The Effects of Competitiveness and Urban-Rural Polarization on Campaign Spending in Canada

by

Malcolm Araos Egan

A Thesis Submitted in Partial Fulfillment of the Requirements for the B.A. Degree in Honours Geography (Urban Systems)

Department of Geography
McGill University
Montréal (Québec) Canada

March 2013

ACKNOWLEDGEMENTS

I am grateful to my supervisor, Professor Benjamin Forest, for his thorough guidance, patience, and enthusiasm regarding this thesis. His support has been indispensable. I am also grateful to the reader, Professor Éric Bélanger, for his incisive review of my work. Finally, I am grateful to my family and friends for their affection and encouragement, which provided me the energy to produce this study.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF MAPS

LIST OF TABLES

ABSTRACT

Canadian parties are funded at the national scale, but typically reallocate funds differentially across ridings, producing an uneven geography of campaign resources (Elections Canada 2011a). Here I investigate two potential drivers of spending variance: urban-rural polarization and competitiveness. Regarding urban-rural polarization, I extend previous studies and argue that some parties will spend more in urban districts and less in rural or suburban ridings, while other parties will exhibit the opposite pattern. Then, building on previous work on the United Kingdom, I test the so-called "rational spending model", where parties spend most where victory margins are small and seats are competitive. Conversely, parties spend less where they have lost or secured a seat by large margins. I find no significant relationship between spending and urban-rural polarization, and a significant relationship between spending and competitiveness below the mean of victory margin, and not above mean of victory margin.

CHAPTER 1: INTRODUCTION

Before every Canadian federal election parties engage in campaigning activities to influence voters and get their candidates elected into Parliament. During the campaign period parties use public funds to hire staff, organize political rallies, and purchase media advertisements, among other activities (Elections Canada 2011b). When parties spend on campaign efforts, they are rewarded with a marginally larger vote share (Jacobson 1990, Palda 1975, Pattie and Johnston 1995). If campaign expenditures influence voters, then they have an important role in producing electoral outcomes, and are thus important to investigate.

In Canada parties are funded at the national scale, but typically reallocate funds differentially across ridings, producing an uneven geography of campaign resources (Elections Canada 2011a). In this study I provide insight into campaign spending rationale, with the goal of clarifying the factors affecting electoral outcomes in Canada. Specifically, in this study I investigate the sources of campaign spending variance across ridings by testing two potential drivers of campaign spending: urban-rural polarization and victory margins. Regarding urban-rural polarization, I extend previous studies and argue that some parties will spend more in urban districts and less in rural or suburban ridings, while other parties will exhibit the opposite pattern. Then, building on previous work on the United Kingdom, I test the so-called "rational spending model", where parties spend most where victory margins are small and seats are competitive. Conversely, parties spend less where they have lost or secured a seat by large margins. I find no significant relationship between spending and urban-rural polarization, and a significant relationship between spending and competitiveness below the mean of victory margin, and not above mean of victory margin.

In Chapter 2, I outline the structure of federal elections and campaign finance in Canada, and briefly review existing work on the relationships among campaign spending, urban-rural political polarization, and seat competitiveness. In Chapter 3 I describe the electoral, campaign financing, and census datasets I gathered to perform my analysis. In Chapter 4 I present the statistical methods I performed to complete this study. In Chapter 5 I test and discuss the empirical relationship between campaign spending and urban-rural

polarization, finding that there is no relationship between expenditure patterns and the urban or rural characteristics of a riding. In Chapter 6 I test the relationship between campaign spending and seat competitiveness, finding that parties spend most in competitive ridings and less in seats they have lost, but there is no discernible pattern for secured seats. In Chapter 7 I suggest refinements for this study and outline the policy implications of the findings.

CHAPTER 2: ELECTORAL INSTITUTIONS & SCHOLARLY CONTEXT

In this chapter I first review the functions of federal elections and campaign financing in Canada. Funding and regulation of political parties has increased incrementally since 1974. Second, I review literature on the effects of campaign spending. Researchers suggest that riding competitiveness may explain campaign spending behaviour, but this hypothesis has not been tested in Canada (Carty and Eagles 2000, 1999, Eagles 1993, 2004, Jacobson 1990, 1978, 1980, Johnston et al. 2001, Pattie and Johnston 1995, 2003). Finally, I show the importance of testing the relationship between campaign spending and urban-rural political polarization. Walks asserts (2006, 2005, 2004) that campaign activity causes urban-rural polarization, but has not studied the phenomenon systematically. In the end I identify both seat competitiveness and urban-rural polarization as plausible yet untested explanations of campaign spending variances.

2.1 Federal Electoral System and Campaign Financing in Canada

2.1.1 The Electoral System in Canada

Canadian political institutions follow the Westminster tradition, with a single member plurality electoral system and parliamentary government with power concentrated in the prime minister (Young and Jansen 2011). The federal parliament is composed of the Senate and the House of Commons. The senate consists of 105 members chosen by the Governor General under the Prime Minister's advice, and oversees and revises proposed legislation (Parliament of Canada 2001). The House of Commons discusses and produces legislation. Every general and by-election, Members of Parliament (MPs) are elected to the House of Commons. (Elections Canada 2006a). The number of seats in the House has increased periodically, but this study uses the 2003 Representation Order, which has 308 seats (Elections Canada 2006a).

Canada's electoral system is described as "first past the post" because in each electoral district the candidate with the most votes becomes an MP. Candidates can only run in one electoral district, but each riding may have any number of candidates. Political parties may choose to endorse any particular candidate, but they must run only one candidate per

district. Candidates may also run as *independents* or as having *no affiliation* (Elections Canada 2006a).

2.1.2 Campaign Financing in Canada

The Canada Elections Act of 2000 clearly defines the rules of campaign contributions and expenses, which are intended to render elections equitable and transparent. The British tradition views parties as private organizations and constitutional documents do not mention parties, but nonetheless Canadian parties have received state funding since 1974. In 2004, reform to the Canada Elections Act extended both state funding and regulation of political parties. This section reviews the sources of funding and the limits on contributions and expenses.

Political parties may receive funding from both the Federal government and private citizen. The Federal government gives parties that obtain over 2% of the total vote $2.04 (indexed for inflation) per ballot. Parties may also receive tax-deductible personal contributions up to $1,100. Corporations or trade unions may not contribute to political entities (Elections Canada 2006b).

Political parties also have spending limits during campaigns. Elections Canada deems an expense "any activity that costs money, or any non-monetary contribution received, by a party or candidate, for the purpose of promoting a party, its leader, or a candidate during an election period" (Elections Canada 2006b). The spending limit for each district is calculated based on a formula taking into account the number of electors and population density of the riding. Candidates may spend a) $2.07 for each of the first 15,000 electors, b) $1.04 for each of the next 10,000 electors, and c) $0.52 for each of the remaining electors. If the number of electors per square kilometer is less than 10, the expense limit for the riding is increased by either whichever is less: $0.31 per square kilometer, or 25% of the amount calculated for c) (Department of Justice 2000). Candidate nomination expenses may only constitute up to 20% of the spending limit, and registered third-parties may only spend $3,666 per riding (Young and Jansen 2011).

2.2 Electoral Campaigns in Geography

2.2.1 The Local Dimension of Campaigning

The dominant view in political science is that elections are a national affair, and other scales are less important (Farrell and Webb 2000, Swanson and Mancini 1996, Bell and Fletcher 1991). However, political geographers increasingly pay attention to local campaigning, and several studies have analyzed local campaigning in the U.S., Great Britain, and Canada. This section examines the analytical value of 'the local' in the study of campaign effects.

Over twenty years ago political scientist Jacobson studied the effects of campaign spending on congressional elections (Jacobson 1990, 1978, 1980). He found that campaign spending had uncertain effects on vote shares, but concluded that campaign expenditures have different effects for incumbents than for challengers. The more challengers spend, the more votes they receive, and the more likely they are to win. The more incumbents spend, the lower their vote share, and the greater the likelihood of losing. He suggests incumbents spend more money if they are challenged by a strong opponent and the stronger the opponent, the worse the incumbent does.

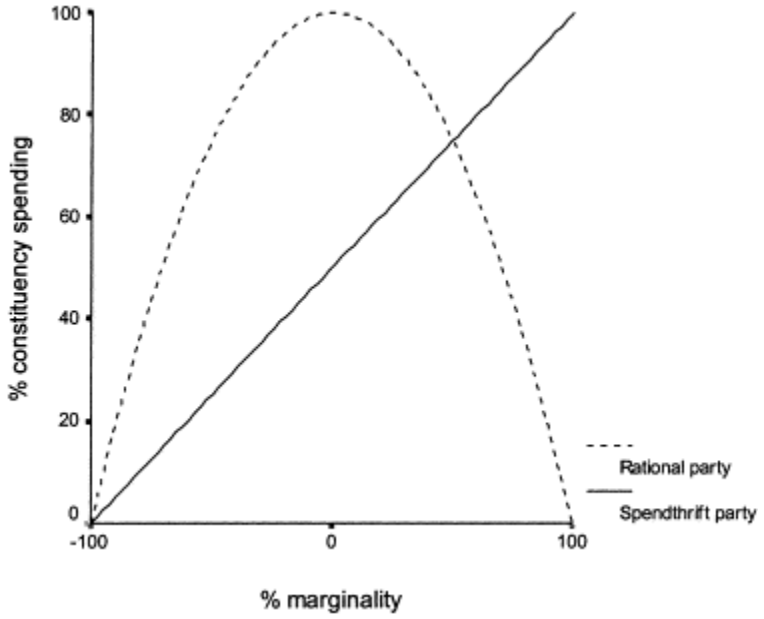
Jacobson's incumbent-challenger framework failed to provide conclusive insight, thus some scholars began to study campaign effects district to district, which is an inherently geographic approach. Johnston, a geographer, has argued that parties must not only have sizeable national support, but voters must be clustered locally to produce majorities in some seats. Thus local campaigning is important to the national fate of the party (Johnston et al. 2001).

Johnston and Pattie suggest that a district's competitiveness is a main determinant in campaign spending. The more competitive the seat, the more money parties are willing to spend in that district. (Pattie and Johnston 1995, 1996, 2003, 2009, Johnston et al. 2001). To illustrate their argument, Pattie and Johnston (2003) propose that we imagine two types of party: one spendthrift, and one rational. Pattie and Johnston assume that, in any given district, parties with large vote-shares will raise more money. The spendthrift party spends its resources where it has them, thus spending the most where they have the largest

advantage. The rational-minded party, on the other hand, will reallocate its resources where it will have an impact. They will not spend where they have a large majority, since a larger margin of victory in one district will not help elect more MPs. In a similar way, in districts where the party has little chance of winning they will not spend as much money, because even spending large amounts of money will likely not elect an MP. So the rational party spends the most money in the marginal districts, since here it will most likely make a difference (Pattie and Johnston 2003). Figure 2.1 graphically illustrates the spending behavior of spendthrift and rational parties.

