Working with data and writing a report using R

The dataset for this assignment includes research budgets for federal research and development agencies. The dataset comes from the American Association for the Advancement of Science Historical Trends. Examine the data for patterns and trends and share them in a report such as you might give to your advisor. You should provide your report as a pdf generated using R Markdown. Focus on the results - you do not need an introduction or conclusion, but you do need to make statements about observed patterns beyond providing the figures alone. You may work with your fellow students for inspiration but you should turn in your individual work.

Your report should

- Contain plots that illustrate relationships between variables and cases where relationships do not exist
- Contain plots with data divided by category as needed
- Include captions and descriptions of plots
- Show only informative output (not code or raw results)
- Format text and results appropriately including headers and inline code.
- For 539 students: Include R-squared and p-values from relevant statistical tests as necessary to support relationships. These should be written in *inline code* not output as raw results or using hardcoded numbers.

Work should be submitted as a github link. Repositories must include

1. a Readme.md that describes the contents of the repository
2. the Rmd file
3. the knitted pdf (if you have trouble producing a pdf you may use html)