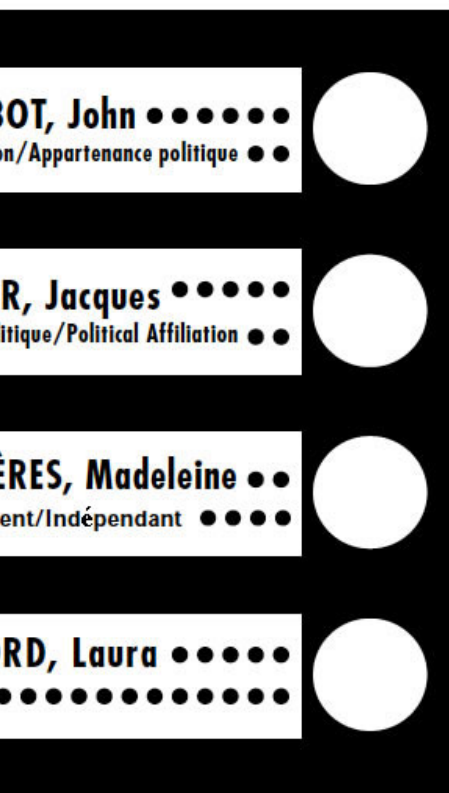


# ELECTORAL REFORM IN CANADA

## The case for a Near-Winner (Baden-Wurttemberg) Proportional System

By Adam Smith



## The case for a Near-Winner (Baden-Wurttemberg) Proportional System in Canada

### Introduction:

There is one proportional system, from the German state of Baden-Wurttemberg, that should be getting a lot more attention. Baden-Wurttemberg was the first place in the world to use a Mixed Member Proportional electoral system, so it's only fitting that today they have evolved the best proportional system. In studying electoral reform in Ontario, the Standing Committee on the Legislative Assembly travelled to Stuttgart to observe an election using the Near-Winner Proportional system. In light of how favourable the results were it is strange it has not been given more consideration.

[http://www.ontla.on.ca/committee-proceedings/committee-reports/files\\_pdf/Electoral%20Reform%20Final%20Report-Eng.pdf](http://www.ontla.on.ca/committee-proceedings/committee-reports/files_pdf/Electoral%20Reform%20Final%20Report-Eng.pdf)

(NB: the above link does not always open properly from this pdf, you may have to search for "Electoral Reform Final Report-Eng.pdf")

### How it works:

In the Near-Winner Proportional system the voting and ballot are the same as Canada's first-past-the-post: one vote for one person who will represent one riding. This elects the local direct candidates that represent a specific riding. To achieve proportionality there are local direct seats and regional top-up seats. The percentage of regional top-up seats awarded to each party to make the total seats proportional are determined by the nation-wide popular vote totals, and the regional top-up seats are awarded to the candidates with the most votes who came in second, third, or even fourth place in their riding. Which is why it is called "near-winner". This way there are no list candidates, every candidate has to run in a riding and was on a ballot somewhere.

Baden-Wurttemberg is only a single state, and the regional top-up seats are divided into 4 regions. In a Canadian model, the regions for regional top-up seats would be the provinces. We start with a regular first-past-the-post election result to determine all the local direct seats and the nation-wide popular vote, and then determine each party's proportion of regional top-up seats from the nation-wide popular vote. If a party earns regional top-up seats, the seats are awarded to their candidates that got the most votes but did not win a seat. This means some ridings will end up with 2 or possibly 3 MPs, but every riding will have at least 1 local MP, and this is no different than the regional distribution of MPs in a Mixed Member Proportional system.

### Advantages over other systems:

A Near-Winner Proportional voting system removes most of the issues with Single Transferable Vote and Mixed Member Proportional systems. The ballot is simple and unchanged from our current ballot, there is no need for party lists or ranking, there is no vote splitting or strategic voting, it is as close to 100% proportional as possible, and independent candidates do not skew the proportional results. It also removes the need for a by-election if a regional top-up seat is vacated mid-term, as the next most popular candidate in that party in that province would be next in line. As the minimum seats for each province apportioned by the Constitution are maintained, implementing this system would not require a change in the Constitution, in fact, it can be instituted with the current 338 ridings.

**Drawbacks:**

The only drawback to Near-Winner Proportional is there can still be overhang seats, this being less likely in larger provinces with more regional top-up seats and more likely in smaller provinces with less regional top-up seats. Typically an overhang seat is when a party wins more local direct seats than their proportion of the nation-wide popular vote would allow, but it is a slightly different calculation for Canada as we have so many regions with varying quantities of regional top-up seats. Other parliaments like Germany and New Zealand sometimes have variances in the number of seats in their parliament due to overhang votes, so it's not unheard of to have a shifting number of seats. Any extra seats are removed once a new election starts.

