The Appointment of Women to Ministerial Positions across Europe: Presence, Portfolios and Policy

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Abstract

More and more women are appointed to ministerial positions in Europe, across countries and political parties. Yet, there are significant gaps in our understanding of the factors which shape where and when women are appointed, and the impacts these appointments have on public policy. By considering the partisan dynamics and motivations of party leaders, I provide an insight into systematic variation in the number of women appointed to governments, the policy portfolios women are allocated, and the policy outcomes of women ministers on parental leave policy. This develops our understanding of women's access to government positions, which has important implications for how women are represented in the most powerful policy-making positions.

I develop a theoretical framework for the role of gender in ministerial selection and portfolio allocation by considering the policy, office and vote-seeking motivations of party leaders. Through a cross-national, time-series analysis over 45 years of European governments, I find that more women are appointed to European cabinets by left-wing parties, and by female party leaders. Women are better represented in cabinets in gender-progressive countries, and where party supporters have more gender-equal social attitudes. When women are allocated to the government, they are significantly less likely to be appointed to the 'core' offices of state, and 'masculine' and 'neutral' policy areas, but this is moderated by party ideology. I find that women are more likely to be appointed to 'masculine' portfolios where a party's voters have more progressive gender attitudes.

Considering the policy implications of women's appointment to ministerial positions, I examine the circumstances under which government reforms of parental leave for fathers follow the 'dual-earner/dual-carer' model of family policy. I find that women's active engagement in paid work is a necessary condition for the most gender-balanced forms of parental leave. The sufficiency pathways arising from a qualitative comparative analysis suggest that left-wing female ministers are 'entrepreneurial' in pursuing progressive family policy, while male right-wing ministers require pressure from public attitudes. The sufficiency pathway for leftist ministers also includes a left-dominated Parliament.

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Introduction

In this thesis, I explore the conditions under which women are appointed to government positions, which policy portfolios they are allocated, and the impact that women ministers can have on family policy. Women were appointed to government in Finland as early as 1926, where Miina Sillanpää was selected as Minister of Social Affairs by the Social Democratic Party. It wasn't until 50 years later that Europe had its first democratically-elected female Foreign Minister, Swedish Centre Party leader Karin Söder. Even then, Söder was reportedly asked at a state banquet the capacity in which her husband was attending the event (Nyman 2017). Indeed, most European countries have never had a female defence or finance minister.

Other countries were slower to appoint female ministers. Cyprus hadn't had a female cabinet minister until Claire Angelidou of the Democratic Rally party was appointed to be Minister for Education in 1993. Until the 1990s, there had only ever been one woman sat around Malta's cabinet table – Agatha Barbara, who went on to be the country's first female president. British Labour Party Prime Minister, Ramsey MacDonald, appointed Margaret Bondfield to be the Minister of Labour in 1929. And yet there has never been a female Chancellor of the Exchequer (Finance Minister) in the UK.

More and more women are being appointed to European governments, and yet the literature on government formation and executive politics has not considered how gender might shape on ministerial selection and portfolio allocation processes. Building on the seminal, early game-theoretic models of government appointments and portfolio allocation which assume that ministers are perfect agents of their parties (Laver and Shepsle 1996; Strøm 1990a), these bodies literature now recognises the importance of individual characteristics in of ministers in shaping policy preferences (Alexiadou 2015, 2016; Indriđason and Kam 2008; Martin and Vanberg 2004, 2005). However, this literature does not consider how gendered decisions might play a role in ministerial selection, portfolio allocation and policy-making.

The story behind women's appointment to government positions isn't always straightforward. Indeed, British Prime Minister Harold Wilson called ministerial selection a 'nightmarish multi-dimensional jigsaw puzzle' (Wilson 1976, 34). The first Prime Minister of the democratised Lithuania was female, Kazimiera Prunskienė, but she did not appoint any other women to her inaugural cabinet. Europe's first majority-female cabinet was appointed in 2008 by male Spanish Prime Minister, José Zapatero. That government included the first ever Spanish female defence minister, who was at that time seven months' pregnant. The move was not without criticism, though, one commentator in a Spanish national newspaper even called the ministers 'a battalion of inexperienced seamstresses' (Nash 2008).

For decades, the emphasis of arguments about the presence of women in senior political positions was on the appointment of women themselves – the struggle was to get women around the table. Just ten years before the start of her eleven-year tenure as British Prime Minister, Margaret Thatcher said 'no woman in my time will be Prime Minister or Chancellor or Foreign Secretary – not the top jobs' (BBC 2013). Now that some women are appointed to government, attention can turn to impacts senior women have in office. Evidence suggests that female legislators have different policy preferences to their male colleagues (Hyde, Essex, and Horton 1993; Poggione 2004). Yet, there has been little scholarly exploration of the impact of the appointment of female ministers on government policy.

In this introduction, I provide an overview of the existing literature relevant to this thesis and discuss the contribution of each of the three articles. I then provide an overview of each of the three papers and their empirical strategy and methods. I then turn to a discussion of the central themes of the thesis. Finally, I consider the limitations of this thesis and areas for future research.

Literature Overview and Contribution

All three of the papers which form this thesis address original research questions relating to women's role in ministerial positions. These papers bridge gaps in the existing literature on gender in politics, executive politics, and government policy

making. While studies in the field of gender and politics provide insights into the informal institutions and socioeconomic factors which shape women's descriptive and substantive representation in policy making positions, they largely overlook the important political dynamics which forge these processes. On the other hand, analysts of executive politics have not considered how gender plays a role in ministerial selection and portfolio allocation processes. Studies of government policy making have begun to recognise how individual characteristics of ministers can affect public policy, but they have not considered how a minister's gender might play a role in their policy preferences. Through developing original theoretical and analytical approaches which combine insights from these literatures, in this thesis, I provide an original insight into the causes and effects of women's appointment to ministerial positions.

In this section, I outline four key areas of existing research relevant to this thesis: the appointment of women to government positions; the policy, office and vote-seeking motivations of party leaders; how the individual characteristics of ministers shape policy making; and women and policy making on families. Throughout, I identify how the papers develop insights from these literatures to make an original contribution to the fields of gender and politics, executive politics and government policy making.

Appointment of women to government positions

While a small number of studies in the field of gender and politics turned to women's representation in ministerial positions, they are constrained by not giving due consideration to the partisan and political dynamics that drive the ministerial selection and portfolio allocation processes. In the first cross-national analysis which focusses solely on women's appointment to cabinet, Davis (1997) found that women are disadvantaged in systems of government with generalist appointment norms, where cabinet ministers move between portfolios, due to their hierarchical nature and closed selection processes (Davis 1997:42). In specialist systems where ministers are selected because of their expertise in the policy area concerned, ministers are often appointed who are not parliamentarians so there is less emphasis on the political experience. Countries with specialist systems include Luxembourg, the Netherlands, Norway, and

Sweden where parliamentarians who become ministers must resign their Parliamentary seat. Generalist systems, where ministers regularly move between departments, place the most value on political experience. Therefore, ministers are almost always in the legislature and will have had to work their way up through the Parliamentary structures, for example Committees, as well as the party. This promotes a hierarchical attitude which disadvantages women, and the limited number of women in parliament means there is a smaller number of women in the 'pool of eligibles' for cabinet appointments (Davis 1997:59). Generalist systems include the Westminster-style democracies of Malta and United Kingdom. However, many countries fall between these categories of specialist and generalist recruitment.

A number of analyses within the gender and politics tradition theorise the appointment of women ministers by drawing on the literature on women's representation in Parliament. These studies, therefore, focus on factors which are expected to lead to an increase in women's representation in parliament. In a cross-sectional analysis of 28 countries, Siaroff (2000) finds that more women are present under left-leaning parties and in Scandinavian nations. Bego (2014) finds that the appointment of women to ministerial positions in new post-communist democracies is highly correlated with women's enrolment in higher education. Similar to the expected Europeanisation effects of women's representation in Central and Eastern European Parliaments, the author finds that more women are appointed to government positions over time, suggesting that this could be due to a desire for 'legitimacy and leverage from international organisations' (Bego 2014, 356). In an analyses of women's representation in presidential Latin American governments, higher levels of human development are found to correlate with more women in government, and leftist presidents appoint more women than their right-wing counterparts (Escobar-Lemmon and Taylor-Robinson 2005). The authors theorise that measures of human development more broadly are a good indicator of the overall education level of a country (Escobar-Lemmon and Taylor-Robinson 2005, 834).

These analyses of women's appointment to governments therefore overlook the vital differences between the dynamics of election to the legislature and selection for the executive. I contend that women's representation in political elites must

be considered in the context of the political dynamics which shape those elites. This is especially the case for government appointments, where there a small number of available positions, and an even smaller selectorate. Annesley (2015) argues that 'recruitment to executive office cannot be fully explained by the aggregate sociodemographic characteristics of ministers or by the general characteristics associated with the political systems' (Annesley 2015, 619). The author argues that understanding the gendered nature of government appointments requires an understanding of the eligibility pool for government positions, how to qualify, and who selects ministers. Annesley (2015) concludes cross-national or time-series quantitative analysis of appointments cannot capture the informal institutions, norms and rules of ministerial appointments. However, by considering appointments at the party level and theorising the appointment of women from the perspective of party leaders, I am able to provide an insight into women's appointments over time and political contexts while also considering the political nature of appointments. In all three papers, I also analyse the impact of women's representation in the legislature. This enables me to consider how women's parliamentary representation might affect the dynamics of women's appointment to the executive. By studying the impact of the gendered nature of women's presence in the legislature, the papers which constitute this thesis also draw on and speak to this existing literature on executive appointments.

Few analyses of women's appointment to government positions have focused on the political factors which shape cabinet formation. In a cross-sectional analysis of women's representation in government positions across 117 countries, Krook & O'Brien (2012) use an index, the Gender Power Score, to identify when women are appointed to government and the portfolios they are allocated. This analysis identified how political, rather than social, factors have the strongest impact on gender parity in cabinets. In particular, Krook & O'Brien (2012) find that the representation of women among political elites is the strongest predictor of the appointment of women to government. Women's presence in political elites is measured through factors such as a female leader, a ministry of women's affairs and the representation of women in the legislature. Claveria (2014) finds that across 23 advanced industrial democracies, left-wing governments appoint more women, and that more women are appointed in specialist (rather than generalist)

systems of government. In an in-depth analysis of women ministers in presidential cabinets in five countries, Argentina, Chile, Colombia, Costa Rica, and the United States, Escobar-Lemmon and Taylor-Robinson (2016) find that presidents appoint men and women to the cabinet with similar political experience, professional and educational backgrounds and links to interest groups, and therefore women do 'typically need to look like men' to be appointed to government (Escobar-Lemmon and Taylor-Robinson 2016, 275). By analysing the background of 447 ministers at an individual level, of which 110 were women, the study finds that women are more likely to be appointed to the traditionally 'feminine' portfolios. These analyses, however, do not take into consideration the role of party leaders in ministerial selection and portfolio allocation, which scholars of government have long considered a key factor in shaping government appointments.

The effects of party leaders are explored in O'Brien et al.'s (2015) examination of the impacts of a female party leader on the appointment of women ministers, in which the authors theorise the incentives and constraints which face a female leader when they appoint the government. These include the view of women leaders as 'tokens' which relieve the sense of obligation on parties to appoint more women, and the role of women leaders in overcoming 'outgroup biases' against the appointment of women. Analysing government appointments in 15 countries between 1980 and 2015, O'Brien et al. (2015) find that the presence of a female prime minister or a female-led coalition party is associated with fewer female ministers, when compared to exclusively male-led left governments. In this analysis, they also find that governments with female Prime Ministers or at least one coalition party leader are no more likely to appoint women to high-prestige posts than governments with only male leaders. The authors suggest that female leaders 'shut the door' for their female colleagues because they must make efforts to present a more masculine image, so they 'may be accused of "favouritism" and pursuing "identity politics"' if they choose to appoint more women to the cabinet (O'Brien et al. 2015, 699).

However, O'Brien *et al.*'s (2015) findings are based on an analysis of the appointment of women to the whole government, rather than the party level, and therefore the study overlooks the important party-level dynamics of ministerial

appointments. While the authors theorise that the 'spillover effects' of appointments are strong enough for one female party leader to have an impact on appointments to the whole government (O'Brien et al. 2015, 696), other party-level factors may be more influential: a leader of a conservative party may not appoint more women just because the leader of a social democratic party in the government does so. Indeed, the opposite could be true, they may reap the public benefits of having more women in the government without 'cost' of appointing a woman themselves. In this thesis, I analyse the appointment of women ministers at the party level across the whole of Europe over a 45-year timespan for government appointments and a 25-year period for portfolio allocation. I am, therefore, able to examine the important party characteristics which shape government appointments, especially in coalitions.

Existing analyses of the appointment of women ministers do not consider the important party-level characteristics, such as party ideology and the party leader's gender, which shape government formation and portfolio allocation. This gap in the literature is, in part, due to a gap in data on ministerial appointments at the party level. Papers One and Two provide the first analyses of the appointment of women to ministerial positions at the party level, and therefore evaluate how partisan dynamics really shape the appointment of women to governments. Accompanying these papers, I also contribute data on ministerial appointments at the party level, which will enable future analyses of the partisan dynamics of ministerial selection.

Policy, office and vote-seeking motivations in ministerial selection and portfolio allocation

Cabinet ministers have a high level of public, party and individual responsibility so ministerial selection is an important and calculated decision: poor judgement in the appointment of individual ministers can be a party leader's downfall. Party leaders play a pivotal role in selecting cabinet ministers and parliamentary delegation to the cabinet (Carey 2007; Kam et al. 2010; Müller 2000). Modelling the interaction of different actors in the legislative system, political parties exist to reduce the transaction costs in the business of government and help to overcome the inherent collective action problems in political systems (Müller 2000, 309).

Therefore, ‘political parties are *the* central mechanism to make the constitutional chain of political delegation and accountability work’ (Müller 2000, 330). Due to their central role in policy-making processes in representative democracies, cabinet ministers are first and foremost accountable to their party (Carey 2007).

Given the important role of political parties in the functioning of cabinet government in European democracies, I theorise and analyse the appointment of ministers from the perspective of the party leaders who make those appointments. Coalition government is the norm in Europe, so government appointments and portfolio allocation are shaped by the leaders of parties in government. Forming a government and the appointment ministers is a ‘torturous process’ (Dowding and Dumont 2009, 3), but the leader of each party participating in a coalition government will have a strong say in the selection of cabinet ministers representing their party (Huber and Martinez-Gallardo 2008, 171). In an analysis of the careers of all federal cabinet ministers in Germany between 1949 and 2008, Kaiser and Fischer (2009) find that parties in coalition are relatively autonomous in selecting ministers. The assumption that party leaders are responsible for selecting and allocating portfolio to their party’s ministers simplifies the issues of bargaining across and within parties in ministerial selection. However, this approach also provides leverage over the partisan dynamics of government formation, which enables me to analyse women's representation in appointment to cabinet than simply considering the government as a whole. Bargaining over portfolio allocation is explored further in by Bäck, Debus and Dumont (2011) who find that the policy emphasis of party manifestos effectively predicts their ministerial portfolio preferences.

Party leaders are engaged in high-stakes, high-profile decision making when they appoint governments. I use Müller & Strøm's (1999) policy, office, votes framework of party leader decision making to theorise ministerial selection in Paper One and portfolio allocation in Paper Two. This falls within the tradition of non-cooperative models of government formation and portfolio allocation, where individuals (as the unit of analysis) are assumed to be concerned with doing as well for themselves as possible subject to clearly defined rules and possibilities (Kreps 1990).

Within Müller & Strøm's (1999) seminal framework of party leader decision making, party leaders are understood to have three core motivations: policy, office, and votes. Each of these motivations is prioritised by party leaders on a situational basis, depending on the environmental factors affecting their options. This framework provides a clear means by which to interpret the motivations of party leaders in the context of political decision making.

The policy-seeking motivations driving party leader behaviour are prioritised when decisions are made to maximise the party's impact on public policy. Office-seeking motivations are prioritised when party leaders seek to 'maximise their control over political office benefits', with a central focus on obtaining and securing political office (Müller and Strøm 1999b:5). When party leaders make decisions based on vote-seeking motivations, they are driven by the desire to maximise electoral support at the next election. While votes do not have any intrinsic value, unless converted into policy or office benefits, the prioritisation of this motivation enables the assessment of the 'temporal discounts' (time horizons) of party leaders (Müller and Strøm 1999a). This framework does not suggest that party leaders pursue any of these objectives in isolation, rather that all three of these motivations are considered in most important political decisions. Party leaders must make trade-offs between these motivations, based on the prevailing institutional and situational constraints. This framework provides an insight into how party leaders balance their priorities (Müller and Strøm 1999:12). In the context of the role of gender in the ministerial selection decision-making process, this framework is employed to demonstrate how the gender of ministerial candidates affects their selection whether party leaders prioritise policy, office, or vote-seeking motivations. These papers model the appointment of cabinet ministers within a decision-theoretic framework. In decision theory, the choices of individual agents are modelled based on the assumption that individuals are utility maximisers (Dreier 2004, 156).

In this thesis, I therefore seek to bridge the gap between analyses of government appointments which focus on women's representation in government positions and the 'mainstream' analyses of ministerial selection and portfolio allocation which overlook the gendered factors which shape appointments. This is an innovative approach to considering ministerial appointments, which provides an

insight into how the political and partisan elements of government formation shape women's appointment to cabinet.

In this thesis, I provide the first time-series, cross-sectional analysis of women's appointments at the party level. Two analyses have considered women's appointment to cabinet at the individual level within one country case study. Fleischer and Seyfried's (2015) analysis of ministerial appointments in Germany, which draws on media reports to consider which 'ministerable' candidates are eventually appointed government posts. As an aside to the main analysis, which considers how office holder preferences shape government formation, this analysis finds that over 80% of the 'ministerable' candidates are male, but that women are more likely to actually be appointed to government positions (Fleischer and Seyfried 2015). They suggest that this could be due to drives to create gender balance in the government or their 'seemingly better qualification that supported their entry into the bargaining pool in the first place' (Fleischer and Seyfried 2015, 8). In an analysis of ministerial appointments to six cabinets in Sweden, Baumann, Bäck and Davidsson (2018) find that women are less likely to be appointed to cabinet positions when they have been on parliamentary committees in 'masculine' policy areas. This analysis also identifies that female parliamentarians are penalised more than their male colleagues when they deviate from the party line in parliamentary speeches (Baumann, Bäck, and Davidsson 2018).

In Papers One and Two, I draw together the literature from the fields of gender and politics and executive politics to develop a theory of women's appointment to ministerial positions and portfolio allocation which is informed by the political forces which shape these processes but does not overlook the gendered nature of appointments. In Paper One, I theorise and analyse how party leaders' policy-seeking motivations lead to their ideology shaping ministerial appointments. I discuss how office-seeking motivations mean that the party leader's gender affects the number of women ministers they select; and how the cultural context and gender attitudes of a party's voters might shape the number of women vote-seeking ministers select for cabinet positions. This framework is extended to the allocation of policy portfolios to women ministers in Paper Two. I consider how party leaders' office-seeking motivations mean that appointments to 'core' and

high-salience portfolios are less likely to be female, but that there will be less gender differentiation in portfolio allocation in left-wing parties than right-wing parties. I examine why policy-seeking motivations mean that ministers appointed to 'feminine' portfolios are more likely to be female, and how vote-seeking motivations mean that there is less gender differentiation in portfolio allocation by parties whose voters have more gender-equal attitudes.

Ministerial characteristics and policy making

Journalists and political commentators view ministerial appointments as highly important for government policy making, and there is much speculation around the time of government appointments and reshuffles about who will be assigned which portfolio and the impact that might have on government policy. One motivation for analysing the circumstances under which women are appointed to the cabinet and allocated government portfolios is the impact that these appointments have on policy outcomes. The question of individual ministers' impact on policy making is beginning to be explored in the academic literature (Alexiadou 2015, 2016; Bäck, Debus, and Tosun 2015; Becher 2010; Goodhart 2013). In this thesis, I contribute to this emerging area of research by exploring the impact of the appointment of women ministers on the development of policy on parental leave for fathers.

Early game-theoretic studies of government formation operated on the simplifying assumption that ministers are perfect agents of their parties, and therefore act on behalf of their party regardless of their individual preferences and characteristics (Laver and Shepsle 1996; Strøm 1990b). This assumption was necessary for early formal models of government policy making and cabinet dynamics. However, the political executives literature has moved towards more nuanced assumptions about the nature of the relationship between party leaders and cabinet ministers through considering how ministers have incentives to pursue their own ideal policies, rather than those of the party. This concept of 'ministerial drift', recognises that individual cabinet ministers may have different policy preferences to their parties and each other.

Studies of political executives have shown how coalition governments use

various mechanisms to monitor the activities of cabinet ministers to prevent ministerial drift. These include parliamentary scrutiny of 'hostile' ministerial proposals through parliamentary committees to overcome potential problems of delegation and enforce coalition bargains in the legislature (Martin and Vanberg 2004, 2005, 2011). Parties also use junior ministers in attempts to prevent ministerial drift, by monitoring the work of cabinet ministers (Carroll and Cox 2011). Evidence suggests that these mechanisms are used differently in different countries, and a comparative analysis of legislation shows how Italian, Dutch and Japanese coalitions seek to enforce coalition agreements through junior minister oversight, while coalition governments in Germany use institutional devices to constrain ministers (Thies 2001). Parties also use reshuffles, and the threat of reshuffles, as part of attempts to prevent ministers from taking different policy positions from the government (Indriđason and Kam 2008). This literature on cabinet governance has identified the steps that Prime Ministers and party leaders have taken to constrain ministers from 'drifting' towards their individual policy agenda.

This leads to the question of how the policy preference of cabinet ministers as individuals may be shaped by their characteristics or background. However, the characteristics of ministers which may lead to them forming individual policy preferences and 'drifting' away from their party's position remain under-explored.

In a detailed analysis of the individual policy preferences of cabinet ministers in the Italian Prodi government, appointed in 1996, Giannetti and Laver (2005) find that there is a link between the policy positions of cabinet ministers and the evolution of departmental spending patterns. Challenging the assumption that cabinet ministers always follow the party line in their policy portfolio, Alexiadou (2015, 2016) argues that the appointment of different ministers will lead to different policy outcomes. The author identifies three types of ministers: 'loyalists, who are loyal to their party leader and prioritise office over policy; partisans, who are party heavyweights and aspiring leaders; and ideologues, who have fixed policy ideas and are unwilling to compromise over office perks' (Alexiadou 2015, 1051). Alexiadou (2015, 2016) identifies how the professional backgrounds and partisanship of ministers interact to shape their ministerial type. For example, ideologues are social democrats who were formerly trade union officials, or

liberals or conservatives who were formerly economists, bankers, or business executives. Developing a model of the strategic interaction between key players in government policy making, including the Prime Minister and finance minister, Alexiadou (2015, 2016) theorises that 'ideologues have stronger policy preferences than partisans or loyalists, but partisans are costlier to oppose. Thus, both ideologues and partisans should be more effective policy makers than loyalists' (Alexiadou 2015, 1060). Though analysing social and labour policy development in 18 parliamentary democracies, supplemented with case studies of Greece, the Netherlands and Ireland, Alexiadou (2016) finds evidence that individual ministers can have an impact on government policy making. Through opening the black box of cabinet government, Alexiadou (2015, 2016) shows how some individual cabinet ministers do have an impact on government policy. Therefore, there is emerging evidence to suggest that the individual characteristics of ministers can and do shape policy outcomes. This motivates my analysis of women's appointment to government positions (Papers One and Two), and I build on this to examine the conditions under which governments choose to implement progressive models of leave for fathers.

