

# My title\*

My subtitle if needed

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November 27, 2024

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

## 1 Introduction

Overview paragraph

Estimand paragraph

Results paragraph

Why it matters paragraph

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

We use the statistical programming language R (R Core Team 2023)....

## 2 Data

### 2.1 Measurement

For this analysis, i use the Afrobarometer Round 9, Nigeria, 2023 survey. Afrobarometer conducts surveys that are nationally representative across African nations to capture public perceptions on topics like governance, democracy, and economic issues. The Nigerian Round 9 survey dataset contains responses from 1,556 people and is reflective of the diverse demographic statistics across gender, region, and residence type(urban or rural). The data is freely available on the Afrobarometer website(Afrobarometer 2023) and was collected through a multi-stage, stratified sampling method. This is to ensure representativeness and enables analysis of different demographics and socioeconomic indicators.

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\*Code and data are available at: [https://github.com/RohanAlexander/starter\\_folder](https://github.com/RohanAlexander/starter_folder).

Our primary measurement task is to capture public opinion towards economic, political and socioeconomic issues and translate it into actionable intelligence. The Afrobarometer survey translates these real world perceptions into quantifiable data using survey instruments. The process begins with identifying relevant phenomena in the Nigerian socio-political and economic context, such as public attitudes toward democracy, demand for governance accountability, and perceived economic conditions. These phenomena are operationalized into survey questions that are clear, culturally sensitive, and tailored to elicit meaningful responses.

For example:

- **Perceptions of Democracy:** A phenomenon such as the demand for democracy is operationalized by questions asking respondents whether they prefer democracy over other forms of governance, and whether they believe Nigeria is a democratic nation. These questions are grounded in observable public discourse, historical trends, and policy outcomes.
- **Economic Prosperity:** Attitudes toward economic conditions are measured by asking individuals to rate the current state of the economy and their own living standards. These subjective evaluations stem from tangible experiences like inflation, unemployment, or changes in public service delivery.

Each survey question acts as a data proxy for these complex real-world dynamics, reducing them to quantifiable variables while maintaining their conceptual integrity.

This dataset captures a unique moment in Nigeria's socio-political landscape, reflecting how citizens perceive democracy and governance in the context of ongoing economic and political challenges. Alternative datasets, such as Nigeria's national statistics or World Bank survey data, could provide economic indicators but lack the granularity of Afrobarometer's public opinion data.

## **2.2 Variables of Interest**

## **2.3 Outcome variables**

Add graphs, tables and text. Use sub-sub-headings for each outcome variable or update the subheading to be singular.

## **2.4 Predictor variables**

Add graphs, tables and text.

Use sub-sub-headings for each outcome variable and feel free to combine a few into one if they go together naturally.

