PARTY GOVERNMENT DURATION IN THE CANADIAN PROVINCES, 1945-2012

by

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A thesis submitted to the Faculty of Graduate Studies of

the University of Manitoba

in partial fulfilment of the requirements for the degree of

MASTER OF ARTS

Department of Political Studies

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ABSTRACT

Political duration has been investigated with rigour at the cross-national level of analysis and increasingly at the Canadian level. Canada proves to be an interesting case in the cross-national literature. However, the Canadian provincial level of analysis has not been examined within the political duration literature. Studies of political duration have typically focused on cabinet, government, leader and individual legislator duration while neglecting party duration. Yet, it is important to consider the length of time a party spends in power because of its influence on the policy process. Legislators, governments and parties can become apathetic after long periods in power, which can stagnate policy development. Some parties have governed for exceptionally long periods of time in the provinces while other parties have ceased to hold office after just one term. Why is it that some parties last longer than others? Using event-history modelling and multiple logistic regression this thesis examines three different research questions: 1) What accounts for the variation in party government survival 2) What factors explain individual government survival in Canada for the period, 1945-2012 3) What factors contribute to election survival, in order to explain the duration story. I test the variables that have been identified in the cross-national literature as affecting political duration in the Canadian provinces. Cox proportional hazard models are used to test the variables in the first and second research question, while a multiple logistic regression is used to test what factor contribute to election survival. The thesis finds that leadership change, fractionalization and minority status have an effect on duration. The findings in this thesis confirm that, like Canada, the provinces are exceptional cases. While some of the identified explanatory variables affect political duration in the provinces, the usual variables do not completely explain the political duration story in the Canadian provinces.

ACKNOWLEDGEMENTS

There are several people who have contributed to this thesis, indirectly or directly, as well as to my academic career and for this they deserve recognition and praise. First I would like to thank my thesis supervisor, Dr. Andrea Rounce. She has provided me with sound guidance through this entire process as well as the support needed for such a project, for this I am truly grateful. I would also like to thank Dr. Robert Tate for guiding me through the statistical methods used in this thesis and for running the models, without his help and guidance my thesis would never have been completed. Indeed, my entire examining committee deserves thanks. Dr. Matthew Kerby deserves my gratitude for introducing me to the study of political duration and challenging me to challenge myself with quantitative methods. I am grateful to the friends and family of Duff Roblin who have graciously funded the Duff Roblin Political Studies Fellowship, of which I was recipient. Last, I would like to thank my parents and my family for supporting all of my academic endeavours. Of course, any errors or omissions in this thesis are solely the responsibility of the author.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

Introduction

The Canadian provinces are subject to substantial variation in the length of time that a single political party has continuously served as the executive. Some parties manage to last as the governing party for a significant length of time while other parties are only able to govern for a short period of time. Single term governments have existed in some of the Canadian provinces; while other provinces have not seen a government hold less than two terms. Both Alberta and Ontario have seen governments where the party has held power for well over 35 years. Other provinces like Quebec have not seen a party hold power longer than 10 years. Why is it that some parties are able to hold power for several consecutive terms while others cannot?

Scholars of government stability (see Laver 2003; King et al. 1990; Warwick 1994) have shown that government duration is explained by a combination of both system or cabinet attributes and exogenous shocks that a government may experience during its tenure. System attributes include the nature of the party system, the composition of a cabinet and the complexity of the bargaining environment (Gallagher, Laver and Mair 1995). Exogenous shocks are a set of events that befall a government; these can include scandals, policy shocks, public opinion shocks or the performance of a state's economy (Gallagher, Laver and Mair 1995). Despite the strong research presence at the comparative and Canadian levels of analysis, the study of political duration at the provincial level has been largely neglected.

This thesis will examine all party government durations in all provinces for the period 1945-2012 exploring the research question: What accounts for the variation in party government survival? In order to explain party government duration we must also ask what factors contribute to individual government survival and election survival. The need to answer those questions provides this thesis with two additional research questions. The first is: What factors explain individual government survival in Canada for the period, 1945-2012? The second additional research question becomes: What factors contribute to election survival?

In this thesis I am going to argue that Canada is indeed an exceptional case as indicated by the theoretical literature. The covariates that have been used in the theoretical literature to measure government survival do not completely explain the government survival story in the Canadian case. Considering variables such as political culture and the nature of the party system may be key in exploring party government duration in the provinces.

The thesis is grounded within the widely accepted theoretical framework for this type of research. Scholars such as Laver (1998, 2000, 2003), King et al. (1990) and Warwick (1992, 1994) have spearheaded the political duration literature, debating the best approaches and methods to analyze duration. Some scholars examine leadership duration (see Bienen and van de Walle 1991; Bueno de Mesquita et al. 2000; Gelpi & Grieco 2001) while others analyze ministerial duration (Kerby 2009; 2011) or legislator turnover (Matland and Studlar 2004; Kerby and Blidook 2011) to explain the political duration story. Using this literature I identify the key

determinants used in assessments of political duration and explore them with respect to the Canadian provinces.

1.1 Definitions

This thesis uses two definitions for government duration that are specific to the analyses presented in this thesis. The two terms used in this thesis and their definitions are the following:

Party government duration: In this study party government duration refers to the length of time a single party has continuously controlled government. Its beginning is measured from its initial election day and its end is defined as the day in which it ceases to be the governing party, which is when it is replaced by another party at an election.

Individual government duration: In this study individual government duration refers to the length of time a single government has held power. Its beginning is measured from its initial election day and its end is defined as the day in which it ceases to be the governing party, which is at the time of the next election.

Party Re-election: This term refers to a party's re-election at a subsequent election.

1.2 Political Duration

According to Laver (2003), durability can be seen as a theoretical model based on the empirical study of political durations. Duration is the length of time that has passed since a government was formed and its date of termination; durability, then, is the likelihood of a government surviving to a particular point in time (Laver 2003). Studying the characteristics of governments over time allows scholars to

predict what factors influence the strength or weakness of current and future governments.

Work on government duration has evolved from an attributes or shocks approach to a unified model that combines both attributes and shocks, that is fixed and time-varying covariates, to explain the durability of any given government. King et al.'s (1990) unified model implies that a cabinet's durability is a product of its attributes and its ability to withstand shocks in its environment. The Canadian provinces have seen periods of exceptionally long government duration and periods of short government duration. Why have some governments been able to hold power for so long while others cannot?

Why does the duration of various governments matter? Apart from facilitating predictions about future governments, it allows us to assess the health of a democracy (Matland and Studlar 2004). Government durations, legislator turnover and the level of cabinet stability all tell tales about the health of a given democracy. Stable governments ensure the continuation of a policy agenda (King et al. 1990; Maeda and Nishikawa 2006) and it is typically believed that a stable cabinet is equal to a stable regime. However, Ljiphart (1984b) cautions that a stable cabinet does not necessarily foretell a stable regime nor does a seemingly unstable cabinet suggest an unstable regime.

Of course, too much stability is not always beneficial (Matland and Studlar 2004; Ljiphart 1984b). A healthy level of turnover is "important for theories of elite circulation, for creating opportunity structures for aspiring political leaders and insurgent groups and for leading to changes in public policy" (Matland and Studlar

2004: 87). Too little turnover could threaten the legitimacy of a regime; moreover it could hinder democracy (Matland and Studlar 2004). Major components of democratic theory are the 'will of the people' and the freedom from tyranny, which could be hindered by complacent legislators (Matland and Studlar 2004). Legislators who become less interested in policy development and are more willing to maintain the status quo.

Single-member plurality electoral systems tend to produce stable majority governments (Duverger 1959) but the trade off is a winner-take-all situation in which votes cast for the losers do not count. The effects of the electoral system are particularly relevant in Canada as there have been instances of parties holding the majority of the seats in Parliament but not winning the majority of the popular vote. Conversely, some parties have generated smaller seat shares than their proportion of the popular vote would indicate. Individual legislator turnover is high in Canada but government turnover is low.

It should also be noted that government stability is not necessarily the same as durability. Ljiphart (1984a) uses the example of the French Fourth Republic to illustrate this point. Individual cabinets were short-lived in the Fourth Republic but policy continuity was stable, as ministers from previous cabinets were also members in successive cabinets and policy outcomes were similar. The Fourth Republic would be called unstable yet one could argue that it indeed was stable because the policy agenda continued despite significant cabinet turnover. While stability and durability are often used interchangeably, Ljiphart (1984a) argues that there is a difference in the terms. Government durability is an indicator of executive dominance, not simply

stability. This is particularly significant in Canada where power is largely concentrated in the executive (Savoie 1999).

An overly stable regime may threaten the health of a democracy and the efficacy of pluralism. If there is too little turnover, competing interests may not be represented in government. It appears that there is a fine balance between too little and too much stability. Too much of the same thing is not necessarily a good thing. The purpose of this thesis is not to debate the optimum level of turnover; it is instead intended to shed light on government party duration and as a result comment on provincial government durability.

This research also has significance for Canadian political scientists. Some of the central debates in Canadian politics centre on Canada's perceived democratic deficit. As mentioned, too much stability is not necessarily a good thing. This is particularly relevant in the Canadian case because of executive dominance in legislatures (Savoie 1999). While Savoie's (1999) article concerns the federal government, the principles of parliamentary government apply to provincial legislatures. It is not a stretch to conceive that provincial legislatures are dominated by the executive and in particular the premier. Bernier, Brownsey and Howlett (2005) contend that provincial governments are different than the federal government insofar as the premier is more reliant on caucus. However, they do note that the current cabinet structures and institutional mechanisms allow even weak premiers to control their cabinets and caucuses. White (1994) contends that premiers are the most powerful individuals in provincial cabinets.

While the purpose of this thesis is not to discuss the optimum level of turnover, it will comment on party government duration, which allows one to make predictions about durability. This study does have the potential to inform a discussion of democracy elsewhere; however, such a discussion is outside the scope of this thesis.

The data I have gathered show that individual government duration in the Canadian provinces is fairly uniform. However, when the data are analyzed by party duration as opposed to by individual government duration they begin to tell a more interesting story. Table 1 presents data on the maximum durations for both individual government durations as well as party durations for all of the provinces for the period 1945-2012. We see that some provinces experience extremely long party government durations while others do not. For instance, Alberta and Ontario have seen parties govern for over 35 consecutive years, while Manitoba has seen the same party govern for only 13 years.

Table 1: Provincial Party Government Duration 1945-2012 (n=61)

Province	Government Duration (max)	Party Gov't Duration (max)
BC	4.9	19.9
AB	4.2	40.8
SK	4.9	19.6
MB	5.0	13.1
ON	4.7	39.4
QB	4.9	15.7
NS	4.8	14.5
NB	4.9	16.7
PEI	4.3	15.7
NL	5.1	22.1
Mean	*4.8*	*21.8*

Figure 1 below offers a visual of the distribution of party durations across provinces for the period 1945-2012. Each party duration for the aforementioned period is included in this graph illustrating the significant variation among durations. Importantly, however, it shows that there is a broad array of party government duration, which begs the question: what explains the variation in the length of time a party has governed?

Figure 1: Party Government Duration (measured in years, n=61)
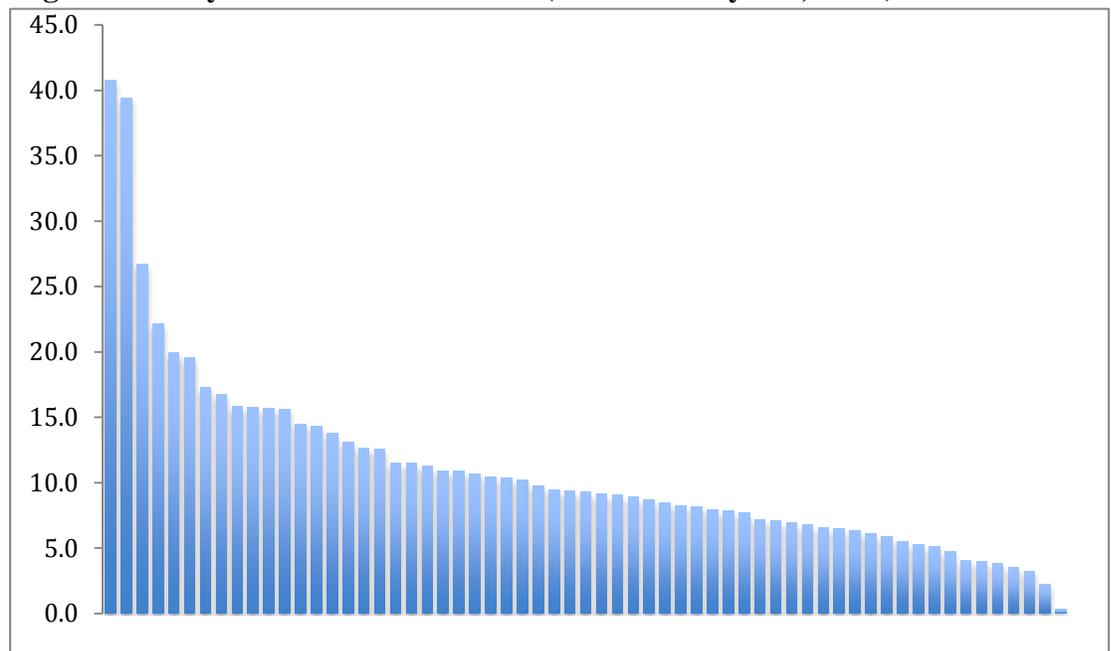
1.3 Theoretical Background

The theoretical basis of this thesis is rooted in the rational choice tradition. Most of the scholarship that forms the theoretical background of this thesis is derived from positive political theory; the study of politics using formal modelling, game theory or statistical analysis and the assumption that political actors are rational agents (Riker and Ordeshook 1973). Rational choice theory has its criticisms, which will be examined but first it is important to explain the basic tenets of rational choice

theory and how it informs political duration research. It is important to note that a thorough discussion of the merits and limitations of rational choice theory is beyond the scope of this thesis. The limitations of rational choice theory as it regards this type of research are, however, within the scope of this thesis.

There is some debate between rational choice theorists as to the best way to approach politics from a rational choice perspective (Green and Shapiro 1995a). Despite this debate there are some assumptions in rational choice theory that are commonly accepted. Rider and Ordeshook (1973) discuss the main assumptions of rationality. They argue that people are utility maximizers, that is, they are interested in maximizing their perceived benefits. If given a choice among options, an individual will choose the option that will produce the greatest benefit for him/herself. There is also an assumption in the consistency of preferences. Individuals are aware of their preferences and can rank order those preferences. Preferences are transitive, which means that if an individual prefers A to B and B to C then we can assume that the individual prefers A to C. The final main assumption is that each rational actor is an individual. Societal preferences are therefore an aggregation of individual preferences. Ultimately, preferences and utility maximization drive an individual's actions.

Rational choice theory is not without its critics. Green and Shapiro (1995a) contend that rational choice theory has not increased our knowledge of politics. Particularly, they contend that the empiricism used by rational choice theorists does not withstand scrutiny. They (1995b: 238) also assert that one of the main downfalls of rational choice is that it is "method-driven, as opposed to problem-driven"

research. The commitment of rational choice theorists is to their methods and not necessarily to producing meaningful and robust research. Rational choice theorists are too concerned with finding a universal theory that fits everything. There are also questions about the psychology of rational choice, with some contending that it cannot adequately account for the complex strategic decision-making in politics (Green and Shapiro 1995b).

Despite the criticisms and alleged shortcomings of rational choice theory, it is rational choice or positive political theorists who have focused on understanding the making and breaking of governments. It is rational choice theorists who have strived to understand what makes governments durable and what factors account for the end of governments.

The theoretical framework informing this thesis derives from the political duration literature spearheaded by Laver (1998; 2000; 2003), King et al. (1990) and Warwick (1992; 1994) as well as the leadership duration literature reflected in the works of Bienen and van de Walle (1992), Bueno de Mesquita et al. (2000) and Gelpi and Grieco (2001). This literature identifies the key determinants affecting political duration, which have been largely discussed as the attributes of a political or party system, such as number of parties or system stability, or attributes of a particular government or cabinet, such as coalition status, or as shocks to the environment in which a government exists, a scandal for instance or a failed policy (King et al. 1990; Bienen and Van de Walle 1992; Warwick 1994; Laver and Shepsle 1998). King et al (1990), however, show that both endogenous attributes and exogenous shocks affect the duration of a government. King et al.'s (1990) contribution to the literature

highlights that both attributes and shocks do not have to be modelled independently of one another.

Canada has proven to be an interesting case in the cross-national analyses of political duration (see King et al. 1990; Matland and Studlar 2004). The rate of turnover at the institutional level is low while individual legislator turnover is high (King et al. 1990; Matland and Studlar 2004). Yet, all of the political duration research has focused on the national level. Of the research conducted at the federal level most has concentrated on leadership duration (de Clercy 2007); voluntary legislator turnover (Kerby and Blidook 2011); ministerial appointments and exits (Kerby 2009; Kerby 2011) and individual government duration (Ferris and Voia 2009). Determinants of government duration in Canada include the economic growth rate, political manoeuvring, minority government status, an incumbent leader, the degree of party fractionalization, and the party in power (Ferris and Voia 2009).

Most of the existing literature typically focuses on the federal level, leaving provincial government durations largely neglected. This raises questions about why the provinces are ignored. Perhaps scholars underestimate the comparative value of subnational politics? At a glance, the provinces may seem less interesting and less important on the national scale. Yet to individual Canadians, provincial politics and policies have a greater direct impact on their daily lives as outlined in Section 92 of the Constitution. The dearth of provincial literature is problematic. This thesis will make a contribution to the provincial literature by filling a part of this gap.

Why Compare Provinces?

Apart from the aforementioned dearth in literature regarding the provinces,

there are other virtues associated with examining the Canadian provinces. Imbeau et al. (2000) claim that provinces are one of the easiest comparisons to make. They claim that there are very little substantial differences between the provinces. In short, their government systems are the same, they are bound by the same Constitution, electoral rules and federal arrangements. The rules of the game are thus the same for the provinces.

The provinces share the same institutional constraints making comparison of the subnational units less difficult. Yet, there is substantial difference across provinces, which makes them interesting cases for comparison. Despite the institutional similarity there are differences in economic performance, government preferences and political cultures. Orientations toward politics vary from province to province as illustrated in Wiseman's works on provincial political cultures (1996; 2006; 2007). Given the differences in political orientation, examining party government duration allows one to make observations about why some governments last longer than others. It not only adds to the already limited provincial research but also acknowledges the value of using the provinces as units of comparison.

Furthermore, subnational politics are a growing field of study in the international literature. There is a growing body of work on various aspects of subnational politics (Snyder 2001). Importantly, however, there is increasing international interest in legislator careers, a form of political duration research, at the subnational level. Scholars such as Jens Borchert and Klaus Stolz (2011) and Sebastian Jaeckle (2011) examine ministerial careers in European subnational governments. As noted above, most of the political duration literature in the

Canadian context concentrates at the federal level. This thesis has the potential to contribute to the growing Canadian political duration literature but also has the potential to contribute to a new growing international body of work concentrating on subnational political duration.

