

# My title\*

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March 11, 2024

First sentence. Second sentence. Third sentence. Fourth sentence.

## 1 Introduction

You can and should cross-reference sections and sub-sections. We use R Core Team (2023) and Wickham et al. (2019).

The remainder of this paper is structured as follows. Section 2....

We use the dataset from 2022 Cooperative Election Study Schaffner, Ansolabehere, and Shih (2023). To further enable the analysis I employed the use of the package of ggplot(Wickham 2016) to generate histograms.

## 2 Data

Talk more about it.

Talk way more about it.

## 3 Model

The goal of our modelling strategy is twofold. Firstly,...

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\*Code and data are available at: <https://github.com/iloveyz12/US-Political-Support>.

Table 1: Whether a respondent is likely to vote for Biden based on their gender and education

|                               | Support Biden       |
|-------------------------------|---------------------|
| (Intercept)                   | 0.730<br>(0.468)    |
| genderNon-binary              | −25.107<br>(20.608) |
| genderOther                   | 0.170<br>(1.647)    |
| genderWoman                   | −0.595<br>(0.135)   |
| educationHigh school graduate | −0.434<br>(0.492)   |
| educationSome college         | −0.831<br>(0.484)   |
| education2-year               | −1.047<br>(0.498)   |
| education4-year               | −1.024<br>(0.483)   |
| educationPost-grad            | −1.588<br>(0.504)   |
| Num.Obs.                      | 1000                |
| R <sup>2</sup>                | 0.056               |
| Log.Lik.                      | −645.016            |
| ELPD                          | −656.1              |
| ELPD s.e.                     | 9.8                 |
| LOOIC                         | 1312.3              |
| LOOIC s.e.                    | 19.6                |
| WAIC                          | 1309.1              |
| RMSE                          | 0.48                |

### 3.1 Model set-up

Define  $y_i$  as the ... Then  $\beta_i$  is the ... and  $\gamma_i$  is the ...

$$y_i | \pi_i \sim \text{Bern}(\pi_i) \tag{1}$$

$$\text{logit}(\pi_i) = \alpha + \beta_1 \times \text{gender}_i + \beta_2 \times \text{education}_i \tag{2}$$

$$\alpha \sim \text{Normal}(0, 2.5) \tag{3}$$

$$\beta_1 \sim \text{Normal}(0, 5.02) \tag{4}$$

$$\beta_2 \sim \text{Normal}(0, 6.34) \tag{5}$$

We run the model in R (R Core Team 2023) using the `rstanarm` package of Goodrich et al. (2022). We use the default priors from `rstanarm`.

#### 3.1.1 Model justification

We expect a positive relationship between .... In particular...

We can use maths by including latex between dollar signs, for instance  $\theta$ .

## 4 Results

Our results are summarized in Figure [1](#).

## 5 Discussion

### 5.1 First discussion point

### 5.2 Second discussion point

### 5.3 Third discussion point

### 5.4 Weaknesses and next steps

Weaknesses and next steps should also be included.

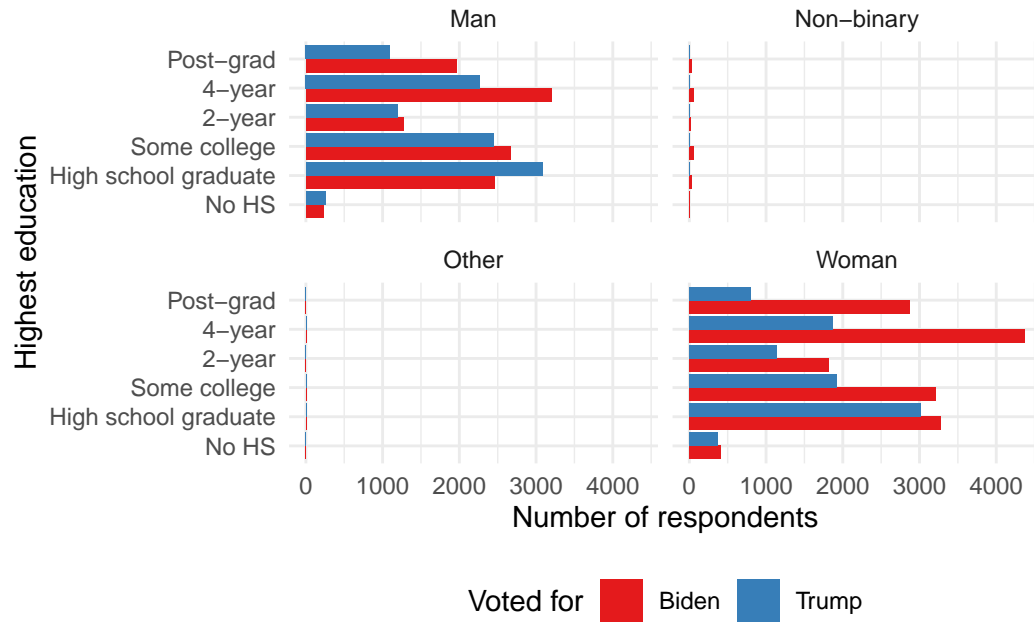


Figure 1: The distribution of presidential preferences, by gender, and highest education

## Appendix

### A Additional data details

### B Model details

## References

- Goodrich, Ben, Jonah Gabry, Imad Ali, and Sam Brilleman. 2022. “Rstanarm: Bayesian Applied Regression Modeling via Stan.” <https://mc-stan.org/rstanarm/>.
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- Schaffner, Brian, Stephen Ansolabehere, and Marissa Shih. 2023. “Cooperative Election Study Common Content, 2022.” Harvard Dataverse. <https://doi.org/10.7910/DVN/PR4L8P>.
- Wickham, Hadley. 2016. *Ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag New York. <https://ggplot2.tidyverse.org>.
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