Figure 2.1: Rational and Spendthrift Party Spending Patterns

(Pattie and Johnston 2003 p. 389)



In Canada, political geographers agree the local dimension is important. Carty and Eagles (1999, 1993) studied the 1984 and 1988 federal elections and conclude that local campaign activity had a significant effect on vote shares, specifically for non-incumbent candidates. In another study of the 1993 and 1997 federal elections Eagles (2004) concludes that even in tightly regulated systems such as Canada's, local spending increases a party's vote share. However, no Canadian studies have measured the effect of competitiveness on campaign spending.

2.2.2 The Problems of Campaign Spending

There are several important sources of variance when analyzing campaign expenditures. Many forces interact with spending, but the socio-demographic profile of a district is particularly important. Wealth and education levels, religiosity, and age structure of a district may interact with campaign spending (Palda 1975). The characteristics of candidates are also important. Female candidates, for example, may spend large sums in one riding and get very few votes, but less money in another riding could produce better results (Cutler 1999). This study controls for the socio-demographic profile of districts, operationalized through age, marital status, housing tenure, language, education level, citizenship, aboriginal, and visible minority status, employment rates, field of occupation, and median income for economic families. This study also accounts for the incumbency status and gender of candidates.

2.3 Urban-Rural Polarization

Research shows that city and rural residents have different party preferences and political attitudes. In North America, city dwellers are more likely to vote for parties on the political left, such as the New Democratic Party in Canada and the Democratic Party in the United States. In turn, rural residents tend to support parties on the right, such as the Progressive Conservative Party and the Republican Party (Gainsborough 2005, Sauerzopf and Swanstrom 1999, Walks 2005, 2004) Beyond party support, residential location is associated with a difference in attitudes on a range of political issues: in Canada, city and, rural and suburban dwellers have different views on poverty, the welfare state, and healthcare, labour, and tax policies (Walks 2004). Walks (2006) also suggests that urban-rural polarization manifests through party activities such as campaigning, with left-wing parties campaigning strongly in urban districts and less in rural ridings, while right-wing parties act in the opposite way. These differences persist even when individual socio-demographic characteristics are held constant. This ideological cleavage is commonly called urban-rural political polarization.

Researchers have long identified this phenomenon in the United Kingdom, in the United States, and in Canada. Cox (1968) studied the London metropolitan area and found that

suburbanism affects both political preference and participation, with suburbanites voting largely Conservative and turning out in higher numbers. He attributes this difference to distinctions in social class between city and suburbs. Sauerzopf and Swanstrom (1999) narrate the history of urban-rural polarization in the United States, starting with urban-targeted social relief programs in the 1930's . More recently, Gainsborough (2005) confirmed the urban-rural electoral divide in the United States while adding nuance by recognizing how the divide varies across cities.

There have been attempts to identify the mechanisms causing this phenomenon in Canada. Walks (2006), in a 2006 case study of a Toronto riding, unpacks seven possible theoretical drivers of the phenomenon. He finds that segregation, housing tenure, mode of consumption, self-selection, social interaction, and local experience/observation all have partial importance in "explaining the spatial variation in party support" (Walks 2006). However, he does not test his own hypothesis that there may be a relationship between campaign spending an urban-rural polarization. This study does so.

2.4 Conclusion

Political geographers have highlighted the importance of district competitiveness in explaining variances in campaign spending, but have not applied this question to Canada. Similarly, scholars have suggested a relationship between campaign spending and urban-rural polarization, but there are no Canadian riding-level studies of this issue.

These questions have two important scholarly and policy implications. First, if party spending is indeed patterned by riding competitiveness, then this study validates existing academic literature in the United Kingdom and confirms its applicability to Canada. If spending is not a function of competitiveness, then this academic analysis presents a model for party strategists to follow for effective spending. Second, if party spending is expressed in an urban-rural pattern, then this study complements the existing literature asserting that cities and rural areas exhibit different political behaviour. If spending is not patterned this way, then it eliminates this as a driver of urban-rural polarization. In the next chapter, I describe the data I use to test the effect of urban/rural character of a riding and seat competitiveness on campaign expenditures.

CHAPTER 3: DATA DESCRIPTION

The dataset used in this study is based on the 308 Canadian federal electoral districts (FEDs) of the 2003 Representation Order. The data include socioeconomic indicators from the 2006 Census of Canada, and are typical of those used in studies of urban-rural political polarization and rational-spending models (Walks 2004, 2005, 2006, 2010, Eagles 2004, Pattie and Johnston 2003). The political data has two components: results of the 2011 Canadian federal election, and parties' campaign spending behavior during the 2011 Canadian federal campaign, both from Elections Canada. In this chapter, I describe data sources, structure, trends, and spatial distribution. I highlight the variance in socioeconomic and political indicators across Canadian ridings.

Socioeconomic data come from the 2006 Canadian census downloaded from the "Computing in the Humanities and Social Sciences" data centre at the University of Toronto, available at http://dc1.chass.utoronto.ca/census/ (CHASS 2011). Election results and campaign spending data come from Elections Canada, and are retrievable from their website at http://www.elections.ca/home.aspx (Elections Canada 2011a, 2011b).

3.1 Data Structure, Trends, and Spatial Distributions

3.1.1 Socio-Demographic Data

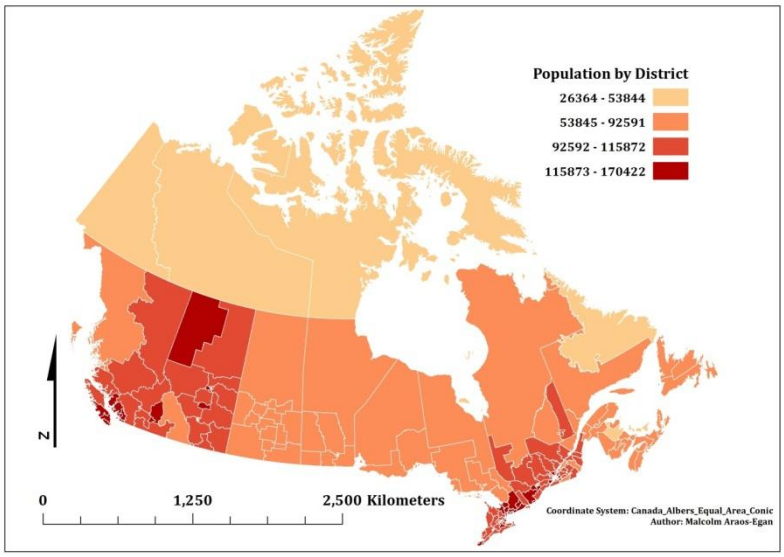
All variables, except for total population and median income, are expressed as proportions of the total riding population. For the statistical analysis described in the next chapter, I performed a log transformation on population density and median income variables to normalize their distribution. Census data reveal a wide variance of socio-demographic profiles across all 308 Canadian districts, as illustrated by Table 3.1. There is a population discrepancy of 144,058 people between the most and least populous ridings. Home ownership ranges between 23% and 94%, university degree-holders vary between 9% and 57%, and there is almost a $132,924 after-tax median income gap between the poorest and richest Canadian riding. Field of occupation also ranges considerably among districts. Workers in the primary sector range from .1% to 38% of total riding population. Secondary sector workers range from 5% to 36%, and tertiary sector employees vary from 55% to 94%.

Table 3.1: Basic Socio-demographic data for Canadian Federal Electoral Districts

Variable	All-ridings Mean	Standard Deviation	Minimum	Maximum
Population	102 639	21 855	26 364	170422
Population density	1626.33	2555.74	.10	11312.32
Married	48%	.086	15%	64%
Homeowners	69%	.149	23%	94%
Language (mother-tongue)				
Francophones	23%	.352	0%	99%
Anglophones	57%	.329	.3%	99%
Allophones	18%	.166	.5%	71%
University degree	21%	.104	9%	57%
Canadian citizens	95%	.050	77%	99%
Aboriginal status	6%	.093	.2%	86%
Median Income	$80 764.9	$20 374.65	$50 681	$183 605
Unemployment rate	7%	.033	3%	26%
Occupation				
Primary sector (agriculture & extraction)	5%	.062	.1%	38%
Secondary sector (manufacturing)	17%	.062	5%	36%
Tertiary sector (services)	78%	.080	55%	94%

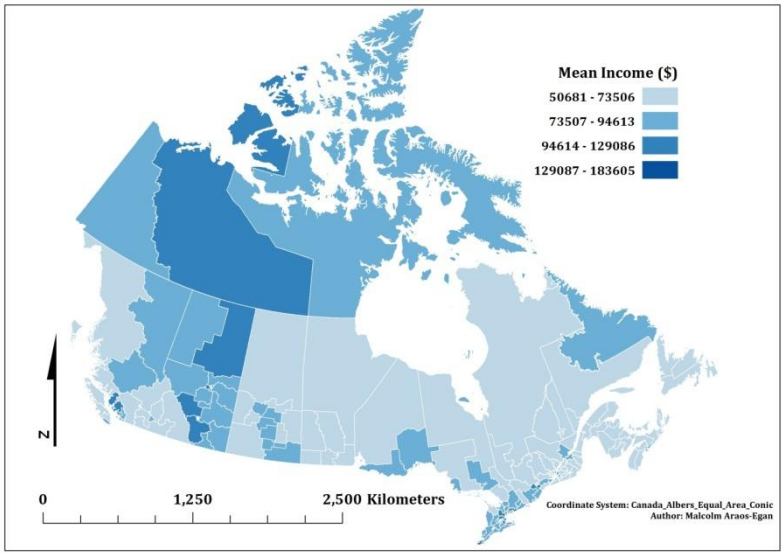
The stark differences among ridings produce a socially and economically uneven geography. Figure 4.1 suggests these differences represent cleavages both between urban and rural regions and between the south and north of Canada. Population is concentrated in the south of Canada, with urban ridings being the most populated on average. Most ridings have relatively low populations, especially in the north. Elections Canada mandates that districts should have relatively equal populations, yet disparities still appear (Elections Canada 2011a, 2012). Forest (2012) argues that Canadian districts exhibit variances because the redistricting process places more importance on community rights than on equal population. Figure 4.1 illustrates the population disparities among Canadian ridings:

Map 3.1: Population of Canadian Federal Electoral Districts



Income spatial distribution follows a similar pattern to population density, but with some differences (Figure 4.2). Northern ridings are generally middle income, with household incomes ranging between $73,507 and $94,613 per year. Rural districts are the poorest, with median incomes bottoming $50,681. Some of the richest ridings are in urbanized regions, but the most densely populated districts are not necessarily the richest. The densest riding in Canada, Papineau, is also the poorest, with a mean income of $50,681 per year. Figure 4.2 illustrates Canada's mean income geography:

