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Electoral Bias in Quebec Since 1936

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Abstract

In the period since 1936, Quebec has gone through two eras of party politics, the first between the Liberals and the Union Nationale, the second and ongoing era between the Liberals and the Parti Québécois. This study examines elections in Quebec in terms of all relevant types of electoral bias. In both eras the overall electoral bias has clearly been against the Liberal Party. The nature of this bias has changed however. Malapportionment was crucial through 1970 and of minimal importance since the 1972 redistribution. In contrast gerrymandering, ultimately involving an 'equivalent to gerrymandering effect' due to the geographic nature of Liberal core support, has been not only a permanent phenomenon but indeed since 1972 the dominant effect. The one election where both gerrymandering and the overall bias were pro-Liberal — 1989 — is shown to be the 'exception that proves the rule'. Finally, the erratic extent of electoral bias in the past four decades is shown to arise from very uneven patterns of swing in Quebec.

Introduction

In common with other jurisdictions using the single-member plurality electoral system, elections results in the province of Quebec tend to be disproportionate. This can be seen in Table 1, which provides some summary measures on elections since 1936 — the time period of this analysis. Average disproportionality over this period has been quite high at 20.19 percent. This has almost entirely been in favour of the winning party, with the average seat bias of the largest party being 19.65 percent. Indeed, in every election from 1936 to 1998 the largest party was the only party to receive more seats than what would have been merited based on pure vote proportionality. This high seat bias of the largest party since 1936 reflects an average seat share of the largest party of 67.48 percent versus an average vote share of 47.82 percent. Not surprisingly, then, whereas all but one of the twenty elections since 1936 has resulted in a single

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party majority government, ten of these have been manufactured majorities — including the most recent election of 2008.

TABLE 1: QUEBEC ELECTIONS SINCE 1936 SUMMARY STATISTICS

Election	DISP	SBL	1PSC	1PVC	ED
1936	27.56	27.56	84.44	56.88	EM
1939	27.35	27.35	81.40	54.05	EM
1944	14.73	14.73	52.75	38.02	MM
1948	37.89	37.89	89.13	51.24	EM
1952	23.41	23.41	73.91	50.50	EM
1956	25.62	25.62	77.42	51.80	EM
1960	2.30	2.30	53.68	51.38	EM
1962	9.92	9.92	66.32	56.40	EM
1966	11.03	11.03	51.85	40.82	MM
1970	21.27	21.27	66.67	45.40	MM
1973	38.08	38.08	92.73	54.65	EM
1976	23.18	23.18	64.55	41.37	MM
1981	16.31	16.31	65.57	49.26	MM
1985	25.16	25.16	81.15	55.99	EM
1989	23.65	23.65	73.60	49.95	MM
1994	16.85	16.85	61.60	44.75	MM
1998	17.93	17.93	60.80	42.87	MM
2003	17.56	14.81	60.80	45.99	MM
2007	7.73	5.32	38.40	33.08	НР
2008	16.35	10.72	52.80	42.08	MM

DISP = Overall Disproportionality (Loosemore-Hanby Index)

SBL = Seat Bias in Favour of the Largest Party in Terms of Seats

1PSC = One-Party Seat Concentration (seat percentage of the leading party in terms of seats)

1PVC = One-Party Vote Concentration (vote percentage of this party)

ED = Electoral Decisiveness: EM = earned majority; MM = manufactured majority; HP = hung parliament

If elections have been biased in favour of the largest party in Quebec, then conversely they must be biased against other parties. Certainly third and smaller parties in Quebec have normally been "losers" in terms of the electoral system, receiving a lot fewer seats than merited by their vote shares. This has been true for example for the Bloc Populaire in 1944, the Créditistes in 1973 and 1976, 1 the ADQ in most recent elections, and these days for Québec solidaire and the Greens. Of course, none of these points — disproportionate results, bias in favour of the winning party, manufactured majorities, and third and smaller parties losing out in terms of seats — are in any way unique to Quebec.

What has been unique to Quebec (and thus what has made its single member plurality electoral system even more problematic), though, has been ongoing bias for the past several decades against one of its two main parties — specifically the Liberal Party of Quebec.² Such "anti-Liberal" results were seen historically as resulting from pro-rural malapportionment, but nowadays are attributed to a "linguistic gerrymander" (Massicotte, 1995) resulting from the concentration of the province's English-speaking minority in relatively few constituencies.

