

# **An Ecological Analysis of One Party Dominance in Alberta<sup>1</sup>**

**by**

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On November 22, 2004, Alberta premier Ralph Klein led his Progressive Conservative (PC) party to its tenth consecutive majority government. With this victory, the PCs surpassed the Social Credit government's record of nine consecutive majorities. During this term in office, the Conservative government will almost certainly eclipse the Social Credit record of thirty-six consecutive years in power. As Alberta enters its second century in Confederation, the Progressive Conservative party is poised to emerge as the pre-eminent political dynasty in Alberta's history, if not in the history of Canadian provincial politics.

To emerge as the pre-eminent political dynasty in a province known for its political dynasties is no small accomplishment. The pattern of Alberta party politics is well known. Albertans tend to elect one party multiple times with significant majorities. At some point, that party is defeated, replaced by another dynasty, and never returns to power again. Thus, the province's political history can be divided into four periods: the Liberal dynasty (1905-1921), the UFA (1921-1935), Social Credit (1935-1971), and the current Conservative dynasty (1971-present).

The tendency of Albertans to support the same party repeatedly and in large numbers is perhaps the central question in the study of Alberta politics. It is a safe generalization to say that more has been written about this aspect of Alberta's political system than any other. One of the problems that this literature has faced is a lack of evidence about the pattern of political behaviour that underlies this distinctive party system. This paper will bring a form of analysis not yet marshaled in the debate – ecological analysis – through a look at constituency-level patterns of party support in the 2004 provincial election.

### **The Puzzle of Alberta's Party System**

Descriptions of the unique nature of Alberta's party politics are not difficult to find in the literature on electoral systems. The two major articles that classify provincial party systems place Alberta in a category apart from the other provinces. Carty and Stewart (1996: 78) describe Alberta as the only example of a "one-party dominant system" and McCormick (1996: 368) places Alberta as the only entrant in the "one-party/noncompetitive/unstable" category.

Although there is some question about whether Alberta's pattern of party competition is unique (McCormick, 1980; Jansen, 2004), the real debate is over the explanation for the pattern of single-member dominance. The classic explanation was provided by C.B. Macpherson in his 1953 book, *Democracy in Alberta*. Describing Alberta as a "quasi-party system" (1962: 237-239), Macpherson argued that this distinct form of politics was the result of two important characteristics: the dominance of "independent commodity producers" and Alberta's "quasi-colonial relationship" with the central government (1962: 21). Of particular concern for this paper is Macpherson's emphasis on "independent commodity producers." Macpherson argued that Alberta's

relatively homogenous social structure – the dominance of the *petite bourgeoisie* – led to the adoption of a quasi-party system to help the province fight its subordinate position in the national political economy (1962: 221-230).

Macpherson's central thesis has been challenged by many. Edward Bell has advanced the most trenchant critique of Macpherson's reasoning and evidence, pointing out that Alberta's class structure was not nearly as homogeneous as he made it out to be (1992: 93-94; 1993: 20-24). Furthermore, Bell points out that Macpherson provides little evidence that this class of independent commodity producers actually voted Social Credit (1992: 96; 1993: 24-26). Despite Bells' withering critique, Macpherson's argument stands as one of the major explanations for the nature of Alberta's party system. Macpherson argues that social structure – particularly the class composition of the province – is critical to determining the nature of Alberta party politics.

Macpherson has certainly not gone unchallenged. Although Macpherson has several critics, each emphasizing different problems with the argument, the central thread of most of these criticisms is that in looking for structural explanations for the uniqueness of Alberta party politics, Macpherson overlooked more mundane explanations for single party dominance in Alberta. In contrast to Macpherson's class-based analysis, Smith (1972: 214-215) argues: "The achievement of power comes ... more directly from management of the vote by an efficient machine, from long-term public attachment to a leader, or from demagogic appeals that turn sudden changes of public feeling to partisan advantage." McCormick extends the argument further, suggesting that Alberta actually has a "no-party system" (1980: 93). Arguing that Albertans have not supported the dominant party "based upon a deep and abiding commitment to the party and to the ideology of the party," McCormick argues that Albertans are characterized by low levels of party identification, and hence display significant voter volatility (1980: 93). He suggests that Albertans are particularly influenced by leadership, that the defeat of Social Credit in 1971 was largely caused by the inability of Social Credit to find a leader to succeed Ernest Manning who could compete with Peter Lougheed (1980: 95-96). Archer (1992) largely echoes McCormick's analysis and extends it into the early 1990s, emphasizing the role of partisan instability and the importance of leadership. Pal (1992) also stresses the role of leadership, arguing that Alberta's politically successful premiers present themselves as being above the partisan fray. Pal stresses the importance of leaders building direct ties with the electorate and the critical role of local party organization in preserving this pattern of single party dominance (1992: 23).