Map 3.2: Mean Income of Canadian Federal Electoral Districts



3.1.2 Electoral Data

Electoral data describe the results of the 2011 Canadian federal election. The dataset includes the five major contending parties in the election: the Conservative Party, the New Democratic Party (NDP), the Liberal Party, the Bloc Quebecois, and the Green Party. Values for other parties and independents are aggregated into an "Other" category. Table 4.2 shows the change in seat distribution between the 2008 and 2011 elections:

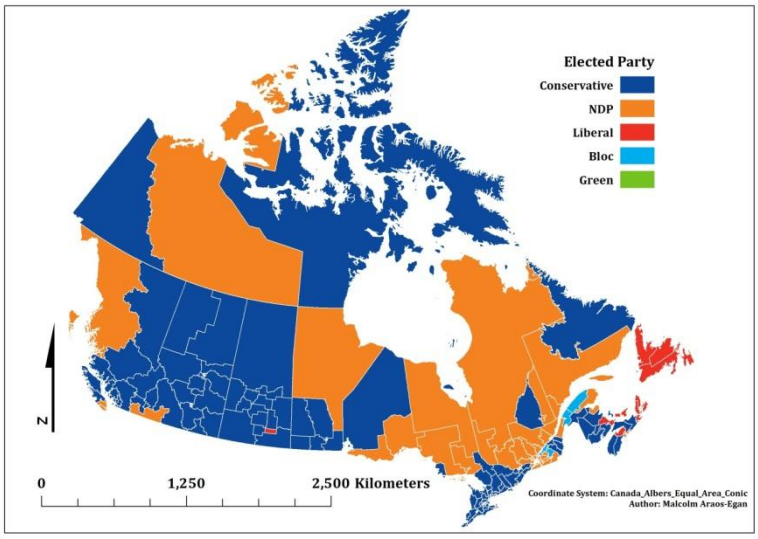
Table 4.2: Results of the 2008 and 2011 Canadian Federal Elections

Party	Seats in 2008 Election	Percentage in 2008 Election	Seats in 2011 Election	Percentage in 2011 Election
Conservative	143	37.7%	166	39.6%
Liberal	77	26.3%	34	18.9%
Bloc	47	9.9%	4	6%
NDP	36	18.2%	103	30.6%
Green	0	6.8%	1	3.91%
Other	2	0.7%	0	0.5%

(Elections Canada 2011b)

The table clarifies how voter support shifted during the 2011 election. The Conservatives gained enough seats to become a majority government and the Liberal's seats halved. The NDP almost tripled their seats by dominating across Quebec and virtually replacing the decimated Bloc. Figure 4.2 shows the geographic distribution of elected parties in 2011:

Map 3.3: 2011 Canadian Federal Election Results by Riding



3.1.3 Campaign Financing Data

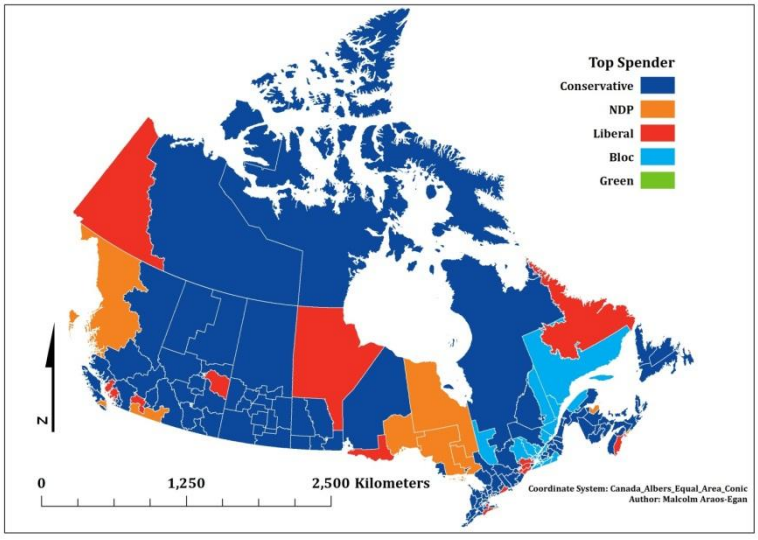
A final dataset describe the financial activities of candidate campaigns in the lead up to the 2011 federal election. This study uses data for the five major contending parties in the election: the Conservative Party, the NDP the Liberal Party, the Bloc Quebecois, and the Green Party. Data for other candidates are aggregated into an "Other" variable. Financing data is composed of both cash inflows and expenditures. Cash inflows are contributions and loans from individuals and organizations, or funds transfers from parties and registered associations to the local candidate. Expenditures are advertising, surveys, office expenses, and worker salaries. Financing data are expressed as a proportion of the spending limit of the riding. The spending limit, as described in Chapter 2, is imposed by Elections Canada to promote fair and transparent elections, and is calculated based on the number of electors and population density of each riding. Table 4.3 shows which parties spent the most in ridings across Canada:

Table 3.3: Top Campaign Spenders by Riding

Party	# of Districts where Party was Top Spender	% of Districts where Party was Top Spender
Conservative	192	62%
NDP	23	7%
Liberal	55	18%
Bloc	37	12%
Green	1	0.3%

The Conservative Party spent more than every other party in 192 ridings, making them the clear leaders in campaign spending leading to the 2011 election. The runners-up, the Liberal Party, only spent the most in 55 ridings. The NDP and Bloc trail behind with 23 and 37 ridings respectively. The Green Party spent more than every other party in one district. Figure 4.4 shows the spatial distribution of top spenders:

Map 3.4: Top Spending Parties by Canadian federal electoral districts



This map does not exhibit an obvious pattern. In general, the Conservative Party spends more in rural areas of Western Canada, while the Liberals and NDP dominate the coasts and the Centre-East. The Bloc is the top spender exclusively in Quebec, but this is expected since they only run candidates within the province.

3.2 Conclusion

There is a high variance of socio-demographic profiles across ridings. Population and wealth are located mainly in the southern part of the country around urban regions, while the north and rural areas tend to be less wealthy and less populated. There is also a political geographic pattern reflecting socio-demographic variances. On average, the Conservative Party tends to perform better in rural regions, while the NDP and Liberal Party find more support in urban centres (Walks 2006). This study uses electoral data from the 2011 election, when the Conservative Party gained enough seats for a majority, the Liberals suffered a 43-seat loss, and the NDP virtually supplanted the Bloc in Quebec. The causes of campaign expenditure variance are less clear, and the maps do not present an obvious pattern, thus the rest of this study concerns the relationship between campaign spending and geography. Specifically, this study aims to explain the geographic variance campaign expenditures through socio-demographic profiles and electoral outcomes. In the next chapter I outline the methodology for performing statistical analysis on the described data.

CHAPTER 4: METHODS

This chapter describes the methodology used to evaluate the effect of competitiveness and urban-rural polarization on campaign spending. I first describe how the variables are operationalized, and I then describe the regression models I use to measure the effects of competitiveness and urban-rural polarization on campaign spending.

4.1 Campaign Spending and Competitiveness

Campaign spending is the dependent variable, and it is operationalized as a candidate's campaign expenditures. This measure is expressed as the proportion of a party's total expenses across all 308 Canadian ridings during the 2011 federal election campaign. (I describe the source of this data is described in chapter 4.)

Seat competitiveness is the independent variable of interest. Competitiveness is operationalized as the candidate's margin of victory or loss at the 2011 federal election. Margin of victory is a variable showing positive values for the winner, and negative values for losers. On the positive side, the variable is expressed as the number of votes earned above the second place candidate, as a proportion of total ballots cast for the winner, and on the negative side it is expressed as the number of votes below the winner (a negative value). This calculation quantifies perfectly competitive districts (where all parties earn the same number of votes) at 0, while it represents landslide wins closer to 1, and losses as -1. This method is used by Pattie and Johnston (2003) in their study of campaign spending and competitiveness in the United Kingdom. Margin of victory or loss is a continuous variable to allow for linear regression analyses. The model includes several socio-demographic variables to control for the individual characteristics of riding residents. The socio-demographic data include age, marital status, housing tenure, language, education level, citizenship, aboriginal, and visible minority status, employment rates, field of occupation, and median income for economic families. Finally, the model also controls for the gender of the candidate, as suggested in the literature (Milligan and Rekkas 2008, Rekkas 2008).

I use Ordinary Least Squares (OLS) regression to test the relationship between campaign spending and seat competitiveness. However, the relationship between the competitiveness and spending is quadratic, not linear, so the data must be transformed

before applying OLS regression models. I "split" the data at the mean of the independent variable, seat competitiveness, operationalized as the margin of victory. This permits me to treat the relationship between campaign spending and the margin of victory as linear. Although the actual relationship remains quadratic, linear regression can be used to approximate the curve on each side of the mean. In other words, by splitting the quadratic curve at the mean, I obtain two linear models: one where campaign spending rises linearly from the highest margin of loss to the mean and another model where campaign spending decreases linearly from the mean to the highest margin of victory. I performed this modification for the four contending parties in the election: the Bloc Quebecois, the New Democratic Party, the Conservative Party, and the Liberal Party.

The model testing competitiveness and expenses can be conceptualized through Equation 1, using the NDP as an example:

$$NDP\_TOTEXPENSESi = \beta 1 NDP\_VICMARGINi + \beta 2 SOCIOECONi + \beta 3 CANDIDATEi + \varepsilon i \quad \text{(Eq. 1)}$$

The dependent variable (*NDP_TOTEXPENSESi*) represents the grand total of expenses incurred by the New Democratic Party in district *i*. NDP_*VICMARGINi* represents the NDP's margin of victory or loss in district *i*. *SOCIOECONi* represents variables used to control for individual socio-demographic characteristics. *β3CANDIDATEi* represents the variable used to control for the incumbency status and gender of the candidate. This equation is repeated for each of the six contending parties in the 2011 federal election. I expect the coefficient estimate (*β1*) of *NDP_VICMARGINi* to be positive. This is to say, I expect that the model will confirm that the NDP spends more money where the districts are more competitive, and less money where they have sure chances or very little chances of winning. I expect this measure to be consistently positive across all parties below the mean margin of victory and negative above margin of victory, since there are no partisan-specific incentives to spend money in a different way.

4.2 Campaign Spending and Urban-Rural Polarization

This section describes the model used to evaluate the relationship between campaign spending and urban-rural polarization. Campaign spending remains the dependent variable in this model, and it is operationalized as above. I use a measure of the expenditures in a riding as a proportion of the national total.

