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PROJECT NEW FRONTIER

PRESENTATION





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INTRODUCTION

This presentation will answer all the questions you have as you embark on your journey into **Project New Frontier** to diversify your business objectives, particularly entry into the aviation sector. Through detailed analysis history of aviation accidents and the accompanying risk factors, this document will highlight the best choices of aircraft you will pick from as you expand to into the Aviation industry.

In arriving at the aircraft to purchase its crucial to evaluate the safety performance in the aviation industry. This study has paid relied on the **Aviation Accident Database & Synopses, up to 2023**, link: <https://www.kaggle.com/datasets/khsamaha/aviation-accident-database-synopses>.





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GREETINGS AND WELCOME TO THIS PRESENTATION

I'm Gilbert, and I'll be sharing with you actionable insights that will guide your head of the new Aviation Division on which aircraft to purchase.





THE AIRCRAFT PROJECT




AVIATION ACCIDENTS

Analysing the history of aviation accidents provides an opportunity to establish the aircraft with the lowest risk for the company to purchase.



WHAT SETS AIRCRAFTS APART

This research differentiated aircrafts using make, model, number of engines, engine type and the expertise of the builder.

A commercial airplane is seen from a low angle, flying horizontally across the frame. It leaves a long, straight white contrail behind it. The sky is a deep blue, and there are large, fluffy white clouds on the left side of the image. The text is overlaid on the right side of the image.

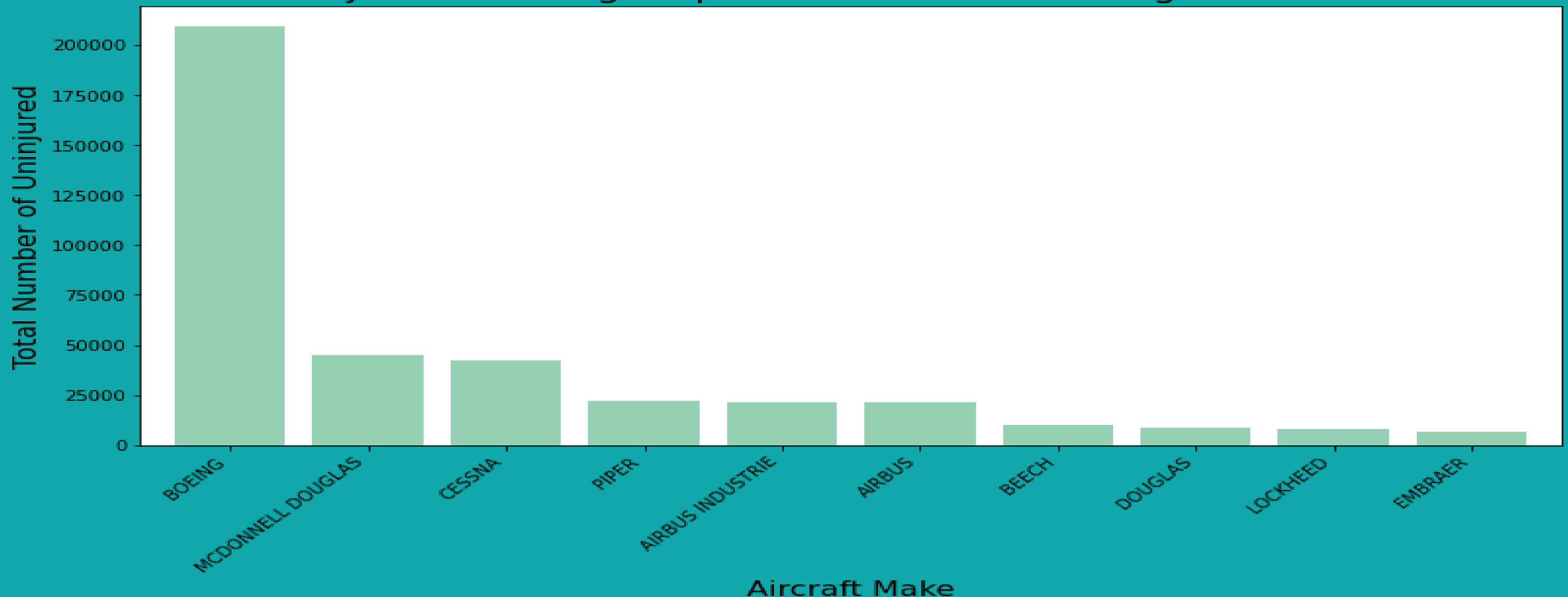
**YOUR ANSWERS TO
GETTING IT RIGHT IN
AVIATION IS IN THIS
PRESENTATION**



Safety of aircraft based on make

Boeing had a considerable number of uninjured passengers during aviation accidents in the period under review at 209,195, with McDonnell Douglas coming a distant second with 45,292 as uninjured during the accident incidents.

