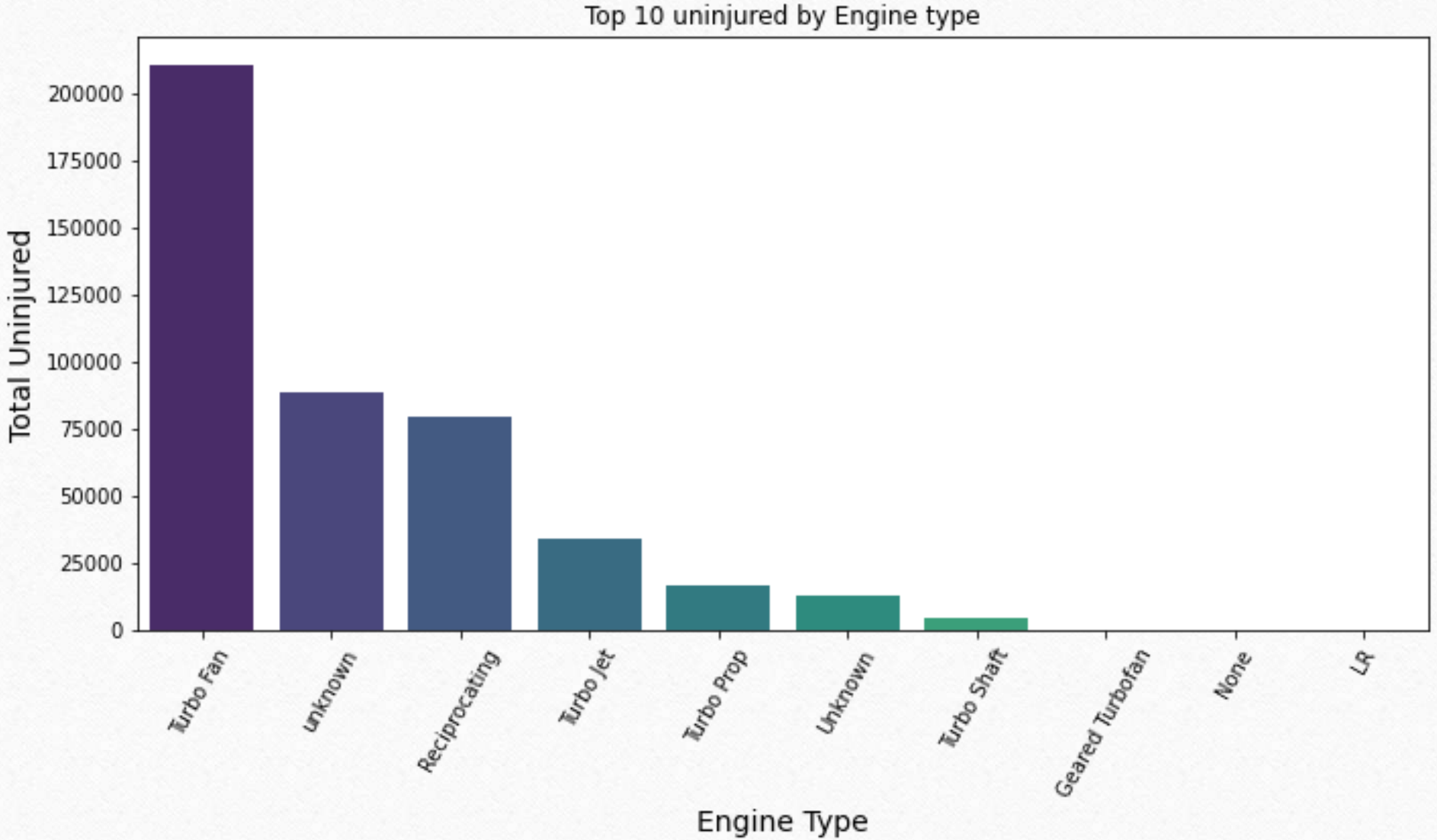
- The data is from dataset from the National Transportation Safety Board.

