

HISTORICAL STORM EVENTS IN THE UNITED STATES

Information Page

Description

In this visualization analysis, I examine the weather events across all the states in the USA and present the results in a 6-page dashboard. The analysis covers a timeline from 1970 upto July 2024. More recent weather events that occurred after July 2024 are not included in the analysis.

The trend of Carbon emissions across the states in the US were also examined from 1970 to 2024. Data from the Energy Information Administration was provided up to 2022. Therefore, *I projected the data for 2023 and 2024* based on the observable trends.

The Overview page presents an aggregate summary of storm events including a word map of the more frequent storm events as well as their impacts on life and property.

The next four pages including Flooding, Wildfire, Tornadoes, and Thunderstorm drills down further to examine specific weather events over the years, the states of most frequent occurences, and the time of the year when they occur the most.

Finally, the Carbon Emissions page presents the trend of annual carbon emission in the US and the emissions for each state.

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Data Sources

Carbon emission - U.S. Energy Information Administration, State Energy Data System (SEDS) and EIA calculations made for this analysis.
<https://www.eia.gov/environment/emissions/state/excel/table1.xlsx>.

Storm Events - National Center for Environmental Information - National Oceanic and Atmospheric Administration.
<https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Glossary

I attempted to make this report easy to understand, with minimal technical terms. Some terms in the dataset/used in the visuals are defined as follows.

STATE - The state name where the event occurred.

STORM EVENTS - The weather event for which that record is inserted e.g. Tornado, Flood etc.

MONTH - The month in which the event occurred.

RESULTING INJURIES - The number of injuries to humans attributable to the storm event. Could be DIRECT INJURIES or INDIRECT INJURIES.

DAMAGED PROPERTY - An estimated amount of damage to property incurred by the weather event

FLOOD CAUSE - In the case of flooding, the reasons that let to the flood, e.g. heavy rainfall.

An exhaustive list of definitions of terms is available at <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/Storm-Data-Bulk-csv-Format.pdf>