These analyses all stress the importance of "political" explanations for single-party dominance. Instead of arguing that a particular social structure causes this pattern of single party dominance, these authors point to weak ties between Albertans and political parties and the skill of the leaders of dominant parties in creating the conditions for electoral success.

## Ecological Analysis

One of the problems in settling the debate over the causes of Alberta's party system is the lack of solid evidence. What is missing in particular is survey data on Albertans' voting behaviour, similar to that found in the Canadian Election Study (CES). When survey evidence is marshaled in the debate (e.g., Archer, 1992: 111), it is typically from the CES, but those data are obviously hampered by small sample sizes from Alberta. This lack of survey data is unfortunate, because this is exactly what is needed to answer some of the critical questions about the role of social classes, leaders, campaigns, and partisan attachment in Alberta election outcomes.

There is an alternative source of data that, although it cannot answer all of these questions, can still shed some light on the patterns of partisan support in Alberta. This alternative is ecological data. By using constituencies as our units of analysis, we can look for correlations between demographic characteristics of constituencies and patterns of partisan support that are either consistent or inconsistent with explanations of single party dominance in Canada.

Ecological analysis has certain strengths. Munroe Eagles, the most staunch proponent of ecological analysis of elections, objects to seeing aggregate data as an "inferior substitute for survey information based on individuals, as is often believed" (2002: 206). Given the continuing importance of geography to Canadian political organization (Eagles, 1990), there is a certain logic in using a regionally-defined unit of analysis. Furthermore, given declining response rates for surveys, ecological analysis provides a more complete picture of the potential electorate. This is particularly true in analyzing voter turnout, because surveys tend to over represent voters at the expense of non-voters (Eagles, 1991: 4-5).

These strengths are offset by two significant weaknesses. The first is the ecological fallacy problem. Given that elections are ultimately determined by the decisions of individual voters, ecological analysis is limited in that we cannot infer the behaviour of individual voters from constituency-level data. For example, if we find a correlation between the proportion of people belonging to a particular ethnic group and the level of support for a particular political party, we cannot infer that this means that members of this ethnic group voted for this party. Furthermore, ecological data are very useful for forming a complete picture of demographic data such as ethnicity, employment, and political party information, but attitudinal and behavioural data are often lacking. For example, there is no ecological data on the intensity and object of party identification.

In the case of analyzing Alberta's distinct pattern of political behaviour as a foundation for its party system, survey data would be preferable to ecological data. In the absence of these data, however, ecological data may provide some clues about the nature of this unusual party system. In this paper, then, we will look at the 2004 provincial general election, performing an ecological analysis of party support, using the 83 provincial constituencies as our units of analysis.

## The 2004 Election in Context

Before reporting on our analysis, it is useful to put the 2004 election in its context. Ralph Klein called the 2004 election only three and a half years into his mandate, ostensibly to avoid a campaign during Alberta's centennial celebrations in 2005. The eventual outcome of the election – another Conservative majority – was never in doubt, but there were questions about how large that majority would be. In the 2001 provincial election, the Conservatives had won a massive landslide with 62% of the vote and all but nine of the legislature's 83 seats. The Conservatives were hoping to duplicate that feat.

Standing in the way of the Conservatives were three major opposition parties. The Liberals had a new and relatively inexperienced leader in Kevin Taft, who had replaced former leader Ken Nicol after Nicol had left provincial politics to seek a seat with the federal Liberals. The NDP also had a new leader in MLA and former Edmonton city councilor Brian Mason. Both parties – and their Edmonton-based leaders – were pinning their hopes on the city of Edmonton. The fear for the opposition was that the Liberals and NDP would split the vote in Edmonton, allowing the Conservatives to retain their beachhead in the provincial capitol. In the rural parts of the province, the newly-formed Alberta Alliance was seeking to attract the support of those disgruntled with the Conservatives over issues of provincial rights and social conservatism. The Conservatives thus faced a two-pronged opposition attack, with the Alliance challenging from the right and the Liberals and NDP from the left.

