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SAMPLING and SURVEY SAMPLING: Polling – *Polling has become a form ...*

This article EM9324 and three others are concerned with misinformation generated by polls. The erroneous prediction of the outcome of the 1992 general election in Britain, referred to in this Statistical Highlight #79, is described in Figure 8.15b in the STAT 220 Course Materials, and an illustration from two Canadian polls on free trade is given in Statistical Highlight #81.

EM9324: The Globe and Mail, March 24, 1993, page C1

Polling has become a form of disinformation

ROBERT FULFORD

CHRISTOPHER Hitchens, the Anglo-American political writer, remarked recently that most information gathered by polling organizations is "rubbish collected by morons from morons". That's a bit harsh. Some pollsters are quite bright, and some of the people who give their views to strangers on the phone must be at least ordinarily intelligent. But it's surely true that the increase in opinion sampling during the past few years has produced an unprecedented blizzard of pseudo-scientific non-sense, all of it eagerly passed on by TV and the newspapers.

Polling has become a kind of social plague, an elaborate and expensive form of disinformation that obscures the subjects it pretends to illuminate. As a civil libertarian I'm vehemently opposed to the federal proposal to keep polls secret for 72 hours before an election, but if I could only ignore my principles on this issue I'd come up with a counter-proposal: ban all polling of all kinds at all times, everywhere. Think of the slogan: "A Poll-Free Canada In This Generation". It might do as much for the intellectual atmosphere as the anti-smoking laws do for the air.

What's wrong with polls? They can be preposterously wrong, of course, as the British election last April demonstrated, but that's the least of their faults. Even when they're "right" (when a sample accurately reflects what the whole population would say if the whole population were asked), there's less to them than meets the eye. I have recently read that eight out of 10 Americans believe they will be called before God on Judgment Day, 81 per cent of Canadian college women say their boyfriends verbally abuse them, and three out of four Americans think the media should pay less attention to the personal lives of politicians. The Judgment Day business (it appears in Gary Wills' recent book on politics and religion) is a typical anti-fact – an apparent fact that leaves you more ignorant than you were before you obtained it. It would be extremely interesting to know that most Americans conduct their lives in the belief that they will have to explain themselves one day to God. In theory, that could even be true. But it's more likely that many respondents hadn't thought about the matter in decades and gave that answer because it sounded right. The trouble with polls on that sort of subject is that the poll-taker on the phone has no way to ask, "Do you *mean* that?"

Totalling up the complaints of the college women about their boyfriends was equally useless: that's the sort of question which can't be intelligently or usefully quantified. It was silly of the sociologists involved to raise it, and sillier still (as one of them has acknowledged) to broadcast such a pointless number. And the Americans who said the media should ignore the private lives of politicians were (it seems likely) trying to impress the poll-takers with their piety. Certainly there's no evidence that people turn off TV when the subject of a politician's sex life comes up. Polls like those should come with a warning for consumers: when you know this, you know nothing.

A recent academic study, *The British General Election of 1992*, by David Butler and Dennis Kavanagh, says that John Major's majority victory was "the Waterloo of the polls". That's wildly optimistic, I'm afraid. They won't be stopped. If anything, failure only encourages the pollsters, it gives them something to chuckle about, proves they're human. Their patrons in politics and the media aren't bothered either. They just resolve to hire better pollsters next time.

Nor is the polling industry much disturbed by the evidence of widespread lying. If you ask Americans whether they have registered to vote, about three-quarters of them say they have, though in fact only about two-thirds ever get around to it. That means about nine out of every 100 are liars. Well, perhaps "liars" overstates it. Is lying to a stranger who asks questions on the phone the same thing as lying to a friend? My guess is that most people don't think so, though I haven't commissioned a poll on that point. I imagine that people regard pollsters as pests who deserve to be fooled. And of course people want to sound like good citizens, and shrewd voters as well. Last fall an American poll discovered that certain people who didn't in fact vote for Bill Clinton had changed their minds and a week later decided, on second thought, that they had. In Colorado, polls taken before the election indicated that the anti-homosexual-rights measure would be defeated. When it won, it became clear that a fair number of voters told the poll takers one thing and did another.

Nevertheless, journalism's love affair with opinion polling hasn't abated. Many journalists, in fact, now appear to believe that what matters is not what happens in the world but how people feel about it. They're so intoxicated by polling that sometimes they prominently display opinion stories that mean literally nothing: the word "poll" switches on an automatic pilot in the editors' brains. On March 8 the headline at the top of page one of *The Toronto Star* said, "Women get raw deal, pollsters told". The first paragraph explained, "More Canadians think women are getting a raw deal in this country...." The story said that 56 per cent of a recent national sample by Gallup claimed that men have unfair advantages over women, whereas in 1989 only 54 per cent held that opinion and in 1986 the equivalent figure was 53. The news, apparently, was a measurable change in public perception. But then the last paragraph said that the sample "is accurate within a 3.1 percentage point margin of error....." In other words, the two changes were inside the margin of error, therefore meaningless. An appropriate headline would have been: No news from Gallup this week.