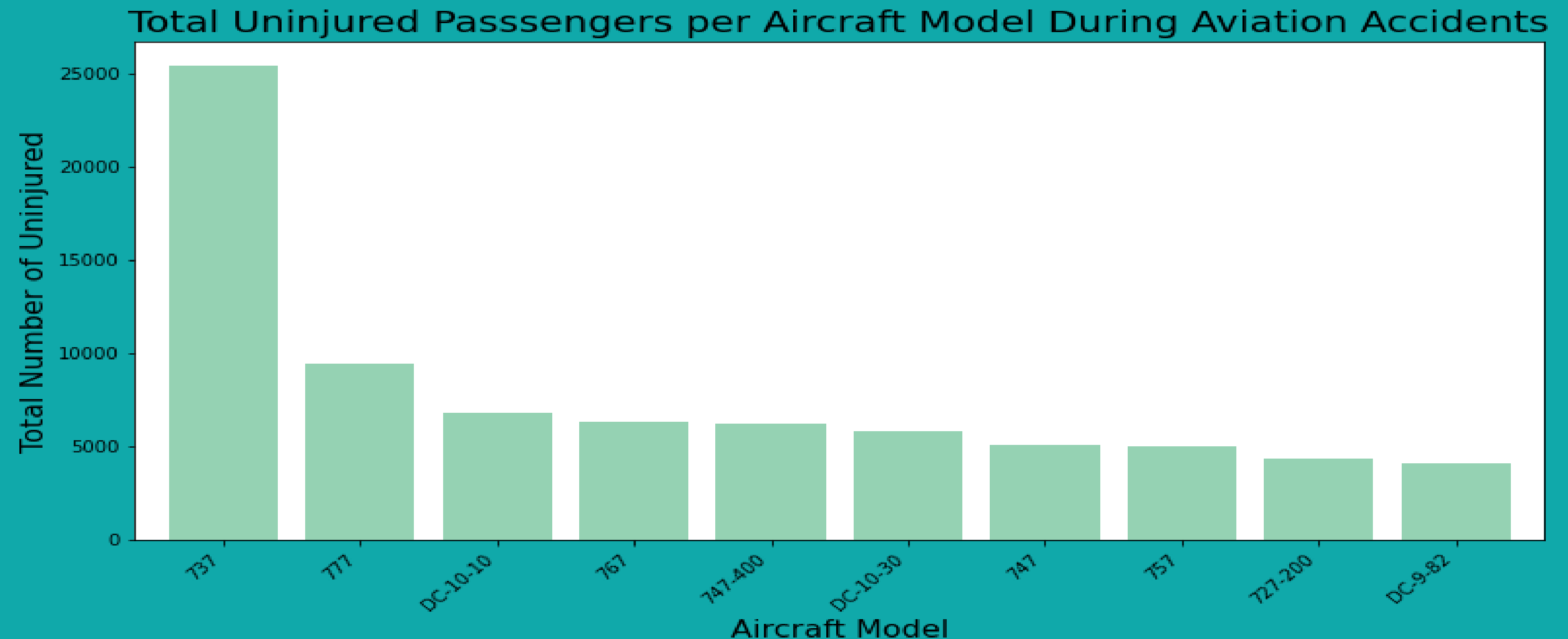
Total Uninjured Passengers per Aircraft Make During Aviation Accidents





