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SPECIAL COMMITTEE ON ELECTORAL REFORM

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Chair: Kate White

**SPECIAL COMMITTEE
ON ELECTORAL REFORM**

Members: Kate White, Chair
Brad Cathers, Vice-Chair
Hon. John Streicker

Clerk: Allison Lloyd, Clerk of Committees

Witness: Keith Archer, Committee Researcher

EVIDENCE**Whitehorse, Yukon****Friday, January 21, 2022 — 3:00 p.m.**

Chair (Ms. White): Good afternoon. I will now call to order this hearing of the Yukon Legislative Assembly's Special Committee on Electoral Reform. Allow me to introduce the members of the Committee. I am Kate White, Chair of the Committee and Member for the Legislative Assembly for Takhini-Kopper King; Brad Cathers is Vice-Chair of the Committee and the Member for Lake Laberge; and finally, the Hon. John Streicker is the Member for Mount Lorne-Southern Lakes.

This Committee was established by the Yukon Legislative Assembly on May 26, 2021. The Committee's purpose is to examine electoral reform and report to the Assembly its findings and recommendations.

In our study of potential changes to the voting system, the Committee is seeking input from subject matter experts. Today, we have with us Dr. Keith Archer. Dr. Archer was a professor of political science at the University of Calgary from 1984 to 2011, when he was appointed Professor Emeritus of Political Science. He was appointed Chief Electoral Officer of British Columbia and served in that role from 2011 until his retirement in 2018. He has also served on the Electoral Boundaries Commission of Alberta and the Electoral Boundaries Commission of British Columbia. Dr. Archer continues to conduct research and writing on matters relating to the administration of elections, and he was hired by the Special Committee on Electoral Reform to prepare a report on options for Yukon's electoral system.

In this videoconference hearing, Dr. Archer will present a summary of his report. We will have Dr. Archer back on Monday, January 31 for another hearing, following a series of expert presentations next week.

We will now proceed with Dr. Archer's presentation.

Mr. Archer: Thanks very much, Ms. White, and I would like to thank the Committee for inviting me to support their work of this Special Committee on Electoral Reform, and I'm happy to be here today to provide some comments on the report that I prepared for the Committee. I think that report is available on the Committee's webpage.

I will be going through a number of slides today. I understand that some people will be listening to this presentation in an audio format rather than the audio and video, so my apologies if I go into some detail with some of the descriptions of electoral systems, but it's the nature of trying to understand the implications of an electoral system that sometimes the details of the way in which they function are very important, and consequently, getting into some of those details is one part of what we have to do in fully understanding these options.

The presentation today will first introduce the idea of an electoral system to make sure that we are all using common language when we are talking about electoral systems and talking about the same things. I then would like to turn to a

review of the way in which the election results have been interpreted by the electoral system in the Yukon from 1978 until the most recent election in 2021. We'll look at those 12 elections and look at the way in which votes have been distributed and also the way that seats have been distributed.

The presentation will then turn to looking at various electoral system options that are available. What we'll suggest is that there are three different families of electoral systems and there are options within those families, so I will be reviewing those in some detail.

Then I'll turn to some of what I refer to as "special considerations" in thinking about electoral system reform. We'll then turn to a discussion of previous attempts at electoral reform in Canada. I think, as the Yukon considers electoral reform, it's useful to reflect on experiences in other jurisdictions, and we'll then close the presentation by talking about some key issues that are useful to consider when thinking about electoral reform in the Yukon.

So firstly, with respect to what we mean when we use the term "electoral system", an electoral system is a set of rules through which the votes in an election produce seats in a legislative assembly. We sometimes get so accustomed to our own electoral system that we can assume that the way we do it is the way that it has to be done and the way it's logical or reasonable to do it. It may be that we use a logical and reasonable approach, but it's also useful to bear in mind that there are different ways that an electoral system can convert votes into seats.

There are three issues that need to be resolved by an electoral system. The first is: How many candidates is a person voting for? One of the issues within that question is: How many seats does my vote play a role in electing? Under our current system, of course, we have single-member constituencies, so my vote in an election in my jurisdiction is really a vote for one seat in the Legislative Assembly. There are other alternative electoral systems in which a person's vote is not focused only on one seat but, in fact, can be focused on many seats.