Female ministers and family policy

Given that the individual characteristics of ministers have been found to shape policy outcomes, in this thesis I suggest that women ministers are likely to have different policy preferences to their male counterparts on some policy issues. These differences are linked to women's lived-in experiences of gender, their experiences in public life and the electorate's perceptions of women leaders (Childs and Krook 2008; Mackay 2008). Evidence from existing analysis across political life suggests that 'gender gaps' in policy preferences do exist. Amongst voters, gender-based differences in voter attitudes are persistently identified (Edlund and Pande 2002; Inglehart and Norris 2003). There is an extensive body of literature which illustrates how increased numbers of women in the legislature leads to increased policy attention on issues of substantive importance to women (Dahlerup 2006a, 2006b; O'Regan 2000). For example, in the USA, female senators speak more about policy concerns with direct relevance to women, such as women's health and family issues, than their male colleagues (Osborn and Mendez 2010). Women's legislative representation is also significantly correlated with the abolition of capital punishment worldwide (Moreland and Watson 2016).

Evidence suggests that an increase in women's legislative representation leads to decreases in aggressive defence spending and conflict behaviour (Koch and Fulton 2011).

While several studies have analysed the policy effects of the descriptive representation of women in parliament, the impact of the appointment of individual women to government has not been assessed. Theoretical and empirical work on the 'substantive' representation of women has focused on the impact of female legislators, rather than other, more powerful women in the political system (Celis and Childs 2008; Swers 2002, 2013). Initial analyses of the policy impacts of women in the cabinet as a whole find that countries with more women in the government have more female-friendly social policies (Atchison & Down, 2009) and labour environment (Atchison, 2015). However, these studies focus on the overall gender balance of the government, rather than the policy impact of the appointment of women to particular cabinet portfolios.

Given the differences in policy preferences between male and female voters and parliamentarians, it can be expected that female ministers will also have different policy preferences to male ministers. As political actors that are (at least to an extent) policy motivated, the inherent preferences of ministers, including any gender-based preferences, should lead to women exhibiting different policy making preferences in ministerial office than men. In Paper Three, I find that the gender and partisanship of the labour/employment minister shape policy making on leave for fathers. In the last 30 years, almost all governments in Europe have sought to introduce some form of statutory leave for new fathers. However, there are a wide range of complex and multidimensional policy options available to governments, including in the division of leave between parents, financing periods of leave, eligibility, and flexibility (Ray, Gornick, and Schmitt 2010). There is substantial variation in how governments have sought to address this issue. Some have legislated for one or two days of mandatory leave for fathers, while others have sought to establish a model of shared parental leave which promotes a 'dual-earner/dual-carer' model of parenthood (Morgan 2008).

While there has been extensive exploration of the effects of leave for fathers on the balance of responsibilities between parents (Kotsadam and Finseraas 2011;

O'Brien 2009; Rehel 2013), the factors which shape how governments address the issue of leave for new fathers have not been considered. I provide the first comparative analysis of how governments design family policy. In Paper Three, I find that the gender of the labour/employment minister does shape the design of systems of parental leave. This lends evidence to suggest that the appointment of women ministers and the government portfolios women are allocated can lead to different public policy outcomes.

Overview

Each of the three papers in this thesis seeks to address these knowledge gaps by asking new research questions, developing an original theory to address those research questions, employing original data, and undertaking analysis which provides an insight into previously unexplored political phenomena.

In Paper One, *Examining the appointment of women to ministerial positions across Europe: 1970-2015*, I investigate where and when women are appointed to ministerial positions across Europe. The core research question for this analysis is: under which circumstances do women get appointed to ministerial positions? Through considering the policy, office and vote-seeking motivations of party leaders, I theorise how gender shapes party leaders' ministerial selection decisions. I theorise how the policy-seeking objectives of leftist leaders lead them to appoint more women ministers. I discuss how office-seeking motivations lead female ministers to appoint more women, and vote-seeking motivations mean women will be appointed to ministerial positions in more gender-equal cultural contexts including when the governing party has voters who have more gender-equal attitudes.

To investigate where and when women are appointed to government, I develop an original dataset which details the appointment of women ministers in 30 European countries between 1970 and 2015 at the party level. I use negative binomial regression modelling to analyse trends in the appointment of 12,757 ministers. I find that left-wing leaders appoint more women than right-wing leaders, and that female leaders appoint more women to their cabinets than male leaders. More women are present in the governments of countries with higher

levels of female engagement in the labour force, and analyses of public attitudes show that party leaders appoint more women when their voters have more progressive gender attitudes. This paper is the first analysis to take the approach of analysing the appointment of women ministers at the party level, and therefore demonstrates how party-specific factors shape the representation of women around European cabinet tables. Due to the prevalence of coalition governments in Europe, this party-level analysis provides an original contribution to our understanding of women's representation by investigating how the partisan factors which shape ministerial selection impact on the number of women selected.

In Paper Two, *Entering the men's domain? Gender and portfolio allocation in European governments*, I examine how gender shapes the allocation of ministerial portfolios to ministers. This paper has been published in the European Journal of Political Research (Goddard 2018). Building on the policy, office, and vote-seeking motivations of leaders, I set out expectations for circumstances under which there is expected to be more gender differentiation of portfolio allocation. By considering the motivations of party leaders, I hypothesise that appointments to 'core' and 'masculine' ministerial portfolios are less likely to be female. I also expect that there will be less gender differentiation in ministerial portfolio allocation by left-wing parties and by parties whose voters have more gender-equal attitudes.

I have developed on an original dataset which details 7,005 cabinet appointments across 29 European countries from the late 1980s until 2014 to test these hypotheses. I examine the gender differentiation in portfolio allocation by categorising portfolios into core/non-core policy areas, masculine/neutral/feminine portfolios, and policy areas which are high/low salience to the party. To explore these hypotheses, I undertake a logit regression analysis with country fixed effects. I find that women are less likely to be appointed to the 'core' offices of state, and high-salience portfolios, and are most likely to be appointed to 'feminine' policy areas. Gender differences in portfolio allocation are greatest in right-wing parties, and where voters have less progressive gender attitudes. This in-depth analysis of the allocation of portfolios to women provides an original insight into the factors which shape where and

when women are allocated different policy areas. I investigate the ministerial appointments of European party leaders over a 25-year period and provides an original insight into how the motivations of party leaders affect the gender balance of the allocation of policy portfolios to cabinet ministers.

The third paper of the thesis, *Government policy making on leave for fathers: a qualitative comparative analysis,* investigates the effects of women ministers on policy making on fathers' leave. In this paper, I address the research question: when governments decide to reform leave for the fathers, under which circumstances do they opt for a 'dual-earner/dual-carer' model of family policy? Family policy provides a particularly interesting area of analysis where governments have a range of complex multidimensional policy options, and there is significant variation between otherwise similar countries. Recognising the complexities and contingencies involved in policy-making processes, I develop a combinatorial theory of the conditions which shape government approaches to leave for fathers.

Based on this theory, I undertake a fuzzy-set Qualitative Comparative Analysis (fsQCA) of all instances of policy reform of fathers' leave in the 20 OECD European countries since 1990. This analysis is supplemented with further qualitative analyses of cases of reform. I find that women's active engagement in paid work is a necessary condition for the most progressive forms of leave. There are two pathways which are sufficient for the progressive model of fathers' leave, both of which require a context of high female labour force participation 1) a female, left-wing cabinet minister with a left-dominated parliament and 2) a male, right-wing minister in a context of progressive gender attitudes amongst voters. This paper is the first analysis of the factors which lead governments to introduce the most progressive forms of leave for fathers. This will provide a valuable addition to the existing literature on the impact of family policy on outcomes for children and families. This analysis also provides a motivation for future consideration of how women ministers can shape policy making, by indicating that female and male ministers can have systematically different policy preferences.

Data, Methodology and Empirical Contribution

Each paper in this thesis takes a distinct empirical strategy, and therefore I employ three different methodologies. As each paper in this thesis asks a new research question, each paper draws on an original dataset and a distinct methodology. While drawing on a range of methods, all three papers in this thesis are driven by the theory and, therefore, the appropriate methodology has been selected to address the research questions in hand. Papers One and Two take a quantitative approach, while Paper Three is a fuzzy-set Qualitative Comparative Analysis (fsQCA). In this section, I provide an overview of the original datasets for each analysis and the methodology I have employed to approach each research question.

Each paper has an accompanying original dataset, which has been collected to address the research questions of this thesis. The data and replication materials for all three papers are publicly available.[1]

Paper One

The original dataset which accompanies Paper One details the appointment of women to cabinet positions in 30 European countries between 1970 and 2015. This data is at the party-within-government level and covers 12,757 cabinet ministers. I extracted this data from Lars Sonntag's *Politica* online database of European cabinets, which is an online archive of government appointments and does not detail the gender of each minister (Sonntag 2016). I then identified the gender of each minister based on a first-name dataset, consultation with country specialists and searches for references to the minister. To explore the hypotheses arising from my theory of women's appointment to government positions, I have gathered this original dataset to combine data on the gender of ministerial appointments with data on party leaders, party manifestos, national economic indicators, and public attitudes survey data.

This is the first dataset of women's appointment to government positions which

1 All replication materials are available at:
https://dataverse.harvard.edu/dataverse/deegoddard.

enables an analysis of the appointment of women at the party level. As Figure 1 shows, this data provides an overview of women's appointment to ministerial appointments across the whole of Europe. Taking a longitudinal view, this data shows a common trend of an increase in the appointment of women to government positions over time. In Figure 2, I show the trend of leftist parties appointing more women to government positions across Europe over almost half a century. Unlike the negative binomial regression analysis, these graphs use the percentage of ministerial appointments by each party that are female. Therefore, the values range from 0% (where none of the party's appointments to ministerial positions are female) to 100% (where every minister for that party is female).

This extensive and detailed dataset provides a contribution to the analysis of government formation and ministerial selection by identifying the parties that form governments and the number of women ministers they appoint. This data will also be of use to scholars of government formation more broadly, as it identifies the parties of government in 30 countries over 45 years. This data also provides opportunities for linkages with other datasets on party characteristics.

In Paper One, I utilise negative binomial regression modelling, which uniquely provides a methodological means to analyse the number of women appointed by each party, with an exposure variable which indicates the number of appointments made. The dependent variable is the number of women appointed by the party within the government, and the exposure variable is the number of appointments made by the party. This approach enables me to address the integer problems of ministerial appointments (Hilbe 2011) where other studies have relied on the percentage of ministers that are female as the dependent variable. I use this method to examine the effect of the independent variables arising from the theory: the party's left-right score, a female party leader, the country's female labour force participation rate, the gender composition of party voters, the gender attitudes of party voters, and time. With this model, I also make predictions of the appointment of women under observed and hypothetical conditions. I also consider the impact of women's representation in the legislature on women's appointment to government positions through an OLS regression analysis.

Paper Two

For Paper Two, I have built on and extended the Seki-Williams Government and Ministers data, which details the name, portfolio title and gender for cabinet ministers (Williams and Seki 2016). For this analysis, I drew on data on 29 European countries from the late 1980s until 2014. I then coded the ministerial portfolio titles for all 7,005 observations to group them into policy areas. This data on ministerial policy areas provides a data contribution which may help to further to the emerging literature on portfolio allocation. I combined this data on portfolio allocations with manifesto data, expert surveys, and data on public attitudes to examine the hypotheses arising from the theory of portfolio allocation to male and female ministers. The data which may be used for a wide range of future studies which seek to consider the allocation of policy areas to cabinet ministers.

Figure 3 shows the gender balance of appointments to 20 ministerial portfolios for all observations in this dataset. Even with this cursory analysis, there is an identifiable gendered pattern in the allocation of policy areas: more men are appointed to the traditionally 'masculine' areas of government, and more women are appointed to the traditionally 'feminine' policy areas. The finance, foreign affairs, and defence portfolios are heavily dominated by men. The only policy area which has had more female than male appointees is that of women and gender equality. The family/youth, health, culture and social affairs portfolios also have relatively more gender-balanced appointments. These descriptive statistics reveal a trend which is explored in depth in Paper Two.

To address the research questions set out in Paper Two, I use logistic (logit) regression modelling with country fixed effects. In this analysis, the binary dependent variable is gender of the minister. Fixed effects enable the model to account for baseline differences between countries in their propensity to appoint women. The independent variables include the nature of the government portfolio, with policy areas being categorised as core/non-core, high-salience/low-salience, and masculine/neutral/feminine. Other independent variables include the left-right score of the governing party, the gender of the prime minister, voter gender attitudes, the year, and whether the government is a coalition. In the Appendix, I also consider the impact of women's representation

in the legislature on portfolio allocation.

Paper Three

The accompanying data for Paper Three includes a summary of every instance of reform of leave for fathers between 1990 and 2016 in the 20 OECD European countries, drawing on information from the OECD (2016), amongst others. This includes the nature of the reform, as well as data on government actors, the national economic context and public attitudes. The full analytical process for the fsQCA, including the calibration of sets and full truth tables is available in the Appendix to the paper.

Figure 4 provides an overview of the 49 reforms of leave for fathers identified in this analysis. Over the 26 years of reform covered in this data, different countries have taken different approaches to leave for fathers. This map shows that three countries have only made reforms which follow the traditional paternity leave model. Six countries have only made reforms which follow the more gender-balanced father-specific leave model. Over this time period, ten countries have made reforms which take both these forms. Sweden did not have reforms which fall within the scope of this analysis. Slovakia and Switzerland have no statutory provision for leave for fathers, so are not included in this analysis.

In Paper Three, I use the fuzzy-set Qualitative Comparative Analysis (fsQCA) methodology to assess the combinations of conditions which are deemed necessary and/or sufficient for the introduction of progressive models of leave for fathers. Recognising the complex, often non-linear, nature of reforms, this method enables me to identify cases and causally-relevant conditions for the presence or absence of an outcome of interest (Rihoux & Ragin, 2009; Schneider & Wagemann, 2012). With this method, I identify conditions which are necessary to be in place for a reform of leave to follow the progressive father-specific leave model, as well as combinations of conditions which are sufficient for a reform of leave for fathers to follow this approach. These conditions include women's engagement in the labour force, gender attitudes, the gender and partisanship of the social spending minister, the partisan composition of the parliament, and the economic context. I also use fsQCA to analyse the impact of women's presence

in the legislature and the party family of the social spending/labour minister.

There has been some debate within the discipline on the utility of fsQCA for empirical analysis, including criticisms of the methods' assumptions in relation to missing variables and association as causation (Seawright 2005) and the epistemological basis of the assumptions of fsQCA (Lucas and Szatrowski 2014). However, many of these concerns can be overcome through ensuring that the analysis returns to consider the specific cases under consideration; transparency about the selection of cases and calibration of sets; and the publication of the raw data, truth tables and simplifying assumptions for the analysis (Schneider & Wagemann, 2010). I include all of this information in the Appendix to the paper. The results of fsQCA should not be interpreted over-deterministically, but instead can suggest how combinations of relevant conditions are associated with an outcome. Further analyses, both qualitative and quantitative, can help explore the associations identified in the research.

Figure 1: Appointment of women to ministerial positions across Europe, 1970 - 2015

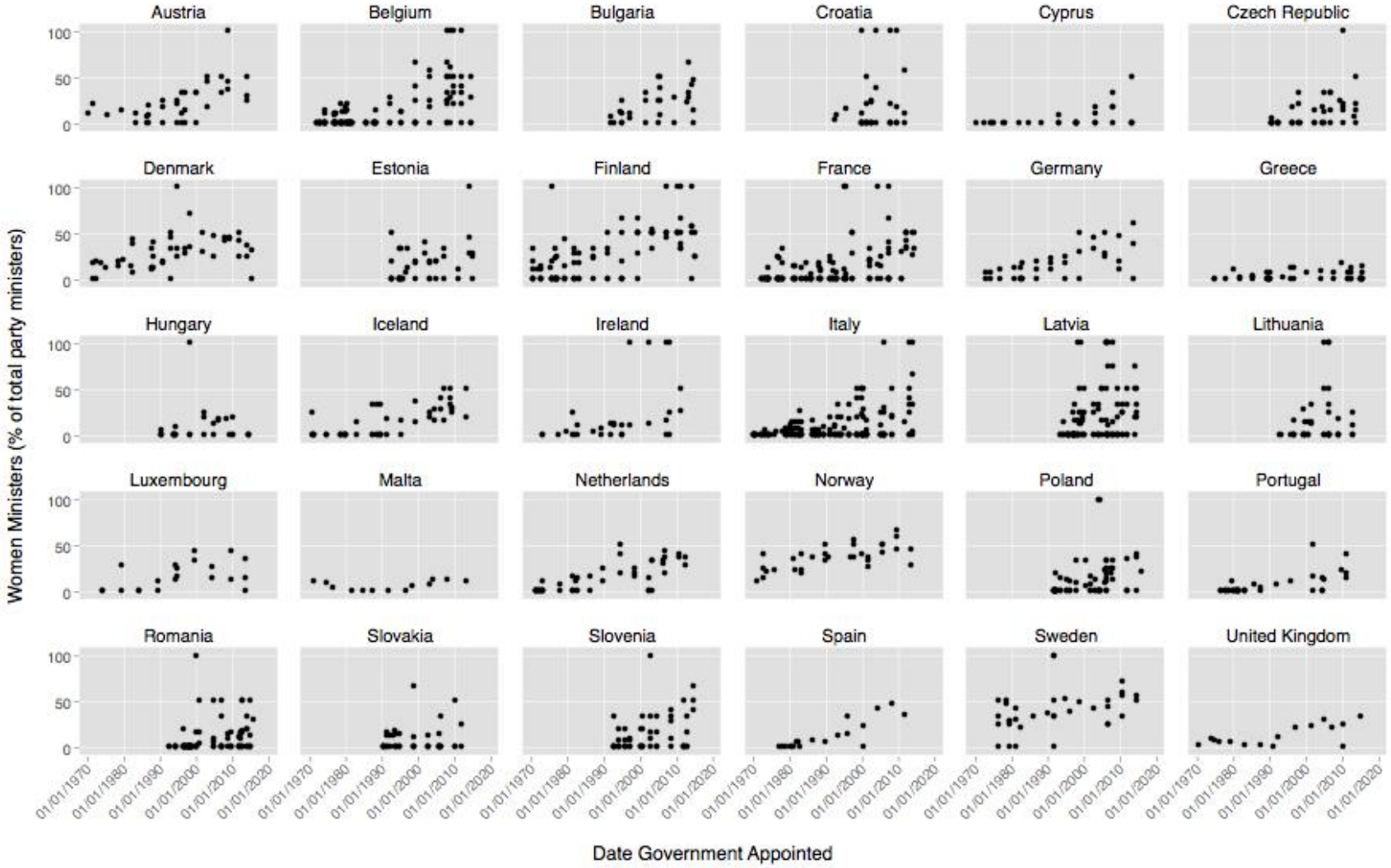


Figure 2: Allocation of ministerial portfolios to female ministers across Europe, 1970 - 2015

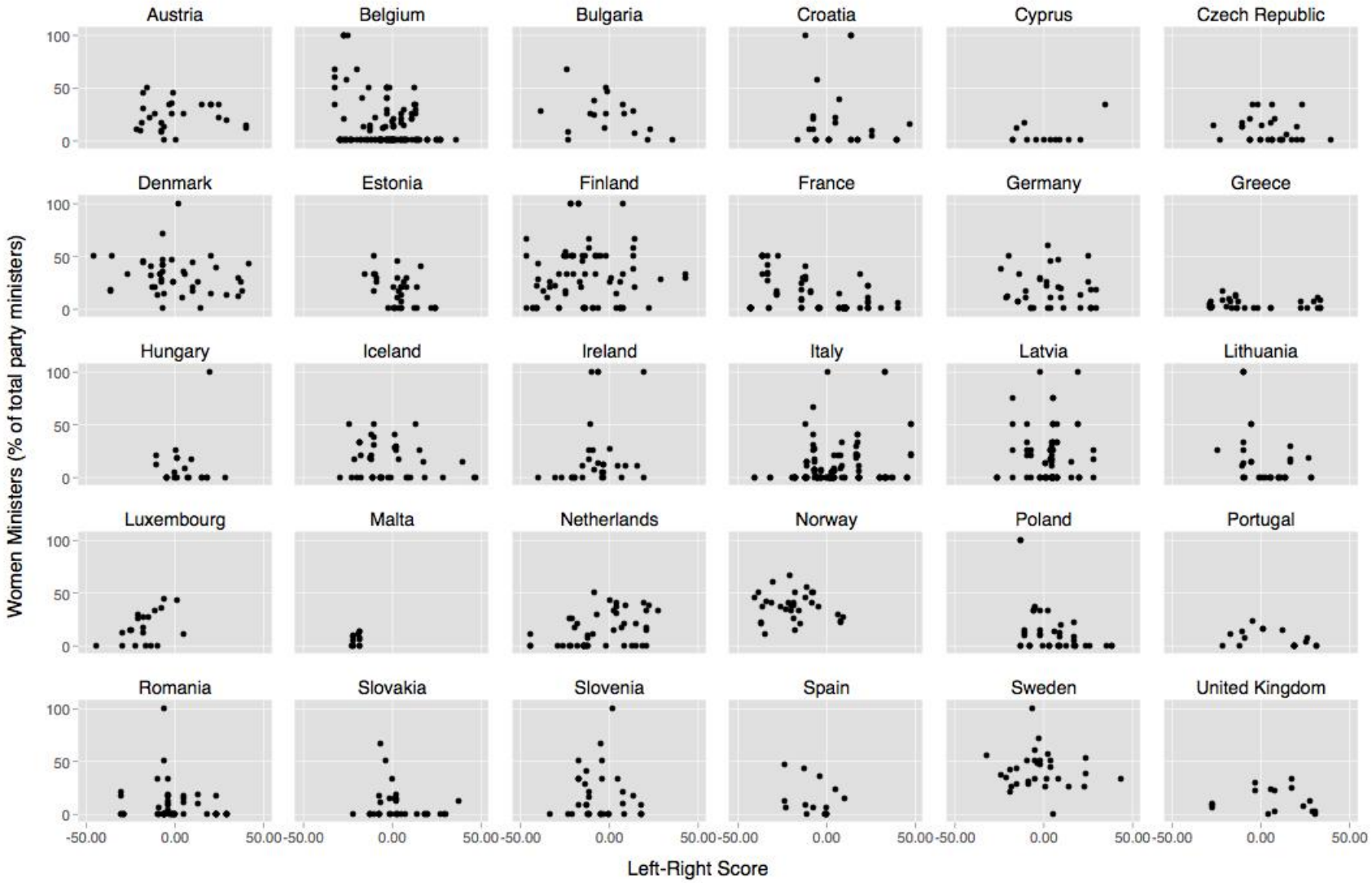


Figure 3: Allocation of ministerial portfolios to female ministers across Europe, 1990 - 2014