The independent variable of interest in this model is the urban or rural character of a district. This variable is expressed as population density (inhabitants per square kilometer), and is consequently a continuous variable. To test if campaign spending is patterned by the urban-rural nature of a district, I perform an Ordinary Least Squares (OLS) regression. In general, I expect that "left wing" parties will run a stronger campaign, thus spend more money, where population density is higher, and less where population density is low. In the same way, I predict that "right wing" parties will spend more money on rural or low density districts, and less money in high density ridings. In other words, I expect that parties will spend more money where they have it because they have been successful in the past. This relationship represents Pattie & Johnston's "spendthrifty" party model. Two regressions are performed for each major party. The first tests the relationship between total of expenses and population density, and another one tests total transfer amounts and population density. All the models control for individual socio-demographic characteristics to isolate the effect of population density on campaign spending. Equation 3, using the Conservative Party, illustrates the model testing total expenses and population density:

$$CON\_TOTEXPENSESi = \beta 1POPDENSi + \beta 2SOCIOECONi + \beta 3CANDIDATEi + \varepsilon i \quad \text{(Eq. 3)}$$

Here, *CON_TOTEXPENSESi* represents the total expenses incurred by the Conservative Party in district *i*. *POPDENSi*, in turn, represents the population density of district *i*. *SOCIOECONi* represents the control socio-demographic variables. *β3CANDIDATEi* represents the incumbency status and gender of the candidate. I expect the estimate coefficient (*β1*) to be negative in the case of the Conservative Party. In other words, I expect

that in districts with higher population density, the Conservative Party will spend less money.

4.3 Conclusion

This study uses statistical regression models to evaluate the effect of competitiveness and urban-rural polarization on campaign spending, controlling for the socio-demographic profile of the riding and the candidate. The variables are operationalized through continuous variables from census and electoral data. In the end, I expect that more competitive ridings will be the largest targets of spending. In the next chapter I test whether some parties spend more in urban constituencies and less on rural ridings, and if other parties display the opposite pattern.

CHAPTER 5: THE EFFECTS OF URBAN-RURAL POLARIZATION ON CAMPAIGN SPENDING

In this chapter I evaluate the relationship between urban rural character of a district and campaign spending. Literature contends that "left-wing" parties tend to campaign more actively in city constituencies and less in suburban or rural areas, while the reverse is true for "right-wing" parties. This phenomenon is called "urban-rural polarization" (Walks 2006, 2005) First, I discuss the theoretical relationship between campaign spending and urban-rural polarization. Then, I test whether the urban or rural character of a riding drives variance in campaign spending, controlling for socio-demographic variance across ridings. I find that urban-rural polarization is not a significant driver of campaign spending, and present alternative explanations.

5.1 Data Description

The study uses campaign financing data from the 2011 Canadian federal electoral campaign period, and data from the 2006 Canadian census. From the census I use population density to represent the urban or rural character of a district, and I use a set of other variables (outlined in Chapter 4) to control for socio-demographic variance across ridings. Following are a series of scatter plots illustrating the relationship between campaign spending and urban-rural polarization.

Figures 6.1 – 6.4 show the pattern of campaign spending and urban-rural polarization for the four major contending parties. Note that, as explained in Chapter 3, population density values are logged to normalize the distribution:

Figure 5.1: Liberal Party's Campaign Spending and Population Density

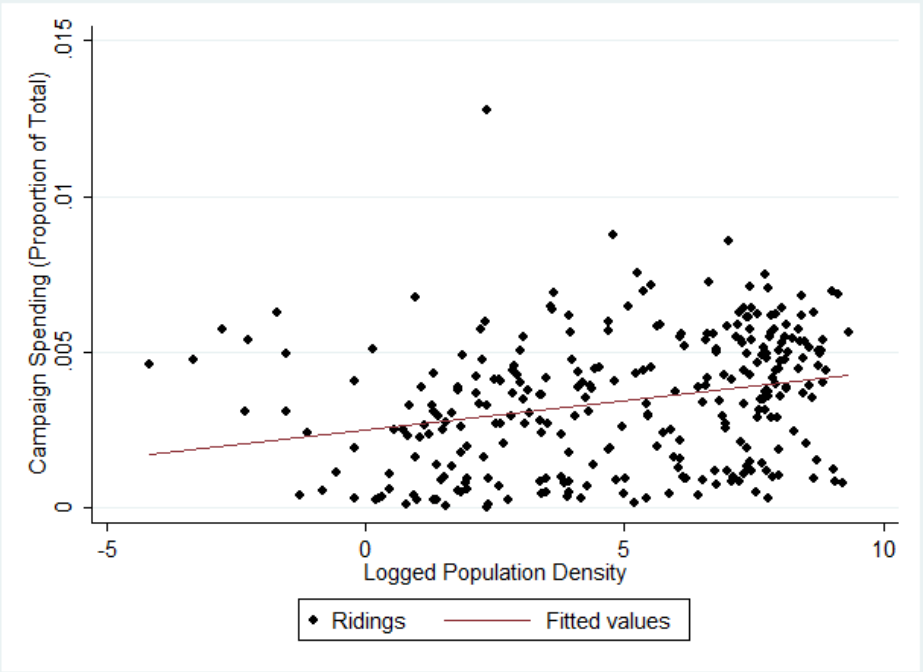


Figure 5.2: Conservative Party's Campaign Spending and Population Density

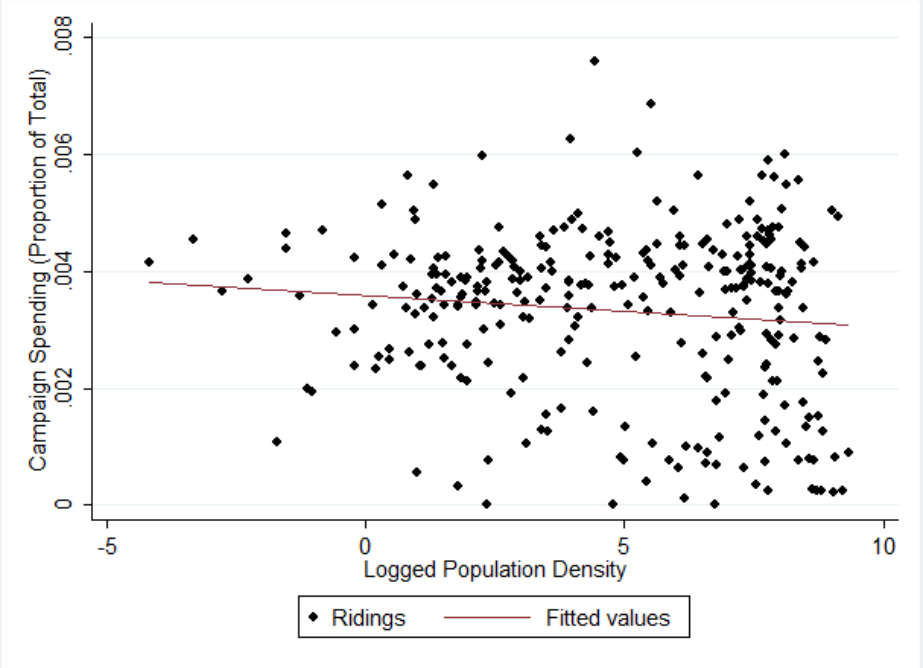


Figure 5.3: New Democratic Party's Campaign Spending and Population Density

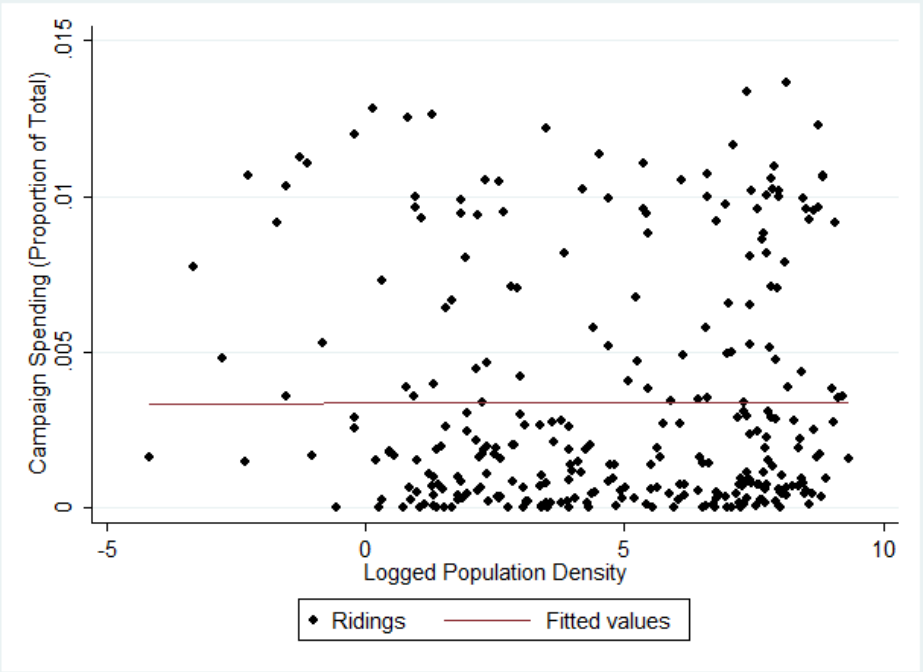
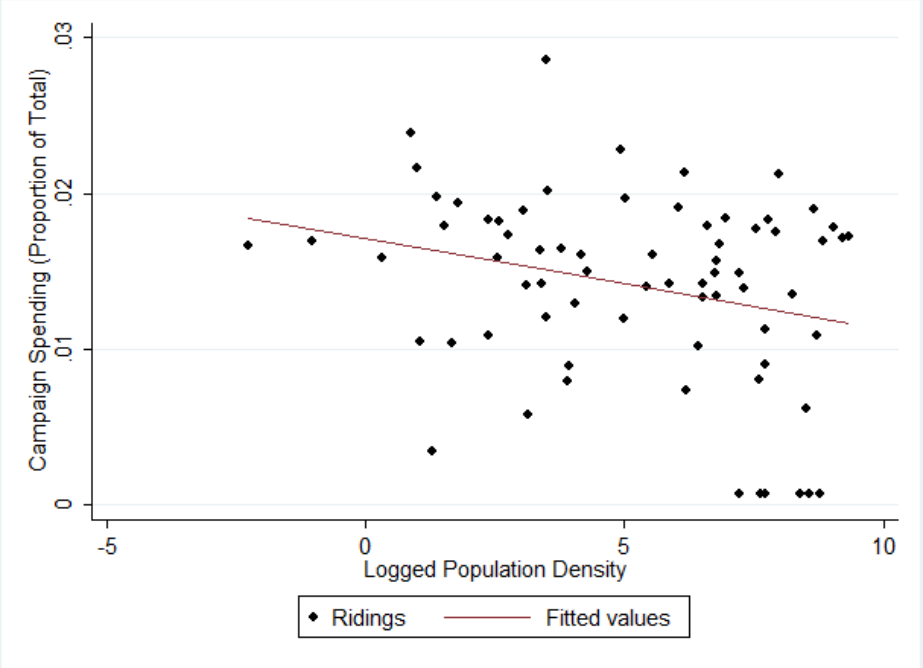


Figure 5.4: Bloc Quebecois' Campaign Spending and Population Density



The fitted lines show that, for most parties, campaign spending is patterned by population density, as hypothesized by Walks (2006). For the Liberal party, the line slopes up, hinting at a positive relationship between campaign spending and population density. For the Conservative Party and Bloc Quebecois, the slopes suggest that more money is spent on low-density ridings, and less where population density is higher. The NDP, however, exhibits a random distribution, with no immediately discernible patterns. In the next section I explain the statistical methods to test the significance of these apparent relationships.

