



BETTER CHOICES

Voting System Alternatives for Canada





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EXECUTIVE SUMMARY

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INTRODUCTION & CONTEXT

- This paper models how five different voting systems could work for Canada, and the impacts those systems could have beyond electoral politics.

- The paper is being released at a time when the Government of Canada and Parliament of Canada are actively considering an alternative system to first-past-the-post, and inviting Canadians to contribute to the conversation.

- Voting systems are the foundation of our public institutions. These systems determine what Parliament looks like, and influence the quality and brand of executive government, and the quality of laws, government services and programs that affect every Canadian.

- In the paper, we offer *'proof of concept'* models for five voting systems that could be used in Canada. The key element of each model is the electoral district map and associated ballots.

- Any change in the federal electoral system would be constrained by the political boundaries of the provinces. A change in federal electoral system, means changing how the citizens of the provinces decide who should represent their province in Ottawa.

- We provide proof of concept electoral district maps for each system in three provinces:

- a small province of 10 MPs (New Brunswick),
- a mid-sized province of 42 MPs (British Columbia), and
- a large province of 78 MPs (Quebec).

- The models are based on three provinces that vary in size because the Canadian constitution demands that each member of Parliament be elected from a province or a territory. The proportional representation systems modelled in this paper vary slightly in how electoral districts appear depending on the size of each province, and population density and distribution.

- A Special Committee on Electoral Reform has been struck by Parliament appears to be considering the five systems modeled here. At the time of writing, however, there have been no electoral-district-map-based models produced for any of the alternate systems for the committee or Canadians to considerⁱ. We present these here.

- Finally, we evaluate each system's performance against eight criteria: (1) Vote fairness and accountability; (2) Voter participation; (3) Simplicity, (4) A strong Parliament; (5) Collaborative politics; (6) Effective government; (7) Geographic representation; (8) Women's representation

- This paper mirrors a report titled "Better Choices Nova Scotia" released earlier this year as part of Springtide Collective's Make Democracy Better project. Through this project, over 400 Nova Scotians participated, and expressed a clear desire to 'improve the voting system' in Nova Scotia, and

i. <http://ottawacitizen.com/news/politics/kady-opposition-parties-join-forces-on-electoral-reform-committee-to-push-liberal-action>

one can presume, they may have similar hopes for federal politics.

VOTING SYSTEM OPTIONS FOR CANADA

- There are two main families of voting systems used throughout the world and modeled in this paper: **winner-take-all** systems, and **proportional representation (PR)** systems. The **winner-take-all systems** modeled in this paper are characterized by single-member districts where the winner is the candidate who receives the most votes - a **plurality** in the case of the **first-past-the-post system** or a majority in the case of the **alternative vote system**. In both winner take all systems modeled in this paper, the number of districts and MPs both remain at 338 (the current number).

Winner-Take-All Systems

- **First-Past-the-Post (FPTP):** In the FPTP system voters mark their ballots for one candidate only, and the candidate with more votes than any other candidate wins, regardless of whether or not they have a majority.
- **Alternative Vote (AV):** In the AV system voters rank the candidates on the ballot in order of preference. If one candidate receives a majority of first choice votes, they are elected. If no candidate receives a majority of first preference votes, the candidate with the fewest votes is eliminated, and a second round of counting occurs, where the lowest ranking candidate's votes are redistributed to the second choice marked on each ballot. The process repeats itself until one candidate receives a majority of votes.

Proportional Representation Systems

- In **proportional representation** systems the share of the popular vote a party and its candidates earn are reflected in the number of seats the party holds in Parliament. In all but one of the proportional systems modelled in this paper, this is done through the use of large multi-member districts. The list PR systems modelled here involve more than 338 MPs, since additional '*adjustment seats*' are added in each province. A total of 68 seats would be added to Parliament based on this model. However, an electoral boundaries commission with the right resources could easily propose a functional list PR system with 338 seats.
- **List Proportional Representation (List PR):** In list PR systems voters cast one vote for either the party (if the system uses a **closed list**) or a candidate from that party (if the system uses an **open list**). In both cases the vote counts towards the total share of seats awarded to that party. In the model illustrated here, anywhere from two to twelve MPs per district. The district borders follow naturally distinct communities, and the number of MPs is based on the population within the borders. In each province, a set of "**adjustment seats**" would be allocated province-wide to improve proportionality of the final results, where seats are not assigned to a particular district.