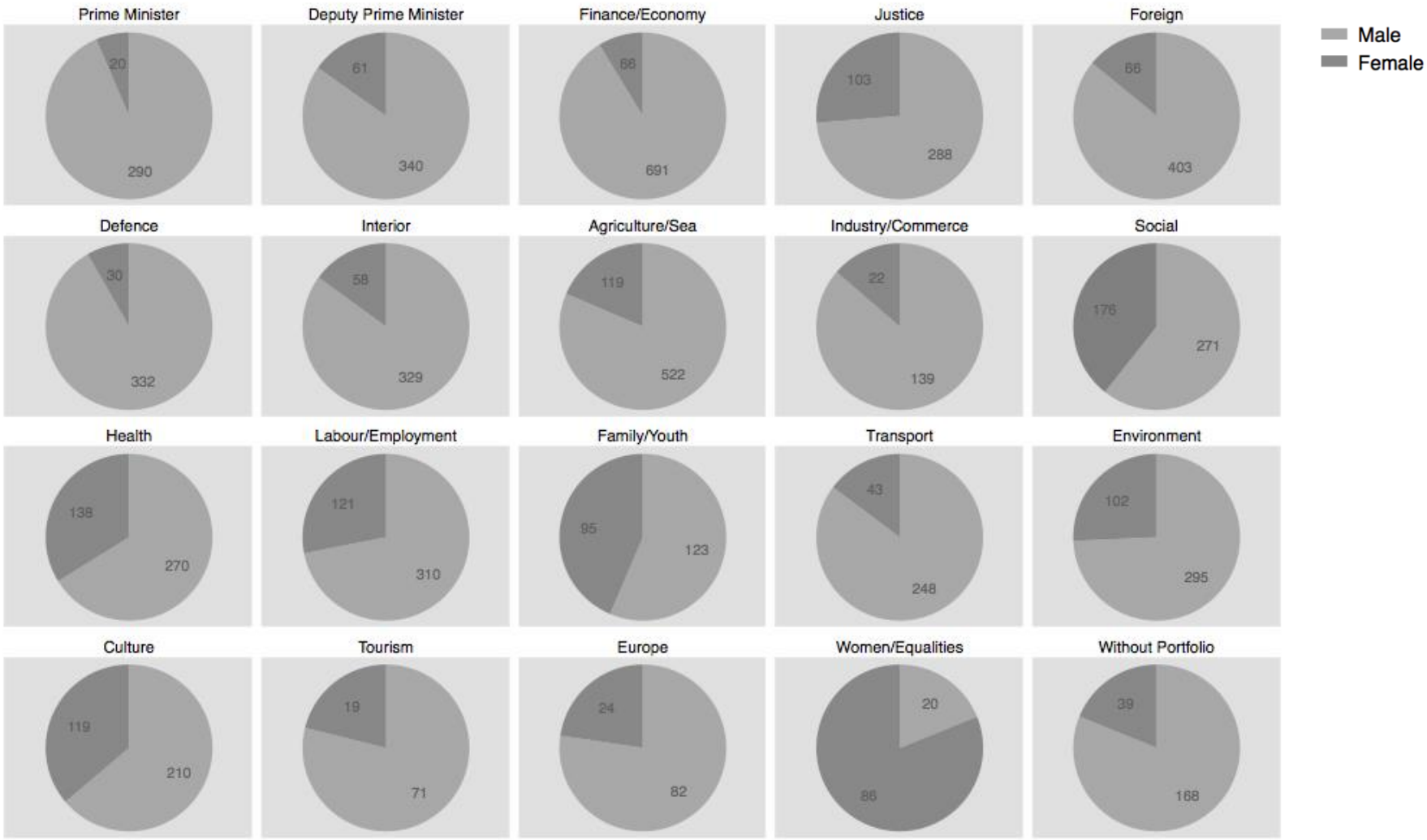
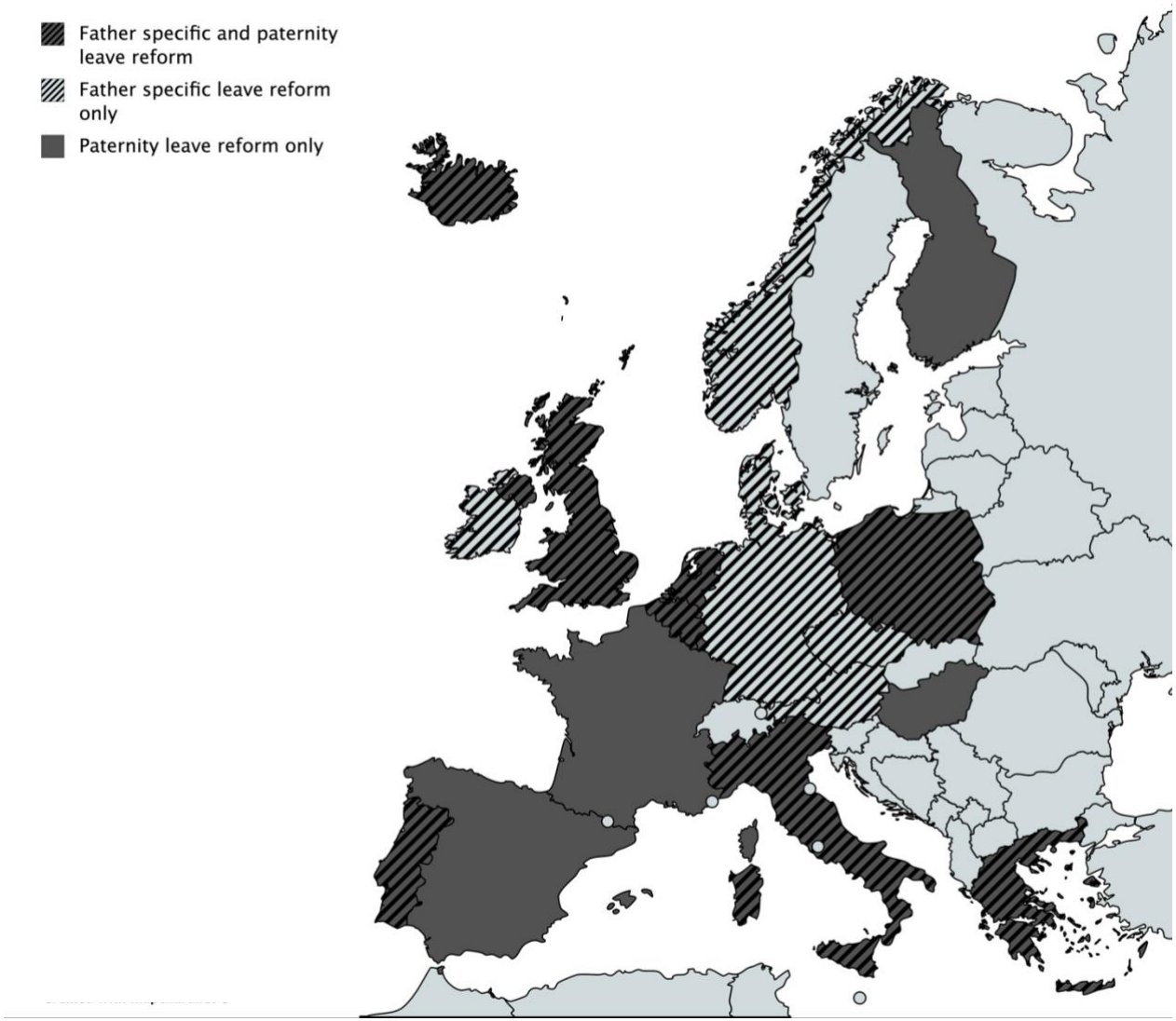


Figure 4: Parental leave for fathers, policy reforms across European OECD countries 1990 - 2016



Key findings and themes

While divided into three distinct papers, this thesis provides a unified body of analysis centring on female cabinet ministers. In this section, I identify three key themes arising throughout this thesis and related findings. These themes are the role of party ideology, the impacts of women's representation in positions of power, and the bottom-up effects of public attitudes.

Role of party ideology

Throughout each of the papers, party ideology is identified as an important feature which shapes political processes and policy making. Leftist governments are more likely to appoint female ministers and allocate those ministers core, high-salience and masculine and neutral portfolios. I find that leaders of left-wing parties (with a left-right score of -50) appoint twice as many women to cabinet as leaders of right-wing parties (with a left-right score of 50). Across Europe, leaders of left-wing parties are found to be more likely to appoint women to government positions than leaders of right-wing parties. This means that even when in coalition with rightist parties, left parties in government appoint more women.

I find that for centre-right parties (with a left-right score of 20) the predicted probability of an appointment to a feminine portfolio being a woman is 0.36, but the prediction for neutral portfolios is half this (0.17). The predicted probability is over five times less for masculine portfolios (0.07). This shows that parties on the political right of the ideological spectrum are less likely than leftist parties to appoint women to masculine and neutral portfolios. In this analysis, I show significant and tangible differences in women's appointment to government and the portfolios women are allocated. While there is no statistically significant difference in the predicted gender of core and non-core appointments by parties at the farthest left of the political spectrum, only 15% of the 219 cases where women were appointed to a ‘core’ portfolio were appointed by the parties in the farthest right quartile of parties of this dataset.

Through the sufficiency pathways identified in the fsQCA analysis, I find that left-wing, female ministers are more likely to be ‘proactive’ in instituting more gender-

equal policies when reforming leave for fathers. While the sufficiency pathway for their right-wing, male counterparts includes more progressive gender attitudes, the sufficiency pathway for leftist ministers suggests that they are more willing to make progressive family policy reforms without the pressure of public opinion. I theorise that this effect is due to rightist parties' motivation to promote the positive labour market impacts of shared parental models of leave and offer more choice to parents.

These findings show how the parties that form a government can have an impact on the face of that government and that partisanship remains an important factor in shaping women's representation in positions of policy-making power. These results demonstrate the advantages of taking a party-level approach to ministerial appointments and ministerial decision making. The papers which constitute this thesis demonstrate the importance of undertaking a party-level political analysis of phenomena which take place at the at a party level. Through examining ministerial appointments at the party level, I am able to identify the relationship between party ideology and the gender balance of ministerial appointments and portfolio allocations. In addition, through analysing the left-right ideology of the party which is responsible for the family policy portfolio, I identify the conditions under which different parties make progressive policy decisions about leave for fathers.

Impacts of women's appointment to positions of power

I also find tangible impacts of the representation of women in positions of political leadership. In Paper One I find that female party leaders appoint more women to cabinet positions than their male counterparts. Based on the predictions arising from the analysis of my data, I find that when party leaders are responsible for appointing eight ministers, women leaders appoint four women while male leaders only appoint two women (controlling for the other variables in the model). A simulation based on this data, can provide further insight into these effects. In 2014, Poland's Civic Platform leader, Ewa Kopacz, appointed 11 cabinet ministers, four of which were female. The model's predicted value for a female leader is 5.17. However, if Kopacz had been a man, the expected number of women appointed to the cabinet is 2.55.

Again, by undertaking this analysis of the appointment of women by considering the party level, rather than considering the government as a whole, I am able to draw a conclusion on the question of whether female leaders have a positive impact on the representation of women in ministerial positions. In the words of German Chancellor Angela Merkel, 'a swallow does not a summer make' (The Local DE 2018). However, the results of the analysis in Paper Two suggest that the presence of a female Prime Minister does not have a statistically significant impact on the gendered nature of ministerial portfolio allocations. Analysis for all three papers also suggests that women's representation in the legislature can play a role in the appointment of women to the government, the allocation of portfolios to women, and the shape of parental leave reforms.

The findings of Paper Three suggest that gender plays a role in government policy making. The sufficiency pathways identify that female, leftist ministers are more entrepreneurial and proactive in instituting gender-progressive policy reforms. This provides additional evidence that the individual characteristics of ministers can shape policy outcomes. Moving away from game-theoretic analyses of government policy making which assumed that all cabinet ministers acted as agents of their party's policy preferences, this analysis shows how the backgrounds and characteristics of ministers can have an impact on public policy. Paper Three, therefore, suggests that the appointment of women to ministerial positions can shape policy outcomes which relate to family policy and the role of women in the home and the workforce.

Overall, this thesis demonstrates how considering the role gender plays in political decision making can inform our understanding of political processes and policy making. These analyses uncover systematic variation in the appointment of women to cabinet positions and portfolio allocation across countries, time and political contexts, and evidence of systematic differences in policy making between male and female ministers.

Bottom-up effects of public attitudes

Another innovative feature of this thesis is the analysis of 'bottom-up' pressures

for reform through public opinion survey data. My findings demonstrate the value of considering public attitudes on government processes and policy outcomes. The sub-disciplines of executive politics and public attitudes rarely combine approaches. I argue that executive policy decisions made by party leaders and cabinet ministers take place in a broader public political context, and that public attitudes are an important part of that. Throughout this thesis, therefore, I examine how public attitudes shape the bottom-up pressure on those in the highest echelons of political power.

The analyses in all three papers in this thesis suggest that these bottom-up public pressures do have an impact on executive politics. I find that public attitudes toward women in work have an impact on ministerial appointments. In Paper 1, a 10% increase in the percentage of respondents who answer that 'When jobs are scarce, men have more right to a job than women', is expected to lead to a 10% decrease in the rate of women appointed to the cabinet (holding all other variables constant).

I also find that where 50% of party voters respond that men have more of a right to a job than women, the expected number of women appointed by parties with eight ministers is less than 1.5. In these parties, the predicted probability of appointments to masculine portfolios being female is just 0.05. Where only 10% of voters think that men have more of a right to work than women, parties with eight ministers are expected to appoint two women. For these parties, the probability of a masculine appointment being female is over three times greater than the group of less-progressive parties (0.17). Through combining analysis of public attitudes and the approach of considering appointments at the party level, I find that these effects are present even when controlling for party ideology. Despite partisanship, in political parties whose voters have more progressive gender attitudes, women are significantly more likely to be appointed to government and more likely to be allocated to masculine portfolios. This suggests a relationship between the symbolic act of appointing women to the government and the party's perceptions about gender.

In Paper Three I find that public attitudes towards the role of women in the workplace are part of a sufficiency pathway for more progressive systems of

leave for fathers, as cases with right-wing, male ministers introduce more gender-balanced modes of father-specific leave where there are more progressive public attitudes to women in work. Left-wing ministers are found to be more entrepreneurial in introducing progressive policy reforms. By exploring the role of public attitudes in public policy making I demonstrate how the public political context can shape policy outcomes. I also find that women's active engagement in the paid workforce is a necessary condition for reforms of leave for fathers to follow the progressive, more gender-balanced model.

Considering these bottom-up pressures enables my analysis to move beyond the expectation that some countries just are more progressive than others on issues relating to gender and politics towards examining how those differences manifest themselves. For example, there is the commonly held expectation that the Scandinavian countries are more gender equal than the rest of Europe, and that southern Europe is less progressive. However, my analysis suggests common patterns in public opinion shifts within all European countries by considering how public attitudes shape government appointments and policy outcomes.

Areas for future research

The analysis presented in these papers develops our understanding of the appointment and allocation of portfolios to women ministers and the impact female ministers have on family leave policy. Through considering the appointment of women ministers at the party level, I provide an approach to the analysis of cabinet government which can be applied to other questions in the field of gender and politics. I also demonstrate how considering the gendered nature of political processes can inform analysis of executive politics.

Building on this analysis, future research could consider the strategic relations between multiple actors in the appointment of women and policy-making processes. For example, in Papers One and Two, I assume that ministerial selection is conducted by party leaders. This enables a more detailed examination of the party characteristics which affect women's appointment to government positions, but does not consider the strategic interaction between party leaders. Future analyses can unpack how the interactions between various

actors in the government formation, ministerial selection and portfolio allocation processes affect the representation of women in governments. Further detailed investigation of policy-making processes would help to illuminate the role of cabinet ministers. The data contribution of this thesis will aid this task.

In addition, future analyses of women's representation in government positions and the role of female ministers could identify how the mechanisms identified in this thesis apply in different political contexts, for example authoritarian regimes or new democracies. Developing the arguments set out in these papers in alternative political contexts would help challenge and extend the hypotheses presented here. Further research could also turn to additional survey analysis or experimental methods to investigate further the effects of gender attitudes amongst the public on the appointment of women ministers and government policy.

Future analysis of the effects of the appointment of women ministers on policy making could also extend to other policy areas. Policy development in the area of leave for fathers provides a case study of the impact of women ministers in a policy area where government has a range of multi-dimensional policy options which have a tangible impact on divisions of labour in the home. However, it is one small area of government activity, and therefore there is scope for wider analyses of the policy impacts of women ministers. Further studies of women's role in policy making could draw upon the theoretical and empirical contribution of this thesis to consider the policy effects of the appointment of women ministers in other policy domains.

Many questions relating to the role of gender in government processes have previously been unanswerable due to a paucity of data on women's appointment to government positions. The two cross-national time-series datasets on the gender composition of ministerial appointments which accompany this research will enable others to address how gender might shape a whole range of government processes, including coalition bargaining, reshuffles, ministerial resignations, ministerial tenure, and policy making.

References

Alexiadou, Despina. 2015. “Ideologues, Partisans, and Loyalists: Cabinet Ministers and Social Welfare Reform in Parliamentary Democracies.” *Comparative Political Studies* 48(8): 1051–86.

———. 2016. *Ideologues, Partisans, and Loyalists: Ministers and Policymaking in Parliamentary Cabinets*. Oxford: Oxford University Press.

Annesley, Claire. 2015. “Rules of Ministerial Recruitment.” *Politics & Gender* 11(4): 618–42.

Atchison, Amy. 2015. “The Impact of Female Cabinet Ministers on a Female-Friendly Labor Environment.” *Journal of Women, Politics & Policy* 36(4): 388–414.

Atchison, Amy, and Ian Down. 2009. “Women Cabinet Ministers and Female-Friendly Social Policy.” *Poverty & Public Policy* 1(2): 164–86.

Bäck, Hanna, Marc Debus, and Patrick Dumont. 2011. “Who Gets What in Coalition Governments? Predictors of Portfolio Allocation in Parliamentary Democracies.” *European Journal of Political Research* 50(4): 441–78.

Bäck, Hanna, Marc Debus, and Jale Tosun. 2015. “Partisanship, Ministers, and Biotechnology Policy.” *Review of Policy Research* 32(5): 556–75.

Baumann, Markus, Hanna Bäck, and Johan Bo Davidsson. 2018. “Double Standards: The Role of Gender and Intraparty Politics in Swedish Cabinet Appointments.” *Politics & Gender* (2018): 1–30.

BBC. 2013. “In Quotes: Margaret Thatcher.” *BBC News*. https://www.bbc.co.uk/news/uk-politics-10377842 (March 2, 2015).

Becher, Michael. 2010. “Constraining Ministerial Power: The Impact of Veto Players on Labor Market Reforms in Industrial Democracies, 1973-2000.” *Comparative Political Studies* 43(1): 33–60.

Bego, Ingrid. 2014. “Accessing Power in New Democracies: The Appointment of Female Ministers in Postcommunist Europe.” *Political Research Quarterly* 67(2): 347–60.

Carey, John M. 2007. “Competing Principals, Political Institutions, and Party Unity in Legislative Voting.” *American Journal of Political Science* 51(1): 92–107.

Carroll, Royce, and Gary W. Cox. 2011. “Shadowing Ministers: Monitoring

Partners in Coalition Governments." *Comparative Political Studies* 45(2): 220–36.

Celis, Karen, and Sarah Childs. 2008. "Introduction: The Descriptive and Substantive Representation of Women: New Directions." *Parliamentary Affairs* 61(3): 419–25.

Childs, Sarah, and Mona Lena Krook. 2008. "The Substantive Representation of Women." In *Women and British Party Politics: Descriptive, Substantive and Symbolic Representation*, ed. Sarah Childs. New York: Routledge, 108–39.

Claveria, Silvia. 2014. "Still a 'Male Business'? Explaining Women's Presence in Executive Office." *West European Politics* 37(5): 1156–76.

Dahlerup, Drude. 2006a. "The Story of the Theory of Critical Mass." *Politics & Gender* 2(4): 513–22.

———. 2006b. *Women, Quotas and Politics*. New York: Routledge.

Davis, Rebecca. 1997. 1997 *Women and Power in Parliamentary Democracies: Cabinet Appointments in Western Europe 1968–1992*. Lincoln: University of Nebraska Press.

Dowding, Keith, and Patrick Dumont. 2009. "Structural and Strategic Factors Affecting the Hiring and Firing of Ministers." In *The Selection of Ministers in Europe: Hiring and Firing*, eds. Keith Dowding and Patrick Dumont. London: Routledge, 1–20.

Dreier, James. 2004. "Decision Theory and Morality." In *The Oxford Handbook of Rationality*, eds. Alfred R. Mele and Piers Rawling. Oxford: Oxford University Press, 156–78.

Edlund, Lena, and Rohini Pande. 2002. "Why Have Women Become Left-Wing? The Political Gender Gap and the Decline in Marriage." *The Quarterly Journal of Economics* 117(3): 917–61.

Escobar-Lemmon, Maria, and Michelle Taylor-Robinson. 2005. "Women Ministers in Latin American Government: When, Where and Why?" *American Journal of Political Science* 49(4): 829–44.

———. 2016. *Women in Presidential Cabinets: Power Players or Abundant Tokens?* Oxford: Oxford University Press.

Fleischer, Julia, and Markus Seyfried. 2015. "Drawing from the Bargaining Pool: Determinants of Ministerial Selection in Germany." *Party Politics* 21(4): 503–14.

Giannetti, Daniela, and Michael Laver. 2005. “Policy Positions and Jobs in the Government.” *European Journal of Political Research* 44(1): 91–120.

Goddard, Dee. 2018. “Entering the Men’s Domain? Gender and Portfolio Allocation in European Governments.” *European Journal of Political Research* Forthcoming.

Goodhart, Lucy. 2013. “Who Decides? Coalition Governance and Ministerial Discretion.” *Quarterly Journal of Political Science* (February): 205–37.

Hilbe, Joseph M. 2011. *Negative Binomial Regression, Second Edition*. Cambridge: Cambridge University Press.

Huber, John D, and Cecilia Martinez-Gallardo. 2008. “Replacing Cabinet Ministers: Patterns of Ministerial Stability in Parliamentary Democracies’.” *American Political Science Review* 102(2): 169–80.

Hyde, Janet, Marilyn Essex, and Francine Horton. 1993. “Fathers and Parental Leave: Attitudes and Experiences.” *Journal of Family Issues* 14(4): 616–38.

Indriðason, Indriði, and Christopher Kam. 2008. “Cabinet Reshuffles and Ministerial Drift.” *British Journal of Political Science* 38(4): 621–56.

Inglehart, Ronald, and Pippa Norris. 2003. *Rising Tide: Gender Equality and Cultural Change around the World*. Cambridge: Cambridge University Press.

Kaiser, André, and Jörn Fischer. 2009. “Linkages between Parliamentary and Ministerial Careers in Germany, 1949–2008: The Bundestag as Recruitment Pool .” *German Politics* 18(2): 140–54.

Kam, Christopher, William T Bianco, Itai Sened, and Regina Smyth. 2010. “Ministerial Selection and Intraparty Organization in the Contemporary British Parliament.” *American Political Science Review* 104(2): 289–306.

Koch, Michael T., and Sarah A. Fulton. 2011. “In the Defense of Women: Gender, Office Holding, and National Security Policy in Established Democracies.” *The Journal of Politics* 73(1): 1–16.

Kotsadam, Andreas, and Henning Finseraas. 2011. 40 Social Science Research *The State Intervenes in the Battle of the Sexes: Causal Effects of Paternity Leave*.

Kreps, David. 1990. *Game Theory and Economic Modeling*. Oxford: Clarendon.

Krook, Mona, and Diana Z O’Brien. 2012. “All the President’s Men? The Appointment of Female Cabinet Ministers Worldwide.” *The Journal of Politics* 74(3): 840–85.

Laver, Michael, and Kenneth Shepsle. 1996. *Making and Breaking Governments: Cabinets and Legislatures in Parliamentary Democracies*. Cambridge: Cambridge University Press.

Lucas, Samuel R., and Alisa Szatrowski. 2014. “Qualitative Comparative Analysis in Critical Perspective.” *Sociological Methodology* 44(1): 1–79.

Mackay, Fiona. 2008. “‘Thick’ Conceptions of Substantive Representation: Women, Gender and Political Institutions.” *Representation* 44(2): 125–39.