1.4 Data and Methods

This thesis uses a portion of an original dataset containing the election results of all provincial governments for the period 1867-2012. In this dataset, legislative seat distributions, leadership turnover in governing party and minority and majority status are also recorded for each individual government. Additional data concerning the relevant variables consistent with the theoretical literature have also been collected. These data were gathered from provincial electoral offices and from Statistics Canada. In this study the election results dating back to 1945 will be used to calculate individual and party government duration for all provinces.

This study will explore the potential explanatory variables affecting individual and party government duration using event-history analysis, which models time to event and is the most commonly used and accepted method for this research (see King et al. 1990; Warwick 1994; Laver and Shepsle 1998; Box-Steffensmeier and Jones 1997).

An event-history model measures survival. That is the length of time something, in this case an individual or party government, has lasted. There are two terminal events in this study; the first is the termination of an individual government's tenure, and the second is the termination or death of a party's hold on government. The 'history' in this study is " the duration of time leading up to the

death" or terminal event (Box-Steffensmeier and Jones 2004: 7). Each government is at risk of experiencing an event that could lead to its death. That event may or may not cause the death of a government yet if a government survives it is at risk of experiencing another potentially terminal event. This model is able to measure the impact the covariates or independent variables have on government survival. This model will be used to address the questions: 1) What factors account for individual government duration and 2) What factors explain the variation in party government duration?

A second statistical model is used to address the third question regarding the determinants of re-election. Since re-election is a binary variable, a logistic regression model is used to test a set of variables for their effect on re-election. Using this model allows for the exploration of the factors that contribute to a government's chance of re-election. The data that inform this model come from the dataset that informs the previously outlined model.

1.5 Thesis Organization

This thesis will be divided into five parts. Chapter 2 will provide a literature review and the theoretical background underpinning this study. The political duration literature that informs this thesis comes from the comparative political survival literature spearheaded by King et al. (1990) and from studies of political duration in Canada. Chapter 3 introduces and justifies the data, methods, dependent and independent variables used in this study. Chapter 4 presents the findings of the models outlined in Chapter 3 and discusses the implications of the findings for the research questions. The thesis concludes that while the analyses produce some

interesting results, the variables used in this study do not completely explain political duration in the Canadian provinces. The analyses indeed confirm that Canada is an exceptional case vis-à-vis other parliamentary governments. However, this thesis suggests that perhaps other variables such as political culture or the nature of the party system need to be considered as possible determinants of government duration in the provinces.

CHAPTER 2

Theoretical Background

This chapter introduces the theoretical literature underpinning this study. It begins by situating political duration within a larger body of work on coalitions, party preferences, and government formation grounded within the framework of positive political theory. The chapter then provides an overview of the work on political duration. It moves from the macro-level, cross-national analyses, to the micro-level, individual ministers and legislators. Party government duration, its measure and why it is relevant is then examined, followed by a discussion of its relevance to the Canadian case. Since the provinces are the focus of this thesis, justification of using the provinces as units of analysis is then provided. This chapter will situate this study among others while explaining why party government duration in Canada matters and why the provinces are worthy cases for investigation.

Political duration is a small area of study within a larger body of comparative work based on rational choice behaviouralism. The larger body of work has examined the behaviour of coalitions (Strom et al. 2010), parties (Strom and Muller 1999), political elites (Dowding and Kang 2005) and voters (Downs 1957). This work is generally concerned with European parliamentary democracies but rational choice behaviouralism is prominent in American political science. Laver and Shepsle (1990) note that European scholars tend to focus on coalition behaviour while American scholars tend to focus on institutions. While rational choice is more common outside of Canada, some scholars are using this theory to analyze Canadian politics (see: Ferris and Voia 2009; Kerby 2009 and 2011; Kerby and Blidook 2011). Rational choice or positive political theory is a lens

through which to analyze political behaviour of all sorts, which is why there is such a broad literature. Political duration constitutes a small part of this literature and is related to another of part of rational choice behaviouralism: government formation.

From the government formation literature, we understand that a government forms because of a complex bargaining process based on the preferences of political actors. The formation research is prevalent in Europe where coalition governments are more common (see: Strom and Muller 1999; Laver and Shepsle 1996). Strom and Muller (1999) detail party goals as policy, office and votes. Each party, a collection of individual political actors, acts in a certain manner in order to attain their goals. Laver (1998) asserts that it is generally accepted in the literature that politicians are concerned with seeking office or to affect policy or some combination of both. Scholars have attempted to model political behaviour in order to understand how a government forms.

Game theory has been used to model the complex bargaining environment in which governments are formed. Game theory is concerned with modelling rational decision-making among actors. Understanding the payoffs among political actors and how their preferences influence their behaviour has been one side of the government formation story. Others have done case studies based on the historical record of prior governments to explain formation. From there the study of political duration was used to explain or help understand government formation and stability by looking at party system attributes or cabinet attributes that make governments more durable (Laver 1998). Understanding what makes a government last helps explain why they form as they do. Laver and Shepsle (1998) argue that simply by forming a government is in equilibrium, therefore we must understand what causes a government to fall out of equilibrium.

Understanding why some seemingly durable governments fail requires an examination of political duration.

2.1 Political Duration

Political duration can be described as the length of time a political entity has lived. This means the length of time that has passed since a political entity's birth, for instance the formation of a cabinet, to its death, the dissolution of that cabinet. However, defining the beginning and end is more difficult than one might assume. Laver (2003) notes that each state has its own rules or conventions that define under what conditions a government might form and how one can be removed. The beginning is easier to define as it can be taken from constitutional convention of the state under study. However, defining the death of a government has proven more difficult and has been subject to scholarly debate. Laver (2003: 25) asserts that a government has terminated when "there is an election, the PM changes; the partisan composition of the cabinet changes; the government voluntarily or involuntarily resigns and the head of state subsequently accepts his resignation." While Laver's definition is generally used in studies of this sort to define the end of an individual government, depending on the context of the research question, the definition of the end of a government can become subjective.

Measuring government durations allows scholars to make predictions about the durability of a particular government. Government durations are recordable and government durability is a prediction based on the empirical record (Laver 2003). Predictions, however, can only be treated as predictions. A government, in theory, could appear to be more durable than another government yet it might not last because it is faced with an event that it could not withstand. Measuring durations allow scholars to examine the traits that make a government durable and the effects of events on those

governments. This type of research allows scholars to determine what factors account for government durability. The variables that matter in one state may not matter in another, which opens a new line of research. While the predictive does not necessarily translate into a general rule, it nevertheless offers valuable insight into the breaking of governments.

Why does political duration matter? While this type of research facilitates predictions about future governments, it also allows us to take an objective look at democratic health (Matland and Studlar 2004). The level of turnover, measured as individual legislator duration, cabinet duration, leadership duration or government duration, all tell a story about the health of a democracy. There is a general belief among scholars that stable cabinets equate stable regimes, which equate healthy democracies insofar as there is a level stability within the institutions of government. Stable cabinets are able to ensure the continuation of policy, another sign of stability (King et al. 1990; Maeda and Nishikawa 2006). The word stability is somewhat problematic and Ljiphart (1984) warns that a stable cabinet does not always indicate a stable regime, and that an unstable cabinet does not always mean a lack of policy continuation.

The other side of the stability story is that too little turnover is not good for democracy. A lack of turnover can have negative impacts on representation, policy change, elite circulation or the entrance of challenger groups. The legitimacy of a regime could be threatened by a lack of turnover but more importantly the health of the democracy can be questioned without healthy elite circulation. The 'will of the people' and the freedom from tyranny are a significant part of democratic theory, which can be threatened by complacent legislators (Matland and Studlar 2004).

Determinants of Political Duration

Several scholars have measured political duration in different ways. Some have examined individual government duration (Laver and Shepsle 1998), party control (Maeda and Nishikawa 2006), cabinet duration (King et al. 1990), leadership duration (Bienen and van de Walle 1992), individual legislator turnover (Matland and Studlar 2004) and ministerial turnover (Kerby 2011) in order to describe political duration. Others have looked at government formation to inform the study of political duration. Diermeier and Merlo (2000) used the theoretical formation of a government to build a model that allows scholars to predict durability. They note (2000:47) that both government formation and termination are explained by four empirical regularities: "minimal-winning governments are not the norm;" cabinet shuffles are frequent; "governments frequently terminate before the end of the legislative period;" "minority governments are…less stable than minimal-winning or surplus governments." They seek to create a theoretical model that can account for these regularities. What is different about this study is that the authors do not use actual government data; instead they seek to build a theoretical model than can account for the simultaneous existence of the regularities. Their model is able to demonstrate that all types of government are able to form in equilibrium, minority governments are the only ones that can terminate in equilibrium and termination of several sorts, cabinet shuffles, replacement governments and early elections call can happen in equilibrium. This model contrasts with game-theoretic models, in that it demonstrates that all types of governments can form, not just minimal-winning coalitions, which are predicted by game theory.

There are various subsets of the study of political duration. Most studies to date have focused on cabinet durations over time, particularly in Western Europe though as the study of political duration grows as scholars seek to explain political survival across the world (see: Bienen and Van de Walle 1992; Matland and Studlar 2004). Studies have concentrated on cabinets, individual governments and party control of a legislature. Others have focused on leadership duration, legislator turnover or ministerial duration. Maeda and Nishikawa's (2006) study of party control is different than most other studies, as it examined both presidential and parliamentary systems. More importantly, they justified their study based on the fact that the end of a cabinet or leadership turnover does not necessarily signify an end to policy development. Since politics are often party-centred a change in cabinet composition does not always signify a change in government or an abandonment of a policy agenda. This particular study underscores the significance of studying party government duration.

The topic of political duration has been the attention of much scholarly debate. Some scholars have argued the best approach to political duration, attributes versus critical events (see Strom 1988 and Browne et al. 1988). Others have argued about the best method to measure durability (see Laver and Shepsle 1998 and Warwick 1999). The following will outline the debates between scholars as well as review the existing works on political duration of all types, both at the cross-national level and at the Canadian level.

Attributes versus Critical Events

Most works prior to Browne et al. (1984) were concerned with the attributes that made cabinets stable, which would then account for their durability. However, Browne et

al. (1984) advanced the notion that perhaps critical events were a part of the political durability puzzle. Citing various works (such as Riker 1962; Browne 1971; Taylor and Laver 1973) they note that previous works established that cabinets form under certain conditions. Parties, which have the potential to form a cabinet, will seek other parties that have similar ideological leanings. The most compelling argument about cabinet formation was the idea of the minimal winning coalition. That is, a party will form a coalition that just meets the threshold in terms of the number of seats required to form government. It is not advantageous to form a larger coalition than necessary because it increases the complexity of the bargaining environment.

From there the authors discuss existing works concerned with cabinet stability. They note that the works focus on the attributes of the cabinet or system in which the cabinet exists. But what this body of coalition research suggests is that by virtue of a cabinet's formation it ought to be durable, or less likely to terminate. A coalition would form between political actors with similar preferences or each party involved in the coalition would derive some sort of benefit from participation. The derived benefits would act as incentive to keep the coalition alive. This research highlights that previous works do not account for change in the attributes over time or change of the flow of benefits between partners. Some cabinets dissolve before the next mandated election. The question then becomes: what accounts for cabinet failure?

Theories of cabinet formation often use game theory to model the ideal conditions under which a cabinet is likely to form. They account for a set of attributes that make certain coalitions more likely to form than other potential coalitions. However, the attributes a cabinet possesses are not static. The formation models did not account for a

change in the initial attributes at formation. Browne et al. (1984) describe attributes as a cabinet's armour. A cabinet exists in a fluid environment and over time exogenous factors are able to permeate that armour. An outside factor, which is not accounted for in previous theories, causes the armour to degrade and could lead to a premature cabinet failure. Such a situation could be called a critical or terminal event. Browne et al. (1984) contend that only looking at the attributes that allow a cabinet to persist over time does not tell enough of the cabinet duration story. Instead they argue that looking at the events that befall a cabinet causing its destabilization is an important aspect in the cabinet durability question.

A debate between Kaare Strom (1988) and Browne et al. (1988) ensued with Strom being especially critical of the way non-game theorists approach the durability subject. In particular, Strom argues that critical events do not accurately explain actor behaviour. That is to say that a critical event would cause a decision to be made as a cabinet does not dissolve simply because of a random event. The decision to dissolve a cabinet is made by political actors. He also notes many of the advocates of stochastic approaches, those that use empirical models from other sciences such as biology, misrepresent the lack of success of the game-theoretical traditions that they challenge. Strom acknowledges the shortcomings of the game-theoretical models but contends that they are nevertheless better for this type of analysis. Another criticism that Strom highlights is that the stochastic studies often do not adhere to their own terms and definitions and that they are poorly explained. Strom expresses disdain for Brown et al. and others' dismissal of the game-theoretical tradition. He argues that in terms of coalition, voter and party behaviour rational choice theorists have produced a rigorous

research program. There are, however, merits to the events approach and Strom

acknowledges that critical events should be examined within the rational choice

framework.

It is important to note that in the Canadian case cabinet formation does not take

place in a complex bargaining environment. In a single-member plurality electoral

system, majority governments are more common, which requires no inter-party

bargaining. Appointing a cabinet is at the discretion of the prime minister or the premier.

However, this debate is crucial to the evolution of the study of political duration because

it spurred the birth of the unified model that is currently used to analyze political duration

of all sorts.

The Unified Model and Subsequent Studies

The initial debate over attributes and shocks progressed into the unification of the two

schools of thought in a single model. King et al. (1990) produced a model that

simultaneously accounted for attributes that a cabinet or system possessed while also

accounting for shocks that a cabinet might encounter. Durability or the expected length

of duration is tested by a set of attributes that a cabinet possesses. Significant to this

study is the assumption that each duration is "determined by a stochastic process," that is

by a set of random events or exogenous shocks (King et. al 1990: 847). The model

successfully incorporated both schools of thought while also improving upon previous

models in that they considered constitutionally mandated elections and by "allowing

government durability to vary according to a function of measured explanatory

variables" they were able to eliminate negative duration predictions (King et al. 1990:

848).

King et al. (1990) measured cabinet duration in fifteen Western parliamentary democracies for the period 1945-1987. They find that the complexity of the bargaining environment affects durability. The levels of fractionalization and polarity in the system also have an effect on the severity of the shock required to destabilize a cabinet. A low level of fractionalization indicates that a larger shock is required to cause a government to fall while in a highly fractionalized system a government is more likely to fall because of a minor shock. Canada proved to be an interesting case in these analyses as it typically has a low level of fractionalization and a low level of polarity, which can be described as the ideological distance between parties within the system. Majority cabinet duration for Canada is estimated to average 67.2 months, which surpasses the Canadian constitutionally mandated elections. Canadian minority cabinets are estimated to average 40.5 months. The major finding of this article, however, is that both schools of thought can indeed be reconciled and unified in a single model.

The unification of the attributes and shocks approach was not without its critics as scholars sought to improve upon the model. Warwick (1994) noted that while the King et al. (1990) model successfully solved the attributes versus events debate, it did not account for some important variables. Warwick (1994) highlights that the King et al. (1990) model falls short because it does not account for variables that change over time, potentially causing a government to fall. For instance, Warwick claims that economic indicators do not remain constant over a long period of time, so a sudden change in the economy could result in a negative outcome for the government. The contribution this particular work made involves the use of time-varying covariates. That is, variables that change over time. Laver and Shepsle (1998) contend that while Warwick's work

enhances the government survival story his approach remains largely inductive. They argue that the question of what causes an equilibrium government to be replaced by another is the greater question.

Laver and Shepsle's (1998) extension of the political duration story is to explore the determinants of a government being replaced by another. It is thought that a government is in equilibrium simply because it has formed. They seek to answer "whether a particular configuration of parameters sustaining an equilibrium is robust to shocks and, if so, then how robust" (Laver and Shepsle 1998: 35). Political actor preferences and incentives play a central role in their model; for instance, if there is a change in public opinion it signals a change in the political environment and a change in the incentives and subsequently the decision process. They theorize that an equilibrium government that cannot survive minor shocks would not be durable in reality. Conversely, if a cabinet could withstand major shocks it would be more durable and more likely to last.

Laver and Shepsle (1998) establish a set of parameters that signify an equilibrium government and what shocks perturb what parameter. They identify public opinion shocks; policy shocks; agenda shocks; and shocks to the decision rule[i] as the types of shocks that a cabinet can face in its political life. The authors outline their theoretical model and test it on two real life coalition governments, one in Germany and the other in Ireland. The model shows that a seemingly stable cabinet can be destabilized as a result of certain shocks while another government may not destabilize from the same set of shocks. Indeed a different government can be more sensitive to a different set of shocks. Each government is affected differently by the shocks that exist in its political

environment. The political duration debate moves into the micro-level of analysis with Matland and Studlar's (2004) examination of individual legislator turnover. Their cross-national study of aggregate legislator turnover, which is different from individual legislator turnover, looks at the rates of legislator turnover in twenty-five democracies using general elections results from 1979 to 1994. They measure turnover in two different ways, turnover by election and turnover by year. They indentify the mean turnover per election as 32.3 percent while turnover per year is identified as 9.56 percent. The rates of turnover are significantly different depending on how turnover is measured. Ireland, for example, has a high level of incumbency, 71.5 percent, but due to frequent elections has an annual turnover rate of 9.3 percent. In order to explain turnover rates they analyzed a set of attributes and shocks as explanatory variables. They examined voluntary turnover, involuntary turnover, a party's left/right leanings and the electoral system. The analysis found that both attributes and events affected turnover rates. They suggest that further research should examine both voluntary and involuntary turnover rates in specific countries.

Measures of Political Duration in Canada

Political duration research has extended into Canada with some scholars assessing the macro and micro levels of analysis at the national level. Canada proves to be an interesting case in much of the literature. The nature of Canada's party system, the decimation of the Progressive Conservatives in the 1993 federal election, the birth of the Bloc Québécois and the Reform party, coupled with unusually high rates of legislator turnover but low rates of government turnover, make Canada a somewhat unique case in the duration literature.

Ferris and Voia's (2009) examination of the determinants of Canadian government duration is the only study to date specific to Canada and within the framework of the above outlined literature. The authors identify three sets of variables that have the potential to affect individual government duration at the federal level. The first set of variables includes party system, government and institutional variables similar to those used by King et al (1990). Partisan differences constitute the second set of variables while policy variables, including economic factors, constitute the third set of variables. Using duration data for all parliaments for the period 1867-2006, the authors fit a Cox proportional hazards model to test the variables.

One of Ferris and Voia's (2009) research questions is concerned with election timing in Canada, that is the likelihood that a sitting prime minister will call an election. They find that an election is less likely to be called when the economic growth rate is low and that election timing is a result of political manoeuvring. If not in a minority situation prime ministers call elections when they think they are likely to win. The hazard rate, or the likelihood that the government will experience a terminal event, is found to increase when there is an incumbent leader present or if the government is a minority or if the governing party is Conservative. Interestingly, they find that a lower degree of fractionalization actually increases the hazard rate.

In Matland and Studlar's (2004) analysis of aggregate legislator turnover Canada proves to be an interesting case. Legislator turnover in the House of Commons is exceptionally high in comparison to other countries. Particularly interesting is the change in the turnover rate during the 1993 election. The rate prior to 1993 was 40 percent while during the 1993 election the turnover rate was 69 percent. This rate was far higher than

the rates in the United States and Britain. While Matland and Studlar (2004) assert that there are realistic explanations for the high rate of turnover, it could be related to a fickle Canadian electorate. They conclude that Canada is a true outlier and is deserving of further research.

