

# BEP Aviation

# Recommendations

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July 14th, 2023

# Meet the Team

**Paul Justafort - Overview and Business Problem**

**Bobby Daly - Data Understanding and Analysis**

**Em Jager - Recommendations and Next Steps**

# Overview



**Aviation Data Analysis:**

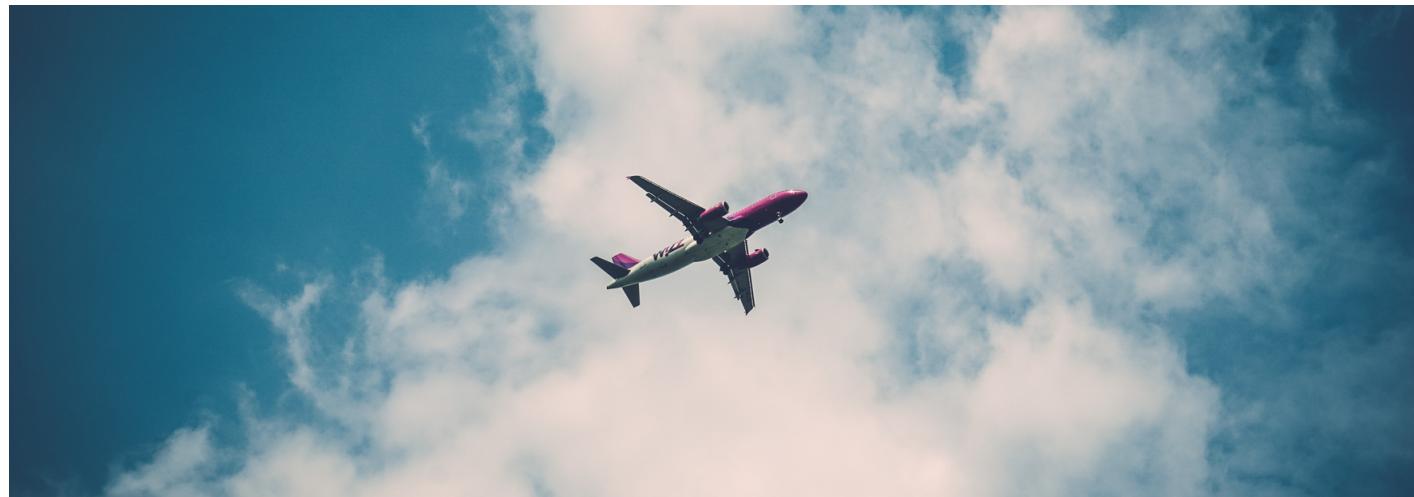
- Industry Insights
- Accident Trends
- Risk Factors