This study will rigorously assess the evolution of electoral bias in Quebec using the methodology of Johnston, Pattie, Dorling, and Rossiter (2001), who define net electoral bias as the seat difference that would occur if the two main parties were to win an equal share of the vote, and then disaggregate or "decompose" this overall bias for the United Kingdom into such specific effects as malapportionment, gerrymandering, abstentions, third party votes, and third party wins (seat victories). The methodology used in their recent analysis, as they note, actually goes back to Brookes' work on New Zealand — a methodology which was designed for two-party single-member system elections. Consequently, in this paper the detailed analysis will begin with the 1936 Quebec elections since those elections ushered in a period of effectively two-party competition between the Liberals and the Union Nationale (which was replaced in 1973 with a two-party competition between the Liberals and the Parti Québécois). First, however, a general overview of post-Confederation party politics in Quebec is given. Then I shall examine and disaggregate the patterns of electoral bias from 1936 through 2008, including the atypical elections of 1989. Finally I shall discuss problems of electoral bias and especially swing with regards to Quebec.

The Evolution of the Quebec Party System

The party system in Quebec has gone through perhaps four stages. In the first two periods, competition was between the Conservatives and the Liberals. In the first period, going from 1867 through the start of the 1900s, provincial politics was driven more by reactions to federal leaders and policies — the role of George-Étienne Cartier as John A. Macdonald's Quebec lieutenant, the hanging of Louis Riel, and the coming to national power of Wilfred Laurier as the country's first French-Canadian prime minister (Dyck, 1996: 245-247). In the second period, from the start of the twentieth century through the early 1930s, the two parties remained the same, but now the Liberals were dominant, and the issues were more clearly provincial — specifically, the Liberals' policies of industrialization and openness to English-speaking capital. In contrast, national elements, the Catholic Church, and the Conservative Party all wanted emphasis placed on agriculture. During this period, the Liberals relied extensively on patronage, and were not above committing electoral fraud (Dyck, 1996: 247-250).

With the onset of the Depression, younger, more leftist, and more nationalist Liberals left the party to form the reformist Action Libérale Nationale (ALN) under Paul Gouin. During the 1935 elections the Conservative leader, Maurice Duplessis, formed an electoral coalition with Gouin and the ALN. Consequently, in said elections, the Liberals barely held their majority, with the ALN (rather than the Conservatives) coming second in both votes and seats. By the subsequent elections of 1936 this electoral coalition had evolved into a more or less unified party called the

Union Nationale which was led to victory by Duplessis (Gouin having quit just beforehand). The 1936 elections thus ushered in the third period of Quebec electoral politics: that of effectively a two-party competition between the Union Nationale (UN) and the Liberals — with the former the more dominant force, although both parties (and only these) would form governments. Duplessis and the Union Nationale would in fact continue with the Liberal policies of encouraging industrialization and capital inflows (and providing local patronage), but he also sought to aid and develop agricultural areas, had close ties to the church, and was very nationalistic. Thus rural, religious, and/or nationalist voters formed the core of UN support. In contrast, the Liberals were relatively stronger in urban areas, which certainly benefited when they sought to modernize the province in the Quiet Revolution of the 1960s (Dyck, 1996: 250-260).

By the late 1960s, however, language issues would become politicized (Stevenson, 1999: chapter 4), leading ultimately to the creation of the sovereigntist Parti Québécois (PQ), which would in fact come second in terms of the popular vote in the 1970 elections. However, the Union Nationale was still the second largest party in terms of seats in 1970, thus those elections should be seen as the last of the Liberal versus Union Nationale era (even if 1970 had clear multiparty elements). Since 1973, then, Quebec politics has thus centred around two-party competition between the Liberals and the PQ, based on a federalist versus sovereigntist ideological divide. In the 2007 election, though, there was true three-party competition involving the Action Démocratique du Québec (ADQ) as well. At the time, the rise of the ADQ might have seemed to usher in a realignment in which it would replace the PQ as the nationalist pole of Quebec politics. This would have been a reoccurrence of the historical generational realignment in Quebec "wherein a new nationalist party arises every thirty-five years to replace the previous one, leading each time to a restoration of [its] classic two-party system" (Pinard, 2003: 7). However, the ADQ would implode in the 2008 election, whereupon its founder Mario Dumont would guit politics (and the party would lose his seat to the Liberals in a by-election). As Bélanger (2009: 98) notes, it remains to be seen whether the ADQ will even survive as a party. In summary, then, the ADQ's surge into second place in 2007 was due more to the short term phenomenon of being able to offer populist conservative policies on family issues and other matters in the context of a low salience of constitutional issues (the 'national question') and dissatisfaction with the performance and/or leadership of both the PLQ and the PQ (Bélanger, 2008: 75-76). The two-party nature of Quebec politics was thus temporarily bent but not broken. Consequently, we can say that all four periods of Quebec electoral history have involved two-party competition (except for transitional elections and 2007) and that the Liberals have consistently been one of these two parties.