FINDINGS: SYSTEM PERFORMANCE AGAINST CRITERIA

Based on the research reviewed for this paper, our evaluation of each of the voting systems against the criteria noted above is summarized below.

	Winner-Take-All Systems		Proportional Representation Systems		
	First-Past-the-Post (FPTP-CAN)	Alternative Vote (AV-CAN)	List Proportional Representation (List PR-CAN)	Mixed Member Proportional (MMP-CAN)	Single Transferable Vote (STV-CAN)
VOTE FAIRNESS & ACCOUNTABILITY	<ul style="list-style-type: none"> - Disproportionate results - High number of wasted votes - Low vote equality 		<ul style="list-style-type: none"> - Results are proportionate 95 - 99% of the time. - Low number of wasted votes - High vote equality: generally separate from party preference, or voter's district. 		
Accountability of Representatives	<ul style="list-style-type: none"> - Vote-splitting means a candidate can be opposed by a majority of voters and still be <i>elected, and re-elected</i> 	<ul style="list-style-type: none"> - If a majority of voters oppose a candidate, they can prevent that candidate's election or re-election 	<ul style="list-style-type: none"> - Individual candidates held to account by constituents through open list voting. 	<ul style="list-style-type: none"> - Local representatives are held to account as with FPTP - Voters have no influence over candidates elected via the closed party list. 	<ul style="list-style-type: none"> - All candidates held accountable by their district and must earn the support of voters
VOTER PARTICIPATION	Winner-take-all systems have lower voter participation than proportional ones		Proportional systems have higher voter participation than winner-take-all systems		
30 Year Voter Turnout Average (1986-2016)	59.9%	- <i>No available data</i>	68.3 %	76.6%	70.4%
SIMPLICITY CASTING VOTES	Simple	Casting votes is more complicated than in FPTP, but simple to explain	<ul style="list-style-type: none"> - More complicated ballot with open list voting, still relatively simple to vote 	<ul style="list-style-type: none"> - The two-vote, one-ballot system is simple to explain and use 	<ul style="list-style-type: none"> - Ballot is complicated of involving ranked voting and large numbers of candidates
UNDERSTANDING THE RESULTS	<ul style="list-style-type: none"> - Easy to understand district results - Can be difficult to understand disproportionate election results 	<ul style="list-style-type: none"> - Easy to understand district results - Can be difficult to understand disproportionate election results 	<ul style="list-style-type: none"> - The allocation of adjustment seats can make the results in this system harder to understand 	<ul style="list-style-type: none"> - The use of adjustment seats can make it hard to understand how proportionality is achieved 	<ul style="list-style-type: none"> - Voters must understand how fractional vote transfers, quotas, and surplus votes work to understand election results
STRONG PARLIAMENT	<ul style="list-style-type: none"> - The single governing party most often holds a majority of seats in Parliament, preventing meaningful exploration of policy alternatives, amendments to legislation or the adoption of opposition legislation - Filibustering frequently used by opposition to delay and inconvenience the government - Large parties dominate Parliament; few small parties are represented - Minority governments are less common, and when present, increase the relevance of Parliament 		<ul style="list-style-type: none"> - Single-party-majority governments are rare, so governments face a stronger test when meeting a parliament that can easily <i>'make or break'</i> a government through confidence votes - Opposition members can propose alternative legislation and propose amendments to government legislation, and see meaningful consideration and debate on those proposals - Large parties play a dominant role in Parliament and in government; Small parties win more seats in PR systems and are sometimes junior partners in coalitions 		
		<ul style="list-style-type: none"> - More small parties field candidates in AV elections, but can be even less likely to be elected than in FPTP 			

