

- Why you took the approach you did

Histogram: very straightforward and comparable for presenting type of grants and its count. Especially what is the highest count grants and lowest one.

Plotly: this package is capable of creating nice and clear mapping visualization. Since the task is trying to plot instances on map of US based on its longitude, latitude and amount, mapping visualization from Plotly is a nice tool to make the visualization more intuitive and comparable.

Mapbox: This is a package of world map. It provides a more detailed and clear world map that can be called easily. Compared with the map of plotly, the map of mapbox is more similar to google map and other satellite map with the administrative as well as geographical regions details and automatical latitude and longitude marks.

The method of comparing grants distribution and GDP of each state: there are a lot of factors influencing the distribution of grants, such as location preference (urban or suburban), economic (GDP of each state or close to metropolitans) or political orientated (close to Washington DC). By referring the visualization of GDP, we might confirm one of the assumption above.

- Strengths of your approach

For the graph: both histogram and map are pretty informative. They are easy to be understood by lay people.

For the comparison between GDP and grant distribution: by comparing them state by state, we could observe certain patterns such as some program type are granted more on high GDP state, or on the contrary.

- Weaknesses of your approach

Color and size choosing of node for map visualization could be better.

- What you wished you had been able to do (if anything)

Generate another dimension based on the year of the grant. According to that, we could see the trend of each type of program by year.

- Who in the group contributed each part of the visualization (from code, data management, data cleaning, writeup, and so on.)

Xinhe Peng: code, data management, data cleaning

Chaoyun Chen: code, writeup, narrative construction