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MINISTERIAL CAREERS AND 'THE MISSING PIECE'.  
INTRODUCING AND OPERATIONALISING THE MINISTERIAL  
CAREERS FRAMEWORK.

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## **Abstract**

The literature on ministerial careers has recently been reinvigorated by individual contributions and collaborative projects. However, few studies of ministerial careers have been able to take into account the varying importance of ministerial positions. Fewer still have taken ministerial careers as their unit of analysis. As a result, they have been unable to account for crucial aspects of these careers. This paper seeks to fill these gaps, linking a crossnational data set on ministerial appointments and terminations with country-specific expert survey data that estimate the importance of ministerial portfolios. Among the new possibilities opened up by this data set of 977 ministerial careers is the systematic description of the structure of ministerial careers incorporating measures of ministerial importance. The paper contributes to the study of ministerial careers by introducing several innovations: a simple analytical framework for the analysis of ministerial careers; a new, crossnational data set on ministerial appointments and terminations incorporating data on ministerial importance; an approach to dealing with the problem of unconfirmed right-censoring that is posed by studying ministerial careers; new approaches to describing and measuring ministerial career structures that the ministerial careers framework and the new data set open up; and an agenda for the future development and use of this new data set on ministerial careers.

## **Keywords**

Ministers; Ministerial careers; Cabinet government



## Introduction<sup>1</sup>

A “ministerial career” can be defined as the period lasting from an individual's first appointment to ministerial office until their final exit from the ministerial corps (Bakema 1991, p.71).<sup>2</sup> Every ministerial career involves appointment to office, retention of office and exit from office; in this respect, all ministerial careers are the same. In many other important respects, they differ. During their ministerial career, individuals move out of, into and between ministerial positions. They may hold one or many positions and these positions will differ. Each career traces its own path.

Ministerial career outcomes are empirically distinct from the office-seeking outcomes of parties or the survival of cabinets. For example, Huber and Martinez-Gallardo (2008) show that, most of the time, ministerial tenure is not coterminous with cabinet duration. The literature on ministerial careers has addressed important questions including, 'Who is appointed to ministerial office?'; 'How long do they survive in office?'; 'Why do they leave office?'; and, less frequently, 'What effects do ministers have on policy?' While this literature is extensive (see Dowding & Dumont 2009 for a recent review) and growing, it also is characterised by three broad weaknesses. First, while the analysis of certain elements of ministerial careers is common, the analysis of ministerial careers as such has been much rarer. Second, the literature has made only limited progress on integrating measures of ministerial importance into its analyses of career outcomes. Third, crossnational analyses of ministerial careers and, more fundamentally, crossnational data sets on ministers, are lacking (Dowding & Dumont 2009, p.4).

These weaknesses have implications for the measurement and description of ministerial career structures and dynamics. Career paths and structures are difficult to capture without taking a 'career perspective' and a rich, systematic description is difficult to provide without some measure of ministerial importance. The literature's shortcomings have a broader significance. Were they to be overcome, the ministerial careers literature would provide a more satisfactory basis for answering important questions about representation, office-seeking and the professionalisation of politics, amongst others. The analysis of representation in cabinet (of, say, women or young people) can be better-informed if we can specify the importance of the

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<sup>1</sup> The authors would like to acknowledge the encouragement and support provided by the late Peter Mair for this project. For their comments on drafts of this and related papers, we thank the EUI Working Paper series' anonymous reviewer, Adrienne Héritier and the discussants and participants at: the workshop on 'Ministerial Turnover and Ministerial Career Paths in Contemporary Democracies' at the ECPR Joint Sessions in April 2011, especially Hanna Bäck, Patrick Dumont and Luca Verzichelli; the workshop on 'Politics and Representation' at the European University Institute in May 2011; the 'Tuesday Seminar' at the Centre for the Study of Democracy at Leuphana University Lüneburg in October 2011, especially Ferdinand Müller-Rommel; and the panel on 'Government, Parliament and Reform' at the Annual Conference of the Political Studies Association of Ireland in October 2011. We thank Timm Frerk for his research assistance and Oli Hannesson and Claire Staath for their assistance in translating sources.

<sup>2</sup> The ministerial career does not necessarily include all of the years during which they might be regarded as 'ministrables' (*contra* Blondel 1991, p.13). We do not claim that ministerial careers are 'really' careers. Careers, according to a recent review of the careers literature (Sullivan & Baruch 2009, p.1543), span an entire life. While ministerial careers do share many features of a career, it would be unreasonable to expect that they share this life-long duration, except in highly unusual cases. For now, we use the term “ministerial career”, which reflects both Bakema's definition and a terminology that is widely used in the literature with which this paper engages. 'Career' is used simply as useful metaphor, which is distinct from other units of analysis (see Section 1.1, below).

positions that members of these groups hold; the analysis of individuals' office-seeking success can likewise be better-informed; and answering questions about the professionalisation of politics seems to demand that we are in a position to measure and compare career dynamics and structures.

This paper fills some gaps in the study of ministerial careers by integrating measures of ministerial importance with data on ministerial career events and by demonstrating the descriptive value of these data for the study of ministerial careers. While it does not describe every aspect of a ministerial career, nor aim to explain variation in aspects of ministerial careers, it does set out an agenda for their description and explanation, using the new data presented in the paper. It proceeds as follows. First, we propose a framework for the description of ministerial careers. This framework is an analytical construct which allows for the meaningful comparison of the paths that individuals follow through ministerial offices. Second, we present new data on ministerial careers in six countries, which were produced by combining data on individual career events with data on portfolio importance.<sup>3</sup> These data allow us to track the rise and fall of individuals through ministerial offices, as well as providing a basis for crossnational comparison. Third, these data are explored descriptively through presenting some new ways of examining ministerial career structures that would not be possible without these data. Finally, we discuss how the ministerial careers framework and the unique data set that we produce in order to operationalise it might be used and improved.

## **1.0 Lacunae in the Study of Ministerial Careers**

Research on aspects of ministerial careers has developed relatively slowly (Blondel 1985, p.8; De Winter 2002, p.205; Dowding & Dumont 2009, p.4), particularly when compared with crossnational studies of closely-related actors, such as parties in cabinet. Despite varied and continued productivity, the study of ministerial careers is characterised by three broad weaknesses. First, the analytical focus has been on a single type of event (such as appointment or resignation) or on individual cycles of appointment and termination, rather than on the full ministerial career. This is an analytical deficit, which requires, in the first instance, the development of an explicit framework for the analysis of ministerial careers. Second, variation in the importance of ministerial positions has not been operationalised to the extent that is possible, thus hampering the description and measurement of certain aspects of ministerial careers. This is an informational deficit, which requires the integration of data on ministerial careers with data that addresses the issue of ministerial importance. Third, the vast majority of existing studies focus on individual countries. While this is an ancillary rather than a 'core' critique of the literature for the purposes of this paper, it is striking when compared with the study of parties in cabinet and it does constrain the analytical potential of the literature. We consider each of these problems in turn, including their implications for the measurement and description of ministerial career structures.

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<sup>3</sup> The latter is described by Druckman and Warwick (2005) as “the missing piece” in the study of inter-party portfolio allocation.



### ***1.1 Analytical Focus: Ministerial Career Events, Ministerial Career Cycles or Ministerial Careers?***

The literature on ministerial careers describes, measures and seeks to explain a range of outcomes. These outcomes imply analytical focusses on different units. Some focus on an individual career event, such as ministerial appointment (O'Malley 2006; Kerby 2009b; contributions to Dowding & Dumont 2009 eds.) or ministerial termination, particularly resignation and dismissal<sup>4</sup> (Dowding 1995; Dowding & Kang 1998; Dewan and Dowding 2005; Fischer et al. 2006; Kerby 2009a). Others focus on cycles of 'hiring and firing'<sup>5</sup> (Dowding & Dumont eds. 2009; see also SEDEPE 2010), in the form of analyses of ministerial survival or stability (Huber & Martinez-Gallardo 2008; Quiroz-Flores 2009).

Few studies have taken a longer 'ministerial career perspective', with the individual ministerial career as the unit of analysis. Curiously then, the study of ministerial careers only occasionally involves the comparison of ministerial careers as such. This means that basic parameters of ministerial careers, such as the cumulative time spent in office over the course of a career, are rarely measured or analysed; that appointments that begin a ministerial career and terminations that end a ministerial career are rarely distinguished from other appointments and terminations; and that ministerial career interruptions, which fall between cycles of appointment and termination, are neither identified nor measured (for partial exceptions, see Bakema 1991, p.71 and pp. 83-89; also Kam & Indridason 2009, pp.47-51). Most generally, the ministerial careers literature lacks an analytical framework within which ministerial careers can be compared.

### ***1.2 Ministerial Importance and Ministerial Careers***

The idea that some ministerial positions (and ministries, and portfolios) are more valuable than others is not new. Within the literature on ministerial careers, variation in ministerial importance is alluded to frequently. Several single-country studies refer to patterns that imply a vertical dimension in ministerial careers. These include the idea that politicians progress slowly and steadily upwards (O'Malley 2009, p.191, referring to recent Irish ministerial careers) and the idea of entering at the top and remaining there (Berlinski et al. 2009, p.64, referring to Tony Blair's ministerial career). Differences in ministerial importance are also implicitly acknowledged in their use as a scope criterion for studies of prime ministers (e.g., Mueller & Philipp 1991, p.136; O'Malley 2007) and so-called 'core' ministers (Strom and Smith 2011).

Kam and Indridason (2009, p.48) clearly identify the need for measures of ministerial importance in the study of ministerial careers: "a full picture of ministerial careers requires that one tracks both the lateral movement of ministers across portfolios and their vertical

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<sup>4</sup> Studies of resignations often include dismissals as resignations (Dowding and Kang 1998; Dowding 1995; Fischer et al. 2006). In this paper, we use the broader term 'termination' to describe the end of a period in office.

<sup>5</sup> Hiring and firing cycles themselves can be (and are) variously defined. For some, the focus is simply the time between *de jure* appointments and terminations; for others, the focus is on uninterrupted time in a single office; for others again, the focus is on an uninterrupted period in cabinet (e.g., Jäckle 2011); .

movement in the ministerial hierarchy”. Researchers have begun to operationalise this vertical dimension. At the most elementary level, researchers make the institutionalised distinction between senior and junior ministers (e.g., Manow 2008; Fischer & Kaiser 2009, pp.24-26). Others go further and identify multiple tiers of appointee within individual national contexts (e.g., Berlinski et al. 2006, p.60). Dandoy et al. (2010, pp.6-7) highlight two ways in which ministerial and parliamentary offices can be ranked or rated in Belgium: by survey (citing Dewachter and Erwin 1991) and by salary; and, further, they make inferences about the relative importance of ministerial positions at both subnational and national level in Belgium from individuals' career movements and from substantive case knowledge. In a crossnational study of ministerial turnover, Huber and Martinez-Gallardo (2008, p.170) construct an index of 'ministerial autonomy' using Laver and Hunt's (1992) expert survey data; they use it as an independent variable. Kam and Indridason (2009, p.48) use Druckman and Warwick's (2005) data for the French Fifth Republic to inform the creation of three tiers of ministerial positions – junior, minor and major – which they use to map career dynamics over the course of two appointments.

Notwithstanding these important contributions, the operationalisation of ministerial importance for the study of ministerial careers is in its infancy. Existing attempts in the literature to introduce a vertical dimension in ministerial careers do not take advantage of the analytical potential offered by available data concerning ministerial importance, and they have only partially and sporadically integrated ministerial importance into the measurement of career outcomes. It might be reasonable to suggest that, at present, political practitioners and country experts often have a clearer idea of the relative importance of various ministerial offices – and, therefore, about career dynamics and structures – than do political scientists. Even where data on ministerial appointments is available, a rich and systematic picture of ministerial career dynamics and structures is difficult to provide. It is not surprising, then, that researchers have found it difficult to discern overall ministerial career structures (Berlinski et al 2009, p.63 on the UK; see also Bakema 1991, p.96).