1 In the last paragraph of the first column of the article EM9324 reprinted above, three Answers from polls are cited:
- ∗ *eight out of 10 Americans believe they will be called before God on Judgment Day*;
- ∗ *81 per cent of Canadian college women say their boyfriends verbally abuse them*;
- ∗ *three out of four Americans think the media should pay less attention to the personal lives of politicians.*

For each Answer, identify to which category of error (study, non-response, sample or measurement) Mr. Fulford ascribes its limitation(s).

- Also, identify in each case whether the error is likely to become inaccuracy or imprecision under repetition.

(*continued overleaf*)

2 Explain briefly what you consider Mr. Fulford means by the statement near the end of the first column of the article EM9324 reprinted overleaf on page HL79.1 .... *a typical anti-fact – an apparent fact that leaves you more ignorant than you were before you obtained it.*

3 Briefly discuss, from the perspective of limitations on poll Answers, the statement at the end of the first paragraph in the middle column of the article EM9324 reprinted overleaf on page HL79.1: *The trouble with polls on that sort of subject is that the poll-taker on the phone has no way to ask, "Do you* mean *that?"*

4 Comment briefly on the *statistical* issue(s) raised by the statement near the beginning of the second paragraph of the middle column: .... *that's the sort of question which can't be intelligently or usefully quantified.*

5 Discuss critically, in the context of the article EM9324 reprinted overleaf on page HL79.1, Mr. Fulford's statement in the second paragraph of the middle column: .... *there's no evidence that people turn off TV when the subject of a politician's sex life comes up.*

6 In the paragraph starting at the bottom of the middle column of the article EM9324 reprinted overleaf on page HL79.1, three Answers from polls are cited:

* *If you ask Americans whether they have registered to vote, about three-quarters of them say they have, though in fact only about two-thirds ever get around to it. That means about nine out of every 100 are liars.*
* *Last fall an American poll discovered that certain people who didn't in fact vote for Bill Clinton had changed their minds and a week later decided, on second thought, that they had*.
* *In Colorado, polls taken before the election indicated that the anti-homosexual-rights measure would be defeated. When it won, it became clear that a fair number of voters told the poll takers one thing and did another.*

For each Answer, identify to which category of error (study, non-response, sample or measurement) Mr. Fulford ascribes its limitation(s).

- Also, identify in each case whether the error is likely to become inaccuracy or imprecision under repetition.

7 Outline the *statistical* importance of the issue(s) raised in the final paragraph of the article reprinted overleaf on page HL79.1 about the 3.1 percentage point margin of error and the three percentages (56, 54 and 53).

- Explain briefly how the 'margin of error' can be made *smaller* in a poll.
- Discuss critically the implication(s) of the word *error* in the phrase *margin of error* as it is used in the media in relation to poll results.
  - Explain briefly the distinction between the terms *percentage point* and *percent* in this context.

8 The following brief report appeared in the Social Studies section (page A24) of *The Globe and Mail* on March 7, 1995: *In a recent poll by* The Washington Post, *43 per cent of people surveyed either approved of the 1975 Public Affairs Act or felt that it should be repealed. There is no such legislation*.

- Compare and contrast this report with the relevant point(s) made overleaf in the article EM9324 by Mr. Fulford.
  - What useful item of statistical information is missing from *The Globe and Mail* report?

The article EM9324 in this Statistical Highlight #79 is also used in Figure 8.15a in the STAT 220 Course Materials and in Figure 2.8a in the Materials for STAT 332.

1995-04-20

Appendix 8 of Statistical Highlight #77 continued from page HL77.14

It is clear from a few quick calculations that all of the "answers" cited on page HL77.14 are based on *two* observations. One was the white female in Region 2, the other the black male in Region 3, both of whom admitted to being regular users of heroin. These were "projected" into 1,440 and 1,320 respectively, and the rest was simple arithmetic. However, arithmetic cannot erase the very tenouus nature of the answers. The only valid answer is that, in the general population of North Carolina, two people were ready to admit to the regular use of heroin. One was a white female in Region 2; the other was a black male in Region 3. What does this tell us about regular users of heroin in the state? Very little, except that out of 2,007 people interviewed, two were willing to admit being regular users. Apparently one person in 1,000 interviewed is willing to admit to regular use of heroin. The number who are *actually* regular users and their sociodemographic characteristics remain as unknown as they were before the survey.