

# Local and Proportional: The Danish Voting System as a Model for Canada

Submission to the Special Parliamentary Committee on Electoral Reform (ERRE)  
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## Summary

Proportionality is the key principle to consider in changing our voting system:

1. It ensures that every voter is fairly represented in Parliament.
2. It ensures that each party wins the number of seats that matches its popular vote.
3. It will lead to more consensual policy decisions by government that better reflect the Canadian population.

This submission presents the Danish PR List system as an example of a PR system that would work well for Canada. The Danish system was specifically designed to provide both strong local representation and good proportionality. The 2015 federal election results in BC are used as an example of how it could work.

As well, an extra-parliamentary commission should be regularly appointed to review the allocation of seats, redefine boundaries and ensure that the voting system is working fairly for all voters and all parties.

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## Why PR?

Should a party that wins 40% of the vote win a majority government?

That is the core question that anyone considering electoral reform should answer.

I believe that most voters would say no.

I doubt that any political party would make a public statement that the voting system *should* be designed to work this way.

A majority government with 40% of the vote is so clearly *not* a fair outcome. It's not fair to individual voters and also not fair to parties, which are sometimes over-represented, and other times under-represented.

At the riding level, first past the post leads to too many voters who are represented by MPs who's party position on important issues is contrary to the their own. When it comes to votes in Parliament, these voters are not fairly represented. PR voting systems typically achieve higher

than 90% of voters being represented by the candidate or party of their choice as opposed to around 50% for first past the post.

FPTP vote distortions also apply at the regional level. This means that each caucus has its own internal distortions. PR eliminates these regional distortions to a large degree. No longer will a party win 25% of the vote in a particular region and end up with no seats. Instead, all voters in all regions will be fairly represented in Parliament. Regional parties might still exist but they will only win the seats they deserve as a proportion of the overall vote.

Finally, our current voting system often results in a majority government that only represents around 40% of voters. With the best intentions, it's hard for any government in that position to come up with balanced legislation and be seen to do so. A coalition of two or more parties is more likely to provide more balanced legislation than a single party that only represents 40% of voters.

Proportional voting systems fix these problems because they make sure that every vote counts towards electing a more representative Parliament.

It should be noted that PR systems do not in themselves lead to any particular policy decisions. But they do result in government that more closely reflects the political preferences that voters have expressed with their votes. That means that government policy is more likely to be in tune with what Canadians want overall.

Under PR, voting is more meaningful for more voters since all votes count towards electing a representative. This will result in a more engaged electorate.

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## Highly Proportional and Strongly Local: A Voting System for Canada

Most of the discussion about PR systems for Canada has focused on MMP and STV with not much discussion about PR List systems.

One that is worth looking at is the Danish system which is highly proportional *and* provides strong local representation. These are two very important values to Canadians.

Danish voters find their system easy to use. It's a well tested system that's been in use since 1920 with no major reforms.

Danish voter turnout is very high - above 85% consistently. Danish voters are also very happy with their system according to polls. There are no public interest groups in Denmark who are advocating voting system change.

The Danish voting system is thoroughly explained by Professor Jørgen Elklit in the book, *The Politics of Electoral Systems*, edited by Michael Gallagher and Paul Mitchell. There is also an excellent explanation on the Danish Parliamentary web site: <http://bit.ly/2dI9ZKN>

Local representation is strong in the Danish system because all MPs come from local constituencies. In addition, each constituency has multiple members which means that most voters can expect to have a local MP who represents their political viewpoint in Parliament.

A number of seats (around 25%) are set aside to be used as top-up seats to ensure overall proportionality. The number of top-ups is based on the national seat percentage for each party and this is why the overall proportionality of the system is very high.

Top-up seats for each party are distributed back to local constituencies and not used to elect regional MPs. The distribution uses a method that takes the required number of seats for each region and the number of seats for each party into account. This is shown in more detail in the example below.

Once the number of seats for each party has been finalized in each constituency, the top candidates in the constituency for each party are elected to fill those seats. Parties may choose to use open list or closed list to select the candidates to be elected within each constituency and this is made public before the election is held. Most parties choose the open list option. For an open list, the election of candidates is based on which candidates got the most votes in the riding, and for a closed list, the party decides in advance on the order of candidates.