# Business Problem



- New Aviation Company
- Lessons Learned
- Safety Priority

# Data Understanding and Analysis



## NTSB Data

85,000+ Aviation Accidents from 1980 - 2022

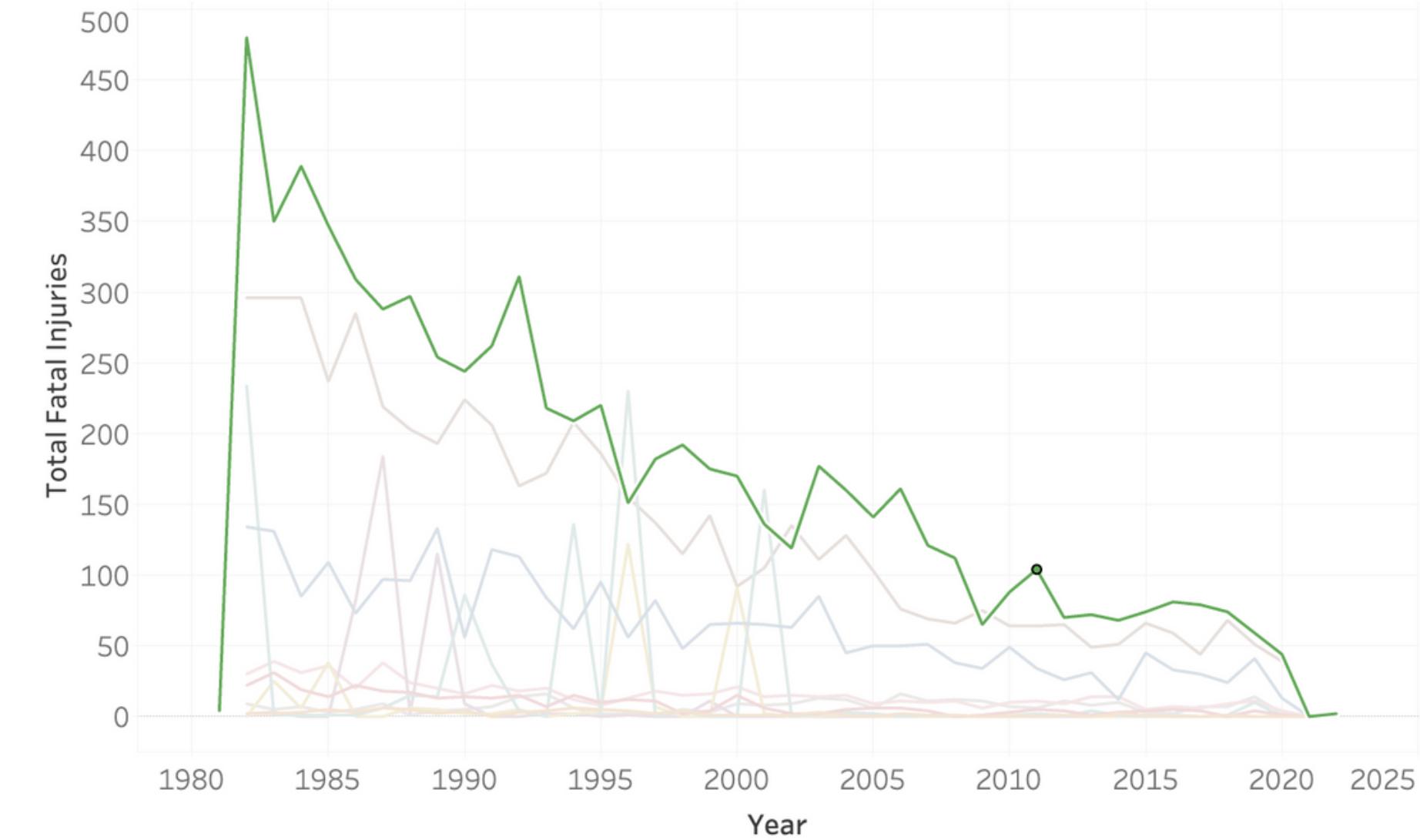
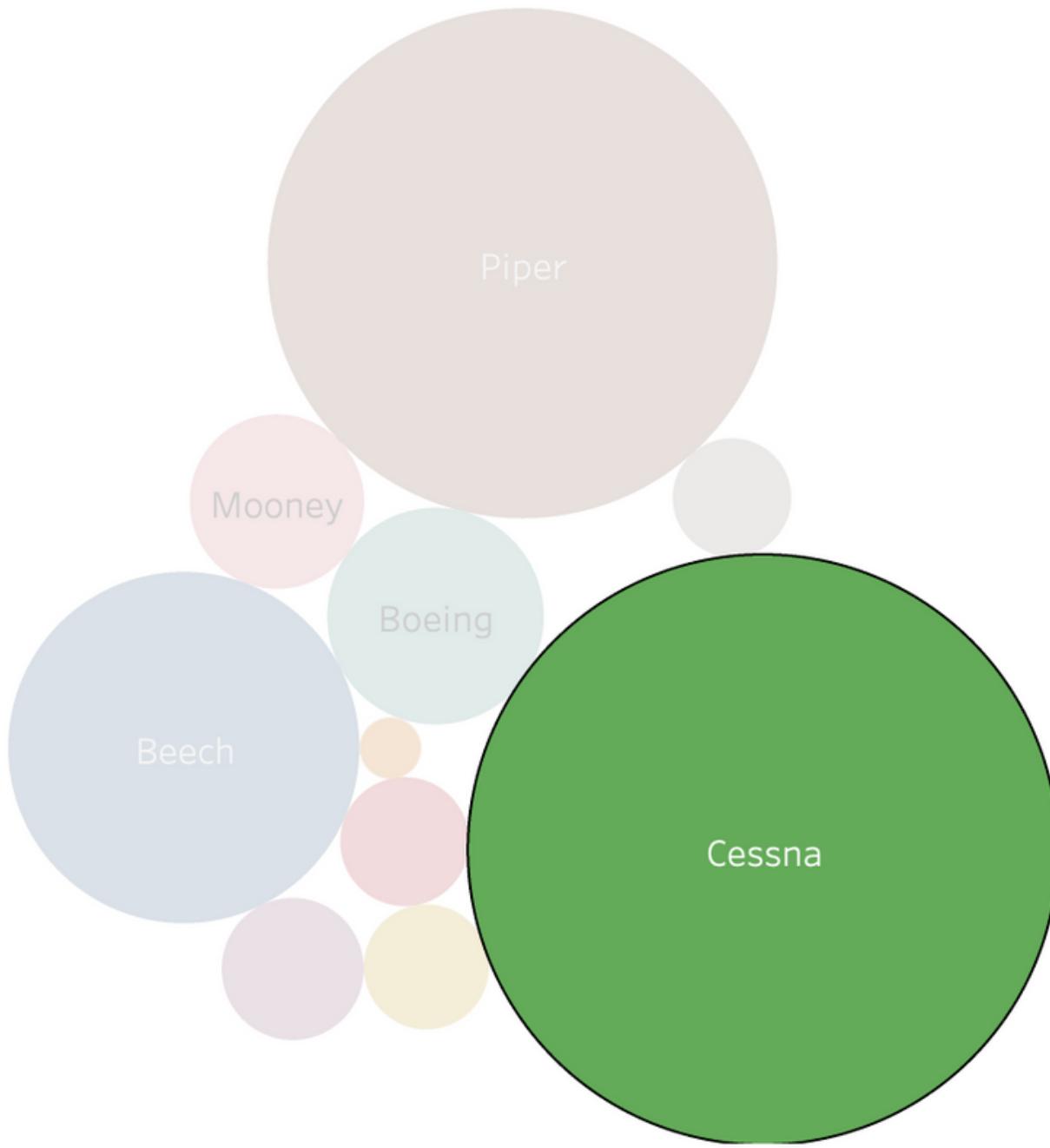
## Focus

