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Opinion polls, like politicians, should be taken with grain of salt

By JASON BROWN
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Well, the dust has settled from the federal election.

After three governments in the past five years, I'm glad I won't have to decide for a while which political party I dislike the least. The polls that led up to the voting hinted at a few surprises, and this brings me around to thinking about polls, what they mean and whether they are trustworthy.

The concept is simple. You have some proportion that you want to measure in the population — what percentage will vote for a certain party, for example. The best way is to question, or poll, absolutely everyone, but this isn't feasible. It would cost way too much and take up too much time, and if you are going to ask everyone, why bother having voting?

So pollsters take a random sample from the population, say 300 random people, and expend the time and energy to determine what proportion of them support a particular political party. This is still costly, but manageable. There is a trade-off, of course. The more you sample, the more accurate your estimate, but the more costly the process is.

Now the other problem is that there is always a chance that the sample, just by chance, might give you a result that is way far off from the real answer. For example, suppose 27 per cent of the population of 34 million plan to support Party A (or is that Party Eh?). When a pollster selects 300 people to poll, it is possible that all (or none) of the people in the sample support Party A. Then, of course, the results of the poll will be misleading.

Selecting the sample at random mathematically ensures that this happens only rarely. So that raises the question of what does "rarely" mean? What would you consider rare? Is it rare for a tossed coin to come up heads? Certainly not. Is it rare to be struck by lightning? Most definitely. So what do we decide is rare?

Statisticians have decided that something that happens, at most, five per cent of the time is rare. It's rather arbitrary, but that is the prevailing opinion.

The election was held on May 2. I'm looking at a Forum Research poll from May 1 that gave the following results: Conservatives 36 per cent, NDP 33, Liberals 18.9, Green 6, Bloc 5. The sample was pretty big: 3,480 respondents. The pollsters claimed the results had a margin of error of 1.6 per cent, 19 times out of 20.

What this means is that, for example, the percentage of people planning to vote Conservative would be between 36-1.6 = 34.4 per cent and 36+1.6 = 37.6 per cent, and this would be accurate 95 per cent of the time (or 19 times out of 20).

That is, the poll would be wrong only five per cent of the time, just what we called "rarely." This is why all polls, no matter what the percentages and margins of error are, always claim to be right "19 times out of 20" — they are only rarely wrong!

Having said all that, the election showed that the Conservatives won 39.6 per cent of the popular vote, clearly outside the limits of the poll that was done only the day before. So the Forum poll was wrong.

But here is the crux of the matter: Most people think polls are always right, but the math says that if you look at 20 polls, chances are one of them is wrong.

So you need to take your polling with a grain of salt, and remember, it ain't over until the prime minister sings.

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