Martin, Lanny, and Georg Vanberg. 2004. “Policing the Bargain: Coalition Government and Parliamentary Scrutiny.” *American Journal of Political Science* 48(1): 13–27.

———. 2005. “Coalition Policymaking and Legislative Review.” *American Political Science Review* 99(1): 93–106.

———. 2011. *Parliaments and Coalitions: The Role of Legislative Institutions in Multiparty Governance*. Oxford: Oxford University Press.

Moreland, Amy, and David Watson. 2016. “Women’s Representation and Capital Punishment.” *Journal of Women, Politics and Policy* 37(4): 490–513.

Morgan, Kimberly J. 2008. “The Political Path to a Dual Earner/dual Carer Society: Pitfalls and Possibilities.” *Politics and Society* 36(3): 403–20.

Müller, Wolfgang C. 2000. “Political Parties in Parliamentary Democracies: Making Delegation and Accountability Work .” *European Journal of Political Research* 37(3): 309–33.

Müller, Wolfgang C, and Kaare Strøm. 1999. *Policy, Office, Or Votes?: How Political Parties in Western Europe Make Hard Decisions*. Cambridge: Cambridge University Press.

Nash, Elizabeth. 2008. “Zapatero Appoints Spain’s First Cabinet with Female Majority.” *The Independent*. http://www.independent.co.uk/news/world/europe/zapatero-appoints-spains-first-cabinet-with-female-majority-808643.html (March 14, 2018)..

Nyman, Anna-Karin. 2017. “Karin Söder.” *Centerkvinnorna*. https://www.centerkvinnorna.se/om-ck/centerkvinnornas-historia/karin-soder.html (March 1, 2018).

O’Brien, Diana Z., Matthew Mendez, Jordan Carr Peterson, and Jihyun Shin. 2015. “Letting Down the Ladder or Shutting the Door: Female Prime Ministers, Party Leaders, and Cabinet Ministers.” *Politics & Gender* 11(4):

689–717.

O'Brien, Margaret. 2009. "Fathers, Parental Leave Policies, and Infant Quality of Life: International Perspectives and Policy Impact." *Annals of the American Academy of Political and Social Science* 624(1): 190–213.

O'Regan, Valerie R. 2000. *Gender Matters: Female Policymakers' Influence in Industrialized Nations*. Westport: Praeger.

OECD. 2016. "PF 2.5 Annex: Detail of Change in Parental Leave by Country." (January 2013): 1–49.

Osborn, Tracy, and Jeanette Morehouse Mendez. 2010. "Speaking as Women: Women and Floor Speeches in the Senate." *Journal of Women, Politics and Policy* 31(1): 1–21.

Poggione, Sarah. 2004. "Exploring Gender Differences in State Legislators' Policy Preferences." *Political Research Quarterly* 57(2): 305–14.

Ray, Rebecca, Janet C. Gornick, and John Schmitt. 2010. "Who Cares? Parental Leave Policies in 21 Countries Assessing Generosity and Gender Equality." *Journal of European Social Policy* 20(3): 196–216.

Rehel, Erin M. 2013. "When Dad Stays Home Too: Paternity Leave, Gender, and Parenting." *Gender & Society* 28(1): 110–32.

Rihoux, B, and C. C Ragin. 2009. *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques*. Thousand Oaks, CA: SAGE Publications Inc.

Schneider, Carsten Q., and Cladius Wagemann. 2012. *Set-Theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*. Cambridge, UK: Cambridge University Press.

Schneider, Carsten Q., and Claudius Wagemann. 2010. "Standards of Good Practice in Qualitative Comparative Analysis (QCA) and Fuzzy-Sets." *Comparative Sociology* 9(3): 397–418.

Seawright, Jason. 2005. "Qualitative Comparative Analysis vis-à-vis Regression." *Studies in Comparative International Development* 40(1): 3–26.

Siaroff, Alan. 2000. "Women's Representation in Legislatures and Cabinets in Industrial Democracies." *International Political Science Review* 21(2): 197–215.

Sonntag, Lars. 2016. "Politica." 2016(09/01). http://www.kolumbus.fi/taglarsson/. (April 1, 2017).

Strøm, Kaare. 1990a. “A Behavioral Theory of Competitive Political Parties.” *American Journal of Political Science* 34(2): 565–98.

———. 1990b. *Minority Government and Majority Rule*. Cambridge: Cambridge University Press.

Swers, Michele L. 2002. *The Difference Women Make: The Policy Impact of Women in Congress*. University of Chicago Press.

———. 2013. *Women in the Club: Gender and Policy Making in the Senate*. University of Chicago Press.

The Local DE. 2018. “Angela Merkel Refuses to Be ‘Excuse’ for Lack of Female Politicians.” *The Local.DE*. https://www.thelocal.de/20181112/merkel-refuses-to-be-excuse-for-lack-of-female-politicians (December 1, 2018).

Thies, Michael F. 2001. “Keeping Tabs on Partners: The Logic of Delegation in Coalition Governments.” *American Journal of Political Science* 45(3): 580–98.

Williams, Laron, and Katsunori Seki. 2016. “Seki-Williams Government and Ministers Data.”

Wilson, Harold S. 1976. *The Governance of Britain*. London: Weidenfeld and Nicolson.

Examining the appointment of women to ministerial positions across Europe: 1970-2015

Under which circumstances are women appointed to ministerial positions? In this article, I provide a theoretical framework for the role of gender in ministerial selection by considering the policy, office and vote-seeking motivations of party leaders. I present an original dataset which details, at the party level, the appointment of female cabinet ministers in 30 European countries between 1970 and 2015. Using negative binomial regression models, I find that left-wing party leaders appoint more women than leaders of right-wing parties. Female party leaders appoint more women ministers than their male counterparts. Women are better represented in governments in gender-progressive countries, and survey data analysis shows that party leaders appoint more women when their supporters have more progressive gender attitudes. This analysis provides an original insight into how gender has shaped the partisan dynamics of ministerial selection across Europe over 45 years.

Introduction

One first impression of new cabinets is particularly stark: some governments have more women than others. Although there has been an upward trend in the appointment of women ministers over time (Escobar-Lemmon and Taylor-Robinson 2005; Claveria 2014), women's representation in cabinet positions can fluctuate dramatically between governments, even within countries (Annesley and Gains 2010). The gender balance of the cabinet is one dimension of what British Prime Minister Harold Wilson called the 'nightmarish multi-dimensional jigsaw puzzle' of ministerial selection (Wilson 1976, p.34). In this paper, I examine when and where parties appoint women to ministerial positions by considering the motivations of party leaders. This provides an original insight into how parties in government approach and shape the gender balance of cabinet appointments.

Women were previously so under-represented in these powerful political positions that their appointment was not understood as an important feature of forming a government. This is no longer the case, with party leaders across the political spectrum receiving intense media criticism for the 'maleness' of their cabinets, and even make pre-electoral pledges to appoint women to the cabinet (Heppell 2012). This analysis seeks to explain how party political motivations influence the representation of women in ministerial positions. Given the prevalence of coalition governments across Europe, the motivations and characteristics of parties play an important role in shaping government appointments.

To conduct this analysis, I draw on an original dataset detailing the gender composition of cabinets across 30 European countries between 1970 and 2015. This data makes a significant contribution to further the debate on ministerial appointments. Using negative binomial regression models, I find that more women are appointed when the party's electorate are supportive of gender equality, by female party leaders and by left parties. This has important implications for women's substantive representation (Childs & Krook 2008; Atchison & Down 2009; Swers 2013; Atchison 2015), political participation (Liu & Banaszak 2016), and equality of access to some of the most powerful policy-making offices in Europe (Krook & O'Brien 2012).

Appointing (Women) Ministers: The Existing Literature

Scholarly analyses has turned to the ministerial selection process and its importance for the outputs of cabinet government (Dowding & Dumont 2009; Dewan & Hortala-Vallve 2011; Martinez-Gallardo & Schleiter 2015). Moving on from the early game-theoretic assumption that ministers are perfect agents of their parties (Strøm 1990; Laver & Shepsle 1996), this literature now recognises the importance of policy-relevant individual characteristics of ministers in shaping their policy preferences (Martin & Vanberg 2004; Martin & Vanberg 2005; Indriðason & Kam 2008; Alexiadou 2015; Alexiadou 2016). However, despite the media attention paid to the gender composition of the cabinet and debates surrounding the representation of women in policy-making positions (Pitkin 1967), the role gender plays in this process has been overlooked.

Literature in the field of gender and politics has addressed the question of women's representation in ministerial positions based on factors which are expected to lead to an increase in women's representation in parliament, such as women's engagement in tertiary-level education and traditionalist religious views (Davis 1997; Siaroff 2000; Escobar-Lemmon & Taylor-Robinson 2005; Krook & O'Brien 2012; Claveria 2014; Escobar-Lemmon & Taylor-Robinson 2016; Bego 2014). These analyses of women's appointment to governments, therefore do not consider the vital differences between the dynamics of election to the legislature and selection for the executive, such as the small selectorate (Annesley 2015). These analyses do not consider the political dynamics involved in the competitive process of making ministerial appointments, which are very different from those at elections, and are based on different informal appointment norms.

By combining insights from the existing literature on ministerial selection and women's representation, in this paper, I theorise the gendered dynamics of the appointment of women ministers through the decision-making processes of party leaders. This approach provides an original insight into how appointments are shaped by political factors.

Policy, Office and Vote Seeking Motivations

Theorizing ministerial selection as a high-risk political decision made by party leaders, I apply Müller & Strøm's (1999) 'Policy, Office, or Votes' framework of party leader decision making to the role of gender in the ministerial selection process. Party leaders are understood to have three core motivations: policy, office, and votes. Party leaders prioritise policy-seeking motivations when they seek to maximise the party's impact on public policy. Office-seeking motivations are prioritised when party leaders seek to 'maximise their control over political office benefits' (Müller & Strøm 1999, p.5). Vote-seeking motivations are those driven by the desire to maximise electoral support at the next election. This theoretical framework does not suggest that party leaders pursue any of these objectives in isolation, rather that all three of these motivations are weighted and considered by party leaders when they make important decisions.

Party leaders play a pivotal role in parliamentary delegation to cabinet ministers (Müller 2000; Carey 2007; Kam et al. 2010). To investigate the appointment of women to government, I assume that the leader of each governing party within a coalition government is primarily responsible for selecting the cabinet ministers that represent their party (De Winter 1995, p.130; Carey 2007; Kam et al. 2010). Even within one coalition government, this party-level difference can become clear. For example, in Angela Merkel's third cabinet (December 2013) her Christian Democratic Union of Germany party appointed women to 60% of her party's five ministerial portfolios. Whereas only 38% of the Social Democratic Party's ministers were female, and the Christian Social Union in Bavaria appointed no women. The prevalence of coalition governments across Europe means that analysing ministerial selection at the party level can provide an insight into how the partisan dynamics of appointing the cabinet shape women's representation in these positions of power.

Due to the high level of public, party, and individual responsibility granted to cabinet ministers, ministerial selection is an important decision for party leaders which shapes their policy priorities and outcomes (Giannetti & Laver 2005; Bäck et al. 2015; Alexiadou 2016; Alexiadou 2015) and public perceptions (Dewan & Myatt 2010). Although simplifying the strategic interaction between several actors

in the process of appointing cabinet ministers, this assumption enables a clear theorisation and empirical evaluation of the process of appointing of ministers.

Policy-Seeking Motivations

When considering the policy-seeking motivations of party leaders, party ideology matters. The 'demand' within parties for women ministers is shaped by their ideological orientation - party leaders are driven by the ideals that motivated them to select the political party they lead (Strøm 1990, p.574). Leaders of left-wing political parties are more likely to be driven by their ideal policy positions of equal opportunities and active role for women in society (Norris 2004). They will, therefore, be more likely to seek to appoint more women to ministerial positions than leaders of right-wing parties. For social conservatives in centre-right political parties, gender parity in ministerial appointments is less likely to be a priority. This is especially the case where rightist female members of parliament do not represent a feminist agenda, and there could be a perception that there is little policy difference between appointing a male or female minister (Celis & Childs 2014).

Left-wing party leaders are also more likely to have women in 'supply' for ministerial posts. Leftist parties are have been found to be more 'woman friendly' than rightist parties, and they typically have a greater proportion of female members of parliament than their right-wing counterparts (Rule 1987; Norris & Lovenduski 1995; Matland 1998; Kenworthy & Malami 1999; Caul 1999; Siaroff 2000; Chiva 2005). Intra-party mechanisms which promote women's access to positions of power, such as parliamentary quotas and women's networks, are more commonplace in left-wing parties, and increase the supply of women with the necessary capital to be promoted to powerful political positions (Davis 1997; Lovenduski & Norris 1993). Therefore, leaders of left-wing parties are more likely to have a range of female ministerial candidates at their disposal to appoint to ministerial positions.

Studies of the representation of women in governments suggest cabinets led by Prime Ministers from left-wing parties appoint more women (Claveria 2014; Escobar-Lemmon & Taylor-Robinson 2009; Krook & O'Brien 2012; Escobar-Lemmon & Taylor-Robinson 2016). Others, however, have found that there is no

difference between left and right-wing party leaders in the number of female appointees (Davis 1997; Reynolds 1999). However, these analyses have not been conducted at the party level, and therefore do not consider how party influences within coalition governments shape appointments. Through theorizing and analysing the appointment of women at the party level, this paper enables a full consideration of the partisan dynamics of the gendered appointment of ministers.

> *H_1: Left-wing political parties appoint more women to ministerial positions than right-wing political parties.*

Office-Seeking Motivations

Party leaders are also office seeking; they are concerned with perpetuating their period in government (Müller & Strøm 1999, p.9). Cabinet ministers play a critical role in shaping the party's image and agenda, party leaders seek to appoint competent, credible ministers. Party leaders can be subject to adverse selection problems, as they do not have complete information about the competence or policy positions of ministerial candidates prior to their selection (Strøm 2000, pp.270–271). Party leaders, therefore, screen ministerial candidates *ex ante* to identify their suitability for the role (Huber & Martinez-Gallardo 2008).

This screening process is not gender-neutral. Feminist Institutionalist scholars have highlighted how the 'gendered logic of appropriateness' in political institutions affects which qualities are seen as desirable, and men's and women's competencies are judged against unchallenged masculine norms (Chappell 2006). Due to the lack of formal rules surrounding ministerial recruitment, those who appoint the government can be particularly vulnerable to the biases against women encouraged by these norms (Annesley 2015). Due to these biases, women may be perceived to be too weak or non-confrontational to hold ministerial office. Men are more likely to hold these biases, as they have not had to overcome these norms to rise to positions of leadership. Therefore, female leaders will be more likely to appoint female colleagues than their male counterparts.

Evidence across different fields of employment suggests that women are more

likely than men to promote women throughout organisations. By breaking this masculine 'homosocial reproduction' of appointments, female leaders promote more women in their path (Kanter 1977). This has been seen in executive management where women can act as important catalysts for change when they have the motivation and power to aid female subordinates in the workplace (Cohen & Huffman 2007). Women on boards of companies can help to promote female-friendly policies to accelerate women's performance in companies (Davies 2011; Pletzer et al. 2015). In law firms, instability in the market increases the need for trust, so decision-makers are found to feel more comfortable promoting candidates of their own sex (Gorman 2006). Female parliamentary candidates are more likely to be nominated when the party gatekeeper is a woman (Cheng & Tavits 2011). If this effect is played out in the most powerful political positions, women will also appoint more female cabinet ministers than their male counterparts.

> *H_2: Female party leaders appoint more women to ministerial positions than male party leaders.*

On the other hand, O'Brien et al's (2015) analysis of women leaders in government finds support for the hypothesis that female leaders actually 'shut the door' for their female colleagues. Arguing that women at the top of political parties must make efforts to present a more masculine image, O'Brien et al (2015) suggest that female leaders 'may be accused of "favouritism" and pursuing "identity politics"' if they choose to appoint more women to the cabinet (O'Brien et al. 2015, 699). Therefore, the effect of women's leadership may not operate as I anticipate.

Vote-Seeking Motivations

The high-profile process of announcing a new government is part of party leaders' interaction with the public. Any governing party leader must be aware of 'the picture – often a literal photo in the press – presented by their cabinet' (Escobar-Lemmon & Taylor-Robinson 2009, p.4). Some party leaders even make pre-election pledges on the gender balance of their ministers. In 2008, the leader of the Spanish Socialist Workers' Party, José Zapatero, pledged a gender parity

cabinet, and in the 2005 newly-elected leader of the British Conservatives David Cameron, pledged that one-third of his ministers would be female by 2015 (Heppell 2012). These pre-election pledges show how some party leaders attempt to appeal to their voters based on the gender balance of their ministerial appointments.

Party leaders are concerned with vote maximization, and therefore some party leaders may consider using the gender balance of their ministerial appointments to appeal to some voters by ensuring that their party appears to represent women. Voters' expectations about the representation of women in government positions is shaped by the cultural context (Norris & Inglehart 2001). In Malta, where only one woman had been allocated a ministerial position right up until the late 1990s, party leaders had little incentive to bring women amongst their cabinet team. In Scandinavia, however, there is a strong political culture of appointing women to the government, regardless of party ideology (Siaroff 2000). Where there is a pervasive culture of equal opportunities for women, party leaders will be more concerned with the gender-balance of their ministerial appointments.

This is not to say that women voters will find a cabinet unsatisfactory based on gender imbalance alone, or that women are mobilised enough as a group to lobby for more representation. However, appointing women to the cabinet can still be an important signal from the government to the electorate in some circumstances.

> *H_3: More women will be appointed to ministerial positions in more gender-equal cultural contexts.*

However, not all party leaders feel the same amount of pressure to appoint female ministers. Parties and governments are vote-seeking (Müller & Strøm 1999), and therefore I suggest that the extent to which party leaders are receptive to these concerns is likely to be shaped by the attitudes of their electorate. Party leaders are concerned with balancing interests when they announce a government, and ministerial selection can be used as a tool to signal the interests of various geographical, intraparty or sectoral groups (Mershon 2001; Ono 2012). In this balancing act, parties will seek to be responsive to their voter's attitudes, this is reflected in parties' issue attention (Klüver & Sagarzazu 2016) and

responsiveness to voters' policy priorities (Klüver & Spoon 2014).

To a degree, motivations for party leaders to used gender-balanced appointments to appeal to voters may also map onto the traditional left-right political spectrum. However, traditional blue-collar voters for left-wing political parties may have less progressive gender attitudes than otherwise socially conservative elites which traditionally vote for centre-right parties. Therefore, independent of ideology, I expect voter attitudes to impact on the appointment of women to the government.

> *H_4: More women will be appointed to the cabinet by leaders of parties whose voters have more gender-equal attitudes about the role of women in society.*

Data and Methods

To examine how the policy, office and vote-seeking motivations of party leaders play out in ministerial appointments, I have collected extensive data on cabinet ministers across Europe. Through analysing this data at the party level, I can investigate the motivations of each party within the government. In this cross-national, time series analysis, I can consider each of these hypotheses based on an analysis of all ministerial appointments in Europe over a 45-year time period.

As such, I have compiled an original dataset on the gender composition of ministerial appointments for all governments across 30 European countries - Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom. The timeframe for this data is 1970 to 2015. The first government in this analysis is the Finnish Karjalainen cabinet (15/07/1970-29/10/1971), the most recent government is the Greek Thanou-Christophilou cabinet appointed on 27/08/2015. Only democratically elected governments are included. All data is available at: https://dataverse.harvard.edu/dataverse/deegoddard.

There are 1,593 observations at the party-within-government level, which covers

12,757 cabinet ministers. This data was extracted from Lars Sonntag's *Politica* online database of European cabinets which specifies the full name, start and end date, party and portfolio of each minister (Sonntag 2016).[2] Where cabinets are reshuffled, the minister is included twice in the dataset (once in the original portfolio and once in the new portfolio). In this original dataset, the unit of analysis is the party-within-government level, so each party within a coalition governments is one observation. For example, for Austria's government under Alfred Gusenbauer between January 2007 and December 2008, there is one observation for the Social Democratic Party of Austria (three women of nine ministers) and one for the Austrian People's Party (four women of eight ministers).

To identify the gender of each cabinet minister, the names in the *Politica* dataset were checked against a first-name database in consultation with language specialists and web searches for references to the minister. [3] To verify the accuracy of this data, samples were checked against the European Journal of Political Research *Political Data Yearbooks*.

The first hypotheses (H_1), that leaders of left-wing parties appoint more women to ministerial positions than leaders of right-wing parties, is operationalised through the left-right score of each governing party in the *Comparative Manifestos Project (CMP).*[4] This measure is an additive left-right index, which serves as a summary indicator of the policy positions of political parties in their electoral manifestos (Budge et al. 2001). The measure 'could in principle range from –100 (the whole manifesto is devoted to 'left' categories) to +100 (the whole manifesto is devoted to 'right' categories)' (Mölder 2013, p.3). The range for governing parties is more limited: from -58 to 82. The left-right score of the most

[2] The Sonntag dataset has been described as 'especially helpful, valuable and reliable' (Manow & Döering 2008, p.1367).

[3] The dataset is available at: https://gender-api.com

[4] CMP data is advantageous as it enables the analysis of time-series party positions over time which are comparable both within and across countries. For an overview of criticism of the measure see Volkens (2007). However, there is no comparable data source that includes as many parties across countries and time. The results from all three regression analyses are also robust with the time-invariant ParlGov left-right measure of party ideology (Döring & Manow 2015).

recently coded manifesto is considered for each observation. In 988 cases (48%), the government was formed less than a year after the manifesto publication date.

To test whether female party leaders appoint more women ministers than male party leaders (H_2), I collected data on party leaders from *Zárate's Political Collections* (Zárate 2016). This source details the name, year of selection and year of deselection for European political party leaders. I identified the gender of these party leaders based on web searches and a first-name database. Where parties were missing from this data, I consulted country experts and conducted independent research to identify the historical leadership of the party. A value of 1 represents observations in which the party was led by a woman in the year that the cabinet was appointed.

The hypothesis that more women will be appointed to ministerial positions in more gender-equal cultural contexts (H_3), is operationalised through the *Organisation for Economic Co-Operation and Development's (OECD) Labor Force Statistics.* For this analysis, I use the annual labour force participation rate of women aged 15-64, as a percentage of the female population over the age of 15, to measure the gender-equal cultural context in each country (International Labor Organization, 2018). This measure is regularly used to operationalise the cultural context in analyses of women's participation and representation (see: Gray et al. 2006).[5]

Building on the consideration of the impact of the cultural context, I also examine the effect of women's presence in the parliament on the appointment of female ministers in the Appendix. I use ordinary least squares (OLS) regression to analyse the impact of women's representation in the legislature on government appointments.[6] Data on the representation of women in parliament is from the

[5] Other measures are also commonly used to operationalise the role of women in society, such as gender parity in tertiary education enrolment and the United Nations Development Program Gender Empowerment Measure and Gender Inequality Index. Each of these measures has the same, statistically significant effect in all of the models used in this analysis, but cover fewer observations.

[6] Due to the limited number of observations of the gender composition of parliaments, a negative binomial regression analysis of this data does not converge for this subset of the data. Therefore, I use OLS regression for the analysis of the effect of women's representation in parliament.

Inter-Parliamentary Union (2018) and details the proportion of seats held by women in the single or lower chamber of the national parliament. Data is available for 1990 and 1995 to 2015. While data is not available on the gender composition of the legislature at a party level, the representation of women in the legislature provides an insight into the 'supply' of women in the pool of candidates for ministerial positions.

