The Polling Landscape

Courtney Kennedy

Director of Survey Research
Live telephone polling

Who does this? CNN, Fox News, ABC/Washington Post, WSJ/NBC, Quinnipiac, Monmouth, Marist, NYT Upshot/Siena

Methodology

Interviews were conducted May 30-June 2, 2020 among a random sample of 801 Wisconsin voters contacted on landlines (200) and cellphones (601).

Results based on the full sample have a margin of sampling error of ±3.5 percentage points.

Telephone numbers were randomly selected from a statewide voter file of registered Wisconsin voters using a probability proportionate to size method, which means phone numbers are proportionally representative to the number of voters in all regions across the state.

The Fox News Poll is conducted under the joint direction of Beacon Research (D) (formerly known as Anderson Robbins Research) and Shaw & Company Research (R).

Fieldwork conducted by Braun Research, Inc. of Princeton, NJ.
Recorded telephone (aka Interactive Voice Response, IVR)

Who does this? PPP, Trafalgar Group, Datamar, Hendrix College

Q17 If you are a Democrat, press 1. If a Republican, press 2. If an independent, press 3.
   Democrat .............................................. 44%
   Republican ........................................... 36%
   Independent ......................................... 20%

Q18 If you are white, press 1. If African-American, press 2. If other, press 3.
   White .................................................. 64%
   African-American ................................. 30%
   Other ..................................................  6%

Q19 If you are 18-29 years old, press 1. If 30-45, press 2. If 46-65, press 3. If older than 65, press 4.
   18 to 29 ............................................... 12%
   30 to 45 ............................................... 26%
   46 to 65 ............................................... 38%
   Older than 65 ....................................... 24%

Q20 Mode
   Landline ................................................. 50%
   Text ......................................................... 50%

Q21 Media Market
   Alexandria .............................................  5%
   Baton Rouge .......................................... 17%
   Lafayette ............................................... 13%
   Lake Charles .........................................  5%
   Monroe .................................................. 11%
   New Orleans ......................................... 33%
   Shreveport ............................................. 16%
Online probability-based panels

Who does this? Associated Press, LA Times, Pew Research Center, ABC News and Washington Post (for some surveys)

About the Study

This ABC News/Ipsos Poll was conducted June 3–4, 2020 by Ipsos Public Affairs KnowledgePanel® – a division of Ipsos. This poll is based on a nationally representative probability sample of 706 general population adults age 18 or older.

The survey was conducted using the web-enabled KnowledgePanel®, which is the largest and most well-established online panel that is representative of the adult US population. Our recruitment process employs a scientifically developed addressed-based sampling methodology using the latest Delivery Sequence File of the USPS – a database with full coverage of all delivery points in the US. Households are randomly selected from all available households in the U.S. Persons
Online opt-in polls

Who does this? USA Today, Politico, Reuters, SurveyMonkey, YouGov, Harris, Morning Consult, Lucid, Zogby

Methodology:
This poll was conducted between June 6-June 7, 2020 among a national sample of 1992 Registered Voters. The interviews were conducted online and the data were weighted to approximate a target sample of Registered Voters based on gender, educational attainment, age, race, race, and region. Results from the full survey have a margin of error of plus or minus 2 percentage points.
Weighting Adjustment

• All polls need to be weighted to make the set of people who responded look like the total population.
• If no weighting is done, polls will typically over-represent whites, older, and more educated adults.
• Some pollsters do a very simplistic weighting while others use complex modeling.
Thank you

Courtney Kennedy
Director of Survey Research
ckennedy@pewresearch.org
The national polls in 2016 were quite accurate

- Polls, on average, came within about 1 percentage point of the national popular vote margin

**Polling Average**

<table>
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<tr>
<th>Candidate</th>
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<tr>
<td>Hillary Clinton</td>
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*Clinton +3.3*

Source: Real Clear Politics
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*Clinton +3.3  Clinton +2.1*

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In 2016 national polls were not broken

