# 2024 US Presidential Election Forecasting\*

#### subtitle

Mariko Lee Karen Riani Cristina Su Lam

October 22, 2024

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

### 1 Introduction

You can and should cross-reference sections and sub-sections. We use (talia?), (opendatatorotno?), and (rohan?).

The remainder of this paper is structured as follows. ?@sec-mydatasection

# 2 Data

Some of our data is of marriage license (?@fig-marriage), from (TorontoOpenData?)

Talk more about it.

And also planes (?@fig-planes). (You can change the height and width, but don't worry about doing that until you have finished every other aspect of the paper - Quarto will try to make it look nice and the defaults usually work well once you have enough text.)

### 3 Discussion

#### 3.1 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.

<sup>\*</sup>Code and data are available at: https://projects.fivethirtyeight.com/polls/president-general/2024/national/

# 3.2 Second discussion point

# 3.3 Third discussion point

# 3.4 Weaknesses and next steps

Weaknesses and next steps should also be included.

# **Appendix**

# A Methodology Analysis of The Washington Post Polling

With an evaluation of sampling methodology, recruitment, handling non-response, and questionnaire design, this appendix offers an analysis of the polling methodology used by The Washington Post in collaboration with ABC News. The objective is to analyze these approaches' strengths and weaknesses and determine how they affect polling accuracy.

# A.1 Population, Frame, and Sample

The Washington Post, in partnership with ABC News, employs a combination of text-to-web polls and random digit dialing (RDD) for landlines and mobile phones to reach a large and representative sample of American adults and registered voters (Post 2024a).

The Washington Post's polling averages use only national and state-level polls that comply with strict quality and transparency criteria. These surveys were chosen because they employ suitable stratification and weighting strategies in addition to random sample approaches (Post 2024b). To represent critical demographics such as age, race, gender, and education, the samples are meticulously weighted (Post 2024a) (Post 2024b).

# A.2 Sample Recruitment

Live phone interviews and text-to-web surveys collect samples for The Washington Post polls, focusing on ensuring comprehensive demographic coverage. In a typical 2024 poll, text-to-web invites reached 21% of respondents, landlines reached 15%, and mobile phones reached 64% of respondents (Post 2024a). Younger and minority voters, who might not be well represented in conventional landline-based surveys, can be efficiently reached by pollsters using this technique.

By using address-based sampling from the Delivery Sequence File of the US Postal Service, ABC News also leverages probability-based recruiting through the Ipos KnowledgePanel. Since internet connections and equipment are offered at no cost, this guarantees that even households without internet connections or digital devices are involved (News 2024).

# A.3 Sampling Approaches and Trade-offs

Using stratified random sampling, The Washington Post ensures that important demographic groups are represented proportionately to their voter base. By using stratified sampling, the polls are more likely to represent the diversity of the voting population accurately. To account

for over- or under-representation of particular groups, samples are further weighted (Post 2024a) (Post 2024b).

Particularly in situations where state-level polling data is scarce, The Washington Post's polling averages consider the state's voting record in the last two presidential elections (Post 2024b). This adjustment offers a more accurate representation of voters' preferences in states with fewer high-quality polls. However, there may be a trade-off since, depending solely on historical data, we may miss recent shifts in voter sentiment (Post 2024a).

# A.4 Non-response Handling

The Washington Post uses response weighting, which modifies the results according to demographic variables such as age, race, and education, in order to address non-response bias. In spite of variations in response rates among demographic groupings, this ensures that the final sample more accurately represents the population (WashPost2023\_Standard?).

ABC News also addressed non-response bias by applying post-stratification adjustments and sending email reminders to non-respondents. In addition, The Washington Post and ABC News both ensure that their samples are weighted to account for any anomalies in non-response (News 2024) (Post 2023).

Despite these initiatives, non-response bias is still a concern, especially for populations that are less inclined to take part in surveys, including younger or less politically active people (Post 2023).

# A.5 Questionnaire Design

To prevent respondents from being guided toward predetermined responses, The Washington Post creates its surveys with neutrality and clarity in mind. The questions are randomized, and respondents are given multiple choices, including "No Opinion," to avoid pressuring answers (Post 2024a). Question order bias can affect how respondents understand and respond to follow-up questions. Therefore, rotation helps mitigate this effect (Post 2023).

Similar ideas are utilized by ABC News, which offers surveys in both Spanish and English to reach a more representative sample of the general public. Leading questions are purposefully omitted from the questionnaires to ensure that the information gathered accurately reflects public opinion (News 2024).

# A.6 Strengths and Weaknesses of the Methodology

#### Strength:

Comprehensive Sampling Method: The Washington Post can reach a broad demographic, including younger and more difficult-to-reach voters, by combining RDD, text-to-web polls, and live phone interviews (Post 2024a) (Post 2023).

**Post-stratification Weighting:** To account for demographic imbalances and increase the accuracy of their polls, The Washington Post and ABC News both use strong post-stratification weighting (Post 2024a) (News 2024).

**Transparent Approach:** The Washington Post's polling data is more credible since they only employ high-quality polls in their averages and is transparent about their methodology (Post 2023) (Post 2024b).

#### Weaknesses:

Non-response Bias: Even if both organizations use weighting adjustments, non-response bias still remains a challenge, particularly when it comes to groups that are less likely to respond to surveys (Post 2023) (Post 2024a).

**Dependency on Historical Data:** In states with fewer polls, The Washington Post relies on historical data (the last two presidential elections), which raises the possibility that the polling averages might not accurately reflect current changes in voters preferences (Post 2024b).