Works prior to Matland and Studlar (2004) have noted the Canadian turnover 'problem' in the House of Commons as it pertains to parliamentary careers. Canadian parliamentarians tend not to be career Members of Parliament and their careers most commonly end in electoral defeat not voluntary exit (Atkinson and Docherty 1992). While some MPs sit in the House of Commons for long careers, other MPs serve only for a short time. The high rate of turnover suggests that MPs do not have significant experience. Atkinson and Docherty (1992) do not aim to assess career paths, instead they seek to explain potential reasons for voluntary exit. Gibbins and Barrie (1989) do, however, look at career paths of federal MPs. Citing American studies that show there is a clear career path from state level to national politics in the US, Barrie and Gibbins (1989) seek to explain the Canadian career path. They examine careers of 3,803 MPs for the period 1867 to 1984. They find that for the period observed there is no clear career path from provincial to federal politics. In the period right after Confederation, some parliamentarians did have provincial experience prior to entering federal politics. However, the authors find that there is a decline in provincial experience among MPs with most parliamentarians having no legislative experience prior to entering the House of Commons. Although neither of these studies is of the same theoretical tradition as other political duration works, they nevertheless demonstrate that there is some research interest in explaining political duration in Canada.

Kerby and Blidook (2011) build on the previous works on legislative careers in Canada by examining the determinants of voluntary exit from the House of Commons. They record the parliamentary exit, using exit types that are available through the Library of Parliament, for every MP for the period 1953 to 2006. 687 of the 1,954 MPs who sat in Parliament during that period left politics voluntarily. Using event-history modelling they test a number of potential explanatory variables. The article finds that electoral prospects, being an MP from Quebec, the distance between the constituency and Ottawa and individual political expectations are all factors related to an individual legislator's voluntary exit from the House of Commons.

   Leadership duration has been an interest to some Canadian scholars. De Clercy's (2007) work on party leaders suggests that leadership duration in Canada is declining. Using a dataset consisting of leadership duration data of all major federal parties for the period 1867-2005, De Clercy examines the determinants of the decline of leadership tenure. Initially, De Clercy (2007) establishes that leader duration is indeed on the decline by averaging leaders' durations, breaking the durations into different periods and re-averaging the durations. She then establishes potential determinants of this decline in tenure. Her findings suggest that leader experience, electoral success and intraparty dynamics, in particular rivalry and factionalism, are determinants of leadership survival.

   Kerby (2009 and 2011) examines the determinants of ministerial appointments and resignations in two separate analyses. In his initial article on ministerial appointments, Kerby (2009) examines ministerial appointments for the period 1935-2008. He constructs an event history model to test a set of variables thought to be factors in a prime minister's choice of ministers. A legal background, being female, previous

ministerial experience and leadership challenger status increase the likelihood of a

cabinet appointment. Regional representation is also a factor in determining political

appointments; if the party fares poorly in a region, an MP from that region is more likely

to receive a cabinet appointment. In Kerby's 2011 analysis, he examines the determinants

of ministerial appointment and resignation. Using ministerial tenure data for the period

1867-2006 and a set of "individual, institutional, and political-environmental level

characteristics" variables to inform an event-history model, Kerby (2011: 600) assesses

the determinants of ministerial appointment and exit. The article finds that the hazard rate

for ministerial exit decreases with previous legislative experience in the House of

Commons and holding a degree in law. A low degree of party strength in a region

decreases the likelihood of ministerial exit. Interestingly, however, leadership challenger

status increases the hazard rate, which is somewhat counter-intuitive. Kerby also finds

that prime ministers indeed tend to appoint cabinets based on gender, presence of a law

degree and region, among other variables. However, prime ministers who command large

majority governments, for instance Brian Mulroney in 1984, do not always choose

cabinets based on the historically important attribute; they are a little more experimental.

Although there is a healthy body of research on political duration at the federal

level in Canada, political duration research has been neglected in the Canadian provinces.

One work on political duration at the subnational level is Moncrief's (1998) analysis of

provincial legislator turnover. He examines legislator turnover in the provinces for the

period 1960 to 1997 and finds that provincial turnover is higher in Canada than in other

countries but is similar to subnational rates in the United States and Australia. While

turnover rates vary from election to election, he finds that Prince Edward Island has the

lowest mean rate of turnover at 31.2 percent while Quebec has the highest mean turnover rate at 43.8 percent. Legislators in Ontario, Saskatchewan and Quebec are more likely to exit due to electoral defeat while Alberta legislators are more likely to exit due to retirement. Particularly significant is that turnover rate in the provinces is similar to the federal rate in the House of Commons. This is curious because half of all exits are voluntary and there is no consistent career path from provincial to federal politics. Given that provincial legislators do not move from provincial to federal politics, one would expect that that they would choose to spend longer careers in provincial legislatures but they do not.

The following section demonstrates that there is a clear interest in political duration in Canada and that there is a growing literature at the national level. Although the "how" of political duration is conceptualized varies across analyses it is clear that there are questions to be investigated in Canada. Perhaps the most glaring omission in this literature review is the research on the Canadian provinces. The neglect of the provinces presents a significant gap in the Canadian political duration literature. This thesis aims to make a meaningful contribution to the study of Canadian political duration by addressing that gap in the literature.

2.2 Party Government Duration

Studies of political duration tend to concentrate on single cabinets, ministers or leadership duration (King et al. 1990; Huber and Martinez-Gallardo 2008; Bienen and Van de Walle 1992) and generally concentrate on single terms in office. Yet as noted Maeda and Nishikawa (2006) approached political duration by measuring party control

of the executive branch in both presidential and parliamentary systems. Table 2 below describes some common measures of political duration as established in the literature.

Since the duration analysis is twofold, political duration will be measured in two different ways in this thesis. Initially, individual government length will be recorded as the duration. That is, the length of time that a government has held power from one election to the next. Each election in this case produces a new government since the sitting government dissolves and an election is called. Measuring duration in this manner will allow for an analysis of why some governments survive elections while others do not. Building on that, the measurement changes to party government duration or the length of time a party has continually held the executive branch of government. This will facilitate an exploration of the main research question: what accounts for the variation in party government duration? For the third analysis the dependent variable is the binary variable, re-election.

Table 2: Measures of Political Duration

Author	Definition of Duration
Laver and Shepsle 1998	Government survival- "How radically circumstances must change before a government falls and is replaced" (p. 28)
King et al. 1990	A change of government occurs when there is a change in the composition of the cabinet
Warwick 1992	"lifetimes of individual governments" (P. 859)
Matland and Studlar 2004	Legislator turnover- "change from one election to the next" (p. 92)
Kerby and Blidook 2011	Legislator turnover- "start and end dates" of tenure
Diermeier and Merlo 2000	Replacement of one equilibrium government with another
Moncrief 2004	The length of time the has passed since election to the replacement of one individual by another in a particular legislative seat
Ferris and Voia 2009	The length of time that has passed between the formation and dissolution of a parliament
Maeda and Nishikawa 2008	The length of time a party controls the executive branch of government

The main research question is concerned with the length of time a single party has consecutively held government. Why does party control of a legislature matter? The single most important reason relates to policy development, continuity and implementation (Ljiphart 1984a; Maeda and Nishikawa 2008). The executive branch of government is responsible for the development and implementation of policy. In coalition theory party behaviour is motivated by office-seeking, vote-seeking or policy-seeking behaviour (Strom and Muller1999). Parties seek office in order to affect policy, control the agenda or implement their preferences. Policy therefore constitutes a large portion of executive governance.

Looking at a party's total tenure of the executive branch is important because the failure of an individual cabinet does not always indicate a disruption of policy. Unstable

cabinets do not necessarily denote unstable regimes or unstable policy. Ljiphart (1984a) uses the French Fourth Republic as an example of this situation. While cabinets were short-lived in the Fourth Republic, policy continuity was stable. Minsters from previous cabinets were also members in successive cabinets. The end of a single cabinet or government does not signal the end of a particular policy when there is little to no change in party composition. This is particularly relevant in Canada as single-party majority governments are the norm because of the single-member plurality electoral system that manufactures majorities. Canadian cabinets thus tend to last longer than in some other parliamentary systems.

Maeda and Nishikawa (2008) justify their definition of political duration as party control of a legislature based on policy development and implementation. They argue that parties have their own policy preferences. Since party government is what characterizes modern political systems it is important to look at party control. Blais, Blake and Dion (1993) confirmed in their study of public expenditure and party orientation that the length of time a party stays in power has a statistically significant effect on the level of public expenditure. They argue that policies take time to implement; therefore it is important to look at party activity over an extended period of time.

The other major relevance to studying party government duration in Canada relates to the nature of parliamentary government in Canada. The Canadian system of government is built on the Westminster parliamentary tradition. This includes the adoption of responsible government and its main tenets (White 2005). According to White (2005: 13) these principles are: "cabinet's monopoly on executive power, the

requirement for cabinet to be responsible to the House [maintaining confidence]…cabinet solidarity [and] ministerial responsibility." The problem with this, however, is that politics in Canada are executive dominated; decision-making and power are confined to the prime minister and cabinet (Savoie 1999). Although executive-dominance is consistent with the tenets of parliamentary government, the extreme tightness of party discipline in Canada is somewhat exceptional.

Savoie (1999) outlines the significant power that the Prime Minister of Canada wields. He notes that barring electoral defeat, a massive negative shift in public opinion or cabinet or caucus revolt the prime minister holds the most political power. This power is reinforced by party discipline. White (2006) notes the similarities between the national parliament and provincial legislatures. Constitutionally speaking, a member of a provincial legislature is entitled to vote however they choose. In practice, however, party discipline is very strict, which further exacerbates executive dominance.

The problem with executive dominance is with responsiveness. Power is further constrained in the office of the head of government party, which causes problems with responsiveness to caucus or opposition (Docherty 2005). Members of the government party are beholden to the will of the premier or prime minister and not the will of constituents. With the commonality of majority governments, policy is dictated by cabinet and not by the legislature. While the government party may be responsive to the public through consultation and committee hearings, generally a majority government is not responsible to the legislature because of party discipline and the dynamics of the Westminster style of parliamentary government in Canada (Docherty 2005).

The nature of how government works in Canada underscores the importance of studying party government duration. It gives insight into what makes a government durable. This analysis has the potential to inform the debate surrounding Canada's 'democratic deficit.'

2.3 Why the Canadian Provinces?

The second somewhat novel component of this study is the use of subnational units. Other studies have typically focused on national level analyses or cross-national units for comparison. Given the difference in the units of analysis and the decision I have made regarding the measurement of the dependent variable, it deserves justification.

The provinces were chosen as units of analysis for two reasons. As units of analysis the provinces are somewhat natural comparisons. The provinces, despite their distinct and separate histories and relationships vis-à-vis the federal government, are constrained by the same rules of the political game. While they are autonomous units, that autonomy is constrained by their constitutional responsibilities. In this regard, provincial comparisons are more natural than cross-national comparisons because they share the same formal constraints.

There is agreement among scholars that the provinces are under researched (see: Brownsey and Howlett 2001; Imbeau et al. 2000; Dunn 2001) indicating that they are worthy areas of further research. There is also a lack of comparison across provinces. Vipond (2008) writes about the various ways comparative politics has become significant in the study of Canadian politics, yet does not mention comparative provincial politics. This is somewhat problematic as the policy responsibilities in the provinces affect individuals more closely than federal level policy jurisdiction. Section 92 of the

Canadian constitution places jurisdiction for important policy areas in provincial legislatures. Social welfare, health care and education are areas of provincial responsibility and as such are affected by a change or lack thereof in provincial government. The provinces are good comparative units given their similar constitutional constraints but also because they have important policy jurisdiction.

The theoretical literature that informs this thesis derives from theories of coalition behaviour and government formation. Scholars debated the most appropriate way to explain political duration. It was initially viewed as dependent on a set of attributes a cabinet or system possessed but critics claimed that exogenous shocks were explanatory factors in the termination of a government. The debate over attributes versus shocks led to King et al.'s (1990) unified model, which could account for both endogenous attributes and exogenous shocks. Warwick contributed the need to consider time-varying variables to the model in order to more accurately examine political duration.

Scholars have used the unified model to explore different types of political duration. Most studies have focused on parliamentary governments with Canada appearing as an exceptional case. Studies of government duration tend to focus on cabinets and individual governments. However, Maeda and Nishikawa (2008) highlight the importance of studying party control of a legislature. Studying party control in the Canadian provinces is particularly relevant given the executive dominance that exists in legislatures. The above literature will be used to inform the variables and models that are presented in the following chapter.

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[i] Laver and Shepsle define the decision rule as the "majority voting rule" typically for votes of confidence or no confidence.

CHAPTER 3

Data and Methods

This chapter details the research questions and hypotheses to be explored in this thesis. It also introduces the dependent variable, independent variables and the method of analysis that will be used to answer the research questions. It begins with a description of the research questions, hypotheses and research design. The dependent variable, party government duration, its measurement and the distribution of provincial durations are then examined. An explanation of the independent variables and event-history modelling or survival analysis follows.

This study is designed in a very similar way to previous cross-national and federal level studies (see: King et al. 1990; Maeda and Nishikawa 2006; Ferris and Voia 2009). The dependent variable is the most noticeable difference between previous studies and this one. I have chosen to measure both party government duration and single government durations. Single government durations are recorded and analyzed in order to inform the larger research question. This analysis aims to explain what accounts for the variation in the length of time a single party has governed therefore it will actually contain two different analyses.

The main research question of concern in this study is: what accounts for the variation in party government duration in the Canadian provinces for the period 1945-2012? In order to understand party government duration it is important to understand why some parties "survive" subsequent elections after their initial win while others do not. Every election a governing party encounters is the greatest potentially terminal event that a party can face. Yet, some parties are able to survive the potential terminal event

while others cannot. Party government duration is defined as the length of time a party has continuously held the legislature. In order to understand what accounts for the variation among party government duration one must understand why a party survives or does not survive an election. By asking why some parties are more electorally robust than others, we can then explore why some parties are able to hold government longer than others.

Understanding party government duration therefore requires two analyses. The first analysis is necessary to understand what makes some individual governments more durable than others. The second combines all individual government durations of the same party and analyzes party government duration in all provinces for the period 1945-2012, which would then help us understand the variation in party government duration. The study therefore has two dependent variables: 1) individual government duration, the length of time a government holds office, and 2) party government duration, the length of time a government party has held continuous power. However, the first research question cannot adequately explain what factors account for re-election. In order to understand the determinants of re-election we must ask a third research question: What accounts for the success or failure at time of re-election for individual governments? This objective is achieved through a third analysis using a logistic regression that combined with understanding what causes individual government termination can better explain the factors associated with re-election.

A similar set of independent variables can be used to test all three research questions. The difference, however, will be in their measurement. The independent variables employed in these analyses are the following: majority government status,

fractionalization, party competition, Consumer Price Index and leadership change. The justification and measurement of the independent variables for each analysis will be detailed below.

3.1 Data

The data used to perform the analyses in this thesis come from an original dataset. Elections data were collected from provincial elections agencies for all provinces from 1867 to 2012[ii]. These data included election dates, winning parties, minority government status as well as legislative seat distributions for each party. The data used in this thesis date to 1945 because it is the beginning of the post-war era. The independent variable data is a combination of the previously collected elections data and economic data retrieved from Statistics Canada. Fractionalization and party competition are calculated using legislative seat distribution data. Since provincial Gross Domestic Product or other provincial economic indicator data for the entire observation period is currently unavailable from Statistics Canada, the federal Consumer Price Index is used as an economic indicator in this study, which was collected from Statistics Canada.

The data are organized into three separate data files in order to conduct the analyses and meet the research objectives. The first dataset, used to analyze individual government survival, is a file that contains election dates and winning parties for 189 provincial elections. The initial election date is recorded as the beginning of the observation while the date of the following election is recorded as the end of the observation. The second data file, used to analyze party government duration, contains 61 observations of provincial party governments. The beginning of the observation period is recorded as the date a party is first elected to government, the end of the

observation is when another party replaces the party in power. Both of the two data files outlined above contained censored data, meaning that they are truncated observations. The final 10 observations in the first data file are right-censored, as those governments have not terminated. The second data file contains six left-censored observations because six parties were governing prior to the beginning of the observation period. There are 10 right-censored observations, as those parties have not yet terminated. The third data file contains 179 observations; the governments currently in power have been dropped, as they have not yet faced re-election. This data file will be used to inform a logistic regression model, so the dependent variable, re-election, has been coded in the file as 0 for failure and 1 for re-election for each observation.

3.2 Hypotheses

This thesis will test two separate sets of hypotheses in order to inform the main research question. While each set of hypotheses are directly related to a single research question, as noted above one must understand why some parties survive an election in order to understand why some parties are able to hold government through several consecutive re-elections while others cannot. The following outlines my hypotheses with respect to each research question. Combined these research questions will help paint a fuller picture of the government duration story in the Canadian provinces.

The hypotheses to be tested for the first question: "What factors account for individual government survival?" are the following:

H1: A government's minority status is likely to increase the hazard rate.

H2: A change in leadership during a term is likely to increase the hazard rate.

H3: A low level of fractionalization will decrease the hazard rate.

H4: An increase in CPI, measured as percent change during period in power, is likely to increase the hazard rate

H5: An increase in party competition is likely to cause an increase in the hazard rate.

The hypotheses to be tested for the second question: "What accounts for the variation in party government duration" are the following:

H1: An increase in party competition will cause an increase in the hazard rate for party government duration.

H2: A change in leadership over party government duration will increase the hazard rate for party government duration

H4: The increase in CPI, measured as percent change, over time will increase the hazard rate.

H5: If the level of fractionalization increases over time the hazard rate will increase.

The hypotheses to be tested for the third question: "Why are some governments able to survive a subsequent election?" are the following:

H1: A government's minority status is likely to decrease the likelihood of re-election.

H2: A change in leadership during a term is likely to decrease the likelihood of re-election.

H3: A system with a low level of fractionalization is likely to increase the likelihood of re-election.

H4: An increase in CPI, measured as percent change during period in power, is likely to decrease likelihood of re-election.

H5: An increase in party competition is likely to decrease likelihood of re-election.

3.3 Variables

Dependent Variables

As noted above, there are three dependent variables in this thesis. The first is individual government re-election, the second is party government duration and the third is party re-election. The following section will introduce the dependent variables by explaining what they are and how they are measured. The data are also presented below in graphs in order to offer a visual of the political duration story in the provinces.

The first set of graphs and tables illustrate the individual government duration story while the second set of graphs shows the party government duration story. Comparing the distribution of individual and party government durations in the Canadian provinces paints an interesting picture. Figure 2 below shows that individual government duration in the provinces seems unremarkable and fairly uniform. The lengthiest duration is around the five-years, which is consistent with the constitutionally mandated election period. Few governments in the provinces last less than three years; the governments that have not surpassed the one-year mark were recently elected and have yet to face another election. In the analysis they will be treated as right-censored data, meaning that they have yet to experience a terminal event but they will experience the event at some time in the future beyond the last date of observation. In the party re-election analysis the governments that are currently in power will be dropped from the analysis.

