

POLLS! (SPRING 2012)

MATH 119 – KUNIYUKI – 4TH ED. OF TRIOLA: ESSENTIALS OF STATISTICS

ISSUE 1: DO PEOPLE LIE TO POLLSTERS?

Example 1: Uh...sure I go to church!

In a telephone poll of Roman Catholics in one county in Ohio, 51% of respondents said they attended church in the week before the poll. Actually, only 24% did. (See 1st edition of Triola - p.319)

Example 2: Are people now more honest in polls involving minority candidates?

In November 1989, David Dinkins was elected as the first African American mayor of New York City, and Douglas Wilder was elected as the first African American governor of Virginia. Polls conducted just before Election Day gave Dinkins about a 15% lead over Republican rival Rudolph Giuliani and gave Wilder about a 10% lead over Republican Marshall Coleman. What were the actual results?

<u>New York City Mayor (1989)</u>		<u>Virginia Governor (1989)</u>		
Dinkins (D)	51% (Winner)	Wilder (D)	896,936	50% (Winner)
Giuliani (R)	49%	Coleman (R)	890,195	50%

Did poll respondents want pollsters to believe that they were going to vote for the African American candidates, even though they weren't going to? This hypothesis is referred to as the “Wilder effect” or the “Bradley effect” (after Tom Bradley, who ran for governor of California in 1982; some analysts argue that absentee ballots prevented exit polls from accurately predicting his defeat and that his opponent, George Deukmejian, was surging after pre-election polls were taken).

Postscript: Giuliani defeated Dinkins in 1993. Polls were more accurate in this race. Some analysts believe that Dinkins's opponents were more honest in these polls, because they could point to flaws in his record.

In November 2003, Republican Bobby Jindal, an Indian-American, led Democrat Kathleen Blanco in pre-election polls for governor of Louisiana, but here were the final results:

<u>Louisiana Governor (2003 runoff)</u>	
Blanco (D)	52% (Winner)
Jindal (R)	48%

Jindal lost parishes in northern Louisiana that went strongly for George W. Bush in 2000. Postscript: In 2007, Jindal was elected governor after Blanco retired; she had been heavily criticized for her response to the Hurricane Katrina disaster.

In 2006, Harold Ford, Jr., an African American congressman, narrowly lost a U.S. Senate race in Tennessee by 3%. This was the margin predicted by a late poll in that race. Although there was heavy turnout in Ford's home base of Memphis, is this a sign that people are more honest about voting for minority candidates? On average, polls in November 2008 were fairly accurate with respect to Barack Obama's popular vote margin. (For more, see “Bradley Effect” in *Wikipedia*.)

Example 3: Oh, yeah, I voted for him!

Bill Clinton won 43% of the vote for President in 1992, yet 50.4% of respondents in a poll taken after the election claimed that they voted for him.

THE "HIDDEN VOTE"

In political circles, there is often talk of a "hidden vote" consisting of supporters of a controversial candidate, such as segregationist Alabama governor George Wallace (in the 1968 presidential election), Louisiana's David Duke, and Pat Buchanan.

ISSUE 2:

THE PROBLEM OF "PHONE-IN", "MAIL-IN", AND "LOG-IN" POLLS

Self-selected sample: Potential respondents, themselves, decide whether or not they are included in the sample.

We know that big samples in "unscientific" polls can be less accurate than small samples in "scientific" polls! (See p.392.)

Example 4: THE MOST FAMOUS BOTCHED POLL IN HISTORY (See p.3)

In order to predict the outcome of the 1936 presidential election, the Literary Digest mailed ballots to 10 million people. About 2.4 million of them responded. The Literary Digest claimed that "the country will know to within a fraction of 1 per cent, the actual popular vote of forty millions."

How did the poll compare with the actual election results? Have a look....

	LD Poll	Actual
Alf Landon (R)	57%	38%
Franklin Roosevelt (D)	43%	62%

After the election, the Literary Digest had a cover that exclaimed, "Is our face RED!". It soon went out of business.

What went wrong?

Nonresponse bias: Only 24% of the 10 million ballot recipients returned them - an example of self-selection. (Note: The Harris Poll says that the refusal rate for interviews is at least 20%. This a problem for the Census, also.)

Selection bias: The list of 10 million potential respondents (the ones to whom ballots were mailed) was drawn up from phone books, magazine subscriptions, and club memberships -- only wealthier people had these. Remember - 1936 and the Great Depression!

How did the Gallup Poll do? Gallup only polled 50,000 people, but it used more scientifically sound methods, and it correctly predicted an FDR victory.

Example 5: Beware of "Phone-In" Polls!

(From 1st edition - p.28)

186,000 "Nightline" viewers paid 50 cents apiece to call a "900" telephone number and phone in their opinion about whether or not the United Nations should stay in the United States. 67% of them wanted the U.N. out of the U.S.

A "scientific" poll showed that 72% of Americans want the U.N. to stay in the U.S. The "scientific" poll only had 500 respondents, but it was probably a much more accurate figure than the "phone-in" poll with 186,000 self-selected respondents.

Example 6: Beware of Internet Polls!

The following is a "Quick Vote" Internet poll posted at CNN.com in March 2001.

Do you celebrate St. Patrick's Day?

Of course, I'm Irish	22%
Yes, though I'm not Irish	19%
No - it's just another day	59%

Irish-Americans (and maybe Irish citizens of Ireland) were probably overrepresented in this poll. About 7%-8% of Americans are Irish-American.

Example 7: Beware of Fans!

"Quick Vote" Internet poll posted at CNN.com on January 24, 2004:

Are you a Mac fan or a PC person?

Mac fan	20%
PC person	80%

Apple Computer makes Macs. Apple's market share is a paltry 3%-5%. But it's a committed 3%-5%!!