The result is that all seats are won at the local constituency level. There are no “regional MPs”. Furthermore, since all candidates run locally, there are no national or regional party lists.

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## Ballots

Ballots are very easy for voters to use. Each one for a multi-member constituency contain a list of candidates for each party. Voters mark a single “X” for the candidate of their choice, or they may simply choose a party and not mark a particular candidate. There are several ways that party votes may be allocated to candidates, and this is a choice that parties can make. The most common method is to apply a proportional number of party votes to each candidate.

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## Application to Canada

The Danish system could be applied equally well to Canada. Clearly the size and population of the two countries is vastly different, however it is the structure and the mechanism of the system that’s important, not the specifics of riding or region sizes.

As shown in the example below, the Danish system would provide equally high levels of proportionality and local representation in Canada as it does in Denmark.

One key difference is that the top level calculation of proportionality in Denmark is national, but in Canada the top level proportional calculations would be provincial. This will not make a significant difference in outcome.

The key features of the system that could be applied in Canada are:

- local multi-member constituencies

- province-wide top-up seats that are assigned back to constituencies to ensure high overall proportionality
- variable magnitude (number of MPs) constituencies which would scale well to Canada's wide range of population density

## The Danish Model applied to BC

This example shows how the Danish system could be applied to BC.

In BC at this time there are 42 federal seats. Using 25% for top-ups leaves 32 seats to assign to local constituencies and 10 for top-up seats.

Table 1 shows one way the 32 seats could be divided into multi-member constituencies. This is based on combining existing adjacent ridings with a view to keeping the constituencies fairly small and localized geographically. This system would work just as well using larger constituencies.

**TABLE 1 - 2015 ELECTION RESULTS USING DANISH STYLE PR LIST**

Combined Ridings	Region	MPs	Constituency Votes					Constituency Seats				Top-up Seats				
			Lib	Con	NDP	Grn	Other	Lib	Con	NDP	Grn	Lib+	Con+	NDP+	Grn+	
Cariboo	Interior	2	38,136	44,283	35,345	4,349	1,386	1	1						1	
Kootenay-Columbia	Interior	1	12,315	23,247	23,529	4,115	0			1						
Okanagan	Interior	3	92,354	97,380	63,730	8,836	376	1	1	1						1
Peace	Interior	1	12,913	27,237	8,014	2,672	1,023		1							
Skeena	Interior	1	8,257	10,936	22,531	1,605	780			1						
Fraser Valley	Interior	2	33,739	37,032	18,392	4,679	1,470	1	1							
North Island	Island	2	47,381	52,191	74,573	27,215	266		1	1						1
South Island	Island	3	53,176	47,743	82,614	84,773	1,588	1		1	1		1			
Burnaby	Metro North	2	49,738	37,565	54,507	6,558	2,641	1		1			1			
North Shore	Metro North	2	72,758	34,712	11,569	11,257	516	2								
Tri-Cities	Metro North	2	54,499	50,568	50,556	6,156	1,549	1	1						1	
Vancouver	Metro North	5	138,229	68,504	88,137	15,310	3,379	3	1	1						1
North Surrey	Metro South	3	91,828	48,609	43,520	5,817	686	2	1						1	
South Surrey	Metro South	3	108,716	104,774	31,546	9,089	1,178	2	1				1	1		
<b>Totals</b>		<b>32</b>	<b>814,039</b>	<b>684,781</b>	<b>608,563</b>	<b>192,431</b>	<b>16,838</b>	<b>15</b>	<b>9</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>3</b>	

\* all calculations in this table can be provided to the committee if desired.

The constituencies are grouped together into regions which are used during the distribution of top-up seats to help ensure they are spread evenly. In this example there are four regions: Interior, Island, Metro North and Metro South.

The columns under “Constituency Votes” show the vote counts from the 2015 federal election aggregated into the PR constituencies as defined for this model.

The columns under “Constituency Seats” show the initial proportional allocation of seats to each party based on the constituency vote.

The columns under “Top-up Seats” show the allocation of the 10 top-up seats. This allocation is based on both province-wide party proportionality and regional populations.

Regional population divides the 10 top-up seats into 2 each for the Interior and Island regions and 3 each for the Metro North and South regions. Since it’s based on population, these numbers are calculated prior to the election.

