Methods

This section details the methodology used in this analysis, covering data sources, transformations, statistical models, and visualization techniques. **Data Sources**: Polling data was gathered from leading pollsters including Cadem, Criteria, Plaza Pública, Data Influye, Activa Research, Feedback, and Ipsos, selected for their credibility, sampling representativeness, and consistency in data quality. Including these varied pollsters ensures a comprehensive view of public opinion across different sampling methods and population representations. The candidates analyzed include: Jeannette Jara . **Data Transformation and Filtering**: Following collection, the data underwent rigorous cleaning and standardization. Dates were processed using the `lubridate` package and converted into year-week or year-month intervals, supporting accurate and consistent aggregation over time. Missing values (`NA`s) were removed, and candidate-specific averages were calculated, ensuring valid comparisons and reliable trend lines. **Trend Line Methodologies**: Three primary trend lines are displayed to represent distinct analytical models. The **Green Line** represents a linear regression model (`lm()`) that provides a straightforward linear trend for each candidate's support over time, reflecting the average monthly change. This line highlights long-term directional trends with beta coefficients (indicating average monthly variation) and R-squared values that show how closely the trend fits the data. The **Red Line** represents a Loess smoothed trend (`loess.sd()`), ideal for capturing nonlinear fluctuations and patterns that may not be captured by a simple linear trend. This smoothing model uses a span of 0.66 to balance between fit accuracy and over-smoothing. Dotted red lines around the main red trend line show a 90% prediction interval, offering a visual range of confidence and reflecting possible future variability. Finally, the **Black Line** represents a monthly average of each candidate's support, displayed as a step-line to emphasize abrupt shifts or drops in short-term support. This line captures monthly shifts clearly, supplementing long-term trends with insight into recent polling changes. **Visualization**: Graphs are generated using `ggplot2` and base R graphics, with candidate trends color-coded for clarity. Statistical labels display each candidate's mean support, standard deviation, and observed support range (minimum and maximum values), giving additional insight into the relative stability or variability of public opinion for each candidate. **Statistical Summaries**: Mean support, standard deviation, and support range are calculated and displayed for each candidate to support a quantitative basis for comparison. **Disclaimer**: The report is based on recent polling data, recognizing that public opinion is dynamic and may continue to shift.