

The Fury of Tornado Alley

Team StormTroopers

Carolina Data Challenge 2022



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Weather events have caused a total damage of **\$605 Billion** since 1950.

Tornado Alley accounts for **24%** of the total damages.

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Tornado Alley: A Deep Dive

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Dataset Overview

Dataset Overview



National Centers for
Environmental Information
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

What

data did we use?



- Storm Details
- Storm Fatalities
- Recorded on a month level from 1950 to 2022

Why

was this data important?



- Provided damage estimates for different storm events
- Details of personal injuries and deaths

How

did we process it?



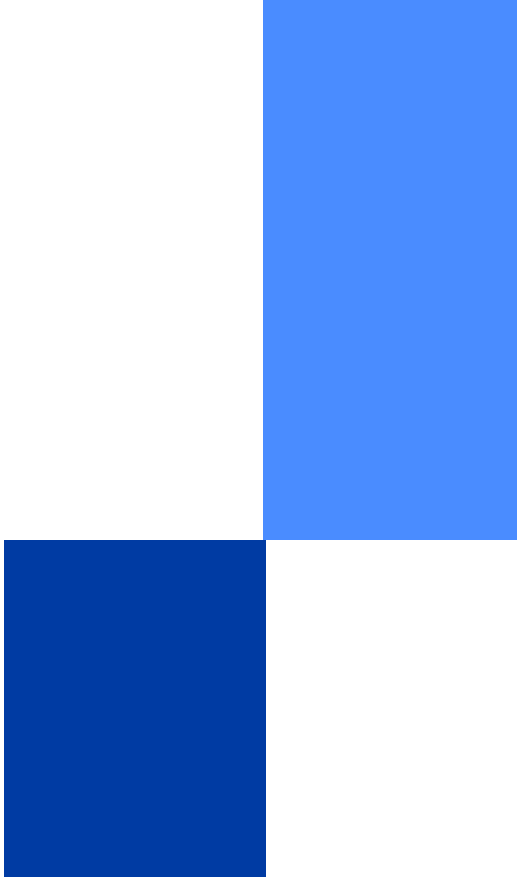
- Data collection and cleaning using Python scripts
- Visual analysis with Tableau dashboards