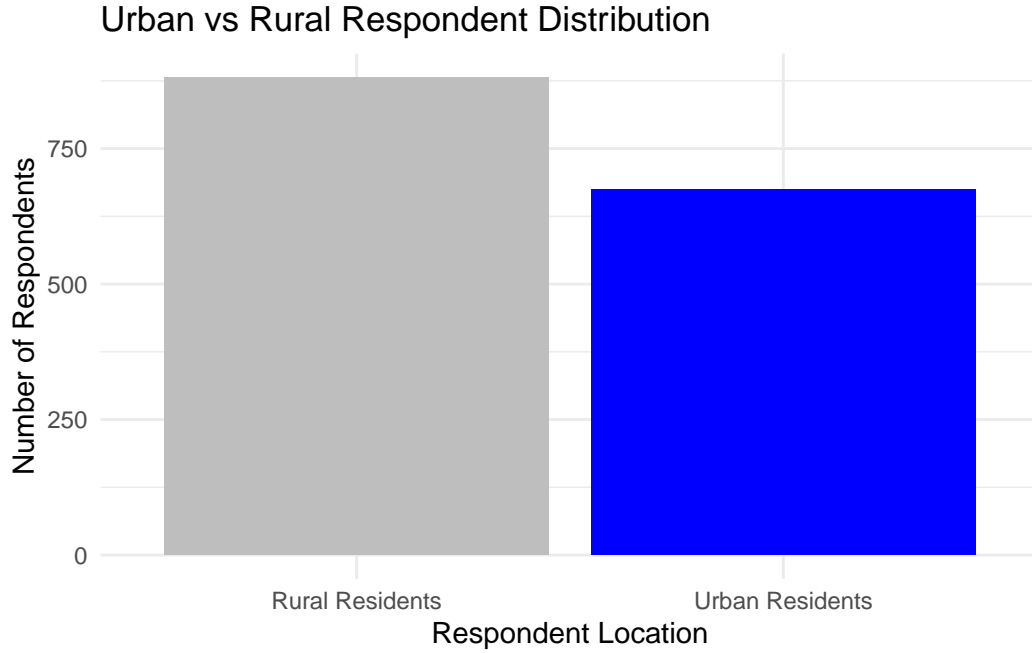


Figure 1: Figure 1: Urban vs Rural Respondent Distribution. This bar chart compares the number of respondents residing in urban versus rural areas.

### 3 Model

To investigate the relationship between demographic characteristics and different perceptions of corruption in Nigeria, we use a Bayesian Ordinal Logistic regression model.

Background details and diagnostics are included in Appendix [B](#).

#### 3.1 Model set-up

### 4 Results

Our results are summarized in Table [1](#)

Table 1: Summary of the Bayesian Model

term	estimate	std.error
educationInformal schooling only	-0.01	0.25
educationSome primary schooling	0.43	0.25

educationPrimary school completed	0.31	0.17
educationSome secondary schooling	0.32	0.19
educationSecondary school completed	0.35	0.17
educationPost-secondary qualifications	0.29	0.20
educationSome university	0.16	0.27
educationUniversity completed	0.34	0.23
educationPost-graduate	-0.18	0.74
genderFemale	0.11	0.10
urban_ruralRural	-0.40	0.10
age_group25-34	-0.13	0.13
age_group35-44	0.02	0.14
age_group45-54	-0.12	0.17
age_group55+	0.17	0.19
None&#124;Some	-3.17	0.23
Some&#124;Most	-0.32	0.21
Most&#124;All	1.41	0.21

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## 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

Please don't use these as sub-heading labels - change them to be what your point actually is.

### 5.3 Third discussion point

### 5.4 Weaknesses and next steps

Weaknesses and next steps should also be included.

