

# Recommendations to Better Airplane Safety

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# Introduction





# Overview of Data

- Aviation Accident Database and Synopses by the National Transportation Safety Board
- Comprehensive accident data from 1962 - 2023
- Contains >90k incident records



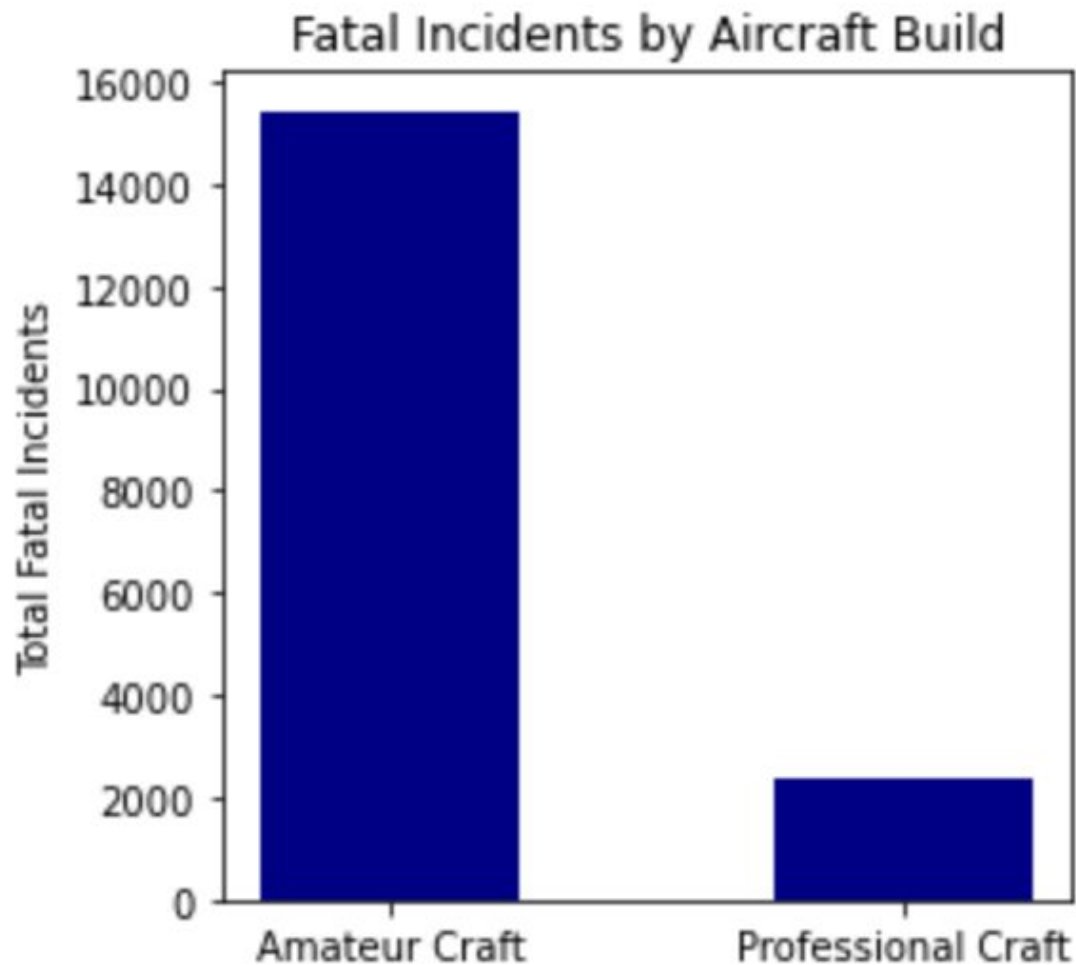
## Overview of Data, cont.

- Grouped into types of crashes, weather conditions, airport information, flight phase, etc.
- Some information is not included or otherwise unknown
  - Data will necessitate some cleaning prior to analysis