Electoral Bias in Quebec Since 1936

From the point of view of electoral politics, what has been perhaps the most interesting phenomenon of the last two periods in Quebec (and only these) — and the focus of the rest of this paper — has been the sense that the Liberal party has been prejudiced by Quebec's use of the single-member plurality electoral system. This pattern has been most striking in the elections of 1944, 1966, and 1998: in each of these elections the Liberals led in the popular vote

but their main opponent not only won more seats but in fact won a majority. Table 2 thus shows this in a summary of Quebec election results since 1936 for the two main parties (the left half of the table). One can also see that a similar "spurious majority" or "wrong winner" almost occurred in 1994.

As noted, in a two-party system one can calculate the total (net) bias by estimating the seats that would be won if the two main parties each won the same share of the vote. Specifically, this is calculated by taking the difference in votes between the two parties and dividing this in half, thus equalizing the vote shares of the two parties at their joint average. For example, if party A gets 50 percent of the vote and party B 42 percent, the average of these two parties and thus their equalized vote share is 46 percent. The amount of change to produce this average (in the aforementioned example, minus 4 percent for party A and plus 4 percent for party B) is then applied to each and every constituency. One then determines the number of seats won by each party under such a simulation. Table 2 (on the right side) thus does this for all Quebec elections since 1936. As can be seen in the final column of Table 2, there has generally been a substantive seat bias against the Liberals.

The standard explanation of such bias in the third era (Liberals versus Union Nationale) is that of electoral malapportionment, which disadvantaged the Liberal-leaning urban areas and advantaged the UN-leaning rural ones (Massicotte and Bernard, 1985: 234). Actually, in the first elections of this era, those of 1936, there was (still) an electoral bias very clearly in favour of the Liberals. This should not be surprising, inasmuch as the elections were fought on the electoral map of 1930, which Massicotte and Bernard (1985: 82) describe as particularly "partisan". The Liberal-produced map clearly favoured their strongest areas, especially the Lower South Shore, but also the South East (the Eastern Townships) and the Outaouais. In contrast, the Union Nationale government presided over the creation of an electoral map in (pre-election) 1939 that was seen as quite non-partisan, especially for its era (Massicotte and Bernard, 1985: 83). That said, the 1939 map still favoured rural areas as a whole compared to urban ones. Such an imbalance would continue for decades. Indeed, although the Liberal government of Jean Lesage effected a major reform to the electoral map in 1965, which resulted in the National Assembly going from 95 seats to 108, this reform did not end the clear overrepresentation of rural areas. Such a reform would come a few years later, however, in 1972 under a different Liberal government — and by that point via an independent and permanent electoral commission (Massicotte and Bernard, 1985: 100-103, 125ff.).

Thus by the start of the fourth electoral period, malapportionment had finally been tackled. Yet electoral bias still remained. This has been attributed by Massicotte to what he calls an "ethnic gerrymander", in the sense that the overwhelming support of geographically-concentrated English-speakers for the Liberal party meant that they have produced many huge majorities (and surplus votes) in these constituencies whereas the PQ tends to win their (French-speaking) constituencies with fewer surplus votes (Massicotte and Bernard, 1985: 219-227; Massicotte, 1995; Massicotte, 2000: 6-7). Note that Massicotte (2001) in no way implies that this has been "classical" gerrymandering in the sense of intentionally drawing constituency boundaries to (dis)favour a certain party.