So, the electoral system has to sort that out: How many candidates is a person's vote being considered in electing people to office? Secondly, how am I able to express my preference about different candidates? It may be that I prefer one candidate a lot, I prefer a second candidate almost as much, and I don't like a third candidate at all. Does the electoral system enable me to express that preference, or does it simply enable me to say, "Well, I like this candidate more than any other candidate"? So, there are different ways in which one can express their preferences in electoral systems.

Then the third question that has to be determined by an electoral system is: What are the rules for winning? In some systems, the rule for winning is the person with the most votes. Let's say we have an electoral system that uses that rule and there are three candidates for office. Then it is certainly conceivable that a person can be elected without winning a majority of votes — that is, 50 percent plus one.

In other electoral systems, one must have a majority of the votes in order to win. So, if there are many candidates and no

candidate initially has the majority of the votes, there has to be a procedure in place to enable a majority vote to be implemented. So, again, there are different ways in which one can get to a majority vote under different electoral system rules.

So, those are the three issues that are decided by electoral systems. Because of that diversity of options that are available, it's not surprising to know that there are a lot of electoral systems that have some subtle differences between them, and it's important to understand what the implications of each of those systems are.

The final point I'll make with respect to introducing this idea of electoral systems is that what is clear about the choice among electoral systems is they have an important impact on the character of the party system that emerges in a jurisdiction, based upon the rules that are agreed upon. So, a party system is shaped by the electoral system, and different electoral systems will produce different configurations of parties and different likelihoods, for example, of having a majority or minority or coalition government. So, that's the nature of the electoral system.

Let me just review very briefly the results of elections in the Yukon in this modern period of Yukon party politics. 1978 is often seen as an important demarcation point in the introduction of political parties into contesting territorial elections. So, it will serve as the point of departure for this discussion. Those who are looking at the PowerPoint presentation will see a table in front of them, and that table includes the election results for six elections from 1978 to 1996. Let me just focus on a couple of those elections to highlight some important features of the way in which our current electoral system — the first-past-the-post electoral system in the Yukon — affects election results.

So, the first election was 1978 that we're looking at, and the political parties that contested that election were the Yukon Liberal Party, the Yukon New Democratic Party, the Yukon Progressive Conservative Party, and then there were a number of independent candidates, as well, who weren't affiliated with political parties.

In terms of the translation of votes into seats, notice that the Yukon Progressive Conservative Party in that election won about 2,800 votes, which was 36.9 percent of the votes, but they won 11 of the 16 seats, which translated into 68.8 percent of the seats. So, the electoral system over-rewarded that party in that election, but it over-rewarded other parties in other elections. Notice, in 1989, for example, the Yukon New Democratic Party received about 45 percent of the votes, but they were rewarded with 56 percent of the legislative seats.

What had been the Yukon Progressive Conservative Party in 1989 received almost the same number of votes as the NDP — 43.9 percent — but their percentage of the votes translated into 43.7 percent of the seats, and so they were both equally rewarded for their seats as they were based upon their votes, but because of the over-rewarding for the NDP, the NDP formed a majority government based upon less than a majority of the votes.

You'll notice, as you look through those six elections, that a number of common trends emerged. Firstly, there was a clear majority four times, with the winning party with 50 percent of the seats once. So, even though no party won a majority of votes in any of those elections, there was only a minority government once in that period. In half of the elections, the winning party had less than 40 percent of the votes; in the other half, the winning party received between 41 and 46 percent of the votes.

So, the winning party during that period of time was typically heavily over-rewarded; the party most penalized typically finished in third place or in second place.

When one looks at the election results from 2000 to 2021, the names of the parties change a bit, but some of the common features are retained. So, if one looks, for example, at the election in 2000, the Yukon Liberal Party in the election won 42.9 percent of the votes, but that vote percentage gave that party 58.8 percent of the legislative seats and a majority government.

