Project 2 – Analyst Ratings

MTH 161 – Fall 2024

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Part 1: choose a dataset and propose a question

Due Nov. 15th

The first step is to think about and choose a potential question or topic that you're interested in and then find a dataset that will help you investigate your question.

The dataset you choose should

- Have at least 100 observations
- Have at least 5 columns (variables)

You must credit a source for your data and provide a link to the source.

After you identify a dataset to examine, provide enough background on the dataset for your reader to understand the context for your research question. This might include a snippet of data (using your favorite code), a codebook explaining what the variables are, and/or a calculation that has pointed you to a question about the data that you find compelling: whatever you feel is needed to help frame your research question. Finally, make sure your research question is articulated precisely with clear reference to the variable(s) or parameter(s) of interest. Past AEs, labs, and the first project all contain examples of carefully stated research questions.

> **Note**
>
> The instructions above are included here for your convenience, but they should not appear in your final report.
> For my project I am coming to compare analyst's rank in the stock market and theif avererage returns on stocks. The analyst's job is to give people info on returns and when to buy and sell stocks. I will be using different types of graphs so see the relation.
> Null Hypothesis: The higher rated analyst will provide higher returns

Alternative Hypothesis:The higher rated analyst will not provide higher returns.
Different types of variables: analyst_rank, average_return, firm_name
I will calculate Z scores for the top 5% of analysts and bottom 5% of analysts to see if there is a significant difference. I will also find the average return for analysts and find what percentage the top and bottom 5% rank up to the average.