**Applying it to Canada:**

This system could easily be applied without changing the number of seats or their apportionment per province. Same as the suggestions for Mixed Member Proportional, the riding size for local direct candidates would have to increase to allow for a number of regional top-up seats, but the total number of seats per province could stay the same. There would be a certain number of local direct seats and a certain number of regional top-up seats for each province. The nation-wide popular vote total would determine the number of regional top-up seats awarded to each party, the province-wide popular vote total would determine the distribution of the regional top-up seats, and the winners of the regional top-up seats would be determined by who got the most votes in their province but did not win a seat.

This "near-winner" system would result in some areas having a higher concentration of MPs, but a Mixed Member Proportional system would have the same issue. Regional top-up MPs in a Mixed Member Proportional system are not bound to any specific location for their constituency office within their region, and it is likely they would situate themselves in an area with a higher more concentrated population, an area likely to already have a local direct MP located there.

Many voters overvalue the notion of having a local MP. While it is important to be able to turn to someone who knows your area, by nature very few federal issues are local, they typically affect the whole nation. MPs do their most important work for us in Ottawa, as part of committees or in the House of Commons, not on the ground in their riding. For example, if the Green Party failed to elect any local direct candidates, a Green Party voter in Ontario could still turn to a regional top-up Green Party MP in BC to represent their interests. And empathy is important to consider, just because an MP does not live in a riding does not mean they cannot empathize with that riding's concerns or are unable to help them. Most problems can be related over telephone or email, a face-to-face meeting is not necessary to get an MP to understand your problem or position.

**Simulation for a Near-Winner Proportional system using 2015 election results:**

The minimum percentage of regional top-up seats necessary to achieve proportionality is 40%, so the number of local direct seats and regional top-up seats for each province would be apportioned from a 60/40 split of the current number of seats per province:

<b>PROVINCE (total seats):</b>	<b>Local Direct Seats (60%):</b>	<b>Regional Top-Up Seats (40%):</b>
<b>ONTARIO (121):</b>	73 local direct	48 regional top-up
<b>QUEBEC (78):</b>	47 local direct	31 regional top-up
<b>BRITISH COLUMBIA (42):</b>	25 local direct	17 regional top-up
<b>ALBERTA (34):</b>	20 local direct	14 regional top-up
<b>MANITOBA (14):</b>	8 local direct	6 regional top-up
<b>SASKATCHEWAN (14):</b>	8 local direct	6 regional top-up
<b>NOVA SCOTIA (11):</b>	7 local direct	4 regional top-up
<b>NEW BRUNSWICK (10):</b>	6 local direct	4 regional top-up
<b>NEWFOUNDLAND &amp; LABRADOR (7):</b>	4 local direct	3 regional top-up
<b>PRINCE EDWARD ISLAND (4):</b>	2 local direct	2 regional top-up
<b>NORTHWEST TERRITORIES (1):</b>	1 local direct	0 regional top-up
<b>YUKON (1):</b>	1 local direct	0 regional top-up
<b>NUNAVUT (1):</b>	1 local direct	0 regional top-up
<b>TOTAL (338):</b>	<b>203 local direct seats</b>	<b>135 regional top-up seats</b>

We use the 2015 election results of the party seat share per province to estimate what the local direct seat share per province would be in a Near-Winner Proportional system. But, with a smaller number of local direct seats, the seat totals and the percentage of seats will be rounded off slightly.