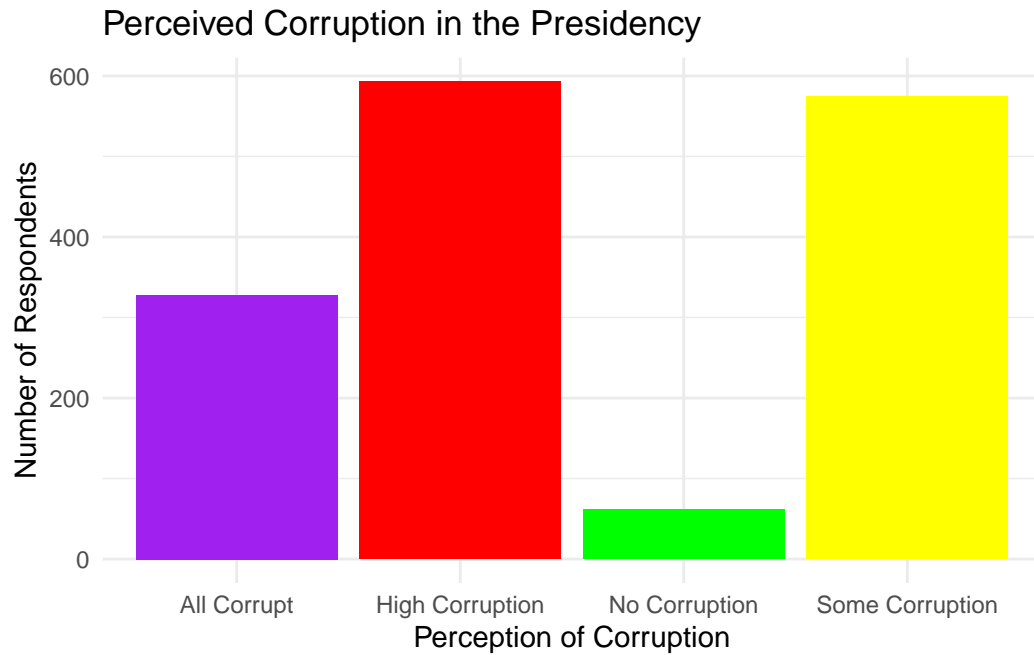


Figure 2: Figure 2: Perceived Corruption in the Presidency. This bar chart shows the distribution of respondents' perceptions of corruption in the presidency.

## Appendix

### A Additional data details

### B Model details

#### B.1 Posterior Predictive Check

#### B.2 Diagnostics

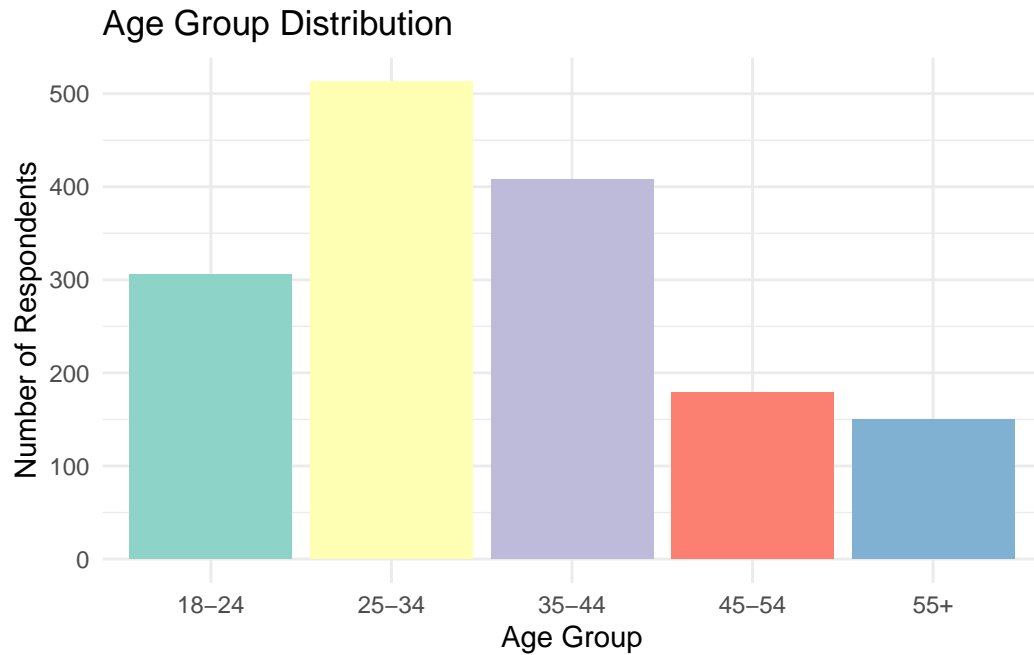


Figure 3: Figure 3: Age Group Distribution. This bar chart displays the number of respondents in each age group.

## References

- Afrobarometer. 2023. "Afrobarometer Round 9, Nigeria, 2023." Afrobarometer Network. <https://www.afrobarometer.org/survey-resource/nigeria-round-9-data-2023/>.
- R Core Team. 2023. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.

