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February 22nd 2023

To: Austin Still
Strategic Legislative Analyst, Elections Calgary
The City of Calgary

From: Ian Large
Leger

Cc: Paige Schoenfeld - Leger

Re: Recall Petition Sampling Method

Founded in 1986, Leger is a privately held organization that has grown to become the largest Canadian-owned market research firm. With offices in Calgary, Edmonton, Vancouver, Winnipeg, Toronto, Montreal (head office), Quebec City, New York, and Philadelphia, we have a devoted team of over 200 research professionals and 600 interviewing and data processing staff. We offer clients extended capabilities and unsurpassed expertise in public opinion research and community engagement using a wide range of quantitative and qualitative techniques.

Leger is a true full-service market research and public engagement company. We have the scale and resources needed to exceed the requirements for virtually any project. With the depth of our resources in Canada, we provide a full team of permanent employees in a wide range of disciplines.

We have been providing The City of Calgary with research and engagement services for well over 15 years.

We have reviewed the documents you provided that outline the proposed methodology and underlying statistical principles used for determining a random, probability sample to meet the necessary threshold in legislation to support a recall petition for a Municipal Councillor or Mayor.

As we understand the legislation, a petitioner must get signatures supporting a recall from more than 40% of a wards population (or 40% of the population of the City in case of a recall for a Mayor).

"Elections Calgary may use a random statistical sampling method with a 95% confidence level to determine the sufficiency of the petition, instead of counting and checking each petitioner 240.7(4)"

While no true standard exists for establishing what sample size is sufficient to make decisions, in our experience, the most commonly accepted threshold for a margin of error is usually ±5.0% at a 95% confidence interval. To achieve this or better, using a random probability sample, a sample of n=369 respondents is required. That is, 369 randomly selected names on the petition would need to be verified to meet the ±5.0% (19 times out of 20) threshold.

To reduce bias in the sampling from the petition, respondents must be selected at random from the petition using a method that ensures that every name on the petition has an equal chance of being selected. For example, within a recall petition that included signatures from 40% of the population in a given ward, to validate this petition, 369 names would be selected at random using any one of a range of random number selection techniques (e.g. selecting every Nth name on the list or generating a set of random numbers and selecting the first 369 names based on their score)

We have reviewed your material and concur that your recommended approach would be consistent with industry best practice and statistical theory and should meet the threshold outline in the legislation.

In addition to the local Leger Alberta research team, we have discussed your materials with our Associate Vice President of Statistics at Leger who has more than 10 years experience leading the Statistics department at Leger and he agrees with our conclusions.

Ian Large, CAIP
Executive Vice President
Leger Alberta