<b>PROVINCE:</b>	<b>PARTY:</b>	<b>Liberal</b>	<b>Conservative</b>	<b>NDP</b>	<b>Green</b>	<b>Bloc</b>
<b>ONTARIO:</b>						
<b>Current seats 121 (100%):</b>		80 (66%)	33 (27%)	8 (7%)	0	0
<b>Local direct seats 73 (100%):</b>		48 (66%)	20 (27%)	5 (7%)	0	0
<b>QUEBEC:</b>						
<b>Current seats 78 (100%):</b>		40 (51%)	12 (15%)	16 (21%)	0	10 (13%)
<b>Local direct seats 47 (100%):</b>		24 (51%)	7 (15%)	10 (21%)	0	6 (13%)
<b>BRITISH COLOMBIA:</b>						
<b>Current seats 42 (100%):</b>		17 (40%)	10 (24%)	14 (33%)	1 (2%)	0
<b>Local direct seats 25 (100%):</b>		10 (40%)	6 (24%)	8 (32%)	1 (4%)	0
<b>ALBERTA:</b>						
<b>Current seats 34 (100%):</b>		4 (12%)	29 (85%)	1 (3%)	0	0
<b>Local direct seats 20 (100%):</b>		2 (10%)	17 (85%)	1 (5%)	0	0
<b>MANITOBA:</b>						
<b>Current seats 14 (100%):</b>		7 (50%)	5 (36%)	2 (14%)	0	0
<b>Local direct seats 8 (100%):</b>		4 (50%)	3 (38%)	1 (12%)	0	0
<b>SASKATCHEWAN:</b>						
<b>Current seats 14 (100%):</b>		7 (50%)	5 (36%)	2 (14%)	0	0
<b>Local direct seats 8 (100%):</b>		4 (50%)	3 (38%)	1 (12%)	0	0
<b>NOVA SCOTIA:</b>						
<b>Current seats 11 (100%):</b>		11 (100%)	0	0	0	0
<b>Local direct seats 7 (100%):</b>		7 (100%)	0	0	0	0
<b>NEW BRUNSWICK:</b>						
<b>Current seats 10 (100%):</b>		10 (100%)	0	0	0	0
<b>Local direct seats 6 (100%):</b>		6 (100%)	0	0	0	0

<b>NEWFOUNDLAND AND LABRADOR:</b>					
<b>Current seats 7 (100%):</b>	7 (100%)	0	0	0	0
<b>Local direct seats 4 (100%):</b>	4 (100%)	0	0	0	0
<b>PRINCE EDWARD ISLAND:</b>					
<b>Current seats 4 (100%):</b>	4 (100%)	0	0	0	0
<b>Local direct seats 2 (100%):</b>	2 (100%)	0	0	0	0
<b>NORTHWEST TERRITORIES:</b>	1 (100%)	0	0	0	0
<b>YUKON:</b>	1 (100%)	0	0	0	0
<b>NUNAVUT:</b>	1 (100%)	0	0	0	0
<b>TOTAL CURRENT SEATS 338:</b>	<b>184 (54%)</b>	<b>99 (29%)</b>	<b>44 (13%)</b>	<b>1 (0.2%)</b>	<b>10 (3%)</b>
<b>TOTAL DIRECT SEATS 203:</b>	<b>114 (56%)</b>	<b>56 (28%)</b>	<b>26 (13%)</b>	<b>1 (0.4%)</b>	<b>6 (3%)</b>

Now that we have estimates for the local direct seats won by each party in each province, we can calculate the regional top-up seats. There is one catch: votes for independent candidates and very small parties. Most Mixed Member Proportional models have a minimum threshold of vote share for a smaller party to qualify for a regional top-up seat, usually with the reason of preventing fringe parties from getting elected. However this is not democratic. It is my contention that as long as a party gets the minimum nation-wide popular vote for a single seat, that is 0.23% in Canada, it should receive a seat. In our case no independent party reached that threshold, so to calculate each party's regional top-up seats first we must subtract all independent votes and non-electing party votes from the national totals before calculating each party's percentage of the nation-wide popular vote. These are the only wasted votes. Fractions of seats are added in order of the largest fraction first until all seats are filled. The formula is:

$(\text{Nation-wide popular vote share percentage} \times 338) - \text{local direct seats} = \text{regional top-up seats}$

	<b>Nation-wide Popular vote</b>	<b>Local Direct seats won</b>	<b>Regional Top-Up seats added</b>	<b>Total seats</b>	<b>Proportion of seats</b>
<b>Liberal</b>	39.79%	114	20	134	39.64%
<b>Conservative</b>	32.17%	56	53	109	32.24%
<b>NDP</b>	19.89%	26	41	67	19.82%
<b>Green</b>	3.46%	1	11	12	3.55%
<b>Bloc</b>	4.7%	6	10	16	4.73%

As we can see, the end result of seat proportion almost exactly matches the nation-wide popular vote. The next step is to calculate how many regional top-up seats go to which province. Again, votes for independents or non-elected parties need to be subtracted from the province-wide vote total to get an accurate percentage of the province-wide popular vote per party. Fractions of seats are added in order of the largest fraction first until all seats are filled. The formula is:

(Province-wide popular vote share% x total province seats) – local direct seats = regional top-up seats