Again, without going through all the detail of those six elections, we can focus on some of the common trends that occurred. In six elections, three were won by the Liberals and three were won by the Yukon Party. Five of the elections returned a majority government, whereas none of the elections had any party receiving a majority of the votes. So, the votes for the party winning the most votes ranged from about 39 percent to about 43 percent. The party with the most votes won the most seats in all elections, except 2021, when the Liberal and Yukon parties each won eight seats, but the Liberal Party won their eight seats on the basis of 32 percent of the votes and the Yukon Party won its eight seats on the basis of 39 percent of the votes.

Overall, during this period, the Yukon Party was over-rewarded three times — significantly over-rewarded. The Liberal Party was significantly over-rewarded three times, and the NDP was under-rewarded two times.

So, how does one evaluate the success or failure of the first-past-the-post electoral system in the Yukon? Well, 75 percent of the elections translated minority votes into majority governments, so, that's just an observation; it's just a fact. Whether that fact is a strength or a weakness of the electoral system probably says a lot about whether a person believes that the system should be changed or not. For those who think that translating a minority of votes into a majority government is a good thing, they would likely suggest that changing the electoral system is problematic. For those who think translating a minority vote into a majority government is a bad thing, they may be more interested in seeing the system changed.

One of the questions I think is useful to ask is: What impacts the under-rewarding of the electoral system in the Yukon? Is it a party's relative performance or is it a party's character? That is to say, are some ideological parties more likely to be helped or hindered by the electoral system, or does the electoral system mostly have its impact based upon the party's relative performance? When one looks at the data that we have just looked at, it seems to me that the party's relative

performance seems to be the stronger factor associated with whether it's being over- or under-rewarded.

Independent and minor parties, however, have not done very well with the first-past-the-post electoral system. If one went back and looked at those tables in a bit more detail, you would see that in the early period that we were looking at, especially the first elections after 1978, there were a few more independent candidates elected and the Yukon had gone through a system of not basing electoral competition on party politics. So, there was a lot of familiarity with working with independent candidates at that time. Once parties really became established within the political environment, that seemed to dissipate. So, currently, it does seem to be that the current electoral system is a bit disadvantageous for independent candidates and for minor parties. One might want to reflect on whether that is a desirable or an undesirable characteristic.

I would like to talk very briefly about some of the features that have arisen in Yukon electoral politics over the past several generations and reflect a little bit on whether these features have implications for the electoral system and whether the electoral system is made more or less compelling because of these features.

The first has to do with voter turnout. In some jurisdictions, a decline in voter turnout has been the feature that has led to some demands for change in the electoral system or the sense that, if voter turnout is going down precipitously, perhaps people are unhappy with either the electoral system itself or the results of that electoral system.

The data from the Yukon are not clear cut in that regard, at least with respect to the suggestion that there has been a decline in voter turnout. In fact, in a general sense, there has been a decline in voter turnout across many democracies in the period that we're looking at, whether we're looking at democracies such as Canadian federal politics or elections in many jurisdictions in Canada. One of the striking things about the Yukon elections, however, is how strong voter turnout has remained.

In the early period that is under review, from 1978 onward, voter turnout tended to be in the mid- to high-70s — in 1982, for example, about 79 percent of the registered voters turned out; in 1985, it was about 78 percent. The more recent elections have seen not too much change in that. In 2011, about 74 percent of the electorate turned out; in 2016, about 76 percent. I don't have data from 2021 in this table because I haven't yet seen the report of the Chief Electoral Officer from the 2021 election in which those official data would be presented.

But based upon the data from the period that we have in front of us, there has not been a dramatic change in voter turnout, so overall turnout has remained relatively strong in the Yukon. If lower turnout rates indicate a dissatisfaction with the electoral system or the politics, we're not seeing that in the turnout statistics.

One of the factors that also is often pointed at when people are evaluating different electoral systems is: Does the electoral system advantage or disadvantage certain groups? A couple of

the groups that are often looked at in this regard are women and people from minority communities. So, are women more or less likely to be elected under the first-past-the-post electoral system in the Yukon than they would be under other electoral systems, and are minority members more or less likely to be elected in this system than in other systems?

Well, we don't have data from what it would look like with other systems, although we can conjecture that once we have a look at those systems in a few moments, but we certainly have data with respect to the election of women in the Yukon under the first-past-the-post system.