	Winner-Take-All Systems		Proportional Representation Systems		
	First-Past-the-Post	Alternative Vote	List Proportional Representation	Mixed Member Proportional	Single Transferable Vote
COLLABORATIVE POLITICS	<ul style="list-style-type: none"> - Single-party-majority governments are most common, and there is little need for coalition government or supply and confidence agreements. - Large parties tend to adopt a pattern of adversarial dialogue that exaggerates the differences between parties, rather than finding areas of common agreement - In minority governments, there are short term incentives to collaborate, and supply and confidence agreements are common, - There are no long-term incentives for collaboration in minority or majority government 		<ul style="list-style-type: none"> - Coalition governments are most common form of government, requiring collaboration between member parties, - Single party majority governments are rare, while coalition governments are the most common and negotiate supply and confidence agreements as needed 		
EFFECTIVE GOVERNMENT Strength	<ul style="list-style-type: none"> - Single-party majority governments do not have to negotiate with other parties and can quickly make decisions and implement election promises 		<ul style="list-style-type: none"> - Coalition governments may take longer to reach decisions as negotiations between governing parties (and potentially with Parliament) is required 		
Leadership Stability	<ul style="list-style-type: none"> - Elections occur on average every 3.2 years - Minority governments are more unstable than majority ones, holding office for shorter periods of time - Change in governments typically involve power moving from one party to its opponent party 		<ul style="list-style-type: none"> - Elections occur on average every 3.3 years - Strong continuity of parties that form government, where at least one party in a governing coalition finds itself in the coalition formed after the subsequent election, leading to a relay-race-like pattern of policy continuance 		
Policy Stability & Responsiveness	<ul style="list-style-type: none"> - Policy stability in majority and minority governments is often only lasts as long as the governing party holds power - Many policies and laws are often scrapped, or reversed completely when the governing party changes 		<ul style="list-style-type: none"> - Policies are more stable over time - Government policies align more closely with the views and values of the 'median voter' - Policies outperform winner-take-all systems in various areas including: economic growth, human development, environmental sustainability, and reductions in income inequality 		
GEOGRAPHIC REPRESENTATION	<ul style="list-style-type: none"> - Local representation via single-member-districts only - Local issues from swing ridings, and ridings represented by members of the governing party carry disproportionate weight on the statewide agenda 		<ul style="list-style-type: none"> - Every elected representative is accountable to the voters in a specific region of the province - Multiple members representing each district mean that no single politician or party can claim to be the voice for the entire district 	<ul style="list-style-type: none"> - Strong balance between local interests and statewide interests due to local and statewide representation 	<ul style="list-style-type: none"> - Every elected representative is accountable to the voters in a specific area of the province - Multiple members represent each district, no single candidate or party can claim to be the voice for the entire district
WOMEN'S REPRESENTATION	Fewer women represented in parliaments		More women represented in parliaments		
Seats held by women: (1996-2016)	17.6%	25.0 %	28.8%	30.2%	30.1%
Seats held by women in 2016	21.8%	26.7%	33.7%	33.6%	34.2%

- **Mixed Member Proportional (MMP):** The mixed member proportional (MMP) system combines elements of FPTP and List PR. Voters cast two votes: one for a local candidate; another for their preferred party. After the local district candidates are elected, the **party votes** are considered, and candidates are drawn from the party's list and into Parliament to ensure that the total number of seats held by each party are roughly proportional to the party vote for each party.
- **Single Transferable Vote (STV):** In the STV system, voters rank candidates in multi-member districts in order of preference. A formula based on the number of votes cast, and seats available is used to calculate a winning quota or threshold of votes required to win. Candidates who reach or exceed the quota are elected, and surplus votes (votes for a winning candidate that exceed the quota) are transferred and redistributed in subsequent rounds, until enough candidates reach the quota required to fill the available seats. Votes for last placed candidates are considered and redistributed once surplus votes are redistributed in each round, if no candidate reaches the quota. The number of MPs per List PR district can vary from 3 - 7 in this model based on the size of the population within the district boundaries.
- **Candidate selection:** Despite common misconceptions, in both winner-take-all and PR voting systems, party members can influence what candidates represent each party in an election, and in each system modelled here voters have influence over which candidates from each party get elected. Independent candidates can also seek election in each system.