Safety of aircraft based on model

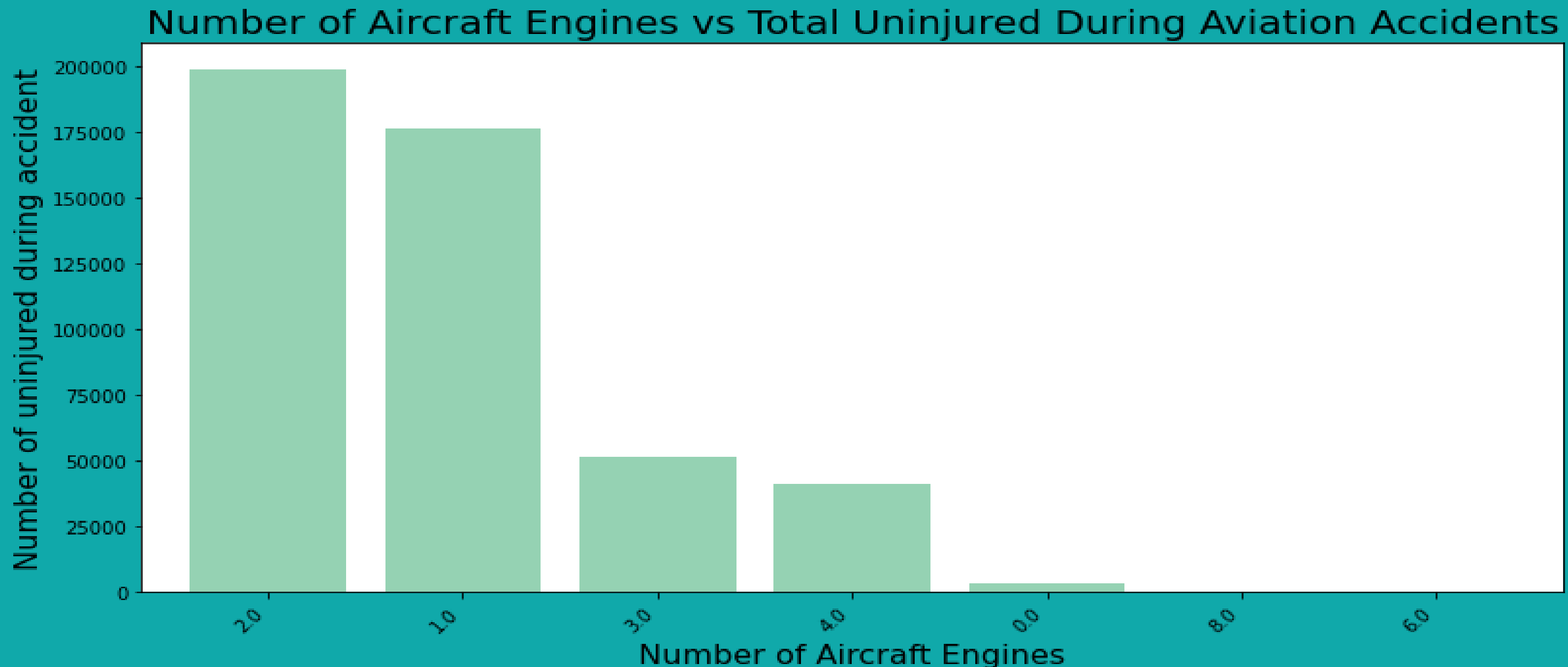
Model 737 had considerable number of uninjured passengers reported during aviation accidents in the period under review at 25,461 incidents while 777 and DC-10-10 reported 9,439 and 6,860 uninjured cases.





