

Junior Analyst / Analyst Assessment

Thank you for your interest in our Junior Analyst / Analyst position for the 2024 election cycle! Along with these instructions you received a dataset from our work on Maine's 2016 ballot measures. You'll also find a data dictionary describing the fields on the next page.

Please look at our work on the 2016 Maine ballot measures and tell us what you see. Analyze the attached dataset and send us a one-page memo with your code and at least one visualization you made.

This assessment is open-ended. Write a short memo about what you find interesting in the data using the clearest language you can. Things you can answer include how our models performed or any interesting geographic or demographic outcomes. Successful applicants often choose to run a regression as part of their analysis, but it is not required. Beyond that, methodology, approach, and research questions are entirely up to you. It can be simple -- just tell us what you see and why you think it's interesting.

Use any tool of your choice. We use SQL and R in most of our work, but you are welcome to use whatever is most comfortable for you.

Limit your response to one single-spaced page. Don't feel obligated to fill a full page. We won't read beyond the first page, so please keep your response concise.

Create a visualization. To go with your analysis, please create at least one chart, graph or map to help tell the story of the data. Any visualizations do not count toward the page limit.

Show your work. Along with your one-page response, **please attach any code you produced in the course of your analysis.** Comments in your code are greatly appreciated!

Your response is due by 11:59pm ET on Monday, November 20. It should only take an hour or two to complete. This is not meant to be a trick question or wild goose chase.

If you need clarification on the materials that isn't available below, please send your questions to Cristina at cristina@claritycampaigns.com.

Best of luck!

Team Clarity

File Descriptions

This dataset contains the information that would be available to our analytics team shortly after an election. The files are linked together by each township's `geoid`.

demographics.txt -- summary statistics about the registered voters in a township

| | |
|-----------------------|---|
| - geoid | Census geoid |
| - n_registered | Number of registered voters |
| - share_dem | Share registered as Democrats |
| - share_rep | Share registered as Republicans |
| - share_white | Share marked on voter file as white/Caucasian |
| - share_afam | Share marked on voter file as black/African-American |
| - share_female | Share female |
| - avg_hhincome | Avg. Household Income (thousands of dollars) |
| - avg_popdens | Avg. population density in the township (people per sq. mile) |
| - avg_partyscore | Avg. modeled likelihood of identifying as a Democrat |
| - avg_collegescore | Avg. modeled likelihood of holding a 4-year degree |
| - avg_gunownscore | Avg. modeled likelihood of owning a gun |
| - avg_gvpscore | Avg. modeled likelihood of supporting stricter gun laws |
| - avg_churchscore | Avg. modeled likelihood of regularly attending religious services |
| - avg_marijuanascore | Avg. modeled likelihood of supporting marijuana legalization |
| - avg_fiscalprogscore | " " of preferring tax increases to budget cuts |
| - avg_choicescore | Avg. modeled likelihood of supporting abortion rights |
| - avg_enviroscore | " " of believing climate change is real and caused by humans |

results.txt -- actual votes cast; see [Maine's 2016 ballot measures](#) for more on these measures

| | |
|-----------|---|
| - geoid | Census geoid |
| - rcv_yes | Votes in Favor of ranked choice voting |
| - rcv_no | Votes opposed to ranked choice voting |
| - mw_yes | Votes in favor of minimum wage increase |
| - mw_no | Votes opposed to minimum wage increase |
| - bg_yes | Votes in favor of background checks |
| - bg_no | Votes opposed to background checks |

projections.txt -- our pre-election projections using our support scores and 2016 turnout score

| | |
|----------------|---|
| - geoid | Census geoid |
| - proj_votes | Projected number of ballots cast |
| - proj_mw_yes | Projected number of votes for minimum wage increase |
| - proj_bg_yes | Projected number of votes for background checks |
| - proj_rcv_yes | Projected number of votes for ranked choice voting |

geoid key.txt -- a lookup table for geoid with columns for county, township, and geoid