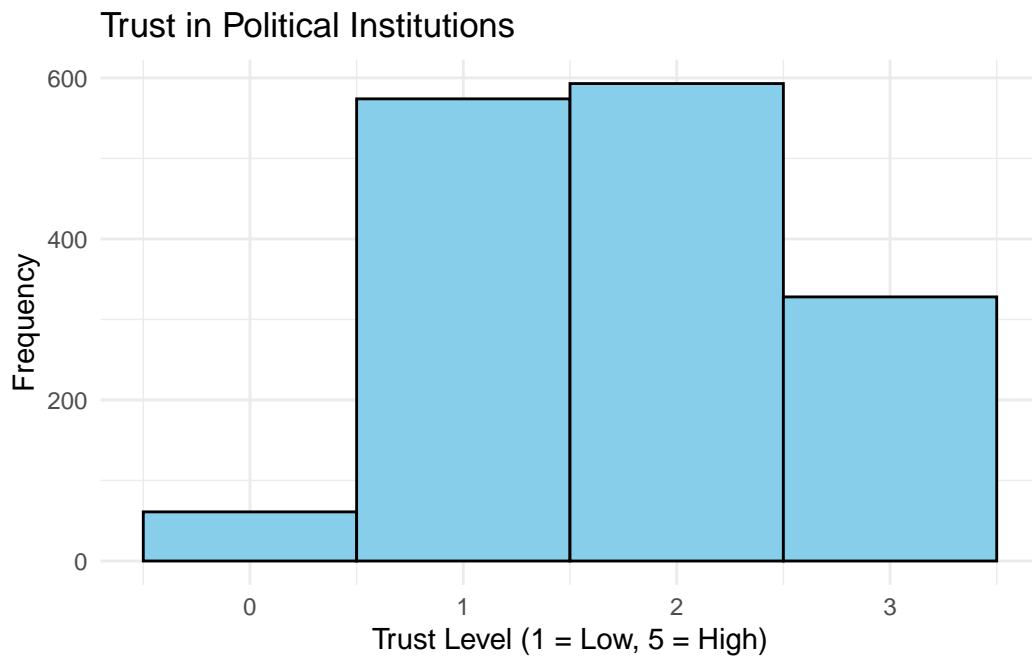


Figure 4: Figure 4: Distribution of Trust in Political Institutions. This histogram shows how respondents rated their trust in political institutions, from low to high trust.

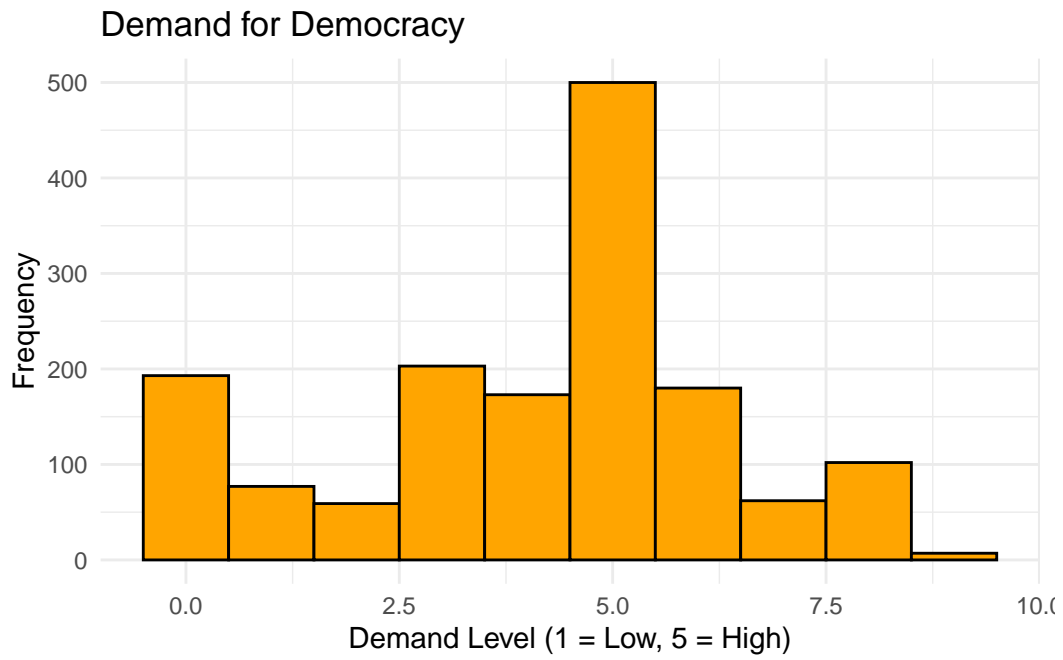


Figure 5: Figure 5: Distribution of Demand for Democracy. This histogram illustrates respondents' levels of demand for democracy, with higher values reflecting stronger democratic preferences.