Safety of aircraft based on number of engines

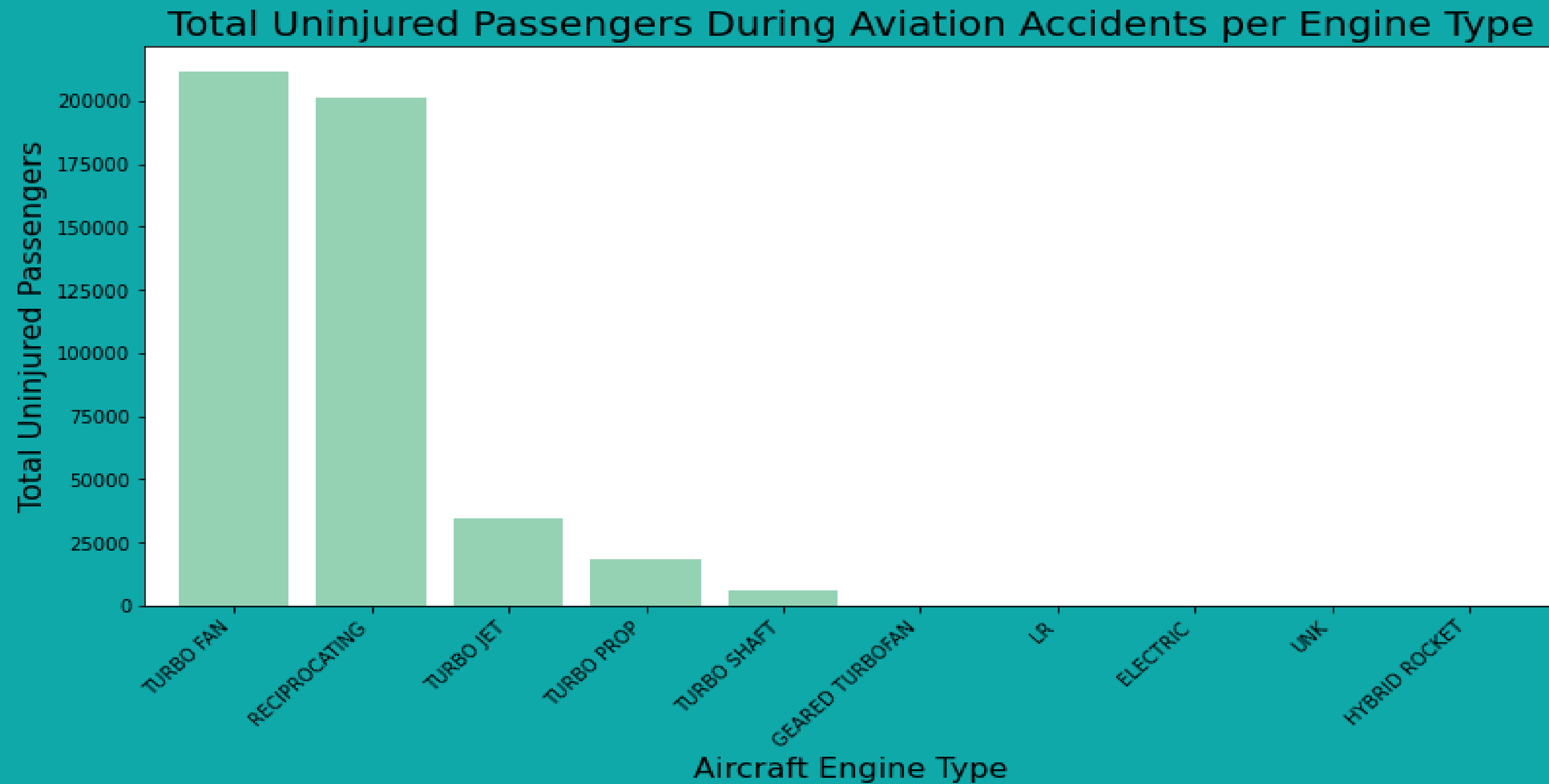
Aircraft with 2 engines experienced the highest number of uninjured at 198,945 while those with one engine came second with 176,367 uninjured.





Safety of aircraft based on engine type

Turbo Fan, Reciprocating and Turbo Jet are the engines type with then highest uninjired at 211,368, 201,222 and 34,247, respectively during the period under review.