The Conservatives ran a relatively blunder-filled and uninspired campaign, demonstrating little vision for the province's future. All of the opposition parties – but especially the Liberals – were successful with their modestly-funded campaigns. The Conservatives experienced a dramatic slide in the popular vote, attracting the support of only 47% of the electorate. The Conservatives were reduced to 62 seats and most of the losses came in Edmonton. Although they took only two per cent more of the vote, the Liberals managed to more than double their standing in the legislature winning sixteen seats.<sup>2</sup> Most encouraging for the Liberals is that their caucus was not limited to Edmonton. The Liberals managed to establish a small position in Calgary, winning three seats there, and they held Lethbridge East. The NDP increased their vote share only marginally, but managed to win four seats in the legislature, all in Edmonton. The major beneficiary of the Conservative slide in popular vote appeared to be the Alberta Alliance, which took nine per cent of the vote and managed to win the seat of Cardston-Taber-Warner, in the southwest corner of the province.

The other story on election night was the low voter turnout. Albertans has always been known for their low levels of voter participation in provincial elections, but they managed to outdo themselves in 2004. Less than 45% of the province's registered voters chose to vote. It is not clear what drove the turnout to this record low, nor is it clear from the aggregate data what effect this low turnout might have had on the results.

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<sup>2</sup> Initially, it looked as if the Liberals won 17 seats, but a series of recounts gave the seat of Edmonton Castledowns to the Conservatives.

The 2004 election thus turned out to be far more interesting than most observers of Alberta politics would have expected. Although the Conservatives won the election that would establish them as the pre-eminent political dynasty in Alberta's political history, they won a comparably feeble majority (by Alberta standards) and face a rejuvenated opposition. Given that Ralph Klein almost certainly fought his last election in 2004, and the centrality of Klein to the Conservative's electoral appeal, Alberta politics appears to be entering a period of change. An ecological analysis of this election thus helps to capture not only the dynamics of single party dominance in Alberta, but also provides a window into a party system that may be entering a period of transition.

## **Turnout**

Table 1 presents the results of a regression analysis using voter turnout in each electoral district as the dependent variable. The analysis uses Ordinary Least Squares regression; statistical significance is not reported because we are analyzing population, not sample, data.

The findings reported in Table 1 confirm expectations about patterns of turnout. Turnout is increased in districts with well-educated, stable populations and is lower in districts with more mobile residents. The strongest predictors of turnout are university education and population aged 65 and older. For every percentage point increase in the proportion of residents with a university education, turnout increases by one-third of a percentage point, and for every percentage point increase in the proportion of residents over the age of 65, turnout increases by almost three-quarters of a percentage point.

The strongest negative predictors of turnout are the proportion of residents in the electoral district who have moved in the past five years, the proportion of the population comprised of recent immigrants, and the proportion of individuals employed in mining, oil and gas industries. Turnout declines by one-third of a percentage point for every additional percentage point increase in either immigrants as a proportion of the population or the proportion of the population who have moved in the past five years. Turnout declines by half a percentage point for each percentage point increase in employment in oil and gas. It should be noted that this latter variable taps individuals employed in primary production, rather than professionals employed in head offices. Employment in primary production in this industry tends to be transitory: workers are often younger men recruited from outside the province.

A relatively weak, but nonetheless notable, negative correlate of turnout is the margin between the first and second place candidates in the electoral district. For every percentage point increase in the margin between the two top candidates, turnout declined by 0.06 percentage points. Using this as a proxy for competitiveness, we can conclude that turnout was higher in those districts where the outcome was less certain. This lends a certain credence to the idea that low turnout in Alberta's provincial elections is at least in part a function of the lack of competitiveness in many electoral districts in the province.