Dataset Background

Storm Analysis

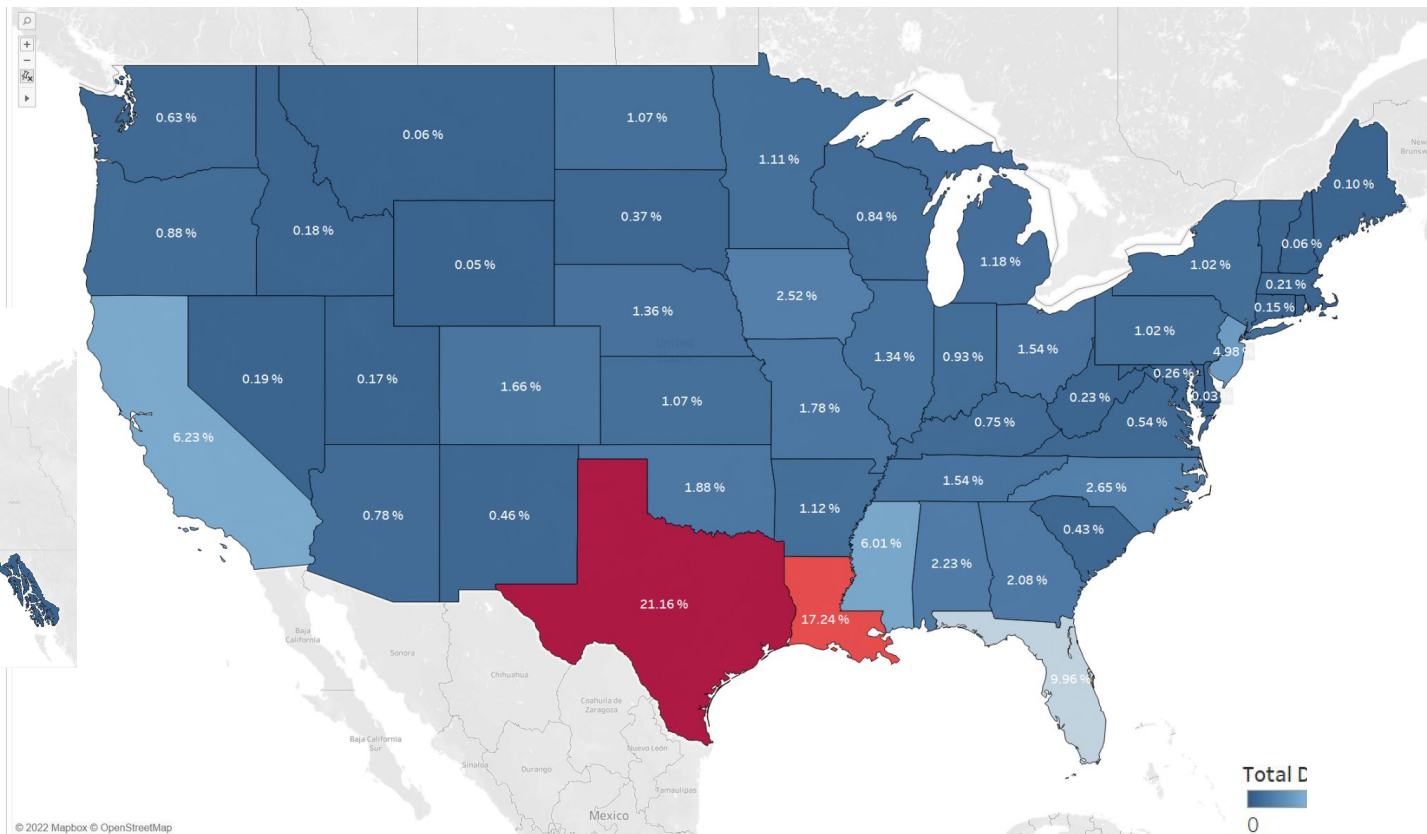
Tornado Alley

Conclusion



Storm Analysis

Damage breakdown by State



Dataset Background

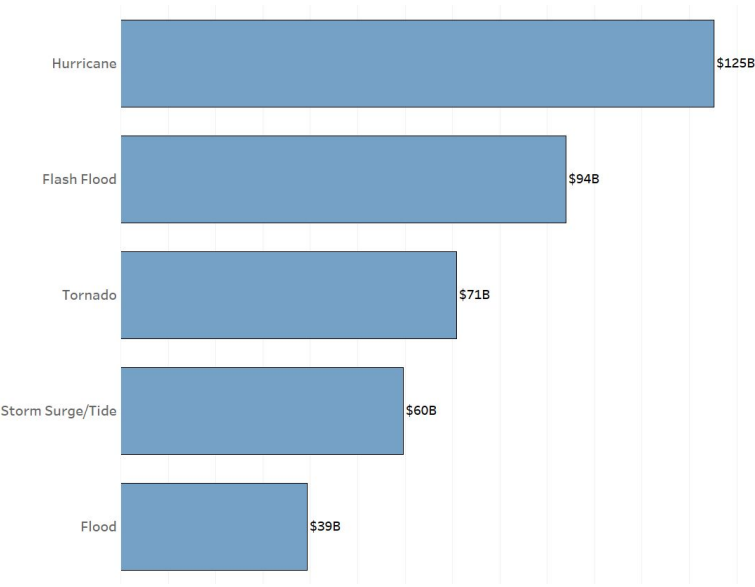
Storm Analysis

Tornado Alley