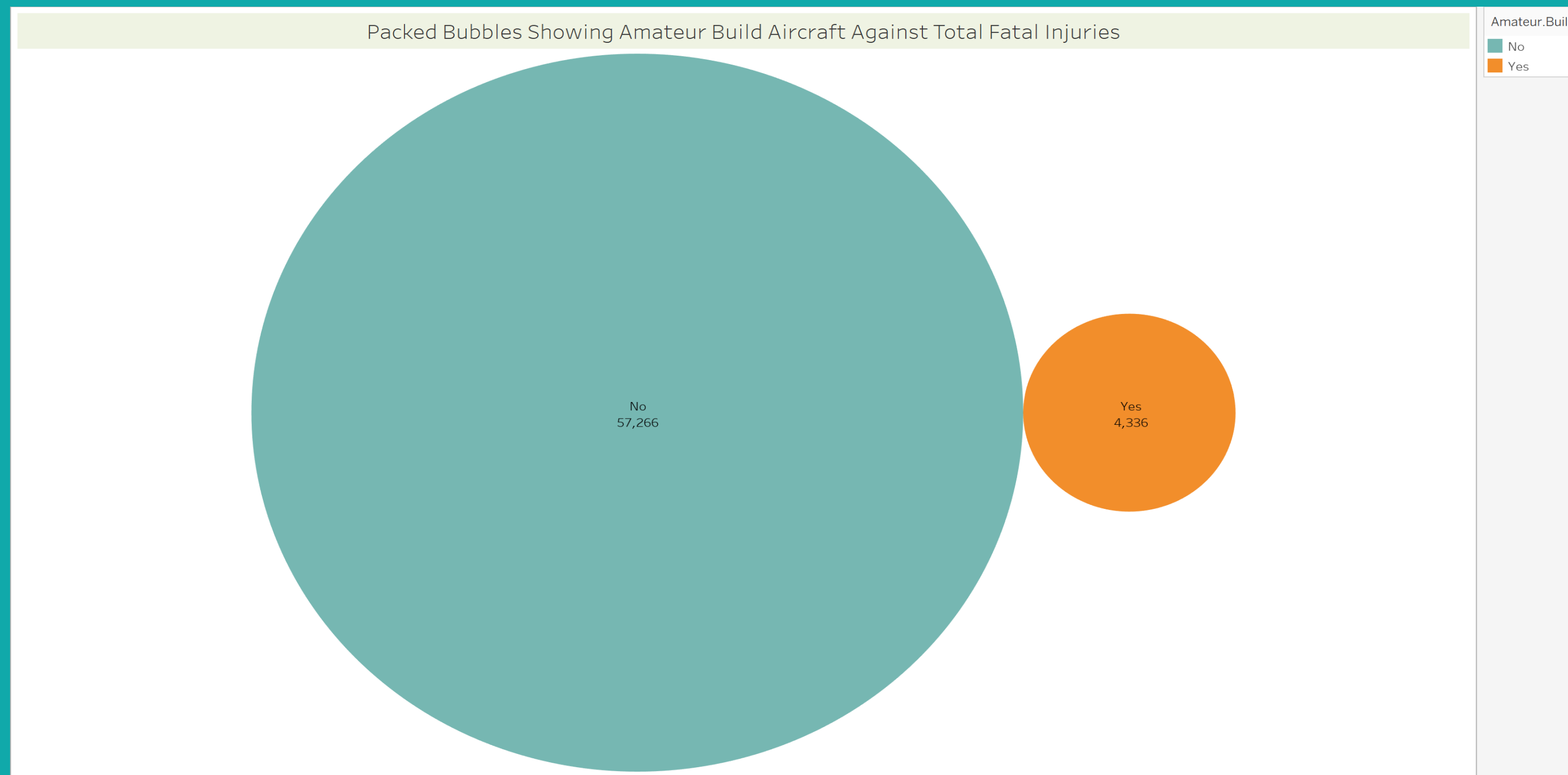
Safety of aircraft based on engine type ...continued

Turbo Fan engine type was still considerably safer with reported fatal injuries of 5,047 in all the aviation accidents in the period of review when compared to Reciprocating which had a high of 50,224 reported fatal injuries.