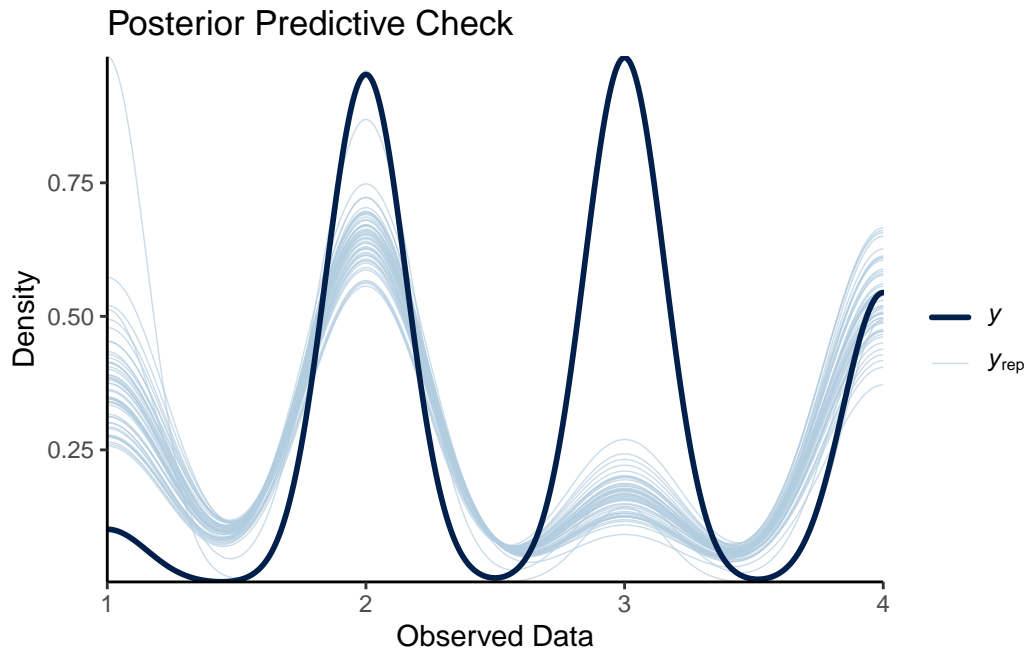


Figure 6: Posterior Predictive Check for the Bayesian ordinal logistic regression model.