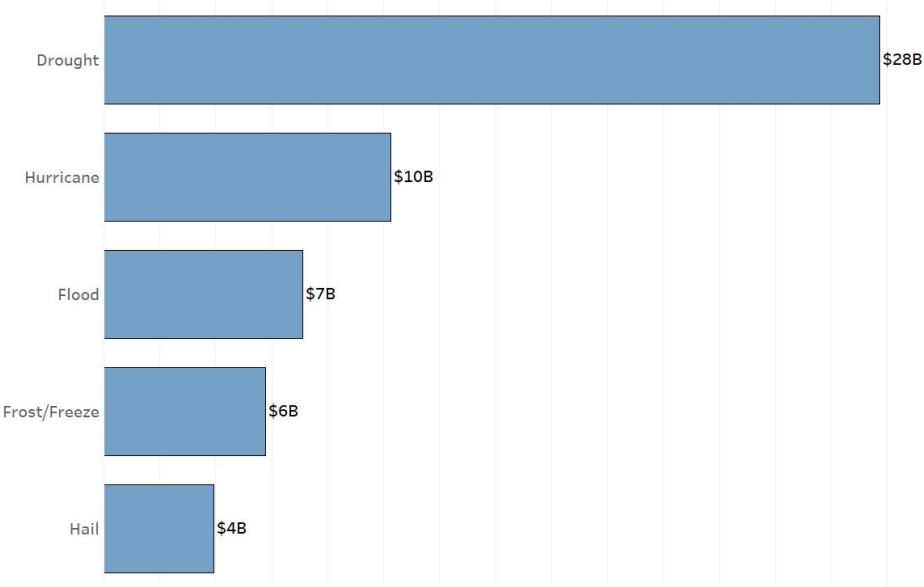
Conclusion

Damage breakdown by Event Types

Property Damage

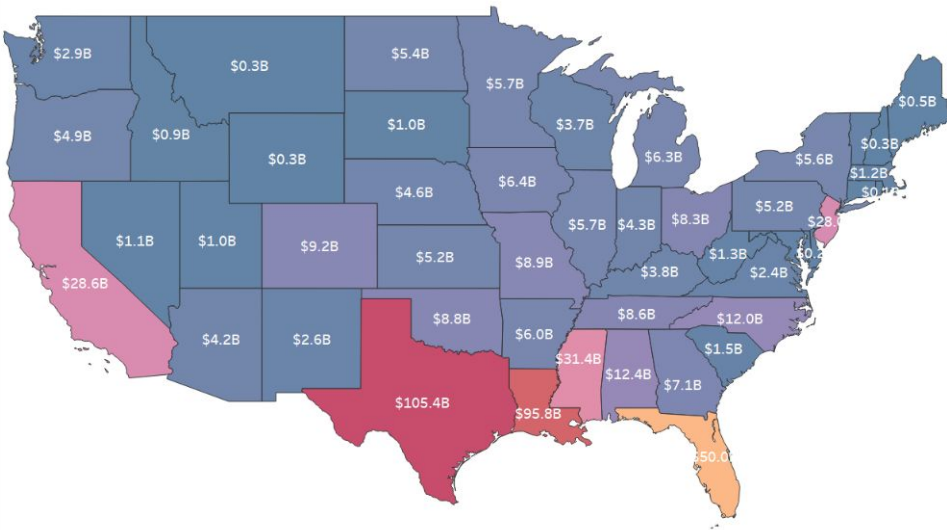


Crop Damage

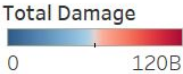
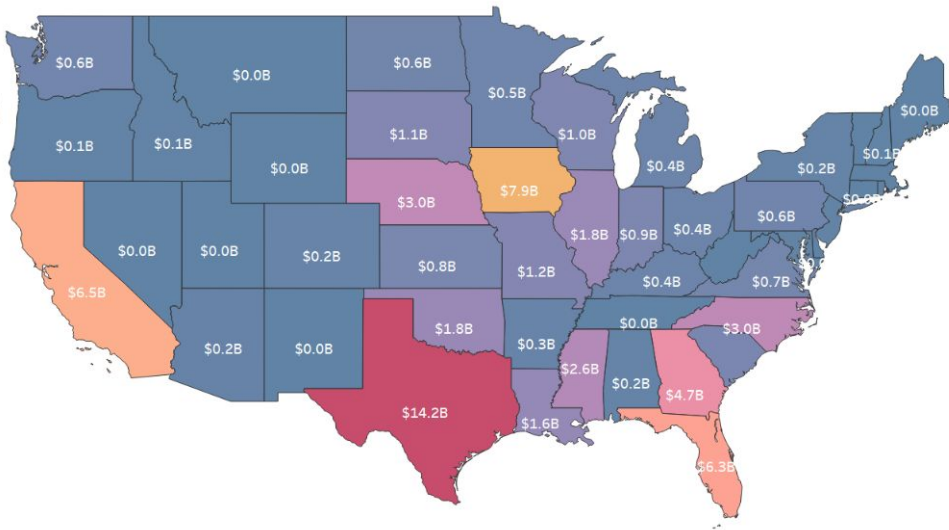