**Table 1: Determinants of Turnout (OLS)**

<b>Voter Turnout</b>	Unstandardized Coefficients		Standardized Coefficient
	B	Std Error	Beta
(Constant)	0.624	0.125	
Catholic	-0.143	0.117	-0.110
Immigrant Population	-0.328	0.107	-0.352
Age_65plus	0.712	0.191	0.337
Age_20to24	0.066	0.507	0.018
Movers_5years_ago	-0.339	0.095	-0.399
Agriculture	-0.092	0.138	-0.091
Mining oil gas	-0.514	0.181	-0.262
Avg Family Income	0.000	0.000	0.037
Unemployment Rate	-0.110	0.095	-0.088
University	0.341	0.137	0.506
Legally Married	-0.062	0.114	-0.058
Margin	-0.057	0.042	-0.113
Adj. R-square	0.595		

**Determinants of Parties' Vote Share**

To determine the ecological factors that influence the share of votes won by each party in each electoral district, we developed an OLS regression model that included demographic, economic, regional and political variables. The same set of independent variables were used in four regression analyses, with the proportion of the vote won in each district by the Progressive Conservative, Liberal, New Democratic and Alberta Alliance parties in each district as the dependent variables. Independent variables were selected in part based on findings from individual-level analyses of vote choice; we recognize that we cannot extrapolate individual behaviour from our findings, but we nonetheless found the individual-level analyses useful in selecting relevant variables.

The demographic variables included in the analysis were:

- o the proportion of residents who identified themselves as Catholic, given findings elsewhere that religion affects vote choice, in particular with Catholics favouring the Liberal party.
- o The proportion of residents who identify themselves as immigrants: again, this is founded on research demonstrating that immigrants are more inclined to support the Liberal party. It also stands in as a proxy for social diversity.
- o Proportion of population aged 65 or over. This is a distinctive age cohort, both for their propensity to vote, and for the salience of issues surrounding pensions, health care, and other social services.
- o Proportion of population aged 20 to 24 years. This is also a distinctive cohort, given the reported low voter turnout and political information of individuals in

- this age group. It is also a group more inclined to be preoccupied with issues about post-secondary education, a matter of provincial jurisdiction.
- o Proportion of population legally married
  - o Movers in past five years

In our discussion of economic variables, we include the two main industries that make Alberta distinctive: agriculture, and mining, oil and gas. In both instances, the variable measures the proportion of the population in the electoral district employed by each industry. In addition to these, we have included the standard variables of average family income and unemployment rate.

Our third set of variables relate directly to the post-secondary issue that emerged as significant in the campaign, and more notably in the post-election analyses. Observers – many of them university professors – noted in the aftermath of the campaign a tendency for electoral districts contiguous with universities to have elected Liberals. To test whether this was due to other factors or in fact a reflection of an anti-PC university vote, we created a dummy variable scored 1 for all electoral districts geographically contiguous with a university. (Only the Universities of Alberta, Calgary and Lethbridge were counted as universities). We also included the proportion of voters with university degrees as an independent variable in this section.

Two political variables were also included: these included a dummy variable which was coded as 1 if the party's leader or, in the case of the Conservatives, cabinet member was the party's candidate in an electoral district. Voter turnout was also included as a political variable, given speculation during and after the election that unenthusiastic Conservatives registered their dissatisfaction by not voting. Our analysis does not include any variables on campaign spending, because those data were not available from Elections Alberta at the time of analysis.

Finally, any analysis of Alberta's electoral behaviour must take into account the notion that Edmonton differs from either rural Alberta or Calgary in its political preferences. Accordingly, we included a dummy variable coded as 1 for all Edmonton area electoral districts.

The regression equations reported in Tables 2-5 offer reasonably robust models of voting behaviour. The adjusted R-square for the models range from a respectable high of 0.780 for the Progressive Conservative vote share to a much more modest 0.380 for the Alberta Alliance vote share. These relatively low adjusted r-square variables likely reflect some degree of multicollinearity in the independent variables, as well as the inability of ecological models to capture attitudinal tendencies. In particular, we suspect that religiosity is a significant predictor of Alberta Alliance vote, but are unable to measure this using ecological data.

Of the demographic variables, those that had the greatest effect were the proportion of immigrants in the electoral district and the proportion of residents aged 20-24. As Figures 1 and 2 illustrate, the PCs and the NDP fared worse in electoral districts



with higher immigrant populations, and the Liberals fared better. To the extent that Alberta's population is becoming more ethnically diverse, then, the Liberal party may be well positioned to benefit. The Conservatives were also disadvantaged in electoral districts with more young people; conversely, the NDP fared considerably better in these districts. The proportion of Catholics in an electoral district had some positive impact on both the Liberals and the NDP.

