

Airplane Safety Review

NTSB Accident Database

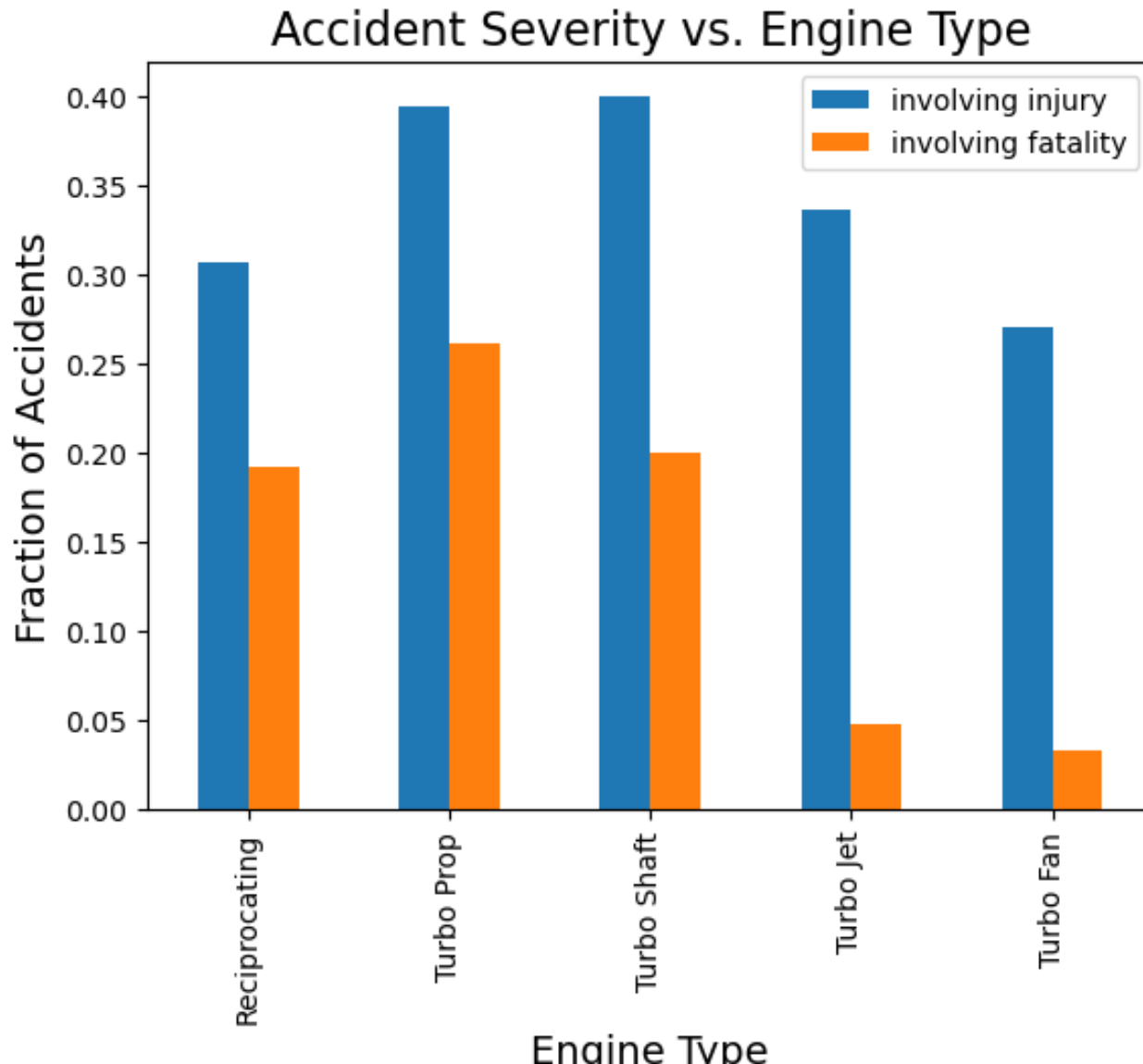
Safety Review of Aircraft

- Defining Safety of an Airplane:
 - Frequency of accidents
 - Severity of accident (serious injury or fatality)
- Airplane features to consider:
 - Engine type
 - Airplane type
 - Boeing vs. Airbus

Safety Review of Aircraft

- Three questions:
 - Does the **type of engine** on an aircraft affect the **severity** of accident?
 - Does the **type of aircraft** affect the **severity** of accident?
 - Do **Boeing** or **Airbus** planes get in more accidents?