Damage breakdown by State

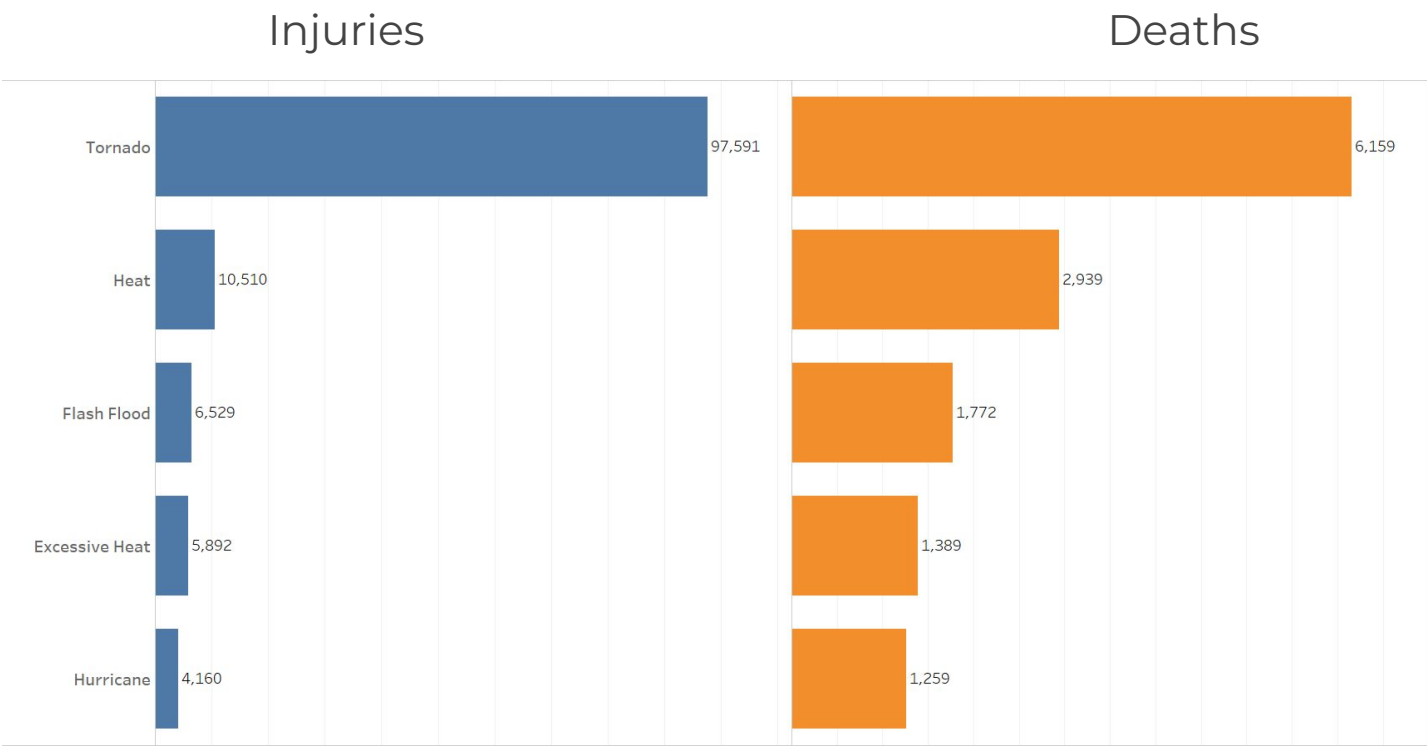
Property Damage



Crop Damage



