

# 101 Years of Air Accidents: 1908 – 2009



## INTRODUCTION

This project analyzes and visualizes over 5,000 aviation accidents over the past century. Using Power BI, key data is displayed: The development of the number of accidents, causes, countries, number of victims and survivors, and other contexts.

## SOURCE

[https://www.kaggle.com/code/melissamonfared/airplane-crashes-analysis-eda/input?select=Airplane\\_Crashes\\_and\\_Fatalities\\_Since\\_1908.csv](https://www.kaggle.com/code/melissamonfared/airplane-crashes-analysis-eda/input?select=Airplane_Crashes_and_Fatalities_Since_1908.csv)

## TOOLS

Power BI, Power Query, DAX

OVERVIEW

PASSENGERS

DATES

***Tomáš Král***

# KEY QUESTIONS

- How did the number of accidents change over time ?
- Which countries and airlines had the most incidents ?
  - What were the most common causes of crashes ?
    - What was the survival rate ?
- Are there any trends by decade, season, month, or time of day ?

5 231

Total Accidents

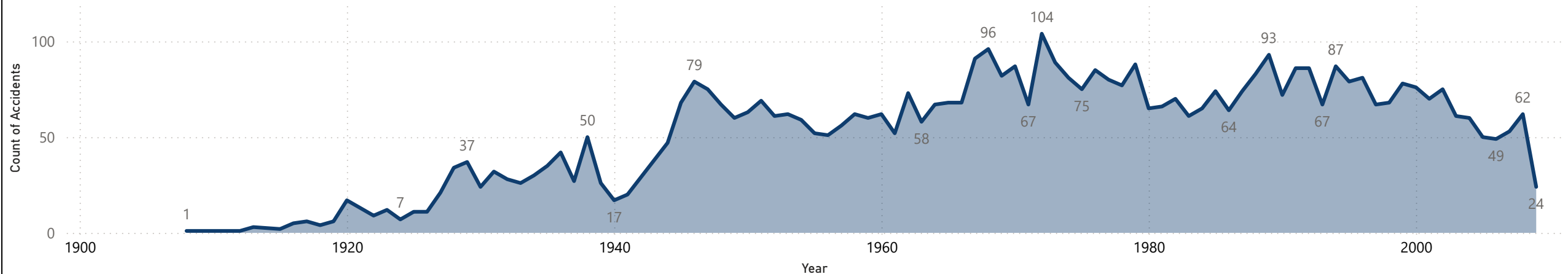
113 590

Total Fatality (Air+Ground)

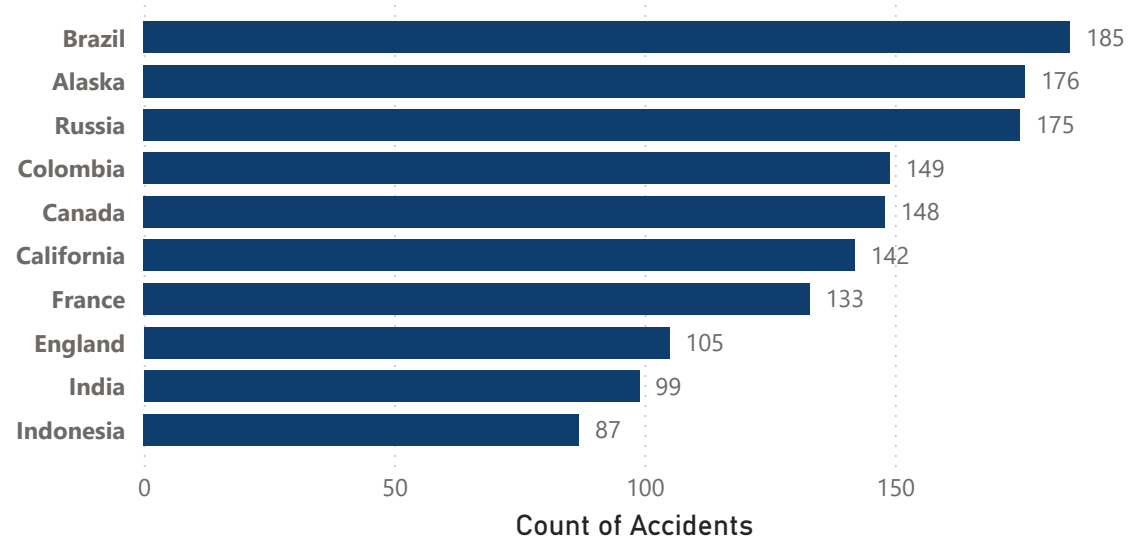
83,28 %

Average of Fatality Rate in (Air)