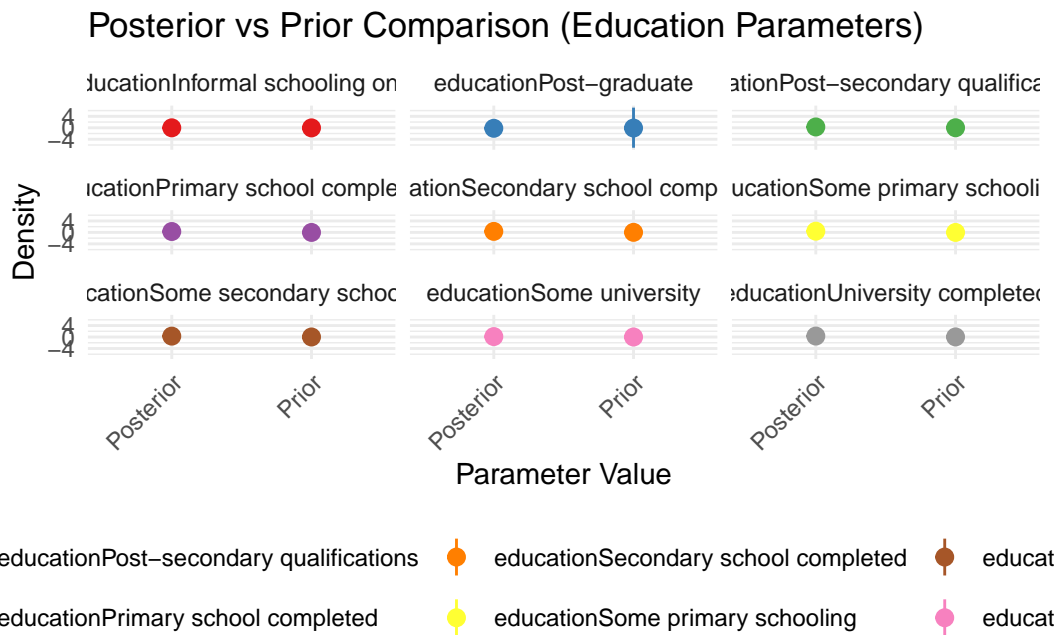


Figure 7: Posterior vs Prior Comparison for Education Parameters.

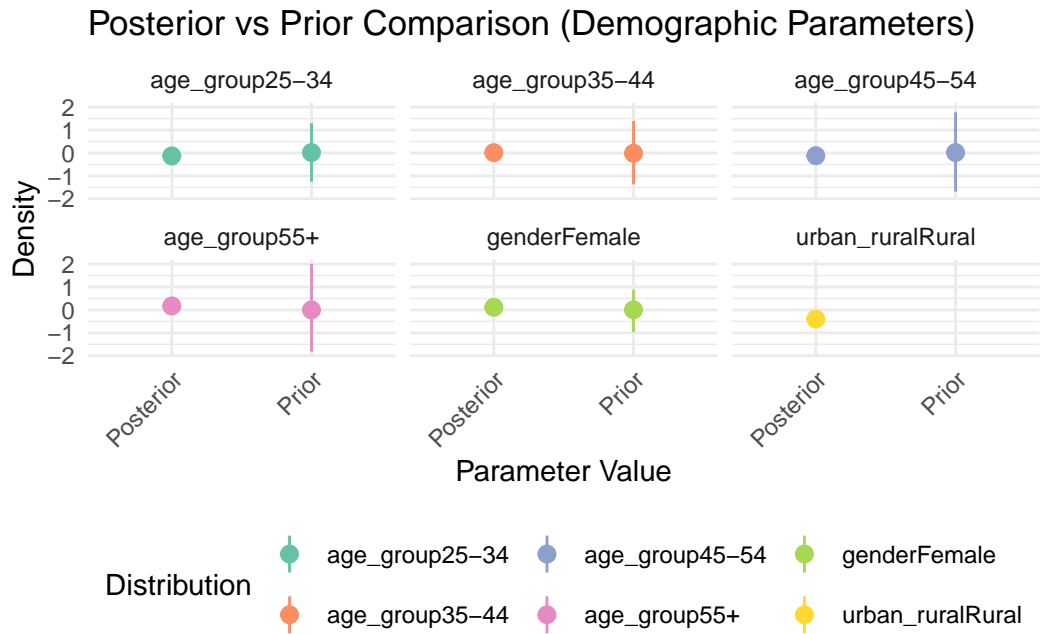


Figure 8: Posterior vs Prior Comparison for Demographic Parameters.