5.2 Methods

I used Ordinary Least Squares (OLS) regression to test the relationship between campaign spending and urban-rural polarization. The hypothesis is that campaign spending variance is driven by population, thus campaign spending acts as the dependent variable, and population density is the independent variable. As shown in the previous section, the relationship between the variables is linear. I analyzed all four major contending parties. In all models, I control for socio-demographic variables, incumbency, and candidate gender to account for individual candidate differences. The following section describes the analysis results.

5.3 OLS Regression Results

The relationship between campaign spending and urban-rural polarization is not statistically significant for any of the parties. In the models campaign spending is driven by socio-demographic factors and not population density. The following table describes the statistical relationship between campaign spending and population density, as well as other socio-demographic variables:

Table 5.1: Regression Results of the Effects of Population Density on Spending

	NDP beta coef./(st. error)	**Bloc** beta coef./(st. error)	**Conservative** beta coef./(st. error)	**Liberal** beta coef./(st. error)
Population Density	0	0.001	0	0
	(0)	(0)	(0)	(0)
Aboriginal Status	0.005	0.061	0.003	0.002
	(0)	(-0.04)	(0)	(0)
Canadian Citizens	-0.002	-0.004	0.007	0.001
	(-0.01)	(-0.07)	(0)	(-0.01)
Employed	0.004	0.015	-0.004	-0.002
	(0)	(-0.03)	(0)	(0)
English Mother-tongue	0.025	-0.27	0.028	-0.055*
	(-0.03)	(-0.33)	(-0.02)	(-0.02)
French Mother-tongue	0.017	-0.236	0.027	-0.056*
	(-0.03)	(-0.33)	(-0.02)	(-0.02)
Other Language	0.026	-0.259	0.026	-0.054*
	(-0.03)	(-0.34)	(-0.02)	(-0.02)
Median Income	0.001	-0.025	0.002*	0.003*
	(0)	(-0.02)	(0)	(0)
Married	0.003	0.023	0	0.001
	(-0.01)	(-0.04)	(0)	(0)
Primary Sector Employees	-0.034	0.093	-0.034**	-0.006
	(-0.02)	(-0.2)	(-0.01)	(-0.02)
Secondary Sector Employees	-0.036	0.111	-0.027*	0.004
	(-0.02)	(-0.19)	(-0.01)	(-0.02)
Tertiary Sector Employees	-0.033	0.111	-0.031**	0.003
	(-0.02)	(-0.2)	(-0.01)	(-0.02)
Over 19 Years Old	0.019*	0.026	0.006	0.008
	(-0.01)	(-0.05)	(0)	(-0.01)
Homeowners	-0.001	0.012	-0.001	0.001
	(0)	(-0.02)	(0)	(0)
University Graduates	-0.005	0.024	0.004**	0.001
	(0)	(-0.02)	(0)	(0)
Visible Minority	0	-0.009	0.003**	-0.002
	(0)	(-0.04)	(0)	(0)
Gender	0	0	0	0
	(0)	(0)	(0)	(0)
Incumbency	0.002**	0	0	-0.001***
	(0)	(0)	(0)	(0)
Victory Margin	0.006***	0.006	0.002**	0.004***
	(0)	(0)	(0)	(0)
constant	-0.013	0.369	-0.022	0.024
	(-0.04)	(-0.33)	(-0.02)	(-0.03)
R-squared	0.69	0.509	0.504	0.496

*p<0.05, **p<0.01, ***p<0.001

The Liberal Party's model is significant and accounts for 50% of the variance in campaign spending. Other socio-demographic variables are the main drivers in the model, with language, income, and incumbency being the only significant variables. Population density does not exhibit a significant relationship to campaign spending.

The model is also significant for the Conservative Party and accounts for 50% of campaign spending variance, but population density is not a driver in the model. Other socio-demographic variables such as language, income, occupation, education, visible minority status, and incumbency have a relationship with campaign spending.

In the case of the NDP, once again the model is significant and accounts for 70% of the variance in campaign spending across ridings. However, the model is not driven by population density. In fact it is strongly driven by a different electoral variable; incumbency. On average, the NDP spends more in ridings where they already hold a seat. Curiously, campaign spending is also driven by a socio-demographic variable: marriage. The NDP spends more, on average, in districts where marriage rates are lower.

For the Bloc the model is significant and accounts for 51% of variance in campaign spending, but population density is not significant in the model. In fact, none of the variables are significant.

5.4 Discussion

These analyses provide no evidence that the urban or rural character of a riding affects campaign spending for any major federal party in Canada. This finding has two important implications, one for the study of urban-rural polarization, and another for literature on campaign financing.

Walks (2006) explores the causes of urban-rural political polarization, and suggests that local party activity is a potential driver of the phenomenon. He contends that "left-wing" parties may campaign more vigorously in urban districts, while putting less effort into suburban or rural ridings. In this study I operationalize campaign activity through expenditures, and discovered no significant relationship. However, perhaps other types of party activity affect urban-rural polarization more than campaign spending. Thus future

research on inter-district polarization (as opposed to Walks' intra-district study) should focus on other, non-monetary forms of party activity. Canvassing, for example, is usually performed by unpaid volunteers, and could be uncovered as an important driver of urban-rural polarization. Party leaders tours are another important campaigning tool, but they are carried out at the state scale, and not the district scale (Belanger, Carty and Eagles 2003). Thus a geographic analysis of party leaders' tours may provide insight into the driving factors of urban-rural political polarization.

Another explanation for the null relationship between campaign spending and population density may relate to the social composition of ridings. Perhaps high density ridings have a similar socio-demographic composition to each other, and this composition is opposite to that of low density ridings. For example, perhaps high density ridings are more educated on average and low density ridings are less educated. Then the model will be driven by socio-demographic variables, and will nullify the relationship between spending and population density. This may be the case since the figures presented in section 5.1 show a relationship between spending and density, and this relationship disappears once I control for socio-demographic variables.

The discovery that urban-rural polarization and campaign spending are not related also has implications for the study of campaign spending. Researchers have suggested that campaign spending is patterned by competitiveness: parties spend most where money will give them a winning edge in competitive ridings, and will spend less where they know they will lose or where they have secured a win (Pattie and Johnston 2003). This "rational" pattern exists as opposite to the "spendthrift" model, which dictates that parties spend more money where they receive the most support, and less where they are not popular. In this study I hypothesize that parties with a large urban vote share will spend more money in urban ridings, and parties with rural support will spend more in rural districts. Thus I hypothesize that parties spend in a "spendthrift" and not a "rational" pattern. I uncovered that the urban or rural character of a nature does not relate with campaign spending, thus I can dismiss the "spendthrift" model.

5.5 Conclusion

It is clear from the regression analyses that urban-rural polarization and campaign spending are not significantly related. All the models are statistically significant, but the relationship is driven by the controlling socio-demographic factors and other electoral variables such as incumbency. Therefore future research into the effect of party activity on urban-rural polarization should focus on types of campaigning other than financing.

In terms of explaining campaign spending patterns, I have dismissed Johnston and Pattie's (2003) "spendthrift" model for Canadian federal parties. The next step is to test whether the "rational" spending model holds true. In Chapter 6 I analyze the relationship between campaign spending and seat competitiveness.

CHAPTER 6: THE EFFECTS OF COMPETITIVENESS ON CAMPAIGN SPENDING

In this chapter I analyze the relationship between seat competitiveness and campaign spending. The rational spending model predicts that parties will devote more campaign funds to competitive ridings, where their margin of victory is close to zero. They will spend less either where their candidates are expected to do very poorly or very well (where the absolute value of the margin of victory is large). First, I describe the relationships between seat competitiveness and campaign spending in theoretical terms, and explain the steps taken to prepare the data for analysis. After summarizing the results of my analysis, I come to an unexpected finding: In the 2011 election, parties funded campaigns as expected in ridings below the mean of the margin of victory, but *not* in ridings on the positive side of the mean. For ridings above the mean, parties seem to spend as much in highly competitive ridings as in ones won by large margins. This pattern is consistent for all major parties.

6.1 Data Description

As described in Chapter 4, this study uses datasets of electoral returns and campaign financing from the 2011 Canadian federal election, and data from the 2006 Canadian census to control for socio-demographic variance among ridings. I used scatter plots to visualize the relationship between seat competitiveness and campaign spending, and discuss the broad trends uncovered in this section.

Figures 6.1-6.4 show the pattern of campaign spending and margin of victory for the four major contending parties:

Figure 6.1: Liberal Party's Campaign Spending and Margin of Victory

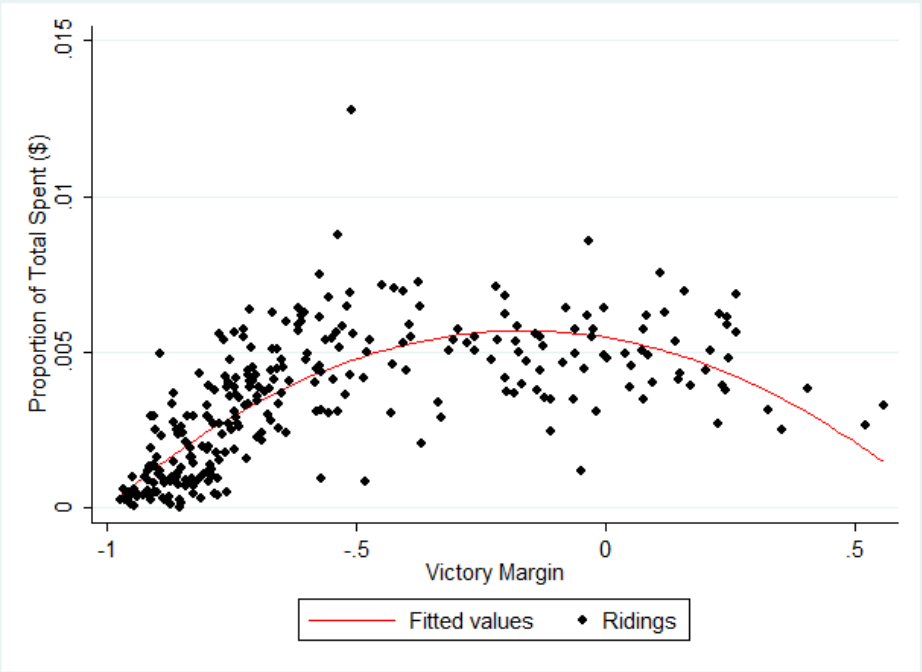


Figure 6.2: Conservative Party's Campaign Spending and Margin of Victory

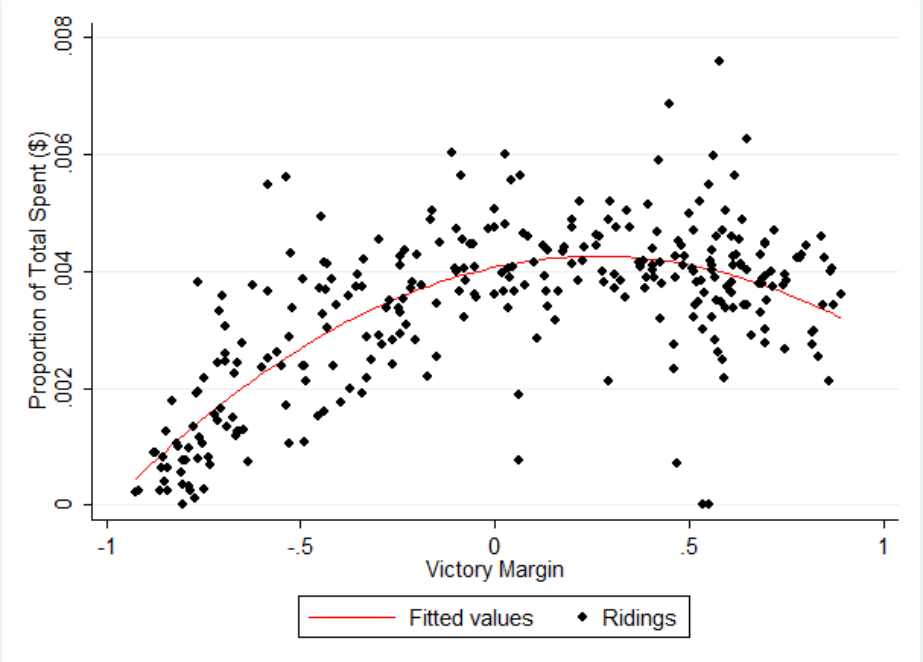


Figure 6.3: New Democratic Party's Campaign Spending and Margin of Victory

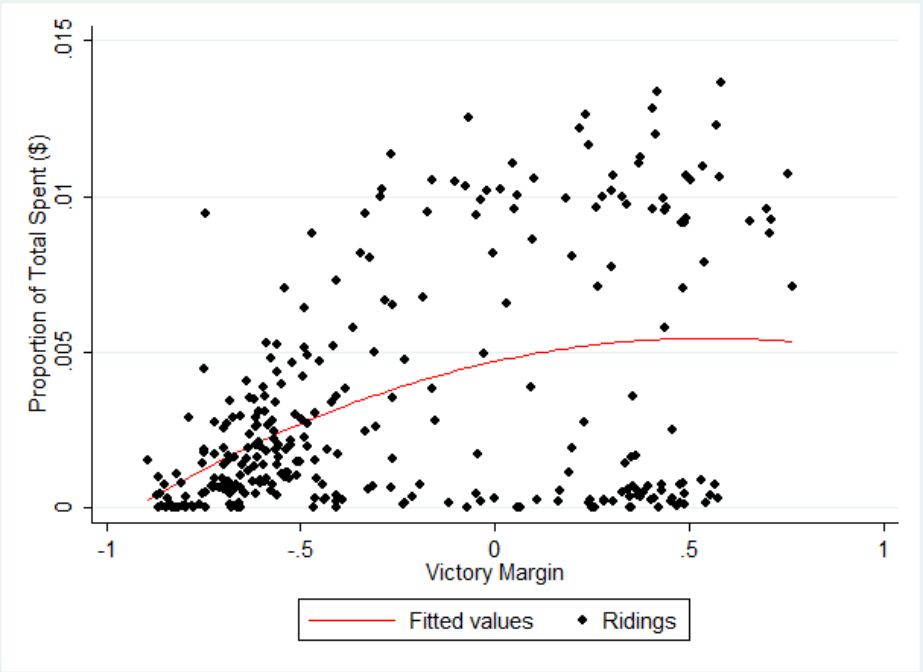
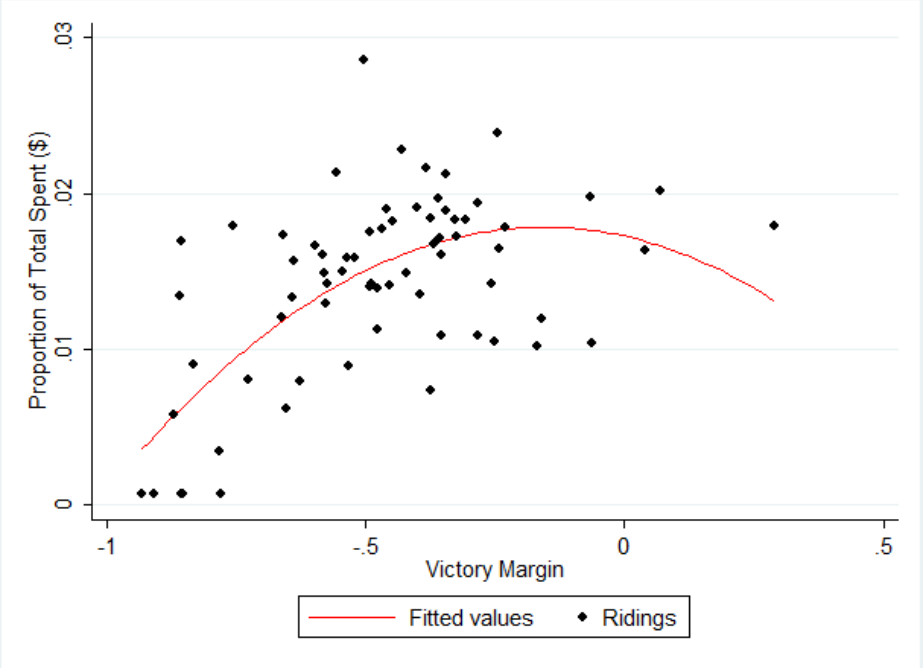


Figure 6.4: Bloc Party's Campaign Spending and Margin of Victory



The fitted curves show the expected rational spending model described by Johnston and Pattie (2003) in their study of British elections: parties spend the most in competitive seats, and less in districts they are certain to win or lose. The pattern is clearest for the Liberal and Conservative parties that have distinct parabolic shapes around their margin of victory mean (red centre line). The NDP and Bloc have less clear patterns, but the curves are still roughly quadratic. In the following section, I explain the transformation of the data that allowed for a more rigorous statistical analysis to assess the validity of these visual judgments.

6.2 Methods

I used Ordinary Least Squares (OLS) regression to test the relationship between seat competitiveness and campaign spending. As shown in the previous section, however, the relationship between the two variables is quadratic, not linear, so the data must be transformed before applying OLS regression models.

I "split" the data at the mean of the independent variable, seat competitiveness, operationalized as the margin of victory. This permits me to treat the relationship between campaign spending and the margin of victory as linear. Although the actual relationship remains quadratic, linear regression can be used to approximate the curve on each side of the mean. In other words, by splitting the quadratic curve at the mean, I obtain two linear models: one where campaign spending rises linearly from the highest margin of loss to the mean, and another model where campaign spending decreases linearly from the mean to the highest margin of victory. I performed this modification for the four contending parties in the election: the Bloc Quebecois, the New Democratic Party, the Conservative Party, and the Liberal Party.

To illustrate the process, compare Figure 5.1 with 5.5 and 5.6, showing respectively, the Liberal Party's campaign spending in ridings below and above the mean margin of victory:

Figure 6.5: Liberal Party's Campaign Spending and Margin of Victory: Below the Mean

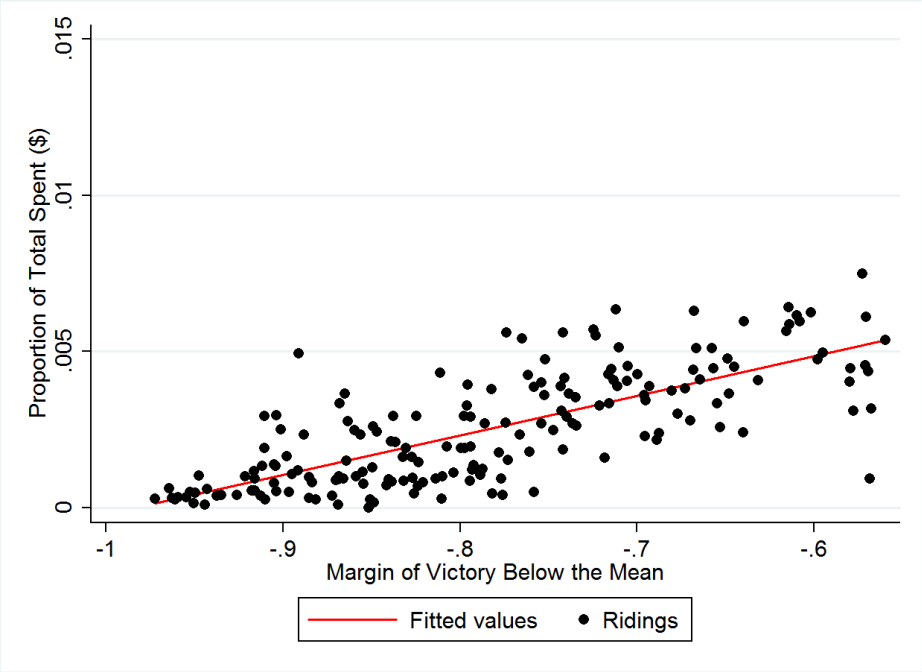
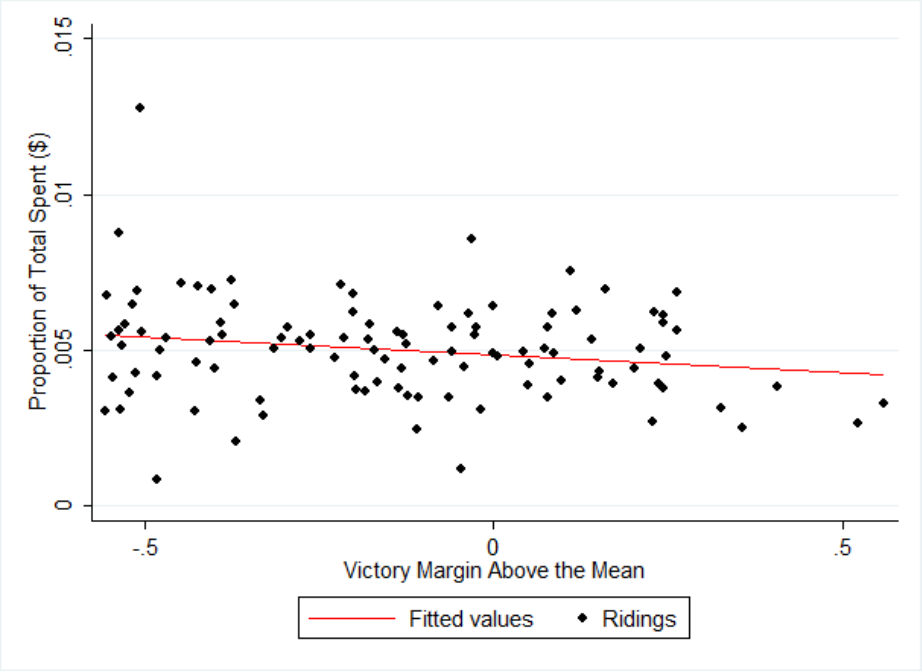


Figure 6.6: Liberal Party's Campaign Spending and Margin of Victory: Above the Mean



In all models I control for socio-demographic variance, incumbency and candidate gender to account for individual candidate differences. The following section describes results of these regression analyses.

