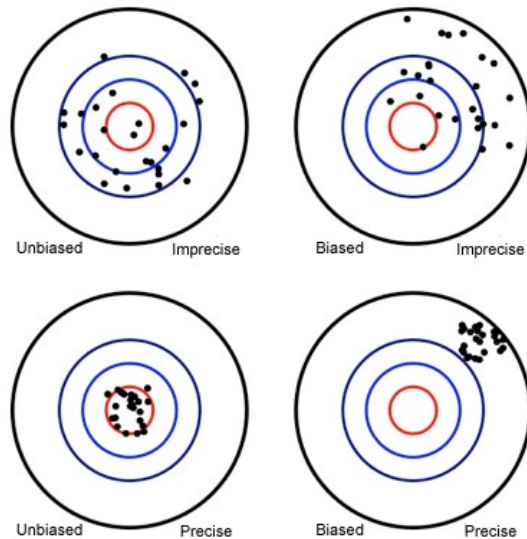


Public Opinion Polls: Beyond the Margin of Error



Beware: Margin of Error vs Bias



How Much Bias?

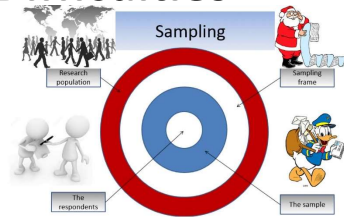
- Polls report 95% confidence intervals (as margins of error)
- But in the long run, these capture the correct outcome 60% of the time
- For true 95% confidence, margin of error has to be doubled

Sources of Bias

- Sampling frame problems
- Non-response bias
- Biased question wording

1. Sampling Frame Difficulties

- Used to be mostly phone:
 - RDD, list-assisted
 - But: landline vs multiple cellphones per household/person
- Non-response kicked in



Public Opinion vs Election Polls

- Types of polls:
 - Public opinion polls
 - Election polls – voters only
 - Benchmark polls
 - Tracking polls
 - Entrance/exit polls
- Additional sampling challenge for benchmark & tracking polls: difficult to predict who will actually vote
- Public opinion polls = more accurate

Sources of Potential Bias:

2. Non-response



How Do Polls Deal with Nonresponse?

- Polls can (and do) correct for nonresponse bias by using demographic weights
- Compare demographics of the poll to known demographics of population
- E.g., if more educated are overrepresented → count the opinions of less educated twice
- Beyond that, we cannot know if there is still bias in a poll; that is why only the margin of error can be reported

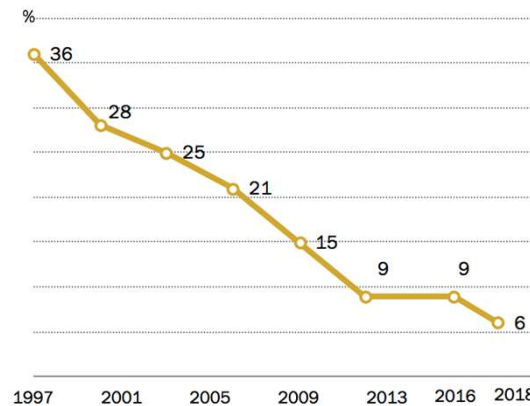
Surveys Face Growing Difficulty Reaching, Persuading Potential Respondents

	1997	2000	2003	2006	2009	2012
	%	%	%	%	%	%
Contact rate (percent of households in which an adult was reached)	90	77	79	73	72	62
Cooperation rate (percent of households contacted that yielded an interview)	43	40	34	31	21	14
Response rate (percent of households sampled that yielded an interview)	36	28	25	21	15	9

PEW RESEARCH CENTER 2012 Methodology Study. Rates computed according to American Association for Public Opinion Research (AAPOR) standard definitions for CON2, COOP3 and RR3. Rates are typical for surveys conducted in each year.

After brief plateau, telephone survey response rates have fallen again

Response rate by year (%)



Note: Response rate is AAPOR RR3. Only landlines sampled 1997-2006. Rates are typical for surveys conducted in each year.
Source: Pew Research Center telephone surveys conducted 1997-2018.