Party proportionality awards the 10 top-up seats to the parties based on the difference between the seats each party won at the constituency level and the seats that are proportional to the entire province. In this case, the Liberal vote count results in 15 seats province-wide, which matches their constituency seats won, so no additional seats are awarded. The Conservatives on the other hand only won 9 constituency seats, but their provincial proportion of seats would be 12, so they are awarded 3 of the 10 top-up seats, and similarly for the NDP and Greens.

Once the local seats and the regional top-ups have all been assigned, the MPs are chosen for each party in each constituency.

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## Comparison of FPTP and PR Outcomes

The results of the PR count are significantly different from the results of the FPTP count in two major ways:

As expected, the PR count is highly proportional whereas the FPTP is less so.

The other noticeable difference is in overall distribution. The FPTP results tend to clump seats for each party together whereas the PR seats are spread more evenly both within each constituency and across all constituencies. In both these ways the PR seat allocation is a more accurate reflection of voters’ wishes.

For example, it can be seen that under FPTP the Conservatives were shut out of Vancouver Island and much of the Lower Mainland in 2015, but with PR they would have seats in both those regions.

The situation is similar for the Liberals, who didn’t get a seat on Vancouver Island with FPTP but did get one with PR.

The NDP have a much more balanced representation throughout the province, as do the Greens with four seats which is their proportional due.

**TABLE 2 - COMPARISON BETWEEN FPTP AND PR SEATS FOR 2015 ELECTION RESULTS**

Combined Ridings	Region	FPTP Seats (actual)				PR Seats			
		Lib	Con	NDP	Grn	Lib	Con	NDP	Grn
Cariboo	Interior		2			1	1	1	
Kootenay-Columbia	Interior			1				1	
Okanagan	Interior	1	2	1		1	1	1	1
Peace	Interior		1				1		
Skeena	Interior			1				1	
Fraser Valley	Interior	1	2			1	1		
North Island	Island			3			1	1	1
South Island	Island			3	1	1	1	1	1
Burnaby	Metro North	1		2		1	1	1	
North Shore	Metro North	2				2			
Tri-Cities	Metro North	2		1		1	1	1	
Vancouver	Metro North	4		2		3	1	1	1
North Surrey	Metro South	4				2	1	1	
South Surrey	Metro South	2	3			2	2	1	
<b>Totals</b>		<b>17</b>	<b>10</b>	<b>14</b>	<b>1</b>	<b>15</b>	<b>12</b>	<b>11</b>	<b>4</b>

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## Electoral Commission

Every ten years there should be an electoral commission which would be structured in a similar way to our existing Electoral Boundaries Commission. The purpose of this commission would be to review the sizes of constituencies, the number of members per constituency, and the arrangement of constituencies within regions.

There may be minor adjustments needed to constituency or regional borders but more often all that will be needed is to reallocate the numbers of seats for each constituency without much modification of the borders.

The averaging mechanism of the top-up seats means that there's an overall balance of voting power for all voters.

The Danish system uses a formula to calculate the appropriate number of seats per constituency that includes population size, number of voters and the area of the constituency. This is in recognition that a larger constituency might require more members. This may be of some interest in Canada as well.

The commission should also look at the overall results to make sure that all voters are represented fairly, and that the overall distribution of seats and region sizes are not causing any particular distortions that consistently favoured a particular party.

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## Conclusion

MMP and STV have been the most commonly discussed PR options for Canada. Either of these systems would improve the representation of voters in Parliament.

PR List options have not been discussed much. However, PR List is the most widely used class of PR systems, and comes in many variations so it is worth considering when discussing electoral reform. The Danish version is a good model for Canada because of its strength of local representation and high level of proportionality.

As Professor Arend Lijphart said in his appearance before the committee, "...the empirical evidence is now overwhelmingly strong that PR is the better system". He has made it clear that PR's greatest strength is that it enhances measures of democracy such as voter satisfaction and voter turnout.

This is fundamentally because PR systems are fair to parties and fair to voters. As demonstrated in the example above, MPs win seats in a way that more clearly represents the votes across all constituencies with no regional distortions. No party wins an undeserved majority and no party is under-represented.