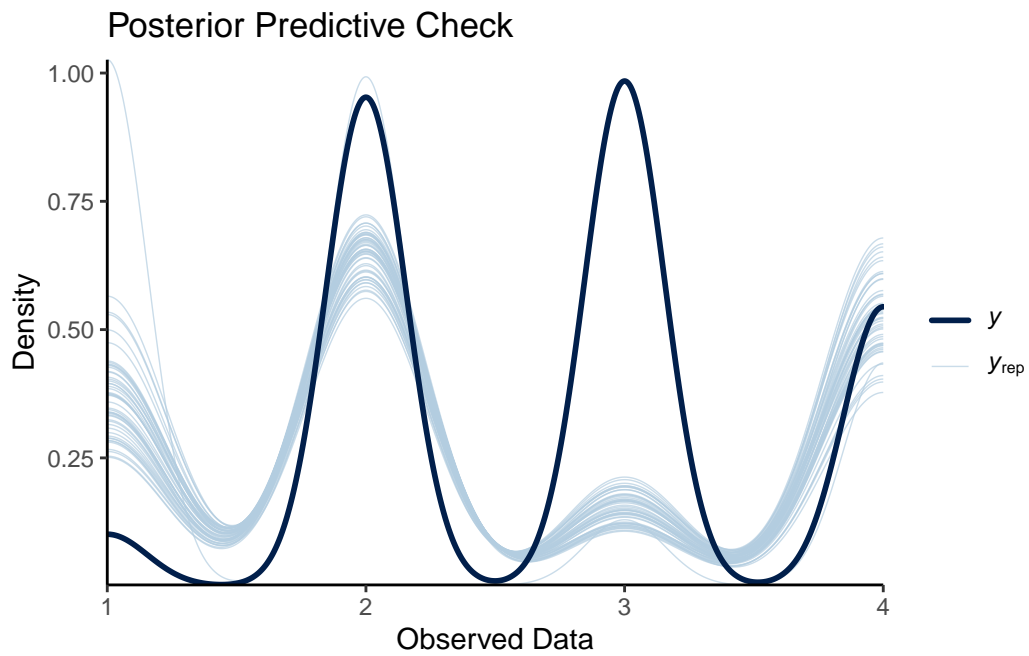


Figure 9: Posterior Predictive Check for the Bayesian ordinal logistic regression model.

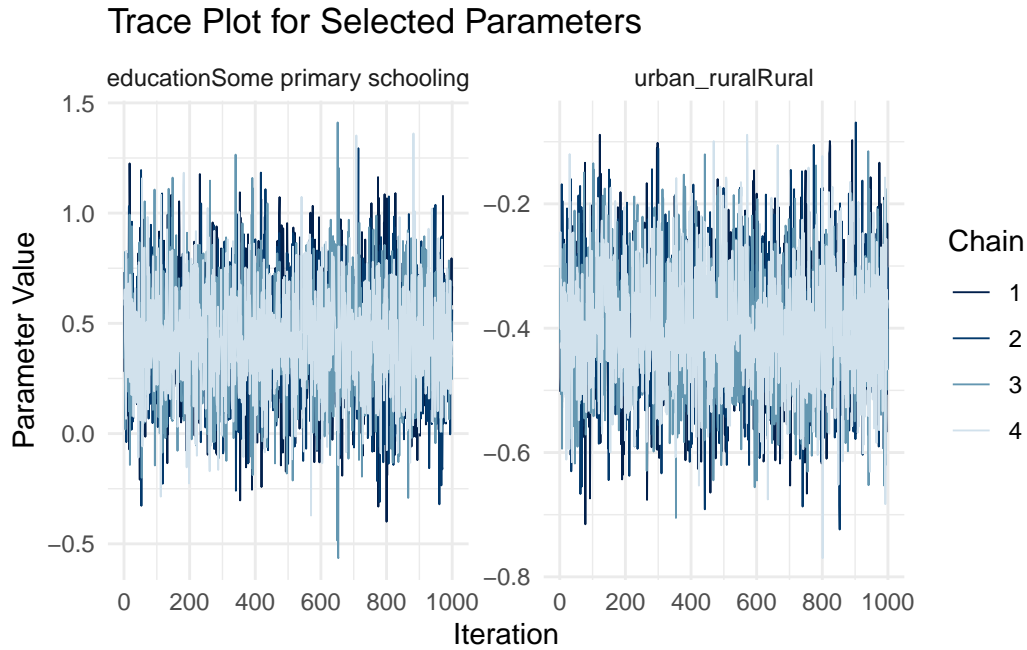


Figure 10: Trace plot for selected parameters in the Bayesian ordinal logistic regression model.