PEW RESEARCH CENTER

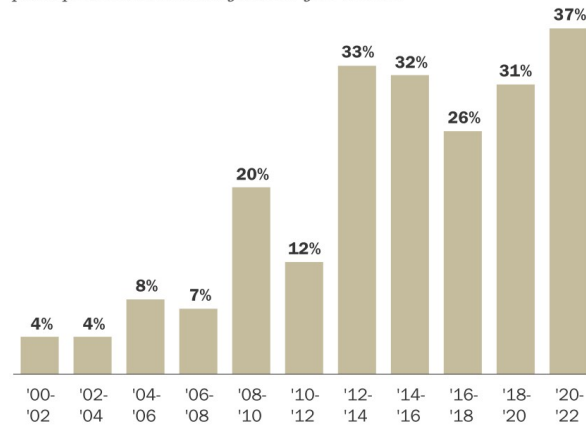
Modest Differences on Many Measures but Large Gaps on Civic and Political Engagement

	Pew Research standard survey	US government survey
	%	%
U.S. Citizen	95	92
Homeowner	63	62
Lived at current address 5 or more years	56	59
Married	50	54
Children in household	37	37
Internet user	80	74
Current smoker	22	19
<i>In prior year, received...</i>		
Unemployment benefits	11	11
Social Security payments	32	27
Food stamps or nutrition assistance	17	10
Registered to vote*	75	75
Contacted a public official in past year	31	10
Volunteered for an organization in past year	55	27
Talked with neighbors in past week	58	41

PEW RESEARCH CENTER 2012 Methodology Study.
All government figures are from the Current Population Survey except marital status, smoking and home ownership which are from the National Health Interview Survey.
*Based on citizens.

More than a third of national public pollsters changed how they poll after 2020

% of pollsters who changed how they sample or interview people in national public polls in the U.S. during the two-year interval

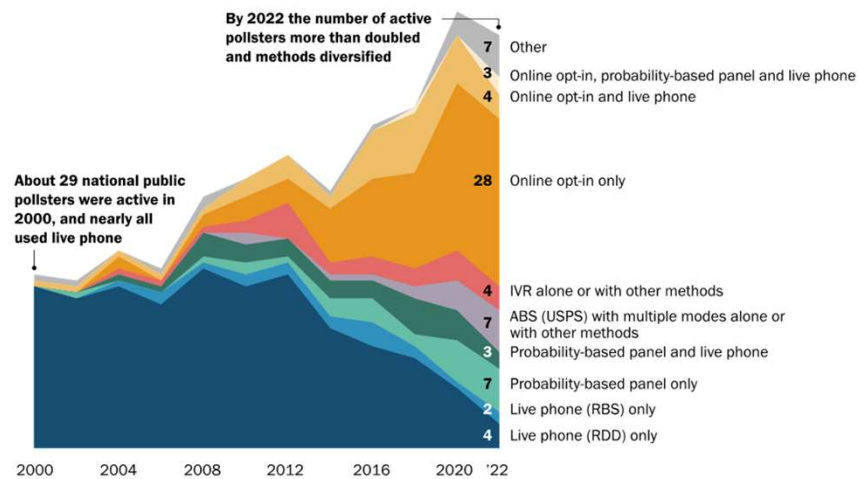


Note: In this study change refers to using a different sample source or a different mode of interviewing. Figures for each interval are based on the set of pollsters that released at least one national public poll in both the starting year and ending year of the interval.
Source: Pew Research Center analysis of external data. See Methodology for details.
"How Public Polling Has Changed in the 21st Century"

PEW RESEARCH CENTER

Polling has entered a period of unprecedented diversity in methods

Number of national public pollsters in the U.S. using method(s)



Note: Figures represent the number of active national public pollsters in each year and the method(s) that they used. IVR refers to interactive voice response, also known as robo-polling. ABS refers to address-based sampling. RBS refers to voter registration-based sampling. RDD refers to random-digit-dial sampling.