The slide that we're referring to is up on the screen, and the final column of that table shows the percentage of MLAs elected in a general election who were female. Notice that there is a significant increase over time. So, for example, in 1978, two of 16 MLAs were women — that's 12.5 percent — whereas, in 2021, eight of 19 MLAs were female, which is 42.1 percent. So, there certainly has been an increase in the percentage of females elected under the first-past-the-post electoral system.

It may be useful, both in looking at those absolute percentages but also comparing the percentage of female candidates to the percentage of female MLAs elected in an election — so, for example, if there's a relatively small percentage of female candidates being elected, one of the reasons that may be the case is there's a relatively small percentage of female candidates overall. The table that's in front of us does support the idea that, as the number of female candidates increases, the number of females elected to the Legislative Assembly increases as well.

I won't go through the description of those data in detail, but simply comparing them with the data in front of you shows that there's a fairly strong and consistent connection between the percentage of females running for office and the percentage of females elected to office.

So, there has been growth in the number of women candidates during the period of 2000 to 2021, and the proportion of women elected generally rises with the proportion of candidates. Currently, compared to many other jurisdictions, there's a fairly high percentage of female MLAs elected in the Yukon.

I made a reference to minority members in my comments a couple of moments ago, and the minority members who are probably of most significance in the Yukon have to do with indigenous members. The table on screen shows the number and percentage of members elected to the Legislative Assembly who are First Nation persons. The number of First Nation persons elected to the Legislative Assembly ranges from a low of 10.5 percent — two of the 19 MLAs in 2011 — to a high of 25 percent in a couple of the elections, but generally, the percentage of MLAs who are First Nation is somewhere between 15 percent and the low 20-percentage points of the MLAs overall.

How does one evaluate the success of First Nation and indigenous people being elected? Well, 23 percent of the population in the Yukon is indigenous, and 19 percent are

single-identity First Nation. In 10 of the 12 elections that we're reviewing, the number of First Nation members elected was either equal to their population or was under by one seat. That is to say, if one additional First Nation individual was elected, then there would be symmetry between their proportion in the electorate and their proportion among MLAs.

So, it raises the questions: Does the current electoral system provide appropriate representation for First Nation people, and should there be guaranteed First Nation seats as there are, for example, in some jurisdictions?

The next issue I'd like to review very briefly is urban and rural representation. This is an important factor in many jurisdictions as to what proportion of the electorate live in rural areas and what proportion of the legislators live in rural areas. What I can say with respect to this issue — and I'll try to keep this commentary brief — is that a constituency-based electoral system enables rural and urban representation to be factored into the representational conversations, whereas other electoral systems that are not constituency based — and we'll look at some, such as the proportional representation systems that are not constituency based — then this discussion of urban and rural representation — it's very difficult to have that conversation, because there's no guaranteed seats for urban and rural members. In the current environment, the Electoral Boundaries Commissions in the Yukon have played a role in ensuring that rural representation is somewhat over-represented in the Yukon Legislative Assembly.

Let me turn now to a discussion and description of the three families of electoral systems. So, the three families are plurality and majority, proportional representation systems, and mixed electoral systems. So, if one is trying to decide whether the current electoral system should be retained or rejected in favour of some alternative, it's this grouping that alternative will come from.

By the way, I should just note that we'll be reviewing nine different individual electoral systems in this discussion. There are four associated with the plurality and majority systems, three from proportional representation, and two from mixed.

With respect to the plurality and majority systems, the four options are: first-past-the-post, alternative vote, block vote, and two-round systems. The first-past-the-post is the one that everyone will be most familiar with. They are single-member districts and the winner is the candidate with the most votes. With a two-party system, the winner will have the majority of the votes, but with multi-parties, as we have seen, the winner may have less than the majority of the votes. Furthermore, when all the seats are added together, the winning party can obtain the majority of seats with the minority of votes. Again, that has been very common in Yukon elections.

This is the system that's used throughout Canada at national elections, at provincial elections, and in territorial elections.