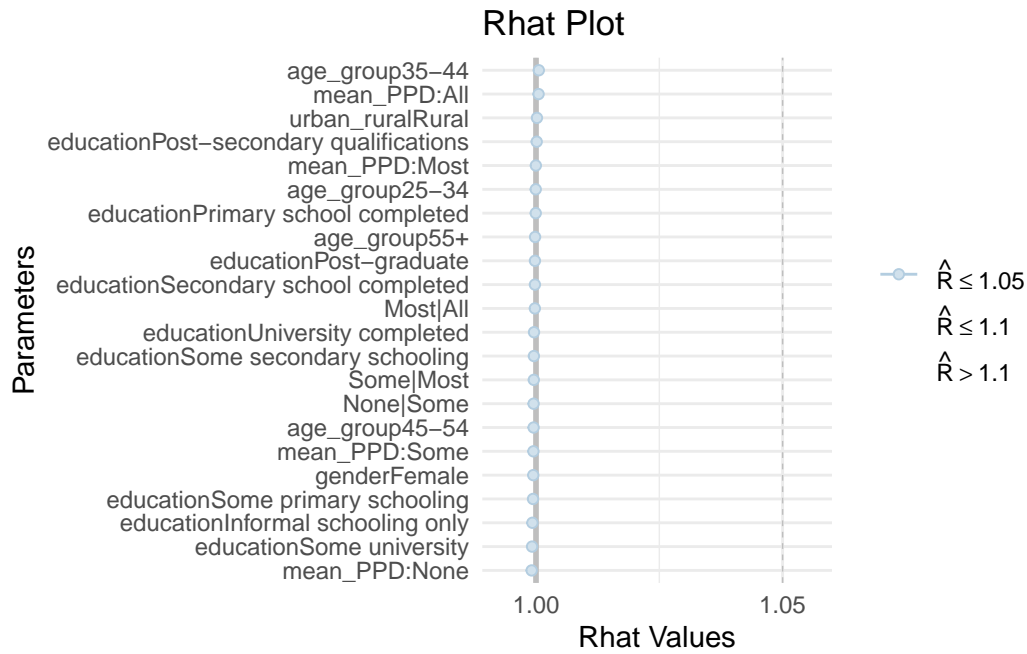


Figure 11: Rhat values for model convergence in the Bayesian ordinal logistic regression model.

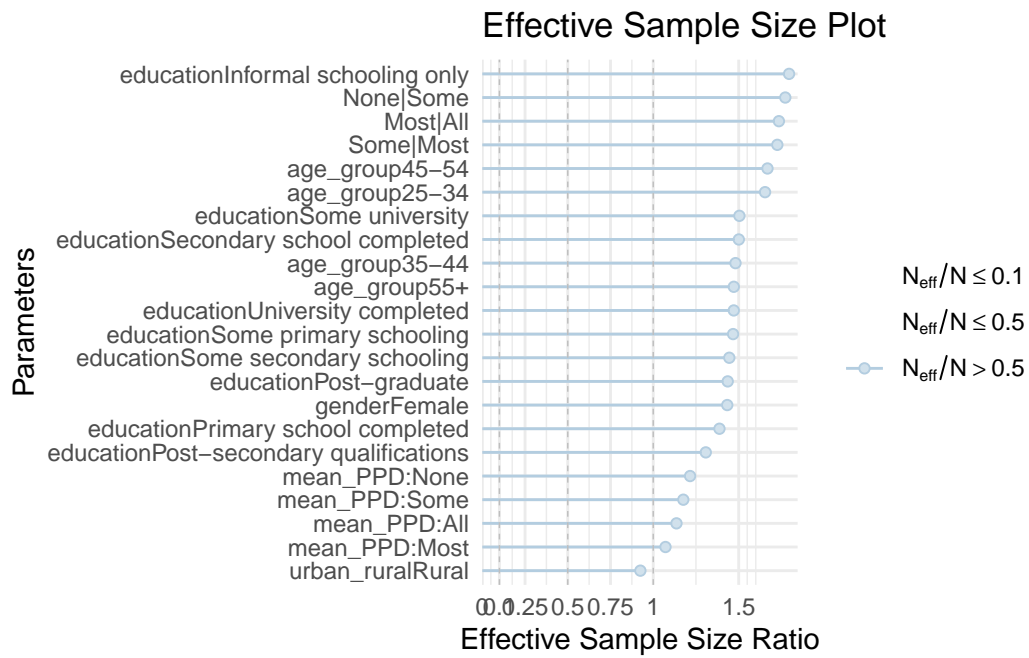


Figure 12: Effective sample size plot for parameters in the Bayesian ordinal logistic regression model.