

Executive summary:

CliMates precipitation data dashboard

An exploratory tool for analyzing U.S. precipitation data

We created a Shiny application to explore precipitation, found at <https://jimmylovestea.shinyapps.io/datadash/>. This application is based on the precipitation data from the CESM-LENS and ERA-Interim global reanalysis datasets. It includes four tabs which explore ensemble member precipitation variability in CESM-LENS, cumulative precipitation on a decadal time scale, trends in total and cumulative precipitation and variability in precipitation on a yearly time scale, and trends in percent deviation from average precipitation on a seasonal time scale.

This application is intended as an exploratory data analysis tool for researchers to explore both local and regional precipitation patterns. With the immense spatial scale of climate data, we wanted to be able to keep the original range of locations while leaving spatial aggregation to the user. Some users may be interested in the entire United States while others might only be interested in examining one state or smaller area therein. This application allows users to pick any area and scale of interest, which might inform and inspire future research into climate precipitation.