University of Waterloo W. H. Cherry

ERROR: Non-response Error – *Residents in Toronto crankiest, poll finds*

The two newspaper articles reprinted in this Highlight #16 provide an introductory overview of the difficulties posed by non-response in the context of opinion polls.

EM9331: Kitchener-Waterloo Record, September 2, 1993, page A10

Residents in Toronto crankiest, poll finds

The Canadian Press
and SouthamStar Network

TORONTO – Pollsters trying to determine the voting preferences of Canadians have come to a firm conclusion – Toronto residents are the crankiest in the country about telephone surveys.

Polling firms are finding that people here hang up on them.

"The refusal rate is highest in Metro Toronto," said Liberal pollster Michael Marzolini.

"Torontonians have got machines dialing them with recorded messages and steak-knife salesmen calling and so much chaff on the phone they are just fed up."

The professionals call it "survey fatigue" and some worry that it could put the accuracy of polls in question.

Pollsters trying to find out whether Liberal leader Jean Chrétien or Prime Minister Kim Campbell is going to win this fall's election are discovering that seven out of 10 Toronto residents decline to say.

"A disturbing trend threatens the future of valuable survey research in Canada," the Lobby Digest, a newsletter for lobbyists, states in its August edition.

"Its 27 million subjects are growing ornery and unco-operative – throwing the usefulness of current polling methods into question."

But Marzolini says good pollsters keep calling back until they get a proper sample. Their job is harder now, he says, but the pollsters can still tell what issues matter to Canadians and how Canadians intend to vote.

Donna Dasko of Environics Research agrees determined pollsters can get a sample that is demographically accurate, "if you really chase after them."

An accurate sample is balanced by region and matches the sex, age and cultural distribution of Canadians.

But Dasko suggests the polls may now have a missing element. The kind of people who hang up may represent a block of voters whose intentions don't match those who agree to be polled, she says.

Other big urban centres display the same phenomenon, particularly among potential voters already turned off by callers who pretend they are taking surveys but really are trying to sell a new vacuum cleaner.

1 Explain concisely what is meant by the statement in the second paragraph of the middle column of the article EM9331 reprinted above: *A disturbing trend threatens the future of valuable survey research in Canada*.
- Describe briefly the main *statistical* issue that underlies this statement.
- Indicate how you would make a case *for* survey research in Canada to a person who is fed up ..... *with so much chaff on the phone*.

2 Describe briefly the statistical implication(s) of the words *demographically accurate* in the phrase ..... *pollsters can get a sample that is demographically accurate* ..... in the first paragraph of the right-hand column of the article EM9331 reprinted above.
- Outline what it means *in practice* to ..... *really chase after them*, as stated at the end of this paragraph.

3 Outline the *statistical* issue(s) raised by the second-last paragraph of the article EM9331 above: *But Dasko suggests ..... those who agree to be polled, she says*.

4 Describe briefly the main *statistical* issue involved in the headline of the article EM9338 reprinted overleaf on page HL16.2.
- Identify the paragraph(s) of the article which provide the best summary of this issue. Briefly justify your choice(s).

5 Discuss critically, from a *statistical* perspective, the statement in the fifth paragraph of the article EM9338 reprinted overleaf on page HL16.2: *Any time the number of people who refuse to respond outnumbers those who are willing to respond, you're in trouble.*

6 The technique of *weighting* is mentioned in four places in the right-hand column of the article EM9338 reprinted overleaf on page HL16.2: in the fourth, sixth, eighth and ninth paragraphs.
- Describe briefly what you infer the article means by *weighting*.
- Describe briefly the *statistical* issue(s) that are involved.
- Describe briefly what the article indicates to be limitation(s) on the use of weighting.

7 Discuss critically, from a *statistical* perspective, the statement in the last paragraph of the article EM9338 reprinted overleaf on page HL16.2: *There are too many examples of just a handful of respondents being used to speak for a much larger group.*

(*continued overleaf*)

EM9338: Kitchener-Waterloo Record, September 29, 1993, page A7

Opinion polls skewed by folks who won't talk

By Doug Fischer
Southam News OTTAWA

Short of leisure time, increasingly protective of their privacy and annoyed by "junk calls" from marketing companies, unco-operative Canadians are adding new uncertainties to the opinion polling during the election campaign.

In a phenomenon known as survey fatigue, a growing number of Canadians are turning their anger on pollsters by refusing to answer their questions.

It'a trend that has triggered questions from experts who wonder whether survey results are being skewed by the exclusion of people who won't talk to pollsters – and the assumption they hold the same views as those who co-operate.

It's even led one pollster to wonder if there's any future for polling.

"Any time the number of people who refuse to respond outnumbers those who are willing to respond, you're in trouble," says Frank Graves, president of Ekos Research, an Ottawa polling company. "That level of refusal has become standard and it's growing."

The problem is most acute in major urban centres where some polling companies are reporting non-response rates as high as 70 percent, two or three times levels recorded a decade ago.

In the three national surveys conducted for the media since the start of the Oct. 25 federal election campaign, the pollsters – Angus Reid and ComQuest Research – recorded roughly equal numbers of respondents and non-respondents.

That's a somewhat higher rejection rate than pollsters experienced in the 1988 election or last fall's constitutional referendum.

Nearly everyone agrees the declining response rate is the result of a more hectic lifestyle and the dramatic increase in calls from telemarketing companies seeking opinions on products.

"City people are simply more squeezed for time – two jobs, commuting and so on – and to be frank, they're less friendly to demands on the time they have left," says ComQuest vice-president Jim Matsui.

Adds Neil Nevitte, a University of Calgary polling researcher: "There's plenty of evidence that Canadians increasingly value their privacy.... they're tired of being asked for their opinions."

But there is little agreement on how – or whether – the falling response level affects poll results.

It's a complicated debate. Not all those categorized as non-respondents are unwilling to co-operate with pollsters. Random calls to businesses or fax machines are part of the count, as are those not home when the call is placed.

Pollsters generally make callbacks to the latter group, but when pressed for time they move on to other randomly-selected respondents. This worries critics who believe segments of society more likely to be home – the elderly, homemakers, the unemployed, for instance – are often over-sampled.

Pollsters say they are able to compensate for over- or under-sampling by weighting their results to reflect the make-up of Canadian society. For example, if the percentage of elderly respondents interviewed is lower than the actual percentage of elderly citizens, pollsters assign more importance to their answers.

They correctly point to their successful track record in elections and last year's constitutional referendum, and confidently say the profile of non-respondents matches that of those who agree to respond.

"If you do your survey properly, and take care that your sample is representative and doesn't rely too heavily on weighting, you can be pretty sure your results reflect what is going on out there," says Donna Dasko, vice-president of Toronto-based Environics Research Ltd.

Graves isn't so sure. He wonders whether it's realistic to assume that those who aren't home or refuse to be interviewed hold the same views as those who agree to talk.

"In a sense, you are systematically excluding people who weren't around to answer the phone," he says. "I don't see how you can be sure they carry the same profile as those who answered. And typically, the weighting used to compensate for these missing respondents tends not to be very sophisticated."

Nevitte is not so pessimistic. He agrees with pollsters that weighting is a useful way to restore some degree of accuracy to results, but he, too, warns that the process has its limitations.

As a result, he believes the media should ask pollsters to provide details of response rates when reporting results.

"There are too many examples of just a handful of respondents being used to speak for a much larger group," Nevitte says. "The public, through the media, should know these things."

The articles EM9331 and EM9338 reprinted in this Statistical Highlight #16 are also used in Figure 8.7a in the STAT 220 Course Materials and in Figure 3.4a in the STAT 332 Course Materials.