Total Fatalities by:

- Airplane Make
- Engine Type
- U.S. Region for Flights

# Airplane Make

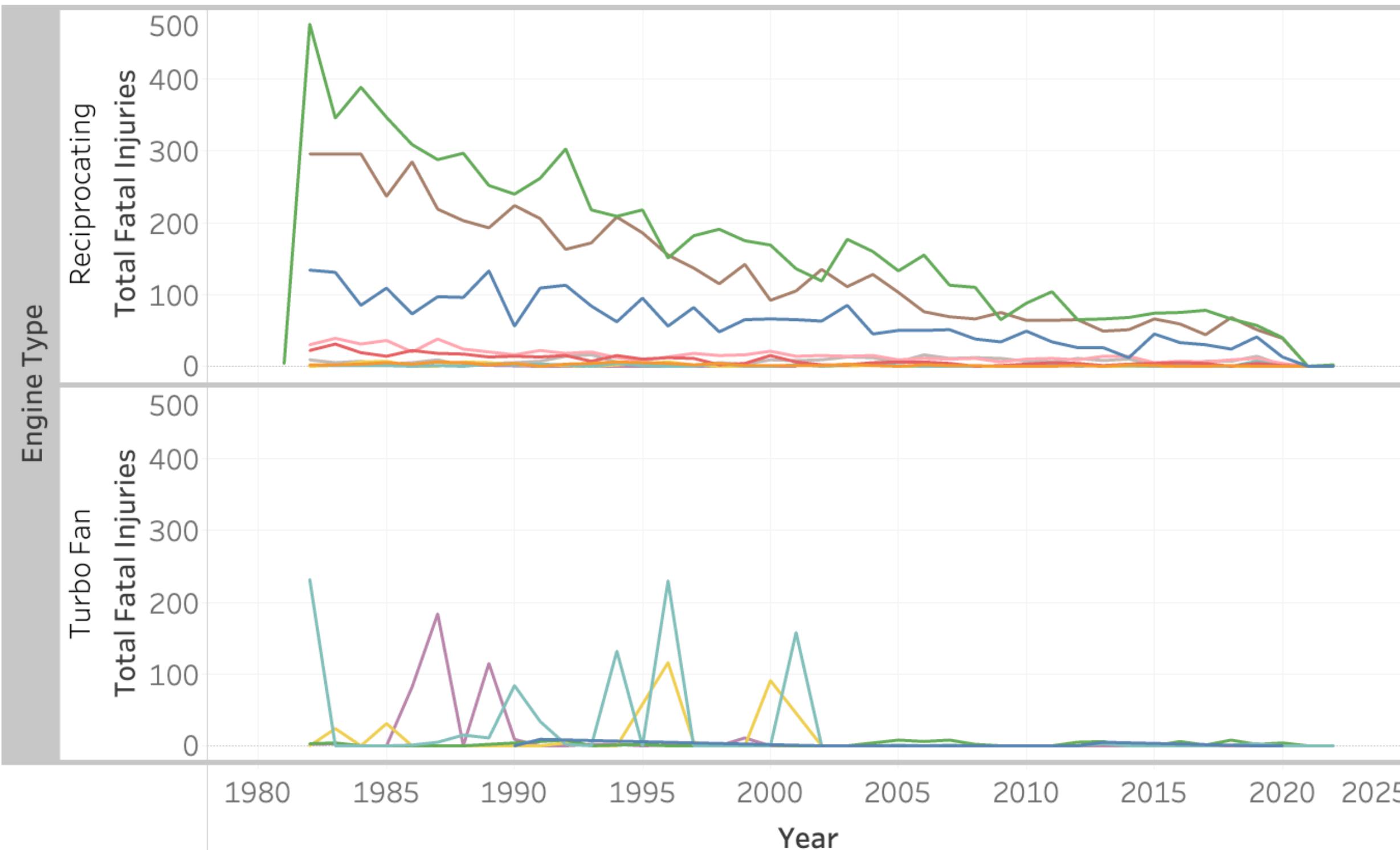
**Two Different Stories**  
**Fatalities by Airplane Make**



**Summation**

**Over Time**

# Engine Type



## Reciprocating Engine:

- Wide spread usage across Airplane Makes
- Clear downward trend in fatalities

Make
Beech
Bell
Bellanca
Boeing
Cessna
Douglas
McDonnell douglas
Mooney
Piper
Robinson helicopter