TABLE 2: QUEBEC ELECTIONS SINCE 1936 TWO MAIN PARTIES SUMMARY RESULTS

Election	Liberal Vote %	UN / PQ Vote %	Liberal Seats	UN / PQ Seats	other seats	Total Seats	Equalized Vote % of Liberals and UN / PQ	Liberal Seats	Consequ ent UN / PQ Seats	other seats	Net Two- Party Electoral Bias (with respect to the Liberals)
											,
		UN		UN					UN		
1936	39.41	56.88	14	76	0	90	48.14	57	33	0	24
1939	54.05	39.13	70	15	1	86	46.59	31	54	1	-23
1944	39.35	38.02	37	48	6	91	38.68	35	50	6	-15
1948	36.17	51.24	8	82	2	92	43.70	40	50	2	-10
1952	45.77	50.50	23	68	1	92	48.14	31	60	1	-29
1956	44.87	51.80	20	72	1	93	48.34	34	58	1	-24
1960	51.38	46.61	51	43	1	95	49.00	31	63	1	-32
1962	56.40	42.15	63	31	1	95	49.28	26	68	1	-42
1966	47.29	40.82	50	56	2	108	44.05	35	71	2	-36
1970	45.40	19.65	72	17	19	108	32.53	27	58	23	-31
		PQ		PQ					PQ		
1973	54.65	30.22	102	6	2	110	42.44	52	54	4	-2
1976	33.78	41.37	26	71	13	110	37.57	41	59	10	-18
1981	46.08	49.26	42	80	0	122	47.67	48	74	0	-26
1985	55.99	38.69	99	23	0	122	47.34	53	69	0	-16
1989	49.95	40.16	92	29	4	125	45.06	64	55	4	9
1994	44.40	44.75	47	77	1	125	44.57	47	77	1	-30
1998	43.55	42.87	48	76	1	125	43.21	43	81	1	-38
2003	45.99	33.24	76	45	4	125	39.62	51	66	8	-15
2007	33.08	28.35	48	36	41	125	30.72	42	41	42	1
2008	42.08	35.17	66	51	8	125	38.63	55	59	11	-4

Disaggregating Electoral Bias and Applying This to Quebec

The earliest analyses of electoral bias were those of Butler on the United Kingdom (Butler, 1947; Butler, 1951; and subsequent books by Butler with others) and Soper and Rydon (1958) on Australia. These analyses were basically concerned with explaining electoral bias as arising from the excessive geographical concentration of one party's votes (the respective Labour parties) rather than variations in the size of constituencies. More comprehensive analysis — that is, going beyond just gerrymandering (or its equivalent) and malapportionment to include other factors — would be done by the New Zealand political scientist Ralph Brookes (1959; 1960).

Brookes' approach has become the standard, most notably in the thorough analyses of postwar electoral bias in the United Kingdom produced by a group of British scholars (Rossiter et al.,

1999; Johnston et al., 2001). Not only do they analyse British politics in terms of net electoral bias (which, incidentally, has shifted from favouring the Conservatives to favouring Labour), but they also "decompose" the bias into various key components. Of these, five types of bias are relevant for our purposes.³ The first type of bias is malapportionment, in terms of the differences in the average size of the electorates in the constituencies won by each party. The second type of bias is gerrymandering: As they note, this does not necessarily mean intentional (classical) gerrymandering, but simply differences in the relative efficiencies of a party's geographic vote distribution (in terms of effective versus wasted or surplus votes)4 which has the effect of producing results which are the "equivalent to gerrymandering" (Johnston et al., 2001: 93). In other words, party A can have an inefficient distribution of its voters (such that, at the extreme, it either wins seats handily or loses them narrowly) even if party B did not draw up the electoral map. The third type of bias (in our sequence) is abstentions, for these reduce the total number of votes needed to win a given seat; consequently, a party that win seats in areas with low(er) turnout needs fewer votes to win seats than a party that wins seats in areas with high(er) turnout. The fourth type of bias is third party votes, that is, votes for all other parties besides the main two overall. These have the same effect as abstentions in reducing the number of votes needed to win a seat; the parallel issue is thus whether third party votes are concentrated in the area(s) where one or other of the main parties wins. The fifth and final type of bias is third party wins, or seat victories. Should a third party actually win a seat, this can be seen to come at the expense of the major party which otherwise would have won. This effect is attributed to whichever main party led the other main party in the constituency — with the former most likely also being the runner-up in the constituency (Johnston et al., 2001: 93-95).⁶