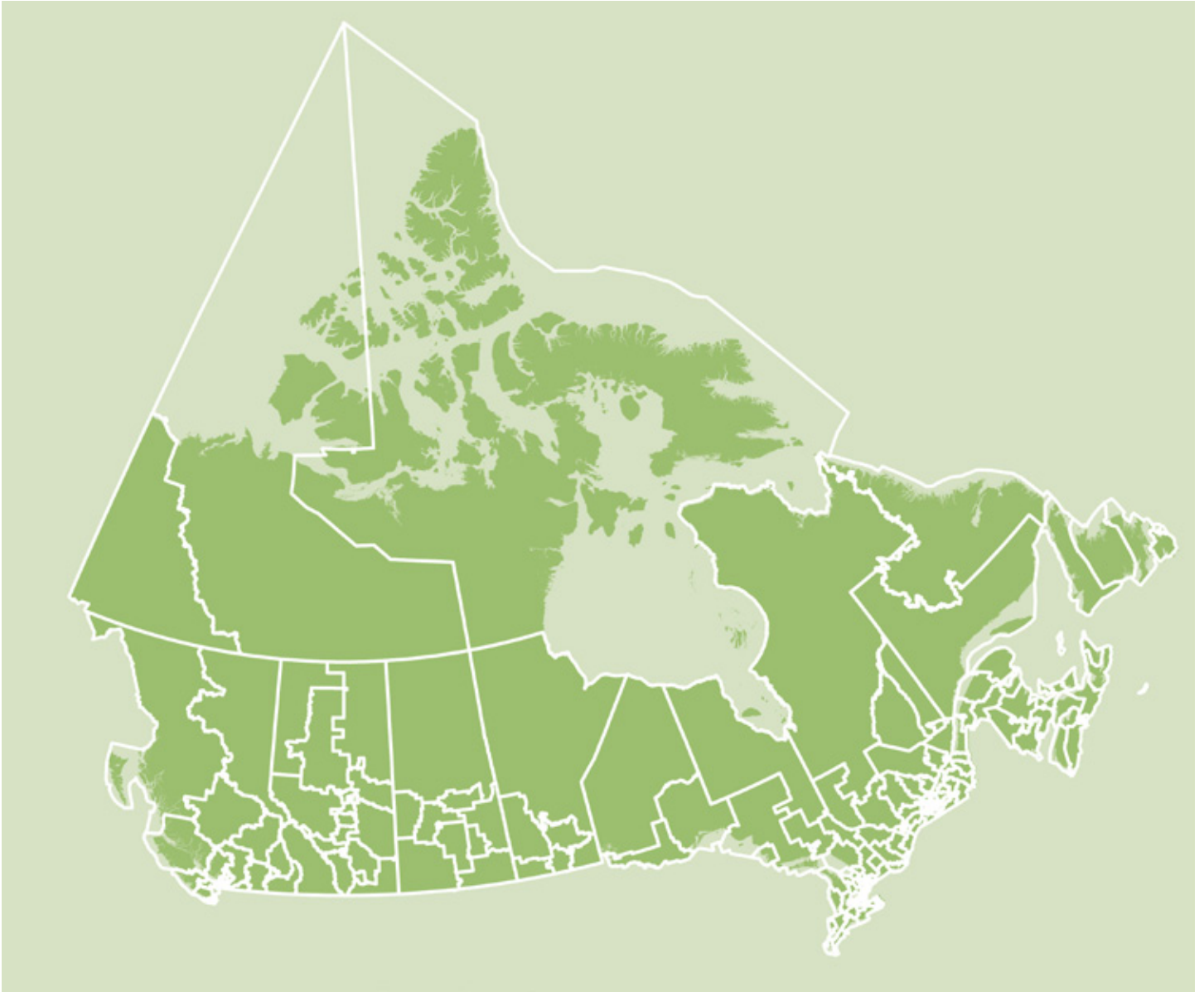
NEXT STEPS

The findings of this paper are meant to inform the national discussion on voting system reform in Canada. The Special Committee on Electoral Reform (ERRE), Members of Parliament, and the Minister of Democratic Institutions are inviting Canadians to contribute to the discussion on electoral reform. We hope this paper can help both parliamentarians and Canadians have an informed discussion about the options available beyond first-past-the-post.

Events and information pertaining to the ERRE process can be found at Canada.ca/Democracy and through the constituency office of your local Member of Parliament.

III) FIVE VOTING SYSTEM MODELS FOR CANADA

First-Past-the-Post & Alternative Vote *Electoral Districts Map*



 = MLAs / District

First Past the Post *Ballot & Instructions*

First Past the Post

You have one vote.

Vote by placing an X in the space next to the candidate you choose.

Agnes MACPHAIL
Pioneer Party

Celine DION
Bonhomme Party

Candy PALMATER
Beavertail Party

Alan SYLIBOY
Maple Party

Where this system is used:

Canada, United States, United Kingdom, India.

How it works:

One candidate will be elected for your district. To win, a candidate must earn more votes than all other candidates.

Alternative Vote *Ballot & Instructions*

Alternative Vote

This is a preferential ballot.

Place the number "1" in the space next to the candidate who is your first choice, and rank any additional preferences you wish to make in the order of your preference starting with the number "2".

2 Agnes MACPHAIL
Pioneer Party

3 Celine DION
Bonhomme Party

4 Candy PALMATER
Beavertail Party

1 Alan SYLIBOY
Maple Party

Where this voting system is used:

Australian House of Representatives, Political Party Leadership Races, Academy Awards Voting