### ***1.3 Crossnational Data on Ministerial Careers***

Twenty years ago, Blondel (1991, p.1) argued for a crossnational comparative approach, in order to assess country differences and to distinguish the effects of trends over time from national effects. Overall, he suggested that “it is the only way to obtain an answer to the key questions which the ministerial career poses”.<sup>6</sup> Since the publication of Blondel and Thiébault's (1991 eds.) volume, crossnational studies of ministers have been lacking (Dowding & Dumont 2009, p.4). There is at present no regularly-updated, crossnational, digital and publicly available data set on ministerial careers within the political science community. Woldendorp et al. (2000) collect information about ministerial appointments for 48 countries and the yearly editions of the European Journal of Political Research's Political Data Yearbook cover the ministerial composition of cabinets. However, neither of these sources are easy to use for empirical work and they lack biographical information about the

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<sup>6</sup> The data set that formed the basis for Blondel and Thiébault's (eds. 1991) edited volume, covering the period 1945-1984 in thirteen countries is available at the website of the *Selection and Deselection of Political Elites* project (SEDEPE 2010).

politicians they cover. The SEDEPE (2010) project is the most advanced effort to coordinate, collect and disseminate data about ministerial careers, including information about appointments and biographical characteristics; however, these data are not yet publicly available.

Notwithstanding some comparative studies of ministerial careers, career cycles and career events in parliamentary systems (e.g., Blondel and Thiébaud eds. 1991; Huber and Martinez-Gallardo 2008) and in presidential systems in Latin America (e.g., Escobar-Lemmon and Taylor-Robinson 2009), most existing analyses focus on ministers within individual countries. This means that, in many analyses, potentially important factors that are linked to national context, including formal institutional arrangements, remain constant. One can speculate as to why national boundaries have shaped the literature: institutional factors and the configuration of the ministerial corps differ significantly between countries (Dowding and Dumont eds. 2009; Verzichelli 2008, pp. 252-253), posing some problems of crossnational comparability; data collection on individual careers for even several decades within one country is labour-intensive and will be shaped by individual researchers' analytical interests. Whatever the reasons, it is clear that without developing data and analyses that cross national boundaries, there will be limited opportunities to draw broader lessons concerning the effects of institutional and cultural variables.<sup>7</sup>

## **2.0 The Ministerial Careers Framework**

For researchers who wish to map career structures, there are several options using existing data. One simple approach is to map the duration of these careers and their duration-based characteristics, such as the amount or proportion of time spent in ministerial office during the career (e.g., Bakema 1991). Duration is, of course, important<sup>8</sup> and a duration-based approach may suffice for some purposes, but cannot address questions concerning movements within the ministerial ranks, as it only takes into account an individual's presence in or absence from cabinet.

An alternative approach might map career paths in terms of substantive offices held. Paths that lead from office to office over time might reveal important patterns. While this is an interesting and potentially fruitful perspective, it is necessarily limited by the potential and actual complexity of these paths. For a given individual in cabinet, the number of potential future steps along their senior ministerial career path is equal to the number of positions available in the next cabinet, plus one (i.e., exit from cabinet). When ministerial careers consist of several steps of this kind, and when the variable duration of individuals' time in each position is taken into account, the possible variety of paths is effectively infinite. It is particularly poorly suited to the study of long and interesting ministerial careers and, in the absence of further information, it does not tell us about ministerial positions' importance. In

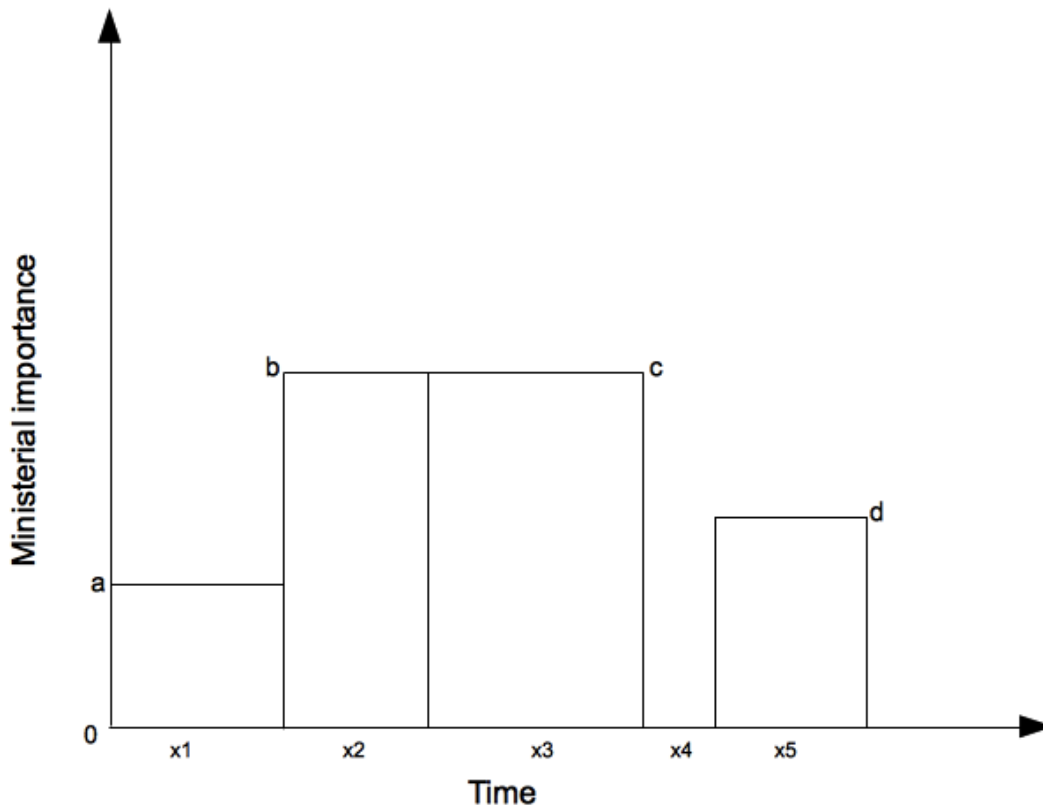
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<sup>7</sup> More generally, data availability within individual countries has been a challenge for those studying ministerial careers. For this reason, some studies have used data that has been limited in its scope, such as including only ministers selected upon formation of a new government, rather than tracking all entries or appointments (O'Malley 2006, p.330).

<sup>8</sup> Richard Rose (1971, p.402) has gone as far as to suggest that with less than three years in a government department, a minister cannot be effective in implementing a major policy change.

addition, the number and configuration of portfolios and ministries change in most countries over time (Verzichelli 2008), further increasing this approach's likely complexity.

As a middle path between relative simplicity (the durations approach) and unmanageable complexity (the qualitative paths approach), we suggest that ministerial careers can be conceptualised and measured on two important dimensions: time and ministerial importance. In this simple framework, any period in a ministerial career can be characterised by its duration (longer or shorter) and any point in a ministerial career can be characterised by the importance of the ministerial office that an individual holds (higher or lower).



*Figure 1: A hypothetical ministerial career in the Ministerial Careers Framework<sup>9</sup>*

Figure 1 illustrates a hypothetical ministerial career using the framework. Time is represented by the x-axis; importance is represented by the y-axis. Ministerial careers are marked by two types of career event (appointments and terminations) and two types of career cycle which fall between these events: periods in office (x1, x2, x3 and x5 in this hypothetical example) and career breaks (x4). Each period in office is associated with a ministerial position, which in turn is associated with a level of importance; this is represented by its height on the y-axis. In this hypothetical career, the longest period in office is x3; the shortest is x2; the most important positions were held at x2 and x3; and the least important was held during x1. In dynamic terms, the movement from x1 to x2 represents a promotion; x2 to x3 represents

<sup>9</sup> The points a, b, c and d in Figure 1 are referred to in Section 4.

reappointment to an office of equal importance; x3 to x4 represents a non-terminal exit from office; x4 to x5 represents a promotion back into ministerial office. The ministerial career ends with x5.

This simple framework suggests an agenda for ministerial career research in which the whole career can be the unit of analysis and ministerial importance, as well as time in office, is an important career outcome. It poses certain challenges. How we can make sense of entire careers, which are, almost by definition, more complex than individual career events or cycles of appointment and termination? It also offers new possibilities. It opens up new ways of measuring and describing career structures, some of which we explore further in Section 4. Most immediately, it poses an informational challenge: how can we operationalise this framework?

### **3.0 Data**

The data set that we used in this paper covers the ministerial careers of voting members of cabinet in seven countries over the course of approximately sixty years. These senior ministerial positions do not encompass all positions of interest to a politician during their career (Verzichelli 2008, p.238), but they do nevertheless represent the most important positions for office-seeking actors and for the public that are subject to government policies. As a result, they have been the central focus of the literature on ministerial careers and other literatures on office-seeking.

#### ***3.1 Introducing a New Data Source on Ministerial Appointments and Terminations***

For data on ministerial appointments and terminations, we turned to a little-used source of information on ministerial careers that has been collected outside the political science community. Lars Sonntag has collected individual-level data for senior ministers in 41 countries, along with data on cabinets, party leaders and elections. His work covers an extensive period, with the earliest country coded in the data being Great Britain (from 1765), followed by France (from 1814) and the United States (from 1879). The data include members of democratic and non-democratic governments and his Politica website (Sonntag 2010) is regularly updated with current political events. It is, to the best of our knowledge, the most extensive data source of its kind. We are not aware of any published work that uses the data for the analysis of ministerial careers and, more generally, the data seem little-used by political scientists.<sup>10</sup> This may be partly due to the fact that the data are presented in a semi-structured format only.

Based on the information from Sonntag (2010), we have created a data set on ministerial careers using the ParlGov data infrastructure (Döring and Manow 2011). We proceeded in several steps. We turned the information from Sonntag's website into data tables using web

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<sup>10</sup> In one of the tiny number of references to Sonntag's data in scholarly literature, Manow and Döring (2008, p.1367, fn.7) describe it as “[e]specially helpful, valuable and reliable” for determining the party composition of governments in the European Union from 1979 to 2004.

harvesting techniques. Based on these data, we created unique identifiers for all politicians, ministries, portfolios and parties.<sup>11</sup> We then added some biographical information such as dates of birth and death as well the gender of each individual, most of which was scraped from Wikipedia, again using web harvesting techniques.

Finally, we have performed some validation of Sonntag's data and we have corrected errors and omissions where they are apparent. Sonntag relies on multiple sources to collate his information, including official sources, subject-specific reference works, general reference works (such as Keesing's) and Wikipedia.<sup>12</sup> However, he does not record citations for these sources. We have used official sources to validate a proportion of ministerial careers in the data. While some amendments have been necessary, these have generally been minor. For the countries that we include in our data set, Sonntag's data appear to provide an excellent basis for coding ministerial career events.<sup>13</sup>

### ***3.2 Selecting Countries***

In this study, we are interested in investigating entire ministerial careers in parliamentary democracies. A chief consideration in selecting countries was to draw them from the fourteen covered by an expert survey of parliamentary democracies conducted by Druckman and Warwick (2005), which forms the basis of our data on ministerial importance (Section 3.4).<sup>14</sup> In order to cover entire careers and to reduce right-censoring issues (i.e., the proportion of potentially unfinished careers; see Section 3.3), it was important to select countries that have been democratic for several decades. We aimed to include only those countries that have been democratic for more than five decades. This led to the exclusion of Portugal. It also applies to the Central and Eastern European countries covered by Druckman and Roberts' (2008) expert survey. The same motivation led us to exclude France, as Druckman and Warwick's data covers only the Fifth Republic. For this exploratory study, we excluded Italy on pragmatic grounds, due to its extremely high number of individual careers and appointments (approximately 4200 appointments) during the period.