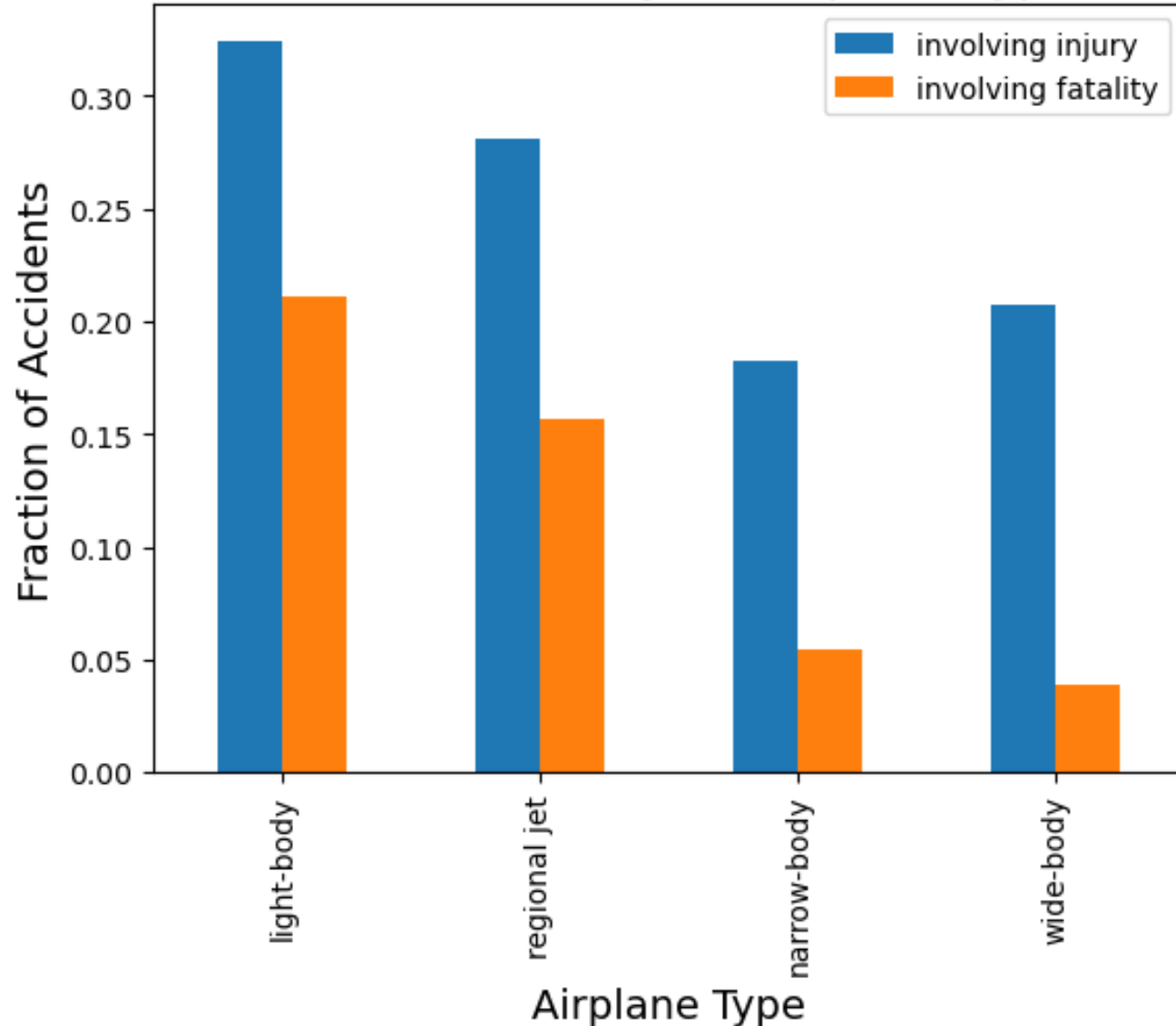
Type of Engine



- **Turbo Jet** and **Turbo Fan** airplanes: **less likely** accident will involve a **fatality**