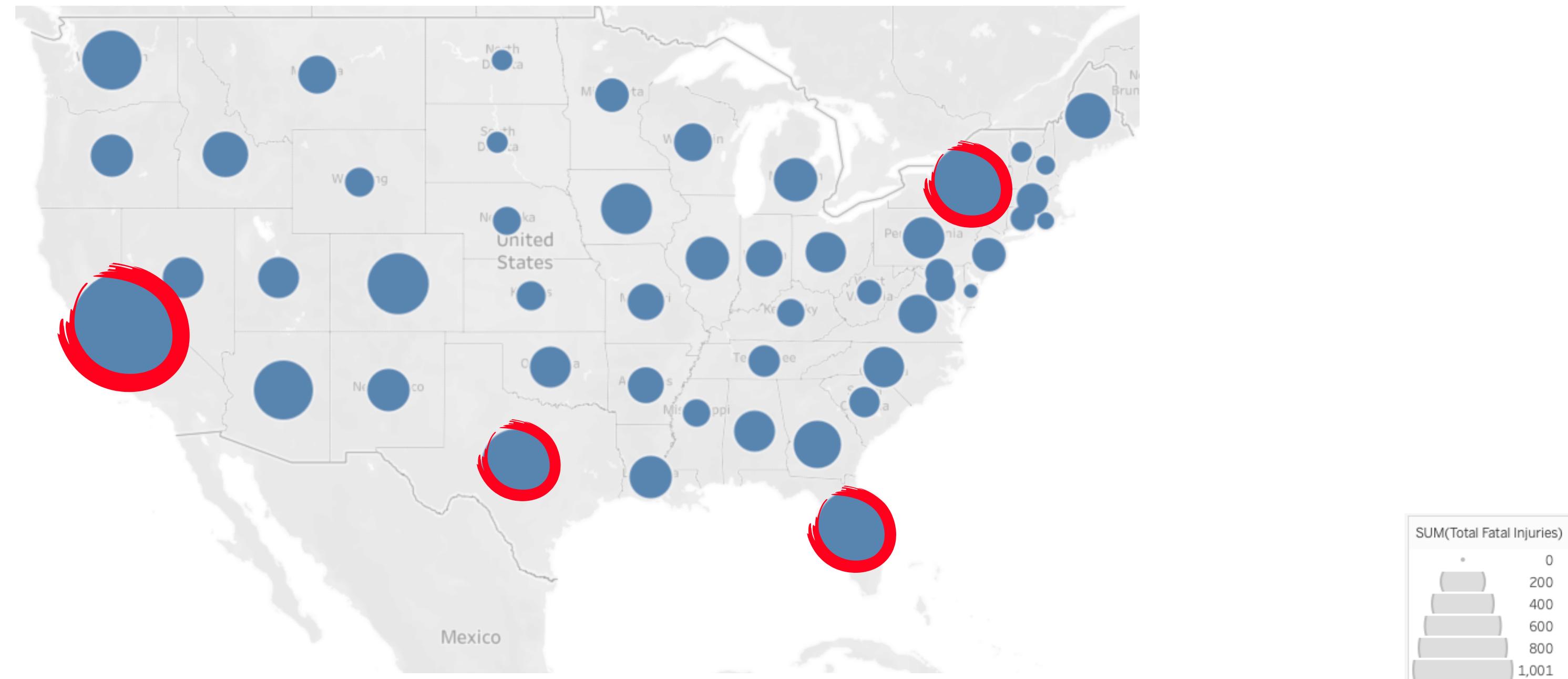
## Turbo Fan Engine:

- Sporadic fatalities pre 2005
- Consistently few fatalities post 2005

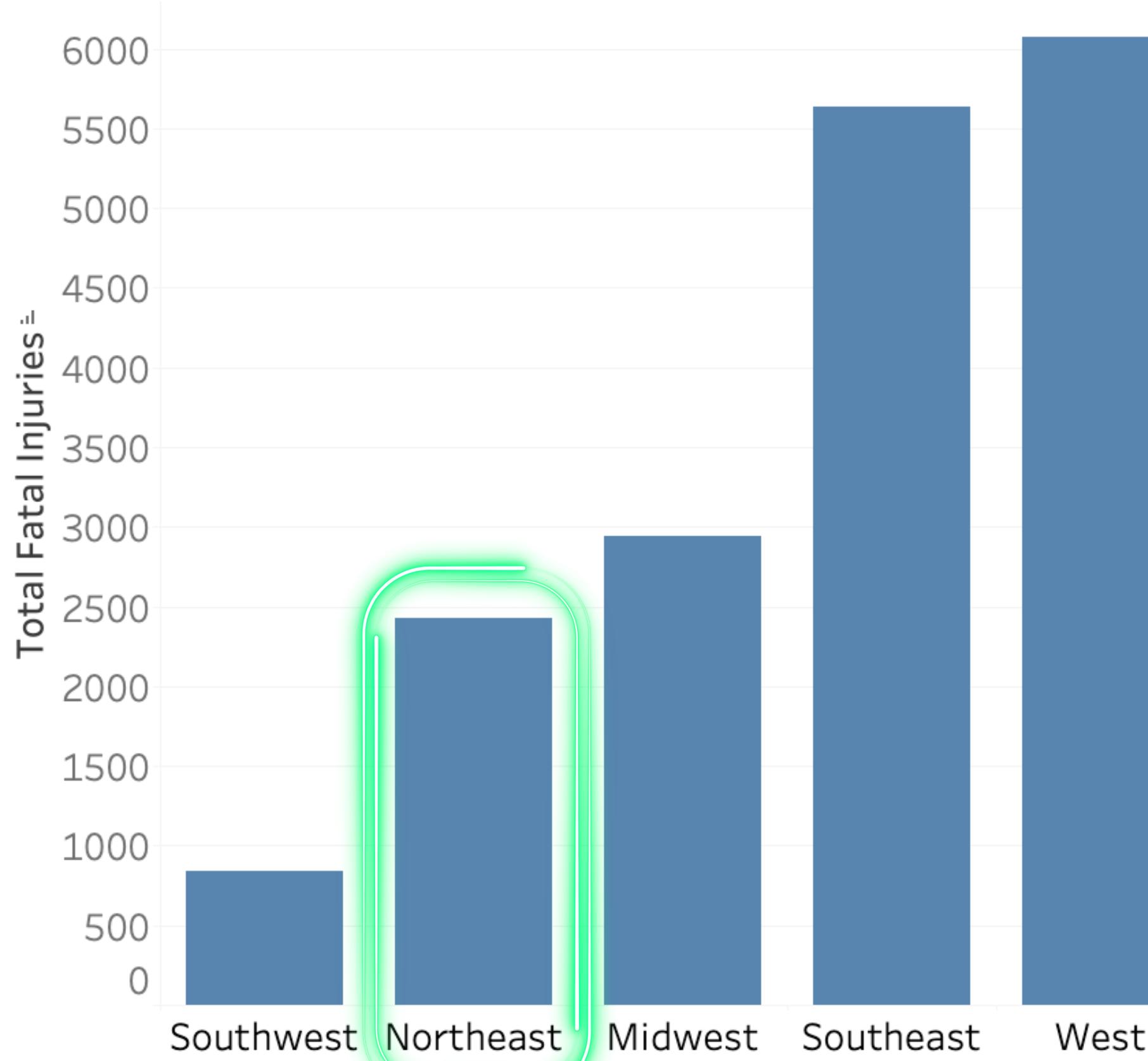
# U.S. State for Flights

Fatalities by State