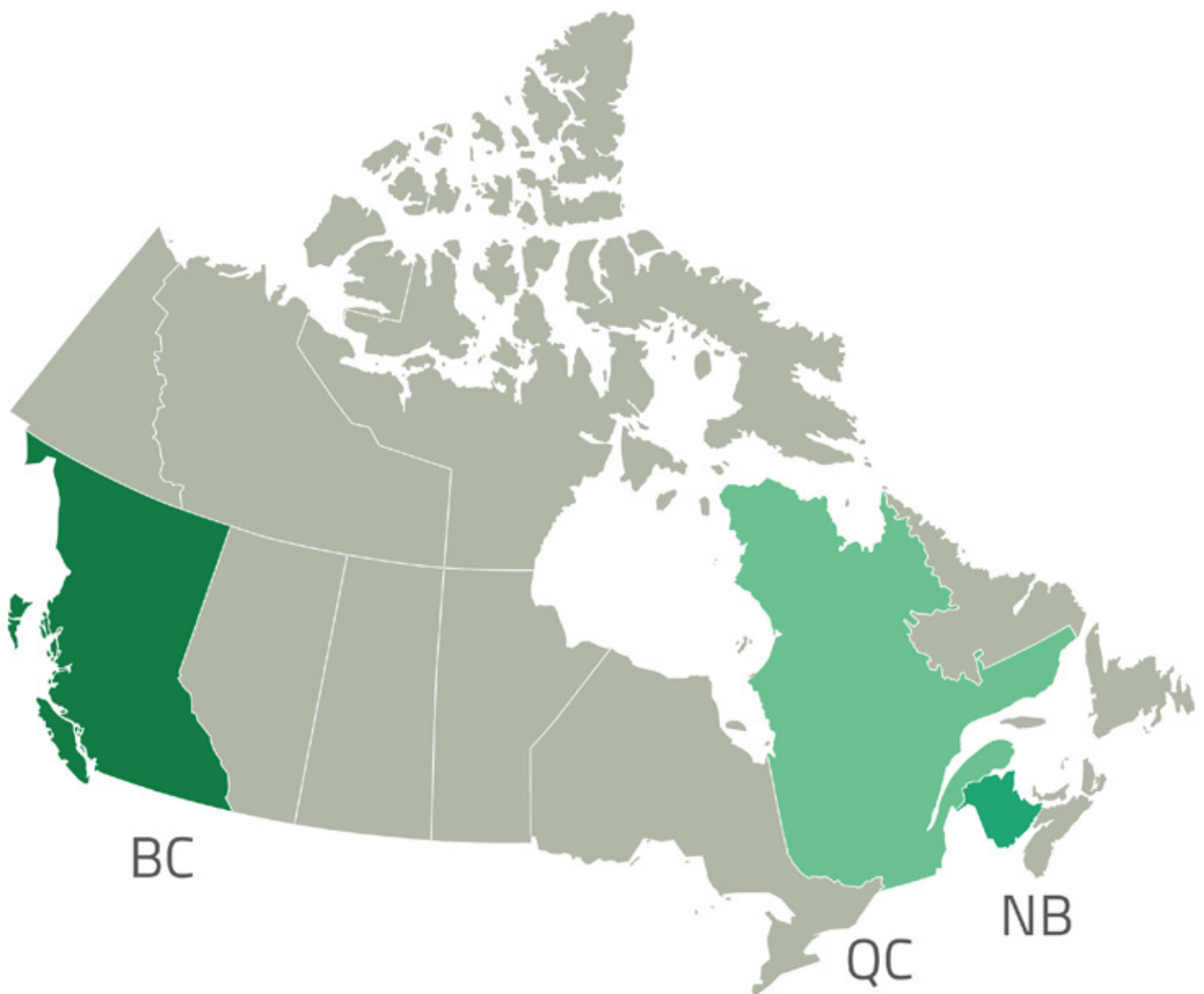
How it works:

One candidate will be elected for your district. To win, a candidate must earn more than 50% of the vote. If no candidate receives more than 50% of the vote after first preferences are counted, the second choices of the candidate with the fewest votes will be redistributed and so on until a candidate receives 50% of the remaining votes.

Model Provinces: BC, QC, NB

For the proportional representation system that follow, we present 'proof-of-concept' maps for three provinces' federal electoral districts, where we've chosen provinces with a range of population sizes. We present:

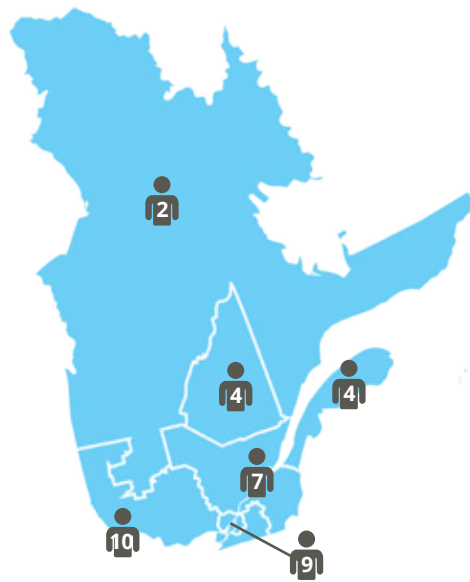
- a small province (New Brunswick)
- a mid-sized province (British Columbia)
- a large province (Quebec)