Source: Real Clear Politics
Error in national polls was historically low in 2016

Average absolute error in national election polls

Source: National Council on Public Polls
Some years polls over-estimate GOP support; other years they over-estimate Democratic support

Average absolute error in national election polls

Source: National Council on Public Polls
In 2018 midterm election polls performed well in general

- National polling of the U.S. House vote was very accurate

### Polling Average

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<td>49.7%</td>
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<td>House Rep. candidate</td>
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*Dem +7.3*

Source: Real Clear Politics
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In 2018 national polls were not broken

Source: Real Clear Politics
In key states late-deciding voters broke heavily for Trump

<table>
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<tr>
<th>% Voters who decided in final week</th>
<th>Vote choice among voters deciding in final week</th>
<th>Vote choice among voters deciding earlier</th>
<th>Estimated Trump gain from late deciders</th>
<th>Election (%Trump-%Clinton)</th>
</tr>
</thead>
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<tr>
<td>Florida 11%</td>
<td>Trump 55% Clinton 38%</td>
<td>Trump 48% Clinton 49%</td>
<td>2.0%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Michigan 13%</td>
<td>Trump 50% Clinton 39%</td>
<td>Trump 48% Clinton 48%</td>
<td>1.4%</td>
<td>0.2%</td>
</tr>
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<td>Pennsylvania 15%</td>
<td>Trump 54% Clinton 37%</td>
<td>Trump 50% Clinton 48%</td>
<td>2.3%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Wisconsin 14%</td>
<td>Trump 59% Clinton 30%</td>
<td>Trump 47% Clinton 49%</td>
<td>4.3%</td>
<td>0.8%</td>
</tr>
<tr>
<td>National 13%</td>
<td>Trump 45% Clinton 42%</td>
<td>Trump 46% Clinton 49%</td>
<td>0.8%</td>
<td>-2.1%</td>
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- Late-deciding voters in FL, MI, PA, WI broke for Trump by double-digit margins.
- Polls in September, October were conducted too early to detect this

Source: Analysis from Aaron Blake (2016) using NEP exit poll data
Most state polls were not weighted properly

Democratic margin in 2016 Wisconsin vote

- College graduates are more likely to take surveys than less educated adults. This has been true for decades.
- Most national pollsters adjust (“weight”) for this issue, but most state pollsters do not.
- In 2016 college grads broke for Clinton and less educated broke for Trump.
Reporting Polls:
Three Things

SciLine/ASA Media Briefing on Polls - June 17, 2020
Gary Langer
President, Langer Research Associates
glanger@langerresearch.com
Three things (of many)

- Thing 1: Sampling
- Thing 2: Questions
- Thing 3: Operating principles
1. Sampling
The opt-in approach

• “Researchers should avoid nonprobability online panels when one of the research objectives is to accurately estimate population values.”

• “There currently is no generally accepted theoretical basis from which to claim that survey results using samples from nonprobability online panels are projectable to the general population. Thus, claims of ‘representativeness’ should be avoided when using these sample sources.”

• “The reporting of a margin of sampling error associated with an opt-in or self-identified sample is misleading”


(Other citations from peer-reviewed independent research are available.)
Evaluating Online Nonprobability Surveys

Vendor choice matters; widespread errors found for estimates based on blacks and Hispanics

By Courtney Kennedy, Andrew Mercer, Scott Keeter, Nick Hatley, Kyley McGeeney and Alejandra Gimenez

As the costs and nonresponse rates of traditional, probability-based surveys seem to grow each year, the advantages of online surveys are obvious — they are fast and cheap, and the technology is pervasive. There is, however, one fundamental problem: There is no comprehensive sampling frame for the internet, no way to draw a national sample for which virtually everyone has a chance of being selected.
The New York Times

POLLING STANDARDS

June, 2006

The following standards were developed by a committee of editors and reporters and should be adhered to when using poll results.