Let me just use a simple illustration to show how this electoral system works. Assume that there are 1,000 votes being cast in a constituency that's electing one MLA; assume that there are three candidates: the first candidate from party

A receives 250 votes, the second candidate from party B receives 400 votes, and the third candidate from party C receives 350 votes; one simply looks at who has the most votes. Candidate 2 from party B, with 400 votes, has the most votes; therefore, they win.

Just before going on, it's useful to pause and reflect on the fact that the person who won, won with 400 votes, but 600 voters voted for a losing candidate. So, one of the kind of paradoxes of this system is that you can often have more people voting for losing candidates than for winning candidates, and then once you compile all of the individual constituency elections together, you can have a distortion in the seat totals in the Legislative Assembly.

That's the nature of the first-past-the-post system. Its advantages are pretty straightforward. There's a direct connection between members of the legislature and citizens in their constituency. The system is easy to understand; it's easy to see who has won; it has a tendency toward a majority government. Its disadvantages are that, in many instances where there's a multi-party system, most voters are voting for losing candidates. So, it can be really distorting between votes and seats. It's hard for new parties, except those that are regionally concentrated, to win seats, and some have argued that there are barriers to entry for women and minority candidates in first-past-the-post. Whether that is the case in the Yukon, I think, is open for further discussion, based upon what we have already said in this regard.

In terms of whether first-past-the-post should be retained in the Yukon, part of the work of the Committee is to understand: Is there a consensus that it should be replaced? Are there perceived negative impacts of first-past-the-post, and have those changed over time? Is this a time that they are particularly problematic? So, I guess the issue for the Committee is: Is this now the time to change the first-past-the-post system?

The second system within the plurality and majority system is the alternative vote. Sometimes it's called "preferential voting". Alternative vote uses a single-member constituency, just like first-past-the-post, but the winning candidate has to have a majority, and in order to get a majority, voters rank the candidates according to their order of preference. So, a candidate is only elected when they get a majority. I have included a table that is very similar to the table that we just reviewed for first-past-the-post to understand the alternative vote.

Notice that it's the same vote distribution that we saw under first-past-the-post, but after the first preferences are counted and no candidate has a majority, then the candidate with the fewest votes is eliminated and their second-preference votes are distributed to the other candidates. So, in this example, among candidate 1 of party A's 250 votes, of those votes, 50 of the voters preferred candidate 2 in party B, but 200 of them preferred candidate 3 in party C, so that candidate ended up with 550 votes, which is a majority, and they won. So, this example illustrates that you can see a change in voting

outcome based upon taking those second preferences into account under the alternative votes system.

Among its advantages, the winning candidate is guaranteed to have majority support. It's pretty simple to understand — a bit more complicated to cast your ballot, because you're casting it for all the candidates. It encourages parties to cooperate, and voters are able to indicate a fuller range of their preferences, but it has some disadvantages. Some of these include: Other than ensuring a majority for the winner, it actually shares many of the shortcomings of first-past-the-post. It can be equally distorting in translating votes across the entire jurisdiction to seats in the Legislative Assembly. Furthermore, the preferences, other than the first preference, don't always produce much change. So, where this is used in elections to the House of Representatives in Australia, only about six percent of candidates in the most recent election who were elected were not leading on the first preference. So, it's conceivable that the preference changes, but where it's used, that's often, in fact, not the case. This system doesn't really provide much of a correction on disproportionality, and if that's the major concern of first-past-the-post, this doesn't offer a compelling alternative.

A third model is the block vote. The block vote is similar to first-past-the-post, except using multi-member districts. So, in this instance, voters can vote for as many candidates as there are positions being filled, but voters aren't ranking the candidates; they're just indicating who they support with an X. Then, of course, candidates are running against every other candidate, including candidates from their own party.

I have included an illustration of how this might work, assuming that there is only one constituency. It's for the Yukon as a whole, so it's a multi-member district, and one just lines up all of the candidates, people vote for — again, in this case, you could have 19 votes and you vote for your 19 most preferred candidates and the 19 candidates with the highest votes are elected; the candidate with the 20th highest vote is not elected and subsequently are not.