I use survey data to operationalise the gender attitudes (H_4) of party voters. I use the *European Values Study* to test the hypotheses that the composition and attitudes of the electorate affect the propensity of a party leader to appoint women ministers. From this survey's longitudinal data set, I grouped responses based on the question 'e179- If there was a general election tomorrow, which party would you vote for?' (European Values Study 2015). Using these groupings, I calculated the percentage of respondents who agreed to the statement 'c001- When jobs are scarce, men have more right to a job than women'.

Table 1: Summary statistics for all variables

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
Left-Right Score	1,264	-1.15	18.57	-58.00	82.20
Female Party Leader	1,593	0.07	0.26	0.00	1.00
Year	1,593	1995.34	12.47	1970	2015
Female Labour force Participation Rate	1,261	57.95	12.18	27.96	84.33
Gender Attitudes	709	21.81	19.29	0.00	100.00
Women in Parliament	810	21.86	10.18	1.80	47.30

Drawing on this data, I use negative binomial regression models to examine these hypotheses.[7] This model is particularly suited to the analysis of ministerial selection, as an exposure variable can be specified which indicates the number of times an event could have happened, i.e. the number of minister appointed

Further information is provided in the Appendix.

[7] Negative binomial regression is an exponential function, and models the natural logarithm of the expected outcome on the predicted variable as a function of the predictor variables (Vandeviver et al. 2015).

(Hilbe 2011). The mean and variance of the dependent variable and a likelihood ratio test of the overdispersion parameter indicate that the dependent variable is overdispersed, rendering a negative binomial model more appropriate than a Poisson model. Simulations have been conducted using the *CLARIFY* software for Stata (King et al. 2000; Tomz et al. 2001).

Table 2: Negative binomial regression analysis (number of women ministers appointed as dependent variable)

	Model 1		**Model 2**	
	Coefficient	Incident Rate Ratio	Coefficients	Incident Rate Ratios
Policy				
Left-right score	-0.009***	0.991***	-0.010**	0.991**
	(0.002)	(0.002)	(0.003)	(0.003)
Office				
Woman leader	0.314 ***	1.369***	0.399**	1.490**
	(0.088)	(0.120)	(0.145)	(0.215)
Votes				
Labour force participation	0.038***	1.038***		
	(0.006)	(0.006)		
Gender attitudes of party voters			-0.011*	0.989*
			(0.004)	(0.004)
Controls				
Year appointed	0.019***	1.019***	0.032***	1.032***
	(0.005)	(0.006)	(0.008)	(0.008)
Size	Exposure Variable		Exposure Variable	
N / Clusters	1,016 / 30		680 / 30	
Constant	-42.086***		-65.160***	
Pseudo R2	0.152		0.077	

* p<0.05, ** p<0.01, *** p<0.001
Standard errors in parentheses

The dependent variable in this analysis is the count of women ministers, and the exposure variable is the total number of ministers appointed by that party. The standard errors are clustered by country, to recognise that although observations are independent across countries, they are not necessarily independent within countries. Coefficients can be interpreted as the expected difference in the logs of expected counts of the dependent variable for a one-unit change in the independent variable, holding the other variables constant. Incident rate ratios can be interpreted in a similar manner to odds ratios – a value above one

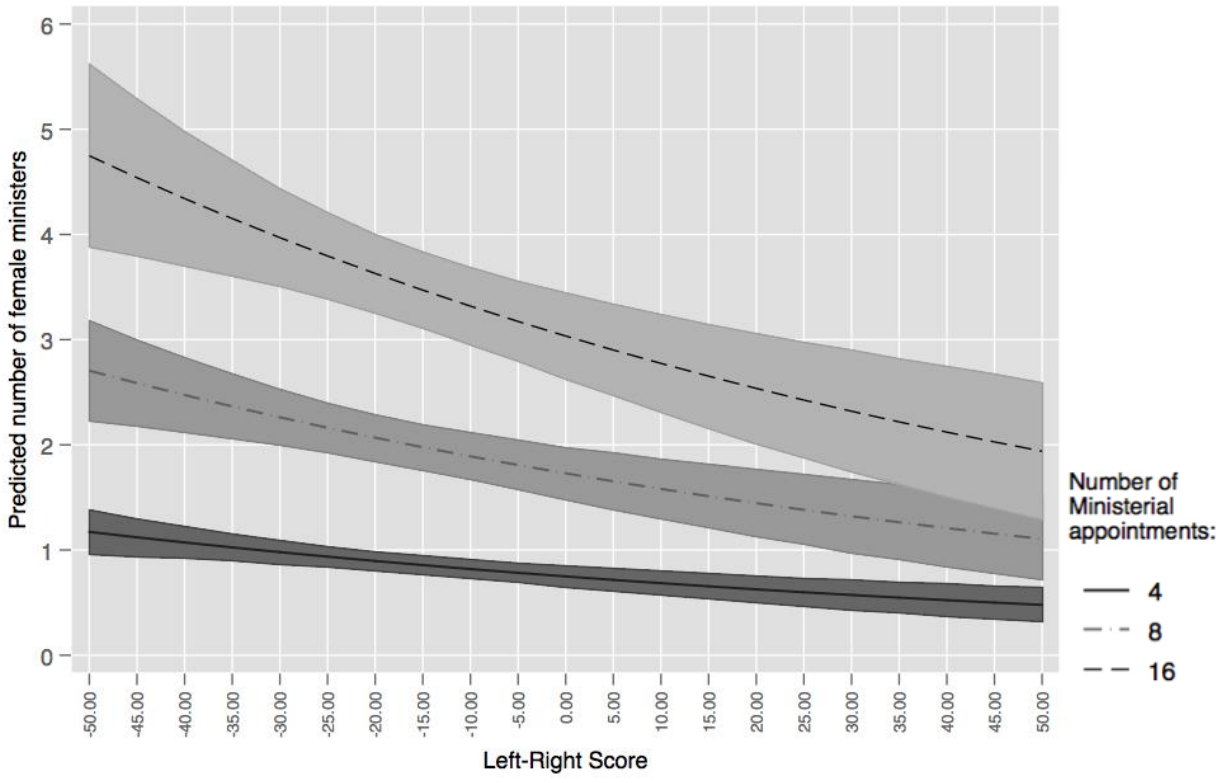
indicates a positive effect (more women are likely to be appointed) and a value below one is a negative effect (fewer women are likely to be appointed).

Analysis and Discussion

Policy: Party Ideology

The results of the negative binomial regression model show that left-wing parties appoint more female cabinet ministers than right-wing parties (H_1), the negative coefficient reflects this as leftist parties have a negative left-right score. Left parties with a score of -50, such as Denmark's Socialist People's Party in 2011 or the Social Democratic Party of Finland in 1972, appoint twice as many women as rightist parties with a score of 50, such as Italy's Republican Liberal Party in 1988 or the Austrian People's party in 1956 (holding all other variables constant). Figure 1 plots the predicted number of female appointees for parties across the political spectrum when they appoint four, eight or 16 ministers (the average number of appointments per party is 7.9).

Figure 1: Predicted number of female ministers by party left-right score (95% confidence intervals)



Simulating an example can help to demonstrate how party ideology can play an important role in the number of women expected to be appointed to the government. In 1994, Dutch Prime Minister Ruud Lubbers, leader of the Christian Democratic Appeal party, formed a grand coalition with the Labour Party. The Christian Democrats had nine ministers and appointed one woman, and the Labour Party appointed three women to their twelve posts – so the government was 19% female. But what if the Labour Party had been responsible for appointing the whole government? The simulated expected number of women ministers for the 21 posts is 4.7. With five female ministers, the government would be 24% female. More women are expected to be appointed to the government if it was wholly appointed by the leftist Labour Party.

This provides further evidence that left-wing parties are more 'female friendly' than right-wing parties (Tremblay & Pelletier 2000; Caul 2001; Norris 2004; Fox & Lawless 2014). Leaders of left-wing parties are more likely to appoint women to government positions than leaders of right-wing parties. This means that even when in coalition with rightist parties, left parties in government appoint more women. By collecting data on the appointment of women to the cabinet at the party level, this analysis shows that the impact of left-wing parties on women's representation is present for parties within government, not just the government as a whole. It is key, therefore, that analyses of women's representation in cabinets are undertaken at the party (not government) level. Otherwise, the appointment of women by one party in government may be misattributed to the government is a whole.

Of course, party ideology is not the only motivation driving the policy-seeking aspects of a party leader's approach to the problem of ministerial selection. Leaders will also be looking for ministers who can effectively manage a government department and are close to their ideal policy positions (Laver & Shepsle 1990). Testing these factors, and the way in which men and women are evaluated differently on these characteristics would be a fruitful area for future research.

Office: Female Leaders

Do women leaders appoint more women to the cabinet (H_2)? The results of this analysis show a significant difference between men and women in the gender of their cabinet appointments. Holding all other variables constant, women are 30% more likely to appoint a woman than their male counterparts.

Figure 2: Predicted number of female ministers appointed by male and female leaders, over the total number of ministers appointed by the party (95% confidence intervals)

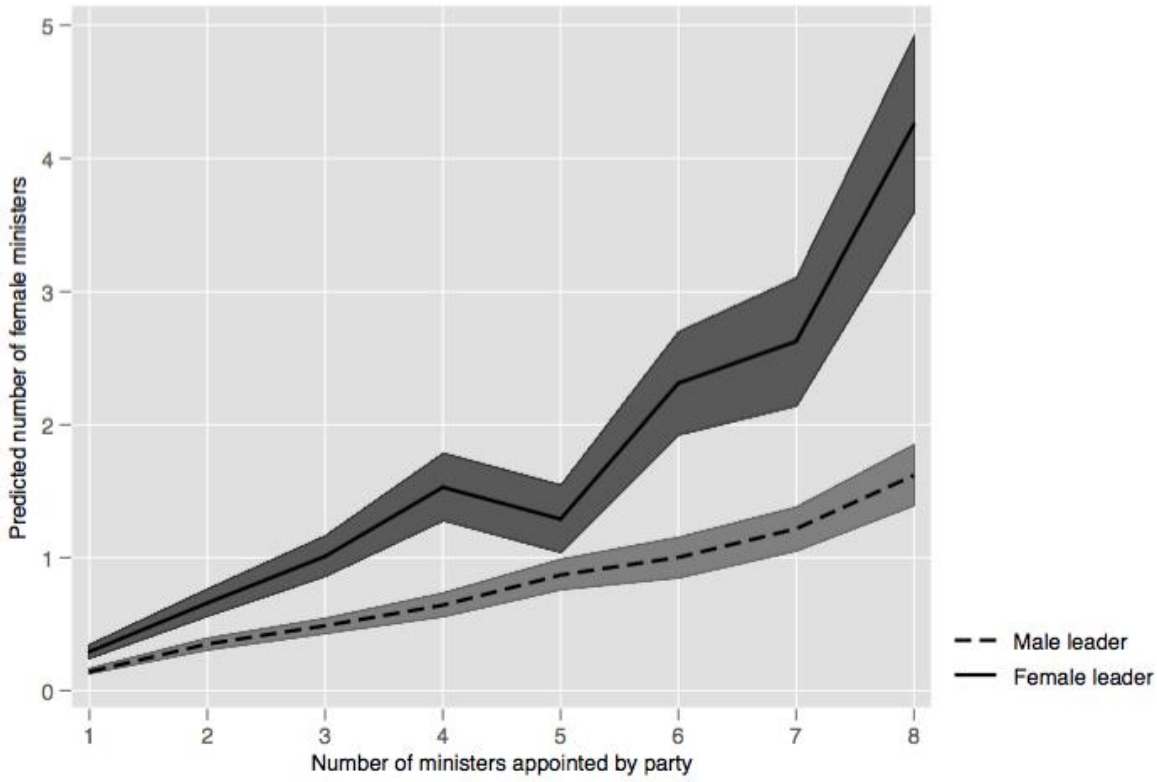


Figure 2 shows that women leaders are significantly more likely to appoint women to the cabinet. Based on the predicted margins of this model, women leaders responsible for appointing eight ministers (the average number of ministers for parties in this dataset) appoint four women, while men appoint two women.

Another simulated example can help to explain this effect. What if Ewa Kopacz, Poland's Civic Platform leader, had been a man when she appointed her 11 cabinet ministers in 2014? The results of a simulation show that the model predicts that fewer female Civic Platform ministers would have been in the

government under a male leader. Kopacz appointed four women to the government, and the model's predicted value is 5.17 with a female leader. However, if Kopacz had been a man, the mean of the expected number of women appointed to the cabinet would be 2.55. This shows a statistically significant difference between the number of women appointed by the party where the simulated variation is just due to the party leader's sex.

This analysis shows that, when given the opportunity, women appoint more women than their male counterparts. However, women are also less likely to lead parties which hold the majority of seats in government. 9.6% of parties who appoint two ministers to government were led by women, yet only 6% of the 151 cases where more than 20 ministers were appointed by a party had female leaders.

Perhaps though, it is merely the case that parties which are more likely to select women for the leadership also appoint more women to the government. Or, as O'Brien et al. (2015) note, this variation may just be due to the woman leader herself being appointed to the cabinet. Therefore, I ran robustness checks to ensure that this effect remains significant when accounting for any unobserved party-specific sources of variation (fixed effects) and where the female leaders themselves were in the government. These findings are robust to these tests, and therefore suggest that women do appoint more women to the cabinet than men.

This provides additional evidence to suggest that women across the political spectrum are taking steps to promote women to other powerful political positions. This is an important finding for those who advocate the representation of women in policy-making positions, as the promotion of women in political parties can have a positive effect on the number of women in policy-making positions.

This is inconsistent with the findings of O'Brien et al (2015), so I suggest some methods and theory-based differences between these analyses which may lead to these contradictory conclusions. Primarily, in this analysis I break down the appointment of women to the party level, which reflects party leaders' autonomy in appointing the ministers that represent their party. While O'Brien et al (2015) find that fewer women are appointed to the government when there is at least one woman leading one of the governing parties, in this analysis I am able to

identify which leader is responsible for appointing which ministers. Although the contagion argument (that there are more likely to be women appointed by all parties if one takes the lead in appointing women within the coalition) may be persuasive, other party-level factors may be more influential: a leader of a conservative party may not appoint more women just because the leader of a social democratic party in the government does so. Indeed, the opposite could be true, they may reap the public benefits of having more women in the government without the 'cost' of appointing a woman themselves. Breaking government appointments down to the party level also provides significantly more observations where women are responsible for appointing the cabinet (in this data, 112 as opposed to 32). While O'Brien et al (2015) make a valuable contribution in theorizing the incentives and constraints which face a female leader when they appoint the government, in this paper I provide additional empirical evidence towards this discussion.

Votes: Labour Force Participation and Gender Attitudes

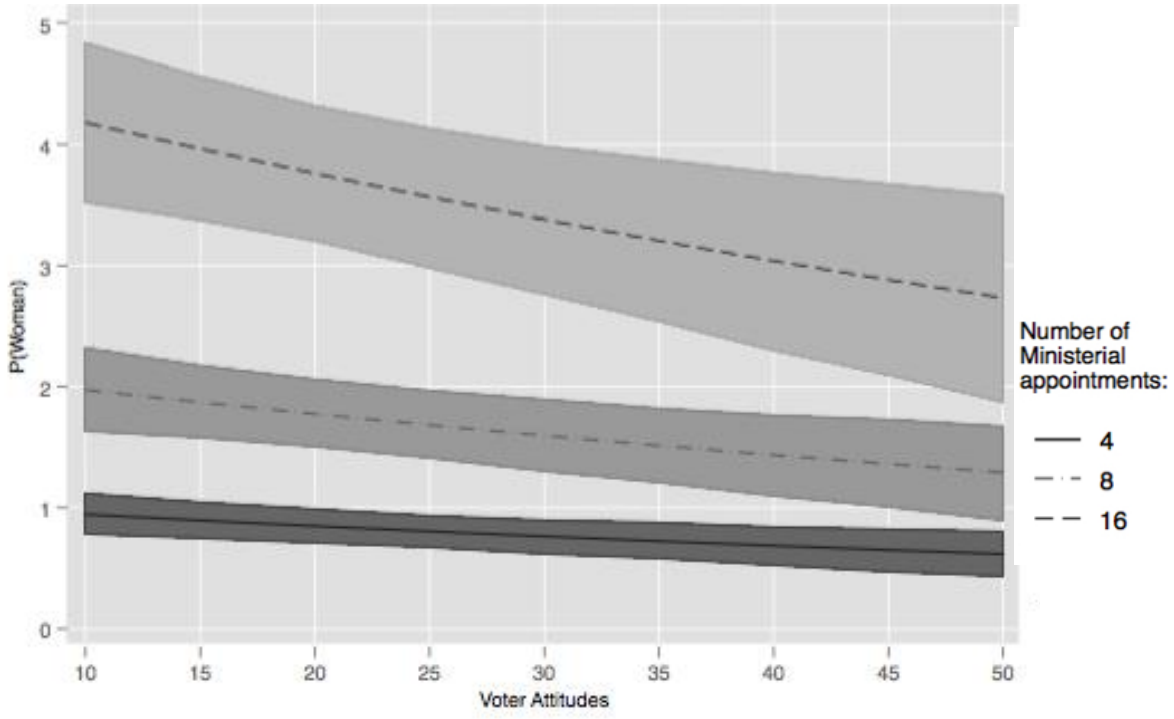
Gender-equal cultural contexts (H_3) are operationalised as the participation of women in the labour force. Again, these results are statistically significant and point to more women being appointed to government in circumstances where more women also have access to the workforce. Even when controlling for time, women are better represented in cabinets when more women are engaged in the labour force within a country.

In 1994, the Italian Prime Minister Silvio Berlusconi's Go Italy party appointed 12 ministers to the cabinet, none of which were female. At that time, the female labour force participation rate in Italy was 41.89%. But what if that female labour force participation rate had been the same as Germany in 1994 (60.89%)? The model's expected number of female appointments under the German labour force participation rate is 6.50 women, rather than the 0.89 women expected with the Italian female labour participation. Therefore, for those who seek to see more women in political positions, improving women's position in society more generally should also be a priority.

To investigate these vote-seeking motivations further, I draw on survey data to

explore how the gender attitudes (H_4) of party electorates may influence the number of women the party leader appoints to the government.[8] As shown in Table 2, the gender attitudes of voters does have a statistically significant effect, when controlling for the other variables in the model. The results of this analysis show that when there is a 10% increase in the percentage of respondents who answer that 'men have more right to a job than women', the rate of women appointed to the cabinet is expected to decrease by 10% (holding all other variables constant).

Figure 3: Predicted number of female ministers by voter gender attitudes (95% confidence intervals)



These results are demonstrated in Figure 3, where the predicted number of female appointments by parties with four, eight and 16 ministers are plotted against the gender attitudes of voters at the party level. Where only 10% of voters think that men have more of a right to work than women, parties with eight ministers are expected to appoint two women. Where 50% of voters hold those

[8] Some parties in government have few EVS respondents which identified with the party, and therefore the attitudes and gender compositions of these parties may be unrepresentative. However, when these low-response cases are excluded, and where multiple robustness checks have been undertaken (including bootstrapping), the same, statistically significant effects are found, but the number of observations is reduced.

views, the expected number of women is less than 1.5 (holding all other variables constant). This includes controlling for the role of party ideology, and suggests that attitudes of party voters matter in shaping party leaders' calculations about ministerial appointments.

Through linking this data on the appointment of individuals at the very top of the political hierarchy to the attitudes of voters at the bottom, I have been able to probe the vote-seeking motivations of party leaders. While the gender composition of the party electorate itself is found to impact on the appointment of women ministers, the gender attitudes of voters does have an impact. Where a party's electorate is in support of gender equality more broadly, leaders across the political spectrum appoint more women. I suggest this is part of the interaction between party leaders and their voters, where the party leaders seek to address the interests of voters by appealing to their attitudes and beliefs about women in leadership.

In the Appendix, I analyse the relationship between women's representation in the legislature and the appointment of women to government. The results of this analysis indicate that an increased presence of women in the parliament has a positive impact on the appointment of women ministers (in the subset of this dataset for which data is available). These findings are discussed further in the Appendix.

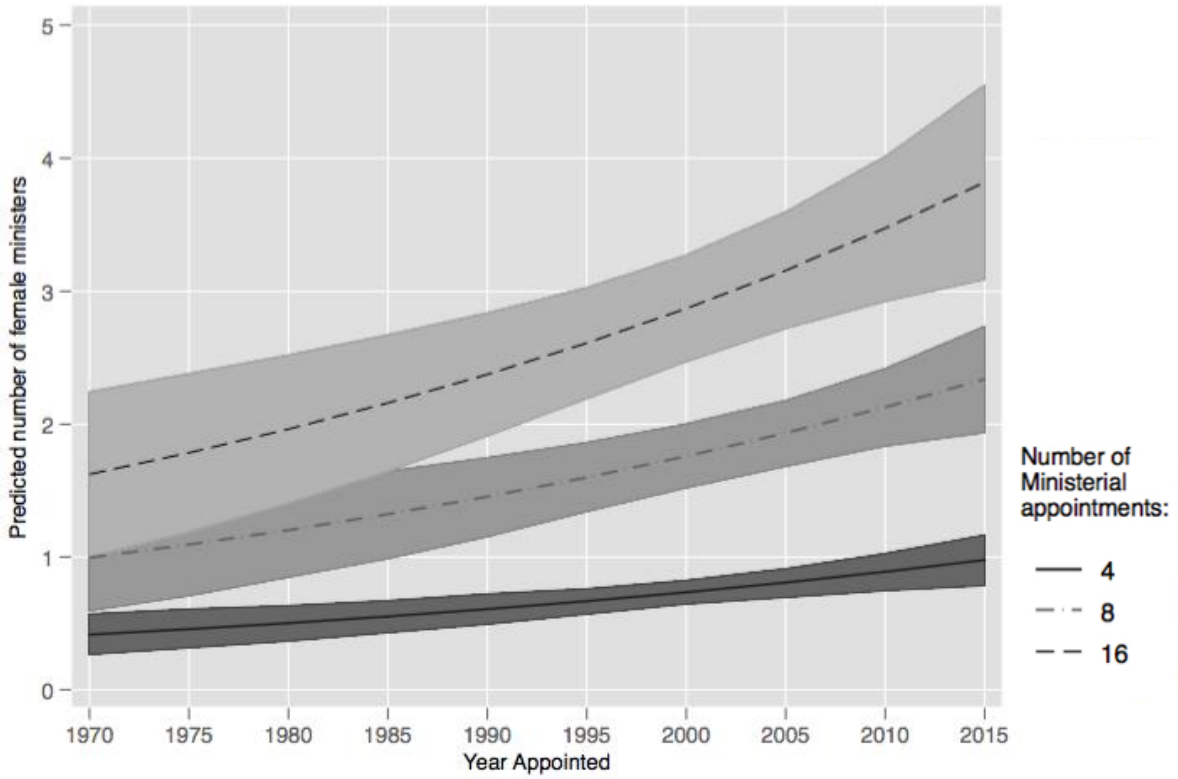
Control: Time

More and more women are appointed to governments across Europe over the 70-year timeframe of this analysis. While Clement Atlee appointed Ellen Wilkinson to the British cabinet as Minister of Education in 1945, no women were appointed to the Icelandic government until Auður Auðuns became Minister of Justice and Church in 1970. Between 1975 and 1985, there were no women selected in 64% of party appointments to government. Between 2005 and 2015, this had reduced to 31% of the party-level observations in this analysis.

As Figure 4 shows, women are increasingly likely to be appointed to the cabinet over the timeframe of this analysis. While party leaders with 16 ministers were expected to appoint two women in 1970, this expected value increases to four.

These results provide an insight into the changing nature of women's appointment to ministerial appointments over time. This includes controlling for party ideology and public attitudes to gender issues.