OVERVIEW
Reporting on polls is no different from reporting on any other information we give readers. Polls must be thoroughly vetted, be determined to have been done well, and be free from bias in both the questions asked and the conclusions drawn. Keeping poorly done survey research out of the paper is just as important as getting good survey research into the paper. If we get it wrong, we’ve not only misled our readers, but also damaged our credibility. This holds true for polls on every topic used in every section of the paper.
INTERNET AND OPT-IN POLLS
Self-selected or “opt-in” samples — including Internet, e-mail, fax, call-in, street intercept, and non-probability mail-in samples — do not meet The Times’s standards regardless of the number of people who participate.

…Opt-In surveys are conducted with respondents who volunteer to answer the questions. Some polling companies pay respondents or offer other incentives for people to complete online questionnaires.

…In order to be worthy of publication in The Times, a survey must be representative, that is, based on a random sample of respondents.
Bridging Divides, Most Agree on Economic Outlook: It’s Bleak

By Ben Casselman and Jim Tankersley

April 18, 2020

The coronavirus pandemic has united Americans of different races and income levels in deep pessimism about the economy, in contrast to the widely divergent views that prevailed before the crisis.

Highly paid or less so, black or white, investors in the stock market or not, Americans largely expect a poor or mixed performance from the economy in the coming year and prolonged damage over the next five years, according to a poll for The New York Times by the online research firm SurveyMonkey.
2. Questions

“President Trump has called the Special Counsel’s investigation a ‘witch hunt’ and said he’s been subjected to more investigations than previous presidents because of politics. Do you agree?”

USA Today/Suffolk University March 13-17, 2019
Donald J. Trump
@realDonaldTrump

Wow! A Suffolk/USA Today Poll, just out, states, “50% of Americans AGREE that Robert Mueller’s investigation is a Witch Hunt.” @MSNBC Very few think it is legit! We will soon find out?

86.3K 10:07 AM - Mar 18, 2019

40.9K people are talking about this
“President Trump has called the Special Counsel’s investigation a ‘witch hunt’ and said he’s been subjected to more investigations than previous presidents because of politics. Do you agree?”

• Triple-barreled - asks three things in one question:
  • whether the investigation is a witch hunt;
  • whether Trump has been subjected to more investigations than other presidents;
  • and whether those investigations have been lodged because of politics.

Answers to each can differ.
“President Trump has called the Special Counsel’s investigation a ‘witch hunt’ and said he’s been subjected to more investigations than previous presidents because of politics. Do you agree?”

Asking respondents if they agree — without asking if they disagree — is unbalanced.

Even if disagree is included, agree-disagree questions are fundamentally biasing, because they lack the alternative proposition (and encourage satisficing). (Saris et al.)

Take-aways:
• Ask one thing at a time.
• Ask balanced questions.
• Ask neutral, unbiased questions.
3. Operating principles

• We swim in a sea of unreliable data.
• We want it, we need it, we gotta have it, we run with it.

• Instead - like anything else we report –we really ought to check it out.
Thank you

SciLine/ASA Media Briefing on Polls - June 17, 2020
Gary Langer
President, Langer Research Associates
glanger@langerresearch.com
ASK EXPERTS ABOUT POLLS AND SURVEYS, LIKE AN EXPERT!

Trent D. Buskirk, Ph.D.
Novak Family Professor of Data Science
Chair, Applied Statistics and Operations Research Research
Bowling Green State University
Three men are in a hot-air balloon. Soon, they find themselves lost in a canyon somewhere. One of the three men says, "I've got an idea. We can call for help in this canyon and the echo will carry our voices far."

So he leans over the basket and yells out, "Helllloooooo! Where are we?" (They hear the echo several times.)

Fifteen minutes pass. Then they hear this echoing voice: "Hellllooooooo! You're lost!!"

One of the men says, "That must have been a statistician."

Puzzled, one of the other men asks, "Why do you say that?"

The reply: "For three reasons. (1) he took a long time to answer, (2) he was absolutely correct, and (3) his answer was absolutely useless."
Delving Deeper into Survey and Poll Numbers…

I think about evaluating a survey data source sort of like an onion...