So, this is an electoral system that's kind of common within municipalities where there are not party politics. In jurisdictions in which there are parties, it is a less compelling alternative, in my view. So, its advantages are that it's easy to understand; the ballots are counted at the polling station; again, there is a direct connection between the elected members and the constituency they represent, and there can be several parties from a constituency. But it has a number of disadvantages. Again, there can be relatively high distortion; there's a larger number of parties in the legislature; there's a lower barrier to entry; and there can be intra-party competition, so candidates from the same party are often competing against one another. It can be a very confusing ballot, especially if there are one or two districts with a very large number of candidates to elect.

The fourth option within this majority and plurality system is the two-round system, sometimes called the "run-off election" system. If no candidate receives a majority on the first election, then there's a second election — a run-off election — that is held. Typically, it's between the top two candidates,

although it could be a run-off between candidates achieving some pre-established threshold. An example of this is presented in the next table. In this instance, we're assuming that there are 2,000 voters; there are four candidates in a constituency and candidate 1 from one party and candidate 4 from the second party had the highest vote totals. Therefore, they are eligible for the run-off, and the other two candidates are eliminated. Then there's a whole second election, and that election could be a week later or two weeks later. In that election, because there are only two candidates, someone is guaranteed to win a majority.

So, it's used in some jurisdictions. One of the advantages of this system is that voters can vote their true preferences on the first round, not vote strategically. It also encourages interests to coalesce around a preferred candidate; it encourages alliance-building; it minimizes penalties for vote-splitting.

Its disadvantage is that it can be really challenging for election administration, especially in a large territory with a sometimes harsh climate like the Yukon, to conduct two separate elections over a very short period of time. It's a challenge to voters and to candidates as well. This system can be highly disproportionate in translating votes into seats. Again, if that's the major concern one has with first-past-the-post, then this is not a very helpful solution.

Let me just pause for a minute and do a quick assessment of these four options, the plurality and majority systems. So, first-past-the-post is the status quo. I think it's the alternative against which all the others are assessed. The biggest criticism of this system, in my view, is that it can distort the vote and seat percentages. Both the alternative vote and the two-round systems are at least as problematic in this regard. Neither of those are correcting that problem with first-past-the-post, and to the extent that's the case, they don't really correct for the perceived deficiency of the first-past-the-post and I believe could be eliminated from future consideration.

Block voting also is problematic. It's probably more suitable where there are no political parties, and my view is that the Committee may wish to limit its consideration, when looking at plurality and majority systems, to first-past-the-post.

Let me turn now to proportional representation systems, of which there are three that I would like to review: list PR, single transferable vote, and single non-transferable vote. For the list PR, this is by far the most common of the proportional systems that are in use. In a list PR system, the parties rank-order the candidates. So, each of the parties would list its candidates in such a way that, if a party won three seats, the party candidates it listed as first, second, and third would be given those seats, and the candidate in fourth on the party's list would not because they only won three seats. So, the parties present the rank-order list of candidates, voters are voting for a party, not for a candidate, and the candidates are elected in multi-member districts. The parties receive seats based upon the proportion of votes that they obtain.

Let me illustrate how this system would work. Let me use data from the 2016 Yukon election to do this. First, as a reference point, recall what happened in the 2016 Yukon election under first-past-the-post. The Liberal Party won

39 percent of the votes but 57.9 percent of the seats; the Yukon Party won 33 percent of the votes and about 32 percent of the seats; and the NDP won 26 percent of the votes but only 10.5 percent of the seats.

So, the Yukon Party's vote/seat ratio was pretty accurate; the Liberals were over-rewarded; the NDP was under-rewarded under first-past-the-post. So, under a list PR system, the seat results are given below, and you can see that the NDP would have won five of the 19 seats, which is 26.3 percent of the seats, based upon 26.2 percent of the votes. The Liberals would win eight seats, and the Yukon Party would win six seats. So, the Liberals, instead of having a pretty strong majority government, would be in a situation within which they have 42 percent of the seats, so they would be in a minority government situation and would need the support of either the NDP or the Yukon Party in order to govern effectively.

The next table — which I'm not going to go into in any detail — simply presents how those numbers were calculated and allows you to see why the parties were assigned the number of seats that they were.