Figure 2: Individual Government Duration in the Canadian Provinces, 1945-2012
**(measured in years)**
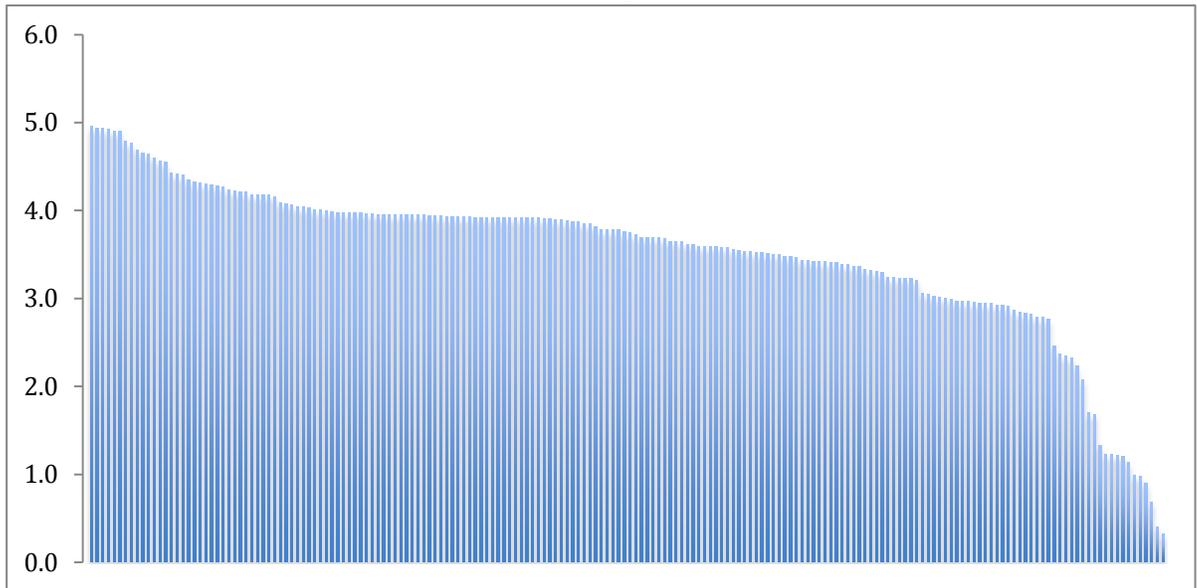
Table 3 presents summary statistics for individual government durations in the provinces. It confirms that there is little variation among means and slight variation among maximum government durations. Minimum duration statistics were omitted because there were several recently elected governments that have been in power for less than a year, which would falsely indicate that some governments only lasted for three months. The table confirms that there is little variation among individual government durations in the provinces.

Table 3: Mean and Max Individual Government Duration by Province (measured in years)

Province	Mean	Max	Number of Governments
BC	3.5	4.9	19
AB	3.6	4.2	19
SK	3.8	4.9	18
MB	3.5	5.0	19
ON	3.5	4.7	19
QB	3.6	4.9	19
NS	3.5	4.8	19
NB	3.7	4.9	18
PEI	3.4	4.3	20
NL	3.3	5.1	19
Mean	*3.5*	*4.8*	*18.9*

Organizing the data differently, however, reveals are more interesting story. When we look at party government durations we see that there is significant variation in the length of time that a single party has continuously governed. Figure 3 below illustrates the nature of party government duration in the provinces. Note that the very short party government duration is indicative of a recent turnover in governing party in Quebec and does not indicate that a government party has spent less than a single term in government. What is evident, however, is that some parties last for 40 years while others only last a single term. Most parties last less than 13 years in power while a handful are able to extend their tenure beyond. Table 4 below illustrates mean party government duration as well as the maximum lengths a party has governed.

Figure 3: Party Government Duration in the Canadian Provinces, 1945-2012 (measured in years)
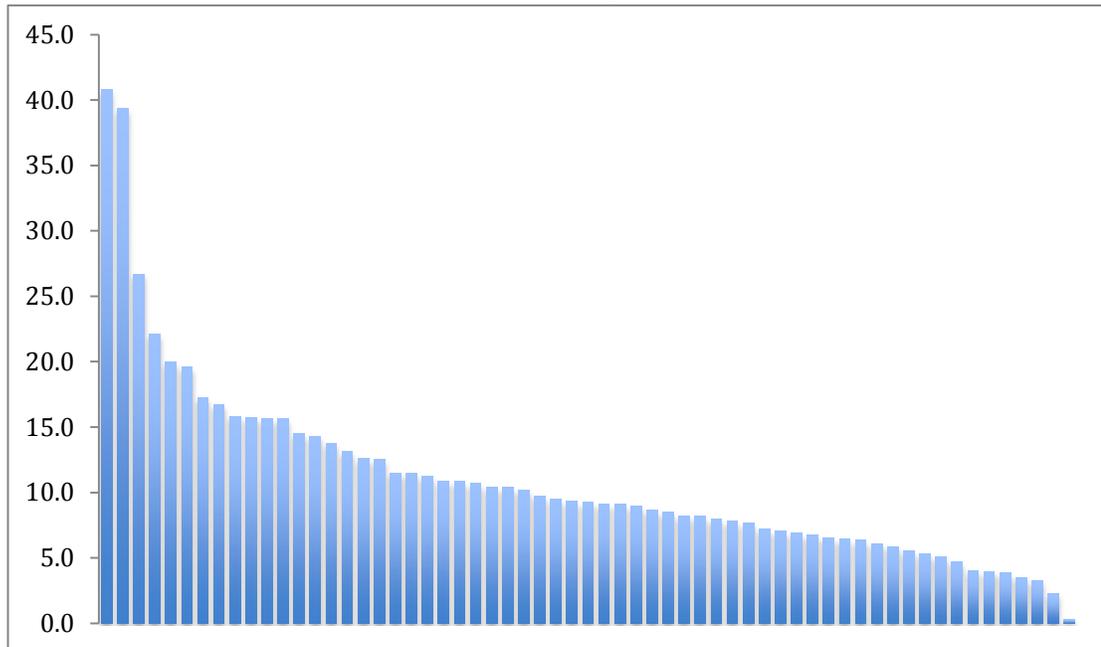

Table 4: Mean and Max Party Government Duration by Province (measured in years)

Province	Mean	Max	Number of Party Governments
BC	11.0	19.9	6
AB	33.8	40.8	2
SK	11.3	19.6	6
MB	9.5	13.1	7
ON	13.3	39.4	5
QB	7.5	15.7	9
NS	9.5	14.5	7
NB	8.4	16.7	8
PEI	9.8	15.7	7
NL	15.7	22.1	4
Mean	*13.0*	*21.8*	*6.1*

The table confirms that the average duration for all provinces combined is 13 years. One must, however, bear in mind that the mean is calculated by including Ontario and Alberta, which have experienced exceptionally long party government durations. This does increase the mean beyond the means of some of the other provinces. Nevertheless, each province has seen a period where a single party has governed for 13

years or more. The bar graph below plots the means in a bar chart to offer a visual of the difference in means across provinces. Note that Alberta is a clear outlier among its provincial brethren. There is some variation among provinces in the difference of means; in particular Alberta, Newfoundland and Ontario stand out with higher means, while Quebec has the lowest mean party government duration.

Figure 4: Bar Graph Mean Party Government Duration, 1945-2012
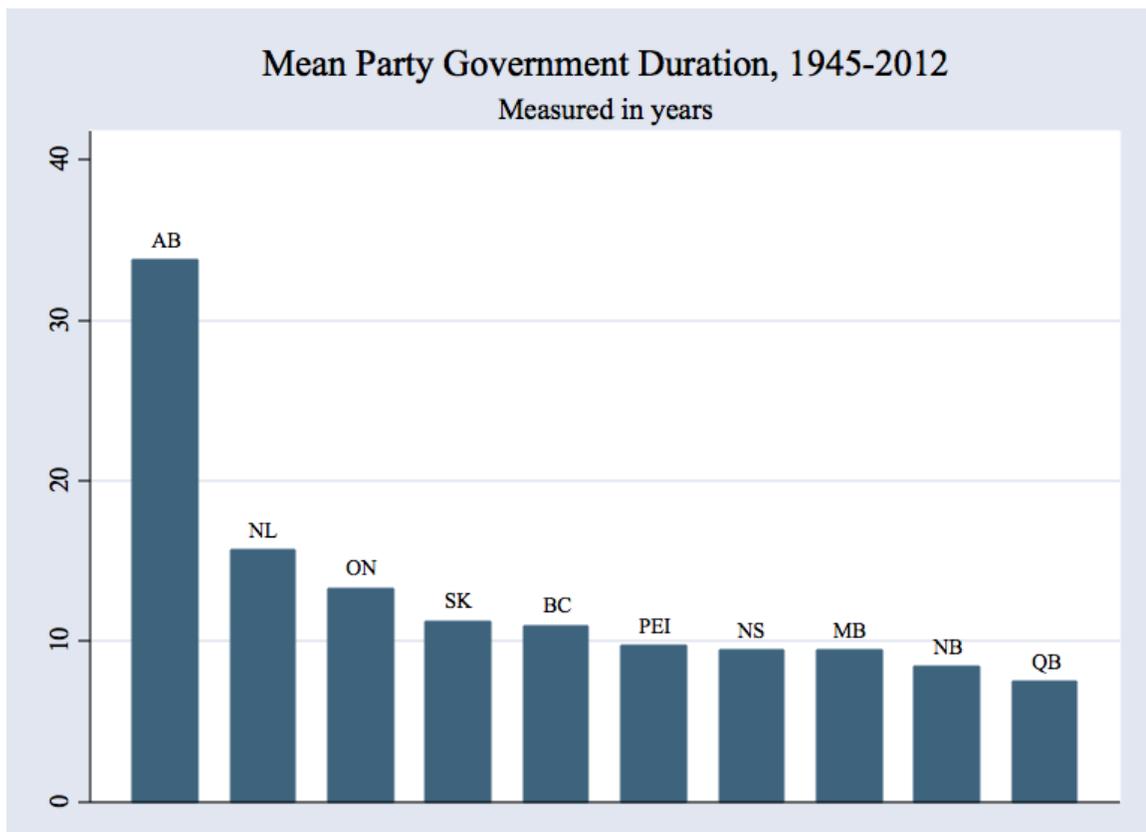
A box plot, Figure 5, provides a different way to illustrate some of the extreme cases of party government duration. The boxes show that Alberta has experienced two periods of single-party dominance. This is reflected in the size of the box and the absence of whiskers. Further, the high median duration indicates that Alberta is indeed exceptional; it is a true outlier among all provinces. The circles that appear in the box plot indicate outliers within provinces. Ontario has an extreme outlier that represents the

tenure of the Progressive Conservative party. Quebec's shortest duration outlier is

representative of the Parti Québéecois that was elected near the end of 2012; it is not

representative of a full duration. However, since event-history models can account for

censored data, this duration has been included in the dataset. Apart from illustrating clear

outliers, the box plot offers a good visual of median durations denoted by the line within

the individual boxes. It also presents the variation in party government duration visually

making it easy to see the differences among provinces.

Figure 5: Box Plot Party Government Duration, 1945-2012 (measured in years)
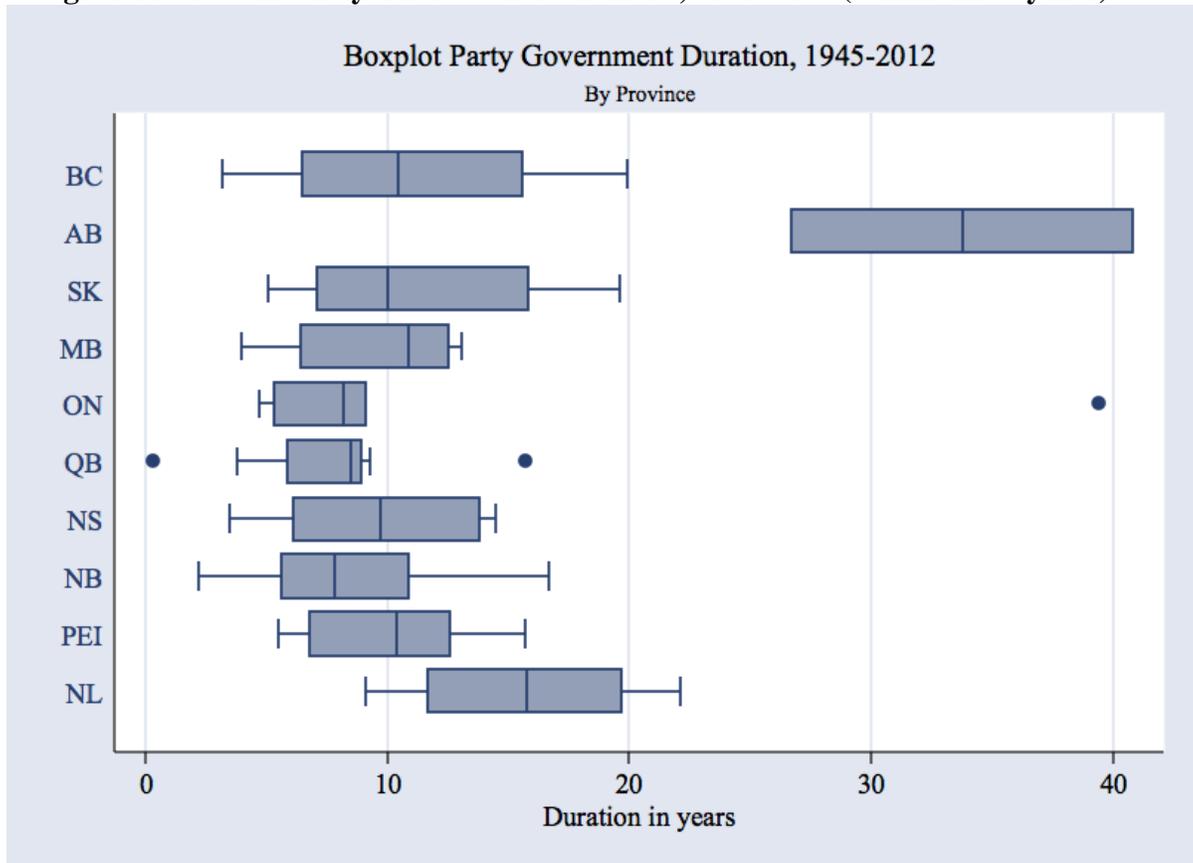
The data presented above demonstrate that party government duration in the provinces is

indeed a topic worth exploring. Individual government durations in the provinces seem

fairly uniform and unremarkable. Yet, when the data are organized to show party

government durations we see that there is substantial variation among the provinces. Alberta is the most interesting case in that very long party government durations are the norm. However, the other provinces experience variation among short and long party tenure of the legislature. Exploring this through event-history analysis has the potential to allow us to understand what accounts for this variation. Using two sets of analyses we are able to understand why some parties survive elections while others do not and explore the determinants of party government duration.

Independent Variables

The independent variables or covariates to be used in this analysis have been chosen to be consistent with the cross-national literature but also to be consistent with the Canadian politics literature. I chose a series of system and government attributes as well as economic indicators. The following section describes the chosen covariates, their measurement and the rationale for choosing them.

King et al. (1990) tested a series of variables that were representative of the attributes of the party system and the cabinets. Warwick (1992) identified the shortcoming in the King et al. (1990) variables, as they did not consider time-varying covariates, those whose values change over time. He proposed the use of economic indicators as potential determinants of duration. The intent of this work is to place it within the literature, yet there are some challenges associated with using the same variables as previous works because Canada tends to be an exceptional case is many cross-national studies (see: King et al. 1990; Matland and Studlar 2004). Since Canada has a single-member plurality system of government there tends not to be coalition governments or a high incidence of minority governments. As a result there is no need to

consider any government formation associated variables. The prime minister has sole responsibility for choosing a cabinet and members are from the governing party (Kerby 2011).

Similar to the dependent variable, the independent variables will be used in two separate analyses. Although the independent variables will be the same in both analyses their measurement will change slightly. The independent variables and their measurements are explained below.

***Fractionalization*:** Fractionalization within a system can be used to indicate the concentration of seats between parties. A highly fractionalized system, indicated by Rae's (1967) fractionalization index, would indicate that several parties hold a significant level of seats in the legislature. More parties in the legislature or a higher degree of fractionalization could indicate a reduced duration (King et al. 1990).

Fractionalization is measured in two different ways for the analysis. The first analysis considers fractionalization at the time of the election. The value of fractionalization at each election is recorded and tested. In the second analysis, fractionalization becomes a time varying covariate and the change in fractionalization over time is tested.

***Party Competition*:** Party competition is measured using Laakso and Taagepera's (1979) formula for calculating the effective number of parties. The effective number of parties is used as a proxy to determine competitiveness in the system. It is similar to Rae's fractionalization index in that it is designed to measure fractionalization in the system. However, the effective number of parties measure gives a value for the number of parties in the system that have an effect in a given legislature.

Party competition is used in this analysis because it is an integral part in the classification of party systems (Dahl 1966; Blondel 1968; Rokkan 1968; Sartori 1976). Dahl (1966), Blondel (1968) and Rokkan (1968) focus on the type of competition that exists in a party system in order to classify it. Sartori (1976) adds that the effectiveness of parties within the system is equally as important as their existence. Duverger's law (1954) suggests that single-member plurality electoral systems produce two-party competition. However, many scholars have noted Canada as an exceptional case (see Smiley 1958; Riker 1982; Benoit 2006). It is generally thought that this exceptionalism does not extend to the provinces, which also employ the single-member plurality electoral system. Carty and Stewart (2006) contend that, with the exception of Alberta, which is characterized by one-party dominance, the provinces generally fall into the two-party competition category. The effective number of parties is used to estimate party competition as it considers the number of parties that are effective in a legislature.

Party competition is measured in two ways. The first measure is party competition at the time of election. Party competition then becomes a time-varying covariate with its measure becoming the change in competition over time.

Consumer Price Index: The federal consumer price index (hereafter CPI) is used as an economic variable. Consistent provincial GDP data, which would provide a provincial growth rate, is unavailable for the complete period of study. However, the CPI does provide the rate of inflation, which is another type of economic indicator. Warwick (1994) notes that economic indicators are important time varying covariates in the study of political duration and should be included in any analysis of this sort. For both analyses, the percentage change in CPI is the measurement for this independent variable.

***Leadership Change*:** Most studies to date would consider a change in leader as a terminal event as it changes the composition of the cabinet and signals an end to the current state of the governing party (see: King et al. 1990). Maeda and Nishikawa (2006), however, note that a change in leader does not signal an end to a party's tenure. In Canada, party leader is often an important variable in vote choice. Gidengil et al. (2006) contend that in the multi-stage model of vote choice, leadership evaluations play a role in determining vote choice. While leader is not the only variable that impacts vote choice, party leadership is significant in Canada.

Changes in leadership in the governing party were recorded for the period under study. It is surmised that a change in leadership within one or two years of an election will have an impact on subsequent election survival.

***Minority Status/Change in Majority Status*:** One of the main tenets of parliamentary democracy is the maintenance of the confidence of the legislature. In a majority situation where the government party holds the most seats in the legislature the confidence of the legislature is easily maintained because of party discipline. Yet, in a minority situation the government party must maintain the confidence of the legislature when it does not hold the majority of seats. A vote of no confidence from the legislature signals the end of the government. One would expect that a minority government is less durable than a majority government and therefore we would expect a higher chance of termination.