Johnston et al. have provided the formulae for their calculations, which are reproduced here in an Appendix. Following their formulae, calculations were made for each of the five bias effects for each Quebec election since 1936. The results are shown in Table 3. What do these data show? First of all, in the era of Liberal versus Union Nationale competition (or at least from 1936 onwards), there was almost always a malapportionment bias against the Liberals. This peaked in the 1962 elections, confirming the finding of Massicotte and Bernard (1985: 234). However, there was also a continual (equivalent to) gerrymandering bias against the Liberals; that is, their votes were never as efficiently distributed as those of the Union Nationale. Moreover, it was this gerrymandering effect — and not malapportionment — which caused the Liberals to lose the 1966 elections despite a healthy lead in the popular vote. On the other hand, from 1939 onwards the Liberals benefited from an abstention bias, in that abstentions were on average higher in seats won by the Liberals than in seats won by the Union Nationale. As for the bias effect of third party votes, at times this favoured the Liberals (1952, 1966), at times this favoured the Union Nationale (especially 1970), and at times this showed no overall bias in terms of the two main parties. In any case, however, such effects were usually quite small. Similar points can be made about the third party wins (seats) effect of electoral bias.

Turning to the era since 1973, that is, the era of competition between the Liberals and the Parti Québécois, one sees that here the malapportionment effect has indeed dropped to modest levels. Moreover, this effect actually favoured the Liberals in the first four elections starting in 1973 (especially in 1973 and 1976).

TABLE 3: COMPONENTS OF ELECTORAL BIAS IN QUEBEC SINCE 1936

(a positive value is pro-Liberal; a negative value is anti-Liberal)

versus UN:		1936	1939	1944	1948	1952	1956	1960	1962	1966	1970
net bias		24	-23	-15	-10	-29	-24	-32	-42	-36	-31
specific effec	ts of:										
	malapportionment	29	-16	-12	5	-18	-11	-21	-38	-13	-19
	gerrymandering	4	-11	-14	-17	-19	-19	-13	-8	-32	-8
	abstentions	-7	4	8	4	6	6	3	6	6	1
	third party votes	-1	0	-1	-1	2	0	0	0	2	-5
	third party wins	0	-1	2	-2	-1	-1	-1	-1	0	1
versus PQ:		1973	1976	1981	1985	1989	1994	1998	2003	2007	2008
versus PQ:		1973	1976	1981	1985	1989	1994	1998	2003	2007	2008
versus PQ:		1973 -2	1976 -18	1981 -26	1985 -16	1989 9	1994 -30	1998 -38	2003 -15	2007	2008 -4
	ts of:										
net bias	ts of: malapportionment										
net bias	-	-2	-18	-26	-16	9	-30	-38	-15	1	-4
net bias	malapportionment	-2 5	-18 7	-26 3	-16 1	9	-30 1	-38 -1	-15 -4	1 -2	-4 -1
net bias	malapportionment gerrymandering	-2 5 -12	-18 7 -28	-26 3 -30	-16 1 -19	9 0 9	-30 1 -28	-38 -1 -35	-15 -4 -8	-2 -11	-4 -1 -3

Note: The specific effects do not add up to the overall net bias since the (modest) interaction effects are excluded.

However, malapportionment now does appear to be biased against the Liberals again — although nothing on the level of the pre-1972 period. Turning to (the equivalent to) gerrymandering, that is, vote (in) efficiency, one sees that with the exception of 1989 (explained below), this effect is consistently anti-Liberal. Moreover, in absolute values it was always the single strongest bias effect through 2007. The abstentions effect continues to favour the Liberals (or at worst not disfavour them); however, the effect has been weaker in this era in terms of seats than it was versus the Union Nationale. That said, the pro-Liberal abstentions effect has increased steadily in the last four elections. Finally, the direct effect of third parties has often been fairly important, specifically in 1976 with the Union Nationale (by then a "third party"), in 1989 with the Equality Party, and since 1998 with the ADQ. Interestingly, the effects in 1976 and 1989 were at cross-purposes; that is, the seats won by the Union Nationale and later the Equality Party came at the expense of the Liberals, however the overall *votes* won by (primarily) these two parties meant that the Liberals could win seats with fewer voters than otherwise. Overall, then, the third party votes effect and the third party wins effect actually cancelled each other out both times.

