gss marriage politics analysis*

subtitle

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20 April 2023

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

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 (Wickham et al. 2019), janitor (Firke 2021), here (Müller 2020), and (Wickham et al. 2022). All figures in this paper were created using the packages ggplot2 (Wickham 2016) and the tables were created using knitr (Xie 2023) and kableExtra(Zhu 2021). Combinations of figures were created using (Pedersen 2022) The color styling of graphs has been created using RColorBrewer [Neuwirth (2022)]. The model in this paper was created using the rstanarm (Goodrich et al. 2022) package.

2.2 Source

The data within this paper was extracted from the 2014, 2016, 2018 and 2021 United States General Social Survey (GSS). This survey is a series of nationally representative cross-sectional interviews that collects data on contemporary American society to explain and monitor trends in attitudes, opinions and behaviours (Davern et al. 2021). It began tracking these trends in 1972, and has primarily used in-person data collection as its method of data collection (Davern et al. 2021). In 2021, the survey moved to an address-based sampling method with a focus on web-based self-administered questionnaires (Davern et al. 2021).

2.3 Sampling

The United States General Social Survey (GSS) samples adults over the age of 18 in the United States who are not currently living in institutional housing (Davern et al. 2021). Table 1 shows the total number of responses collected by the GSS and the total number of responses used in the analysis of this paper, per year.

Table 1: Number of Responses

Year	Total # of Responses	Total # of Responses Used in Analysis
2014	2,538	2,322
2016	2,867	2,641
2018	2,348	2,143
2021	4,032	3,529

2.4 Key Features

This paper explores the estimands, does political affiliation as measured through political views and identification impact marital status' and what influence does generational cohort and sex have. This paper explores these estimands through an analysis of the sample populations described in Table 1 under "Total # of Responses Used in Analysis." Responses were removed to account for unanswered or not applicable responses. I did this to ensure the representative and completeness of all variables analyzed. The variables selected for analysis can be viewed in Table 2 and their measurement levels can be viewed in Table 3. Responses were measured using Likert scales which measure respondents' opinions to questions, and multiple choice questions.

Table 2: Variable Descriptions

Variable	Variable Description
partyid	Self-ascribed belonging to the Republican, Democratic, or Indepedent 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 3: 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, Millenial, 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 β_i is the wing width and γ_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 (Goodrich et al. 2022). 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 θ.

4 Results

Our results are summarized in Table 4.

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 4: 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.

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