

# My title\*

My subtitle if needed

First author

Another author

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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....

## 2 Data

For the actual data we can use the 2020 Cooperative Election Study (CES) (Schaffner, Ansolabehere, and Luks (2021))

Talk more about it.

## 3 Model

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

Here we briefly describe the Bayesian analysis model used to investigate... Background details and diagnostics are included in **?@sec-model-details**.

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\*Code and data are available at: <https://github.com/SavvyUni-MT/Political-support-in-the-United-States.git>.

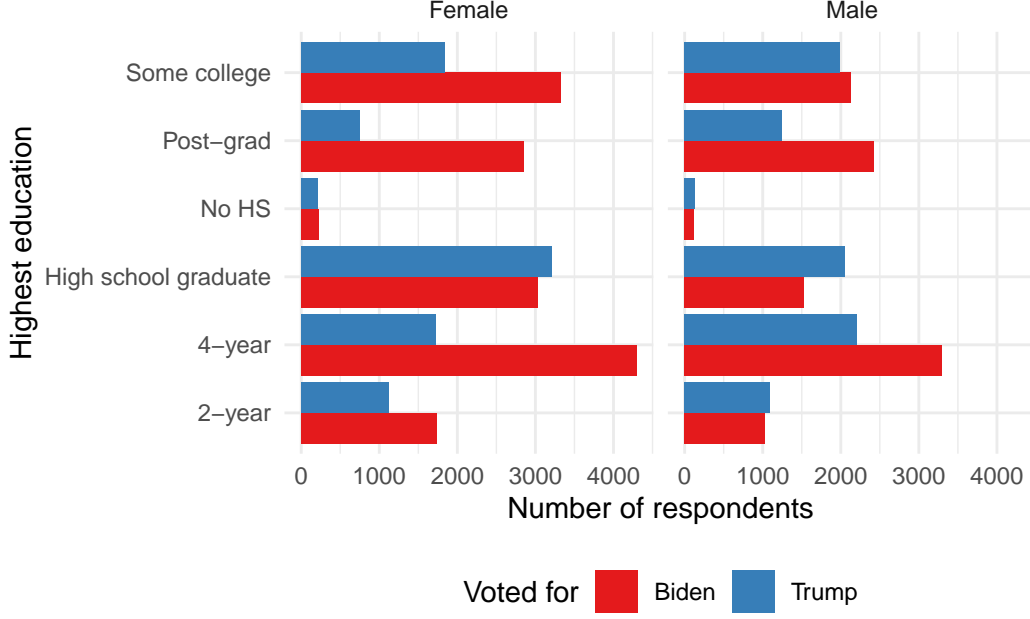


Figure 1: The distribution of presidential preferences, by gender, and highest education

### 3.1 Model set-up

Define  $y_i$  is the political preference of the respondent and equal to 1 if Biden and 0 if Trump,  $gender_i$  is the gender of the respondent, and  $education_i$  is the education of the respondent. We could estimate the parameters using `stan_glm()`. Note that the model is a generally accepted short-hand.

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

$$\text{logit}(\pi_i) = \beta_0 + \beta_1 \times gender_i + \beta_2 \times education_i \quad (2)$$

$$\beta_0 \sim \text{Normal}(0, 2.5) \quad (3)$$

$$\beta_1 \sim \text{Normal}(0, 2.5) \quad (4)$$

$$\beta_2 \sim \text{Normal}(0, 2.5) \quad (5)$$

We run the model in R (R Core Team 2023) using the `rstanarm` package of Goodrich et al. (2022), `here` package of Müller (2020) and `modelsummary` package of Arel-Bundock (2022). We use the default priors from `rstanarm`.

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

	Support Biden
(Intercept)	−0.43 (0.03)
genderMale	0.47 (0.02)
education4-year	−0.46 (0.03)
educationHigh school graduate	0.40 (0.03)
educationNo HS	0.22 (0.08)
educationPost-grad	−0.80 (0.04)
educationSome college	−0.14 (0.04)
Num.Obs.	43 554
R2	0.046
Log.Lik.	−28 357.916
ELPD	−28 364.7
ELPD s.e.	58.2
LOOIC	56 729.4
LOOIC s.e.	116.3
WAIC	56 729.3
RMSE	0.48

### 3.1.1 Model justification

We expect a positive relationship between the size of the wings and time spent aloft. In particular...

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

## 4 Results

Our results are summarized in Table 1.

## **5 Discussion**

### **5.1 First discussion point**

If my paper were 10 pages, then should be at least 2.5 pages. The discussion is a chance to show off what you know and what you learnt from all this.

### **5.2 Second discussion point**

### **5.3 Third discussion point**

### **5.4 Weaknesses and next steps**

Weaknesses and next steps should also be included.

## Appendix

## References

- Arel-Bundock, Vincent. 2022. “modelssummary: Data and Model Summaries in R.” *Journal of Statistical Software* 103 (1): 1–23. <https://doi.org/10.18637/jss.v103.i01>.
- Goodrich, Ben, Jonah Gabry, Imad Ali, and Sam Brilleman. 2022. “Rstanarm: Bayesian Applied Regression Modeling via Stan.” <https://mc-stan.org/rstanarm/>.
- Müller, Kirill. 2020. *Here: A Simpler Way to Find Your Files*. <https://CRAN.R-project.org/package=here>.
- R Core Team. 2023. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.
- Schaffner, Brian, Stephen Ansolabehere, and Sam Luks. 2021. “Cooperative Election Study Common Content, 2020.” Harvard Dataverse. <https://doi.org/10.7910/DVN/E9N6PH>.
- Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D’Agostino McGowan, Romain François, Garrett Golemund, et al. 2019. “Welcome to the tidyverse.” *Journal of Open Source Software* 4 (43): 1686. <https://doi.org/10.21105/joss.01686>.