

## Methods

This section describes the methodology used in this analysis. **Data Collection and Curation:** All polls are collected, curated, and organized to ensure they accurately represent current political trends. Polling data is gathered from credible sources, cleaned to remove inconsistencies, and structured to maintain data integrity. Candidates are carefully selected based on their relevance in the political landscape, ensuring meaningful analysis. **Data Transformation and Filtering:** Following initial preparation, data undergoes transformations that include date standardization using the `lubridate` package and conversion to year-week or year-month formats, allowing for accurate aggregation. Only valid data is used by removing NA values, and averages per candidate are calculated based on available data points. **Trend Analysis and Statistical Modeling:** To capture patterns in public opinion, linear regression and Loess smoothing models are applied to each candidate's polling data. The linear model, generated using `lm()`, provides insight into trends with monthly variation, R-squared, and beta coefficients highlighting each candidate's performance. Loess smoothing (`loess.sd()`) offers a refined view of the polling trend, addressing data irregularities and producing smoother lines for better trend visualization. **Visualization:** Graphical representations are generated using `ggplot2` and base R graphics. Each candidate's trend lines are color-coded, with clear statistical labels showing mean support and other relevant statistics. **Statistical Summaries:** Mean support, standard deviation, and the range of support (min and max) are calculated and provided for each candidate, giving a quantitative basis for candidate comparisons. **Disclaimer:** The report reflects the most recent data collected, acknowledging the fluidity of public opinion. Results are indicative of current trends but should not be considered predictive of future outcomes. Each candidate is assigned a unique color across the report to maintain visual consistency.