

Aviation Business



Data Analysis

Exploring New Aviation Business Lines



Business Flights with Airplanes

- Target Audience: Business executives, corporate teams, high-net-worth individuals.
- Benefits: Flexibility, time-saving, personalized services.

Business Flights with Helicopters

- Target Audience: Business professionals, tourists, short-distance travelers in urban areas.
- Benefits: Access to remote locations, reduced travel time, scenic routes.

Flights for Skydiving

- Target Audience: Thrill-seekers, tourists, adventure sports enthusiasts.
- Benefits: Unique experience, growing adventure tourism market.

Data used

The National Transportation
Safety Board aviation
accident dataset



**National
Transportation
Safety Board**

The National Transportation
Safety Board website -
[ntsb.gov](https://www.ntsb.gov)

Data on accident: Date, type, location, make, model, purpose of flight, aircraft damage, passengers fatality, weather conditions, airport location and code, aircraft category etc.

Removed Data: Amateur aircraft, NaN value rows, 1982, USA only, coordinates, investigation type, schedule, airport code, airport name, air carrier.

Initial Dataset: 88889 rows, 31 columns

Filtered Dataset: 18167 rows, 22 columns

Process Steps

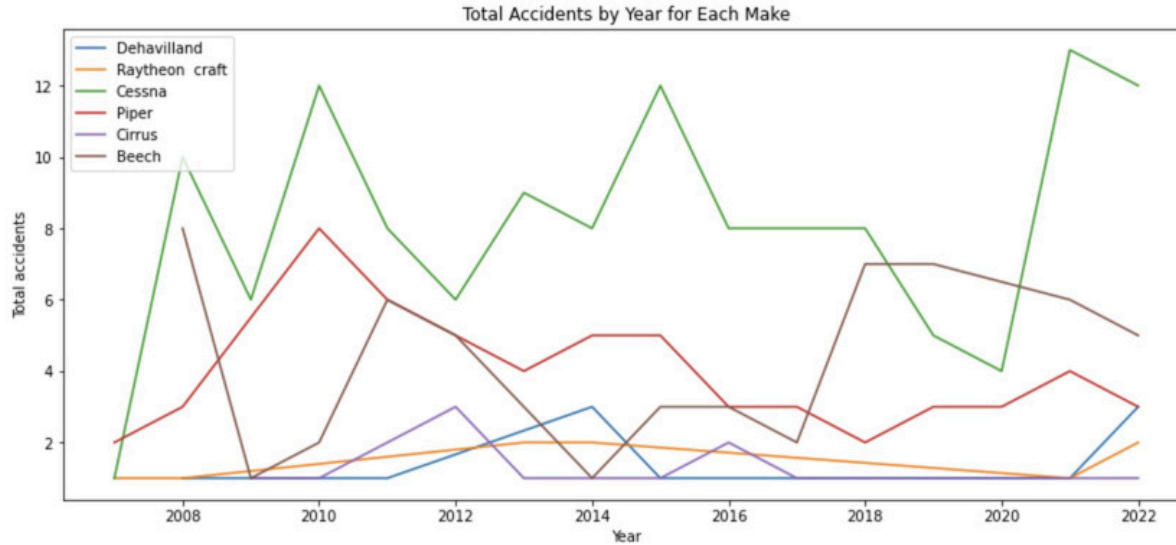


Business flights



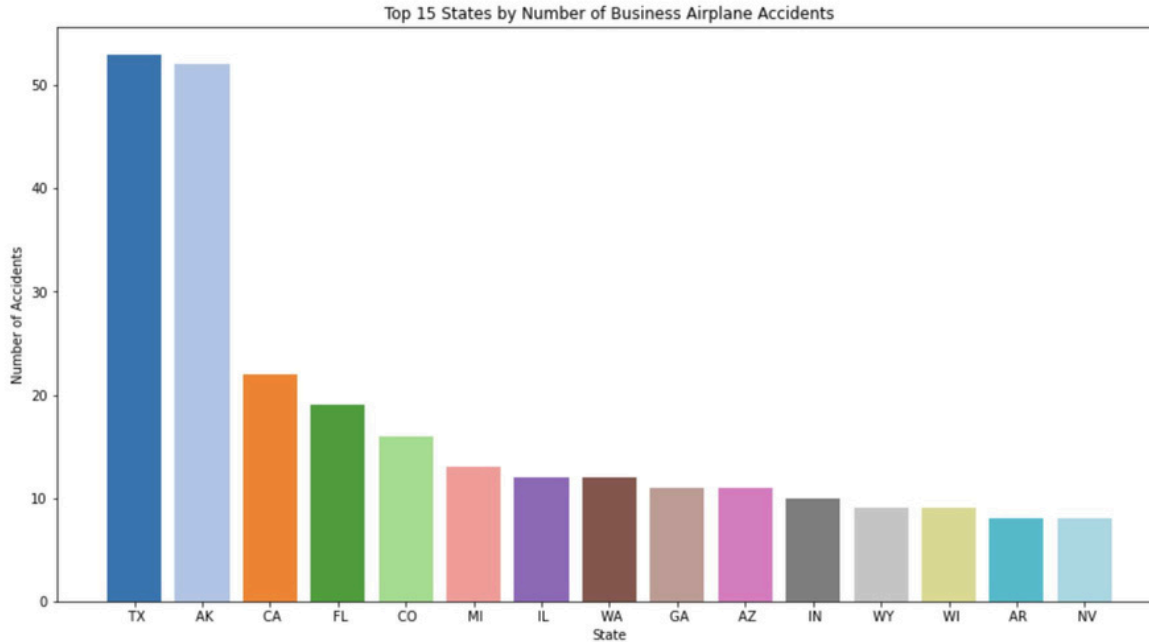
- Business aviation industry in the U.S. is \$150 billion.
- Employs over 1.2 million people.
- Compound annual growth rate (CAGR) of 4.46%.

Business flights - Airplanes



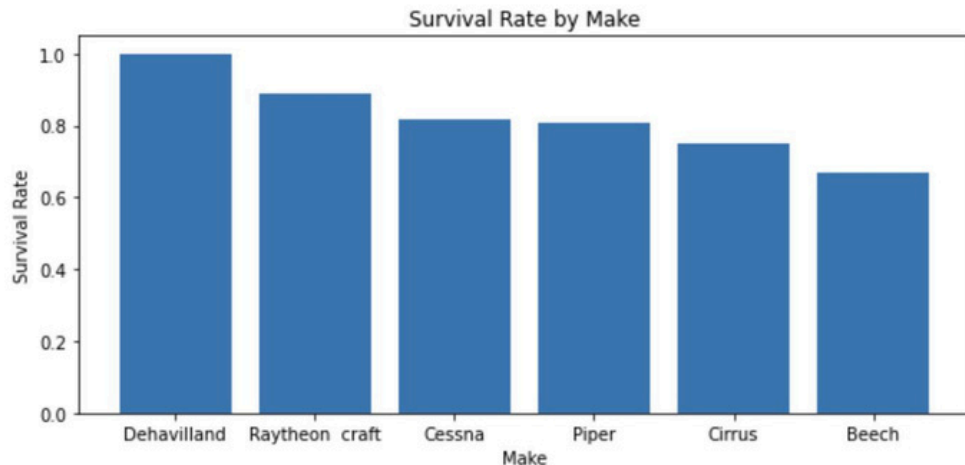
No clear trend in any manufacturer in number of accidents over the last 15 years.

Business flights - Airplanes



States with higher risks of accidents: Texas, Alaska, California, Florida.