6.3 OLS Regression Analysis Results

The models show a puzzling result. In general, margin of victory shows a clear positive linear relationship with campaign spending up until the mean of seat competitiveness, but the relationship above the mean is not significant. I describe the results for each party below.

6.3.1 Effect of Competitiveness on Spending Below the Mean Margin of Victory

The following table shows the regression results testing the effect of seat competitiveness (as operationalized by victory margin) on campaign spending for all four major parties, controlling for socio-demographic variables:

Table 6.1: Regression Results of the Effects of Margin of Victory (below mean) on Spending

	NDP beta coef./(st. error)	**Bloc** beta coef./(st. error)	**Conservative** beta coef./(st. error)	**Liberal** beta coef./(st. error)
Victory Margin (below mean)	0.010***	0.039**	0.003***	0.013***
	(0)	(-0.01)	(0)	(0)
Aboriginal Status	0.003	0.215*	0.001	0.003
	(0)	(-0.07)	(0)	(0)
Canadian Citizens	0.012	-0.007	0.009	0.004
	(-0.01)	(-0.11)	(-0.01)	(-0.01)
Employed	0.009*	-0.062	-0.004	-0.001
	(0)	(-0.07)	(0)	(0)
English Mother-tongue	-0.012	0.164	0.023	0
	(-0.04)	(-0.41)	(-0.02)	(-0.03)
French Mother-tongue	-0.017	0.215	0.023	0
	(-0.04)	(-0.4)	(-0.02)	(-0.03)
Other Language	-0.009	0.178	0.024	0.005
	(-0.04)	(-0.41)	(-0.02)	(-0.03)
Median Income	0.001	-0.045	0.003*	0.001
	(0)	(-0.03)	(0)	(0)
Married	-0.001	0.069	-0.001	0
	(-0.01)	(-0.07)	(0)	(0)
Primary Sector Employees	0.002	-1.209*	-0.055*	-0.001
	(-0.02)	(-0.53)	(-0.02)	(-0.01)
Secondary Sector Employees	-0.001	-1.053*	-0.057*	-0.004
	(-0.02)	(-0.48)	(-0.02)	(-0.01)
Tertiary Sector Employees	0	-1.098*	-0.060**	-0.001
	(-0.02)	(-0.5)	(-0.02)	(-0.01)
Over 19 Years Old	0.021*	0.022	0.005	0.007
	(-0.01)	(-0.09)	(0)	(-0.01)
Homeowners	0.001	0.039	0	0.001
	(0)	(-0.03)	(0)	(0)
University Graduates	-0.002	0.099*	0.004*	-0.002
	(0)	(-0.04)	(0)	(0)
Visible Minority	-0.002	-0.021	0.002	-0.003
	(0)	(-0.04)	(0)	(0)
Gender	0	-0.01	0	0
	(0)	(0.002)	(0)	(0)
Incumbency	0	0	0.001	-0.001
	(0)	(-0.002)	(0)	(0)
Population Density	0	0.004*	0	0
	(0)	(0)	(0)	(0)
constant	-0.02	1.354*	0	-0.004
	(-0.05)	(-0.48)	(-0.03)	(-0.03)
R-squared	0.469	0.827	0.724	0.67

*p<0.05, **p<0.01, ***p<0.001

The Liberal Party's model is significant and accounts for 67% of the variance in campaign spending. Margin of victory is the most significant variable in the model, and has the highest slope coefficient of all the variables. This means that in ridings where the Liberal Party lost, they spent in a rational fashion. For the Conservative Party the relationship between campaign spending and seat competitiveness is even stronger.

The model is significant and accounts for 72% of the variance in campaign spending across districts. For the Conservative Party, margin of victory is a significant predictor of campaign spending, along with income, occupation, and education.

The NDP also exhibits a strong relationship between seat competitiveness and campaign spending, with the model accounting for 47% of the model. Margin of victory is statistically significant at the .1% level. Other significant variables include employment and population over 19 years old. On average, the NDP spend more in ridings with a higher employment rate and more people over 19 years old.

For the Bloc, the model is again statistically significant and accounts for a significant share of the variance in campaign spending (54%). Margin of victory drives campaign spending for the Bloc Quebecois. The only other significant variable in the model is education. On average, the Bloc spends more money as the competitiveness of a district increases. Also, the party spends more in ridings where residents are more likely to hold a university-level degree.

In sum, campaign spending and seat competitiveness have a strong relationship on the "losing side." The following section tests the relationship on the "winning side."

6.3.2 Effects of Competitiveness on Spending Above the Mean Margin of Victory

The following table shows the regression results testing the effect of seat competitiveness above the mean victory margin, on campaign spending for all four major parties, controlling for socio-demographic variables:

Table 6.1: Regression Results of the Effects of Margin of Victory (above mean) on Spending

	NDP beta coef./(st. error)	**Bloc** beta coef./(st. error)	**Conservative** beta coef./(st. error)	**Liberal** beta coef./(st. error)
Victory Margin (below mean)	0.004***	-0.001	0	0
	(0)	(-0.01)	(0)	(0)
Aboriginal Status	0	-0.001	0	0
	(0)	(0)	(0)	(0)
Canadian Citizens	0	0.154	0.001	0
	(-0.01)	(-0.16)	(0)	(0)
Employed	-0.02	-0.068	0.002	-0.004
	(-0.01)	(-0.22)	(-0.01)	(-0.01)
English Mother-tongue	0	0.082	-0.001	0.001
	(-0.01)	(-0.08)	(0)	(0)
French Mother-tongue	0.136**	0.267	0.023	0.039
	(-0.05)	(-0.92)	(-0.03)	(-0.04)
Other Language	0.129*	0.277	0.022	0.039
	(-0.05)	(-0.87)	(-0.03)	(-0.04)
Median Income	0.140**	0.146	0.021	0.036
	(-0.05)	(-0.91)	(-0.03)	(-0.04)
Married	0.004	0.029	0.001	0.004
	(0)	(-0.05)	(0)	(0)
Primary Sector Employees	0.004	0.017	-0.004	0.007
	(-0.01)	(-0.12)	(0)	(-0.01)
Secondary Sector Employees	-0.065	-0.632	-0.012	-0.088
	(-0.06)	(-0.4)	(-0.01)	(-0.04)
Tertiary Sector Employees	-0.112	-0.663	-0.006	-0.075
	(-0.06)	(-0.41)	(-0.01)	(-0.05)
Over 19 Years Old	-0.098	-0.657	-0.01	-0.077
	(-0.06)	(-0.42)	(-0.01)	(-0.04)
Homeowners	-0.003	0.166	0	0.007
	(-0.01)	(-0.08)	(-0.01)	(-0.01)
University Graduates	-0.002	0.004	0.001	-0.005
	(0)	(-0.02)	(0)	(0)
Visible Minority	-0.008	-0.059	0.003	0
	(0)	(-0.04)	(0)	(0)
Gender	0	0.002	0	0
	(0)	(0)	(0)	(0.001)
Incumbency	0.002*	0.001	0	0
	(0)	(-0.01)	(0)	(-0.001)
Population Density	0	-0.001	0	0
	(0)	(0)	(0)	(0)
constant	-0.052	-0.013	-0.015	-0.003
	(-0.07)	(-0.94)	(-0.04)	(-0.05)
R-squared	0.836	0.41	0.111	0.331

*p<0.05, **p<0.01, ***p<0.001

For the NDP, margin of victory is a significant driver of campaign spending, but the coefficient is positive, which is opposite the expected effect because campaign spending should theoretically decrease. The model output three additional significant relationships (language, manufacturing occupations, and incumbency status). This means that the NDP spent more, on average, where districts have higher relative proportions of francophone and allophone population, manufacturing workers, and where there was already an incumbent NDP member in the district. Therefore the models for the NDP show a clear relationship between campaign spending and seat competitiveness below the mean, but the relationships above the mean are not supported by the literature.

For the other parties the models are not significant, and not a single variable tested is statistically significant. For Liberals the model accounts for 33% of variance of campaign spending. Model accounts for 11% and 41% for the Conservatives and Bloc respectively.

These results show that there is a strong linear relationship between campaign spending and seat competitiveness on the negative side of the mean, but there is no relationship on the positive side of the mean.

6.4 Discussion

The clearest trend in this analysis is a strong relationship between campaign spending and seat competitiveness as supported by the literature (Pattie and Johnston 1993, 1995, 2003), but only for ridings below the mean margin of victory. Above the mean, the relationship between campaign spending and seat competitiveness is either statistically insignificant (Liberal Party, Conservative Party, and Bloc), or opposite the expected pattern (NDP). Even in the cases where the model above the mean is significant, socio-demographic variables, not margin of victory, drive the model.

Consistently, seat competitiveness drives campaign spending in districts where parties achieve a below-average vote share. Parties spend very little money where they receive few votes. Spending increases linearly as the candidates receive more votes, culminating at the mean margin of victory. Different parties have different margin of victory means, the relationship is the same across all four contending parties. Even then, the explanatory strength of seat competitiveness ranges across parties. The Bloc Quebecois exhibits the

strongest slope coefficient at .036, while the Conservative party has a weaker coefficient of .003.

However, on the positive side of the mean for victory margin, the relationship between campaign spending and seat competitiveness is unclear for all parties. Johnston and Pattie (2003) argue that campaign spending should exhibit a quadratic relationship around seat competitiveness, but this study's analysis shows otherwise. Past the mean, campaign spending is not driven by seat competitiveness. For the Liberal and Conservative parties, no variable tested is statistically significant. For the NDP and Bloc Quebecois, other socio-demographic variables drive the models. Even then, the spending of different parties is driven by different variables. For the NDP, incumbency status and occupation drive campaign spending, but aboriginal status and age drive the model for the Bloc Quebecois.

