

Appendix I – Column Descriptions

**Manually added column

Other column descriptions taken directly from FiveThirtyEight pollster data.

Column Name	Description
Pollster	Name of the polling organization. This is meant to reflect the organization that contributed the most intellectual property to the methodology and execution of the poll rather than the organization that paid for or sponsored the poll. FiveThirtyEight may group legally distinct organizations together if they routinely collaborate on polling or share a common methodology.
Pollster Rating ID	A unique numerical identifier for the pollster.
# of Polls	Number of polls from the firm in the FiveThirtyEight pollster ratings database, which covers polls conducted in the final three weeks of House, Senate, gubernatorial and presidential general election campaigns since 1998, and the last three weeks of presidential primaries and caucuses since 2000.
NCPP / AAPOR / Roper	A checkmark indicates the polling firm was a member of the National Council of Public Polls (NCPP), a signatory to the American Association Public Opinion Research (AAPOR) Transparency Initiative, or a contributor to the Roper Center data archive as of May 22, 2018. This is a proxy for methodological quality.
Methodology	<p>What methodology or methodologies a pollster was routinely using in its election polls as of the 2018 campaign cycle. The following categories are listed:</p> <p>Live - Live telephone interviews, including cellphones</p> <p>Live* - Live telephone interviews, but FiveThirtyEight cannot confirm whether cellphones are included</p> <p>IVR - Interactive voice response, otherwise known as automated polls or "robopolls".</p> <p>Online - Poll conducted by Internet; generally this mean by web browser, or application-based polling of mobile phones.</p> <p>Text - Poll conducted by text message. FiveThirtyEight has only recently begun tracking this category specifically and so some polls listed as "Online" may also be conducted via text.</p> <p>Mail - By U.S. Mail or other "snail mail" service</p> <p>Note that many pollsters are listed as having multiple methodologies, either beacuse they switch back and forth from poll to poll or (more commonly) because they routinely use more than one mode of data collection within the same survey.</p>
**General Methodology	For Pollsters who used a variety of methods, only "Mixed" will be displayed.
Live Caller With Cellphones	A "yes" indicates that all or almost all of the firm's polls are conducted exclusively via live interviewers who place calls to cellphones in addition to landlines. "Partial" indicats that the firm places landline calls, including to cellphones, but also uses other techniques. Only actual phone calls placed to mobile devices earn a "yes" in this category; a poll conducted by text messages to mobile devices would not qualify. As a default, we assume a polling firm has not begun to include cellphones in its samples until we have evidence to the contrary. Pollsters that have routinely begun to include cellphones in their samples but which are not listed as such should contact FiveThirtyEight. Information is as of Oct. 25, 2018.
**Uses Live Calling?	Uses live calling to cellphones yes or no
Banned by 538	A "yes" indicates the polling firm is not used in FiveThirtyEight's election forecasting models because we are concerned they have faked some polling results.

