## ACLU Police Budget Analysis Team 2- Project Deliverable 1 (Due: 10/15)

- **Collect and pre-process a preliminary batch of data:**
  - We currently have all data provided from the following sources:
    - (FY23) <u>Operating Budget - Datasets - Analyze Boston</u>
    - <u>Employee Earnings Report - Datasets - Analyze Boston</u>
      - From 2021-2011
    - Roster (list of active officers)
      - https://www.muckrock.com/foi/boston-3/boston-police-department-personnel-roster-98136/
  - All data can be accessed from the following path ./Data/csv/
  - The file ACLU City of Boston Budget Analysis (Fall 2022) Preloaded Data, is a jupyter notebook file in which all .csv files in the data folder are loaded into panda data frames.

- **Preliminary analysis of the data:**
  - Which aspect of each data set specifically does each person want to look at
  - Everybody makes 1 graph, we have compiled all graphs which can be found within the repo specified by the questions answered below.

- **Key questions answered:**
  - Total BPD Budget vs. previous year (for all questions)
    - Ryan Yap - BPD_Budget_over_time.ipynb
  - BPD Budget spend categories + change over time
    - Zijie Li - BPD_Budget_spend_categories.ipynb
  - Top 20 Earners (change from previous year)
    - Xiang Li - BPD_Top_20_Earners_2011_to_2021.ipynb
  - Top 20 Earners (OT, Base, Other)
    - Hayden Rothman - BDP_Top_20_Earners_2021_OT_Base_Other.ipynb

- **Refined project scope and list of limitations with data and potential risks of achieving project goal:**
  - In order to create a report that may be used by City Councilors we need to create visually meaningful graphs to display the data. In class we have used the matplotlib and folium libraries to visualize and graph the data. But for more visual customization we may need to look at other tools to create graphs. More research is needed into this area.
  - A limitation we found in the data is that some values are missing (marked "#Missing"), there is nothing(that we know of) we can do to retrieve that information.

- **Submitted a PR with the above report and modifications to original proposal**