The majority status of each government is recorded at the time of election. This will inform the first model, whether minority status negatively impacts the potential for subsequent election survival. For the party government duration model a change in majority status is recorded. For instance, a party may begin as a majority and become a

minority in the subsequent election or vice versa. The change in status is thus recorded as a time-varying covariate for the second model.

The independent variables outline above will be tested as covariates in an event-history model. While the same variables are used to inform two different models, the change in variable measurement between models will allow the variables to be used to inform two different analyses.

3.4 Method of Analysis

This thesis employs two different statistical models in order to explore the research questions. The first model is an event-history model that is used to predict individual and party government durability. This type of model measures the time before an event, the history, in order to predict the probability of an event occurring by a point in time. A unit, in this case party government, is in a state, holding government. During its lifetime the unit being measured is at some risk to experience an event, which would lead to a change it its current state (Box-Steffensmeier and Jones 2004). The change in a unit's state signals the end of current state and the entrance into a new state. For instance, a party can form the government, denoting its current state, but an event such as an election could cause the governing party to be replaced by a different party causing a change in the initial governing party's state. It went from being the governing party to being the official opposition; its state has changed causing an end to its previous state.

Measuring durations of a particular unit over time allows for predictions about durability over time. One can test the relationship between duration and various covariates in order to determine their effect on duration. This type of statistical modelling comes from the life sciences but has been adapted to suit the needs of social scientists

providing a tool to deal with complex questions that ordinary least squares regressions (hereafter, OLS) cannot accommodate (Box-Steffensmeier and Jones 2004). One of the most relevant features of time to event models is their ability to accommodate time-varying data. Box-Steffensmeier and Jones (2004: 19) note that OLS regressions treat variables as "time-invariant" which causes complications in analysis, as we are often interested in variables that change over time. Furthermore, these models do not assume normally distributed errors and can deal appropriately with time-series data.

A second important feature of these models is their ability to deal with censored data, something that linear regressions cannot. For instance, some units being measured survive longer that the period under study though it does not mean that they will not experience the event at a later point in time and are recorded as censored data. Right-censored observations "only contribute information on survival" while "uncensored cases contribute information regarding failure times (as the event of interest is experienced)" (Box-Steffensmeier and Jones 2004: 18). Further, left-censored data, those that are experiencing the event prior to the observation period, can be accounted for. They contribute information only from the time beyond their entry into the model. Importantly, the ability to account for censored observations allows researchers to avoid case selection bias because they do not have to omit observations.

The use of event-history modelling in the analysis of political duration has been well established. It has been used to study cabinet duration (King et al. 1990; Warwick 1994), government duration (Ferris and Voia 2009), leadership duration (Bienen and Van de Walle 1992), ministerial duration (Berlinski et al. 2007) as well as ministerial appointment and exit (Kerby 2009; 2011) and individual legislator exit (Kerby and

Blidook 2011). It is the generally accepted model for this type of research. The specific event-history model used in this analysis is the Cox proportional hazards model because there are no assumptions about the form of the hazard function.

The hazard rate, which is expressed in the following way, is the statistic of interest in this thesis:

$$h(t) = \lim_{\Delta t \to 0} \frac{\Pr(t \leq T \leq t + \Delta t \mid T \geq t)}{\Delta t}$$

The hazard rate is the "instantaneous probability that a [government] will experience an event at a point in time given that [it] has 'survived' up until that point in time" (Kerby 2011: 601). It is a conditional failure rate because the probability of failure at time t is conditional on having survived to that point in time (Box-Steffensmeier and Jones 2004). The probability of a terminal event occurring given that the object of observation has survived to a point in time is also conditional on covariates, the independent variables outlined above. So, the hazard rate will give us the probability that a terminal event will happen at time t given that the government has survived to a point in time, which is also conditional on a set of covariates.

A multivariate logistic regression model is employed to evaluate subsequent election survival. This type of model is used because it is designed to explore binary outcomes. Since there is a question concerned with surviving re-election or not, the variables outlined above are used to determine if they affect re-election.

This study is consistent with other political duration analyses in that it employs the same methodology and theoretical framework. Using party government duration as the dependent variable is somewhat novel within the greater literature. Nevertheless,

Maeda and Nishikawa's (2008) work highlights the importance and relevance of looking at a party's complete tenure as government party. As shown above, in Figure 2, individual government duration is fairly uniform across all provinces but examining individual durations is a part of the party government duration puzzle. Looking at the party government duration data in Figure 3 we can see that the provinces are subject to substantial variation in the length of time a party has governed the provinces, which begs the question: what accounts for the variation in party government duration in the provinces? This question can be explored using covariates that are consistent with the political duration literature and also using variables that are relevant to the Canadian case. Event-history modelling is the established method for this type of research. It can accommodate time-varying covariates as well as censored observations allowing for a thorough investigation of the research question of interest. The use of a logistic regression model to determine the effect of a set of variables on re-election is also somewhat novel, as most of the studies outlined in Chapter 2 tend to focus on only event-history modelling.

[ii] Sources are available in data appendix 1.

CHAPTER 4

Findings and Discussion

This chapter presents the results from the statistical analyses outlined in the previous chapter. It begins with examining the results of a Cox proportional hazards model testing individual government survival. The results from a second Cox model testing the determinants of party government survival are then examined. Various tables and graphs are presented to illustrate the differences between individual and party government survival. Results from a logistic regression are also presented to explain what factors account for re-election. The statistical analyses and their implications are then discussed.

The research presented in this chapter shows that while the results the models have produced are interesting, the variables that were chosen to be consistent with the theoretical literature and applicable to Canada do not adequately explain the government duration story in the Canadian provinces. It is likely that a different set of variables would be more useful in explaining the determinants of both individual and party government duration in the provinces. Given the research on political behaviour and how individuals orient themselves toward politics it is possible that political culture has a role to play in party government duration in the provinces. This possibility is explored later in the chapter as well as the effects that electoral systems and party systems have on parties and governments.

4.1 Individual Government Survival

This section presents the results from the first model concerned with examining the factors explain individual government survival in Canada for the period, 1945-2012. The individual government data are fitted into a Kaplan-Meier survival curve, shown

below in Figure 6. The survival curve is able to illustrate that there is an 85 percent probability that a government will still be in power after three years. This tells us that most governments last at least three years. However, only 33 percent of governments will survive to four years and only 8 percent of governments survive to 4.5 years. Survival in this instance can refer to election calls, since the premier has the ability to decide whether to call an election or not up until the constitutionally mandated election period, which in Canada is five years[iii]. However, in the instance of a minority government, government termination could be the result of a non-confidence motion in the legislature. The model does not account for reason for government termination.

Figure 6: Kaplan-Meier Survival Curve, Individual Government Duration, all Provinces (n=189, 10 observations right-censored)
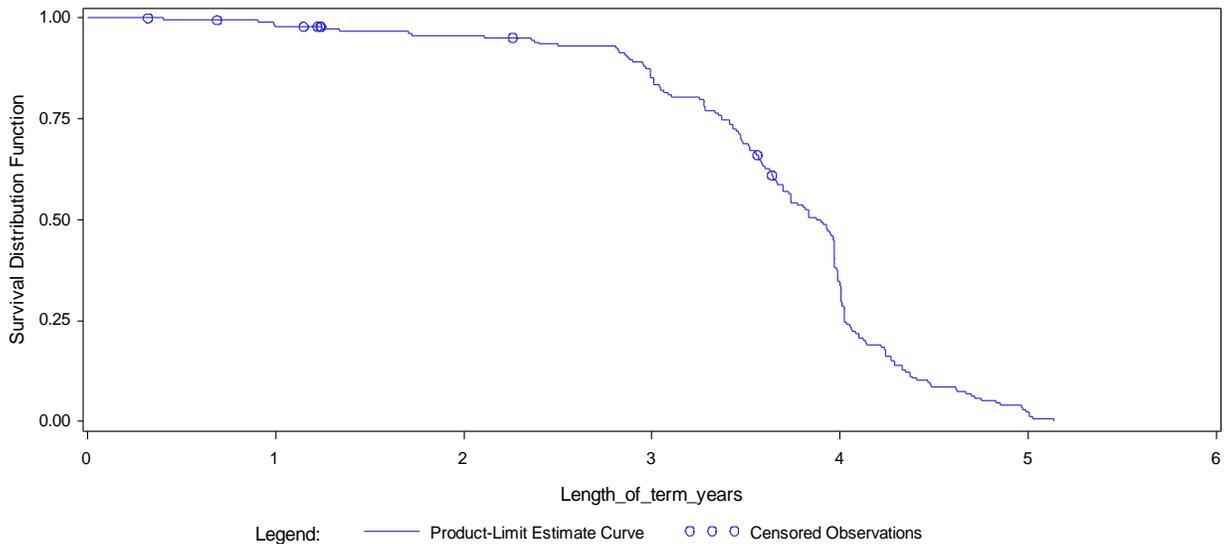
**Figure 7: Hazard Function, Individual Government Duration, all Provinces**
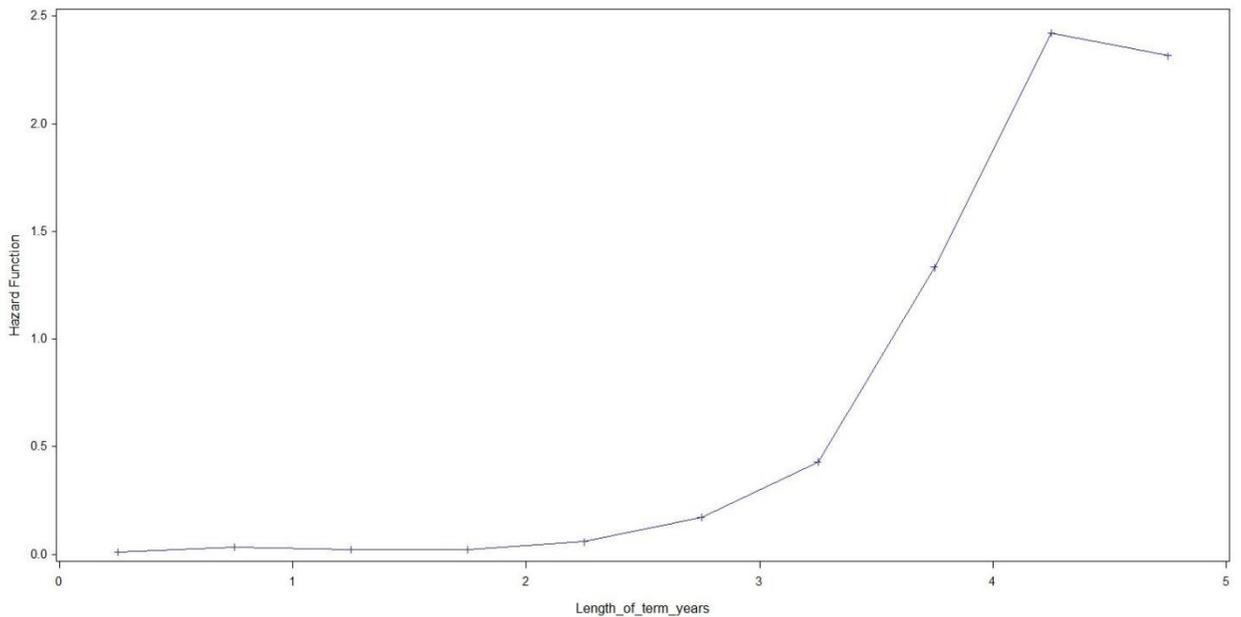
Figure 7 above shows the hazard function for 189 individual governments. It demonstrates a constant hazard rate over the first two years, which means that the probability of a government experiencing a terminal even during that period is low. After the two year mark the hazard rate increases with significant jumps in the rate from just after the three year mark to just after the four year mark, indicating that a government that has lasted four years is 1.5 times more likely to terminate than a government that has lasted 1 to 3 years.

A Cox proportional hazards model is employed to assess the effect of a set of fixed and time-varying covariates on individual government survival. Of the 189 observed events, 179 deaths or government terminations are observed and 10 observations are right-censored because those governments have not yet experienced a terminal event but are still at risk to experience the event. Table 5 below presents the results from the model. Of the covariates tested, only two are found to be statistically

significant. The first statistically significant covariate is a government's minority status at initial election, which is found to increase the hazard rate, making a minority government 2.76 times more likely to experience a terminal event earlier than a majority government. The second statistically significant covariate is leadership change during the term, which produces a slight decrease in the hazard rate. Parties with a leadership change during their term have an decreased probability to experience a terminal event than a party that has not experienced a change in leadership. The other variables tested in the model are not found to be statistically significant. We can confidently conclude from the Cox model that a difference in fractionalization or party competition at the time when first elected or a 10 percent increase in the Consumer Price Index over the previous 10 year period of time do not have an effect on individual government survival.

Table 5: Univariate Cox-Proportional Hazards Model, Individual Government Duration (n=189, 179 deaths and 10 censored observations)

Variable	Hazard Ratio	95% CI	p-value
Minority Status when first elected	2.758	1.614, 4.713	0.0002
Leadership change	0.674	0.473, 0.959	0.0286
First Term	1.134	0.826, 1.558	0.6624
Fractionalization when elected (10 point difference)	1.266	0.439, 3.656	0.6624
Party Competition when elected (10 point difference)	1.179	0.823, 1.689	0.3697
Percent Increase in CPI over previous 10 years (10 percentage points)	0.714	0.473, 1.076	0.1071

In Figures 8 and 9 below, the government durations are stratified by minority status and leadership change respectively. They illustrate the differences in likelihood of survival between majority and minority governments and those governments that have experienced a leadership change during the interval and those that have not. We see in

Figure 8 that half of minority governments last for 2.5 years while nearly half of all majority governments survive for four years. There is a noticeable earlier drop in the survival function for minority governments as opposed to that for majority governments. We also notice that no minority governments survive to the constitutionally mandated election period. Fewer than 25 percent of majority governments survive beyond the last observed length of time a minority government lasts, indicating that majority governments do not last significantly longer. The stratified curve demonstrates that majority governments are indeed more durable than minority governments. This finding is not particularly interesting given what we already know about the robustness of minority governments and the dynamics of Canadian legislatures. However, it does confirm what we know from other research making it consistent with what is known about minority governments in Canada.

Figure 8: Kaplan-Meier Survival Curve, stratified by Minority and Majority Status, all provinces
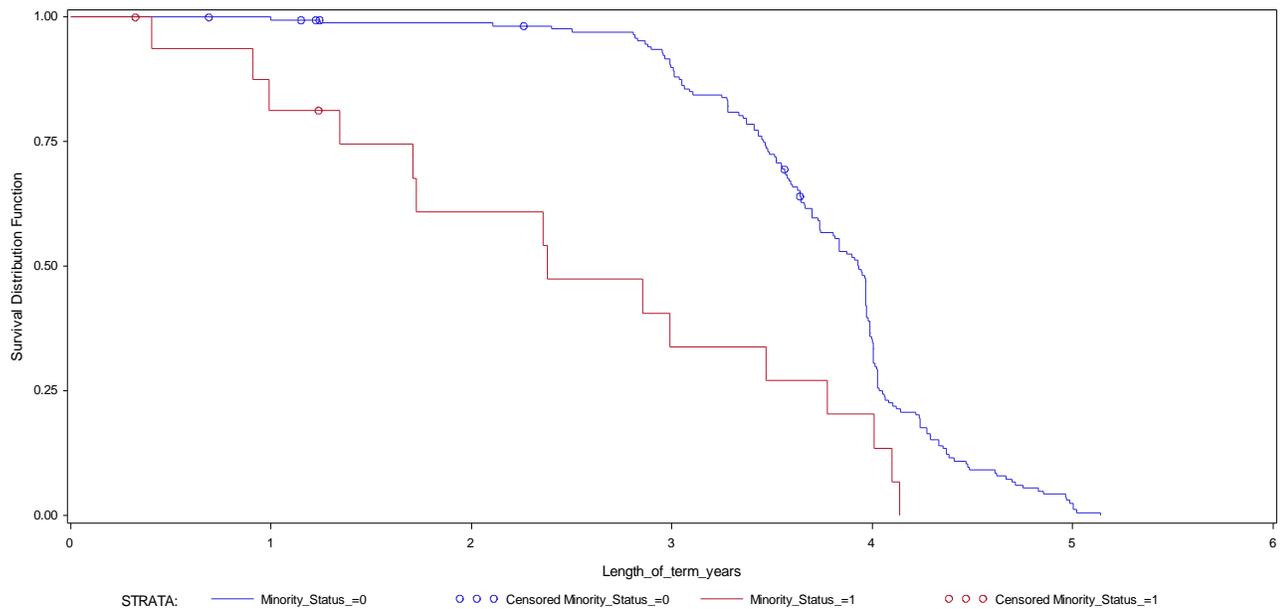
Figure 9: Kaplan-Meier Survival Curve, stratified by presence of Leadership Change, all provinces
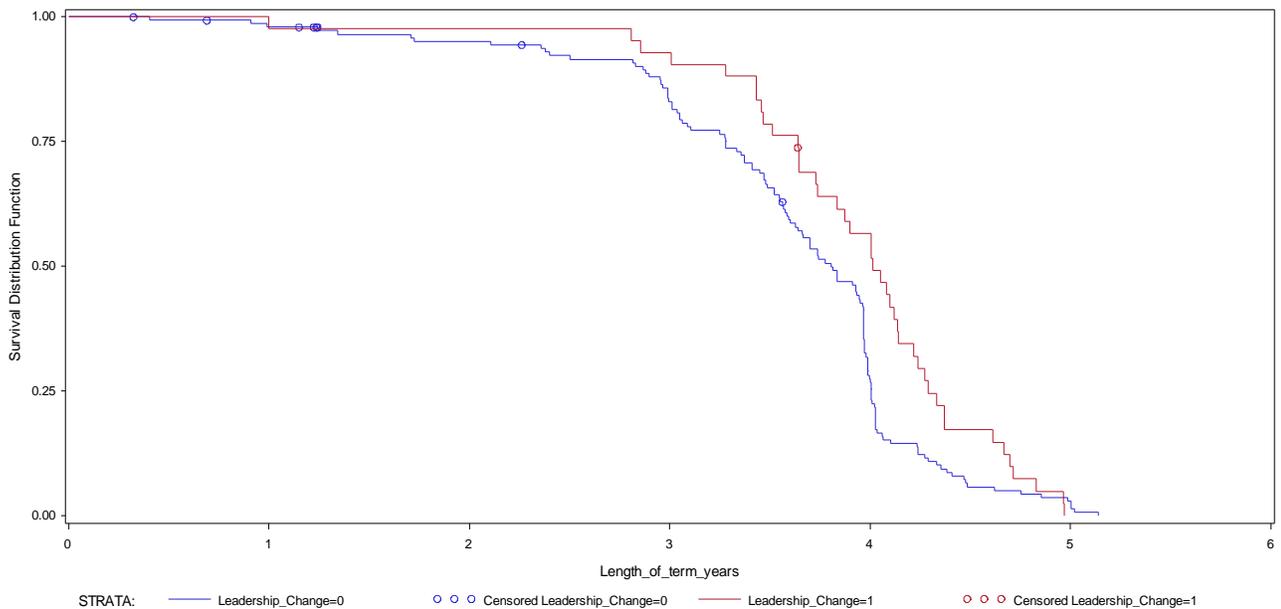

Figure 9 above is a Kaplan-Meier survival curve stratified by the presence of a change in leadership. The curve illustrates some interesting results. Governments that do not have a change in leadership are more likely to experience a terminal event sooner than those that have experienced a change in leadership. We can see that 50 percent of governments with leadership turnover last longer than four years while 50 percent of governments without a change in leadership do not make the four-year mark. This seems counter-intuitive in that we might expect a government that experienced a change in leadership to destabilize quicker than those who have consistent leadership. However, one can hypothesize that perhaps a governing party that changes leader during its term may want to give the new leader some time to establish his or herself with the electorate therefore holding off on an election call.