List Proportional Representation *Electoral Districts Maps*



BC

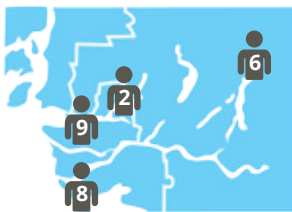


QC

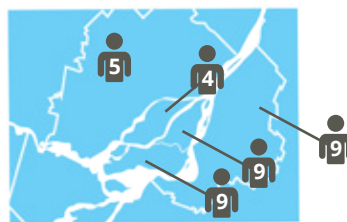


NB

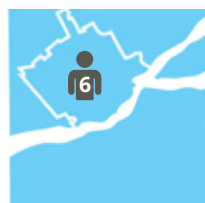
VANCOUVER



MONTRÉAL



QUEBEC CITY



 = MLAs / District

List Proportional Representation

Ballot & Instructions

Open List Proportional Representation				
<p><i>You have one vote.</i> <i>Place an X in the space next to the candidate for whom you wish to vote.</i> <i>Your vote counts for both your candidate and the party they belong to.</i></p>				
Pioneer Party	Bonhomme Party	Beavertail Party	Maple Party	Independent Candidate
<input type="checkbox"/> Agnes Macphail	<input type="checkbox"/> Celine Dion	<input type="checkbox"/> Bruce Guthro	<input type="checkbox"/> Ellen Page	<input type="checkbox"/> Rick Mercer
<input type="checkbox"/> Rocket Richard	<input type="checkbox"/> Rock Voisine	<input type="checkbox"/> Tommy Chong	<input checked="" type="checkbox"/> Portia White	<input type="checkbox"/> Colin Mochrie
<input type="checkbox"/> Vince Coleman	<input type="checkbox"/> Louise Arbour	<input type="checkbox"/> George Elliot Clarke	<input type="checkbox"/> Alan Syliboy	
<input type="checkbox"/> Viola Desmond	<input type="checkbox"/> Mario Lemieux	<input type="checkbox"/> Candy Palmater	<input type="checkbox"/> Buffy Sainte-Marie	

Countries that use this system:

Sweden, Netherlands

How it works:

The number of votes received by each party will determine the share of seats they hold in Parliament.

The candidates who receive the most votes within each party will rank higher on their party lists, and be the first to receive a seat in Parliament when their party has earned enough votes.

Mixed Member Proportional *Electoral Districts Maps*



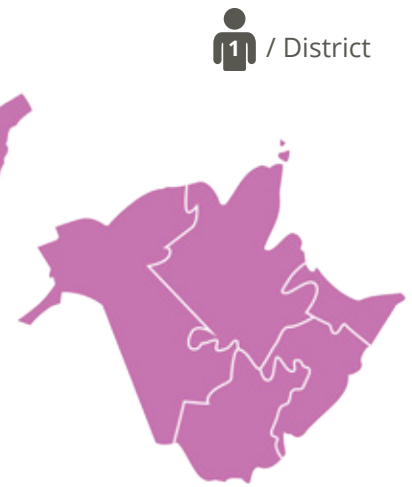
 / District


BC



 / District

QC



 / District

NB

VANCOUVER



VICTORIA



MONTRÉAL



QUEBEC CITY



 = MLAs / District

Mixed Member Proportional Representation *Ballot & Instructions*

Mixed Member Proportional Representation - Closed List*			
You have two votes			
	Party vote	District Vote	
	<i>This vote determines the share of seats each party will hold in the legislature.</i>	<i>This vote determines who will be elected to the legislature from your district.</i>	
Vote here	<i>Place an X in the space next to the party you support.</i>	<i>Vote by placing an X in the space next to the candidate you choose.</i>	Vote here
	Bonhomme Party	Viola DESMOND - Pioneer Party	
	Beavertail Party	Rick MERCER - Independent	
	Maple Party	Alan SYLIBOY - Maple Party	
	Colin MOCHRIE - Independent	Celine DION- Bonhomme Party	
	Pioneer Party	Candy PALMATER- Beavertail Party	

Countries that use this system:

New Zealand, Germany, Lesotho,

How it works:

District Vote: To win a candidate must earn more votes than all other candidates.

Party Vote: After the winners of the local district elections are known, the party vote will be used to ensure that - of the seats in parliament for that province - the total share held by each party roughly matches the total share of party votes received in that province. The candidates who appear highest on the list provided by each party will be the first to receive a seat in Parliament when their party has earned enough votes.