Figure 4: Predicted number of female ministers over time (95% confidence intervals)



Conclusion

In this paper, I explore how party leaders' policy, office, and vote-seeking motivations lead to their ideology, gender, and the attitudes of their voters influencing the number of women they select for cabinet positions. By taking an empirically rigorous approach to analysing the gender composition of governments at the party level, drawing on data on nearly 13,000 appointments, this paper provides an insight into the conditions under which women are appointed to government positions. This is a step towards thinking about gender alongside other important features in the government formation process such as institutions, parties, and factions.

I find that women appoint more women to government, which has been a contested area in the literature: female leaders are 30% more likely to appoint

a woman to a ministerial position than male leaders, holding all other variables constant. This analysis shows that, even when in coalition, left-wing leaders appoint more women to the government. Leaders of left-wing parties (left-right score of -50) are expected to appoint twice as many women as leaders of right-wing parties (with a left-right score of 50). More women ministers are appointed in gender-equal cultural contexts, where more women are active in the labour force. Party leaders also appoint more women to the government when their voters have positive attitudes to the role of women in work.

There are many potentially fruitful areas for future research drawing on this theoretical framework of ministerial selection and original data set on ministerial appointments. Case study analyses of the ministerial selection process would provide a more detailed picture of the factors weighed in these appointments and the role of individual actors in determining the number of women selected for ministerial positions. A further crucial question is whether having women in these positions of power actually shapes government policy decisions.

References

Alexiadou, D., 2015. Ideologues, Partisans, and Loyalists: Cabinet Ministers and Social Welfare Reform in Parliamentary Democracies. *Comparative Political Studies*, 48(8), pp.1051–1086. Available at: http://cps.sagepub.com/cgi/doi/10.1177/0010414015574880.

Alexiadou, D., 2016. *Ideologues, Partisans, and Loyalists: Ministers and Policymaking in Parliamentary Cabinets*, Oxford: Oxford University Press.

Annesley, C., 2015. Rules of Ministerial Recruitment. *Politics & Gender*, 11(4), pp.618–642. Available at: http://www.journals.cambridge.org/abstract_S1743923X15000434.

Atchison, A., 2015. The Impact of Female Cabinet Ministers on a Female-Friendly Labor Environment. *Journal of Women, Politics & Policy*, 36(4), pp.388–414.

Atchison, A. & Down, I., 2009. Women Cabinet Ministers and Female-Friendly Social Policy. *Poverty & Public Policy*, 1(2), pp.164–186. Available at: http://www.degruyter.com/view/j/ppp.2009.1.2/ppp.2009.1.2.1007/ppp.2009.1.2.1007.xml.

Bäck, H., Debus, M. & Tosun, J., 2015. Partisanship, Ministers, and Biotechnology Policy. *Review of Policy Research*, 32(5), pp.556–575.

Bego, I., 2014. Accessing Power in New Democracies: The Appointment of Female Ministers in Postcommunist Europe. *Political Research Quarterly*, 67(2), pp.347–360.

Budge, I. et al., 2001. *Mapping Policy Preferences. Estimates for Parties, Electors and Governments 1945-1998*, Oxford: Oxford University Press.

Carey, J.M., 2007. Competing Principals, Political Institutions, and Party Unity in Legislative Voting. *American Journal of Political Science*, 51(1), pp.92–107.

Caul, M., 2001. Political parties and the adoption of candidate gender quotas: A cross-national analysis. *Journal of Politics*, 63(4), pp.1214–1229.

Caul, M., 1999. Women's Representation in Parliament: The Role of Political Parties. *Party Politics*, 5(1), pp.79–98.

Celis, K. & Childs, S., 2014. *Gender, Conservatism and Political Representation*, Colchester: ECPR Press.

Chappell, L., 2006. Comparing Political Institutions: Revealing the Gendered 'Logic of Appropriateness. *Politics and Gender*, 2(2), pp.223–234.

Cheng, C. & Tavits, M., 2011. Informal Influences in Selecting Female Political

Candidates. *Political Research Quarterly*, 64(2), pp.460–471.

Childs, S. & Krook, M.L., 2008. The Substantive Representation of Women. In S. Childs, ed. *Women and British Party Politics: Descriptive, Substantive and Symbolic Representation*. New York: Routledge, pp. 108–139.

Chiva, C., 2005. Women in Post-Communist Politics: Explaining underrepresentation in the Hungarian and Romanian Parliaments. *Europe-Asia Studies*, 57(7), pp.696–994.

Claveria, S., 2014. Still a “Male Business”? Explaining Women’s Presence in Executive Office. *West European Politics*, 37(5), pp.1156–1176. Available at: http://dx.doi.org/10.1080/01402382.2014.911479.

Cohen, P.N. & Huffman, M.L., 2007. Working for the Woman? Female Managers and the Gender Wage Gap. *American Sociological Review*, 72(5), pp.681–704. Available at: http://asr.sagepub.com/cgi/doi/10.1177/000312240707200502.

Davies, L.M., 2011. Women on Boards. *Department for Business, Innovation and Skills, United Kingdom*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/31480/11-745-women-on-boards.pdf.

Davis, R., 1997. *Women and Power in Parliamentary Democracies: Cabinet Appointments in Western Europe 1968–1992*, Lincoln: University of Nebraska Press.

Dewan, T. & Hortala-Vallve, R., 2011. The Three As of Government Formation: Appointment, Allocation, and Assignment . *American Journal of Political Science*, 55(3), pp.610–627. Available at: http://dx.doi.org/10.1111/j.1540-5907.2011.00519.x.

Dewan, T. & Myatt, D.P., 2010. The Declining Talent Pool of Government. *American Journal of Political Science*, 54(2), pp.267–286.

Döring, H. & Manow, P., 2015. Parliament and Government Composition Database: Party Positions. , 2014(03/10). Available at: http://parlgov.org/stable/documentation/party-position.html.

Dowding, K. & Dumont, P., 2009. *The Selection of Ministers in Europe: Hiring and Firing*, London: Routledge.

Escobar-Lemmon, M. & Taylor-Robinson, M., 2016. *Women in Presidential Cabinets: Power Players or Abundant Tokens?*, Oxford: Oxford University Press.

Escobar-Lemmon, M. & Taylor-Robinson, 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. University of Utah Getting to the Top : Career Paths of Women in Latin American Cabinets Author (s): Maria Escobar-Lemmon and Michelle M . Taylor-Robinson VXettlllg tO ttie lOP '? ^ WerrityofUtafa m , ^ , J ^^ Women Career Paths of in Latin American Cab. , 62(4), pp.685–699.

European Values Study, 2015. European Values Study- Longitudinal Data File. , p.http://www.gesis.org/unser-angebot/daten-analysier.

Fox, R.L. & Lawless, J.L., 2014. Entering the Arena? Gender and the Decision to Run for Office. *American Journal of Political Science*, 48(2), pp.264–280.

Giannetti, D. & Laver, M., 2005. Policy positions and jobs in the government. *European Journal of Political Research*, 44(1), pp.91–120.

Gorman, E.H., 2006. Work Uncertainty and the Promotion of Professional Women: The Case of Law Firm Partnership. *Social Forces*, 85(2), pp.865–890.

Gray, M.M., Kittilson, M.C. & Sandholtz, W., 2006. Women and Globalization: A Study of 180 Countries, 1975–2000. *International Organization*, 60(2), pp.293–333.

Hilbe, J.M., 2011. *Negative Binomial Regression, Second Edition*, Cambridge: Cambridge University Press.

Huber, J.D. & Martinez-Gallardo, C., 2008. Replacing cabinet ministers: Patterns of ministerial stability in parliamentary democracies'. *American Political Science Review*, 102(2), pp.169–180.

Indriðason, I. & Kam, C., 2008. Cabinet Reshuffles and Ministerial Drift. *British Journal of Political Science*, 38(4), pp.621–656.

Inter-Parliamentary Union, 2018. Proportion of seats held by women in national parliaments (%).

International Labour Organization, 2018. Labor Force Participation Rate, women (% women 15+). Available at: https://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS [Accessed October 18, 2018].

Kam, C. et al., 2010. Ministerial selection and intraparty organization in the contemporary British parliament. *American Political Science Review*, 104(2),

pp.289–306.

Kanter, R.M., 1977. *Men and Women of the Corporation*, New York: Basic Books.

Kenworthy, L. & Malami, M., 1999. Gender Inequality in Political Representation: a Worldwide Comparative Analysis. *Social Forces*, 78(1), pp.235–268.

King, G., Tomz, M. & Wittenberg, J., 2000. Making the most of statistical analyses: Improving interpretation and presentation. *American Journal of Political Science*, 44(2), pp.347–361. Available at: http://www.jstor.org/stable/10.2307/2669316.

Klüver, H. & Sagarzazu, I., 2016. Setting the Agenda or Responding to Voters ? Political Parties , Voters and Issue Attention Setting the Agenda or Responding to Voters ? Political Parties , Voters and Issue Attention. *West European Politics*, 39(2), pp.380–398. Available at: http://dx.doi.org/10.1080/01402382.2015.1101295.

Klüver, H. & Spoon, J.-J., 2014. Who Responds? Voters, Parties and Issue Attention. *British Journal of Political Science*, 46, pp.633–654.

Krook, M. & O'Brien, D.Z., 2012. All the President's Men? The Appointment of Female Cabinet Ministers Worldwide. *The Journal of Politics*, 74(3), pp.840–885.

Laver, M. & Shepsle, K., 1996. *Making and Breaking Governments: Cabinets and Legislatures in Parliamentary Democracies*, Cambridge: Cambridge University Press.

Laver, M. & Shepsle, K.A., 1990. Coalitions and Government Cabinet. *American Political Science Review*, 84(3), pp.873–890.

Liu, S.-J.S. & Banaszak, L.A., 2016. Do Government Positions Held by Women Matter? A Cross-National Examination of Female Ministers' Impacts on Women's Political Participation. *Politics & Gender*, pp.1–31. Available at: http://www.journals.cambridge.org/abstract_S1743923X16000490.

Lovenduski, J. & Norris, P., 1993. *Gender and Party Politics*, London: Sage.

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

Martin, L. & Vanberg, G., 2005. Coalition policymaking and legislative review. *American Political Science Review*, 99(1), pp.93–106.

Martin, L. & Vanberg, G., 2004. Policing the Bargain: Coalition Government and Parliamentary Scrutiny. *American Journal of Political Science*, 48(1), pp.13–

27.

Martinez-Gallardo, C. & Schleiter, P., 2015. Choosing Whom to Trust: Agency Risks and Cabinet Partisanship in Presidential Democracies . *Comparative Political Studies*, 48(2), pp.231–264. Available at: http://dx.doi.org/10.1177/0010414014544361.

Matland, R., 1998. Women's Representation in National Legislatures: Developed and Developing Countries. *Legislative Studies Quarterly*, 23(1), pp.109–125.

Mershon, C., 2001. Party factions and coalition government: portfolio allocation in Italian Christian Democracy. *Electoral Studies*, 20(4), pp.555–580.

Mölder, M., 2013. The validity of the RILE left-right index as a measure of party policy. *Party Politics*, 22(1), pp.37–48. Available at: http://ppq.sagepub.com/content/early/2013/12/09/1354068813509525#corresp-1 [Accessed November 13, 2015].

Müller, W.C., 2000. Political parties in parliamentary democracies: Making delegation and accountability work . *European Journal of Political Research*, 37(3), pp.309–333. Available at: http://dx.doi.org/10.1111/1475-6765.00515.

Müller, W.C. & Strøm, K., 1999. *Policy, Office, Or Votes?: How Political Parties in Western Europe Make Hard Decisions*, Cambridge: Cambridge University Press.

Norris, P., 2004. *Electoral Engineering*, Cambridge, UK: Cambridge University Press.

Norris, P. & Inglehart, R., 2001. Women and Democracy: Cultural Obstacles to Equal Representation. *Journal of Democracy*, 12(3), pp.126–140.

Norris, P. & Lovenduski, J., 1995. *Political Recruitment: Gender, Race and Class in the British Parliament*, Cambridge: Cambridge University Press.

O'Brien, D.Z. et al., 2015. Letting Down the Ladder or Shutting the Door: Female Prime Ministers, Party Leaders, and Cabinet Ministers. *Politics & Gender*, 11(4), pp.689–717. Available at: http://www.journals.cambridge.org/abstract_S1743923X15000410.

Ono, Y., 2012. Portfolio allocation as leadership strategy: intraparty bargaining in Japan. *American Journal of Political Science*, 56(3), pp.553–567.

Pitkin, H.F., 1967. *The Concept of Representation*, California: University of California Press.

Pletzer, J.L. et al., 2015. Does gender matter? female representation on corporate boards and firm financial performance - A meta-analysis. *PLoS*

ONE, 10(6), pp.1–20.

Reynolds, A., 1999. Women in the legislatures and executives of the world: Knocking at the highest glass ceiling. *World Politics*, 51(4), pp.547–572.

Rule, W., 1987. Electoral Systems, Contextual Factors and Women's Opportunity for Election to Parliament in Twenty-Three Democracies. *The Western Political Quarterly*, 40(3), pp.477–498.

Siaroff, A., 2000. Women's Representation in Legislatures and Cabinets in Industrial Democracies. *International Political Science Review*, 21(2), pp.197–215.

Sonntag, L., 2016. Politica. , 2016(09/01). Available at: http://www.kolumbus.fi/taglarsson/.

Strøm, K., 1990. A behavioral theory of competitive political parties. *American Journal of Political Science*, 34(2), pp.565–598.

Strøm, K., 2000. Delegation and accountability in parliamentary democracies. *European Journal of Political Research*, 37, pp.261–289.

Swers, M.L., 2013. *Women in the Club: Gender and Policy Making in the Senate*, University of Chicago Press. Available at: https://books.google.com/books?hl=en&lr=&id=NnQ-es6oHWAC&pgis=1 [Accessed May 23, 2016].

Tomz, M., Wittenberg, J. & King, G., 2001. CLARIFY: Software for Interpreting and Presenting Statistical Results. Available at: http://gking.harvard.edu.

Tremblay, M. & Pelletier, R., 2000. More feminists of more women? Descriptive and substantive representation of women in the 1997 Canadian federal elections. *International Political Science Review*, 21(4), pp.381–405.

Vandeviver, C., Van Daele, S. & Vander Beken, T., 2015. What Makes Long Crime Trips Worth Undertaking? Balancing Costs and Benefits in Burglars' Journey to Crime. *British Journal of Criminology*, 55(2), pp.399–420. Available at: http://bjc.oxfordjournals.org.chain.kent.ac.uk/content/55/2/399.full [Accessed November 14, 2015].

Volkens, A., 2007. Strengths and weaknesses of approaches to measuring policy positions of parties. *Electoral Studies*, 26(1), pp.108–120.

Wilson, H.S., 1976. *The Governance of Britain*, London: Weidenfeld and Nicolson.

De Winter, L., 1995. The role of parliament in government formation and

resignation. In H. Döring, ed. *Parliaments and Majority Rule in Western Europe*. New York: St Martin's, pp. 115–151.

Zárate, R.O. de, 2016. Zárate's Political Collections. , 2016(04/01). Available at: http://zarate.eu/.

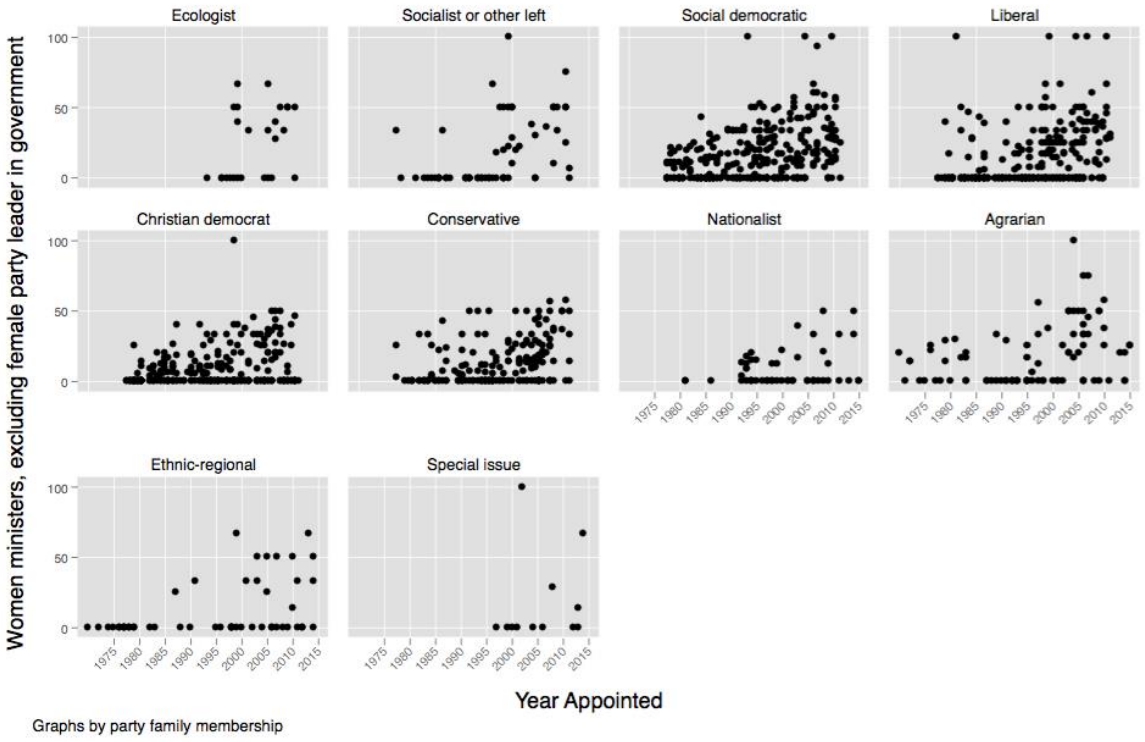
Paper One: Appendix

Descriptive Statistics

Table 1: Summary statistics of left-right score by party family (Volkens et al. 2016)

	Observations	Mean	Standard Deviation	Minimum	Maximum
Ecologist	25	-14.72	14.35	-36.11	35.67
Socialist or other left	52	-15.99	20.51	-52.23	28.81
Social democratic	301	-11.68	17.40	-58.00	43.24
Liberal	271	4.74	18.12	-44.50	64.71
Christian democrat	239	2.51	14.95	-28.77	40.42
Conservative	173	9.76	16.58	-33.15	51.70
Nationalist	51	7.82	12.63	-18.07	48.19
Agrarian	90	-3.00	16.54	-40.24	82.20
Ethnic-regional	51	-6.29	11.63	-41.01	15.12
Special issue	9	-8.82	10.38	-23.08	6.76

Figure 1: Appointment of women ministers by party family over time



Impact of women’s representation in the legislature

Data and Methods

Building on the consideration of the impact of the cultural context on the appointment of women to ministerial positions in the full paper, in this Appendix I also examine the effect of women's representation in the parliament on the appointment of female ministers.

Data on women’s presence in parliament is from the Inter-Parliamentary Union (2018) and details the proportion of seats held by women in the single or lower chamber of the national parliament. Data is available for 1990 and 1995 to 2015. While data is not available on the gender composition of the legislature at a party level, the representation of women in the legislature provides an insight into the ‘supply’ of women in the pool of candidates for ministerial positions.

Due to the limited number of observations of the gender composition of parliaments, a negative binomial regression analysis of this data does not converge. Therefore, I use OLS regression for the analysis of the effect of women's representation in parliament on government appointments.

The dependent variable is a party-level measure of the percentage of ministerial appointments which are female, except for where a female leader herself is the cabinet, where the party leader is not included in the totals.

Table 2: Ordinary least squares regression analysis (women ministers as a percentage of those appointed to the cabinet, party level)

	Model 1	**Model 2**
Policy		
Left-right score	-0.157*	-0.204**
	(0.074)	(0.062)
Office		
Woman leader	0.004	-3.006
	(3.617)	(3.847)
Votes		
Labour force participation	0.151	
	(0.128)	
Women in parliament	0.722***	0.855***
	(0.133)	(0.109)
Gender attitudes of party voters		-0.023
		(0.060)
Controls		
Year appointed	0.200	0.063
	(0.149)	(0.168)
N / Clusters	605 / 30	476 / 30
Constant	-407.283	-174.842***
R2	0.223	0.263

* p<0.05, ** p<0.01, *** p<0.001
Standard errors in parentheses

Analysis

The results in Table 1 indicate that the representation of women in the parliament does indeed have an impact on the appointment of women ministers (in the subset of this dataset for which data is available). In both models, the factor of women's representation in the legislature is statistically significant and has a positive effect on the percentage of women in the government at the party level.

In Model 1, which does not control for gender attitudes, a 10-percentage point increase in the number of women in the parliament is expected to have a 7.22 percentage point increase in the proportion of cabinet appointments which are female, controlling for the other variables in this model. In both Models 1 and 2, the left-right score also has a statistically significant impact on the appointment of women to ministerial positions. The negative coefficient suggests that leftist parties appoint more women to ministerial positions than rightist parties. The

results of Model 2 show that the impact of gender attitudes is not statistically significant on the number of women appointed the cabinet in this subset of the data.

This analysis does not indicate a statistically significant relationship between the year in which the government is appointed and women's representation in the government. This contrasts with the main paper where the findings suggest more women are appointed to government over time. However, this may be due to the reduced timeframe for this subset of the data (1990, 1995-2015).

This initial empirical analysis indicates a relationship between the appointment of women to the legislature and the appointment of women to the government. This is in line with existing analyses of women's representation in ministerial positions (Krook & O'Brien 2012; Escobar-Lemmon & Taylor-Robinson 2005; Escobar-Lemmon & Taylor-Robinson 2016). This suggests that the gender balance of the selection pool for ministerial appointments shapes how many women are allocated government portfolios. Future research could build on this initial research to investigate how women's legislative representation at the party level influences ministerial appointments.

References

Escobar-Lemmon, M. & Taylor-Robinson, M., 2016. *Women in Presidential Cabinets: Power Players or Abundant Tokens?*, Oxford: Oxford University Press.

Escobar-Lemmon, M. & Taylor-Robinson, M., 2005. Women Ministers in Latin American Government: When, Where and Why? *American Journal of Political Science*, 49(4), pp.829–844.

Inter-Parliamentary Union, 2018. Proportion of seats held by women in national parliaments (%).

Krook, M. & O'Brien, D.Z., 2012. All the President's Men? The Appointment of Female Cabinet Ministers Worldwide. *The Journal of Politics*, 74(3), pp.840–885.

Volkens, A. et al., 2016. *The Manifesto Data Collection. Manifesto Project (MRG/CMP/MARPOR). Version 2016a*, Berlin: Wissenschaftszentrum Berlin für Sozialforschung (WZB).

Entering the men's domain? Gender and portfolio allocation in European governments

While all government portfolios used to exclusively be the purview of men, more and more women are selected to sit around the cabinet table. But, under which circumstances do women get appointed to different ministerial portfolios? I propose a theoretical framework by which to consider how party leaders' attitudes and motivations influence the allocation of portfolios to male and female ministers. These propositions are tested empirically by bringing together data on 7,005 cabinet appointments across 29 European countries from the late 1980s until 2014. Through considering the key partisan dynamics of the ministerial selection process, I find that women are significantly less likely to be appointed to the 'core' offices of state, and 'masculine' and 'neutral' policy areas. However, these gender differences are moderated by the ideology of the party that allocates them. This analysis also suggests women are also more likely to be appointed to 'masculine' portfolios when a party's voters have more progressive gender attitudes. This enhances our understanding of women's access to the government, which has important implications for how ministers are selected, as well as how women are represented in the most powerful policy-making positions in Europe.