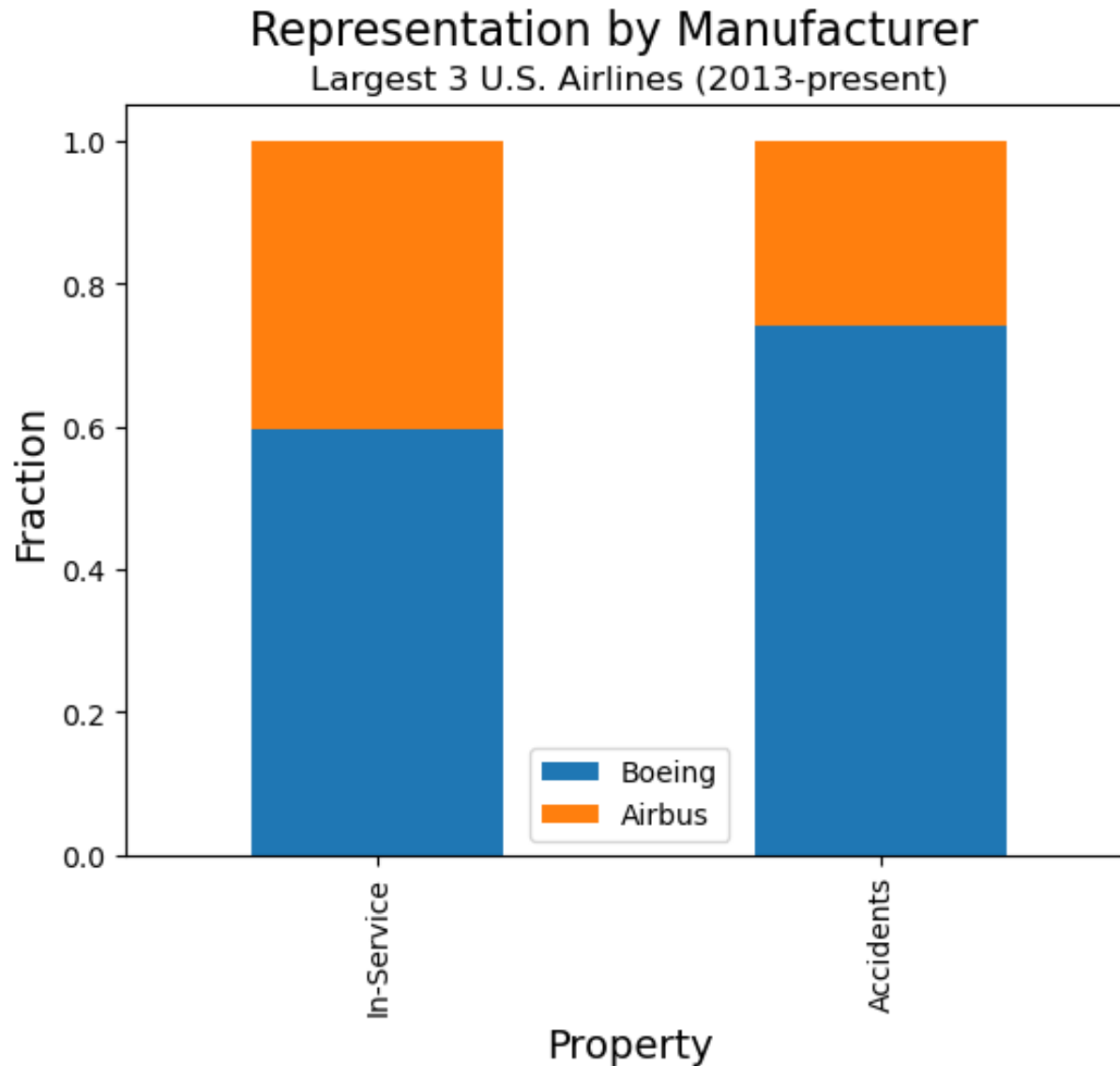
Type of Airplane

Accident Severity vs. Airplane Type



- **Narrow-Body** and **Wide-Body** aircraft: **less likely** an accident will involve an **injury** or **fatality**.

Make



- **Boeing** airplanes are **slightly overrepresented** in the number of accidents.

Conclusions

- These features can help to minimize the safety risk of an airplane:
 - **Engine Type:** Turbo Jet or Turbo Fan
 - **Airplane Type:** Narrow-Body or Wide-Body
 - **Make:** Airbus

Next Steps

- Control for different numbers of planes in field
- Determine if differences are statistically significant
- Account for accident causes

Questions?