Source: Pew Research Center analysis of external data. See Methodology for details.
"How Public Polling Has Changed in the 21st Century"

PEW RESEARCH CENTER

Non-probability Samples

- <https://www.youtube.com/watch?v=T9dmq6Lwh24>
- Internet polls = nonprobability samples
- Use weights to improve estimates
- Use credibility interval instead of margin of error

Sources of Potential Bias

3. Biased question wording



Types of Biased Wording

- Leading questions: Should concerned dog owners vaccinate their pets?
- Loaded questions: Where do you enjoy drinking beer?
- Double-barreled questions: How satisfied are you with the options available for core courses and electives?
- Double negative questions: Was the facility not unclear?
- Confusing questions: Do you believe that contrary to what the media says, raising taxes does not create jobs?
- Overlapping scales: 0-1 times, 1-2 times, 2-3 times, 3+
- Mismatched scales: How easy was it to register for classes? Yes, No.
- Unbalanced scales: How was your experience today? Okay, Good, Fantastic, Unforgettable

More on Question Bias!

- <https://surveytown.com/10-examples-of-biased-survey-questions/>

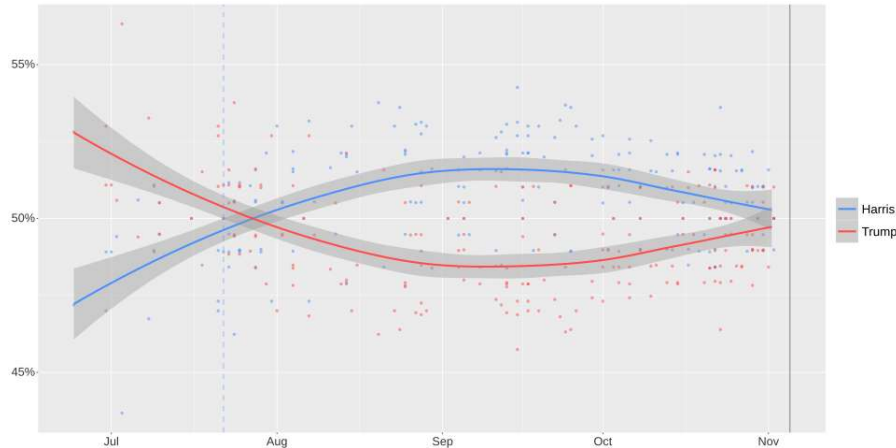


Pollster Ratings

Pollster	Grade	Plus-Minus	reverted bias	Number of polls
AtlasIntel	A+	-0.96	D+0.16	91
Marquette University Law School	A/B	-0.92	D+0.32	17
The Washington Post	A+	-0.90	D+0.90	98
Research & Polling Inc.	A	-0.87	R+0.55	44
The New York Times/Siena College	A	-0.76	D+1.41	116
Cygnal	A	-0.75	D+2.04	58
SurveyUSA	A	-0.73	D+0.09	871
Siena College	A	-0.65	D+0.12	67
Beacon Research/Shaw & Co. Research	A	-0.64	D+1.46	62
Alaska Survey Research	A/B	-0.60	D+1.77	16
OnMessage Inc.	A	-0.60	R+1.23	32
TIPP Insights	A-	-0.57	R+0.07	51
Emerson College	A-	-0.57	D+0.65	317
Landmark Communications	A-	-0.56	D+0.83	41
Monmouth University	A-	-0.52	D+2.00	131