Figure 1:

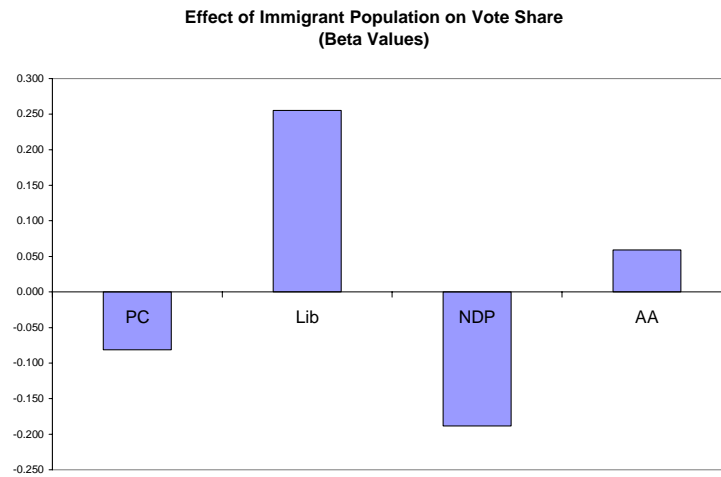
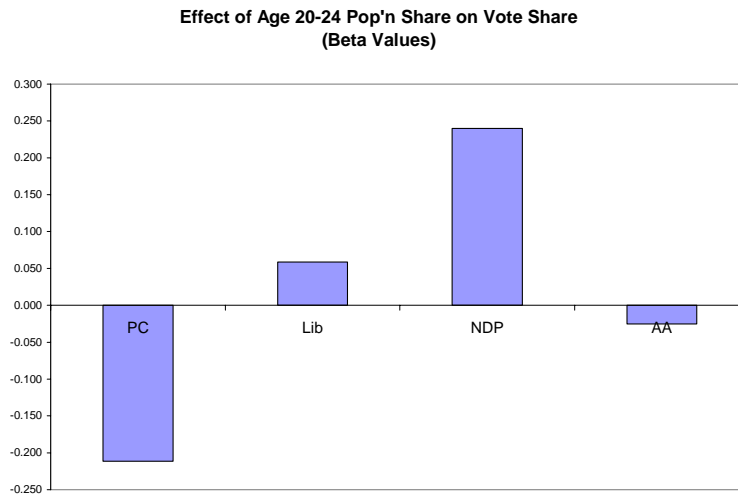
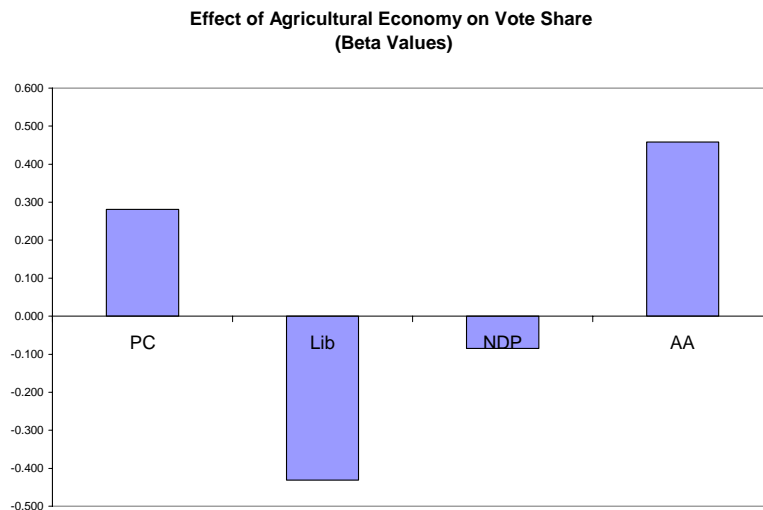


Figure 2



Of the economic variables, the proportion of residents employed in agriculture had by far the largest impact. As Figure 3 illustrates, the Conservatives and the Alberta Alliance both fared substantially better in electoral districts with a heavier dependence on agriculture, and the reverse was true for the NDP and the Liberals. This lends some credence to Macpherson’s arguments about the significance of agriculture for the province’s ideological predispositions. It is noteworthy, however, that rates of employment in the province’s dominant industry – oil and gas – had only negligible effects on parties’ vote share. Given low rates of voter turnout in the electoral districts where oil and gas production are the leading source of employment, this is perhaps not as surprising as it might otherwise be.