From the remaining countries, we selected Austria, Finland, Germany, Ireland, Luxembourg and Sweden. Most of these countries (with the exception of Finland and Luxembourg) are covered by country chapters in Dowding and Dumont's (eds. 2009) volume and all are included in Blondel and Thiébault's (eds. 1991). By selecting countries that are studied in these volumes, we allow for further validation, improvement and broadening of the data. Based on previous studies, we can expect that the selected countries span the full range of mean career durations from very long (Luxembourg and Ireland) to very short (Finland) (Bakema 1991). These countries offer considerable diversity in terms of the number of careers, unique ministries and portfolio allocations (Table 1), as well as in the range of

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<sup>11</sup> Party identifiers are based on ParlGov codes. Election results as well as information about governments in ParlGov can be linked via date variables.

<sup>12</sup> Correspondence with Conor Little, March 2011.

<sup>13</sup> Validation is an ongoing task. Our sources are listed in Appendix 1.

<sup>14</sup> These are: Austria, Belgium, Denmark, Finland, France (Fifth Republic), Germany, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal and Sweden.

portfolio configurations (see Figure 3 by way of illustration) during the period. The selection contains countries in which some post-1945 ministerial careers (i.e., careers that took place at least in part after 1945) began before the World War II. This is especially the case in Ireland and Finland (see Section 3.3). It also contains countries (Austria and Germany) in which virtually all post-1945 ministerial careers began after 1945. That said, there is no guarantee that the countries selected are representative of a wider population of parliamentary democracies; our primary purpose here is exploratory and descriptive.

The cabinet that was in office on 1 January 1946 is the first full cabinet that is coded, except for Germany where we start with the 1949 cabinet.<sup>15</sup> For these cabinets, we determine the date of appointment for each minister. At the other end of the data, all appointments that were terminated before 1 January 2004 are included.

<b>Country</b>	<b>Careers (n)</b>	<b>%</b>	<b>Unique ministries (n)</b>	<b>Portfolio-allocations (n)</b>	<b>First full cabinet</b>	<b>Last full cabinet</b>
Austria	152	15.6	42	592	20/12/1945	19/10/2003
Finland	293	30.0	27	763	17/04/1945	23/06/2003
Germany	176	18.0	42	653	20/09/1949	21/10/2002
Ireland	135	13.8	69	789	09/06/1944	05/06/2002
Luxembourg	63	6.4	105	589	23/11/1944	06/08/1999
Sweden	158	16.2	33	389	31/07/1945	30/10/2003
<b>Total</b>	977	100	318	3775		

*Table 1: Ministerial careers by country*

### **3.3 Incomplete Careers**

In contrast with the analytical focus of most existing studies of ministerial careers, we aim to study the entire career (Section 1.1). However, because of the length and indeterminate duration of ministerial careers compared to, say, individual appointments, this poses particular problems in terms of censoring: potential biases that result from 'missing' appointments before the beginning and after the end of the period covered by our study.

Beginning our data set in the 1940s ought to minimise the problem of left-censoring. For some countries (especially Germany and Austria), post-war cabinets marked almost-complete turnover in personnel. In these countries, we can expect that there are fewer ministerial careers that began before the post-war period than before other arbitrary thresholds. However, we can also expect that real left-censoring problems remain. Bakema responds to this problem by quantifying the number of ministers that served before her data set begins (150 in that data set) and simply noting that, “As the aim of this chapter is to examine career patterns of post-

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<sup>15</sup> Some additional appointments (though no additional careers) from the pre-1944/45 period are included to deal with left-censoring problems. See Section 3.3 for more details.

war ministers, only the post-war careers of these ministers have been taken into account” (1991, p.98, fn. 3). In our data, left-censored senior ministerial careers account for approximately 8% of careers in Ireland, Finland and Luxembourg, 4% in Sweden and 0% and 1% in Germany and Austria, respectively. Our response differs from Bakema's: we include a variable to code ministerial careers that begin before 1945 (based on a review of information on Wikipedia) and then we code appointments and terminations that occurred before the post-war period, 'backdating' left-censored careers where possible so that they are complete.<sup>16</sup>

At the other, more recent, end of our data, there are careers which may or may not be complete. These individuals may have been out of office for some time but can return, à la Jacques Chirac (Kam & Indridason 2009, pp.49-50). Bakema (1991), whose data ends in 1984, observes that, “The more recently ministers have been appointed, the less sure can one be that their careers have actually ended.” She responds to this problem by excluding ministers appointed after 1982 for most analyses and after 1980 for some others (Bakema 1991, p.98, fn. 3). While she acknowledges the problem, Bakema's response does not allow for the possibility that windows of two or even four years are simply too small to take account of the length of breaks out of office during ministerial careers. Some career breaks far exceed this duration.<sup>17</sup>

After we have coded careers that we are certain are complete (i.e., where the individual has died), we are left with a large group of careers about which we are uncertain. Using a data set consisting of non-terminal career breaks ( $n = 325$ ) and retirements ( $n = 487$ ), we derive coefficients for three potentially relevant variables: age, gender and time since last termination from office. On the basis of a logistic regression, we use those coefficients to calculate the probability of retirement for each career in another set of career breaks, where outcomes are uncertain (being either non-terminal career breaks or retirements).<sup>18</sup> From this model and from our coding of careers that are definitely complete, we derive several categories relating to right-censoring, which are shown in Table 2. First, there are careers for which we have complete information and which are complete. Second, there are those that are possibly right-censored. Among those that are possibly right-censored, we distinguish between those that have a probability of being complete of greater than 0.66 (probably not right-censored); between 0.33 and 0.66 (uncertain); and less than 0.33 (probably right-censored).

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<sup>16</sup> At present, there is a very small number of careers in the data set ( $n < 10$ ) which remain left-censored and uncoded before 1945.

<sup>17</sup> Indeed, in our data, we find that individuals who take one or more career breaks (almost a quarter of the individuals in our data) spend an average of approximately five years on each of these breaks.

<sup>18</sup> The logistic model that we use is in Appendix 2. We regard it as a preliminary effort, to be developed further. We thank Gijs-Jan Brandsma and Fabrizio Bernardi for their advice on moving beyond our previous solution, which involved treating all of those who were alive at the end of our data set and either over the age of 75 or out of office for fifteen years (the 90<sup>th</sup> percentile in the distribution of career breaks) as having complete careers, and others as having incomplete (right-censored) careers. This left us with 33% of our careers effectively coded as 'right-censored' and, we expect, considerably more error than the present solution.



Country	Not right-censored (%)	Probably not right-censored (>0.66) (%)	Uncertain (0.33 – 0.66) (%)	Probably right-censored (<0.33) (%)	Total (n)
Austria	53.3	22.4	9.2	15.1	152
Finland	58.7	22.2	4.8	14.3	293
Germany	49.4	27.8	7.4	15.3	176
Ireland	47.4	27.4	9.6	15.6	135
Luxembourg	65.1	17.5	4.8	12.7	63
Sweden	41.8	34.8	7.6	15.8	158
All (%)	52.3	25.7	7.1	14.9	977
<b>Total (n)</b>	511	251	69	146	

Table 2: Right-censoring of ministerial careers

### 3.4 Integrating Measures of Ministerial Importance

We borrow data developed in the literature on inter-party portfolio allocation to operationalise ministerial importance, which forms the vertical dimension (y-axis) of the ministerial careers framework. The idea of variation in ministerial importance is not new in this literature (e.g., Browne and Franklin 1973, p.458) and its implications for theories of coalition bargaining have driven the development of measures of ministerial importance. Researchers have operationalised this in more and less sophisticated ways: as a prime ministerial premium (e.g., Verzichelli 2008; Ansolahabere et al. 2005); as ministerial 'tiers' (Laver and Schofield 1990; Bueno de Mesquita 1979); as ministerial ranking (Laver and Hunt 1992, further developed by Mueller and Strom 2000); and as “portfolio salience” ratings (Druckman and Warwick 2005; Druckman and Roberts 2008).<sup>19</sup>

The data developed by Druckman and colleagues have several desirable properties which other measures of ministerial importance do not match. They are measured on an interval scale; they have relatively broad crossnational scope; they are country-specific; they offer good coverage of the range of ministerial positions that existed during the period 1945-2000; and they are derived from multiple expert opinions (Druckman & Warwick 2005, pp. 20- 21). In effect, they represent the most advanced data on ministerial importance that are currently available.

<sup>19</sup> Outside of that literature on portfolio allocation, others have examined the importance of individual ministers and departments (e.g., O'Malley's [2007] expert survey on prime ministers; Gray and Wingfield 2010 on the UK Culture Department).

In order to gather these data, Druckman and Warwick (2005) provided country experts with a list of portfolios that had been allocated in their country in the period 1945-2000 and asked them to rate the importance of those portfolios (see Druckman and Warwick 2005, p.22).<sup>20</sup> The experts were asked to rate the importance of each portfolio relative to that of a notional “average” portfolio, which they assigned a score of 1. If the portfolio in question was considered twice as important as the average, it was to be assigned 2; half as important, 0.5, and so on (Druckman and Warwick 2005, pp. 23-24). The responses of all country experts for a given portfolio were averaged to derive the final score for that portfolio. Druckman and Warwick got a good response rate and they demonstrated both a high degree of agreement amongst their experts and between their experts and existing measures of importance, such as Laver and Hunt's (1992) data (discussed in Druckman and Warwick 2005, pp.24-33). The data are available on Paul Warwick's website (Warwick 2011).

Druckman and Warwick (2005, p.18) present these data “in the expectation that [they]... will serve as a valuable resource in future studies of parliamentary government”. We harness this resource by seeking to assign their measures of “portfolio salience” to each ministerial position in the data set that we have derived from the information collected by Sonntag. Including this type of information allows us to evaluate the 'level' (i.e., y-axis) information assumed by our framework. However, it also includes significant challenges and trade-offs. The basic data, as derived from Sonntag (2010) and updated by us, give us the name of each minister and the corresponding title of their ministry. Following Sonntag, we allocate each minister individual portfolios, based on the title of their ministry. Portfolios are created exactly according to the competences specified in this title. Thus the Minister for Agriculture, Food and Rural Affairs will hold the portfolios “Agriculture”, “Food” and “Rural Affairs”. Each portfolio is then assigned an importance value on the basis of Druckman and Warwick's data. This assignment occurs in one of four ways. First, most of the results of Druckman and Warwick’s questionnaire matched exactly to one portfolio in our data (that is, the mean rating for “Agriculture” in their data for Ireland could be matched directly to our Irish “Agriculture” portfolio). Second, some of the responses in Druckman and Warwick’s data referred to two portfolios at once (such as “Arts and Culture”) which are represented separately in our data as “Arts” and “Culture”. In these cases, the score was divided in two ('split'), with 50% being allocated to each portfolio. Third, some of the responses matched closely, but not exactly, to the portfolios in our data. For example, the portfolio “Commerce” in Druckman and Warwick’s data is matched to our portfolio “Trade”. While this is not an exact match, it is better than leaving these portfolios without matches. Finally, even after having checked for close matches, some portfolios in our data were still without a match. The success with which we combined these data is detailed in Table 3. Almost 85% of the 3775 allocated portfolios in our data were assigned an importance score that matched either exactly or approximately those described by Druckman and Warwick (i.e., they can be categorised as 'Exact', 'Split' or 'Close').

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<sup>20</sup> Country experts were also allowed to propose other portfolios.