The advantages of list PR: There's a high proportionality between votes and seat percentages; it encourages the formation of many political parties; it's easier for parties to get elected; there's a lower barrier to entry; it can facilitate the representation of women and minority candidates as long as the parties rank women and minority candidates relatively high on their list — and that's a real key: where the candidates are placed on the party's list.

What are the disadvantages of this system? Well, first, a majority government is really highly unlikely, and especially it's highly unlikely given the distribution that we see in Yukon elections. Of course, those distributions could change if the electoral system changes, but under the current distribution of support, a majority government would be highly unlikely.

When a majority government is highly unlikely, the power given to the party that's supporting the government can be disproportionately high if the government is relying on the support of a relatively small party to stay in power. Consequently, one of the challenges of this system is whether one wants to make the barrier to entry a little bit higher for parties. It can be difficult to vote a party out of power because if no party wins a majority, government is often determined by discussions that take place among party leaders after the election. So, the election kind of sets up the opportunity to have negotiations to see who is going to form a government. There also is no direct constituency tie between voters and representatives under this system.

In thinking about this system, an obvious question is: How important is proportionality? If it's the most important value — this is a fairly compelling system — its ability to deliver on proportionality increases as the number of seats increase. So, one way of thinking about that is, if there's only one district in the whole of the Yukon, then the list PR system is going to be most proportional, but that also brings up risks in terms of balancing urban and rural interests, so it becomes a bit more complicated of a conversation.

The second option under proportional representation is single transferable vote. In this system, it uses a multi-member district and can include a party list of candidates, but like the alternative vote, voters can also rank-order the candidates. It's a pretty popular system among experts, and I know there is plenty of presentation about this through the Committee. One of the challenges with this system is it's quite a complicated method for counting preferences. I have included an example here which indicates some of the complexity of determining who wins in a single transferable vote election.

The example here is one in which there are three seats, there are 4,000 votes, and there are seven candidates. If one were to apply this to the Yukon, it would be quite a bit more complicated than what is being presented here, but this visual allows one to understand the process of counting. One has to determine first what the electoral quotient is that one needs to establish. How many votes does one need to have in order to win a seat? The formula for that is given as the number of votes divided by the number of seats plus one, and into that is added the number 1. Suffice to say that, when that is applied in this scenario, one needs 1,001 votes in order to win.

So, under the first count in this scenario, one candidate, Dell, received 1,050, so that person exceeded the election quotient number and therefore they are elected, but because they exceeded it, they actually have some extra votes that they can distribute to other candidates. Because they exceeded it by 49 votes, those additional 49 votes are distributed to a subsequent candidate. In this example, they are distributed to Elliott. After those votes are distributed, there is no additional candidate who achieves the 1,001 margin and therefore the candidate with the lowest vote total is eliminated. In this example, that is Gallant. Gallant's votes are then distributed, based upon their second preferences, to other candidates, Fortney and Abbott. That enables Fortney to be elected because she has now achieved more than 1,001 votes. In fact, she has exceeded that by nine votes, and so those votes are subsequently allocated. After that fourth count, there is no additional candidate who has achieved the threshold, and therefore, the next lowest candidate is eliminated — in this case, it's Clarke — and when Clarke's votes are distributed, Brock is elected.

You can see that it's a pretty complicated allocation of additional seats. Some of the advantages of single transferable vote is that it does have higher proportionality than first-past-the-post but not as high as list PR. There's a lower barrier to entry for parties, and the parties themselves have less of an iron grip on the selection of candidates compared to the list PR system. It's a very complicated method for calculating winners, however, and voters may be choosing from among a very large number of candidates, depending on how many are elected per district.

Although it's a widely endorsed method among political science experts, it's not very widely used, and partly this has to do with this complicated counting process, in my view. So, if this is adopted in the Yukon, there would have to be a lot of public education to assist with that.

The single non-transferable vote option — in the interest of time, members, I'm going to skip over the single non-transferable vote option. It is an option that I think does not provide very many advantages in the Yukon and that will allow me to have at least a brief discussion in the minutes remaining of the two options under the mixed electoral system: the parallel system and mixed member proportional.