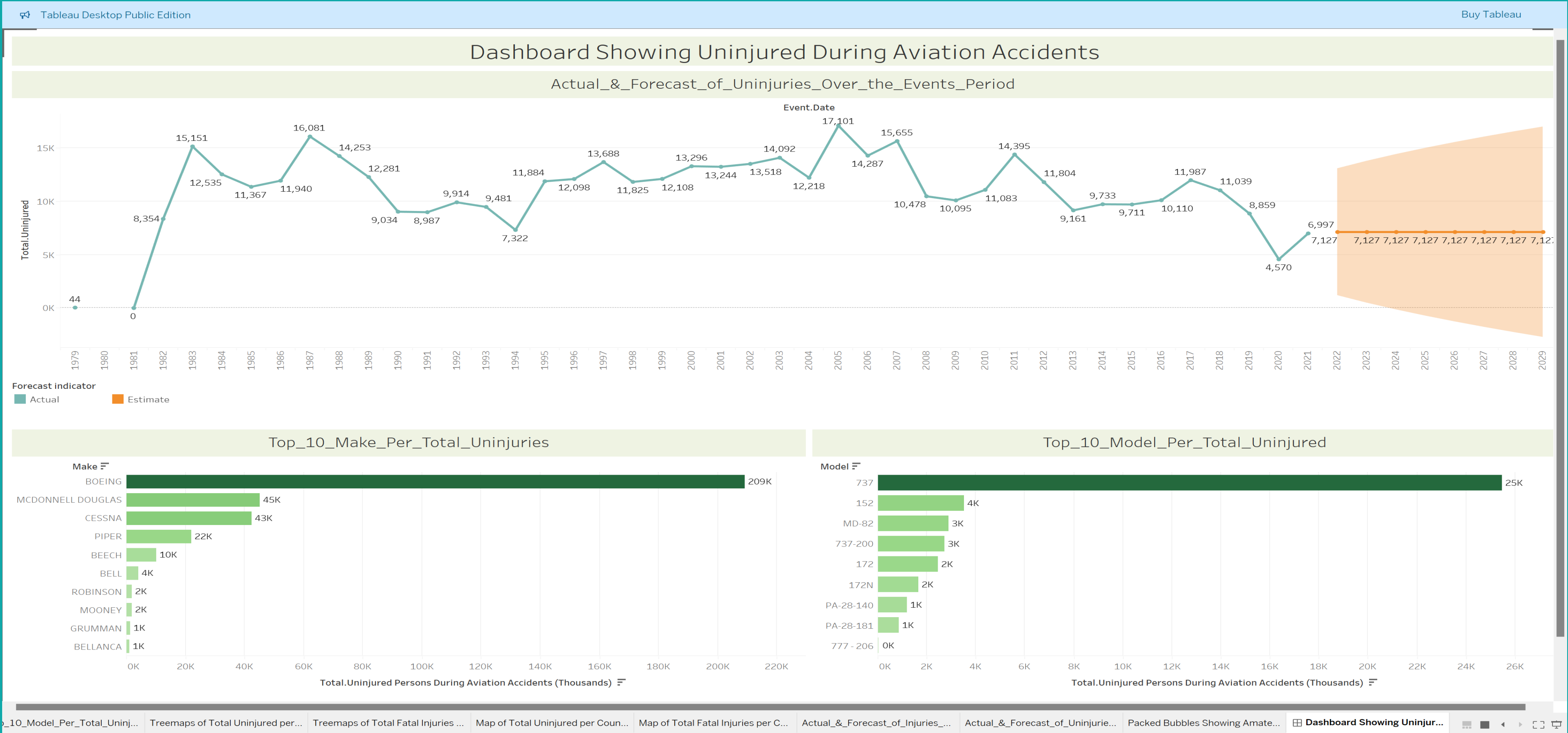
Safety of aircraft based on the experience of the builder

The aircrafts build by amateurs were safer with less fatal injuries compared to aircrafts build by non-amateurs.