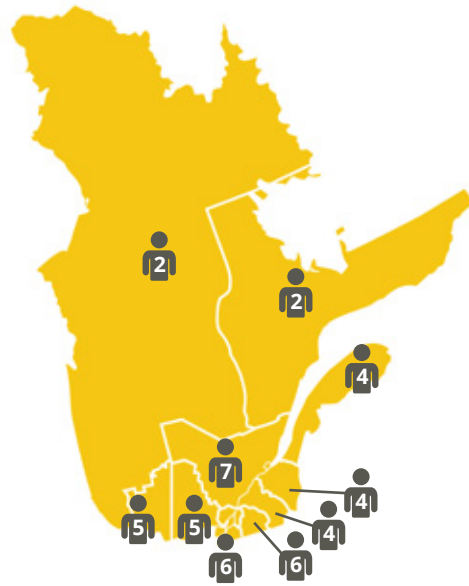
** While we model a closed list ballot here, an open list MMP ballot is also possible, where the party vote resembles the ballot previously modelled for List PR.*

Single Transferable Vote

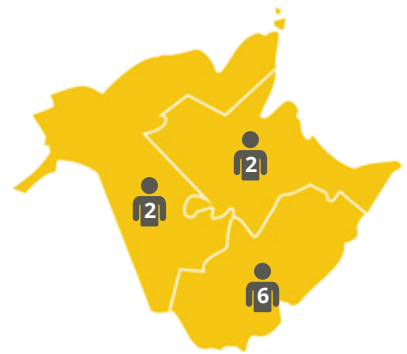
Electoral Districts Maps



BC



QC



NB

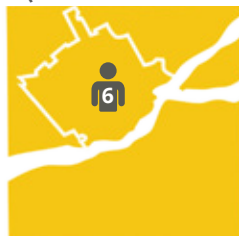
VANCOUVER



MONTRÉAL



QUEBEC CITY



 = MLAs / District

Single Transferable Vote

Ballot & Instructions

Single Transferable Vote

By placing the numbers in the space next to the candidates of your choice 1 to n in order of your preference. You may vote for as many candidates as you wish, including candidates from different parties.

<input checked="" type="checkbox"/> 2 Agnes Macphail Pioneer Party	<input checked="" type="checkbox"/> 4 Celine Dion Bonhomme Party	<input type="checkbox"/> Samantha Bee Beavertail Party	<input type="checkbox"/> Ellen Page Maple Party	<input type="checkbox"/> Rick Mercer Independent
<input checked="" type="checkbox"/> 1 Rocket Richard Pioneer Party	<input type="checkbox"/> Rock Voisine Bonhomme Party	<input type="checkbox"/> Tommy Chong Beavertail Party	<input type="checkbox"/> Portia White Maple Party	<input type="checkbox"/> Colin Mochrie Independent
<input type="checkbox"/> Vince Coleman Pioneer Party	<input type="checkbox"/> Gabriel Nadeau- Dubois Bonhomme Party	<input checked="" type="checkbox"/> 3 Shaun Majumder Beavertail Party	<input type="checkbox"/> Alan Syliboy Maple Party	
<input type="checkbox"/> Viola Desmond Pioneer Party	<input checked="" type="checkbox"/> 5 Mario Lemieux Bonhomme Party	<input type="checkbox"/> Candy Palmater Beavertail Party	<input type="checkbox"/> Gord Downie Maple Party	

Countries that use this system:

Ireland, Australian Senate, Malta

How it works:

Depending on the size of your district, 2 - 9 candidates will be elected.

If less than five candidates meet the threshold required to win initially, votes will be transferred based on the rankings provided, as many times as necessary until five candidates have reached the threshold. The threshold is calculated as follows:

$$\left(\frac{\text{Total Votes Cast}}{\text{Seat} + 1} \right) + 1$$