<b>Ontario (121):</b>	<b>Popular vote province-wide</b>	<b>Local Direct seats won</b>	<b>Regional top-up seats added</b>	<b>Seat percentage</b>	<b>Seat % - Popular vote difference</b>
<b>Liberal</b>	44.95%	48	6	44.63%	-0.32%
<b>Conservative</b>	35.37%	20	23	35.54%	+0.17%
<b>NDP</b>	16.81%	5	15	16.53%	-0.28%
<b>Green</b>	2.87%	0	4	3.31%	+0.44%
<b>TOTAL:</b>		73	48		

<b>Quebec (78):</b>	<b>Popular vote province-wide</b>	<b>Local Direct seats won</b>	<b>Regional top-up seats added</b>	<b>Seat percentage</b>	<b>Seat % - Popular vote difference</b>
<b>Liberal</b>	36.16%	24	4	35.9%	-0.26%
<b>Conservative</b>	16.76%	7	6	16.67%	-0.09%
<b>NDP</b>	25.42%	10	10	25.64%	+0.22%
<b>Green</b>	2.26%	0	2	2.56%	+0.3%
<b>Bloc</b>	19.41%	6	9	19.23%	-0.18%
<b>TOTAL:</b>		47	31		

<b>British Columbia (42):</b>	<b>Popular vote province-wide</b>	<b>Local Direct seats won</b>	<b>Regional top-up seats added</b>	<b>Seat percentage</b>	<b>Seat % - Popular vote difference</b>
<b>Liberal</b>	35.34%	10	5	35.71%	+0.37%
<b>Conservative</b>	30.16%	6	7	30.95%	+0.79%
<b>NDP</b>	26.2%	8	3	26.19%	-0.01%
<b>Green</b>	8.3%	1	2	7.14%	-1.16%
<b>TOTAL:</b>		25	17		

<b>Alberta (34):</b>	<b>Popular vote province-wide</b>	<b>Local Direct seats won</b>	<b>Regional top-up seats added</b>	<b>Seat percentage</b>	<b>Seat % - Popular vote difference</b>
<b>Liberal</b>	25%	2	6	23.53%	-1.47%
<b>Conservative</b>	60.63%	17	4	61.76%	+1.13%
<b>NDP</b>	11.85%	1	3	11.76%	-0.09%
<b>Green</b>	2.6%	0	1	2.94%	+0.34%
<b>TOTAL:</b>		20	14		

<b>Manitoba (14):</b>	<b>Popular vote province-wide</b>	<b>Local Direct seats won</b>	<b>Regional top-up seats added</b>	<b>Seat percentage</b>	<b>Seat % - Popular vote difference</b>
<b>Liberal</b>	45.19%	4	2	42.86%	-2.33%
<b>Conservative</b>	37.82%	3	2	35.71%	-2.11%
<b>NDP</b>	13.8%	1	1	14.28%	+0.48%
<b>Green</b>	3.19%	0	1	7.14%	+3.95
<b>TOTAL:</b>		8	6		

<b>Saskatchewan (14):</b>	<b>Popular vote province-wide</b>	<b>Local Direct seats won</b>	<b>Regional top-up seats added</b>	<b>Seat percentage</b>	<b>Seat % - Popular vote difference</b>
<b>Liberal</b>	23.95%	4	0	28.57%	+4.62%
<b>Conservative</b>	48.74%	3	4	50%	+1.26%
<b>NDP</b>	25.21%	1	2	21.43%	-3.78%
<b>Green</b>	2.1%	0	0	0%	-2.1%
<b>TOTAL:</b>		8	6		

<b>Nova Scotia (11):</b>	<b>Popular vote province-wide</b>	<b>Local Direct seats won</b>	<b>Regional top-up seats added</b>	<b>Seat percentage</b>	<b>Seat % - Popular vote difference</b>
<b>Liberal</b>	62.36%	7	0	63.63%	+1.27%
<b>Conservative</b>	17.99%	0	2	18.18%	+0.19%
<b>NDP</b>	16.27%	0	2	18.18%	+1.91
<b>Green</b>	3.38%	0	0	0%	-3.38%
<b>TOTAL:</b>		7	4		



<b>New Brunswick (10):</b>	<b>Popular vote province-wide</b>	<b>Local Direct seats won</b>	<b>Regional top-up seats added</b>	<b>Seat percentage</b>	<b>Seat % - Popular vote difference</b>
<b>Liberal</b>	51.56%	6	0	60%	+8.44%
<b>Conservative</b>	25.38%	0	2	20%	-5.38%
<b>NDP</b>	18.37%	0	2	20%	-1.63%
<b>Green</b>	4.65%	0	0		-4.65%
<b>TOTAL:</b>		6	4		