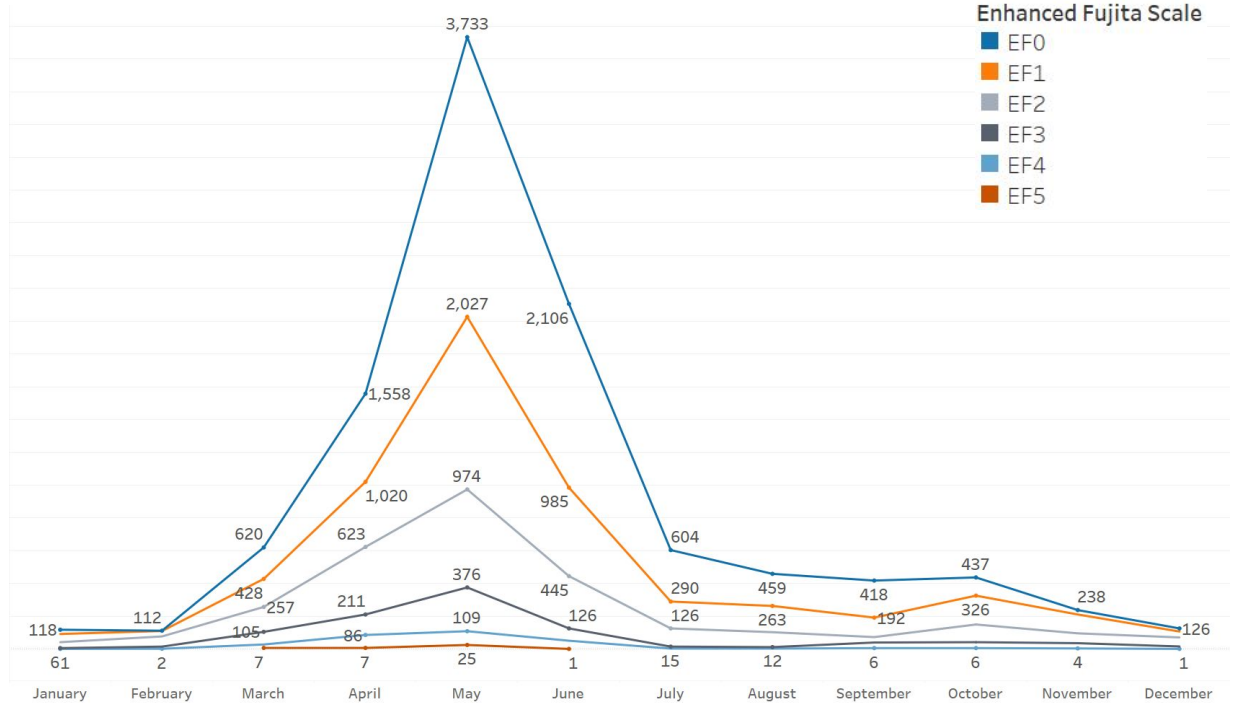
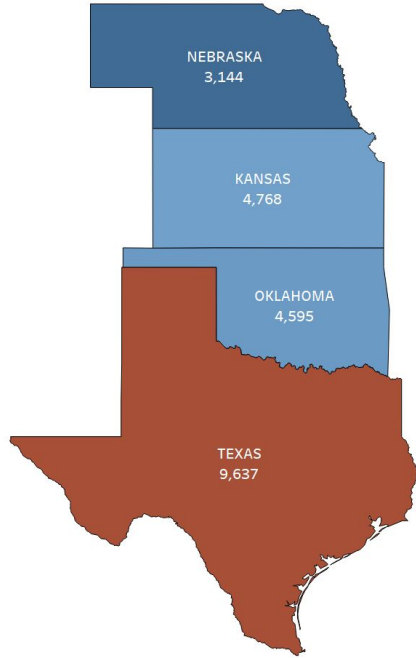
Personal Damage by Event Types