Introduction

Across countries, parties and time, the gender balance of the cabinet becomes one of the first assessments of the newly-appointed decision makers when the photos of the cabinet appear in the press. But these images do not reveal one of the most important features of the government formation process: which portfolio each of the ministers has. While in some contexts, women are being appointed to high-salience portfolios such as justice and finance, there are other circumstances where women are only allocated the traditionally 'feminine' policy areas such as health and family.

Some cabinet posts are perceived as an important part of the traditional 'core' of government (Blondel and Thiebault 1991), while others are important to the party (Warwick and Druckman 2006). Some portfolio policy areas are seen as traditionally 'masculine' while others are traditionally 'feminine' (M. Krook and O'Brien 2012). Whether, when and where women are appointed to these posts is important for the representation of women's views at the highest levels of government decision making.

Most existing analyses of government appointments overlook these important gender dynamics, and analyses from the gender and politics literature overlook the important partisan features of ministerial appointment. By considering both the characteristics of political parties and government portfolios, this paper provides an analysis of how party characteristics influence where women sit around the ministerial table. These party characteristics include the salience of different policy areas, the party's ideological orientation, and the gender attitudes of the party's voters.

This analysis addresses the research question: under what circumstances do women get appointed to different ministerial portfolios? The allocation of ministers to government portfolios is a complex, multi-dimensional problem faced by party leaders. Therefore, I develop a theoretical framework which examines the allocation of ministers to cabinet portfolios based on the policy-, office- and vote-seeking motivations of party leaders (Müller and Strøm 1999).

Based on this theoretical framework, the empirical analysis in this paper provides an insight into when women get allocated to different government portfolios. By combining datasets on 7,005 cabinet appointments across 29 European countries from the late 1980s until 2014, this paper provides a uniquely detailed time-series cross-sectional insight into the allocation of policy areas to women ministers.

The findings of this party-level analysis have important implications for our understanding of women's representation in the most powerful political decision-making positions across Europe. Firstly, voter attitudes about women's role appear to have an impact on the gender composition of the cabinet. Secondly, party ideology is a moderating factor in the process of government appointments which plays an important part in determining which portfolios are allocated to men and women. Finally, women are less likely to be selected for 'masculine' cabinet positions, and therefore Prime Ministers and party leaders may be overlooking potential ministerial talent based on gendered biases. In the Appendix, I also examine the effect of women's representation in the parliament on the allocation of portfolios to female ministers.

Theory and Hypotheses

With the appointment of Sylvie Goulard as France's *Ministre des Armées* in May 2017, the defence minister in four of Europe's five largest economies was a woman (Henley 2017). Yet, in the cabinet which met at the Elysée prior to the formation of the 2017 French government, there were no women in the core offices of state. This pattern is familiar across Europe, where the allocation of women to government portfolios fluctuates between and across governments and countries.

The selection of ministers is a complex problem for party leaders, so a theoretical framework for the allocation of portfolios to ministers must consider these multiple and competing dimensions. Müller and Strøm's (1999) classic framework of party leader decision making provides a theoretical framework through which to understand ministerial selection. Müller and Strøm (1999) argued that party leaders have three core motivations: policy, office, and votes. Leading a political

party requires decision making which is based on trading off these motivations, and deciding who to place in which ministry is a typical example of the need to balance these priorities. Ministers need to be effective and trustworthy in delivering policy objectives, they must not cause the party to lose political office, and they need to appeal to the electorate.

Our understanding of the factors which lead to ministerial appointments has advanced in recent years, including intra-party politics (Kam et al. 2010; Mershon 2001), policy issue salience (Greene and Jensen 2017), and individual policy positions (Giannetti and Laver 2005). There have also been further developments in the analysis of how the backgrounds of ministers influence whether they get appointed to government and which portfolio they get, as well as the impact that the individual characteristics of ministers can have on the policy decisions they make in office (Alexiadou 2015, 2016; Bäck, Debus, and Tosun 2015). However, these analyses do not take into consideration whether the ministers that are appointed to cabinet positions are male or female. And, therefore, they overlook a key aspect of the ministerial selection decision-making process.

In this paper, I build on the existing analyses which have addressed the representation of women in ministerial potions at the government level (Claveria 2014; Davis 1997; Escobar-Lemmon and Taylor-Robinson 2005; M. Krook and O'Brien 2012; O'Brien et al. 2015; Siaroff 2000). In the developing literature on 'who gets what' in coalition governments, analyses have shown the importance of political parties and their characteristics for the appointment of ministers (Bäck, Debus, and Dumont 2011b; Greene and Jensen 2017; Raabe and Linhart 2014). This is particularly the case in the European context, where parliamentary and semi-presidential systems dominate the political landscape (Schleiter and Morgan-Jones 2009). The most detailed cross-national analysis of women's appointment to cabinets considers party dynamics in presidential systems (Escobar-Lemmon & Taylor-Robinson 2016). However, this is in a context where the separation of the executive and legislature leads to very different dynamics of cabinet appointments to European parliamentary democracies, especially in relation to the nature of party attachments, the selection pool and the ministerial appointment process. By considering the party-level factors which shape government appointments in a European context, this paper provides an

understanding of how we end up with the diverse range in the representation of women in ministerial positions we see across European democracies.
This paper also develops our understanding of the process of allocating ministers and contributes to the existing literature on government appointments by demonstrating the importance of gender dynamics in who gets allocated which policy area. Without considering the important factor of the gender of ministers, these studies have overlooked a key factor shaping who is in government. By examining the allocation of ministerial portfolios through the gendered motivations of party leaders in this paper, I am able to hypothesise when we see women appointed to different portfolios across governments and start to consider why this may be.

Three important aspects of the ministerial selection process mean that it is particularly difficult to examine why ministers get appointed. Firstly, ministerial selection discussions and decisions take place in secret, behind closed doors, between a small number of high-level individuals (Annesley 2015). Secondly, is not possible to make a realistic assessment of the ministerial selection pool. Therefore, this paper considers the output of this decision-making process: the final allocation of portfolios which is announced to the electorate. Finally, this 'jigsaw puzzle' has a large number of counterfactuals, with a wide range of dimensions. Therefore, it is not necessarily the case that because an individual is not deemed suitable for a particular ministry, that they are not suitable for government positions in any area. For example, the fact that a woman is not appointed to a 'core' portfolio does not mean that she will definitely get a 'non-core' portfolio, or having a woman in a masculine portfolio doesn't necessarily mean you are more likely to have a man in feminine portfolios. These effects are further complicated in coalition governments, where parties must also consider their coalition partners' reactions to any ministerial appointments.

Therefore, this paper considers how the characteristics of portfolios, parties and governments, as opposed to an individual's characteristics, shape the allocation of women to government. While this approach has some costs in terms of the depth of analysis of party leader considerations, it enables an analysis of trends in women's appointment. Understanding these trends provides a large-scale understanding of where and when party leaders decide to appoint women to

different portfolios and a Europe-wide insight into which factors can lead to more or fewer women in the government. After all, it is these decisions which have an impact on how government departments are run and, as such, public policy.

Office

"For the most important portfolios, I need to pick ministers that are loyal to me"

When considering office-seeking motivations, party leaders are concerned with holding on to government portfolios (Müller and Strøm 1999, 9) so seek to appoint credible ministers who maintain a high level of loyalty to the party leader. As cabinet ministers have a very high level of autonomy over their portfolio, they have the capability to undermine their principal in the formation and implementation of policy in the areas under their jurisdiction. Party leaders as principals can be subject to adverse selection problems with ministers as their agents, since leaders do not have complete information on the competence or policy positions of ministerial candidates prior to their selection (Strøm 2000, 270–71). Therefore, party leaders screen ministerial candidates ex-ante in order to identify whether they are suitably experienced for the role (Huber and Martinez-Gallardo 2008).

While part of this ex-ante screening for important political portfolios will be based on the ministerial candidate's views, voting record and policy positions (Rose 1987), this pre-appointment screening process will also be based on less tangible informal links and relationships of trust. These close ties constitute a protection against personal unreliability as they provide incentives for members of the government to act openly, and form a sense of allegiance to the leader (Blondel and Manning 2002, 463). Consequently, the process of ministerial selection is functionally dependent on social networks which are built on trusting relationships (Moury 2011). For many reasons, these high-trust networks are relatively closed to women (Annesley and Gains 2010, 463). For example, Feminist Institutionalist scholars have highlighted how the rules and practices that shape formal and informal institutions lead to different outcomes for men and women (Chappell and Waylen 2013). Chappell (2006) suggests there is a 'gendered logic of appropriateness' which operates in political institutions and excludes women as

an ‘other’ in the close social networks which govern political institutions (Chappell 2006). This is coupled with the fact that women are often prohibited, as carers, from engaging in the activities which build trusting relationships such as social events and networking activities. This ‘homosocial reproduction’ can prevent women from entering the close networks which become the selection pool for the most important offices of state (Kanter 1977).

When allocating ministers to the prestigious ‘core’ ministries of state, these informal networks become particularly important. In the most visible, powerful and influential portfolios, party leaders who seek to hold onto political office need to assure themselves that they will not be betrayed or let down by their ministers. A public betrayal through a ministerial coup could be a party leader’s downfall. As such, this ex-ante screening through existing political networks is especially rigorous in the case of the most prestigious and powerful ministerial portfolios, such as finance and defence (Huber and Martinez-Gallardo 2008).

Therefore, the gendered effects of women’s limited access to high-trust political networks will have the most significant effect for the highly important and prestigious ‘inner circle’ positions within the government. Existing analyses of ministerial allocations at the government level find that women are less likely to be appointed to the most important and highly-trusted positions within the government (Claveria 2013; M. Krook and O’Brien 2012).

H_1: Appointments to ‘core’ ministerial portfolios are less likely to be female.

However, it is not just the ‘core’ portfolios which are of importance to party leaders and political parties more broadly. Even party leaders themselves have contested such categorisations. After receiving criticism for the gendered allocations of portfolios to his shadow cabinet, British opposition leader Jeremy Corbyn sought to emphasise that women had been appointed to the real ‘top jobs’ - the policy areas which mattered most to his party which included health, education and social care (Dathan 2015).

When party leaders appoint their cabinet, they are very aware of the fact that some cabinet portfolios are of a higher issue salience than others (Druckman and

Roberts 2007; Warwick and Druckman 2006). However, this salience may be quite distinct from the 'inner circle' prestigious government positions. Parties do have commitments to policy areas which are particularly salient for them, and analyses of the portfolio allocation process suggest that in coalitions, parties are more likely to be allocated policy areas which are particularly salient for them (Bäck, Debus, and Dumont 2011a; Greene and Jensen 2017). For example, green parties are more likely to be allocated to environmental or climate change portfolios (Poguntke 2002). To those green parties, the environmental portfolio is equivalent to the 'core' offices of state.

Therefore, the same informal and formal network dynamics will be in operation for high salience portfolios as there are for 'inner circle' or 'core positions. Consequently, fewer women are likely to be appointed to these high salience ministerial portfolios.

> *H_2: Ministers appointed to portfolios where the policy areas are of high salience to political parties are less likely to be female.*

"I am from a left-wing political party, and have more women in my ministerial candidate pool"

However, the intra-party gender politics varies within and between European political parties. Analyses which begin to lift the lid on the black box of decision making within parties identify a complex picture of multiple competing actors and interests (Greene and Jensen 2014, 2017). Yet, within this complex picture of decision making at the party level, the dynamics of gender in appointing ministers have received little attention. In the European context, these party-level characteristics are particularly important, as most governments are not single party. Therefore, the overall allocation of women to ministerial positions across the government depends on multiple parties, each with different ideological perspectives, policy agendas and policy preferences.

Left-wing political parties are aligned with the values of egalitarianism, and this means that these parties are more likely to have an ideological commitment to gender equality than right-wing political parties. For this reason, especially since

the ‘second wave’ of feminism, leftist political parties are seen to be more ‘female friendly’ than their right-wing counterparts. Existing analyses of women’s representation in parliament find that left-wing parties typically exhibit a greater representation of women than right-wing parties (Caul 2001; Chiva 2005; Kenworthy and Malami 1999; Matland 1998; Norris and Lovenduski 1995; Rule 1987; Siaroff 2000).

Left-wing parties are likely to have stronger connections to feminism and feminist movements, and left-wing parties are more likely to implement party quotas (Dahlerup 2006; Freidenvall 2013; M. L. Krook 2007). Women are more likely to be appointed to ministerial positions where governing parties have adopted gender quotas (Claveria 2014). Therefore, although party quotas do not directly stipulate which policy areas women ministers should be allocated, they can have an indirect impact on the number of women in the selection pool for ministerial portfolios. Therefore, left-wing parties are more likely to have more women high in their party hierarchy which are suitable for appointment to a ministerial position than right-wing parties.

Empirical studies of the representation of women in the cabinet governments at the government level suggest that this is the case. Cabinets led by Prime Ministers from left-wing have more women ministers than those led by Prime Ministers from right-wing parties (Claveria 2014; Escobar-Lemmon and Taylor-Robinson 2005; Reynolds 1999; Siaroff 2000).

Additionally, leaders of left-wing parties are more likely to hold feminist views than their right-wing counterparts (Bashevkin 2014; Campbell and Childs 2015). Therefore, both male and female leaders of these parties are less likely to adhere to the traditional public/private divide when considering the allocation of roles and competencies of female ministerial candidates. For these reasons, it is anticipated that leftist parties within the government will be more gender-balanced in their allocation of portfolios than right-wing political parties.

> *H_3: Less gender differentiation in portfolio allocation in left-wing parties than right-wing parties.*

Policy

"She's a woman so will know about that kind of thing"

Over the last 30 years, there has become an increasingly pervasive norm of women gaining access to powerful fora of decision making; what Jacob et al (2014) call the 'gender-balanced decision-making norm' (Jacob, Scherpereel, and Adams 2014). This norm has set expectations that women will be appointed to decision-making bodies across the public and private sector to represent and defend the interests of women. This 'substantive representation' relies on women as political actors to represent the interests of women across the country (Pitkin 1967), so party leaders may seek to appoint women to the government to represent 'women's interests' (Celis and Childs 2008; Mansbridge 1999).

Consequently, party leaders will evaluate the skills and expertise of women against their view of how they will best represent women in the policy areas which matter to women. As women continue to be associated with policy areas related to the home, children, health and the elderly, they will be more likely to be appointed to these policy areas than the 'masculine' portfolios which are concerned with the public sphere of the economy and national security. Women will be more likely to be appointed to policy areas which pertain to the 'private' sphere of life, such as children and family portfolios, women's affairs, education, welfare, and health and social care (Krook and O'Brien 2012). Therefore, we will observe more women in the 'feminine' policy areas than traditionally 'masculine' areas such as agriculture, construction, military and foreign affairs (Mackay 2008).

Further, some women with successful political careers may well have championed their personal knowledge and experience of the feminine policy areas such as health and education. Therefore, when party leaders are assessing who will be best placed to lead a government department in one policy area, they may be more likely to select an individual who has carried out their politics as a clear advocate of 'women's issues' in that policy area (Beckwith 2011).

Divisions in the gendered nature of policy areas are not necessarily linked to the

prestige of the ministry, as some traditionally feminine areas can command large budgets and have a high public profile. However, the gendered view of policy effectiveness, as well as the skills, experience and areas of interest to female ministerial candidates can lead to more women in the 'feminine' ministerial portfolios.

H_4: Ministers appointed to 'feminine' portfolios are more likely to be female.

Votes

"My appearance as a non-sexist party leader depends on this"

The high-profile process of announcing a new government is part of the government's calculated interaction with the public and sends an important message about the party's image and intention. Some voters are more concerned with the gender balance of their preferred party's ministers. Any governing party leader must be aware of 'the picture – often a literal photo in the press – presented by their cabinet' (Escobar-Lemmon and Taylor-Robinson 2009, 4). For example, the leader of the British Liberal Democrats, Nick Clegg, was widely criticised in the British media for failing to appoint any women to the cabinet during the party's time in government (Leftly 2014). On the other hand, the leader of the Spanish Socialist Workers' Party, José Zapatero, pledged a gender parity cabinet before the 2008 Spanish general election, and in the 2005 the newly-elected leader of the British Conservatives David Cameron, pledged that one-third of his ministers would be female by 2015 (Heppell 2012). These pre-election pledges show how some party leaders attempt to appeal to their voters based on their appointments to the government.

Party leaders are concerned with balancing interests when they announce a government, and ministerial selection can be used as a tool to signal the interests of various geographical, intraparty or sectorial groups (Mershon 2001; Ono 2012). Since women constitute half of the population, some party leaders are incentivised to gender balance their ministerial appointments in order to maximise votes by ensuring that the government (and the party) appears to represent the electorate. Others party leaders are motivated to use their ministerial

appointments to convey the party's commitment to 'masculinist' values.

This is not to say that women voters will find a cabinet unsatisfactory on the basis of a gender imbalance alone, or that women are mobilised enough as a group to lobby for more representation. However, appointing women to the cabinet can still become an important signal from the government to the electorate.

Not all party leaders across time and contexts feel the same amount of pressure to appoint female ministers, or to appoint them to the most influential portfolios. To a degree, these concerns may also map onto the traditional left-right political partisan spectrum, however, these attitudes may also vary across other dimensions of political competition, such as socially conservative or liberal political attitudes (Kitschelt 1994). For example, the traditional blue-collar voters for left-wing political parties may have less progressive gender attitudes than otherwise socially conservative elites which traditionally vote for centre-right parties. Therefore, individual-level voter attitudes aggregated at the party electorate level can have an important effect on the relative pressure to appoint women to diverse portfolios across the government.

> *H_5: Less gender differentiation in portfolio allocation by parties whose voters have more gender-equal attitudes.*

Data and Methods

In order to test these hypotheses, I combine multiple datasets on governments, parties and voter attitudes.

For the composition of European cabinets, I use the Seki-Williams Government and Ministers data (Williams and Seki 2016), which extends and digitises the Woldendorp, Keman and Budge government composition data from the early 1990s through to 2014 (Woldendorp, Keman, and Budge 2000). This dataset details the name, gender, party, duration, and other features for all government ministers, and also links their membership to other comparative datasets (Seki and Williams 2014).

For this analysis, I draw on data on 29 European countries from the late 1980s until 2014.[9] The earliest government in this dataset is the Maltese Adami government which was appointed on 14th May 1987. The most recent government in the dataset is the Romanian Ponta government appointed on 17th December 2014. Within this dataset, an observation is the appointment of an individual to a portfolio within a government. In total, this dataset has 7,005 observations, and 3,657 unique ministers. Just over a quarter (26.5%) of the ministerial appointees in the dataset are female.

The dependent variable in this analysis is the gender of the cabinet minister, as identified in the Seki-Williams ministers data. As the unit of analysis is the individual minister, the party-level characteristics in this analysis (such as left-right score and portfolio salience) are assigned to an individual based on the party the minister represents in government and the year in which they are appointed.

This categorisation of 'inner circle' portfolios (H1) is based on Claveria's (2013) inner/outer typology of portfolios. The 'inner' portfolios are the closest advisors to the Prime Minister and have regular access to the government leader. These are Vice-president/Deputy Prime Minister, Defence, Finance, Economy, Home Office, and Foreign Affairs. All other portfolio areas are seen as specialised areas which may not have regular access to the Prime Minister.

For the salience of the portfolios to the political party (H2), I have used the Chapel Hill Expert Survey trend file data, which provides an annual expert evaluation of the salience of a range of substantive policy issues to political parties (Bakker et al. 2015; Polk et al. 2017). This dataset uniquely provides a time-variant party-specific evaluation of policy area salience. An issue has been graded as high-salience if it scores higher than nine on the ten-point salience score. A portfolio is high salience when it maps onto the high-salience policy area, or is the Prime Minister of Deputy/Vice Prime Minister. Of the 6,095 ministerial allocations with available data on salience in this dataset, 2,927 (48%) are of high salience.

[9] The countries in this analysis are: Austria, Belgium, Bulgaria, Czech Republic, Czechoslovakia, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden.

To test the party-level hypotheses that there is less gender differentiation in the portfolio allocation of left-wing parties (H3), the left-right score is operationalised through the 'rile' score of each governing party in the Comparative Manifestos Project (CMP).[10] This measure is an additive left-right index, which serves as a summary indicator of the policy positions of political parties in their electoral manifestos (Budge et al. 2001). The measure 'could in principle range from –100 (the whole manifesto is devoted to 'left' categories) to +100 (the whole manifesto is devoted to 'right' categories)' (Mölder 2013, 3). The range for governing parties is more limited: from -58 to 82. The left-right score of the last manifesto coded before the appointment of the government is considered for each observation.

Policy areas have been identified as traditionally masculine, neutral or feminine (H4) based on their affiliations with the public or private sphere of politics and/or a historical association with men or women (Krook and O'Brien 2012:844). Based on Krook and O'Brien's (2012) typology, I have categorised the ministries based on at least one policy area in the minister's title being from the masculine, feminine or neutral group.

[10] The CMP data is advantageous as it enables the analysis of time-series party positions over time which are comparable both within and across countries. For an overview of criticism of the measure see Volkens (2007). However, there is no comparable data source that includes as many parties across countries and time. The results from all three regression analyses are also robust with the time-invariant ParlGov left-right measure of party ideology (Döring and Manow 2015).

Table 1: Gender categorisations of portfolios (Krook & O'Brien 2012)

Gender	**Policy Area**
Masculine (Concerns tied to the public sphere of politics and the economy, and historically associated with men)	Agriculture, Food, Safety, Fisheries & Livestock, Communication & Information, Construction & Public Works, Correctional Services, Police, Defence, Military & National/Public Security, Enterprise, Finance & Economy, Foreign Affairs, Government/Interior/Home Affairs, Industry & Commerce, Labour, Religious Affairs, Science & Technology, Transportation
Neutral (Not clearly conforming to either criterion, or not linked to one sex)	Civil Service, Displaced Persons & Expatriates, Energy, Environment & Natural Resources, Housing, Justice, Minority Affairs, Parliamentary Affairs, Public Works, Planning & Development, Regional Reform, Sports, Tourism
Feminine (Private sphere of home and the family, have been linked closely to women)	Aging/Elderly, Children and Family, Culture, Education, Health and Social, Welfare, Heritage, Women's Affairs, Youth

I use survey data to examine the effects of the gender attitudes of the voters of each party (H5). I use the European Values Study (EVS) longitudinal dataset and grouped the responses based on responses to the question 'e179- If there was a general election tomorrow, which party would you vote for?' (European Values Study 2015). As a measure of gender attitudes within each party's voter base, I use these groups to calculate the percentage of respondents who agreed to the statement 'c001- When jobs are scarce, men have more right to a job than women'. This measure of gender attitudes provides a point of comparison between the voters of political parties.

The gender of the government's Prime Minister has also been included as a control variable, as the government being led by a woman may moderate some of the earlier hypothesised effects. For example, a woman may be more likely to have women in her close, trusting networks than a man. Further, the year in which the government is appointed is included as a control variable, as there is a general trend towards increased women's representation over time.

I also include whether a government is a coalition government as a control variable in this analysis, as governments with more than one party involved in

portfolio allocation and ministerial selection may behave differently to single-party governments. While parties in coalitions can be relatively autonomous in selecting ministers, they may have to consider the reaction of other parties in government (Debus 2008; Kaiser and Fischer 2009). This could have an impact on the allocation of women to ministerial portfolios through constraining choices of plausible ministerial candidates, as well as parties' and voters' perception of the overall gender balance of the government. Table 2 provides an overview of all these data sources and some descriptive statistics. In the Appendix, I also examine how women's representation in the parliament might shape the allocation of portfolios to female ministers, I provide an overview of the data used in this analysis in that Appendix.