Country	Exact (%)	Split (%)	Close (%)	No match (%)	Portfolio-allocations (n)
Austria	69.3	4.6	16.9	9.3	592
Finland	42.6	0.0	51.2	6.2	763
Germany	43.0	16.1	19.0	21.9	653
Ireland	53.4	3.7	33.1	9.9	789
Luxembourg	56.5	7.6	10.9	25.0	589
Sweden	69.7	0.0	0.0	30.3	389
<i>All</i>	<i>54.1</i>	<i>5.5</i>	<i>24.9</i>	<i>15.6</i>	
<b>Portfolio-allocations (n)</b>	2041	206	940	588	3775

Table 3: Matching allocated portfolios to ministerial importance scores

### 3.4.1 Dealing with unmatched portfolios

Whilst impressive in scope and in the results with which they are associated (see Warwick and Druckman 2006), Druckman and Warwick's expert survey data do not offer complete coverage of the portfolios in our data set: 15.6% of allocated portfolio were left without a score. Druckman and Warwick themselves deal with the problem by assigning a default value of 1, which was the notional 'average portfolio' score in their expert survey questionnaire, to all of their missing portfolios. We agree that assigning a default score is better than simply discarding these data, or assigning a zero score. However, we suggest that a default score of 1 may not be appropriate. This is because, first, portfolios without a score are not randomly selected: they tend to be the least frequently occurring, which also happens to suggest, in our view, that they will tend to be less important portfolios. Second, we deal strictly in individual portfolios, while Druckman and Warwick use combinations of portfolios (i.e., ministries) where possible. In other words, we can expect that the average portfolio score in our data will be lower than the average score in their data. To rate these portfolios as 1 would be therefore to systematically inflate their importance. For these reasons, we decided to rate all unmatched portfolios with a salience equal to the 25th percentile of all portfolios allocated in a country. The results of this are demonstrated in Figure 2, which is a strip plot of portfolio ratings in each country, placed according to their importance. The highlighted dot represents the default portfolio. For each country, the default score is below 1. This method has the added advantage of taking into account differences in country data.

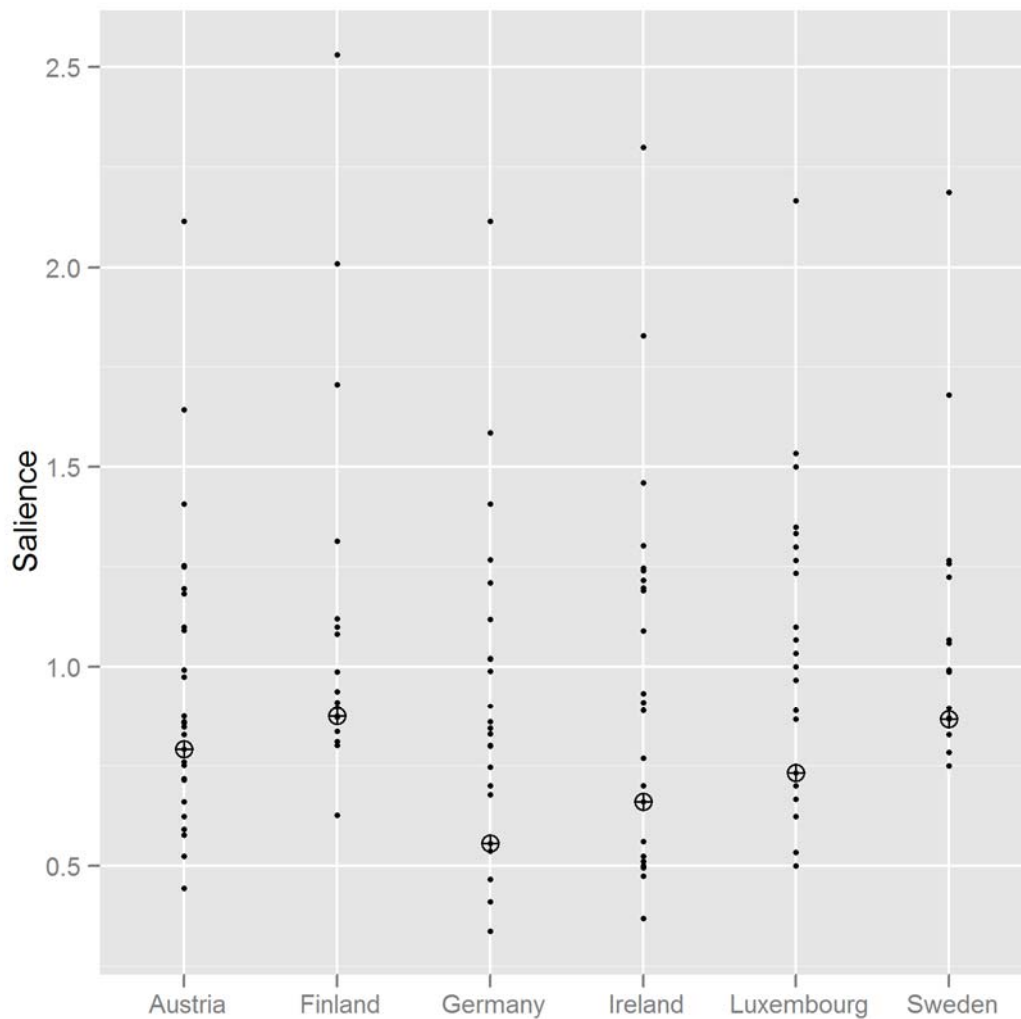


Figure 2: Portfolio Distributions by Country<sup>21</sup>

### 3.4.2 Turning portfolio importance into ministerial importance

At a given time, an individual may hold one or more ministries; the portfolios of all of these ministries form the basis of an individual's importance level, represented by the y-axis in the ministerial careers framework. In order to produce an importance score for an individual's career at a given point in time, these portfolios need to be combined. Simply summing portfolio scores to produce ministries, as Druckman and Warwick do, may be an acceptable approximation when calculating parties' overall coalition payoffs; however, in our view, it creates unacceptable distortion at the individual level, due to a tendency to inflate the value of

<sup>21</sup> Figures 2 and 3 are based on a slightly smaller, but substantially similar, data set used in previous analyses; the results illustrated are effectively the same. The 'saliency' label on the y-axis should be taken to read 'importance'.

ministries which collect a series of minor portfolios above those with just one major one.<sup>22</sup> In Druckman and Warwick's allocation of salience to Austrian ministries, for example, the position of Chancellor receives a score of 2.11, which is the highest individual portfolio score. However, following their approach to combining portfolios, six other ministerial positions are rated as more important than the Chancellor. These include, amongst others, 'Labour, Health and Social Affairs' (3.138). To assign these scores to individual careers would make a move from the Ministry of Labour, Health and Social Affairs to the position of Chancellor appear to be a significant demotion. Under our summing formula, outlined below, Labour, Health and Social Affairs receives 1.997.

In order to combine an individual's portfolios, we have developed an exponentially diminish summing algorithm, whereby an individual minister receives proportionally less for an individual portfolio the more portfolios they hold. Our scale orders the portfolios in decreasing order of importance, and then divides each score by a given number to the power of its position in the ranking minus one. This number itself can be adjusted quite easily: for the purposes of this paper we have used a less aggressively diminishing scale based on the number 2. The equation for producing a score for a given ministry or combination of ministries is therefore:

$$\sum_{i=0}^n \frac{x_i}{2^i}$$

Where n is the number of portfolios, and x is each individual portfolio, in decreasing order of importance.

To give an example: in Luxembourg from 1959 to 1964, Eugene Schaus held the portfolios "Foreign Affairs", "Trade" and "Defence". In Druckman and Warwick's survey, these portfolios receive ratings of 1.5, 0.733 and 0.623 respectively. The sum for these portfolios is thus:

$$(1.5/2^0) + (0.733/2^1) + (0.623/2^2)$$

This gives Schaus a total importance score of 2.0225 for this period (compared to 2.856 were they to be simply summed).

Figure 3 gives an overview of the importance of individual ministries in all of the countries of interest. Each individual point has been faded to make visible where the data is concentrated. These strip plots highlight two things. First, the relatively large differences in the spread of scores across countries, and second, the large differences in the frequency of ministerial configurations between countries: from Sweden, with a small number of stable ministerial positions, to Luxembourg and Ireland, with large numbers and frequently shifting combinations of portfolios.

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<sup>22</sup> Ultimately, this may be partially accounted for by some kind of 'cabinet bonus', whereby the portfolio that provides entry to cabinet gets its full value, while further portfolios are of lesser value. Our summing rule reflects, in effect, a similar logic of diminishing returns.

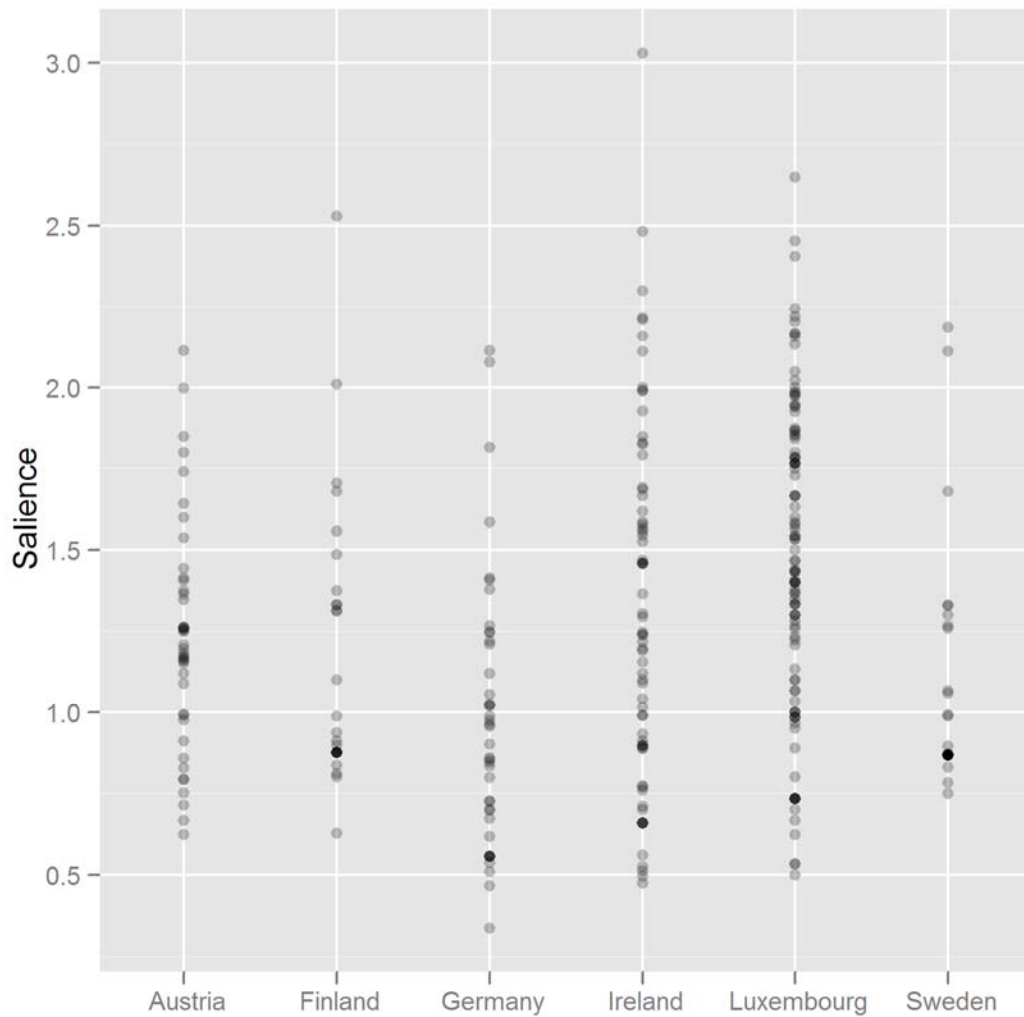


Figure 3: Ministry Distributions by Country

#### 4.0 Exploring Ministerial Career Structures

Integrating ministerial importance data and ministerial career data opens up a new dimension for the study of ministerial careers. Here, we set out some new possibilities that are opened up by the ministerial careers framework and the data set that we have developed for analyses of career structures. First, we measure basic career parameters on the two dimensions of the ministerial careers framework: the x-axis (time) and y-axis (importance). Then, we take advantage of our 'two dimensional' data set to introduce two topographical approaches to the description of ministerial career structures.