What, though, of the effect of third parties (effectively the ADQ) in the past few elections? Through 2007, the third party vote bias here has been consistently — albeit modestly — against the Liberals. In contrast, the nature of the third party seat bias has fluctuated. In particular, in 2007 it was strongly pro-Liberal; that is, the seat victories (and overall second place finish) of the ADQ came more at the expense of the PQ than the PLQ. Indeed, this pro-Liberal third party seat bias basically cancelled out the anti-Liberal gerrymandering effect in that election. In 2008, though, the overall third party seat effect was strongly anti-Liberal, and indeed was the strongest bias effect of this election.

The Atypical Outcome of 1989

As noted, the 1989 election saw a net bias in favour of the Liberals; moreover, this result came from a pro-Liberal bias in the gerrymandering effect. Massicotte (1995, pp. 235-238) refers to this election as involving a temporary "eclipse" of the anti-Liberal linguistic gerrymander; indeed, one could go further and stress the positive overall gerrymander enjoyed by the Liberals. These patterns arose because of Anglophone opposition to Bill 101, the province's pro-French language law. In December 1988, the Supreme Court of Canada declared aspects of the language law to be in violation of both the Canadian and Quebec Charters of Rights. As a result of this decision, the provincial Liberal government of Robert Bourassa brought in a new language law which was still pro-French, and secured this by invoking the "notwithstanding" clauses of the Charters. In the Spring of 1989 disaffected English Quebeckers — and by "English" one means here ethnicity and not just language (that is, Anglophones and not Allophones) — thus formed the Equality Party in protest.

Consequently, in the 1989 election what had been — and would soon be again — Liberal fortresses on the West Island of Montreal were transformed into competitive constituencies, with the Equality Party winning four of these (out of a total of 19 candidates) and the Liberal majorities being sharply reduced in the rest. (As an aside, with 3.7 percent of the popular vote, the Equality Party in fact achieved a proportionate outcome overall.) There was thus no longer a great surplus of Liberal votes in these constituencies. On the other hand, the Liberals remained popular with Francophone voters. Overall, then, the Liberal Party in 1989 effected a temporarily "balanced" distribution of support in terms of the province's ethnic communities, thus making for a "favourable gerrymander" — that is, an efficient distribution of its votes. However, the Equality Party did not last; thus in the 1994 provincial election the linguistic gerrymander returned and has remained.

Some Problems in the Electoral Bias Model When Applied To Quebec

Although Quebec since 1936 has the key prerequisite for the aforementioned statistical analysis of electoral bias, that is, a single-member two-party system, 2007 excepted (or more precisely two such party systems in sequence), the overall patterns seem somewhat problematic, especially in the Liberal versus Parti Québécois era. First of all, whereas Johnston et al. show a reasonably stable long term trend in United Kingdom electoral bias, the pattern in Quebec is much more erratic — note to this end the net bias values, but even more the gerrymandering effect in Table 3 (which, to repeat, has been the key effect since 1973). If the issue here were simply the 1989 elections, then one could just note the analysis of the previous section. However, ebbs and flows in the gerrymandering effect have occurred throughout this period.

Some sense of this zigzag pattern comes to light, though, when we note that the four elections since 1973 with the highest absolute gerrymandering effect — 1998, 1981, 1976, and 1994 — were all elections lost by the Liberals and conversely won by the Parti Québécois. In contrast, in the six elections won by the Liberals — in chronological order, 1973, 1985, 1989, 2003, 2007, and 2008 — the gerrymandering effect was much smaller, and indeed marginal in 2008. Specifically, the average anti-Liberal gerrymandering bias was 30.25 in the first set of elections but only 7.33 in the second set. A t-test here between these two sets of elections (with equal variances not assumed) yields a value of 5.405, which is significant at the .001 level. In other words, in elections won by the Liberals but for which the vote share is equalized, their resulting vote distribution is significantly more efficient than in elections which they lose. This may or may not seem obvious, but either way it suggests a potential "chicken and egg" problem.