<b>Newfoundland and Labrador (7):</b>	<b>Popular vote province-wide</b>	<b>Local Direct seats won</b>	<b>Regional top-up seats added</b>	<b>Seat percentage</b>	<b>Seat % - Popular vote difference</b>
<b>Liberal</b>	66.49%	4	0	57.14%	-9.35%
<b>Conservative</b>	10.64%	0	1	14.23%	+3.59
<b>NDP</b>	21.75%	0	2	28.57%	+6.82
<b>Green</b>	1.11%	0	0	0%	-1.11%
<b>TOTAL:</b>		4	3		

<b>Prince Edward Island (4):</b>	<b>Popular vote province-wide</b>	<b>Local Direct seats won</b>	<b>Regional top-up seats added</b>	<b>Seat percentage</b>	<b>Seat % - Popular vote difference</b>
<b>Liberal</b>	58.6%	2	0	50%	-8.6%
<b>Conservative</b>	19.38%	0	1	25%	+5.62
<b>NDP</b>	16.06%	0	1	25%	+8.94
<b>Green</b>	6.06%	0	0	0%	-6.06%
<b>TOTAL:</b>		2	2		

Inevitably, due the rounding of fractions of percentages and some overhang of Liberal seats, some of the distribution of regional top-up seats when broken down by province do not match the distribution of regional top-up seats calculated for the whole nation. The Liberals have ended up with 3 extra regional top-up seats, the NDP break even, and the Conservatives, Greens, and Bloc are each missing 1. There are three solutions to this:

1. The first solution is to switch some of the regional top-up seats to bring their numbers in line with the calculation of regional top-up seats based on the nation-wide popular vote. The Bloc is easy as they only run in Quebec, so in Quebec the Liberals would lose one regional top-up seat and the Bloc would gain one. Now the Liberals only have two extra seats and the Bloc has all their seats.

After that we look at which provinces have Liberal regional top-up seats available to switch, as you can't switch local direct seats. From those provinces we look at which ones have the biggest difference between the province-wide popular vote percentage and the final seat percentage. In Manitoba the Conservatives are down -2.11%, so we take away one Liberal regional top-up seat and add one Conservative regional top-up seat. Lastly, the Greens are down -1.16% in British Columbia, so we take away one Liberal regional top-up seat and add one Green regional top-up seat. Now everyone's seat totals are in proportion to the nation-wide popular vote.

2. The second solution is to add regional top-up seats to compensate. The Conservatives, Greens, and Bloc would each get one extra seat, expanding the House of Commons to 341 seats for that term.

3. The last solution is to do nothing, and accept that while there is a touch of imbalance, it is still a far superior and more proportional result than any other system.

Here are the final proportions of each solution compared to the nation-wide popular vote:

	Popular vote nation-wide	Solution 1			Solution 2			Solution 3		
		Seat#	Seat%	Diff.	Seat#	Seat%	Diff.	Seat#	Seat%	Diff.
<b>Liberal</b>	39.79%	134	39.64%	-0.15%	137	40.16%	+0.37%	137	40.53%	+0.74%
<b>Conservative</b>	32.17%	109	32.24%	+0.07%	109	31.96%	-0.21%	108	31.95%	-0.22%
<b>NDP</b>	19.89%	67	19.82%	-0.07%	67	19.65%	-0.24%	67	19.82%	-0.07%
<b>Green</b>	3.46%	12	3.55%	+0.09%	12	3.52%	+0.06%	11	3.25%	-0.21%
<b>Bloc</b>	4.7%	16	4.73%	+0.03%	16	4.69%	-0.01%	15	4.44%	-0.26%
<b>Total Seats:</b>		338			341			338		

Solution 1 by far achieves the most proportionality, but the switching of regional top-up seats could prove tricky in tighter elections. Solution 2 is less proportional than 1, and requires extra seats, a convention that would be very unfamiliar to Canadians. Solution 3 is the least proportional but is the easiest solution to implement.

The final step is allocating the regional top-up seats to an MP. This is quite simple, we just take the candidates that got the most votes for their party in each province. This is the "near-winner" aspect of the system, the part that ensures every candidate had to run somewhere and is not just on a list.

### Conclusions:

After much research and analysis, the Near-Winner Proportional system is superior in every way, and easily applicable to Canada. It's simplicity at the ballot box and the highly proportional results are its greatest strengths. No matter which version of solution is chosen, the results are still much more equitable than any other system. I hope you agree, I will soon be producing a video animation of this report detailing how it would work. Please give this serious consideration, I have spent many hours studying many systems and once I stumbled upon this one everything clicked.

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