Tornado Alley: A Deep Dive

Tornado Alley - Intensity



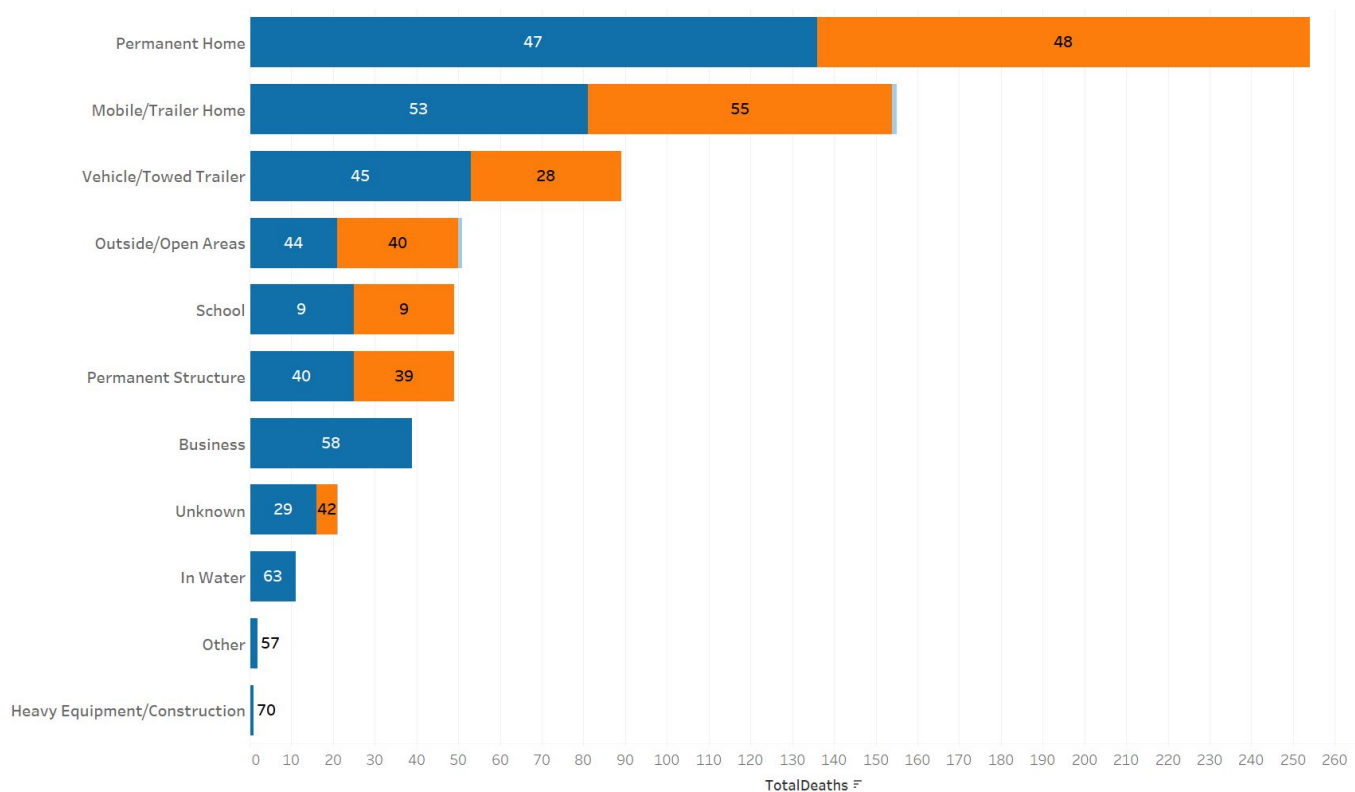
Dataset Background

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Tornado Alley - Fatality Locations



Dataset Background

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Conclusion

- Tornado Valley accounts for 24% of the total damages.
- Emphasis on damage to coastal states but a significant damage happens inland.
- Tornadoes cause more fatalities than the next 3 events combined.
- Our geospatial analysis can help federal agencies like FEMA coordinate logistics and response.

Thank You

Questions?

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