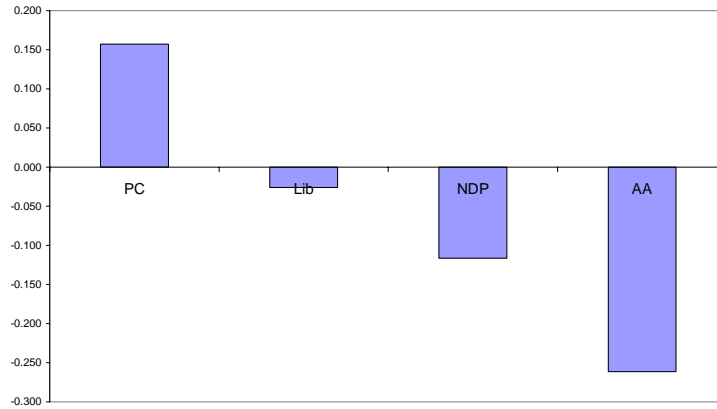
Figure 3:



Average family income also had a substantial impact on parties’ vote share, with the Conservatives doing better in districts with higher average incomes, and the Alberta Alliance faring the worst in such districts. The negative relationship between income and vote share for the NDP, combined with the negative relationship between rates of university completion and NDP vote share, suggest that the party’s basis of support in the province is, in fact, the traditional blue collar support left parties have historically relied on. This stands in contrast to the post-materialist support base many left parties have turned to in recent years.

Figure 4:

Effect of Average Family Income on Vote Share  
(Beta Values)

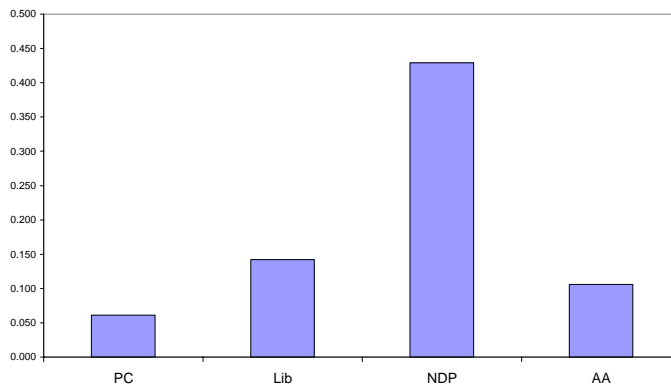


The findings suggest only modest support for the commentators' assertions about vote outcomes in districts contiguous to universities. While the Liberals fared better in such districts and the Conservatives worse, the coefficients are relatively small. In electoral districts contiguous to a University, the Conservatives' vote share declined by 0.04 percentage points, all other factors being held constant. Clearly, this was not sufficient to determine outcomes.

Figure 5 illustrates the impact of having the party's leader or a cabinet minister as a candidate in the electoral district. While the coefficient is positive for all parties, its size is negligible for the Conservatives, and small for both the Liberals and Alberta Alliance. NDP leader Brian Mason, however, apparently had a substantial effect on the outcome in his riding, increasing his party's vote share by 0.44 percentage points beyond what it would have been in his absence.

Figure 5:

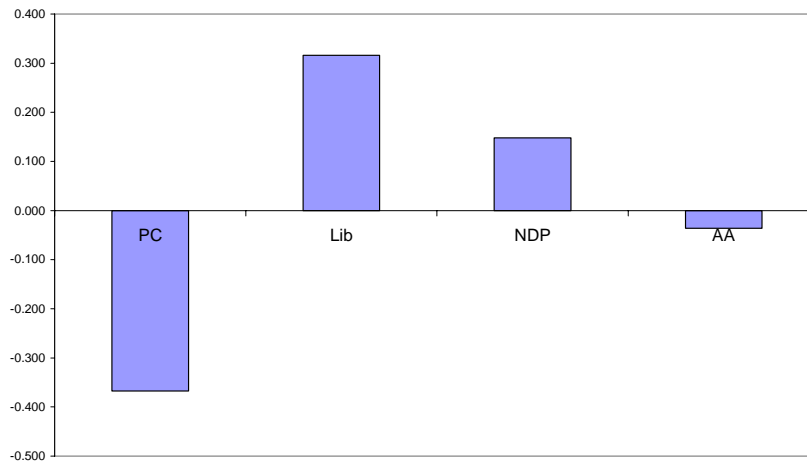
Effect of Party Leader/Cabinet Minister Candidate on Vote Share  
(Beta Values)



Voter turnout also played an important role in the outcome of the election, lending some credence to the idea that disaffected Conservatives did not cast ballots. The Conservatives fared substantially worse in ridings where voter turnout was higher, while the Liberals and the NDP fared considerably better. For every additional percentage point increase in turnout, the Conservatives lost over half a percentage point in vote share, while the Liberals gained over half a percentage point. Although it is difficult to interpret the meaning of these ecological findings, it is tempting to conclude that Liberals and New Democrats were more motivated to cast a ballot than were complacent or disaffected Conservatives.