Let us suggest that the variations here can be resolved by looking at *actual* swing — the second and more critical problem here. Of course, this is overwhelmingly easier when the constituencies remain the same. Thus for this purpose we shall make a comparison between the 1981 and 1985 elections. Granted the change here in gerrymandering bias (from -30 to -19) was not as high as in other examples, but the electoral map remained the same and, moreover, third parties were irrelevant in each case. (That is, as the data in Table 2 show, the Liberals and the PQ together got about 95 percent of the vote in each election.) Furthermore, the increase in the Liberal vote percentage from 1981 to 1985 (9.91 percent) and the decrease in the PQ vote percentage from 1981 to 1985 (10.57 percent) are almost exactly the same, which surely is the sense of swing. (Such a mutual cancelling-out of vote shifts certainly did not occur between 1998 and 2003, for example.) The issue thus becomes whether the swing was consistent across the province. As Johnston et al. (2001: 9) note:

[In calculating bias,] we shift votes uniformly from one party to another across all constituencies, much as the pundits do on election night when talking about 'uniform swing'. Swing is never entirely uniform of course with variations in its extent (though rarely its direction) across constituencies, but this procedure provides us with a very useful benchmark. It says that if the geography of support for the two parties remained the same, i.e. they remained relatively strong in the same places, etc., but the overall level of support changed somewhat, being increased for one and decreased for the other by the same relative amount in every constituency, this is what the result would be.

In this approach Johnston et al. are consistent with the groundbreaking work on swing of Butler and Stokes (1969: 304), whose empirical observation of postwar Britain led them to emphasise the uniformity of swing, specifically that: "the fraction of the total vote changing hands has been remarkably similar in Conservative and Labour seats, whether safe or marginal". That said, as Blau (2004: 442) notes, the reality of uniform swing in Britain "has weakened in recent years". Nevertheless, even he states that "it is usually a satisfactory assumption".

It is not, however, a satisfactory assumption for Quebec. Specifically, the variations in the extent of swing were most definitely <u>not</u> uniform across Quebec from 1981 to 1985. The Liberal vote percentage increased on average by 10.23 percent across the 122 constituencies. (This value is slightly different from the provincial change of 9.91 percent since there was some variation in constituency size.) Yet in the seats which the Liberals had won in 1981, their vote percentage only went up 7.03 percent on average. Indeed, in the seven (predominantly-

Anglophone/Allophone West Montreal) constituencies in which the Liberal vote percentage was the greatest in 1981, said Liberal vote percentage actually *fell* on average, even if only by 0.62 percent. In contrast, in the seats which the PQ had won in 1981, the Liberal vote percentage went up 11.91 percent on average. Moreover, if one examines the three regions (swing areas) of the Upper North Shore, Metro Quebec, and the Lower South Shore — collectively comprising 30 seats — the Liberal vote percentage increased 14.85 percent on average. Consequently, where the Liberals only won 5 of these 30 seats in 1981 (and thus had many wasted votes) they won 26 of them in 1985. Overall, then, the correlation between the Liberal vote percentage in 1981 and the change in Liberal vote percentage from 1981 to 1985 was a robust -0.637. In other words, the weaker the Liberals were in 1981, the more their vote percentage increased between 1981 and 1985. This certainly demonstrated greater efficiency, but it hardly was a case of uniform swing. Such a pattern also occurred from 1998 to 2003, although here the swing was produced essentially by declining PQ support. In summary, then, we must emphasize that uneven swing has usually been an important component of Quebec elections.

[Of course, such uneven swing may involve *more* anti-Liberal bias, not less. For example, this occurred in 1962. One can see in Table 3 the sharp jump in malapportionment bias between 1960 and 1962 — two elections fought on the same electoral map. The 1962 elections saw Liberal vote gains particularly in (underrepresented) Montreal, and indeed a correlation between the Liberal increase (in percentage terms) from 1960 to 1962 and the registered electorate in the constituency in 1960 gives a value of 0.508.)]

Conclusions

Overall electoral bias, if not indeed strong electoral bias, has been a feature of almost every Quebec election since 1936, with the exceptions of 1973 and 2007. This bias has almost always been against the Liberal Party of Quebec, with the one exception here being the atypical elections of 1989. For a generation, when the competition was between the Liberals and the Union Nationale, much of this bias was due to malapportionment; however, since the 1972 redistribution malapportionment has not been a significant factor. What has remained significant in the province has been the "linguistic gerrymander", an "equivalent to gerrymandering" effect. Barring a change to Quebec's electoral system, another Anglophone-focused party as in 1989, or a serious splitting of the sovereigntist vote this pattern of bias will remain, as the Liberals will continue to have an inefficient distribution of votes while their main rival (be this the PQ or someone else in the future) will continue to have a more efficient distribution of votes and thus still be able to win spurious majorities.