Large Cities -> Large # of Fatalities

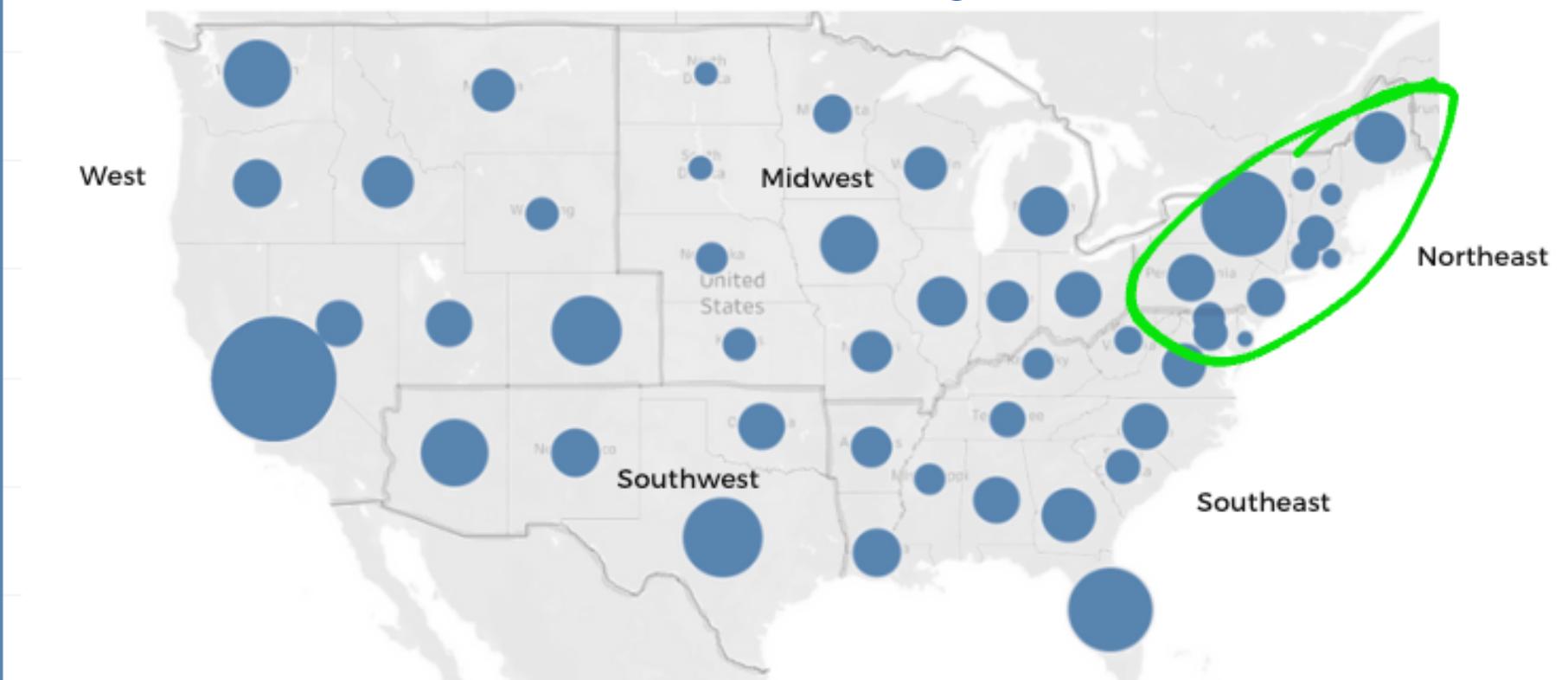


## Fatalities by Region



# U.S. Region for Flights

## Fatalities by State

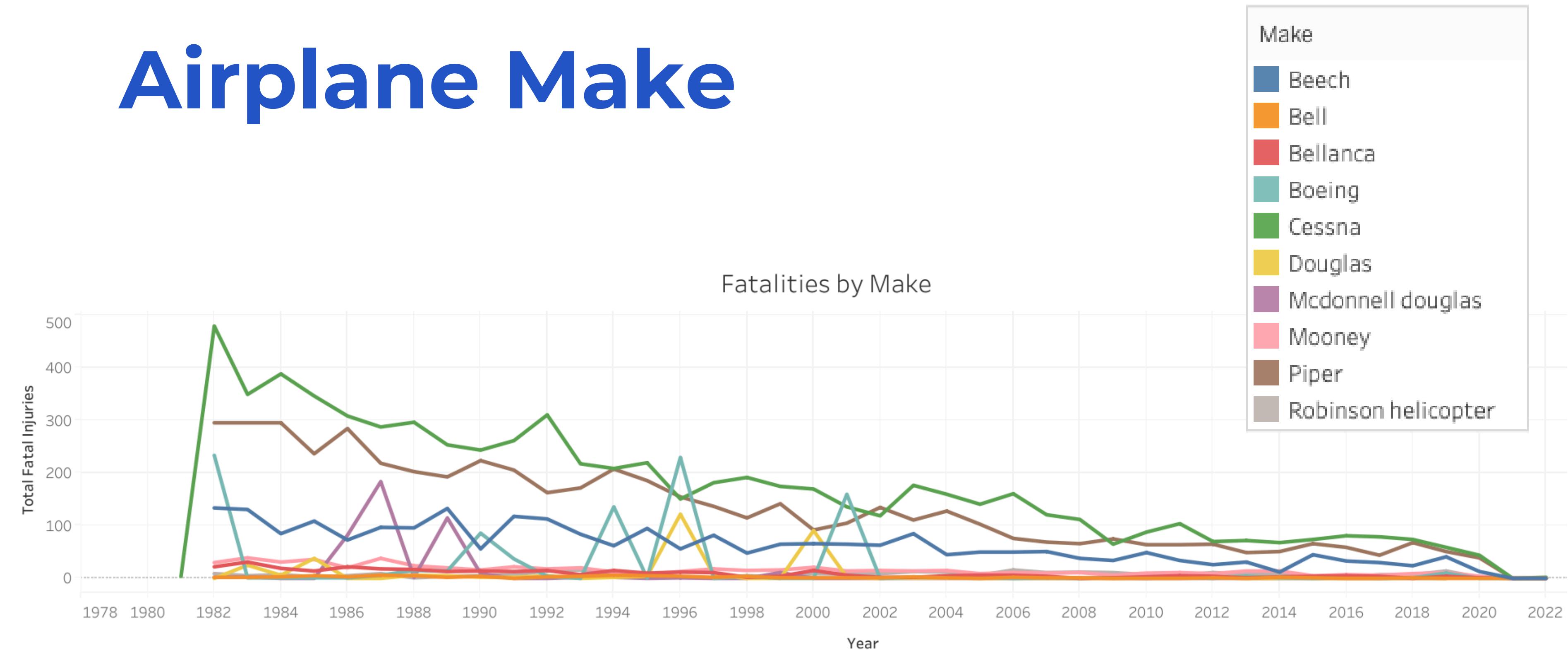