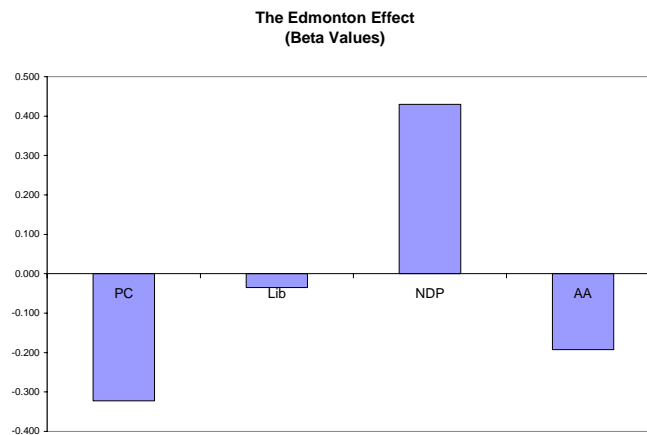
Figure 6:

Impact of Voter Turnout on Vote Share  
(Beta Values)



Finally, having held all other factors constant, we are able to determine the extent to which Edmonton electoral districts are exceptional. We find that there is some evidence of a small Edmonton effect independent of other factors. Figure 7 shows that Conservatives are, in fact, at a disadvantage in Edmonton, while the NDP enjoy an Edmonton advantage. It must be noted, however, that this effect is relatively small: it amounts to a 0.1 percentage point advantage for the New Democrats and disadvantage for the Progressive Conservatives.

Figure 7:



## Conclusion

While there are notable limits to the utility of ecological analysis in determining voting behaviour, this analysis has shed some light on the patterns of one-party dominance in Alberta. Our findings lend some credence to Macpherson's notion that primary production, and particularly agricultural production, plays a role in the province's unique political culture. Certainly, the ruling Conservatives find their strongest base in the province's agricultural heartland. Contrary to our expectations that oil and gas might have superseded agriculture as a significant basis of Conservative support, we conclude that the transient character of employment in primary production in this industry limits its political salience. As noted earlier, one of the limitations of this analysis is that our data on employment in oil and gas includes only those directly employed in oil and gas production, not those in professional and managerial positions in the oil and gas industry, located primarily in Calgary. This may have served to underestimate the role of oil and gas in our model.

Our analysis also hints at the possibility that socio-demographic trends may eventually erode the pattern of Conservative rule that has dominated the province for decades. To the extent that immigration, urbanization and expansion of the economy away from primary production affect voting patterns, there is reason to think that the Liberals may be able to erode the Conservatives' electoral hegemony in the long term. Of course, political factors will also affect this possibility, but under socio-demographic trends generally more favorable to the Liberals than to the Conservatives.

**Table 2: PC Vote Share**

<b>PC Vote Share</b>	Unstandardized Coefficients		Standardized Coefficient
	B	Std Error	Beta
(Constant)	0.757	0.176	
Catholic	-0.121	0.143	-0.060
Immigrant Population	-0.117	0.145	-0.081
Age_65plus	-0.229	0.241	-0.071
Age_20to24	-1.221	0.611	-0.212
Legally Married	0.049	0.133	0.030
Movers_5years_ago	0.012	0.117	0.009
Agriculture	0.437	0.155	0.281
Mining oil gas	0.148	0.219	0.049
Avg Family Income	0.000	0.000	0.157
Unemployment Rate	0.054	0.109	0.028
University	0.097	0.172	0.093
Contiguous to Univ	-0.043	0.034	-0.092
PC Leader or Cabinet	0.016	0.015	0.061
Voter Turnout	-0.566	0.163	-0.368
Edmonton	-0.093	0.024	-0.323
Adj. R-square	0.780		