Many layers to an onion…(sometimes they make you cry – like a badly done survey)

Many layers to survey data sources and methods for creating poll numbers and estimates for other phenomena we are interested in.

In this talk we aim to help you:

“Ask the Expert” Like an Expert!
Ask Questions about the Questions!

Question wording matters so it’s important to ask what question(s) were asked to produce the numbers you have.

- Do you support Trump in 2020 (Y/N)
- Do you plan to vote for Trump in 2020 (Y/N)

These questions could refer to different outcomes – one person might say N to the first question because they interpret this as financial support whereas they say Y to the second question because that is their voting intention.

Question context also matters...

- Do you believe that racism is an important issue in the United States?
- Do you agree with the approach the President is taking in dealing with Race related issues in America?

The answers to these questions might be different if they were asked in reverse order in ways that are related to how we process information and ideas that are presented in questions.
Ask Questions about the Questions!

Was the question asked by someone or not?

This idea relates to mode of surveying in large part, but speaks to biases that might exist if a sensitive question is asked by an interviewer compared to those that are personally read by the respondent.

We saw some evidence that online polls (or polls where questions were read by respondents) reporting more support for Trump in 2016 compared to those where an interviewer asked the questions aloud to the respondents and the respondents had to verbalize their answers.

The wording of the question provides you context and wording to use in reporting.

“Of respondents surveyed in the USA Panel of U.S. adults, 25 percent report they plan to vote for Trump in 2020.”

“The percentage of U.S. adults who agree with the approach the President is taking to deal with Race related issues in America is nearly 30 based on a recent USA Today random sample of 450 U.S. residents.”
Ask Questions about Who was Surveyed or Polled!

The intended audience of a poll or survey is technically termed the “target population” and represents who is being described by the poll numbers and survey estimates.

Sometimes, surveys ask different questions of respondents depending on specific characteristics.

- **A National Poll of U.S. Adults asks:**
  - Are you a registered Democrat or Republican?
  - If Democrat, then the poll asks: Do you approve of Biden’s approach to select his running mate?

- **Poll numbers or estimates of support of Biden’s approach for his VP selection would then refer to the subpopulation of those U.S. adults who were registered Democrats.**

The DENOMINATOR for proportions derived from surveys and polls refer to the target population. This denominator provides important context to how these numbers are reported and can vary within a survey...

- “40 percent of U.S. adults are registered as republican.”
- “35% of registered democrats approve Biden’s approach to selecting his running mate.”
Ask Questions about How Respondents were Identified and How the Survey was Conducted!

There are many ways polls and surveys can recruit respondents including:

- **Probability Sampling Designs**, where respondents are randomly selected from a list or frame
- **Nonprobability-based Approaches** where respondents self-select in to participate
- **Probability-based panels that recruit randomly selected adults to participate in surveys over time.**
- **Nonprobability-based panels that recruit respondents through various channels to participate in surveys over time** (some recruited through social media, apps on the phone or otherwise). Key here is open invitation, people self-select to participate.

- Probability based approaches have more control over the design and selection of respondents and attempt to ensure through rigorous design and random sampling that the target population is well represented from the start.

- Nonprobability based approaches don’t have a selection component and rely on recruitment streams that provide opportunities for participants to opt in. These samples tend to be larger and less expensive to recruit, but may suffer from selection effects by their opt-in nature. Models can sometimes be used to adjust for these effects to the extent they can be measured and calibrated using external sources.
Ask Questions about How Respondents were Identified and How the Survey was Conducted!

There are many ways surveys can be conducted including:

- Over the phone: landline or cell or combination
- Online, via a computer or smartphone
- Using paper surveys
- In-person via an interviewer (like an exit poll)
- Through SMS or texting

Asking how a poll was sampled and conducted helps provide context on:

- Whether or not an interviewer was present to ask the questions or provide explanations
- Whether or not the full target population could be included

A random sample of registered voters was conducted by automatically dialing their registered landline number. Based on this sample the support for Trump in 2020 was estimated to be around 56%.