The results from the individual government analysis prove to be somewhat interesting. The analysis tell us that most governments last for three years but less than

half survive four years and confirms that minority governments are less durable than majority governments. Although it is not surprising that minority government status increases the hazard rate, there is still some interesting information to be gleaned regarding the typical length of time minority governments last. What has proved to be most interesting in this analysis is the result that a change in leadership actually extends the time a government stays in power. While we do not know why this is the case, we can posit that perhaps it is related to the desire for a new leader to establish his or herself with the electorate or their caucus. Perhaps a new leader possesses a purely self-interested desire to retain power for as long as possible therefore delaying an election call. Waiting for the tides of public opinion to change in the party's favour could also be the reason a new leader may positively affect government survival.

This analysis has significant implications for my hypotheses. I hypothesized that fractionalization, party competition and a change in the Consumer Price Index would all have an effect on the hazard rate. I can accept each of those null hypotheses and reject the research hypotheses as none of these covariates has a statistically significant effect on the hazard rate. I hypothesized that a change in leadership would increase the hazard rate, which this analysis contradicts. Indeed, it appears that a change in leadership decreases the hazard rate.

4.2 Party Government Survival

This section presents the results from the second model concerned with party government duration. Of the 61 party governments examined in this analysis, 10 were right-censored observations meaning that those 10 governments are currently in power and six were left-censored observations, meaning the parties were already in power at the

beginning of the observation period. Figure 10 below presents the Kaplan-Meier survival

curve for the 61 party governments. The curve shows that there is a 90 percent

probability a party government will be in power five years after initial election. We can

see that there is a 50 percent probability a party government will be defeated by 10 years

and only a 10 percent probability that party governments will maintain power for 20

years.

Figure 10: Kaplan-Meier Survival Curve, Party Governments, all Provinces (n=61, 10 right-censored observations)
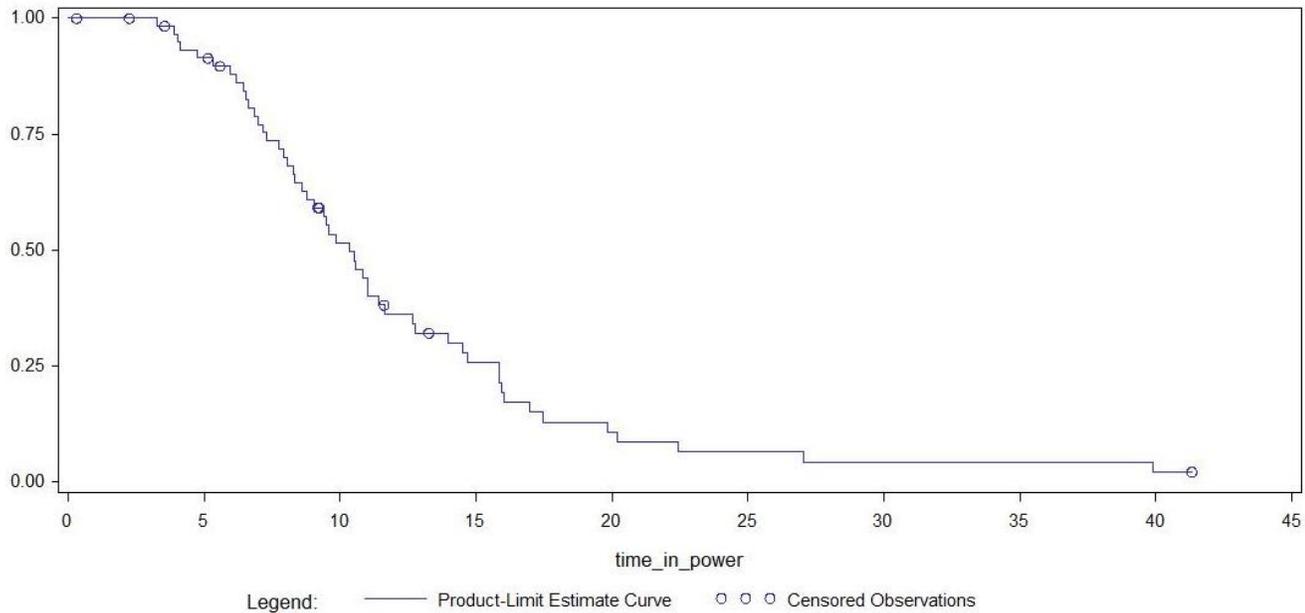

Figure 11 below illustrates the hazard function for party governments. We can see

that the hazard rate increases steadily over the first 10 years a party holds power.

Interestingly, the rate gradually declines after the 10-year mark. This is consistent with

the above Kaplan-Meier survival curve that shows 50 percent of governments will be

defeated by 10 years.

Figure 11: Hazard Function, Party Government Duration, all Provinces
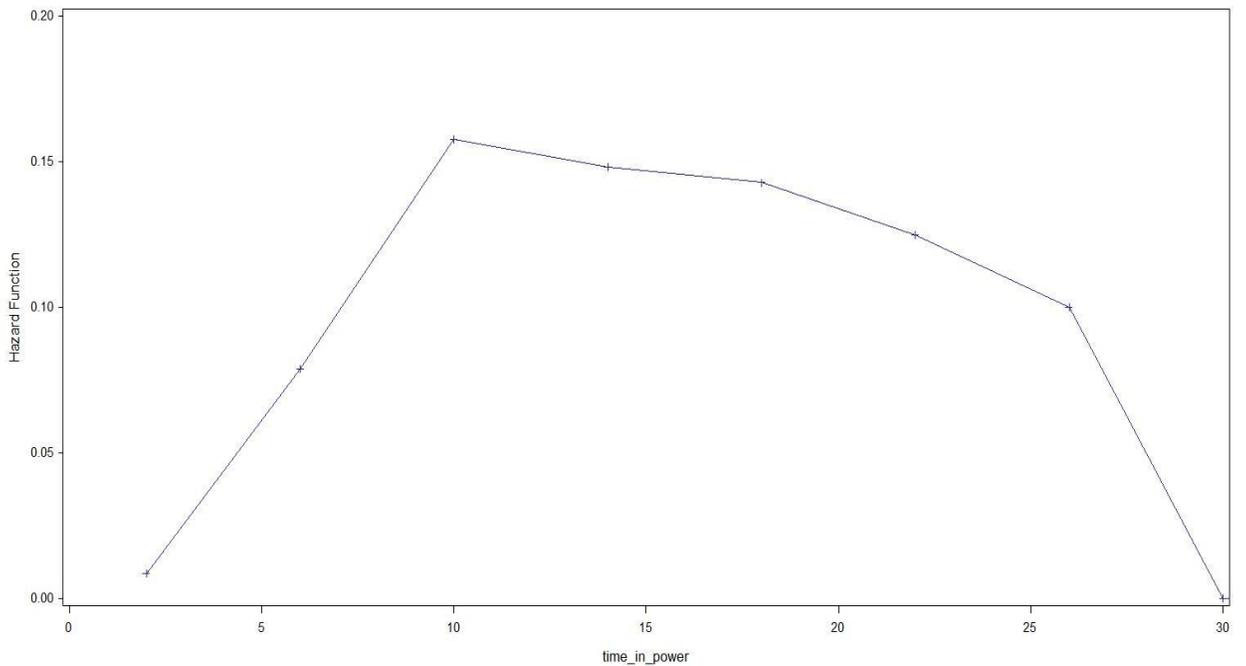
A Cox proportional hazards model is utilized to assess the effect of a set of fixed and time-varying covariates on party government survival. Of the 61 observed events, 51 deaths or government terminations are observed and 10 observations are right-censored because those governments have not yet experienced a terminal event but are still at risk to experience the event. In this model six observations are left-censored because the parties were in power prior to the beginning of the observation period. Table 6 below presents the results from the model. Three of the tested variables were found to be statistically significant. A difference in fractionalization at current time, which means the value of fractionalization at the time of termination in comparison with the value of fractionalization for all governments still in power at the current time, is found to increase the hazard rate, making a party government 1.4 times more likely to experience a terminal event. The second statistically significant covariate is a difference in party competition at current time, which is found to increase the hazard rate. The third

significant covariate is leadership change, which is defined as change in leadership

during the current year, previous year of two years back, though it is only significant at

90 percent confidence. Both party competition and fractionalization are highly correlated

with correlation coefficients above .9 for every type of measurement of both variables

and therefore cannot be used in the same model. Other covariates tested included both

fractionalization and party competition averaged over the past 10 years up to the current

time, neither of which is statistically significant. The Consumer Price Index covariate,

calculated as the percent increase in CPI over the past 10 years, is not found to be

statistically significant. Minority status at time of election was tested and found to not be

statistically significant. The analysis also considered party, which is found to be

statistically insignificant.

**Table 6: Univariate Cox Proportional Hazards Model, Party Government Duration
(n=61, 51 deaths, 10 right-censored observations, 6 left-censored observations)**

Variable	Hazard Ratio	95% CI	p-value
Fractionalization at current time (10 unit difference)	1.451	1.137, 1.853	0.0028
Leadership Change	1.734	0.911, 3.301	0.0938
Party Competition at current time (10 unit difference)	1.133	1.055, 1.216	0.0006

The Kaplan-Meier survival curves can be broken down by province to illustrate

likelihood of party government survival in each province. Doing so allows for a

comparison across provinces but also to illustrate how the individual provincial curves

compare with the combined curves. Figures 12 through 21 below show the survivor

curves for each individual province. When we separate the provinces we find some

interesting results. Figure 12 below presents the survival curve for British Columbia,

which shows that there is a 50 percent probability that a party government will fail at ten years.

Figure 12: Kaplan-Meier Survival Curve, Party Governments, British Columbia (n=6, 1 right-censored observation)
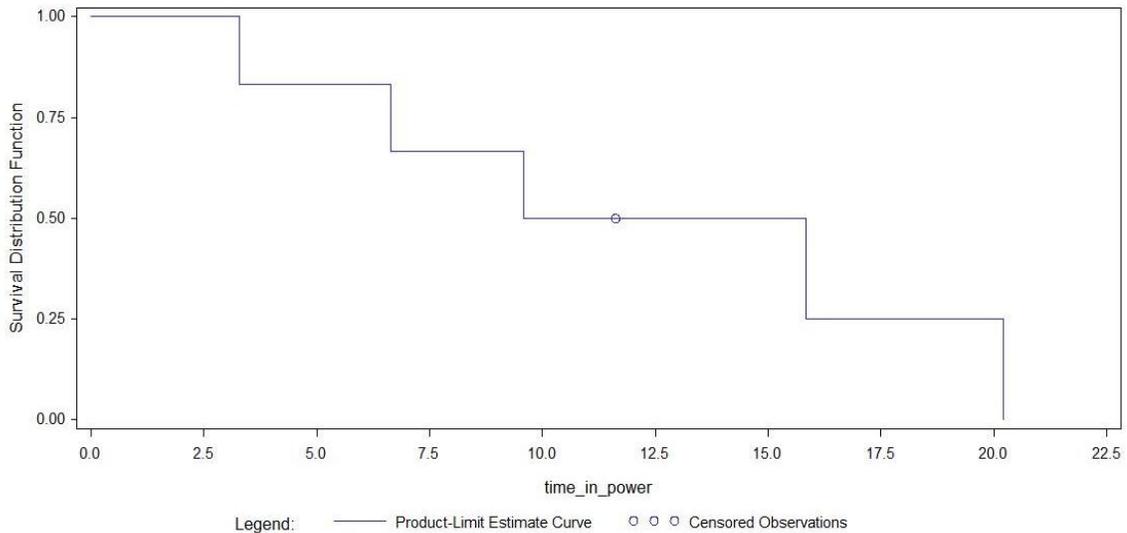
Alberta is an interesting case for two reasons. The first reason Alberta is interesting is that there have only been two ruling parties during the observation period. The second reason is that Alberta's party governments hold power for an exceptionally long time. Figure 13 below indicates that there is a 100 percent chance of surviving 27 years as governing party in Alberta and a 50 percent chance of surviving more than 40 years. Although only two governments are recorded during the observation period, it nevertheless illustrates that Alberta is an exceptional case. When Alberta's curves are compared to the other provinces one is able to see that Alberta is a true outlier and deserves detailed attention in future analyses.

Figure 13: Kaplan-Meier Survival Curve, Party Governments, Alberta (n=2, 1 right-censored observation, 1 left-censored observation)
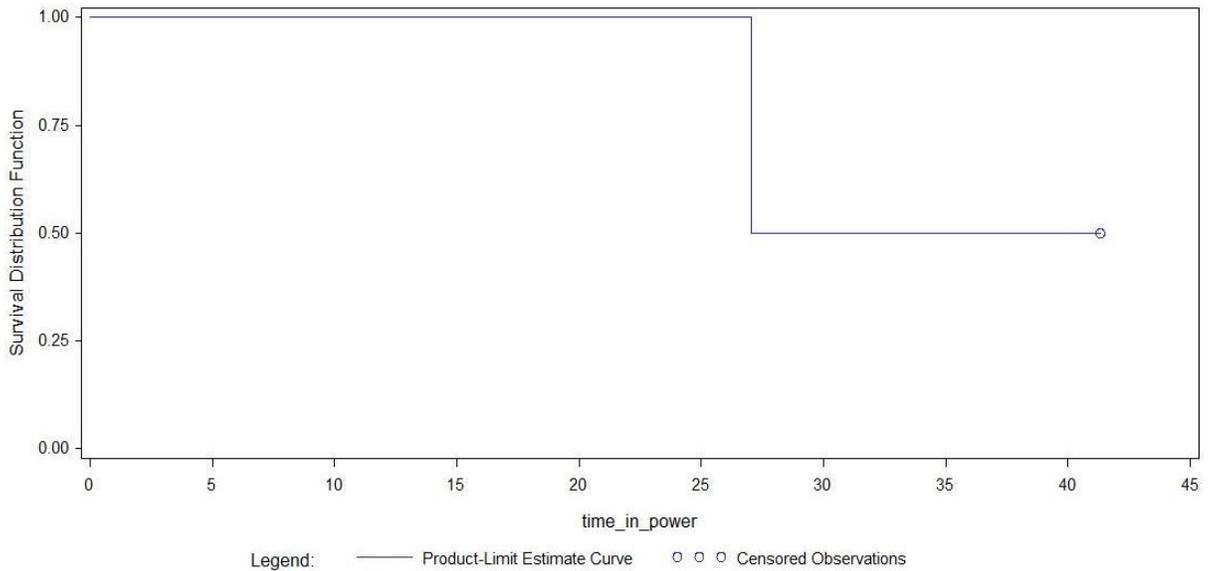

Figure 14: Kaplan-Meier Survivor Curve, Party Governments, Saskatchewan (n=6, 1 right-censored observation)
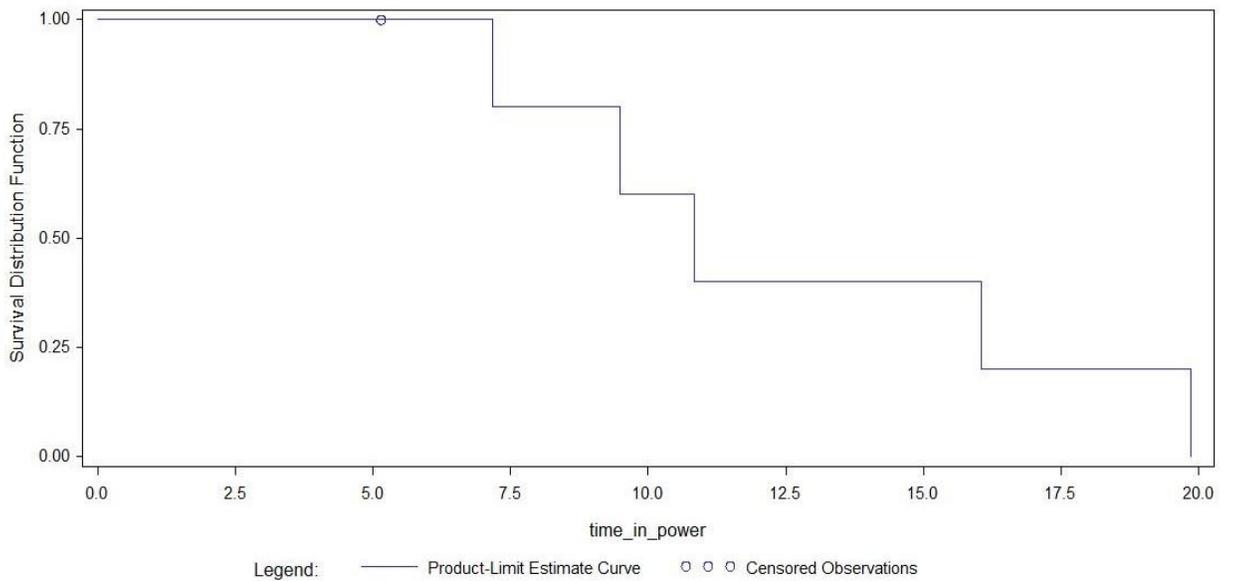
Figures 14 and 15 present the survival curves for Saskatchewan and Manitoba respectively. The survival curve for Saskatchewan indicates that there is a 50 percent probability that a party will be defeated just after 10 years. What is particularly

interesting is that in Saskatchewan a party is 100 percent likely to serve a second term in

government. Manitoba's survival curve indicates that there is a 50 percent probability

that a party will be defeated by 11 years.