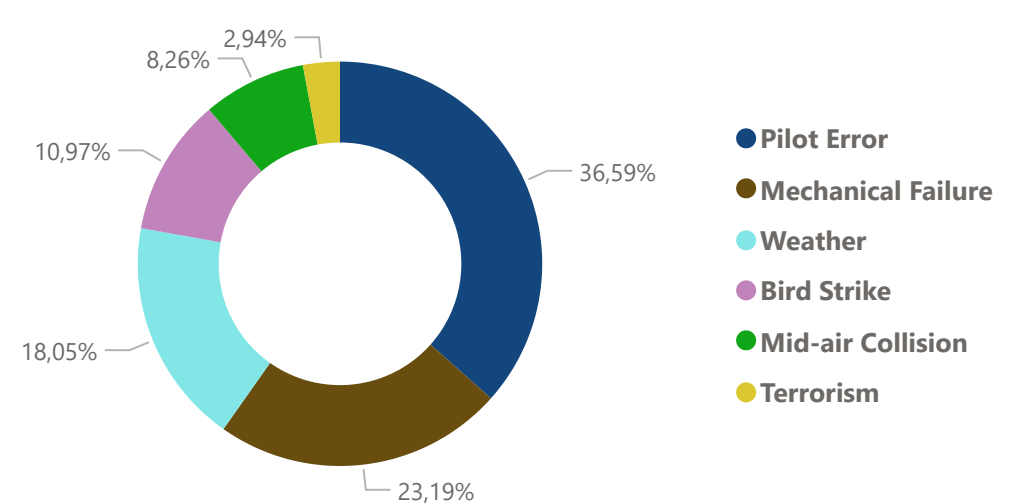
Accidents Over Time: 1908 - 2009



Accidents by Country



Accidents Causal Factors (%)



Year	Airlines	Country	Total Fatalities (Air)	Total Survivors
1977	Pan American World Airways / KLM	Canary Islands	583	61
1985	Japan Air Lines	Japan	520	4
1973	Aeroflot	Russia	473	59
2001	American Airlines	New York	352	0
1996	Saudi Arabian Airlines / Kazastan Airlines	India	349	0
1974	Turkish Airlines (THY)	France	346	0
1985	Air India	110 miles West of Ireland	329	0
1972	Aeroflot	USSR	314	0
1980	Saudi Arabian Airlines	Saudi Arabia	301	0
1984	Military - Russian Air Force	Afghanistan	290	0
1988	Iran Air	Iran	290	0
1984	Aeroflot	Russia	288	48
1976	Aeroflot	Russia	277	0
Total			105150	39003

83,28 %

Average of Fatality Rate (Air)

