

# Midterm Assignment Fall 2023

AUTHOR

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## Assignment Due November 6

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Floods are among the most destructive natural disasters. In the United States, natural disaster recovery is managed by (FEMA) Federal Emergency Management Agency.

One interesting aspect of floods is that they can occur almost anywhere. How dangerous are floods? How expensive? Is there any pattern to the kinds of communities that suffer losses from floods?

Assemble a dataset to investigate floods in 2020-2021. Use the data resources below to assemble your data. Clean and organize the data. Write an EDA report.

## Flood and community data

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### NOAA data: [🔗](#)

[NOAA Storm Events Database](#)

### FEMA data:

[Open FEMA Datasets](#)

Specifically,

[OpenFEMA Dataset: Disaster Declarations Summaries - v2](#)

[OpenFEMA Dataset: FEMA Web Disaster Summaries - v1](#)

You will see that there is an API for FEMA data. There is also an R package:

[rfema](#) allows users to access The Federal Emergency Management Agency's (FEMA) publicly available data through the open FEMA API. Install it by executing: `install.packages("rfema", repos = "https://ropensci.r-universe.dev")`.

## Census

Census data is attached for characterizing the counties that were flooded. Aidan will review this data with you.