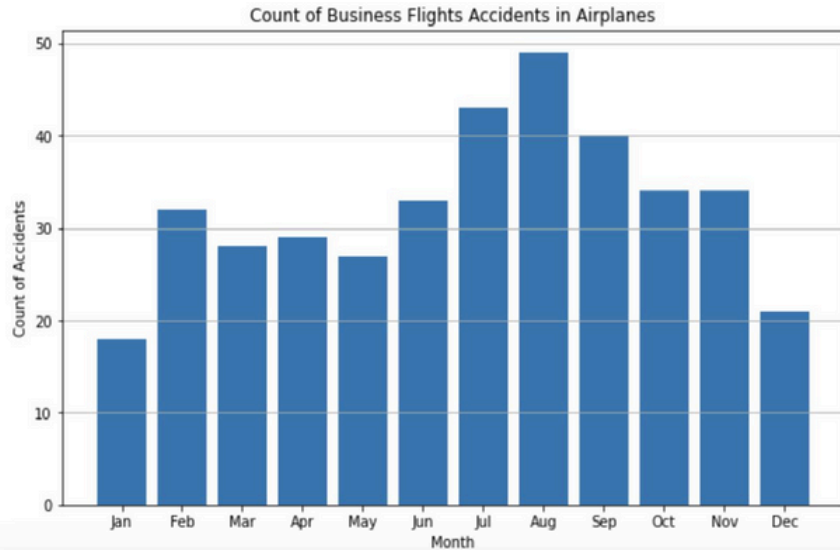
Business flights - Airplanes



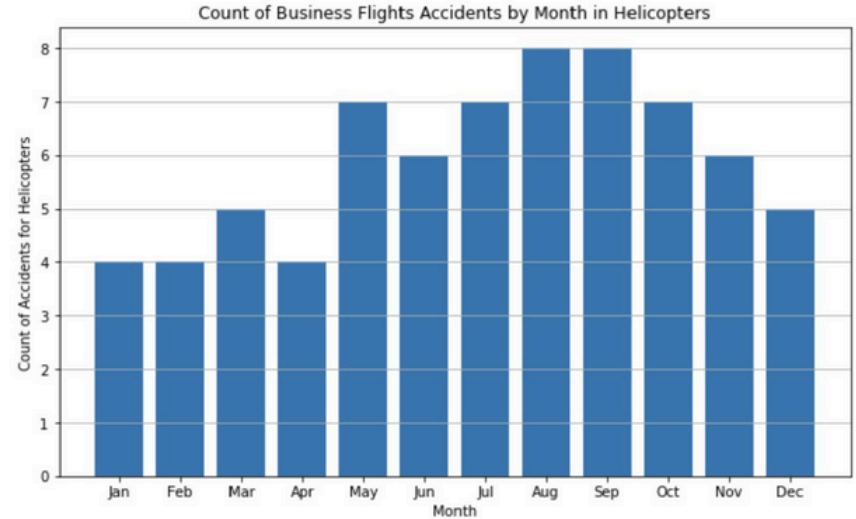
Airplanes Models to consider:

- Piper - M350 and M500 (formerly PA-46).
- Cessna - Citation line, Model 525 and 700.
- Cirrus - SR 22.

Business flights



July and August are higher risk months, lowest risk are December and January.



August and September are higher risk months, lowest risk are December through April.

Recommendations



Airplane Business Flights

Models to consider:

- Piper - M350 and M500 (formerly PA-46).
- Cessna - Citation line, Model 525 and 700.
- Cirrus - SR 22.

States with higher risk to avoid:

Alaska, Texas.

July and August are higher risk months, lowest risk are December and January.

Commercial Business Flights

Models to consider:

- Robinson R44 and R44 II.
- Bell 407.

States with higher risk to avoid:

Texas, Arizona.

August and September are higher risk months, lowest risk are December through April.



What's next



Profitability

Evaluation of potential revenue streams and cost management

Operational Feasibility

Assessment of logistics, safety, and regulatory requirements.

Analysis extension ideas

Additional data

Analyze the total flight hours to understand accident rates per flight hour/mile flown.

Additional subjects

Look at the correlation between the age of the aircraft and accident rates.

New opportunities

Explore other business ideas within given data set

Thank you!

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