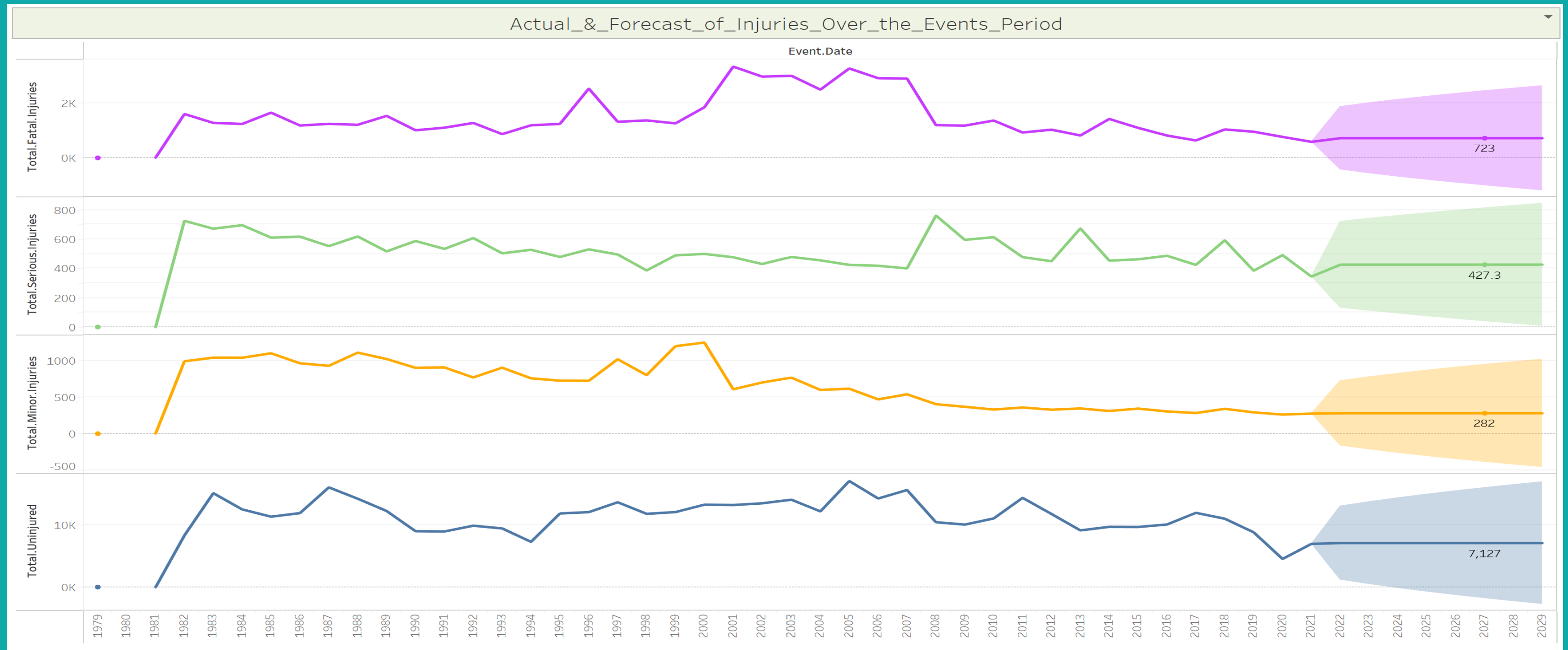
Summary of forecast and performance of makes, model on uninjured passengers





Aviation industry forecast

It's the right decision for the company to enter the aviation industry. The safety of the passengers remain to be higher going forward as the number of uninjured is considerably higher compared to the injured.





Conclusion

Findings

- The manufacturers of aircraft with the highest percentage of uninjured cases during accidents were Boeing, McDonnell Douglas, and Cessna. Boeing led the industry in the number of people who were not wounded during the accident incidents with 209,195, followed far behind by McDonnell Douglas with 45,292. Cessna ranked third during the review period with 42,522 uninjured.
- According to an investigation of the Aviation Accident Database & Synopses, up to 2023 dataset, this is the case, the top three aircraft manufacturers in terms of fatal accident injuries are Cessna, Boeing, and Piper, with 13,044, 9,223, and 8,364, respectively.
- The engine type that had the greatest number of fatalities and uninjuries was reciprocating.
- The aircrafts build by amateurs were safer with less fatal injuries compared to aircrafts build by non-amateurs



Conclusion

Findings

- The most often implicated aircraft models in deadly accidents include the 737, 737-200, and 152 types.
- The models with the greatest number of undamaged cases during the review period were the 737, 777, and DC-10-10. The 737 model recorded a significant number of uninjured incidents—25,461—while the 777 and DC-10-10 models reported 9,439 and 6,860 uninjured occurrences, respectively.
- The engine types with the highest uninjured values were Turbo Fan, Reciprocating, and Turbo Jet, with respective values of 211,368, 201,222, and 34,247.
- There were no fatal injuries in aircraft with six or eight engines between October 1948 and December 2022.
- Two-engine aircraft saw the most number of unharmed, totalling 198,945; one-engine aircraft came in second, with 176,367 uninjured.



Conclusion

Recommendation:

- The business to think about buying aircrafts of Boeing and MCDonnell Douglas make, considering the large proportion of people who were reported of not getting hurt during the accidents between 1948 and 2023, experienced by the two makes of aircraft.
- Turbo fan engine type had the highest number of uninjured, making it safe.
- The aircraft with two engines proved to be the safest, with the maximum number of uninjured—198,945—while the aircraft with one engine came in second with 176,367 uninjured. The corporation should purchase one of these aircrafts.
- The aircrafts build by amateurs are a good considerations to buy as they were safer with less fatal injuries compared to aircrafts build by non-amateurs.










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