# Recommendations

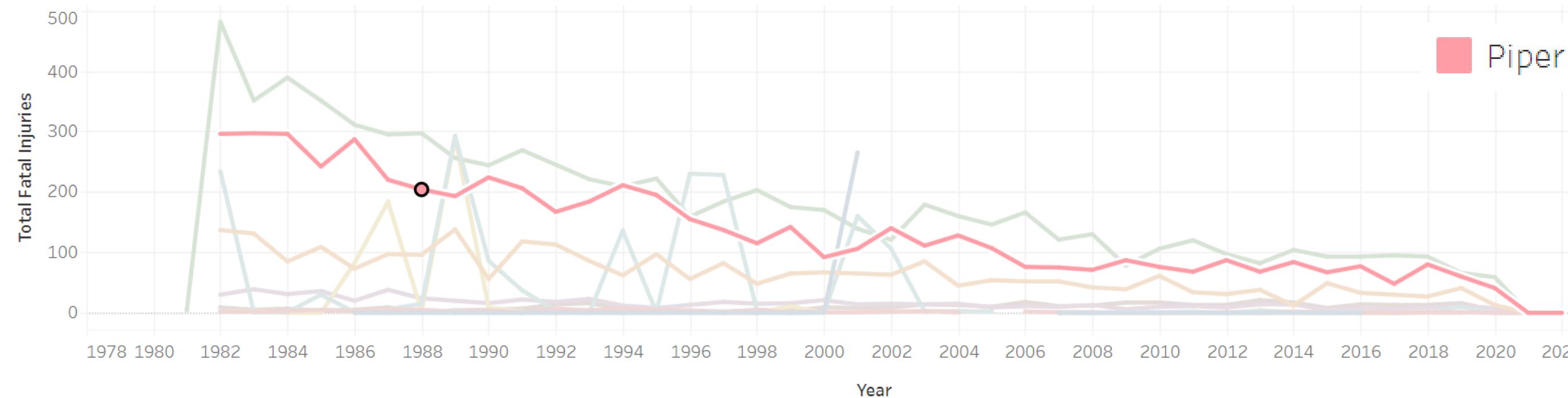
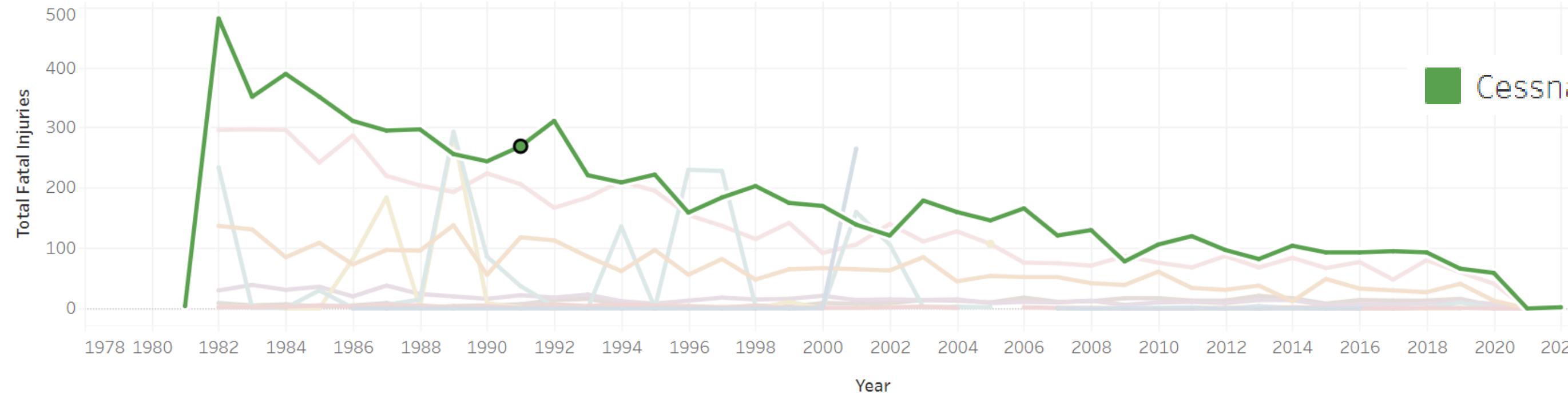
1. Airplane Make
2. Engine Type
3. U.S. Region for Flights