#### A.7 Conclusion

The polling methodologies used by The Washington Post and ABC News offer a strict framework for gauging popular sentiment in the 2024 US presidential election. Their surveys often represent the electorate since they employ various sampling strategies, stratification, and weighting methodologies. However, obstacles such as non-response bias and the use of historical data in some states must be addressed appropriately to protect the accuracy and reliability of their polling averages.

# B Idealized Survey & Methodology - \$100K Budget

#### **B.1 Overview**

Using a \$100K budget, this appendix outlines a carefully designed survey methodology for predicting the 2024 US Presidential Election. The objective is to collect representative, high-quality data using recruiting, poll aggregation, and selective sample methods. Through rigorous validation, this approach ensures data accuracy and reduces common survey research errors.

# **B.2 Sampling Approach**

We will implement stratified random sampling to ensure that key demographic and geographic subgroups are fairly represented. This approach reduces bias and offers more reliable insights into voter preference.

#### Stratification Criteria:

- Age Groups
- Gender
- Education Levels
- Geographic Representation
- Political Affiliation

Sample Size Goal: 10,000 respondents across states and demographics to achieve high statistical power with a margin of error below  $\pm 1\%$ 

#### Trade-offs:

- Although stratified sampling increases representativeness, it necessitates accurate demographic information and may raise operating expenses.
- Missing Data: It's possible that some demographics (e.g. men) may be less likely to respond. Post-stratification weighting and data imputation will be used to address this issue.

# **B.3 Recruitment Strategy**

Outline outreach and telephone surveys will be combined in our recruitment strategy to ensure widespread participation from various demographic groups.

#### Online Recruitment:

- Target ads on Google, Facebook, and Twitter to engage younger voters and urban populations.
- Budget Allocation: \$25,000

### Random-Digit Dialing (RDD):

- Phone outreach to reach older, rural voters with poor internet connection. - Budget Allocation: \$30,000

#### **Incentives:**

- Participants are offered \$5 gift cards to increase response rates. - Budget Allocation:  $\$20,\!000$ 

#### Non-Response Handling:

- Increase recruitment incentives for underrepresented groups and use numerous follow-up reminders.

#### **B.4 Data Validation**

To ensure the accuracy and reliability of responses, we will implement several data validation techniques:

#### Survey Logic Check:

- Recognize and flag responses contradicting one another (e.g., reporting under 18 but registered to vote).

#### **Attention Check:**

- Utilize questions to confirm respondents are actively engaged (e.g., "Select 'Confirm' to start questionnaire")

# Post-Stratification Weighting:

- Adjusting for over- and under-enumeration and weighting the sample to reflect the demographic of the US population.

#### Mode and Measurement Errors:

- We mitigate the impact of using mixed modes (online and telephones) by training enumerators and reducing enumerator bias. Misreporting will be reduced through straightforward questions.

# **B.5 Poll Aggregation Methodology**

We will employ a poll-of-polls aggregation method to reduce bias and smooth fluctuation across individual polls.

#### Weighting Criteria:

Sample Size: larger samples receive more weight to mirror greater reliability.

**Recency:** More recent polls are given higher weight to capture modern voter sentiment.

**Pollster Rating:** Polls from highly rated pollsters receive higher weights to reduce the impact of bias.

### **B.6 Survey Implementation**

Google Forms was used to create and implement the survey, allowing for efficient data collection and safe storage. The main section and sample questions are listed below.

Access the survey: Google Form

# Survey Overview

Title: 2024 US Presidential Election Poll

**Purpose:** To gather public sentiment and predict election outcomes.

Estimated Time: Less than 5 minutes

**Confidentiality:** All responses are anonymous and used only for research purposes.

- 1. What is your age?
- Under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+
- 2. What is your gender?
- Male
- Female
- Non-binary / Prefer not to say
- 3. What is the highest level of education you have completed?
- Less than high school
- High school diploma or GED
- Some college
- Bachelor's degree
- Master's degree or higher
- 4. Are you registered to vote?
- Yes
- No
- 5. Who do you intend to vote for in the upcoming presidential election?
- Donald Trump (Republican)
- Kamala Harris (Democrat)
- Other
- Undecided
- 6. How likely are you to vote in the upcoming election?
- Very Likely
- Somewhat Likely
- Not Likely

# **B.7 Budget Breakdown**

Online Recruitment: \$25,000RDD Recruitment: \$30,000

Incentives for Participants: \$20,000
Data Processing & Validation: \$15,000

• Miscellaneous Expenses: \$10,000

**Total**: \$100,000

### **B.8 Conclusion**

This survey methodology uses stratified sampling, multi-channel recruitment, and rigorous data validation procedures to ensure accurate forecasting of the 2024 US Presidential Election. We provide a more stable and reliable prediction through poll-polls aggregation, smoothing out fluctuations across polls. This design balances accuracy, inclusivity, and efficiency with a carefully considered \$100K budget, ensuring the poll gathers meaningful insights into voter sentiment and behavior.

# References

- News, ABC. 2024. "ABC News Polling Methodology Standards." https://abcnews.go.com/US/PollVault/abc-news-polling-methodology-standards/story?id=145373.
- Post, The Washington. 2023. "Polling Methods and Standards (2023)." https://www.washingtonpost.com/documents/f409a864-d58c-430a-8adc-ee6a8a344854.pdf?itid=lk\_inline\_manual 6.
- ——. 2024a. "ABC News/the Washington Post Polling Methodology (2024)." https://www.washingtonpost.com/documents/b4c28200-18a7-412e-a4da-4e8cf9b91fd5.pdf.
- ——. 2024b. "Presidential Polling Averages Methodology." https://www.washingtonpost.c om/elections/2024/06/26/presidential-polling-averages-methodology/.