There are three speculative explanations for the pattern displayed by above-the-mean ridings. First, perhaps ridings with above average spending host powerful candidates in the party. Such candidates may receive more funds from the party than warranted by the seat's competitiveness. Similarly, these high-profile candidates may have the freedom to choose where to run, and tend to select ridings with greater funding. A second explanation suggests that candidates in above-the-mean ridings engage in patronage relationships with their voters. Perhaps in ridings with more supporters for a candidate, voters are rewarded monetarily through employment or contracts. This patron-client dynamic would result in disproportionately high funding for above average ridings. However, there is no existing literature supporting these explanations, and more investigation of these propositions is required. Third, perhaps parties try to maximize total vote share to get the most "bang for their buck." In Canada, the federal government reimburses parties $2.04 per received ballot (Elections Canada 2006b). This funding scheme may incentivize parties to accumulate votes even if they do not need them to win a seat. However, this speculative explanation assumes that it is easier to rack up votes in winning ridings that in losing ones, otherwise ridings below the victory margin mean would also exhibit "irrational" patterns.

6.5 Conclusion

It is clear from the regression analyses that seat competitiveness drives campaign spending in districts where parties achieve a below-average vote share. But the relationship is unclear in districts where parties get more votes than the mean. In the next chapter I state my findings and suggest refinements and expansions of this study for future research.

CHAPTER 7: CONCLUSION

In this chapter I summarize findings, suggest methodological refinements, and propose expansions of this study. I also place this research within existing literature on campaign finance and highlight the policy impact of the findings.

This study searched for drivers of campaign spending across Canadian federal ridings. I tested competitiveness and population density as explanatory factors of campaign expenditure. I found that seat competitiveness has an unexpected effect on campaign spending. In the 2011 federal election, parties funded campaigns rationally in ridings where they lost, but *not* in ridings where they performed better than expected. I suggest two potential explanations: first, perhaps ridings with above average vote share host candidates popular and powerful within their parties. These candidates may select where to run and thus choose ridings with higher funding. Second, perhaps candidates in above-mean ridings engage in client-patron relations with voters. This explanation suggests that candidates reward voter support with employment or other contracts. The patron-client dynamic would result in high funding for ridings with above-average support.

I also found no significant relationship between campaign spending and population density. I hypothesized that some parties would spend more in high density, or urban ridings, and less in rural or suburban districts, while other parties would exhibit the opposite pattern. However, even while controlling for socio-demographic variables, I found no statistically significant relationship between campaign spending and population density.

A potential methodological flaw in this study concerns the use of actual electoral results rather than predicted results. Parties incur expenditures in the campaign period, not after the election. Thus parties use pre-election polling data to guide spending. Polling data is not readily available to the public, so I used actual results as a proxy for predicted results. The drawback is accuracy loss in the results. This is a significant shortcoming as it puts the methodology validity into question. This problem may also produce reverse causality: one can imagine a case where a party performed better than expected because it spent more aggressively. Therefore I suggest that a future iteration of this study should use polling data rather than actual results.

Expansions of this study should further examine the relationship between campaign spending and margin of victory, as there is currently no literature expounding the relationship in the Canadian context. Specifically, the natural extension of this study unpacks the relationship between campaign spending and seat competitiveness above the vote share mean. As stated above I suggest two explanations, but here I did not test the hypotheses. Finally, further investigations of campaign spending should expand beyond Canadian boundaries. Specifically, I suggest analyses of Canadian patterns compared to other public party financing parties systems, such as the United Kingdom and Germany. This study's methodology is inspired by work on the UK by Johnston and Pattie, but I do not provide an explicit comparison between Canadian and British patterns (Pattie and Johnston 1995, 2003).

This study is itself an extension of literature in the fields of urban-rural political polarization and campaign spending studies. Work by Walks suggested that party activity might have an impact on urban-rural polarization. He contends "left-wing" parties may rally vigorously in urban ridings, while "right-wing" parties spend effort in suburban or rural ridings (Walks 2004, 2005). This paper tests his hypothesis using campaign spending as a proxy for party activity, and finds that there is no significant relationship between campaign spending and the urban or rural characteristics of a district. Work by Johnston and Pattie (2003) established that, in the UK, parties spend most money in competitive seats and less on secured or lost seats. This study is an application of Johnston and Pattie's study to the Canadian federal electoral context. I find that the Canadian pattern differs from the British, as Canadian parties do not spend less money on secured seats.

The obvious policy recommendation is to advise parties to spend less on secured seats, and more on competitive seats. This shift of funds is rational because it streamlines spending patterns into their most efficient form. If spending modestly boosts vote share, then parties are wasting funds by gaining voters where they do not need them (Jacobson 1990, Pattie and Johnston 2003). If parties reallocate funds geographically into competitive ridings, then they will gain voters that may give them a winning edge.

Before making such a recommendation, however, further research would be required. In particular interviews with party officials regarding their campaign spending strategies could shed light on the patterns revealed in the data. The spending "irrationality" in secured seats is likely not a function of oversight, as the same pattern is displayed by all four major parties. Thus for a more robust policy suggestion more research to tease out the explanation for the spending "irrationality" is needed.

Bibliography

Belanger, P., R. K. Carty & M. Eagles (2003) The geography of Canadian parties' electoral campaigns: leaders' tours and constituency election results. *Political Geography,* 22**,** 439-455.

Bell, D. V. J. & F. Fletcher. 1991. Electoral communication at the constituency level: A framework for analysis. Toronto.

Carty, R. K. & M. Eagles (1999) Do local campaigns matter? Campaign spending, the local canvass and party support in Canada. *Electoral Studies,* 18**,** 69-87.

Carty, R. K. & M. Eagles (2000) Is there a local dimension to modern election campaigns? Party activists' perceptions of the media and electoral coverage of Canadian constituency politics. *Political Communication,* 17**,** 279-294.

CHASS. 2011. Canadian Census Analyzer. University of Toronto.

Cox, K. R. (1968) Suburbia and Voting Behavior in the London Metropolitan Area. *Annals of the Association of American Geographers,* 58**,** 111-127.

Cutler, F. 1999. The Electoral Effects of Incumbency, Contributions to Local Campaigns, and Local Campaign Spending: A Micro-Macro Model. In *Annual meeting of the Canadian Political Science Association*. Sherbrooke.

Department of Justice. 2000. Canada Elections Act. Election Expenses Limit.

Eagles, M. (1993) MONEY AND VOTES IN CANADA - CAMPAIGN SPENDING AND PARLIAMENTARY ELECTION OUTCOMES, 1984 AND 1988. *Canadian Public Policy-Analyse De Politiques,* 19**,** 432-449.

--- (2004) The effectiveness of local campaign spending in the 1993 and 1997 federal elections in Canada. *Canadian Journal of Political Science-Revue Canadienne De Science Politique,* 37**,** 117-136.

Elections Canada. 2006a. The Electoral System of Canada.

---. 2006b. Political Financing.

---. 2011a. Contributions and Expenses Databases.

---. 2011b. Elections.

---. 2012. Redistribution at a Glance.

Farrell, D. & P. Webb. 2000. Political Parties as Campaign Organizations. In *Parties without Partisans: Political Chane in Advanced Industrial Democracies,* eds. R. J. Dalton & M. P. Wattenberg. New York: Oxford University Press.

Forest, B. (2012) Electoral redistricting and minority political representation in Canada and the United States. *Canadian Geographer,* 56**,** 318-338.

Gainsborough, J. F. (2005) Voters in Context. *American Politics Research,* 33**,** 435-461.

Jacobson, G. C. (1978) The Effects of Camapaign Spending in Congressional Elections. *American Political Science Review***,** 469-91.

---. 1980. *Money in Congressional Elections*. New Haven: Yale University Press.

--- (1990) The Effects of Campaign Spending in House Elections: New Evidence for Old Arguments. *American Journal of Political Science,* 34**,** 334-362.

Johnston, R. J., C. J. Pattie, D. F. L. Dorling, I. MacAllister, H. Tunstall & D. J. Rossiter (2001) Social locations, spatial locations and voting at the 1997 British general election: evaluating the sources of Conservative support. *Political Geography,* 20**,** 85-111.

Milligan, K. & M. Rekkas (2008) Campaign spending limits, incumbent spending, and election outcomes. *Canadian Journal of Economics-Revue Canadienne D Economique,* 41**,** 1351-1374.

Palda, K. S. (1975) The Effect of Expenditures on Political Success. *Journal of Law and Economics*, 745-71.

Parliament of Canada. 2001. A Legislative and Historical Overview of the Senate of Canada

Pattie, C. & R. Johnston (1993) Where the Tories Lost and Won: Geographical Variations in Voting at the 1992 British General Election. *Parliamentary Affairs,* 46, 192-202.

--- (1995) THE IMPACT OF SPENDING ON PARTY CONSTITUENCY CAMPAIGNS AT RECENT BRITISH GENERAL-ELECTIONS. *Party Politics,* 1, 261-273.

--- (1996) Paying their way: Local associations, the constituency quota scheme and conservative party finance. *Political Studies,* 44, 921-935.

--- (2003) Local battles in a national landslide: constituency campaigning at the 2001 British General Election. *Political Geography,* 22, 381-414.

--- (2009) Still Talking, But Is Anyone Listening? *Party Politics,* 15, 411-434.

Rekkas, M. (2008) Gender and Elections: An Examination of the 2006 Canadian Federal Election. *Canadian Journal of Political Science-Revue Canadienne De Science Politique*, 987-1001.

Sauerzopf, R. & T. Swanstrom (1999) The Urban Electorate in Presidential Elections, 1920-1996. *Urban Affairs Review,* 35, 72-91.

Swanson, D. L. & P. Mancini. 1996. Patterns of modern electoral campaigning and their consequences. In *Political Communications: The General Election Campaign of 1987,* eds. I. Crewe & M. Harrop. Westport, CT: Praeger.

Walks, A. (2004) Place of Residence, Party Preferences, and Political Attitudes in Canadian Cities and Suburbs. *Journal of Urban Affairs,* 26, 269-295.

--- (2005) The City-Suburban Cleavage in Canadian Federal Politics. *Canadian Journal of Political Science/Revue canadienne de science politique,* 38, 383-413.

--- (2006) The causes of city-suburban political polarization? A Canadian case study. *Annals of the Association of American Geographers,* 96**,** 390-414.

--- (2010) Electoral behaviour behind the gates: Partisanship and political participation among Canadian gated community residents. *Area,* 42**,** 7-24.

Young, L. & H. Jansen. 2011. *Money, Politics, and Democracy: Canada's Party Finance Reforms*. Vancouver, BC: UBC Press.