#### **4.1 The Structure of a Ministerial Career**

Within the ministerial careers framework, all ministerial careers share certain characteristics; they all necessarily pass through certain points. These points are marked for the hypothetical career in Figure 1: an entry point (a), the beginning of their peak (b), the end of their peak (c), and an exit point (d). Each of these four points can be characterised in terms of their level and the time at which they occur. Certain relations between these four points are fixed within specific ranges of variation. On the x-axis (time):  $a \leq b < c \leq d$ . On the y-axis (importance):  $b = c$ ;  $a \leq b$  and  $c$ ; and  $b$  and  $c \geq d$ . In short, the career peak may begin (or end) at the same time and level as the career begins (or ends).

Within these fixed ranges, relations vary. Horizontal relations define aspects of the ministerial career that can be measured in terms of duration. The time between a and d, for example, is the career duration; the time between b and c is the duration of the peak; the cumulative time covered by x1, x2, x3 and x5 is the total time spent in office during the career. Vertical relations define other aspects of careers, such as the importance of the office held at a given time, including entry, peak and before exit and the size of the ascent or descent between two points in time. Several approaches to systematically describing career structures are opened up by conceptualising careers in this framework. These are developed and explored empirically in the subsections that follow. First, we summarise the most fundamental career structures in our data: time- and importance-based characteristics of ministerial careers.

#### **4.2 Basic 'Whole Career' Parameters**

Table 4 shows that the length of ministerial careers and the time spent in office during those careers ranges from 3 days and 40 years. The mean career duration is 5.9 years, while the mean time in office during those careers is 4.8 years. Individuals are appointed to between one and 24 ministerial positions during their careers (mean = 2.3). The median minister has zero career breaks (mean = 0.37). This suggests that the majority of careers are either continuous (consisting of consecutive appointments) or, most simply, quite short (one appointment only). The latter indication is consistent with a median career duration of less than four years and with the findings of some existing single-country research. Kam and Indridason (2009, pp. 48-49) suggest that in France there is a “coterie of experienced ministers scattered amongst a large group of ministerial transients”. Their data show that the majority of ministers in the French Fifth Republic hold only one or two posts in their career; a small minority (about 10%) hold five to eleven posts; and the majority of ministerial careers last less than 50 months (pp. 49-50). Dumont et al. (2009, p.137) show that most ministerial careers in Belgium end after the first appointment. Bakema (1991, p.90) showed that careers consisting of a single appointment represented a majority of careers in Austria, Sweden, Luxembourg, Germany and Finland, but not in Ireland.

Ministers have longer careers in Ireland and Luxembourg (with a mean career duration of more than eight years) and shortest in Finland (mean duration of less than four years). This pattern persists for time-in-office. These data are consistent with Bakema's (1991)

corresponding crossnational comparisons.<sup>23</sup> These patterns persist when we control for right-censoring, which we would expect to be associated with shorter careers.

The level at which individuals enter, peak and exit their ministerial career have not been measured before. The summary data outlined in Table 4 follow the broad pattern that the definition of these points would lead us to expect (i.e., entry (a)  $\leq$  peak (b or c)  $\geq$  exit (d)). Unsurprisingly, given the logic of their respective definitions, peak levels are, on average, higher than exit or entry levels. Somewhat more interesting is the fact that the mean and median exit level is higher than the level at which ministers begin their careers. This suggests that the very reasonable expectation that the longer an individual is in office, or has a ministerial career, the higher that they will rise, is supported. As we might expect, both time and importance measures are positively skewed (the median is lower than the mean). Curiously, the median and mean entry levels are considerably higher than the notional 'mean' ministry. This is probably accounted for by individuals holding multiple ministries. Standard deviations of level measures increase markedly between the beginning of the career and the peak, and they remain somewhat higher at the exit point: career paths diverge as they progress.

<b>x-axis: time</b>		<b>Min.</b>	<b>Median</b>	<b>Mean</b>	<b>s.d.</b>	<b>Max.</b>
	Career duration from a to d (days)	3	1455	2150	2221	14690
	In-office duration from a to d (days)	3	1328	1746	1730	14690
	Appointments per career	1	1	2.30	2.30	24
	Career breaks per career	0	0	0.37	0.80	8
<b>y-axis: importance</b>	Entry level (a)	0.34	1.08	1.17	0.45	2.96
	Peak level (b and c)	0.45	1.25	1.37	0.58	3.4
	Pre-exit level (d)	0.45	1.17	1.27	0.52	3.38

Table 4: Ministerial career parameters: time and importance<sup>24</sup>

### 4.3 Career Structure as Types of Trajectory

The most obvious way to describe career structures may be in terms of their topography in the ministerial careers framework. The ministerial careers framework stipulates that a number of points that occur in every career: the beginning of the career, the peak of the career and the

<sup>23</sup> Bakema's (1991) corresponding findings were as follows. Mean career duration (years): Ireland (8.3), Luxembourg (7.4), Austria (6.1) Germany (5.8), Sweden (5.6), Finland (4.8). Mean in-office duration (years): Luxembourg (6.8), Ireland (6.6), Austria (5.9), Sweden (5.9), Germany (5.6), Finland (3.0).

<sup>24</sup> n = 977 in this and subsequent analyses unless otherwise indicated.



end of the career. One of the problems that existing studies run into when they attempt to discuss career structure is that of complexity. We begin with a relatively simple structural description of careers which would not be possible without referring to ministerial importance. Our typology is based on the points stipulated by the ministerial careers framework and their relation to one another.

Simply, we suggest that there are four (collectively exhaustive and mutually exclusive) types of ministerial career structure:

'Flat' ministerial careers, in which the entry level, peak level and exit level are equal ( $a = (b \text{ and } c) = d$ ). These include careers that consist of a single appointment, which we can expect will be numerous (see findings cited above). However, other career patterns should also conform to this pattern: for example the appointment and reappointment of an individual – perhaps an expert – to a single position would also have this structure.

'Peak end' ministerial careers, in which the peak and the exit coincide and, therefore have the same level, which is higher than the entry level. These careers have a positive trajectory between their entry and their peak/exit. In terms of importance,  $a < (b \text{ and } c) = d$ . This corresponds to the classic 'up or out' structure, where individuals rise through the ranks before ending their careers.

'Peak start' ministerial careers, in which the peak level and the entry level coincide and the exit level is lower than either of these points. These careers have a negative trajectory between their entry and exit points. In terms of importance,  $a = (b \text{ and } c) > d$ .

'Peak mid' ministerial careers, in which the career peak does not coincide with either the entry point or the exit point. These careers have a positive trajectory from the entry point to their peak and a negative trajectory from their peak to their exit point. In terms of importance,  $a < (b \text{ and } c) > d$ . The hypothetical career in Figure 1 provides an example of a 'peak mid' career. Figure 4 provides a schematic representation of the general structure of these careers, with reference to the relations to the entry (a), peak (b and/or c) and exit (d) points. These are not meant to be definitive structural descriptions of ministerial careers, but they do provide some indication of the shape of careers, and a basis for exploring those careers within the framework.

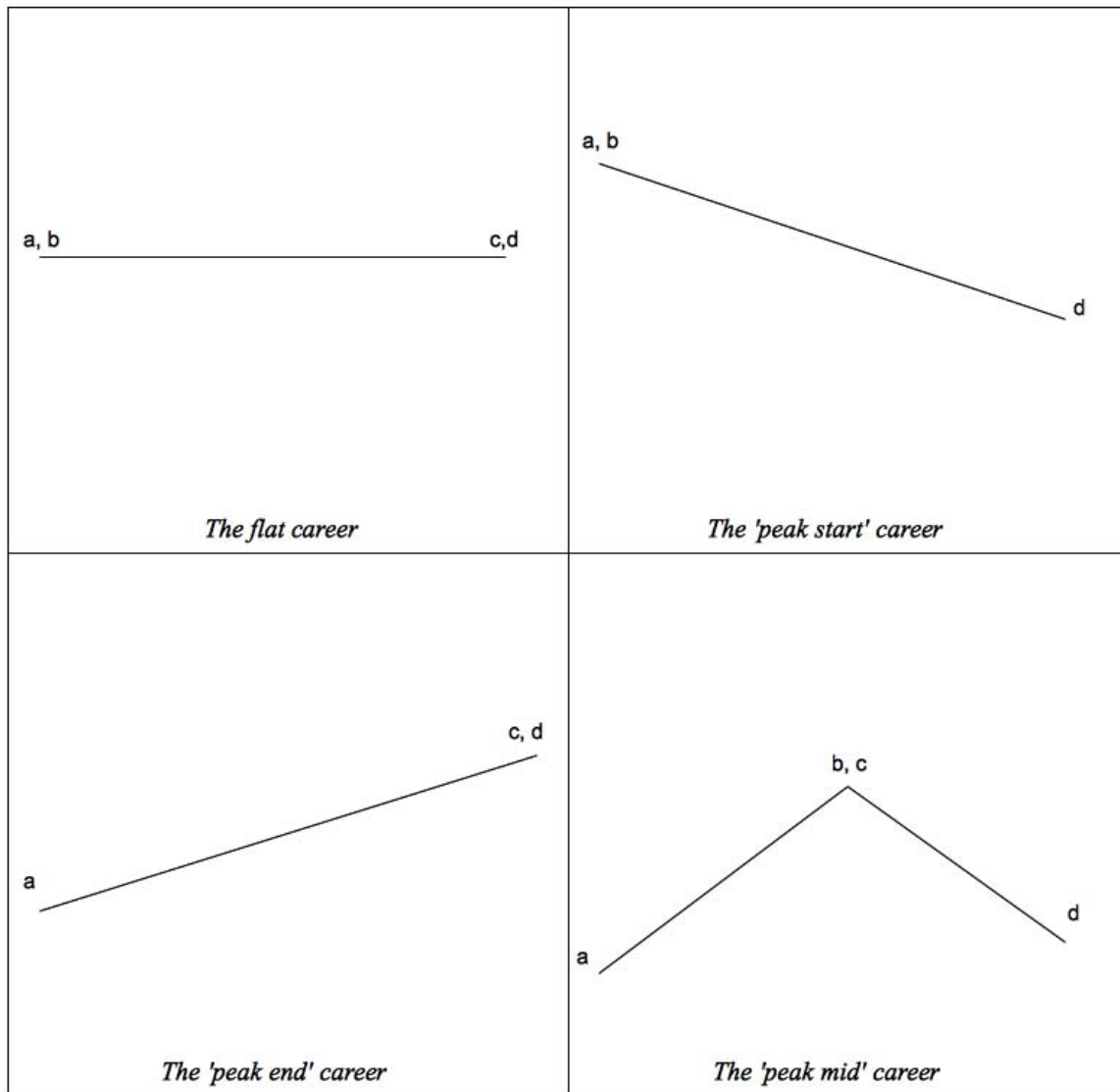


Figure 4. Four types of career structure in the ministerial careers framework.