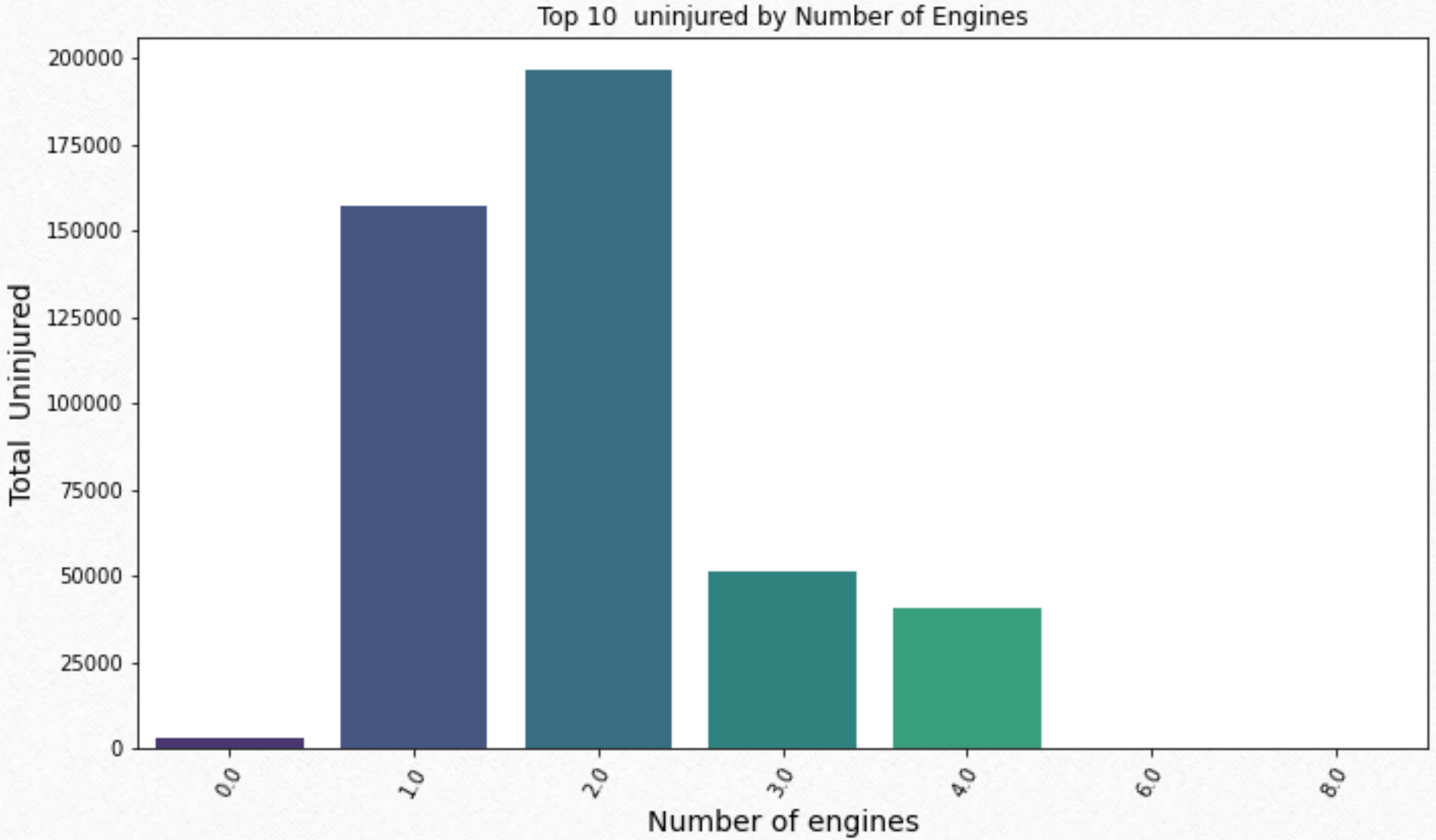
Visualizations

Some of the visualizations from the survey


Top 10 Plane Models by Total Uninjured people
Total Uninjured
25000
20000
15000
10000
5000
0
737
777
DC-10-10
767
747-400
DC-10-30
747
757
727-200
DC-9-82
Plane Model


Top 10 Plane Make by Total Uninjured people
Total Uninjured
200000
175000
150000
125000
100000
75000
50000
25000
0
boeing
mcdonnell douglas
cessna
airbus industrie
airbus
piper
douglas
beech
lockheed
embraer
Plane Make


Top 10 uninjured by Engine type
Total Uninjured
200000
175000
150000
125000
100000
75000
50000
25000
0
Turbo Fan
Unknown
Reciprocating
Turbo Jet
Turbo Prop
Unknown
Turbo Shaft
Geared Turbofan
None
LR
Engine Type


Top 10 uninjured by Number of Engines
Total Uninjured
200000
175000
150000
125000
100000
75000
50000
25000
0
0.0
1.0
2.0
3.0
4.0
6.0
8.0
Number of engines

Conclusions.

1. The Model 737 is the safest.
2. Boeing is the safest make.
3. Two engines are best for the airlines crafts.
4. Turbo fan engine is the best

Recommendations

1.Model: For the model The airline should consider the 737.

2. Make: The Boeing has proved to be the best in Make considering the safety of the passengers.

3. Engine make: The airline should consider a craft that makes use of the turbo fan engine type.

4.Number of engines: on the engine number , anything more than one engine is considerably safe.

Conclusion

Based on this analysis, the Boeing 737 stands out as the safest option. It combines a favorable injury record with robust performance capabilities. Airlines can tailor the aircraft for luxury and commercial needs, ensuring both safety and passenger satisfaction.