That said, one must also stress the seemingly-erratic extent of electoral bias in Quebec, especially since the 1970s. This movement has been shown to relate to the very uneven patterns of swing in the province, whereby when the Liberals gain support they gain it disproportionally where they need it most (where this will gain them seats) rather than in their strongholds. Ironically, then, Liberal "efficiency" in this narrow sense of the term has led the party to victory and will presumably do so again in the future, even if overall its distribution of votes has almost always been inefficient.

Appendix: Calculation of Bias Components

Assuming equalized vote shares, then consequently let:

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x = number of seats won by party A (Liberals);
y = number of seats won by party B (Union Nationale through
          1970, Parti Québécois since 1973);
b = \text{number of seats where party A leads party B } [A > B];
f = \text{number of seats where party B leads party A } [B > A];
P = average number of combined votes in seats where A > B;
Q = average number of combined votes in seats where B > A;
R = average registered electorate in seats where A > B;
S = average registered electorate in seats where B > A;
C = average number of abstentions in seats where A > B;
D = average number of abstentions in seats where B > A;
U = average number of minor party votes in seats where A > B;
V = average number of minor party votes in seats where B > A;
G
         = the gerrymander effect;
CSV
         = constituency size variations,
                  that is, the malapportionment effect;
         = the abstentions effect;
Α
TPV
         = the third party votes effect;
TPW
         = the third party wins (victories) effect;
G
         = [{f(Pb/Qf-1)} - {b(Qf/Pb-1)}] / 2
         = [{f(S/R-1)} - {b(R/S-1)}] / 2
CSV
Α
         = [f\{(R/(R-C))\{(C/R)-(D/S)\}\} - b\{(S/(S-D))\{(D/S)-(C/R)\}\}] / 2
TPV
         = [f\{(R/(R-U))\{(U/R)-(V/S)\}\} - b\{(S/(S-V))\{(V/S)-(U/R)\}\}] / 2
TPW
         = (x - b) - (y - f)
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Source: Johnston et al., 2001: 229-230 (Appendix), as applied to Quebec

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Endnotes

- However, in 1970 the Créditistes did receive a proportionate result (12 of 108 seats on 11.2 percent of the vote).
- Certainly there has been electoral bias against main parties in other provinces the Saskatchewan NDP in the 1980s quite clearly for example but none of these situations has existed for several decades the way it has in Quebec.

- Johnston et al. also calculate the bias due to the national quotas for England, Scotland, and Wales, which is irrelevant for analysing Quebec but which would be necessary for disaggregating electoral bias in Canada as a whole.
- For any party in a given election, one can distinguish three types of votes: first there are *effective votes*, which are those needed (but no more) to win a seat; in other words for each seat actually won, the number of votes for the second-place party plus one. Next there are *surplus votes*, which are all the votes above and beyond the effective votes for each seat won. Logically, if every voter casting a surplus vote for a party had stayed home, that party still would have won the seat. Finally there are *wasted votes*, which are all the votes cast in constituencies where the party did not win the seat. Obviously, these also contribute nothing to a party's overall seat total (Johnston et al., 2001: 13).
- 5. Earlier Johnston (1976: 312) had used the notion of "unintentional gerrymandering".
- Note that they consider these last three types of bias to involve reactive malapportionment, that is, effects equivalent to malapportionment, since presumably one of the major parties will disproportionately win the seats which require fewer votes to win.
- These were the constituencies of D'Arcy McGee, Notre-Dame-de-Grâce, Mont-Royal, Jacques Cartier, Westmount, Robert Baldwin, and Nelligan. Of course, in D'Arcy McGee at least, where the Liberal vote percentage in 1981 was 92 percent, there obviously was not much room for improvement!
- Indeed, the first Liberal government of Jean Charest went as far as producing draft legislation in December 2004 recommending a change to regional mixed-member proportional representation (MMP). This recommendation followed its pledge made in opposition prior to the 2003 elections (Cross, 2005, p. 77). The proposed system would have involved MMP in very small districts (no more than five seats in total) so it would not be fully proportional for smaller parties but it would largely eliminate the anti-Liberal bias. That said, as of writing the Liberals have never bothered to implement this.