Table 5 describes the distribution of these career types by country. The most striking feature of this table is the predominance of 'flat' careers. In all countries, this structure corresponds to a plurality of careers, and in some (Austria, Finland<sup>25</sup>, Germany and Sweden), they represent a large majority of careers. This is consistent with Bakema's (1991) findings concerning single-appointment careers and with more recent findings of single-country studies (Dumont et al. 2009; Kam & Indridason 2009).

There is little evidence here that individuals start at the bottom and work their way up. Of the people who do move around during their careers (who are largely represented by the varieties of non-flat careers), finishing at the peak of one's career is no more common than starting at

<sup>25</sup> The very high level of flat careers in Finland is consistent both with the high number of (often non-partisan) specialists who were appointed to these positions; and to the short tenures and high number of caretaker cabinets.

the peak or peaking before the end of the career. However, consistent with O'Malley's (2009) suggestion that steady climbs through the ranks were becoming more commonplace, Ireland does stand out from the other countries in having more of these 'up or out' careers. However, Ireland (and Luxembourg) also have notably more downwardly mobile ('peak start') careers than other countries, in which individuals start at their peak and end at a less important position and more peak-mid careers.<sup>26</sup>

Country	Flat (%)	Peak-start (%)	Peak-end (%)	Peak-mid (%)	Total (n)
Austria	76.3	9.9	7.2	6.6	152
Finland	71.7	15.7	5.5	7.2	293
Germany	68.2	14.8	10.2	6.8	176
Ireland	35.6	22.2	15.6	26.7	135
Luxembourg	46.0	25.4	9.5	19.1	63
Sweden	63.3	15.8	6.3	14.6	158
All	63.8	16.2	8.4	11.7	977
<b>Total (n)</b>	623	158	82	114	

Table 5: Types of career structure in six countries

#### 4.4 Career Structure as Surface Area

##### 4.4.1 Success scores and surface area

Another way of examining ministerial career structures that would be impossible without a second dimension on which to measure them, is in terms of their surface area. In the ministerial careers framework, office-seeking success during a career can be conceptualised as the surface area of that career. In the hypothetical career in Figure 1, this is the sum of the surface areas associated with each period in office (x1, x2, x3 and x5). A large surface area indicates that an individual has held more important offices and for longer. An individual with a small surface area is more likely to have held less-important offices for a short time.

This structural measure has crucial implications for studies of office-seeking success.<sup>27</sup> The surface area measures (henceforth 'success scores') that we derive from this framework have the advantage of reflecting both the amount of ministerial importance attained by an individual and the amount of time they spend in office. Indeed, taking duration and importance into account is arguably a prerequisite for any complete measure of office-seeking

<sup>26</sup> The low proportion of flat careers in Luxembourg and Ireland must be accounted for, in part, by the length of careers. This, in turn, may be accounted for by the dominance of single parties – the Christian Social People's Party (CSV) and Fianna Fáil – or small numbers of parties in government during the period in question. However, systematic explanations of career structures are beyond the scope of this paper.

<sup>27</sup> For a more extended discussion of this measure and for an initial explanatory effort, see Little and Bright (2011).

success. To our knowledge, this kind of composite (two-dimensional) measure has not been measured or explained for any office-seeking actor.<sup>28</sup>

In Table 6, we summarise two different measures of a ministerial career's surface area. One is based on importance scores. The other score is calculated based on relative importance scores: importance as proportion of the total importance held by all ministers on each given day. This implicitly conceptualises office-seeking as a zero-sum, constant-sum game. We also summarise the relative entry, peak and exit levels.

	<b>Min.</b>	<b>Median</b>	<b>Mean</b>	<b>s.d</b>	<b>Max.</b>
Success score (surface area, raw base)	3.998	1387	2273	2711.15	24210
Entry level (relative)	0.018	0.059	0.070	0.040	1.000
Peak level (relative)	0.023	0.068	0.076	0.035	0.241
Pre-exit level (relative)	0.020	0.061	0.070	0.031	0.231
Success score (surface area, relative base)	0.2754	76.9	131.1	165.25	1414

*Table 6: Office-seeking success.*<sup>29</sup>

A notable feature of the success score calculated on the basis of raw importance scores is that its range is considerably wider than career duration, which is the conventional measure of career-long office-seeking success. Crossnational analysis of relative success scores indicates that individuals in Luxembourg have a relatively high mean success score (246). Individuals in Sweden, Austria and Ireland have mean success scores of between 130 and 152.

Individuals in Germany and Finland have lower success scores of 109 and 70, respectively. Perhaps most striking, however, is the decline over time in 'success scores' over time in all countries (Figure 5). Even if we disregard the 1990s and even the 1980s, which are likely to be affected by censoring, it seems clear that individuals belonging to the immediate postwar generation (i.e., those who started their careers in the 1940s and 1950s) were able to attain and retain, on average, higher proportions of office than later generations of ministers.

<sup>28</sup> To interpret a given value, we can calculate the number of days or units of ministerial importance given a certain value of one or other element.

<sup>29</sup> For pre-1945 data, collected in order to complete 'left-censored' careers, relative scores are calculated relative to '15', which seems a reasonable total, when compared with the years immediately after 1945 [see Appendix]

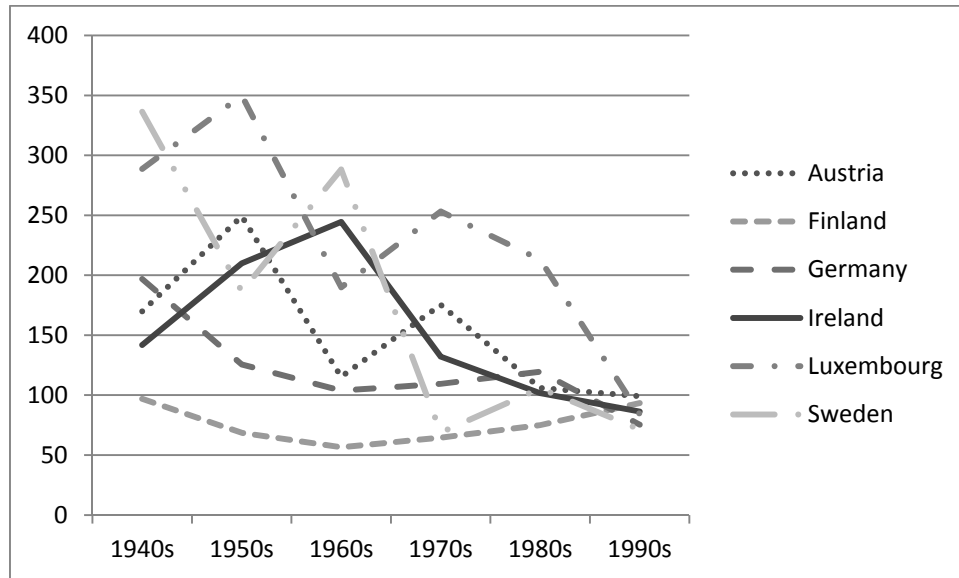


Figure 5. Mean success scores, by country and career start date

The steady increase in governments' postincumbency electoral losses (Narud and Valen 2008) and increasing electoral volatility may contribute to this trend. It may also be explained by the slices of the pie that individuals attain becoming smaller. On the latter point, Verzichelli (2008) observes that the number of ministerial positions has grown over time. The number of ministerial careers that begin in the six countries in our sample in the 1970s appears to be considerably greater than those that began in the 1950s or 1960s. For most countries, there is a notable increase in the average number of careers that begin in each decade for the later decades (1970s, 1980s, 1990s) with respect to the earlier decades (1950s, 1960s). For all countries except Finland, the highest number of career starts occurred in the 1980s or 1990s. In multivariate analyses, we have found indications that the time (date) at which the individual starts their career is negatively and significantly associated with success scores, even when censoring and other factors are controlled for (see Little and Bright 2011 for more details).

#### 4.4.2 The shape of success

Given surface areas will have different shapes. Most simply, the office-seeking success of each individual will consist of different proportions of importance and time in office. Some individuals' office-holding will consist of long periods in relatively low office, on average. For instance, a minister may survive and be re-appointed several times as Sports Minister. Other individuals will spend a short time in high office. An individual may begin his ministerial career as a powerful prime minister in a small cabinet, but may only retain office for a year before the end of his career.

Figure 6 shows that the contribution of importance and duration to individuals' success scores differs substantially among individuals. Some individuals' ministerial careers are indeed short and powerful. These are located in the top-left section of Figure 6. Others are long and

relatively undistinguished. These are located near the bottom-right section of Figure 6. A simple calculation can provide a measure of variation in the relative contribution of duration and importance to individuals' success scores (time in office during the career / mean importance in office during the career). This too is a measure of career structure. It is also notable that individuals whose ministerial office-holding covers a long period tend to be among those who hold higher office, on average. There is a weak, positive correlation ( $r = 0.15$ ;  $p < 0.0001$ ) between the time spent by an individual in office during their career and the mean importance of the offices held during that career.

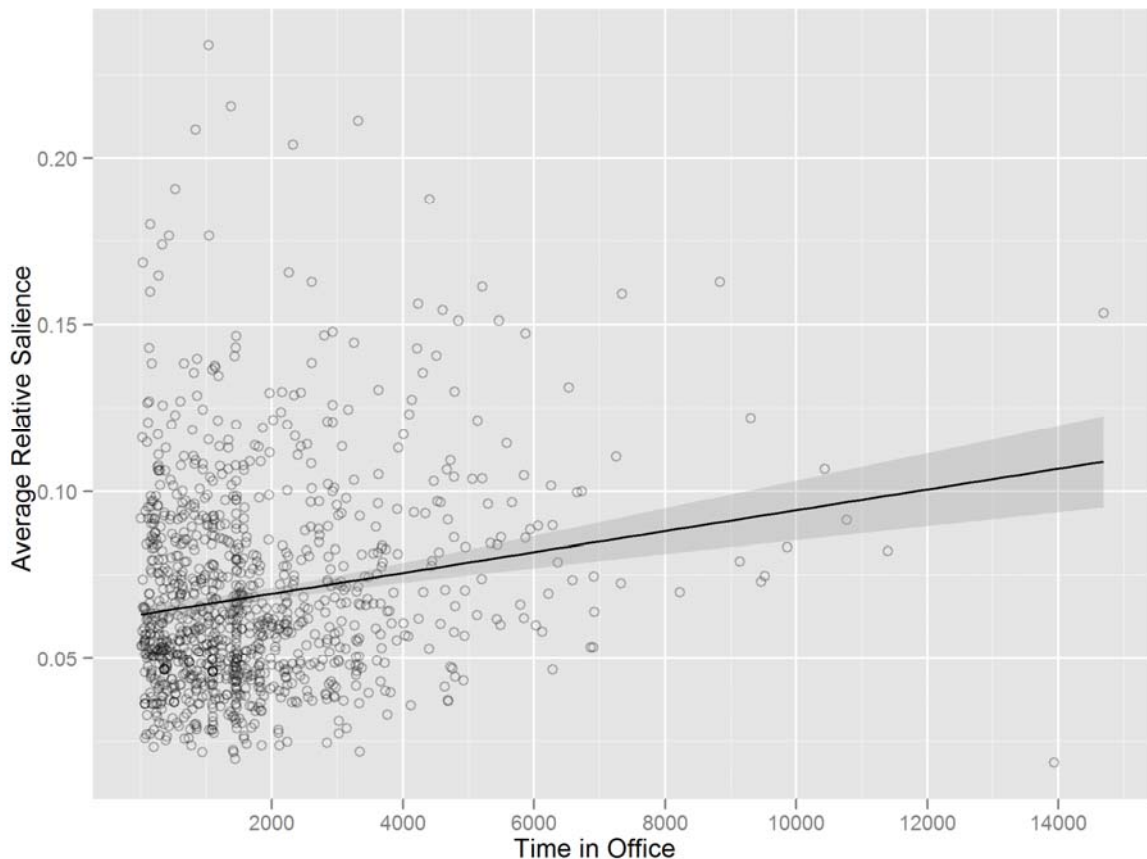


Figure 6. The variable composition of individuals' success scores (relative base)

### 5.0 A Research Agenda for the Ministerial Careers Framework

This paper has introduced a simple analytical framework that opens up new possibilities for measuring and describing ministerial careers. It has also introduced a new data set which uses two existing data sources (one of which appears to be almost unused in political science) that can enrich our understanding of ministerial careers. Most fundamentally, this derives a measure of ministerial importance that can be applied to any point in a ministerial career and which, we argue, adds a new dimension to the study of ministerial careers. It has explored some new approaches to classifying and measuring ministerial career structures within this framework. It has conceptualised and described ministerial career structures in terms of the x-

axis (time) and y-axis (importance) of the ministerial careers framework; in terms of the relations between the entry, peak and exit points; and in terms of the size and shape of the career's 'surface area'.