Figure 15: Kaplan-Meier Survival Curve, Party Governments, Manitoba (n=7, 1 right-censored observation, 1 left-censored observation)
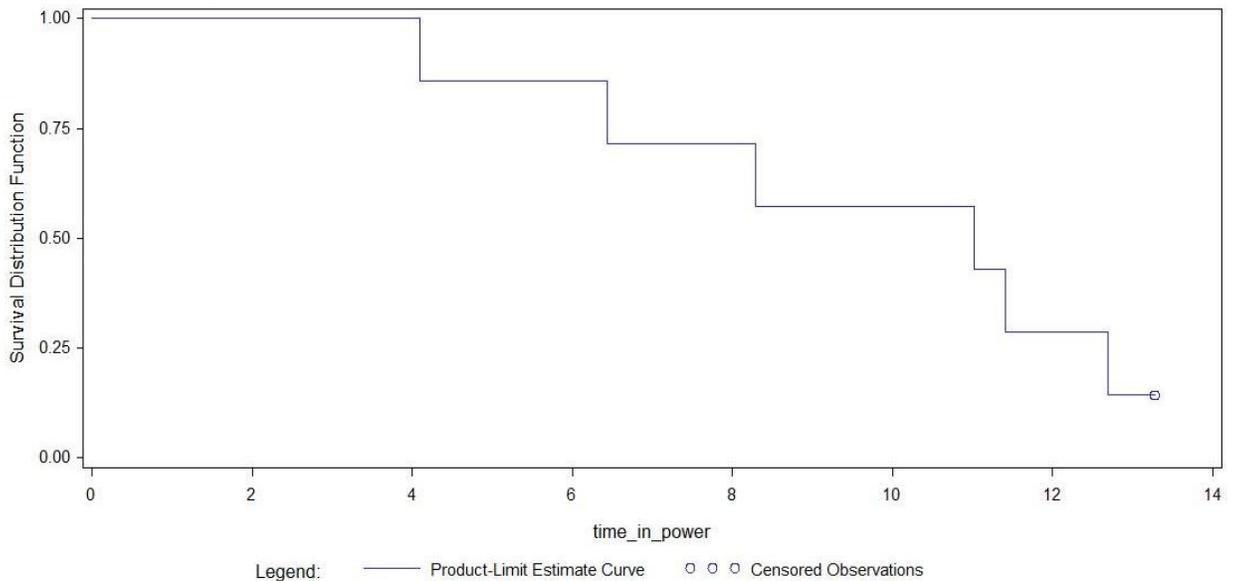

Figure 16: Kaplan-Meier Survival Curve, Party Governments, Ontario (n=5, 1 right-censored observation, 1 left-censored observation)
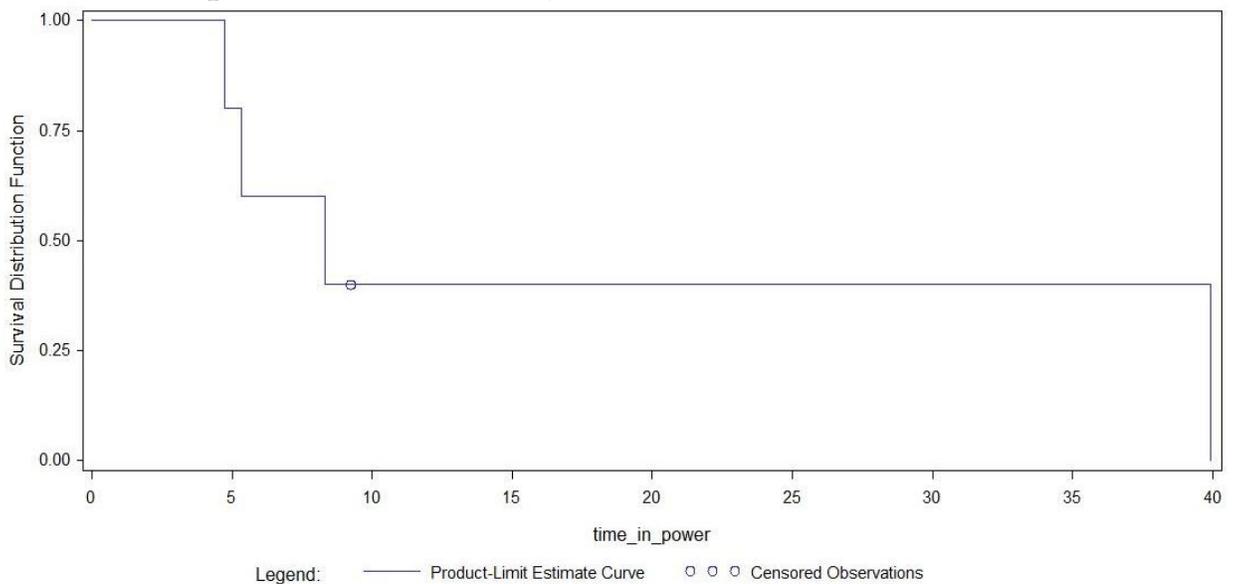
The survival curve for Ontario is presented above in Figure 16 and that for

Quebec is presented below in Figure 17. Ontario's curve shows that there is a 70 percent

probability that a party will lose power before 10 years. Quebec's curve shows that there

is an 80 percent probability that a party will fail prior to 10 years in power.

Figure 17: Kaplan-Meier Survival Curve, Party Governments, Quebec (n=9, 1 right-censored observation)
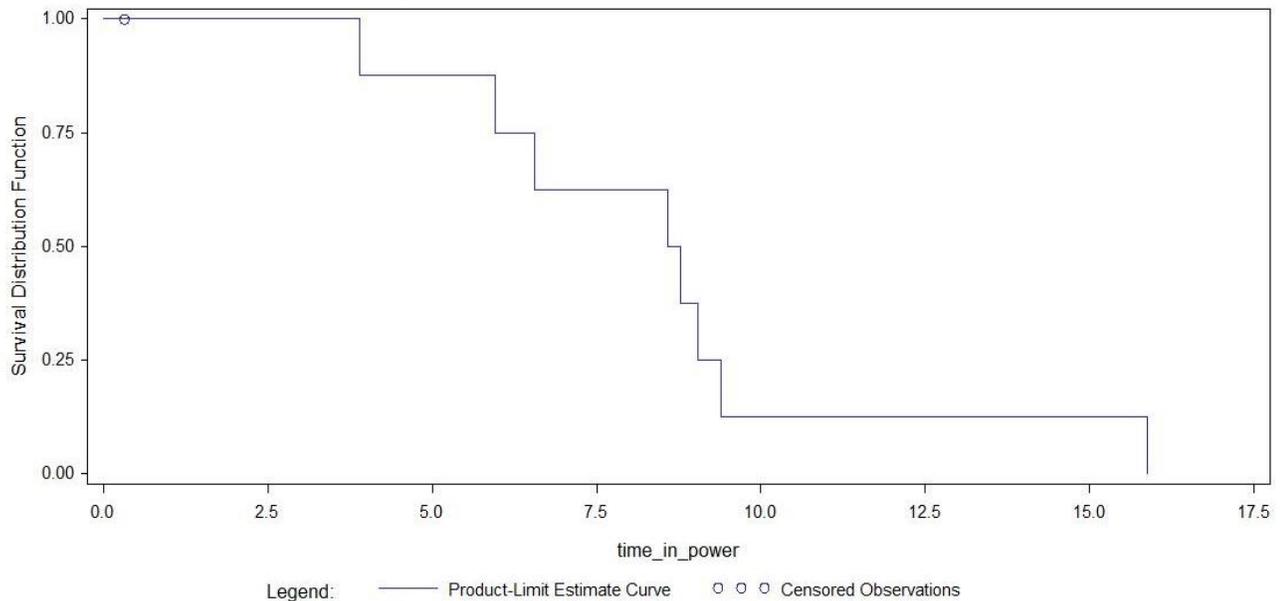
Parties in Nova Scotia have a 50 percent probability of failing just before the 10-

year mark as illustrated in Figure 18 below. Parties in New Brunswick and Ontario share

a rather dismal fate in comparison to parties in other provinces if they seek to hold power

for 10 years. Figure 19 below shows that there is a 70 percent probability that a party will

be defeated by 10 years, with a 50 percent probability that a party will be defeated by 8

years. The survivor curves for Prince Edward Island and Newfoundland, Figures 20 and

21 below also show some interesting results. Like many other provinces there is a 50

percent probability that a party will be defeated at the 10-year mark in Prince Edward

Island. Newfoundland, however, is much different than the other Atlantic provinces.

There is a 50 percent probability that a party government will be defeated at about 17

years, with all parties surviving beyond 10 years. This is interesting as only Alberta and

Newfoundland experience instances where all governments last beyond 10 years.

Figure 18: Kaplan-Meier Survival Curve, Party Governments, Nova Scotia (n=7, 1 right-censored observation, 1 left-censored observation)
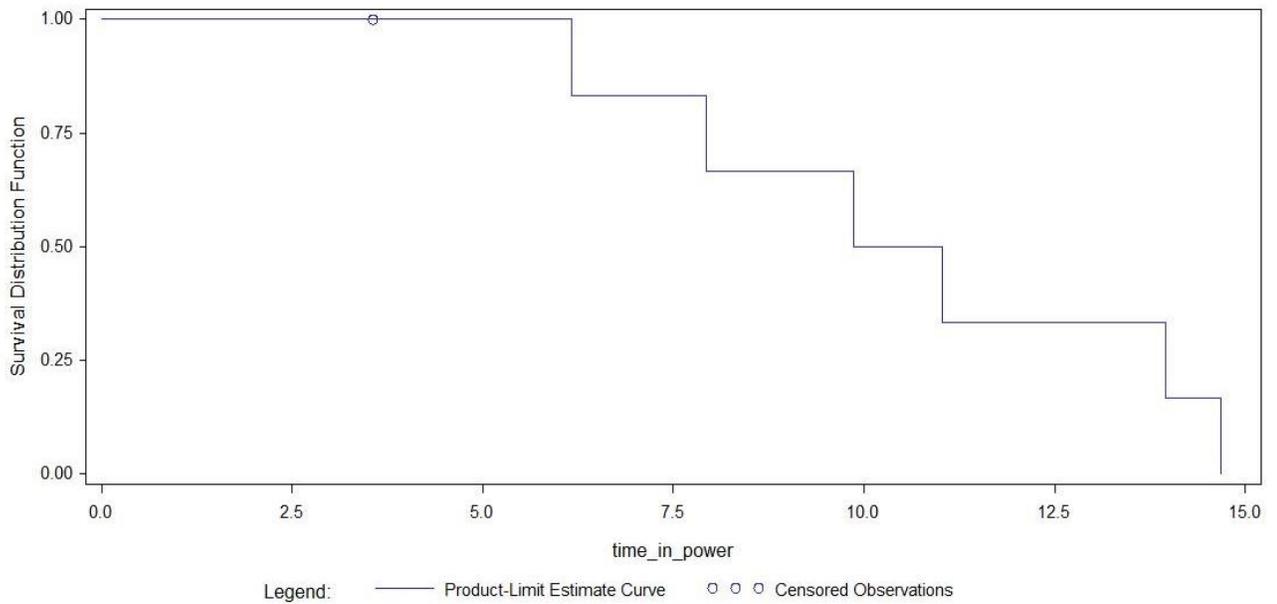
Figure 19: Kaplan-Meier Survival Curve, Party Governments, New Brunswick (n=8, 1 right-censored observation, 1 left-censored observation)
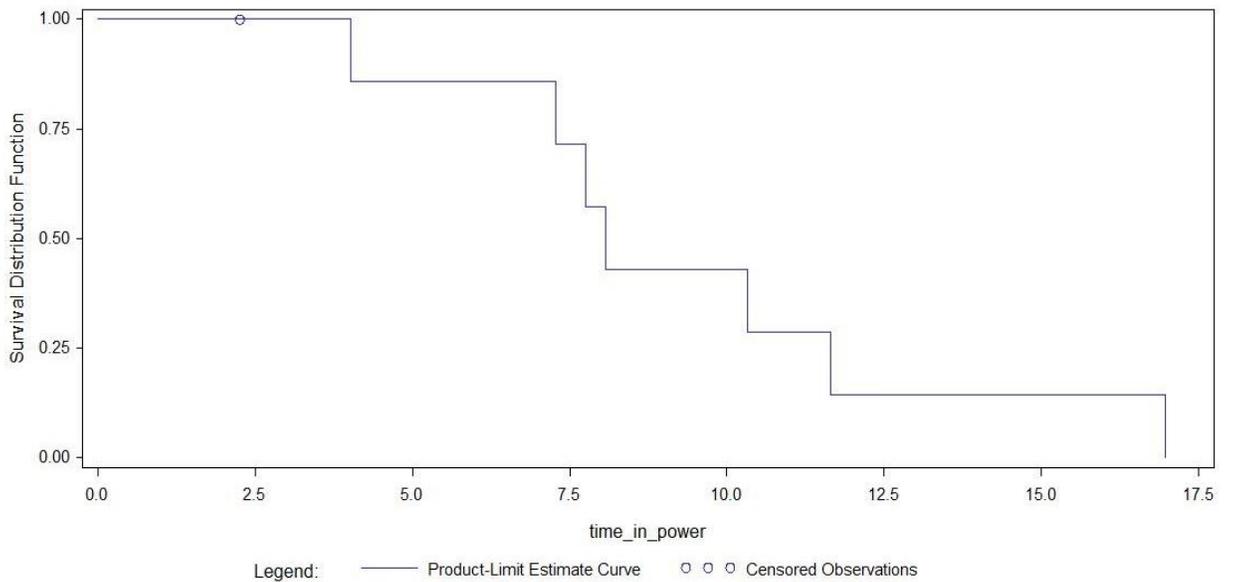
Figure 20: Kaplan-Meier Survival Curve, Party Governments, Prince Edward Island (n=7, 1 right-censored observation, 1 left-censored observation)
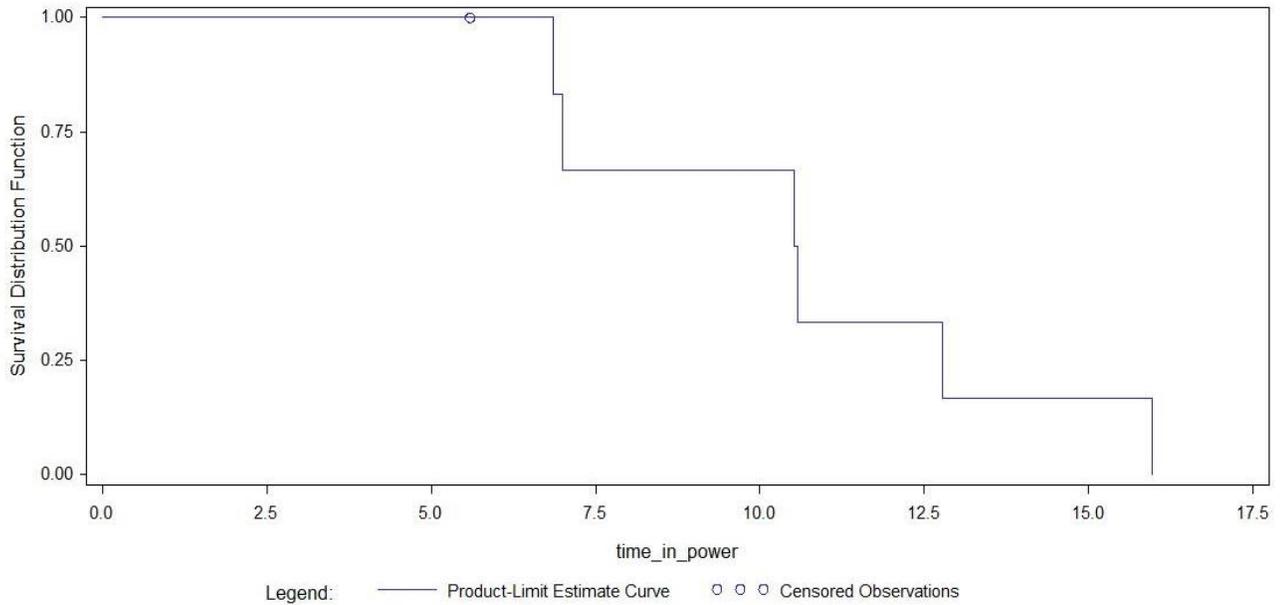
Figure 21: Kaplan-Meier Survival Curve, Party Governments, Newfoundland (n=4, 1 right-censored observation)
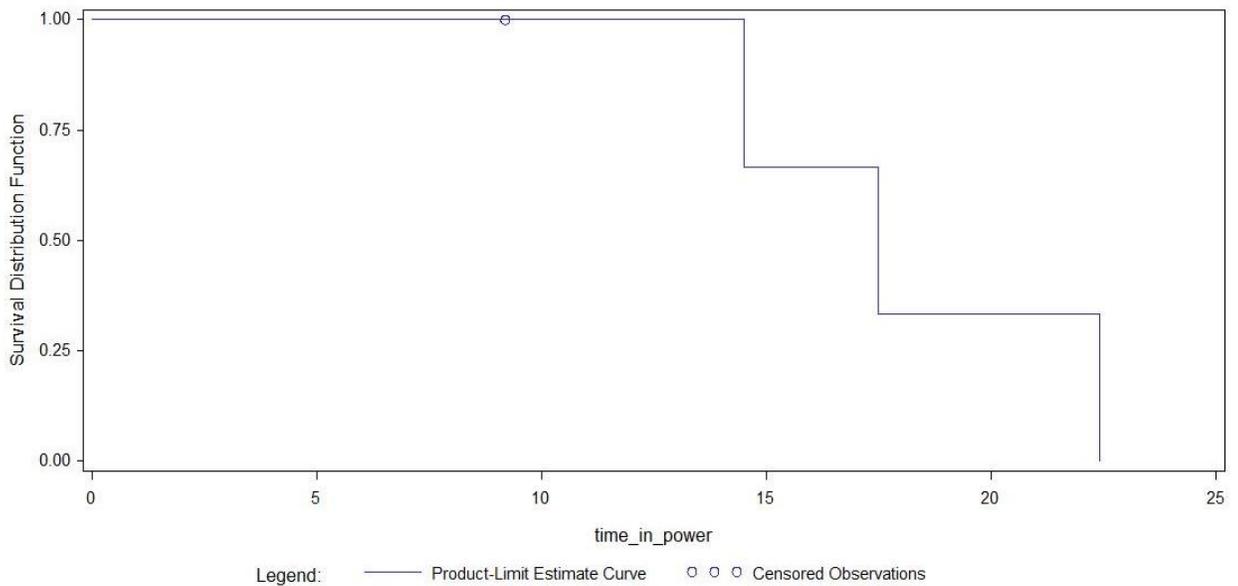
What these individual provincial survival curves indicate that a trend exists in most provinces. Generally, half of all parties will be defeated after serving close to 10 years as governing party which is consistent with the probability of the combined curve. However, showing the provincial curves individually allows one to see the differences in

some provinces. These visuals reveal interesting questions for future research. The most apparent question regards Alberta's dynastic parties. Why does Alberta tend to have party governments that last for decades? Quebec is an outlier considering that there is a 70 percent probability that a party government will fail prior to ten years, which is inconsistent with many of the other provinces. Ontario has experienced a single party in power for over 30 years, while any other subsequent party government is 70 percent likely to fail before it spends 10 years in power. The Cox model presented tells us how the variables affect the population of provincial party governments but perhaps the individual survival curves indicate that some provinces need to be examined individually.

4.3 Determinants of Party Re-election

A logistic regression model was fitted to test potential determinants of re-election of individual governments in the Canadian provinces. Since the Cox model for individual governments tells us the hazard rate of a government's failure, it raises the question: what accounts for a government's re-election? Since the previous models have determined that some of the variables outlined in Chapter 3 are relevant to termination, the next step is to explore what variables are relevant to re-election. Using the original dataset, three variables were found to be statistically significant for increasing the odds of re-election. Table 7 below presents the logistic regression results.