This survey/method misses adults who have cell phones only that are also included in the population so the numbers don’t tell the full story of support for Trump if registered voters who are CPO differ than landline owners.
Ask Questions about How the Poll Numbers and Survey Estimates Were Derived

Most probability-based surveys use sampling weights to account for nonresponse and other factors that may impact representation of the sample to the target population.

Some nonprobability based methods also use weighting to account for this, although the success of this approach can vary widely across nonprobability based sources.

Without reporting the impact of these weights, poll numbers of estimates from nonprobability surveys can appear more accurate because they have a much larger sample size to begin with.

But it is often hard to compensate for all sources of dependence and self selection even still.

Some probability and nonprobability sources rely on models to adjust their estimates and derive measures of error (prediction error or forecast error).

Credible intervals can be used in place of MOE

Asking questions about how the model was derived and whether additional variables outside the poll/survey were included can help understand quality of numbers/estimates.
Ask Questions about quantifying Uncertainty in Poll Numbers/Survey Estimates

Suppose that we randomly sampled vegetarians in the U.S. about what vegetable they preferred to eat as a snack – Carrots or Celery.

The results report Carrots were preferred over celery (46% to 43%) with a margin of error reported to be 2 percentage points.

This margin of error means that with 95% confidence (95 is often the default value of confidence, but can vary from poll to poll) our estimate of carrot preference is in the range of 44-48 and likewise, the range of preference for celery is in the range of 41 to 45 percent.
Ask Questions about how uncertainty is quantified...

We interpret this as follows: if we were to conduct this poll with 100 different samples, over and over again, our estimated range of preference for carrots/celery would correctly represent the truth in the population in about 95 of those 100 samples, assuming we keep everything else the same.
Ask Questions about whether or not the poll numbers you have are from a single source or represent an aggregate of many sources?

Poll estimates can come from a single poll that can be vetted or investigated further using the questions we have discussed, among others.

But poll estimates can also be the result of aggregating together the results of many polls (conducted over the same time).
Ask Questions about whether or not the poll numbers you have are from a single source or represent an aggregate of many sources?

Poll aggregation is a newer method that is being applied by RealClearPolitics, Huffington Post, FiveThirtyEight and other outlets to SMOOTH over the results of many polls to create a potentially more accurate measures of outcomes we care about (like election outcomes).

- Ask questions about HOW MANY POLLS are included in the aggregate and WHAT types of POLLS are included
- Ask questions about the time window used to create the averages (wider windows could result in less accurate results if the race is volatile, for example).
- Ask questions about whether the polls are weighted the same or if they are weighted differently based on factors such as size, past performance and type of sample (prob/nonprob).
Ask Questions about the timing of the survey and broader context during which the survey/poll was conducted.

- Poll estimates change over time and sometimes these changes track well with the political climate over time.
- But polls and other measures of observed behavior may be related to outcomes we see but may not cause them.
- Be careful not to read in to these numbers as causative measures.
  - Support for Trump is going down as protest participation increases. Does participation in protest cause Trump support to go down. It might, or it might just track with it over time.
Some Cautions!

Correlation can be **Spurious** and it is not **Causation**!

Per capita consumption of Mozzarella Cheese (US) correlates positively with the Number of Civil Engineering Doctorates Awarded (US) \( (r=0.96) \)

http://www.tylervigen.com/
Resources for Asking The Expert, Like an Expert...

- AAPOR Polling Resources for the Media: 

- AAPOR Poll Aggregation Fact Sheet:

- AAPOR Credible Interval and Margin of Error:

- Five Thirty Eight Report on How to Read Polls and Pollster Ratings:

- Margin of Error Calculator:
  - [https://www.langerresearch.com/moe/](https://www.langerresearch.com/moe/)

- Medium Post about Writing and Reporting Poll Results

- SciLine Fact Sheet for Polls