# Airplane Make

Fatalities by Make

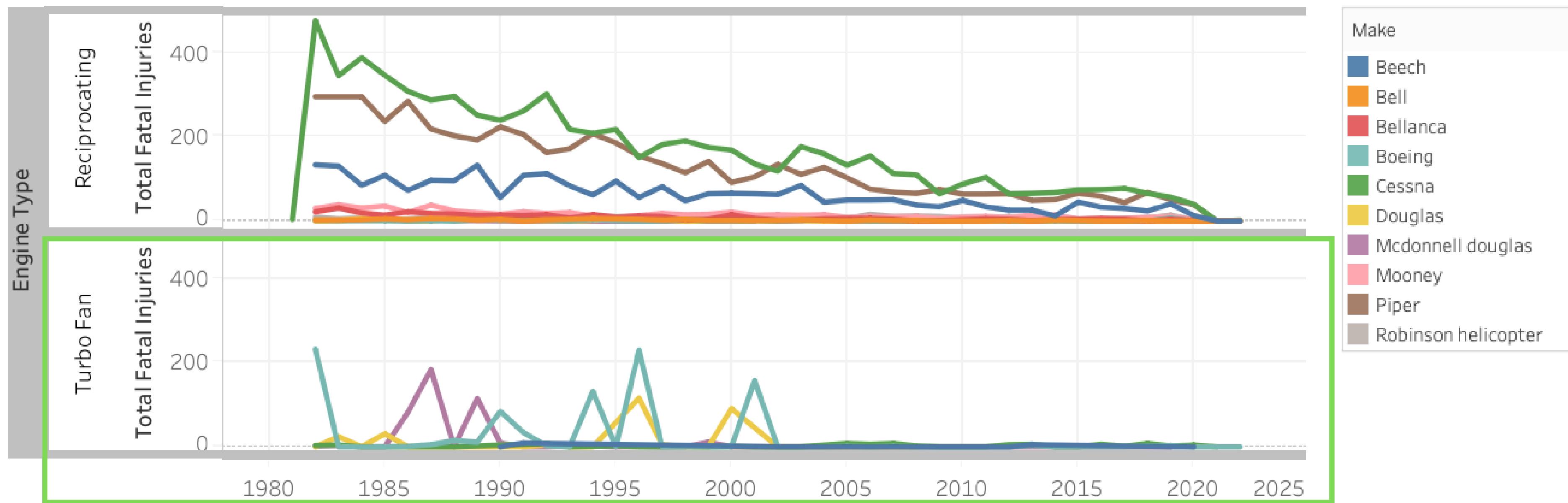


# Top Airplane Makes with an improvement over time



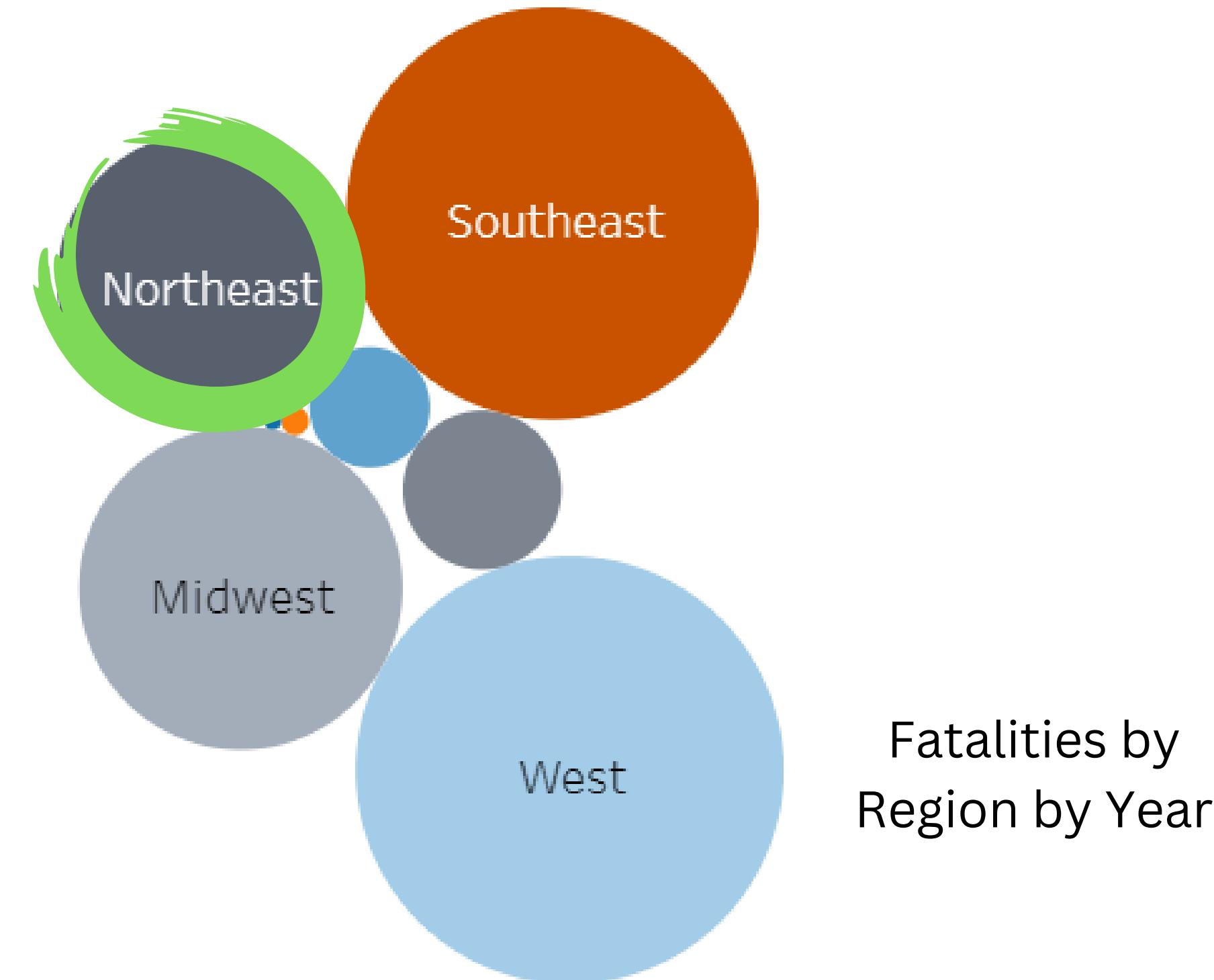
# Turbo Fan engines have very low risk since 2005

Fatalties by Engine Type



# Major U.S. Region with lowest risk

The Northeast region is a large and growing market in air travel



# Next Steps...

## More Data

- Market share of each make of airplane
- Fatalities compared to number of successful flights
- Weather patterns by region

# Thank you

Any questions?

Em Jager



Bobby Daly



Paul Justafort



For more information on these recommendations, feel free to view our GitHub Repo!