Table 7: Multivariate Logistic Regression Model for Election Survival

Variable	Odds Ratio	95% CI	p-value	Direction of Odds-Ratio
Leadership change	2.341	1.078, 5.083	0.0315	For failure
First Term	6.073	2.205, 16.23	0.0005	For survival
Fractionalization end of term (10 point difference)	1.387	1.062, 1.811	0.0162	For failure

The logistic regression results indicate that a party in its first term in government is 6.073 times more likely to be re-elected than a party that has been in power for more than one term. A party that experiences a leadership change during its term is 2.34 times more likely to be defeated in a subsequent election. If two governments faced election on the same day, the government whose system has a lower degree of fractionalization that the other is 1.387 times more likely to be re-elected than the government whose system has a higher degree of fractionalization. All of the above variables are statistically significant at the 95 percent confidence level. The other variables considered: fractionalization at beginning of term, fractionalization change during term, CPI percent change during term, party competition at the start and end of terms, party competition change during term and the percentage change in party competition were all found to be statistically insignificant in this model.

4.4 Discussion

The following section provides a discussion of the results presented above with respect to the hypotheses outlined in Chapter 3. It begins by presenting the hypotheses for the three models and how the results of the models relate to what was hypothesized. The implications of this research within the broader literature are then examined. The limitations of this research and other potential explanatory variables are then discussed.

Model 1: Individual Government Survival

Model 1 is concerned with the determinants of individual government survival. The hypotheses being explored with this model are the following:

H1: A government's minority status is likely to increase the hazard rate.

A minority government is 2.6 times more likely to experience a terminal event than a majority government. Minority governments are therefore less durable than majority governments.

H2: A change in leadership leading during a term is likely to increase the hazard rate.

The Cox model suggests that a leadership change during the term does not increase the hazard rate. The Cox model indicates a decrease in the hazard rate but the Meier-Kaplan survival curve shows that governments that experience leadership change have a 50 percent probability of lasting 4 years in government, which is actually longer than a government that has not experienced a leadership change. Leadership change is therefore associated with a longer term for an individual government.

H3: A low level of fractionalization will decrease the hazard rate.

The results indicate that fractionalization is not statistically significant.

H4: An increase in CPI, measured as percent change during period in power, is likely to increase the hazard rate.

The results indicate that CPI is not statistically significant.

H5: An increase in party competition is likely to cause an increase in the hazard rate.

Party competition and fractionalization are highly correlated and cannot be used in the same model. However, when modelled separately from fractionalization, party competition is found to be not statistically significant.

The model also considered whether it was a party's first term in government as a potential explanatory variable. While I did not initially hypothesize that a party's first term in government would be a potential variable it is nevertheless included in the model

as a covariate. A party's first term in government is found to be statistically not significant.

Model 2: Party Government Survival

H1: An increase in party competition will cause an increase in the hazard rate for party government duration.

A .10 unit difference in party competition at current time is found to cause an increase in the hazard rate. A party with a higher level of party competition is 1.1 times more likely to experience a terminal event than a party with a lower level of party competition. Party competition is highly correlated with fractionalization and cannot be used in the same model; it was therefore modelled separately.

H2: A change in leadership over party government duration will increase the hazard rate for party government duration.

A change in leadership, defined as change in leadership during the current year, previous year or two years back, is found to increase the hazard rate but is only significant at the 90 percent confidence level.

H3: The increase in CPI, measured as percent change, over time will increase the hazard rate.

The percent change in CPI is not statistically significant.

H4: If the level of fractionalization increases over time the hazard rate will increase.

A difference in fractionalization at current time is found to cause an increase in the hazard rate. A party with a higher level of fractionalization is 1.4 times more likely to experience a terminal event than a party with a lower level of fractionalization. As noted above fractionalization is modelled separately from party competition.

The results are able to confirm some of my hypotheses but also reject several of my hypotheses. This indicates that the variables that I chose do not adequately explain individual government survival nor do they completely explain party government survival. What is clear is that some factors matter for individual governments and not for party governments while some variables impact party government duration but do not affect individual government duration.

Model 3: Likelihood of Re-election

H1: A change in leadership during a term is likely to decrease the likelihood of re-election.

The logistic regression model results show that the odds of being defeated in an election increase if there is a change in leadership during the term. A party that experiences a leadership change in the term prior to the election is 2.34 times more likely to be defeated than a party with no leadership change.

H2: A system with a low level of fractionalization is likely to increase the likelihood of re-election.

An increase in fractionalization increases the likelihood that a government will be defeated in an election.

H3: An increase in CPI, measured as percent change during period in power, is likely to decrease likelihood of re-election.

The regression finds that CPI is not statistically significant.

H4: An increase in party competition is likely to decrease likelihood of re-election.

Party competition is not statistically significant.

The results presented above offer some interesting insight in to the nature of political duration in the Canadian provinces. We see that generally half of all party governments in the provinces combined are able to maintain power for 10 years. The results indicate that fractionalization, leadership and minority status matter in the provinces. However, the results also tell us that the variables used in this study do not adequately explain political duration, both individual and party government. So, what is it that these results really tell us?

The major finding of each one of these models is that Canada is indeed an exceptional case with regard to the study of political duration as it is currently conducted. Canada does not fit with what we know about political duration. The variables used in these analyses were chosen in order to be consistent with the broader cross-national literature (fractionalization, Consumer Price Index, party competition, minority status). Some additional variables were considered that were hypothesized to be relevant to the Canadian case (leadership change, party). However, what the findings indicate is that the variables chosen do not completely explain political duration in the Canadian provinces. This research indicates that since the variables explored here do not explain the political duration story, other variables should be considered in order to further explore the determinants of any type of government survival, be it individual governments or party governments.

The results also indicate that there is variation among provinces. While the provinces can be combined for a macro analysis of provincial government duration, some provinces are exceptions to the macro findings. Alberta has a history of having parties in power for exceptionally long periods. Alberta has only had four party governments since

its creation in 1905. Even more interesting is that each party government governed for several consecutive terms and was replaced by another party that governed for another extended length of time before being replaced by another party. Of the parties that have previously governed Alberta, two of the three prior to the current ruling Progressive Conservatives have ceased to exist. Alberta has been characterized as the only province in Canada that has a one-party dominate party system (Carty and Stewart 2006). Some scholars have sought to explain party politics in Alberta, and much of the research indicates that Alberta has a different political culture (see Macpherson 1962; Dacks 1986; Bell, Jensen and Young 2007).

Perhaps it is less that Canada is exceptional and more of a shortcoming in my application of the theoretical literature. The electorate and elector preferences are largely ignored in my analysis and most analyses of this sort. There are several bodies of literature on political culture, political socialization, voting behaviour and general political behaviour that discuss the reasons for voting and why electors make the choices that they make. The theoretical literature addresses political actor preferences as the main reasons parties act as they do. However, the theoretical literature dismisses the preferences of the electorate in the decision to keep a government in power. Granted, much of the theoretical literature examines cabinet duration or individual government duration and ultimately the power to dissolve a cabinet or government rests in the hands of coalition members or the first minister depending on the type of government. Therefore, the electorate does not matter in the dissolution of a cabinet but in order to determine party government duration one must consider elector preferences or some variables that characterize vote choice. The collective of voters ultimately chooses

whether a party will maintain power or lose power. This indicates that some measure of voter behaviour ought to be included in these types of analyses.

It is not that rational choice does not account for elector preferences. Anthony Down's (1957) work on the economic theory of democracy indicates that elector preferences are a component of rational choice applications to political orientation. Down's work indicates that an individual will vote for a party that will provide the elector with the greatest utility. Parties are concerned with garnering votes, which will lead them to holding office. Down's demonstrated the interaction between voters and parties in a left-right spatial model of voting based on the normal distribution curve. Most individuals populate the centre of a normal distribution, where the centre of the curve is centre ideology and the far left and right sides of the curve represent extremist attitudes. Since voters will vote for parties or candidates that can provide the most perceived benefits and most voters tend to sit near centre-right and centre-left, parties will move their platforms closer to the preferences of the median voter. This work demonstrates that elector preferences are accounted for in rational choice literature but elector preferences are not accounted for in much of the political duration literature.

With respect to Canada's status as an exceptional case, there are some peculiarities associated with Canadians' orientation to politics. Region is one of the most central concepts in Canadian politics and in particular with vote choice. The single most important indicator of vote choice at the federal level in Canada is region (Ornstein, Stevenson and Williams 1980; Brodie 1990; Brodie 1997). The importance of region is manifested through regionalism in Canadian politics. Brodie (1997: 242) states that the strong identification with region "informs how people assess political issues and

objects." While Simeon and Elkins (1974) do not agree that regionalism is the reason individuals vote the way they do, they assert that different regions could have a shared political culture that affects their orientations to politics. Political culture can be defined as "particular distribution of patterns of orientation toward political objects among the members of [a] nation" (Almond and Verba 1965: 13). Political culture allows scholars to understand how people view and assess politics.

If political culture tells us how people orient toward politics and regionalism is an integral part of orientation toward politics in Canada, then it ought to be a variable considered in studies of this sort. Nelson Wiseman (2006; 2007) has noted that each province has its own political culture. Given the results presented above and the differences between provinces, it seems that political culture could be an explanatory variable. Could it be that Alberta has a political culture that promotes one-party dominance? Could Quebec's political culture explain the higher rate of turnover among party governments? Granted constructing a measure for political culture is difficult but it appears that political culture ought to be an explanatory variable considered in these types of analyses and particularly with regard to the Canadian provinces.

Given that the variables explored do not completely explain party government duration in Canada, we must consider the role the single-member plurality electoral system could play in determining duration. In King et al.'s (1990) study, Britain and Canada are found to be outliers and both countries employ single-member plurality electoral systems. Party competition in SMP systems produce winner-take-all situations whereby the losses of one party are direct gains of another. The SMP system tends to produce artificial majorities or reward parties with strong concentrated support in some

areas with seats while denying parties with dispersed widespread support seats. However, determining the effect of SMP is difficult when there is no other electoral system currently employed in Canada to provide a comparison. We have seen in some elections where seat distributions are disproportionate with vote share. However, to consider SMP as an explanatory variable in the above type of analysis would be difficult.

There are limitations associated with this research. The variables used do not completely explain party government duration or why some parties are able to survive subsequent elections. The theoretical literature does not consider the preferences of a polity instead there is a focus on the behaviour of political actors. Since this study was constructed to resemble the cross-national studies there was too little consideration given to variables that are perhaps more significant in Canada. In order to fully understand what determines party government duration in the provinces it is important to consider what makes Canada an exceptional case in the cross-national literature and apply those potential explanatory variables to the Canadian case. If Canada is exceptional it is important to explore the factors that contribute to Canada's outlier status.

There are several limitations with the data used in this thesis. The federal Consumer Price Index is used as an economic indicator because provincial Gross Domestic Product data or unemployment rate data are currently unavailable for the observation period of this study. Fractionalization was calculated based on legislative seat share, alternatively it could have been constructed using vote share data. Party competition was measured using the calculation for the effective number of parties, which may not be the most accurate way to assess party competition. However, given that there is some difference among Canadian scholars on how to characterize the

provincial party systems, it may have been one of the best and easily quantifiable ways to determine a value for party competition.

The findings presented in this section suggest that some of my hypotheses were indeed correct. However, many of my hypotheses were not correct. The covariates used in this study were constructed to be consistent with the cross-national literature but since Canada has been identified as an outlier in that literature, perhaps different variables should have been chosen. The theoretical literature tends to ignore the electorate but does so because there is a tendency to examine single durations or single cabinets. What is clear from these findings is that party government duration is comprised of a set of terms in office and in order to stay in office a party must win a subsequent election. A logistic regression was used in order to determine what variables make a government more likely to survive re-election. While the logistic regression produced some interesting results, the variables used in that analysis do not completely explain a government's chances of re-election. In the Canadian case, it is clear that we must consider additional variables in order to completely explain government survival of any type.

[iii] Some provinces have introduced fixed date election legislation in the last decade that requires an election be held every four years.

CHAPTER 5

Conclusion

The Canadian provinces have seen significant variation in the length of time a single party has governed for consecutive terms. Alberta and Ontario have seen the same party control the executive for over 35 years. In comparison some provinces have seen parties last for 13 years or less. This thesis' primary objective was to explore what explains the variation in party government duration in the Canadian provinces for the period 1945 to 2012. However, in order to fully explore this research question it was necessary to ask two other research questions: 1) What factors explain individual government survival in Canada for the period, 1945-2012 and 2) What factors contribute to election survival?

The theoretical literature outlined in this thesis identifies the key determinants of political duration. The attributes a party, government or system possess cause it to be more or less susceptible to shocks in its political environment. A weak government is likely to fall if faced with minor shocks in its environment whereas a more durable government would require larger shocks in order to destabilize. Political duration then is a dependent on a set of endogenous attributes or exogenous shocks.

The political duration literature is derived from the rational choice theoretical tradition. Much of what drives rational choice theory is a belief that individuals are rational and self-interested. In rational choice theory, political actors are seen to be utility maximizers. There is much debate as to the merits of rational choice theory with some scholars being particularly critical of the approach. Most of the criticisms focus on the validity of the empiricism that characterized positive political theory. Green and Shapiro

(1995b) argue that rational choice theorists are too concerned with methods and not concerned enough about problem-driven research. Regardless of the criticisms associated with rational choice as a theoretical framework, it is rational choice theorists who have produced a sound research program regarding political duration.

Why do we care about political duration? Simply put, political duration research allows us to assess the health of a democracy. The level of turnover, be it cabinet, government, leadership, ministerial or legislator, tells tales about the health of a democracy. Too much turnover can be seen as an indicator of instability while too little turnover can reflect too much stability, which could threaten the legitimacy of a regime. Stable regimes ensure the continuation of a policy agenda but when there is little room for government refreshment, policy can become stale. The level of turnover is particularly relevant in Canada where both the federal and provincial legislatures are characterized as executive-dominant. Provincial premiers with majority cabinets, coupled with the strict party discipline of the Canadian variety, hold significant power in terms of setting the policy agenda. Premiers are the most powerful figures within provincial cabinets.

The descriptive data presented in this thesis illustrating the distributions and maximums lengths of party government duration in the provinces suggests that there is variation in the level of party turnover. Given that the provinces have jurisdiction over policy areas that are directly relevant to the daily lives of citizens, an examination of the provinces is warranted. Moreover, the lack of scholarly attention afforded to the provinces is somewhat troubling, further highlighting the need for provincial research.

The analyses presented in this thesis were constructed to be consistent with the cross-national literature outlined in Chapter 2 above. Scholars of political duration have identified a set of attributes and shocks as determinants of political duration. Fractionalization, the party system, minority status and economic indicators have all been identified as determinants of political duration. The independent variables chosen for use in this thesis are consistent with those outlined in the theoretical literature.

The analyses used two different types of methodology to address three distinct research questions. Event-history modelling, which models time to event, is the most commonly used and accepted method for political duration research. As such, two event-history models were used to explain: 1) what factors explain individual government survival in the provinces for the period 1945 to 2012 and 2) what explains the variation in party government survival in the provinces for the period 1945 to 2012. A logistic regression model was used to explore what factors contribute to election survival.

The thesis examined several hypotheses with respect to the effect that covariates would have on the hazard rate for individual government survival. Of the hypotheses outlined in Chapter 3, only one was confirmed. Minority status was to found to increase the hazard rate, meaning a minority government is more likely to experience a terminal event than a majority government. The other statistically significant variable, leadership change was found to decrease the hazard rate. This means that a government that experiences a change in leadership is less likely to experience a terminal event than a government that has not experienced a change in leadership. Interestingly, fractionalization, party competition, the Consumer Price Index and the government's first term status were not found to be statistically significant.

Several hypotheses were examined with respect to the main research question concerned with party government duration. Of the hypotheses outlined in Chapter 3, only three of the hypotheses were confirmed. Both fractionalization and party competition, measured as .10 unit difference, were found to be statistically significant but could not be used in the same model because they were correlated. Change in leadership, defined as change in leadership during the current year, previous year or two years back, was found to be statistically significant at the 90 percent level. Minority status and the Consumer Price Index were found to be not statistically significant. The model also tested party label, which was also found to be not statistically significant.

The logistic regression model was used to determine what variables affect a government's chances of surviving an election. Of the hypotheses outline in Chapter 3, three were confirmed. If it is a government's first term in office, they are more likely to be re-elected than a government that has spent more than one term in office. Leadership change during the term increases the likelihood that a government will fail to get re-elected. A government with a higher level of fractionalization at the end of its term than another government is less likely to win re-election than the party with the lower level of fractionalization. Neither party competition nor the Consumer Price Index were statistically significant.

What these two event-history models tell us is that the Canadian provinces are indeed exceptional cases with respect to the determinants outlined in the theoretical literature. This confirms the findings in the cross-national analyses that the Canadian case does not fit with what we know about political duration.

What are the implications of these results for the research questions outlined in this thesis? For the first research question: what factors affect individual government survival, we can confirm that leadership change and minority status are two factors that affect survival. For the main research question in this thesis: what accounts for the variation in party government duration, we can conclude that fractionalization, leadership change and party competition partly account for party government duration. Of course, the other half of the party government survival story is surviving subsequent elections. The logistic regression model provides some insight into the factors that affect chances of re-election.

Ultimately, what the results presented in this thesis indicate is that the variables tested do not completely explain the political duration story. The theoretical literature does not account for the role of the electorate. Granted, much of the theoretical literature focuses on single terms, in which the dissolution of a cabinet or government is more likely to be a calculated decision by political actors. Nevertheless, in a study of party government duration, the electorate ought to be considered and a variable considered that accounts for elector preferences. There is a body of rational choice literature on voting behaviour, which could help inform a potential variable.

I think that political culture is worth examining as a potential explanatory variable in the Canadian case. Given that political culture helps us understand how people orient toward politics, it seems like a viable explanatory variable. It may not account for duration in all provinces but it is worth exploring, especially in the cases of Alberta, Ontario and Quebec. Both Alberta and Ontario have had exceptionally long party government durations indicating that they are true outliers. Could it be that Albertans and

Ontarians orient themselves toward politics in a certain way, which causes them to choose a single party for representation for decades? Quebec on the other hand, has the shortest durations in party government duration with alternation between federalist and separatist parties. Does Quebec's political culture explain a higher rate of turnover? Although developing a measureable variable for political culture could prove difficult, it is still a variable worth exploring with respect to political duration.

Perhaps what accounts for party government duration in the provinces are their electoral and the party systems. Britain and Canada are both outliers in the cross-national analysis and both countries employ the single-member plurality electoral system. Duverger's (1959: 217) law states, "the simple-majority single-ballot system favours the two-party system." Given this reality, the electoral system is responsible for creating the party systems in jurisdictions that use SMP. In Canada, the electoral system manufactures artificial majority governments. Parties with concentrated support in certain regions are rewarded while parties while punishing parties with widespread support dispersed over a larger area. Measuring the effect of the electoral system and the resulting party system is difficult when there is no alternative to compare, all provinces employ SMP. Nevertheless, this is another potential explanatory variable for political duration in Canada.

There are subsequent studies that can be undertaken to expand on the research presented in this thesis. The period under study can be expanded back to 1867. The variables used in the cross-national analyses do not completely explain the duration story in the provinces therefore other variables ought to be explored for the effect on political duration in the Canadian provinces. Some provinces deserve micro-level analysis to

understand why they are so different. For instance, party government duration in Alberta is deserving of an in depth analysis, as it is a true outlier. This thesis creates a potential for a comparative study of subnational government duration in other parliamentary systems or federal systems, which would allow for a comparative assessment of the effect of the electoral system.

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