# Data Analysis



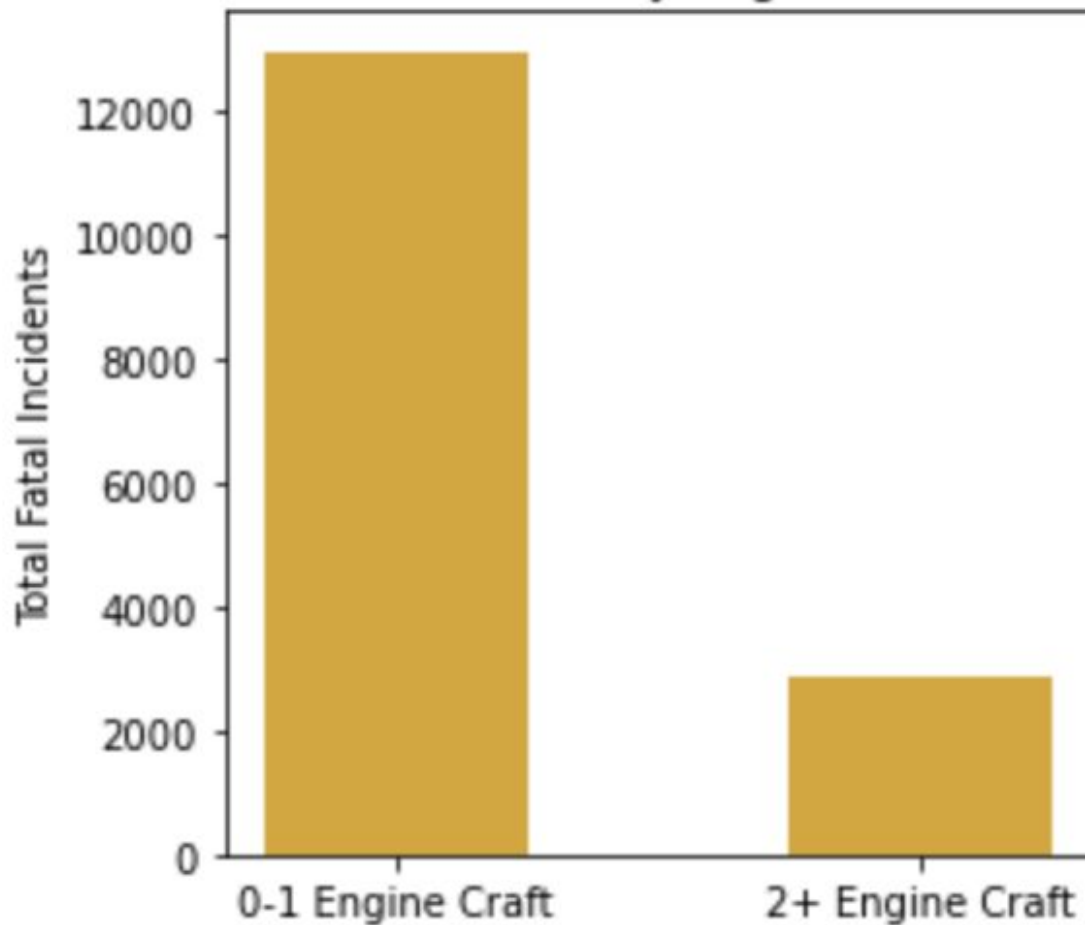


~15k fatal incidents with amateur craft

~3k fatal incidents with professional craft

**~5x more fatal incidents with amateur craft than professional**

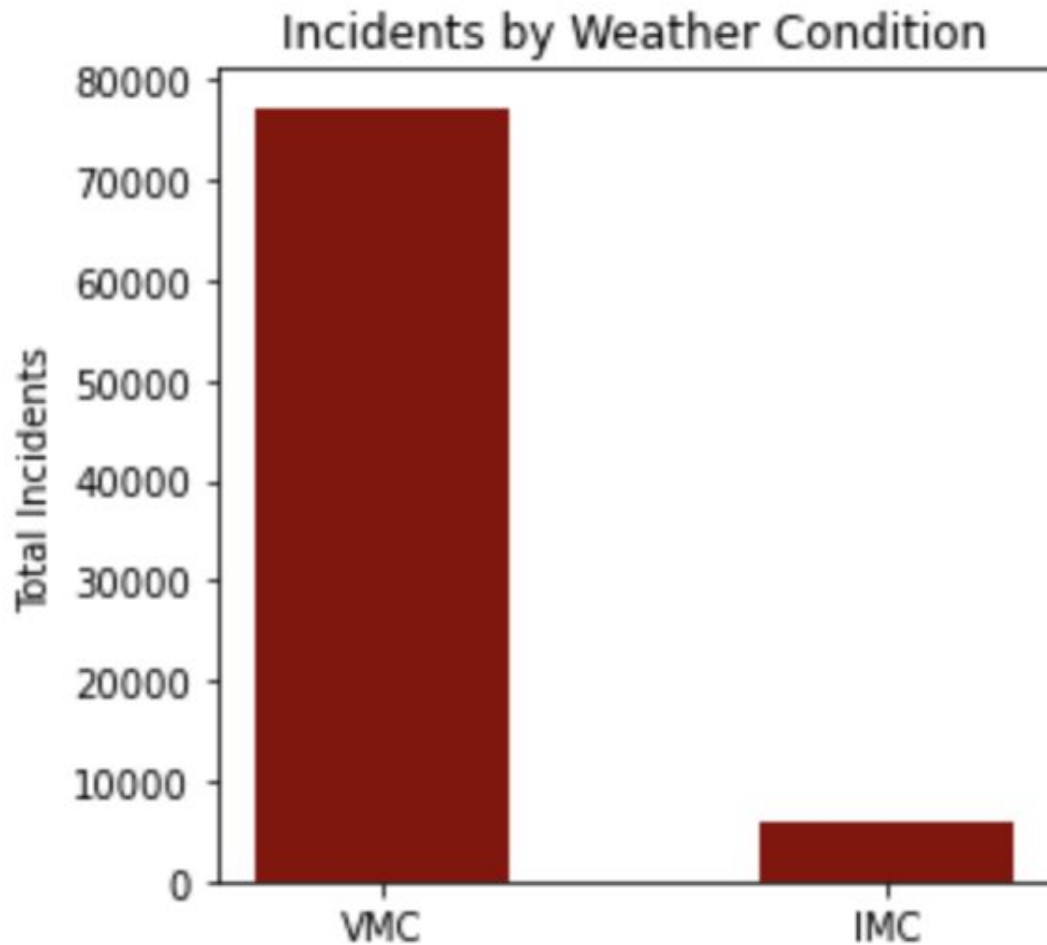
# Fatal Incidents by Engine Number



~13k fatal incidents with zero- or single-engine craft

~3k fatal incidents with multi-engine craft

**~4x more fatal incidents with 0-1 engine craft than 2+ engine craft**



~60k incidents in visual meteorological conditions

~10k incidents in instrument meteorological conditions

**~6x more incidents under visual meteorological conditions than instrument meteorological conditions**





# Recommendations





# **Reducing Fatal Incidents and Incidents Overall**

- Utilize professional aircraft
- Utilize multi-engine, larger aircraft
- Utilize robust aircraft instruments and tools



# Questions?

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