- <https://www.natesilver.net/p/pollster-ratings-silver-bulletin>

Poll Aggregation: 2024 Election

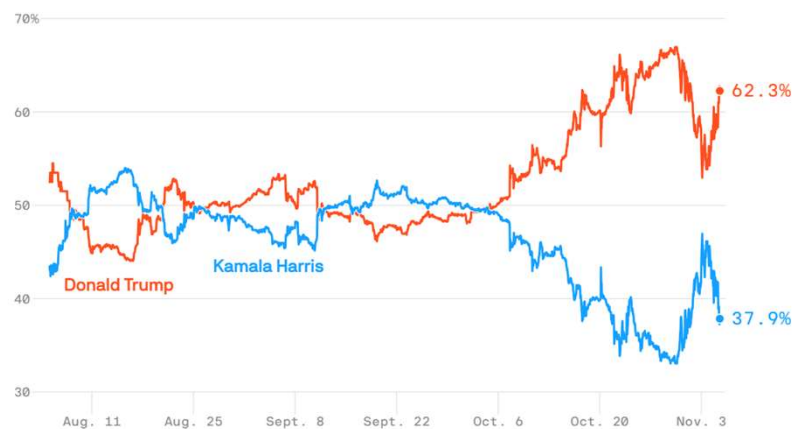


- https://en.wikipedia.org/wiki/Nationwide_opinion_polling_for_the_2024_United_States_presidential_election

Polls vs Political Gambling

Polymarket odds on the presidential election winner

Aug. 4 to 6:57am ET Nov. 5, 2024



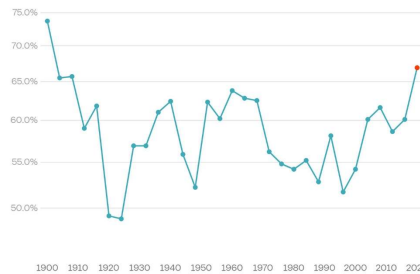
- <https://www.predictit.org/markets/>
- <https://www.cnn.com/videos/tv/2019/10/05/do-gambling-odds-forecast-elections-better-than-polls.cnn>

Election as a “Sample” of Citizens

- Election is designed to be a census, not a sample
- Many people don't vote → non-response bias
- 2024 election = 64% of voter eligible population

2020 voter turnout is estimated to be the highest in 120 years

Turnout rate in US presidential races among the voting-eligible population



Preliminary 2020 estimate by University of Florida professor Michael McDonald
Source: US Elections Project

Vox

Voter Turnout by Election Cycle

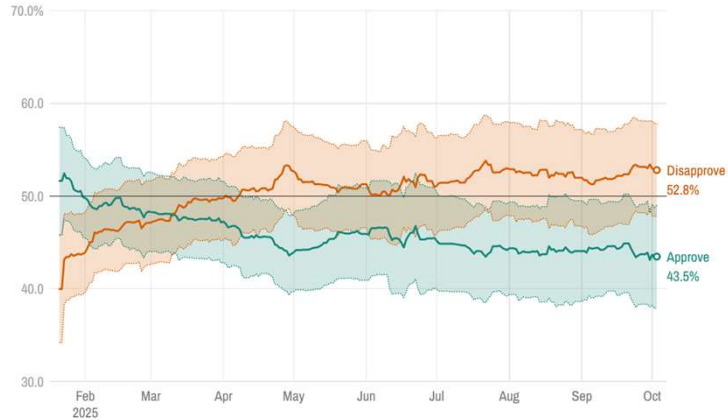
Year ▼	Turnout Rate	Voting-Eligible Population*	Non-Voters
2024	64%	244,666,890	89,278,948
2020	66%	240,628,443	80,899,282
2016	60%	230,780,798	92,035,382
2012	59%	222,437,494	92,206,198

*Americans 18 years or older, minus ineligible noncitizens and felons.

Table: Seth Cline | U.S. News & World Report • Source: University of Florida Election Lab

U.S. News

Poll Aggregation: Do Americans Approve of Trump?



Note: 90% of polls are projected to fall within the shaded regions.
Updated October 3, 2025 at 6:04 PM • [Get the data](#) • [Download image](#)

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BULLETIN**

- <https://www.natesilver.net/p/trump-approval-ratings-nate-silver-bulletin>

Videos on Polling

- Brief History of Polling
https://www.youtube.com/watch?v=Jpob_WQ3CQQ
- What polls can tell us:
<https://www.youtube.com/watch?v=ln9Pqm9Yllo>
- What Makes a Good Pollster?
<https://www.youtube.com/watch?v=fzzX9jHDK4k>
- What happened to polls in 2016?
<https://fivethirtyeight.com/videos/polling-101-what-happened-to-the-polls-in-2016-and-what-you-should-know-about-them-in-2020/>
- 2024 Election:
https://www.youtube.com/watch?v=2xTbvc7am_c