Perhaps the most important function of the framework and data set that this paper presents is to form the basis for a substantive research agenda, both within and beyond the literature on ministerial careers. Finally, then, we will suggest how this approach to ministerial careers, and its associated data, might be further developed and used. Three areas stand out: the expansion and improvement of the data; the continued development of new ways to systematically describe ministerial careers; and explanation, both of allocations of ministerial importance and of other related phenomena which might be explained by this allocation.

### **5.1 Data**

The first aspect of the research agenda suggested by this paper is the improvement of the data, both in terms of their validity and their scope. Our data set as it stands already covers a large number of apparently diverse ministers careers. However, this could be expanded. The simplest and most obvious route to take in this respect would be the expansion of the data set to cover all countries for which we have ministerial importance data and to develop importance measures for other countries that did not interest Druckman and Warwick (2005) or Druckman and Roberts (2008) because they lacked coalition governments (e.g., the UK and Spain). An expanded data set might also extend further back (and forward) in time, beyond the period covered by Druckman and Warwick (1945-2000).

There are also opportunities for 'deepening' this approach, by making it a basis for a broader 'political careers' framework and data set. Such a framework could in principle take into account the value of lower ranked ministerial positions, and even non-ministerial offices. Work on junior ministers (e.g., Manow 2008), multilevel ministerial careers (e.g., Verzichelli et al. 2011), party careers and parliamentarians' careers (e.g., Best and Cotta 2000) already points in this direction and provides a basis for future projects. Empirically, the 'flat' structure of many careers in our data suggest that our approach might benefit from taking into account other aspects of office-seeking careers. This might make the ministerial aspect that we examine appear more varied and less fragile, contingent and short, and would bring the political careers that we examine closer to being careers in a more fundamental sense (Sullivan & Baruch 2009).

Perhaps chief among the outstanding problems with the data that we present is the time invariance of ministerial importance in Druckman and Warwick's (2005) expert survey. Druckman and Warwick acknowledge this (Druckman & Warwick 2005, p.22; Warwick & Druckman 2006, p.649), but they also defend the time invariance of their data by reference to the invariance of the proportionality of inter-party office allocation (Warwick & Druckman 2006, p.662). Even with this evidence, however, the argument that ministerial positions must experience some change in their importance over the course of 50 or more years seems difficult to refute. Solutions to this may include linking with richer organisational data in state-mapping projects (e.g., Hardiman et al. 2011); creating links with agendas-type data

(Baumgartner et al. 2011); and to use official lists of ministerial offices where these change over time and are meaningful in terms of importance.

## ***5.2 Description***

Beyond the collection and refinement of the data, the specific empirical exercise presented here in order to demonstrate the utility of this type of data set – the description and categorisation of career structures – can also be developed further. In this paper, we have explored some structural outcomes within a whole-career perspective. These structural outcomes – career paths and 'surface area' as office-seeking success – could not have been measured without using a measure of ministerial importance. However, they are by no means the only way to describe careers.

Within whole careers, there are other measures that data on ministerial importance makes possible. The description of career events – appointments and terminations – can benefit from measures of ministerial importance. The identification and measurement of career dynamics like promotion and demotion is made possible. With measures of ministerial importance, individuals' career trajectories over particular periods or between particular positions can be measured. Career breaks, bookended by resignations and comebacks, are one type of event that cannot be measured outside of a whole-career framework (see also Bakema 1991).

This type of description has the potential to interest a variety of fields related to the literature on ministerial careers. For example, the size or shape of a career's surface area matters not just because it is a structural measure of a ministerial career, but because it is a measure of office-seeking success. The length and shape of individual careers may tell us whether political careers are becoming more (or, indeed, less) professionalised. To take another example, perhaps representation in government is a matter not just of whether women (or young people) are represented in cabinet, but which positions they receive and how important those positions are. The kind of data that we have presented here has the potential to enrich analyses concerned with these issues.

In one other quite specific sense, the data set established here goes beyond ministerial careers. In systematising Sonntag's data, we have also developed a rich data set on substantive portfolios, ministries and ministerial positions. This is important for the eventual development of a 'qualitative paths' approach to career paths (see Section 2.0) and is an interesting policy output in itself. These data are indicators of the shape of our governments and even their priorities and can provide insights into the structures, agendas and strategies of states and the political elites that govern them.

## ***5.3 Explanation***

The most important aspect of this research agenda is however the move from description to explanation. Career data encompassing full careers and incorporating measures of ministerial



importance are valuable, both as a dependent and independent variable. The new measurement possibilities opened up by these data imply new explanatory agendas. The role of individual characteristics such as gender, age, party affiliation in these outcomes is important and intriguing, as are differences between different principals (prime ministers), under different institutional and social conditions. For example, what configurations of individual characteristics and other conditions explain the existence and size of promotions and demotions? Who is moved, and under what conditions? What explains the variation in careers parameters that we have shown between countries and over time? What are the effects of economic crises on ministerial career outcomes?

The data set that we have developed allows us to link easily with institutional and party-level data in the ParlGov data infrastructure and other data sources. These data, particularly party-level data, would appear to be key to explaining many aspects of ministerial careers. There is also potential for linking the data set to biographical data on ministers and to data on ministerial selection mechanisms (from e.g., Blondel & Thiébault 1991, SEDEPE 2010 and other sources). Beyond biographical data, links with more 'subjectivist' approaches to political careers that rely on elite survey data are possible for some if not all of the countries in our data set (e.g., Hansson 2010). Within the research on ministerial careers and ministerial appointments, the data set allows us to build on country studies (in, e.g., Dowding & Dumont eds. 2009) and theories of office-seeking to perform crossnational analyses of these outcomes, thus enabling the examination of factors that are linked to national context.

Data incorporating ministerial importance are important as independent variables.

In explaining appointments to office, including or perhaps especially appointments to high office (e.g., prime minister or finance minister), perhaps previous career success – the level of appointments and the length of experience – plays a role under certain conditions. What paths do individuals take to high office? Data on ministerial importance can likewise contribute to the sizeable literature on ministerial tenure and ministerial resignations. What is the effect of experience and ministerial importance on the risk of resignation or dismissal?

How can we explain why some individuals make career comebacks after a period out of office, while others end their career after resigning? This is a question that could not be asked without taking the career perspective used in this paper. Related to this, we can seek to explain the duration of career breaks and the level at which individuals come back into office. Does being in high office put the individual at greater risk of a career-ending resignation, and reduce the likelihood that they will take a career break? By improving our understanding of who will come back, and under what conditions, we can both answer substantively interesting questions and we can further develop the analysis of right-censoring discussed in Section 3.3. Explaining variation in the success and structure of individual careers (see Section 4.4; see also Little and Bright 2011 for a first attempt) is another item that must be on the agenda. Why are some ministers more successful than others; and why does their success vary in its structure?

Ministerial importance and other ministerial career outcomes could also be an important independent variable for policy studies. Ultimately, a core aim of studying ministers should be to explain public policy. While the party government literature is well-established, literature testing Laver and Shepsle's (1996) assumption of ministerial autonomy and the literature on ministerial government more generally (e.g., Alexiadou 2011) is less well-

established. Data on ministerial importance provides a basis for hypotheses concerning individual ministers' variable influence on sectoral and general government policy, within governments and over longer periods of time. For example, do ministers with more experience at high levels assert a greater amount of control over their departments?

Finally, insofar as national institutions shape incentives for ministers and ministrables, we also need to ask ourselves more normative questions: through our institutions, what kind of ministerial careers do we want to create in our political systems? Do we want political professionals; subject specialists; glorified constituency MPs; parliamentary or non-parliamentary ministers; individuals who make a livelihood from being a minister or a more transient ministerial elite? The ministerial careers framework provides us with important tools to identify the institutional and other conditions that provide a basis for these scenarios.

## Bibliography

Alexiadou, D., 2011. Ministerial background and policy efficacy. Paper presented at the ECPR Joint Sessions workshop on Ministerial Turnover and Ministerial Career Paths in Contemporary Democracies, April 2011 in St. Gallen, Switzerland.

Ansolabehere, S., Snyder, J.M., Strauss, A.B. & Ting, M.M., 2005. Voting Weights and Formateur Advantages in the Formation of Coalition Governments. *American Journal of Political Science*, 49(3), pp.550-563.

Bakema, W.E., 1991. The Ministerial Career. In J. Blondel & J.-L. Thiébault, eds. *The profession of government minister in Western Europe*. London: Macmillan, pp. 70-99.

Baumgartner, F.R., Jones, B.D. & Wilkerson, J., 2011. Comparative Studies of Policy Dynamics. *Comparative Political Studies*, 44(8), pp.947 -972.

Berlinski, S., Dewan, T., Dowding, K., & Subrahmanyam, G., 2009. Choosing, moving and resigning at Westminster, UK. In K. M. Dowding & P. Dumont, eds. *The Selection of Ministers in Europe: Hiring and Firing*. Routledge advances in European politics. London: Routledge, pp. 58-78.

Best, H. & Cotta, M. eds., 2000. *Parliamentary representatives in Europe, 1848-2000: legislative recruitment and careers in eleven European countries*, Oxford: Oxford University Press.

Blondel, J., 1985. *Government ministers in the contemporary world*, London: SAGE.

Blondel, J., 1991. Cabinet government and cabinet ministers. In J. Blondel & J.-L. Thiébault, eds. *The profession of government minister in Western Europe*. London: Macmillan, pp. 5-18.

Blondel, J. & Thiébault, J.-L. eds., 1991. *The profession of government minister in Western Europe*, London: Macmillan.