**Table 3: Liberal Vote Share**

<b>Liberal Vote Share</b>	Unstandardized		Standardized
	Coefficients		Coefficient
	B	Std Error	Beta
(Constant)	-0.095	0.285	
Catholic	0.241	0.232	0.108
Immigrant Population	0.406	0.232	0.255
Age_65plus	0.220	0.390	0.061
Age_20to24	0.375	0.998	0.059
Legally Married	0.052	0.215	0.029
Movers_5years_ago	-0.026	0.190	-0.018
Agriculture	-0.742	0.252	-0.431
Mining oil gas	0.025	0.355	0.007
Avg Family Income	0.000	0.000	-0.026
Unemployment Rate	-0.064	0.177	-0.030
University	0.028	0.276	0.024
Contiguous to Univ	0.033	0.058	0.065
LIB Leader	0.172	0.105	0.142
Voter Turnout	0.539	0.262	0.316
Edmonton	-0.011	0.039	-0.035
Adj. R-square	0.528		

**Table 4: NDP Vote Share**

<b>NDP Vote Share</b>	Unstandardized		Standardized
	Coefficients		Coefficient
	B	Std Error	Beta
(Constant)	-0.063	0.227	
Catholic	0.230	0.183	0.123
Immigrant Population	-0.252	0.183	-0.188
Age_65plus	-0.197	0.311	-0.065
Age_20to24	1.289	0.789	0.240
Legally Married	0.025	0.171	0.016
Movers_5years_ago	0.037	0.149	0.031
Agriculture	-0.122	0.199	-0.085
Mining oil gas	-0.041	0.280	-0.015
Avg Family Income	0.000	0.000	-0.116
Unemployment Rate	-0.003	0.140	-0.002
University	-0.116	0.217	-0.120
Contiguous to Univ	-0.001	0.043	-0.003
NDP Leader	0.436	0.077	0.429
Voter Turnout	0.213	0.209	0.148
Edmonton	0.116	0.031	0.430
Adj. R-square	0.584		

**Table 5: Alberta Alliance Vote Share**

<b>Alberta Vote Share</b>	<b>Alliance</b>	Unstandardized Coefficients		Standardized Coefficient Beta
		B	Std Error	
(Constant)		0.179	0.183	
Catholic		-0.002	0.151	-0.002
Immigrant Population		0.053	0.148	0.059
Age_65plus		0.096	0.251	0.048
Age_20to24		-0.090	0.639	-0.025
Legally Married		0.005	0.138	0.005
Movers_5years_ago		-0.083	0.122	-0.103
Agriculture		0.441	0.161	0.459
Mining oil gas		0.154	0.227	0.083
Avg Family Income		0.000	0.000	-0.261
Unemployment Rate		-0.010	0.113	-0.008
University		0.060	0.176	0.094
Contiguous to Univ		-0.013	0.035	-0.046
AA Leader		0.072	0.062	0.106
Voter Turnout		-0.034	0.168	-0.036
Edmonton		-0.034	0.024	-0.192
Adj. R-square		0.380		



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" Additional linkages from an ecological base include studies of (1) acculturation and diffusion-linked by. broadening the meaning of "environment" to include the social environment, (2) animal ecology, (3) rural sociology, (4) bureaucracy, stratification and urbanization, (5) formal organizations, (6) technology, and (7) economy. The "naturalness" of the technological link to an ecological framework is obvious in much of the anthropological ecological literature. As June Helm (1962: 630) has written: ". . . Tylor and Morgan, both set forth technological advance as a major referent for stages of cultural development, and it remains a viable and enduring theme in contemporary longitudinal eco-logical views in anthropology." 6 One-party dominance is generally defined as a situation in which the main opposition party has been unable to maintain on the average more than 33 per cent of the votes in a few previous elections. 7 The source of these data is Scarrow, Canada Votes. 19 It is interesting in this respect to consider the ecological distribution of the Social Credit victories: the districts won by the Social Credit candidates form a solid block within which only one seat escaped them (in Quebec city) and outside of which they did not win a single district. See Thomas, , The Liberal Party in Alberta, 34 , on the disagreements among Albertan elites about the appropriateness of party politics. Alberta Conservation Information Center Ecological Community Sampling Guidelines. Updated November 2011. 1. Introduction. An ecological community is defined as a distinct assemblage of plant species with similar total species composition and vegetation structure that can often be associated with particular environmental conditions. Given the right conditions, it reoccurs predictably. Ecological communities can be separated into three major types: terrestrial, wetland and aquatic. Rare ecological communities include, but are not limited to, communities on the Alberta Ecological Community Tracki...