

# **gss marriage politics analysis\***

**subtitle**

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

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\*Code and data are available at: [https://github.com/cthierst/marital\\_status\\_political\\_affiliation\\_gss\\_analysis.git](https://github.com/cthierst/marital_status_political_affiliation_gss_analysis.git)

# 1 Introduction

## 2 Data

### 2.1 Data Management

This paper uses the R statistical programming language (R Core Team 2022), along with several packages, tidyverse ([citetidy?](#))

### 2.2 Source

### 2.3 Sampling

### 2.4 Key Features

Table 1: Variable Descriptions

Variable	Variable Description
partyid	Self-ascribed belonging to the Republican, Democratic, or Independent parties
polviews	Self-ascribed placement on a Likert scale from 'extremely liberal to extremely conservative'
marital	Marital status of respondent
sex	Self-ascribed sex of respondent
cohort	Generational cohort that respondent belongs to

Table 2: Variable Measurements

Variable	Variable Measurement
partyid	Strong Democrat, Not Very Strong Democrat, Independent (Close to Democrat), Independent (Neither), Independent (Close to Republican), Not Very Strong Republican, Strong Republican
polviews	Extremely Liberal, Liberal, Slightly Liberal, Moderate, Slightly Conservative, Conservative, Extremely Conservative
marital	Married, Never Married, Separated, Divorced, Widowed
sex	Female, Male
cohort	Post-War, Boomer, Gen X, Millennial, Gen Z

### 2.5 Bias and Ethics

## 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](#).

### 3.1 Model set-up

Define  $y_i$  as the number of seconds that the plane remained aloft. Then  $\beta_i$  is the wing width and  $\gamma_i$  is the wing length, both measured in millimeters.

$$y_i | \mu_i, \sigma \sim \text{Normal}(\mu_i, \sigma) \tag{1}$$

$$\mu_i = \alpha + \beta_i + \gamma_i \tag{2}$$

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

$$\beta \sim \text{Normal}(0, 2.5) \tag{4}$$

$$\gamma \sim \text{Normal}(0, 2.5) \tag{5}$$

$$\sigma \sim \text{Exponential}(1) \tag{6}$$

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

#### 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 [3](#).

## 5 Discussion

### 5.1 First discussion point

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

Table 3: Explanatory models of flight time based on wing width and wing length

	First model
(Intercept)	1.12 (1.70)
length	0.01 (0.01)
width	−0.01 (0.02)
Num.Obs.	19
R2	0.320
R2 Adj.	0.019
Log.Lik.	−18.128
ELPD	−21.6
ELPD s.e.	2.1
LOOIC	43.2
LOOIC s.e.	4.3
WAIC	42.7
RMSE	0.60

## 5.2 Second discussion point

## 5.3 Third discussion point

## 5.4 Weaknesses and next steps

Weaknesses and next steps should also be included.

## References

R Core Team. 2022. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.