- Blondel, J. & Thiébault, J.-L., 1991. Introduction. In J. Blondel & J.-L. Thiébault, eds. *The profession of government minister in Western Europe*. London: Macmillan, pp. 1-4.
- Browne, E.C. & Franklin, M.N., 1973. Aspects of Coalition Payoffs in European Parliamentary Democracies. *The American Political Science Review*, 67(2), pp.453-469.
- Bueno de Mesquita, B., 1979. Coalition Payoffs and Electoral Performance in European Democracies. *Comparative Political Studies*, 12(1), pp.61 -81.
- Dandoy, R., Dumont P., & Fiers, S. 2010. Multilevel demotion and promotion: ministerial resignations in Belgium (1981–2009). Paper presented at the IPSA International Conference, Luxembourg.
- Dandoy, R., Dumont, P. & Verzichelli, L. 2011. Living off politics across (subnational) borders ? Ministerial resignations and new multi-level career patterns in Belgium and Italy. Paper presented at the ECPR Joint Sessions workshop on Ministerial Turnover and Ministerial Career Paths in Contemporary Democracies, April 2011 in St. Gallen, Switzerland.
- De Winter, L., 1991. Parliamentary and party pathways to the cabinet. In J. Blondel & J.-L. Thiébault, eds. *The profession of government minister in Western Europe*. London: Macmillan, pp. 44-69.
- De Winter, L., 2002. Parties and government formation, portfolio allocation and policy formation. In K. R. Luther & F. Müller-Rommel, eds. *Political Parties in the New Europe: Political and Analytical Challenges*. Oxford: Oxford University Press, pp. 171-206.
- Dewachter, W. & Erwin, D., 1991 *Politiek in België: Geprofileerde machtsverhoudingen*, Leuven, Uitgeverij Acco, 1991.
- Dewan, T. & Dowding, K., 2005. The Corrective Effect of Ministerial Resignations on Government Popularity. *American Journal of Political Science*, 49(1), pp.46-56.
- Dowding, K.M. & Dumont, P., 2009. Structural and strategic factors affecting the hiring and firing of ministers. In K. M. Dowding & P. Dumont, eds. *The Selection of Ministers in Europe: Hiring and Firing. Routledge advances in European politics*. London: Routledge, pp. 1-20.
- Dowding, K.M. & Dumont, P. eds., 2009. *The Selection of Ministers in Europe: Hiring and Firing*, London: Routledge.
- Druckman, J.N. & Roberts, A., 2008. Measuring portfolio salience in Eastern European parliamentary democracies. *European Journal of Political Research*, 47(1), pp.101-134.
- Druckman, J.N. & Warwick, P.V., 2005. The missing piece: Measuring portfolio salience in Western European parliamentary democracies. *European Journal of Political Research*, 44, pp.17-42.

- Dumont, P., Fiers, S. & Dandoy, R., 2009. Belgium: ups and downs of ministerial careers in a partitocratic federal state. In K. M. Dowding & P. Dumont, eds. *The Selection of Ministers in Europe: Hiring and Firing. Routledge advances in European politics*. London: Routledge, pp. 125-146.
- Escobar-Lemmon, M. & Taylor-Robinson, M.M., 2005. Women Ministers in Latin American Government: When, Where, and Why? *American Journal of Political Science*, 49(4), pp.829-844.
- Escobar-Lemmon, M. & Taylor-Robinson, M.M., 2009. Getting to the Top. *Political Research Quarterly*, 62(4), pp.685 -699.
- Fischer, J. & Kaiser, A., 2009. Hiring and firing ministers under informal constraints: Germany. In Fischer, J., Kaiser, A. & Rohlfing, I., 2006. The Push and Pull of Ministerial Resignations in Germany, 1969–2005. *West European Politics*, 29(4), pp.709-735.
- Fischer, J., Kaiser, A. & Rohlfing, I., 2006. The Push and Pull of Ministerial Resignations in Germany, 1969–2005. *West European Politics*, 29(4), pp.709-735.
- Gray, C. & Wingfield, M., 2010. Are governmental culture departments important? An empirical investigation. In International Conference on Cultural Policy Research. University of Jyväskylä, Finland.
- Hansson, J. 2010. Gender Equity of Perceived Career and Influence Opportunities among Political Elites: The Case of Swedish Parliamentarians. *European Sociological Review*, 27 (3), pp.307-326.
- Hardiman, N., MacCarthaigh, M. & Scott, C. 2011. The Irish State Administration Database. Available at <http://www.isad.ie>. Last accessed 13 October 2011.
- Huber, J.D. & Martinez-Gallardo, C., 2006. Cabinet Turnover and Talent Searches. CIDE Working Paper. Available at: <http://www.cide.edu/publicaciones/status/dts/DTEP%20187.pdf>. Last accessed 1 February 2012.
- Huber, J.D. & Martinez-Gallardo, C., 2008. Replacing Cabinet Ministers: Patterns of Ministerial Stability in Parliamentary Democracies. *American Political Science Review*, 102(02).
- Jäckle, S. 2011. How to explain ministerial turnover: macro-political factors or biographic determinants – an event history analysis of the East German Länder ministers (1990-2011). Paper presented at the ECPR Joint Sessions workshop on Ministerial Turnover and Ministerial Career Paths in Contemporary Democracies, April 2011 in St. Gallen, Switzerland.
- Kam, C. & Indridason, I., 2009. Cabinet dynamics and ministerial careers in the French Fifth Republic. In K. M. Dowding & P. Dumont, eds. *The Selection of Ministers in Europe: Hiring and Firing*. Routledge advances in European politics. London: Routledge, pp. 41-57.

Kerby, M., 2009a. Calls of the Wild: Resignation Requests in the Canadian House of Commons 1957-2008.

Kerby, M., 2009b. Worth the Wait: Determinants of Ministerial Appointment in Canada, 1935-2008. *Canadian Journal of Political Science/Revue canadienne de science politique*, 42(03), pp.593-611.

Laver, M. & Hunt, W.B., 1992. *Policy and Party Competition*, New York: Routledge.

Laver, M. & Schofield, N., 1990. *Multiparty Government: The Politics of Coalition in Europe*, Oxford [England]: Oxford University Press.

Little, C. & Bright, J. 2011. 'Success in two dimensions. Introducing and exploring a new measure of individuals' office-seeking success.' Paper presented at the panel on 'Political Careers and Performance' at the first Annual General Conference of the European Political Science Association, 16 June 2011.

Manow, P., 2005. Will Junior Ever Grow Up? Where and When do Junior Ministers become Senior Ministers? An Empirical Investigation for 22 OECD Countries, 1949-2003. Paper presented at the 2005 ECPR Joint Sessions (Granada).

Manow, P., 2008. When does Junior turn Senior? A comparative analysis of Junior Ministers in Western Democracies, 1950-2000. Prepared for conference on 'Cabinet recruitment and parliamentary careers', University of Jena/ SFB 580, 7-8. November 2008.

Manow, P. & Döring, H., 2008. Electoral and Mechanical Causes of Divided Government in the European Union. *Comparative Political Studies*, 41(10), pp.1349 -1370.

Manow, P. & Döring, H., 2010. Parliament and government composition database (ParlGov): An infrastructure for empirical information on parties, elections and governments in modern democracies. Version 10/11 – 16 November 2010. Available at: <http://parlgov.org/>.

Manow, P., Schäfer, A. & Zorn, H. 2004. European Social Policy and Europe's Party-Political Center of Gravity, 1957-2003. MPIfG Discussion Paper 04/6.

Müller, W.C. & Philipp, W., 1991. Prime ministers and other government heads. In J. Blondel & J.-L. Thiébaud, eds. *The profession of government minister in Western Europe*. London: Macmillan, pp. 136-152.

O'Malley, E., 2006. Ministerial Selection in Ireland: Limited Choice in a Political Village. *Irish Political Studies*, 21(3), pp.319-336.

O'Malley, E., 2007. The Power of Prime Ministers: Results of an Expert Survey. *International Political Science Review*, 28(1), pp.7 -27.

O'Malley, E., 2009. Constructing and maintaining Irish governments. In K. M. Dowding & P. Dumont, eds. *The Selection of Ministers in Europe: Hiring and Firing*. Routledge advances in European politics. London: Routledge, pp. 179-193.

Quiroz Flores, A., 2009. The Political Survival of Foreign Ministers. *Foreign Policy Analysis*, 5(2), pp.117-133.

Rose, R., 1971. The Making of Cabinet Ministers. *British Journal of Political Science*, 1(04), pp.393-414.

SEDEPE, 2010. The Selection and Deselection of Political Elites (SEDEPE) Codebook version January 2010. Available at: [http://sedepe.net/wp-content/uploads/2010/11/SEDEPE\\_Codebook\\_Jan2010.pdf](http://sedepe.net/wp-content/uploads/2010/11/SEDEPE_Codebook_Jan2010.pdf) [Accessed November 11, 2010].

Sonntag, L., 2010. Politica. Available at: <http://www.kolumbus.fi/taglarsson/> [Accessed February 24, 2010].

Strom, K. & Smith, D.M. 2011. Nordic Cabinet Members: Background, Selection, and Turnover. Paper presented at the ECPR Joint Sessions workshop on Ministerial Turnover and Ministerial Career Paths in Contemporary Democracies, April 2011 in St. Gallen, Switzerland.

Sullivan, S.E. & Baruch, Y., 2009. Advances in Career Theory and Research: A Critical Review and Agenda for Future Exploration. *Journal of Management*, 35(6), pp.1542 -1571. Available at: [Accessed 14:22:36].

Thiébaud, J.-L., 1991. The social background of Western European cabinet ministers. In J. Blondel & J.-L. Thiébaud, eds. *The profession of government minister in Western Europe*. London: Macmillan, pp. 19-30.

Verzichelli, L., 2008. Portfolio Allocation. In K. Strom, W. C. Müller, & T. Bergman, eds. *Cabinets and Coalition Bargaining: The Democratic Life Cycle in Western Europe. Comparative politics (Oxford University Press)*. Oxford: Oxford University Press.

Verzichelli, L., 2009. Italy: the difficult road towards a more effective process of ministerial selection. In K. M. Dowding & P. Dumont, eds. *The Selection of Ministers in Europe: Hiring and Firing*. London: Routledge, pp. 79-100.

Warwick (2011) Paul V. Warwick website. Available at: <http://www.sfu.ca/~warwick/> [Last accessed March 31, 2011].

Warwick, P.V. & Druckman, J.N., 2006. The portfolio allocation paradox: An investigation into the nature of a very strong but puzzling relationship. *European Journal of Political Research*, 45(4), pp.635-665.

Woldendorp, J., Keman, H. & Budge, I., 2000. Party Government in 48 Democracies (1945-1998): Composition, Duration, Personnel, Dordrecht: Kluwer Academic Publishers.

## **Appendix 1: Authoritative Sources for Validation**

We are using the following sources for validating ministerial career data for each country:

### ***Austria***

'Bundesregierungen seit 1920' (database). Available at the Austrian Parliament website: <http://www.parlament.gv.at/WWER/BREG/REG/>. Last accessed on 13 October 2011.

### ***Finland***

'Kansanedustajat 1907 - ' (database). Available on the Finnish Parliament website: <http://www.eduskunta.fi/thwfakta/hetekau/hex/hx3300f.htm>. Last accessed on 13 October 2011.

'Governments and ministers since 1917' (database). Available on the Finnish Government website: <http://www.government.fi/tietoa-valtioneuvostosta/hallitukset/vuodesta-1917/haku/en.jsp>. Last accessed on 13 October 2011.

### ***Germany***

Schindler, P 1999. Datenhandbuch zur Geschichte des Deutschen Bundestages 1949 bis 1999: Gesamtausgabe in drei Bänden. Baden-Baden: Nomos Verlagsgesellschaft.

### ***Ireland***

'Oireachtas Members Database' (database). Available at: <http://www.oireachtas.ie/members-hist/>. Last accessed 13 October 2011.

### ***Luxembourg***

Luxembourg. 2006. Les gouvernements du Grand-Duché de Luxembourg depuis 1848. Luxembourg: Gouvernement du Grand-Duché de Luxembourg, Service Information et Presse. Available at [http://www.gouvernement.lu/publications/gouvernement/gouvernements\\_depuis\\_1848/Les\\_gouv\\_2006.pdf](http://www.gouvernement.lu/publications/gouvernement/gouvernements_depuis_1848/Les_gouv_2006.pdf). Last accessed 13 October 2011.

Luxembourg. 2009. The Government of the Grand Duchy of Luxembourg 2009. Luxembourg: Gouvernement du Grand-Duché de Luxembourg, Service Information et Presse.

Available  
[http://www.gouvernement.lu/publications/download/Gouvernement2009\\_EN.pdf](http://www.gouvernement.lu/publications/download/Gouvernement2009_EN.pdf).  
accessed 13 October 2011.

at  
Last

*Sweden*

Larsson, U. 2003. Sveriges regeringar 1840-2003, Stockholm: Regeringskansliet.



