Informative Title Name

STA304 - Assignment 2

GROUP NUMBER: ADD YOUR NAMES HERE

2025-11-13

1 Introduction

Here you should have a few paragraphs of text introducing the problem, getting the reader interested/ready for the rest of the report.

Introduce terminology.

Highlight hypotheses.

Optional: You can also include a description of each section of this report as a last paragraph.

2 Data

Type here a paragraph introducing the data, its context and as much info about the data collection process that you know.

Type here a summary of the cleaning process (**only add in stuff beyond my original gss_cleaning.R code**). You only need to describe additional cleaning that you and your group did.

Remember, you may want to use multiple datasets here, if you do end up using multiple data sets, or merging the data, be sure to describe this in the cleaning process and be sure to discuss important aspects of all the data that you used.

Include a description of the important variables.

Include a description of the numerical summaries. Remember you can use `r` to use inline R code.

Histogram of rnorm(300, 0, 1)
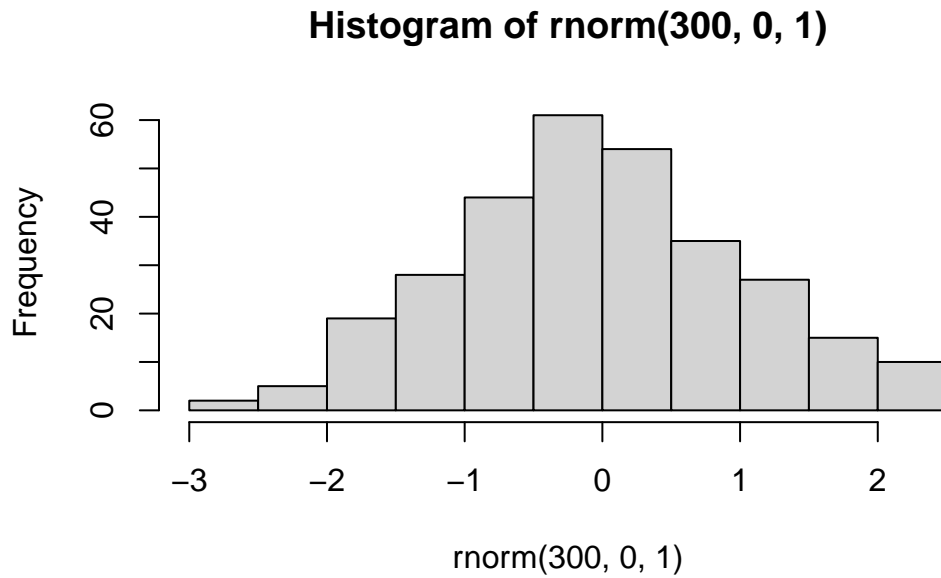
Include a clear description of the plot(s). I would recommend one paragraph for each plot.

3 Methods

Include some text introducing the methodology, maybe restating the problem/goal of this analysis.

3.1 Model Specifics

Here you can describe your regression model

I will (incorrectly) be using a linear regression model to model the proportion of voters who will vote for Donald Trump. This is a naive model. I will only be using age, which is recorded as a numeric variable, to model the probability of voting for Donald Trump. The simple linear regression model I am using is:

$$y = \beta_0 + \beta_1 x_{age} + \epsilon$$

Where y represents the .... β_0 represents....

3.2 Post-Stratification

Here you should explain the poststratification process

In order to estimate the proportion of voters…..

To put math/LaTeX inline just use one set of dollar signs. Example: $\hat{y}^{PS}$

To put math on its own line use two sets of dollar signs:

$$include.your.mathematical.model.here.if.you.have.some.math.to.show$$

All analysis for this report was programmed using `R version 4.0.2` [2].

4 Results

Here you present your results. You may want to put them into a well formatted table. Be sure that there is some text describing the results.

Note: Alternatively you can use the `knitr::kable` function to create a well formatted table from your code. See here: https://rmarkdown.rstudio.com/lesson-7.html.

Remember you can use `r` to use inline R code.

Table 1: The proportions of outcome variable of interest calculated for the following political parties: Liberal.

	Liberal Party	Another Party
Predicted Percentage of Popular Vote	0.18	
Another Statistic?	??	

Include an explanation/interpretation of the visualizations. Make sure to comment on the appropriateness of the assumptions/results.

5 Discussion

Here you should give a summary of the Hypotheses, Methods and Results

Highlight Key Results.

Talk about big picture.

Comment on any Weaknesses.

Comment on Future Work/Next Steps

End with a concluding paragraph to wrap up the report.

6 Generative AI Statement

Here is where you can explain your usage of Generative AI tool(s). Be sure to reference any tools with inline citations.

Alternatively, if you did not use Generative AI, please include a brief statement outlining your workflow for completing this assignment.

7 Ethics Statement

Explain how you ensured that your analysis is reproducible (e.g., documenting code, using proper statistical methods).

Since the CES 2021 data is publicly available, describe whether or not this the work completed in your report needs Research Ethics Board approval for the report the be made publicly available. Be sure to specifically discuss the privacy of human participants in this study.

8 Bibliography

1. First reference in a consistent, formal citation style (e.g. APA).

2. Second reference in a consistent, formal citation style (e.g. APA).

3. Third reference in a consistent, formal citation style (e.g. APA).

4. Fourth reference in a consistent, formal citation style (e.g. APA).

5. Fifth reference in a consistent, formal citation style (e.g. APA).

9 Appendix

Any additional notes/derivations that are supplementary to the report can be added in an appendix. This section will not be directly graded, but may be included for completion-sake.