Example 8: The World's Dumbest Poll Question?

"Quick Vote" Internet poll posted at CNN.com on January 23, 2004:

Do you vote?

Yes	95%
No	5%

This poll is obviously biased to regular voters. One could even argue that the "Yes"s should have been 100% by definition.

ISSUE 3: POORLY WORDED QUESTIONS

Example 9: Which is Which?

Here's another "Quick Vote" Internet poll posted at CNN.com in June 2001.

Should the death penalty not apply to the mentally retarded?

Yes 55%
No 45%

First of all, don't place any faith in these Internet polls. There's a problem with self-selection, and not everyone has access to the Internet. Maybe the same person can vote multiple times!

The question is very confusing. People who oppose the death penalty for the mentally retarded were supposed to vote "Yes". Underlining would have helped:

Should the death penalty not apply to the mentally retarded?

These Quick Vote polls are worthless, anyway.

ISSUE 4: WORDING A POLL QUESTION IN DIFFERENT WAYS

Example 10: When People REALLY Don't Care...

Sometimes, order matters!

A poll in Germany asked essentially the same question in two different ways (to two different samples, presumably):

1) "Would you say traffic contributes more or less to air pollution than industry?"

vs.

2) "Would you say industry contributes more or less to air pollution than traffic?"

Here are the results:

	"Traffic contributes more"	"Industry contributes more"
1)	45%	32%
2)	24%	57%

In both cases, there was a tendency to choose the first cause mentioned over the second cause. The order of "more" and "less" probably matters, also.

Strength of opinion may well trump order in major political races, although, in the 2003 recall election for governor of California, lettered balls were randomly selected from a rotating bin to determine the order of names on the ballot.

ISSUE 5: LEADING / BIASED QUESTIONS

In the 2000 presidential primaries, John McCain complained about "push polling" by the G.W. Bush campaign in South Carolina. People were asked if they would vote for McCain if they knew he was mentally unstable, had a mixed-race child out of wedlock, and had an alcoholic wife.

Some polls start with a "clean question" (for informational purposes), then they test out various themes for the internal use of the campaign.

Example 11: Let Me Tell You Something...

In one poll (circa 1996), when people were asked if they supported a flag burning amendment to the Constitution, the % that said "support" was in the high 70s.

Another sample was asked if they supported a flag burning amendment, but they were informed that it would be the first amendment to limit the First Amendment. The % support was in the low 40s.

Example 12: Stating the Purpose

Mail-in survey conducted by the Ross Perot campaign:

"Should the President have the line item veto to eliminate waste?"
97%: "Yes"

"Scientific" poll with a random sample:

"Should the President have the line item veto or not?"
57%: "Yes"

Example 13: Yeah, I Say "More Likely!"

(From 4th edition – Margin Essay, p.359)

An actual "push poll":

"Please tell me if you would be more likely or less likely to vote for Roy Romer if you knew that Gov. Romer appoints a parole board which has granted early release to an average of four convicted felons per day every day since Romer took office."

Romer, a three-term Democratic governor of Colorado, later became the school superintendent of Los Angeles.

Example 14: Um, Sounds Good...

"Quick Vote" Internet poll posted at CNN.com on October 10, 2001:

Is al Qaeda sending coded messages to followers via video statements?

Yes	79%
No	21%

ISSUE 6: SENSITIVE SURVEYS

If we worry about getting honest answers to “sensitive” questions, we could inject an element of randomness, such as a coin flip.

ISSUE 7: SAMPLING ERROR IS "NATURAL"

Even if the polling methodology is excellent, the sample results may lead you astray. Even well-designed polls are subject to sampling error - sometimes, you're just unlucky.

ISSUE 8: IN DEFENSE OF POLLS

(From 1st edition - p.324)

An excerpt taken from a letter written by a corporation president and sent to the Associated Press:

When you or anyone else attempts to tell me and my associates that 1223 persons account for our opinions and tastes here in America, I get mad as hell! How dare you! When you or anyone else tells me that 1223 people represent America, it is astounding and unfair and should be outlawed.

Remember how our methods have not depended on N , the population size?

The idea is that p represents the underlying proportion of the population of interest that has some characteristic (supports candidate X, agrees with issue Y, etc.).

Sampling methods are used to estimate this p .

ISSUE 9: WHAT CONFIDENCE LEVELS AND MARGINS OF ERROR ARE USED?

Polls typically utilize a 95% confidence level, though this is rarely stated. IT SHOULD BE! The margins of error typically range from 3% (conservative: $n = 1068$ for 95% confidence) to 5.6% (conservative: $n = 307$). The Nielsens, which deal with TV viewership, uses about 4000 households, which translates to a margin of error of less than 1% for 95% confidence.

**EVEN WHEN WE TRY OUR BEST,
THE POLLS ARE SOMETIMES WRONG....**



In the 1948 presidential election, pre-election polls had New York Gov. Thomas Dewey (R) 5-15 points ahead of incumbent Harry Truman. Roper had given up on Truman in early September and stopped polling. Truman actually won the popular vote by 4.4%. Copies of the newspaper (the Chicago Tribune) you see Truman holding in his hands are a rare and valuable collector's item. The photo was one of the most memorable images of the 20th century.

Polling methodology has been refined since then, but remember those exit polls in Florida in the 2000 presidential election!

COMMENTS ON POLLS IN THE TEXTBOOK

(p.3) More on the Literary Digest poll

(p.213) Not at Home – a surveying issue; related to (p.589) Poll Resistance

(p.313) Statistics for Polling

(p.299) Small Sample

(p.359) Push Polling

(p.392) Large Sample Size Isn't Good Enough

(p.452) The Lead Margin of Error

(p.584) Survey Medium Can Affect Results