Both of these systems that are mixed use two separate electoral systems to elect members. Under the parallel system, it simply means that these two systems run in tandem with each other — they're not related to each other — and under the mixed member system, there are also two systems, but the second system, which is typically based upon proportional representation, is used to compensate for distortion under the first system.

Very briefly, the parallel systems — if one were to apply this to the election in 2021, there really wouldn't be an appreciable difference in election outcomes under a parallel system versus what we saw in a first-past-the-post system. There would be marginal tweaking of the parties' seats, but the net result would be very similar to what we saw under the first-past-the-post system, all of which leads me to suggest that the parallel system does not bring enough advantages to the Yukon to be a method of consideration.

Under mixed member proportional, however, the compensation is quite significant. Without going into a lot of the details that are presented in the summary — it may be useful for people to turn to that summary, however — what we find is, using the mixed member proportional system with the election results in the Yukon in 2021, the results turn out to be much more proportional to the vote total. So, under the constituency seats, under the first-past-the-post system, you'll recall that the Yukon Party won eight, the Liberals won eight, and the NDP won three, but because the computation of seats that one is eligible for provided the NDP with eight, the Liberals with 10, and the Yukon Party with four, then the NDP get a higher compensation. They end up being compensated with five of the list PR seats, the Liberals with two, and the Yukon Party with four, and the end result is that the proportion of seats under this system reflects almost exactly the proportion of votes that the parties received.

All of this would lead me to a couple of conclusions, and I guess I would end here, because I know we have exhausted our time. Of the nine systems that we have reviewed, it seems to me that the compelling alternatives for further discussion in the Yukon are the status quo — first-past-the-post, mixed member proportional, and single transferable vote.

With that, Madam Chair, I will turn the mic back to you.

Chair: Thank you, Dr. Archer. I had just sent you a note saying that if you wanted to take additional time, you could, but I think we appreciate just how well you captured everything together.

Just a note for folks who may have listened to this, or anyone who may be joining, Dr. Archer's presentation is available online to see. So, you can see the parts that we sped over a little bit in the interest of time.

With that, looking at both Mr. Streicker and Mr. Cathers, does anyone have any questions for Dr. Archer?

Hon. Mr. Streicker: Thank you for the presentation. I think I would reserve most of my questions for when we bring Dr. Archer back and when we talk about all of this. I will just say that one of the ways I will try to pose questions, when we get there, is about the size of the Yukon compared to other places and also, in previous conversations with you, Dr. Archer, but trying to get that same conversation out to the public, is a discussion about how jurisdictions have sought to consider electoral reform and why they sometimes don't result in change. Maybe that's because they don't wish to change, but also it may be that there is a barrier to that.

Those are the type of questions, and I'll just note them today, Madam Chair. I think we're going to have a fuller conversation next week, so I will just flag them for today.

Mr. Cathers: Thank you, Dr. Archer, for all your work so far. One thing I would just note, not so much a question but considering how important — I think we all agree — public participation is in the process, I did note that, today, we only have three members of the general public and one returning officer listening outside of those listening in offices, and I just wanted to note that I think we can give consideration to what that means, including whether we should do more to advertise this in the future.

In the interest of time, Dr. Archer, I will note that I appreciate the comparisons you have made so far and would appreciate your future and additional thoughts on your perspective about what an eventual electoral system change could mean in a jurisdiction like Yukon, and with that, I will just close my comments.

Chair: I'll just take this opportunity to say right now that we will be similar to TV cooking shows, where we have Dr. Archer today giving us the synopsis of his report. Next week, we have a whole series of public hearings with experts, where we will be learning about their own experiences in their own jurisdictions with their thoughts to looking at the Yukon context. So, we will have lots of questions for Dr. Archer next week.

For anyone who is listening now, it is important to note that there will be a survey coming out that will be available both electronically and by mail, and there will be an opportunity for public hearings in the territory where, if you are really passionate about electoral reform, we look forward to learning from you.

With that, today, Dr. Archer, I will thank you for your report. I note that it's available online for anyone who wants to take a look at it, and we will see you in just over a week, when we have learned more things and have more questions.

I will call this meeting adjourned. Thank you so much for attending today.

The Committee adjourned at 4:03 p.m.