16,49 %

Average of Survivors Rate

Airlines

All

Country

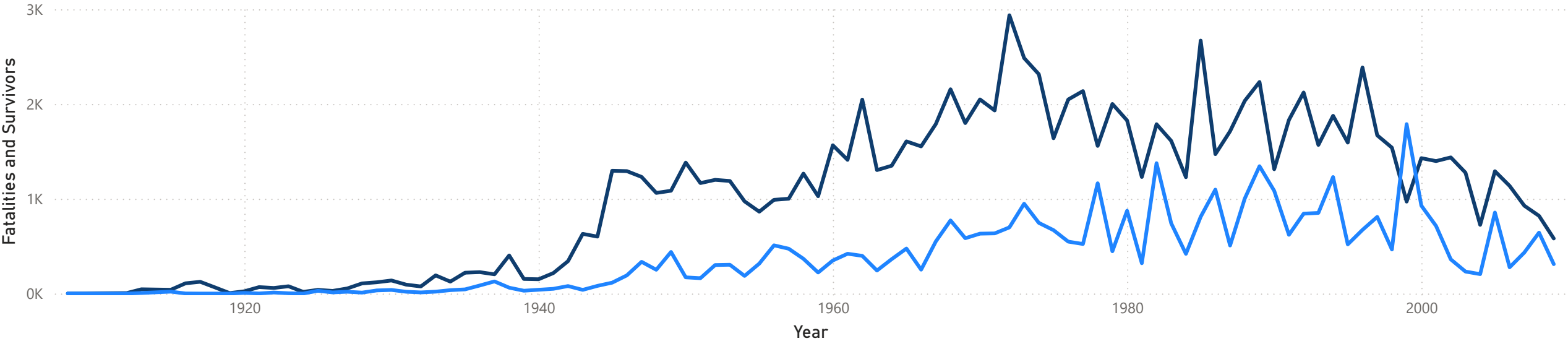
All

Cause

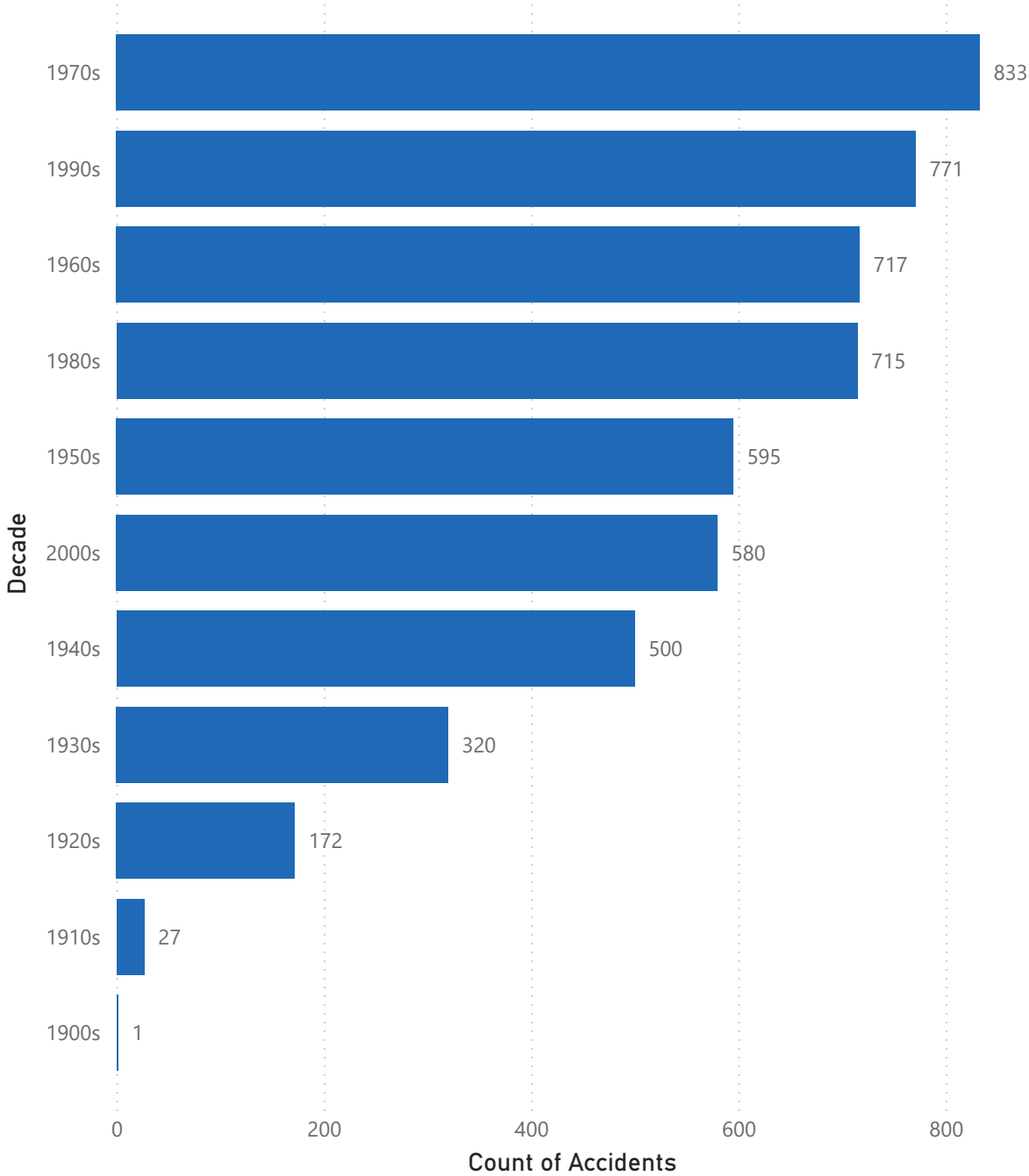
All

Fatalities vs Survivors by Year

Fatalities Survivors



Count of Accidents by Decade



5 231

Total Accidents

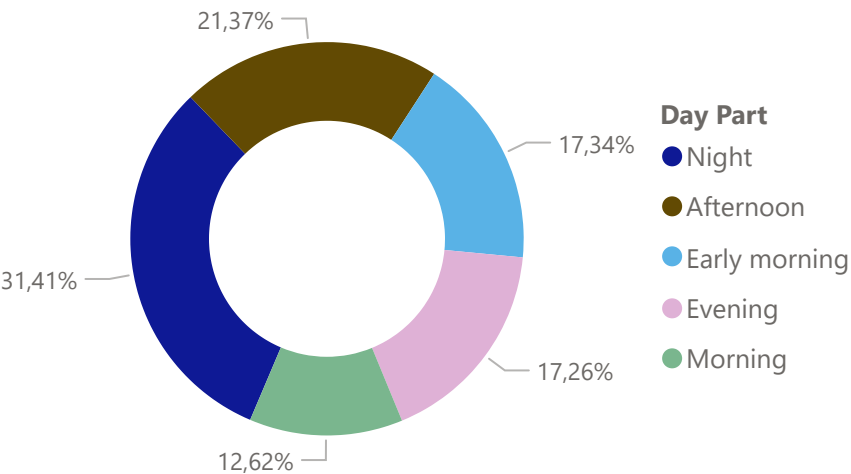
105 150

Total Fatality (Air)

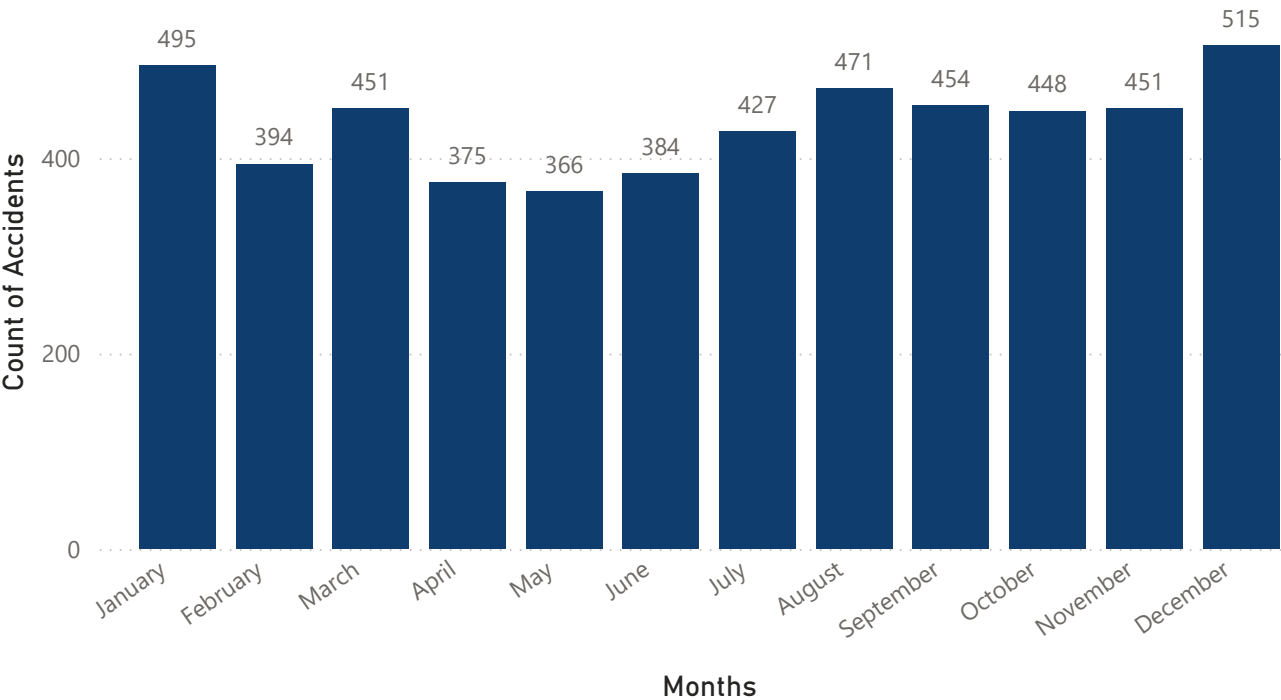
113 590

Total Fatality (Air+Ground)

Day Part of Accidents



Count of Accidents by Months





# PROJECT SUMMARY



- This analysis of aviation accidents from 1908 to 2009 highlights the long-term evolution of air safety.
- The number of crashes increased throughout the 20th century, peaking in the 1970s and then significantly declined due to technological improvements, stricter regulations, and better safety standards.
- The most common causes include human error, technical failure, and bad weather.
- While survival rates vary, most accidents unfortunately resulted in fatalities.
- This project demonstrates how Power BI and open-source data can be used to build a visually engaging and interactive analysis of a complex historical dataset.