Advanced Plus-Minus	How a pollster's average error has compared to others polling firms surveying the same races, also accounting for the type of election polled, the number of days until the election, the poll's sample size, the competitiveness of the race, and the number of other pollsters surveying the same election. More recent polls are weighted more heavily in the calculation. Negative scores are favorable and indicate above-average quality.
Predictive Plus-Minus	A projection of how accurate the poll will be in future elections. It is based on a combination of a pollster's Advanced Plus-Minus score, the number of polls it has in the database (firms with fewer polls are reverted more strongly reverted to the mean), and our proxies for methodological quality.
538 Grade	A letter grade from A+ to F which reflects a pollster's Predictive Plus-Minus score. Firms banned by FiveThirtyEight are automatically given a grade of F. Pollsters with fewer than 10 polls receive a provisional grade of either A/B (strong initial performance), B/C (average initial performance) or C/D (mediocre initial performance).
**Overall Grade	Only the first Letter grade of the 538 Grade.
Mean-Reverted Bias	A pollster's historical average statistical bias toward Democratic or Republican candidates, reverted to a mean of zero based on the number of polls in the database. A score of "R +1.5", for example, indicates that the pollster has historically overrated the performance of the Republican candidate.
Races Called Correctly	The percentage of polls in which the polling firm correctly identified the winner of the race. If the poll indicated a tie for the lead and one of the tied candidates won, the pollster is given credit for half a win.
Misses Outside MOE	The percentage of polls in which the final margin between the top two candidates was outside the 95 percent confidence interval as implied by the poll's margin of error. For these purposes, margin of error is calculated as 1.96 divided by the square root of the poll's sample size.
Simple Average Error	The firm's average error, calculated as the difference between the polled result and the actual result for the margin separating the top two finishers in the race.
Simple Expected Error	An estimate of the expected error for the races the firm surveyed, which accounts for the type of election polled, the number of days until the election, and the poll's sample size.
Simple Plus-Minus	The firm's Simple Average Error less its Simple Expected Error. As with other Plus-Minus categories, negative scores are favorable and indicate above-average quality.
Advanced Plus-Minus	A more advanced plus-minus score that also accounts for the performance of other polling firms surveying the same races, and which weights recent results more heavily.
Mean-Reverted Advanced Plus Minus	The Advanced Plus-Minus score, reverted to a mean of zero. The amount of mean reversion is calculated as $18 / n + 18$, where n is the number of polls the firm has conducted, but with polls in previous years discounted at a discount rate of .93 based on the number of years that have passed between the poll and 2018.

Predictive Plus-Minus	A projection of how accurate the poll will be in future elections. It is calculated by reverting a pollster's Advanced Plus-Minus score to a mean based on our proxies for methodological quality, plus applying various penalties for herding. This rating forms the basis for the weights FiveThirtyEight assigns to polls in its election models.
# of Polls for Bias Analysis	The number of polls in which the top two finishers were a Democrat and a Republican. This definition excludes polls of all single-party primaries, and all general elections in which an independent candidate finished in the top two.
Bias	A pollster's historical average statistical bias toward Democratic or Republican candidates. A score of "D +1.7", for example, indicates that the pollster has historically projected a margin 1.7 percentage points more favorable to the Democratic candidate than the actual results of the races it surveyed.
Mean-Reverted Bias	A pollster's Bias score reverted to a mean of zero. The amount of mean reversion is calculated as $18 / n + 18$, where n is the number of years that have passed between the poll and 2018.
House Effect	The average amount by which the firm's polls have shown more favorable results for Democratic or Republican candidates as compared to other surveys of the same race. For instance, if a poll showed the Republican ahead by 5 percentage points, and the average of other polls in the same race showed the Republican ahead by 2 percentage points, it would have a House Effect score of R+3. This is not the same thing as the Bias calculation -- House Effect compares a poll to other surveys of the same races rather than against actual results. Cases in which the firm was the only one to survey the race are not included in the calculation.
Average Distance from Polling Average (ADPA)	How far the firm's average poll differed from the average of other polls in the field at the time it was released. Specifically, the average is calculated based on the most recent poll (among polls in the pollster rating database) from each other firm that polled the race, provided that the poll was not partisan and that the pollster is not banned by FiveThirtyEight. A low ADPA is potential evidence of herding.
Herding Penalty	A herding penalty is triggered when a firm's ADPA is lower than the theoretical minimum based on the sampling error in its polls. For instance, if a pollster's ADPA is 3.5, but you'd expect its polls to deviate by a minimum of 4.5 points from the polling average given sampling error based on its sample sizes, the firm would receive a herding penalty of 1 point. This penalty is added to a firm's Advanced Plus-Minus score before calculating Predictive Plus-Minus.

Appendix II - Data Limitations

No available data on only the text methodology. For Average of *Races Called Correctly* would have been able to make some more specific recommendations on methodology if this data was available. My initial theory is that it could be similar to IVR but because it's a text and less intrusive than a phone call it could have a higher turnover rate and even be more accurate.

Mail data sample size was too small to make any conclusions from. It has a 93% accuracy rate on *Races Called Correctly* but only 22 sample size. My working theory is that those who would take the time to fill out and mail back a poll would be highly motivated voters who are more likely to actually vote when its time. A greater sample size could shine line on how effective mailing is and what relationship it has to other data.