Table 2: Data overview and descriptive statistics

Data	**Data Source**	**n**	**Min**	**Max**	**Mean**
Minister ID	Seki-Williams Ministers Data	7,005	1	4685	
Portfolio Code	Own analysis	6,841	1	53	
Minister Gender (DV)	Seki-Williams Ministers Data	7,005	0	1	
Core (H1)	Own analysis	7,005	0	1	
Salience (H2)	Chapel Hill Expert Survey	3,489	0	1	
Party Ideology (H3)	Comparative Manifestos Project	6,095	-45.5	48.1	-1.9
Portfolio 'Gender' (H4)	Own analysis	7,005	0	3	
Voter Attitudes (H5)	European Values Study	1,670	0	59.2	24.6
Prime Minister Gender (Control)	Own analysis	7,005	0	1	
Coalition (Control)	Own analysis	7,005	0	1	
Year (Control)	Seki-Williams Ministers Data	7,005	1987	2014	

The results in this paper are based on logistic (logit) regression modelling with country fixed effects. Country fixed effects are applied because, across the 29 counties in this analysis, there may be baseline differences in the propensity to appoint women to government positions, as well as the overall equality of opportunities for women. While incurring some costs in terms of identifying potential causal relationships across countries, fixed-effects modelling enables

this analysis to account for unobserved country-specific sources of variation.[11]

The dependent variable in this analysis is the gender of the cabinet minister, where a female minister is coded as 1, and a male minister as 0. The logistic formula is stated in terms of the probability that the gender of the minister (Y) = 1 (female), which is referred to as $\hat{p}$.

$$\ln\left(\frac{\hat{p}}{1-\hat{p}}\right) = \beta_0 + \beta_1 X_{portfolio\ characteristics} + \beta_2 X_{party\ left-right} + \beta_3 X_{female\ PM} + \beta_4 X_{year} + \beta_5 X_{coalition} + \varepsilon$$

For ease of interpretation, odds ratios are presented in this paper in Table 3. An odds radio coefficient above one indicates a positive effect (the appointment is more likely to be a woman) and a coefficient below on ea negative effect (the appointment is less likely to be a woman). The predicted margins and point predictions discussed are the probability of a positive outcome (a female appointee) assuming that the random effect is zero.

The logit coefficients for this analysis are provided in the Appendix, and should be interpreted as the log odds increase of the probability of the minister being female predicted by a 1 unit increase in the covariate, holding all other independent variables constant.

[11] A random-effects model, and random-effects model with country-clustered standard errors were employed to test the robustness of these findings. The substantive implications were consistent with the analysis presented in this paper.

Table 3: Logit regression analysis, odds ratios (gender of minister appointed as dependent variable)

	Baseline	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
		Core Portfolios		Salience	Gendered Portfolios			
Core (reference:non-core)		0.361*** (-0.03)	0.338*** (-0.03)					
Core X Right-Left Score (reference:non-core)			0.987* (-0.01)					
Medium Salience Portfolio (reference:low salience)				0.81 (-0.16)				
High Salience Portfolio (reference:low salience)				0.464*** (-0.08)				
Neutral Portfolio (reference:masculine)					2.009*** (-0.18)	2.105*** (-0.20)	2.660*** (0.45)	1.474 (0.46)
Feminine Portfolio (reference:masculine)					4.825*** (-0.42)	5.158*** (-0.47)	6.524*** (1.08)	2.928*** (0.90)
Neutral Portfolio X Right-Left Score (reference:masculine)						1.011 (-0.01)		
Feminine Portfolio X Right-Left Score (reference:masculine)						1.015** (-0.01)		
Voter Gender Attitudes							0.984* (0.01)	0.958*** (-0.01)
Neutral Portfolio X Gender attitudes								1.031*

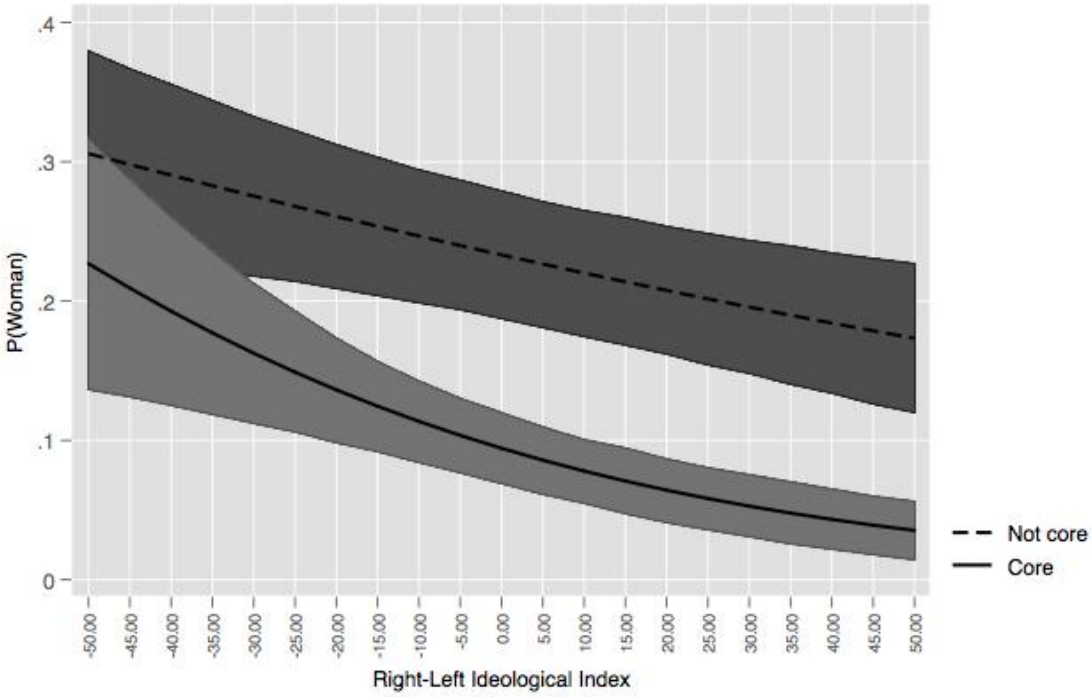
(reference:masculine)								(0.01)
Feminine Portfolio X Gender attitudes (reference:masculine)								1.039** (0.01)
Right-left party ideology	0.989*** (0.00)	0.990*** (0.00)	0.992** (0.00)	0.988*** (0.00)	0.992** (0.00)	0.983*** (0.00)	0.995 (0.00)	0.995 (0.00)
Female Prime Minister (reference:male PM)	1.194 (-0.15)	1.22 (-0.16)	1.208 (-0.16)	1.358 (-0.26)	1.026 (-0.14)	1.003 (-0.14)	1.424 (0.37)	1.366 (0.35)
Coalition (reference:single-party government)	0.938 (-0.14)	0.895 (-0.13)	0.896 (-0.13)	0.693 (-0.14)	0.854 (-0.14)	0.853 (-0.14)	0.72 (0.16)	0.699 (0.16)
Start year of minister's appointment	1.042*** (-0.01)	1.042*** (-0.01)	1.042*** (-0.01)	1.014 (-0.01)	1.042*** (-0.01)	1.042*** (-0.01)	1.023 (0.01)	1.024* (0.01)
N	6095	6095	6095	3058	5370	5370	1462	1462
bic	5936.531	5780.628	5783.016	2839.819	5061.064	5069.467	1525.28	1529.83
* p<0.05, ** p<0.01, *** p<0.001								

Analysis

Are women less likely to be appointed to the core ministries of state than their male counterparts (H1)? A descriptive overview of the data suggests so. Between 1987 and 2014, no women were appointed to any of the core ministries in Malta. While Sweden has the most women appointed to these roles between 1989 and 2014, women are still in a significant minority, with only 10% of appointments to core portfolios being allocated to women. Model 1 in Table 3 shows that an appointment to a 'core' portfolio is almost three times more likely to be a man than a woman (the odds ratio is 0.361), controlling for all other variables in the analysis. There is a stark gender difference between core and non-core ministers: women are much less likely to be found in the most powerful and 'inner circle' political offices.

Gender differences in appointments to core portfolios are moderated by party ideology (H3). Only 15% of the 219 cases where women were appointed to a 'core' portfolio were appointed by the parties in the farthest right quartile of parties of this dataset (where the left-right score is greater than 7.21). The interaction term between whether a portfolio is in the ministerial core, and the left-right score for a party shows that appointments to core portfolios by right-wing parties are even less likely to be female than appointments to core portfolios by left-wing parties.

Figure 1: Predicted probability of ministers of core and non-core portfolios being female, with core-ideology interaction (95% confidence intervals)



This is illustrated in Figure 1, which shows the predicted margins of a minister being a female from Model 2, with the interaction between party ideology and core portfolios. There is no statistically significant difference in the predicted gender of core and non-core appointments by parties at the farthest left of the political spectrum, where the left-right score is less than -30. These parties include the Social Democratic Party of Finland (SDP) in 1990, the French Socialist Party (PS) in 2012 and 2014, and the Belgian Socialist Party (PS) between 2007 and 2010, amongst others.

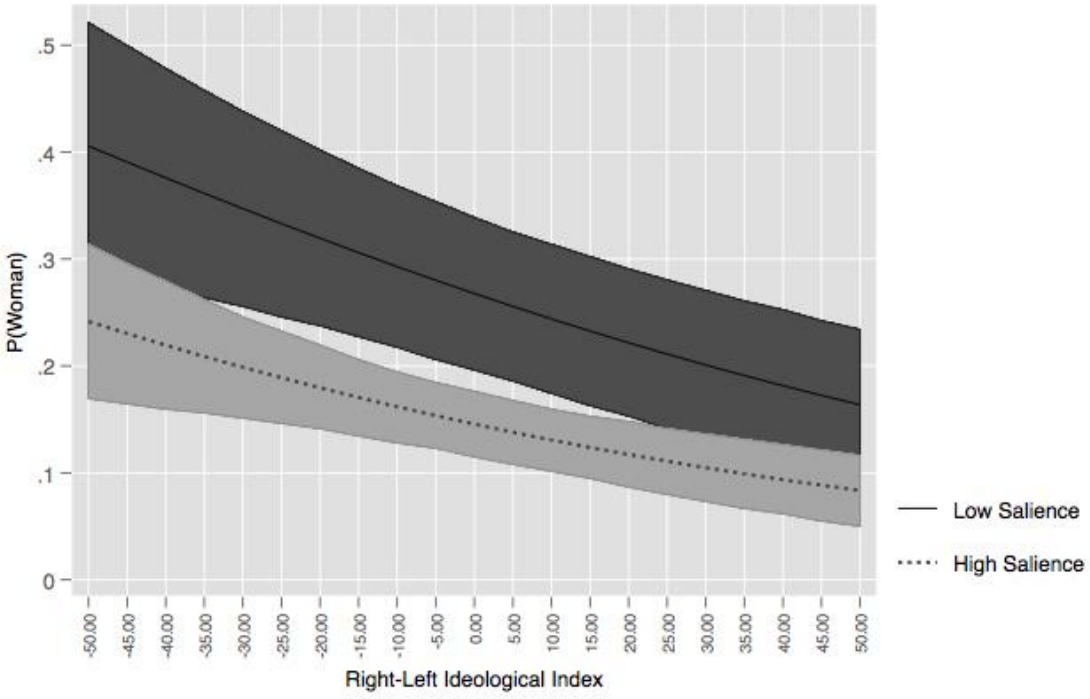
However, there is a significant difference in the gender of appointments to core portfolios for the majority (96.74%) of governing parties in this dataset. Where the left-right score is 30, as it was for the British Conservatives (C) or Greek New Democracy (ND) in the 1990s, the probability of a core appointment being female is 0.05. For a non-core appointment the probability is nearly three times that (0.19). This demonstrates the importance of considering party-level factors when addressing the gendered nature of portfolio allocation in European governments, as the allocation of women to core portfolios varies significantly across the left-right political spectrum.

Time is also an important driver of this effect, as appointments in more recent years are more likely to be female. For example, this model predicts that the likelihood of a German Free Democratic Party (FDP) appointment to a core ministry being female in 1991 is 0.06, but twenty years later in 2011 this had more than doubled to 0.13, despite a very minor rightwards shift in the right-left score of the party (from 1.89 to 4.27).

In each of the models presented in this analysis, I have controlled for the gender of the Prime Minister. It could be expected that female Prime Ministers are more likely to have more women in their close social networks, and therefore be more likely to appoint women to core, high salience and 'masculine' or 'neutral' portfolios. The gender of the Prime Minister is not a statistically significant factor in the allocation of portfolios to women in any of the models presented in this analysis.

This analysis provides a unique insight into the importance and salience of ministerial appointments for political parties by drawing on expert surveys (H2). Model 3 shows that appointments to high-salience portfolios are significantly less likely to be female. Indeed, appointments to high-salience portfolios are over half as likely to be female than appointments to low salience portfolios (the odds ratio is 0.46). However, there is not a significant gender difference in appointments to medium-salience portfolios.

Figure 2: Predicted probability of ministers of high and low salience portfolios being female (95% confidence intervals)



Party ideology does have a significant impact on the likelihood of a high-salience appointment being female. Figure 2 unpacks this further, and demonstrates a statistically significant difference in the predicted probability of a woman being appointed to high and low salience portfolios in the political centre (when the left-right score is between -35 and 25). This accounts for 92% of the observations in the dataset.

For example, the Dutch portfolio of the 'Minister of Home Affairs and Relations with the Dutch Antilles' was of high salience to the both the right-wing People's Party for Freedom and Democracy (VVD) which has a left-right score of 28.08 and the left-wing Labour Party (PvdA) which has a left-right score of 0.84. Yet the model's prediction of the likelihood of the Labour appointment to the post being female in 2007 (0.10) was almost twice that of the People's Party's appointment in 2006 (0.06).

The interaction between party ideology and the salience of portfolios is not statistically significant. This means that the relationship between the salience of appointments and the gender of ministers is not moderated by the partisanship

of those appointing the government.

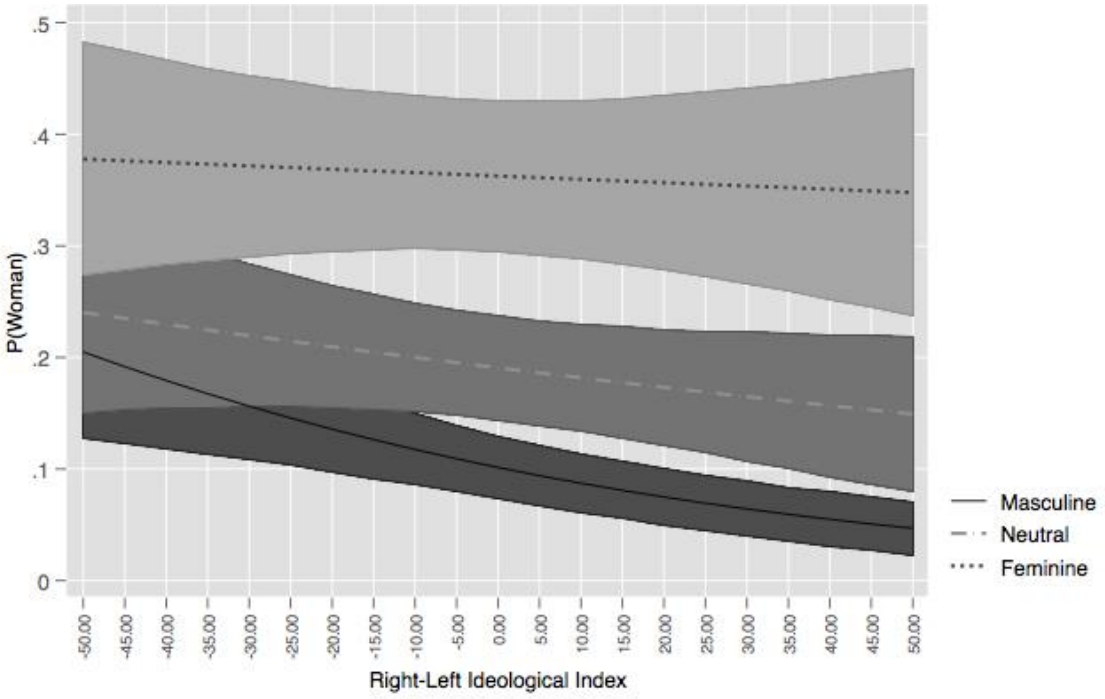
Ministers allocated to ‘feminine’ portfolios, such as women’s affairs, children and family, or health and social care, are much more likely to be female than those appointed to masculine portfolios such as military and foreign affairs, finance and the economy, or science and technology (H4). Only 15.65% of all appointments to masculine portfolios in this dataset are female, as opposed to 37.37% of appointments to feminine portfolios.

As the results of Model 4 in Table 3 shows, ministers appointed to feminine portfolios are 4.8 times more likely to be female than those appointed to masculine portfolios, holding the other variables in this model constant.

The effect of the gendered nature of ministerial portfolios on the likelihood of appointees being female is even stronger in right-wing parties than left-wing parties, as shown in Model 5, which includes an interaction between party ideology and the gendered nature of portfolios. Parties on the political right of the ideological spectrum are less likely than leftist parties to appoint women to masculine and neutral portfolios.

This relationship is explored further in Figure 3, which plots the predicted margins of Model 5. As this figure shows, for parties at the far left of the political spectrum with a (left-right score less than -27), there is no statistically significant difference between the likelihood of appointments to masculine and feminine portfolios being female. However, this only accounts for 4.3% of the observations in this dataset. There is no statistically significant difference between the likelihood of appointments to feminine, neutral and masculine portfolios being female for the most left-wing third of the parties in this data (when the left-right score is less than -10). As an example, the Portuguese Socialist Party (PS) had a score of -10.22 in 2005. However, this effect largely arises because the appointment of women to both masculine and neutral portfolios is very unlikely. When the left-right score is -10, the model’s predicted probability of an appointment to a masculine portfolio being a female is 0.12, and 0.20 for a neutral portfolio.

Figure 3: Predicted probability of ministers of masculine, neutral and feminine portfolios being female, with portfolio-ideology interaction (95% confidence intervals)



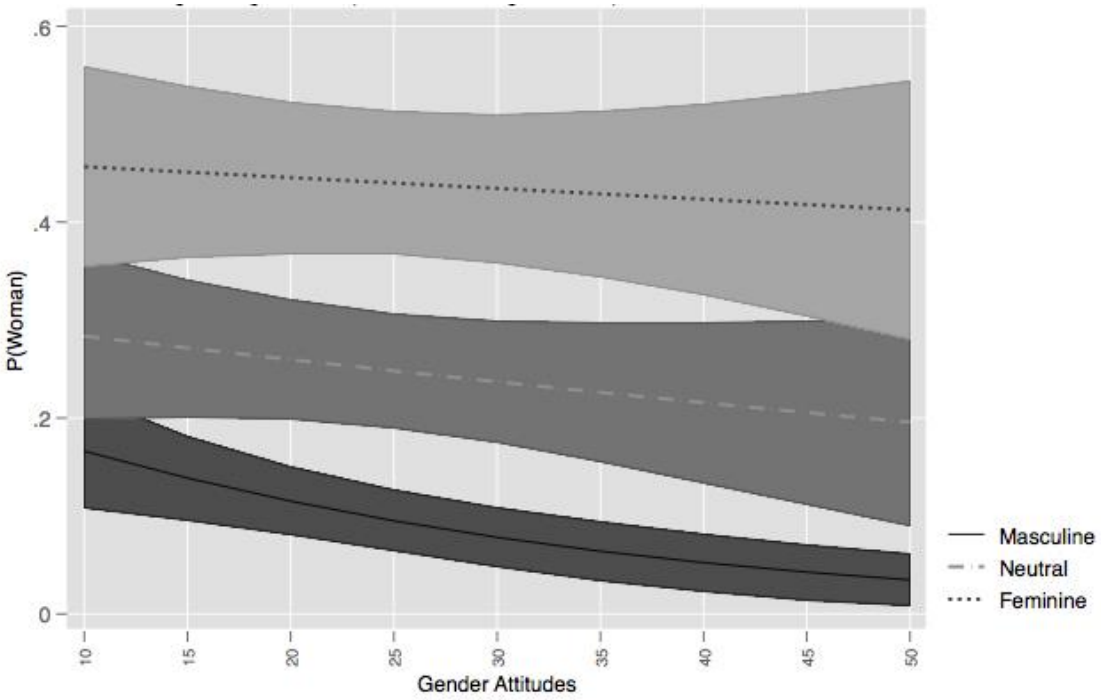
For parties on the political right, this effect is exacerbated. For centre-right parties (with a left-right score of 20) the predicted probability of an appointment to a feminine portfolio being female is 0.36. The prediction for a neutral portfolio is half this (0.17) and for a masculine portfolio is over five times less (0.07). Therefore, the model accurately predicts that the British Conservatives (left-right score of 17.54), when appointing their 2014 reshuffle cabinet selected female Nicky Morgan as Secretary of State for Education, and male Michael Fallon as Secretary of State for Defence. Across the political spectrum, the likelihood of appointees to feminine portfolios being female remains relatively consistent, dropping from 0.38 to 0.35 from the very left (-50) to the very right (50) respectively, when controlling for the other variables in the model.

This analysis reveals a gendered divide in portfolio allocation across most governing parties across the political spectrum. Where women are appointed to ministerial positions, it is most likely to be in feminine policy areas, and on the political right women are unlikely to be appointed to masculine portfolios.

Over time, all appointments are marginally more likely to be female. For example, based on Model 5, the probability of the Hungarian Socialist Party's (MSZP)

appointment to the Ministry of Finance in 1994 being female was 0.06. By 2014, this had doubled to 0.14 (the party had also moved five points to the left in that time). Another illustrative example is Ireland's Fianna Fáil's appointments to the 'Minister for Justice, Equality and Law Reform' position. The probability of a woman being appointed to that position increased from 0.30 in June 1997 to 0.41 in May 2008 (the party also moved leftwards by 15 points in that time).

Figure 4: Predicted probability of ministers of masculine, neutral and feminine portfolios being female, with portfolio-voter attitudes interaction (95% confidence intervals)



To what extent do the gender attitudes of a party's voters impact on the appointment of women ministers to government portfolios (H5)? The results from Model 6 in Table 3 suggest that parties whose voters have less progressive social attitudes are less likely to appoint women to neutral and masculine portfolios even when controlling for party ideology and time. The results from Model 7, which include an interaction between party ideology and the gendered nature of policy areas, demonstrate that this effect is particularly substantial on the political right. Figure 4 plots the marginal effects of this analysis, and shows that the gender attitudes of voters does have a statistically significant effect on the appointment of women to ministerial portfolios, especially in the allocation of masculine portfolios to women.

For parties whose voters have less progressive gender attitudes, there is a large, statistically significant difference between the likelihood of appointments to masculine, feminine and neutral portfolios being female. In 15.7% of cases in this data, more than 40% of respondents voting for a party answered that ‘When jobs are scarce, men have more right to a job than women’. These include the Italian Christian Democracy (DC) party and Ireland’s Fianna Fáil (FF) in the early 1990s, and Greek New Democracy (ND) in 2012. For this group of parties, whose voters have less progressive gender attitudes, the predicted probability of appointments to masculine portfolios being female is 0.05.

Parties with voters with more progressive gender attitudes (where less than 10% of voters answered that ‘When jobs are scarce, men have more right to a job than women’) include the Spanish Socialist Workers' Party (PSOE) in the late 1980s, and Danish Social Democracy (S) in the mid-2010s. For these parties, the probability of a masculine appointment being female is over three times greater than the group of less-progressive parties (0.17).

As Figure 4 shows, for parties whose voters have more gender-equal social attitudes there is no statistically significant difference in the likelihood of appointments to masculine, neutral and feminine portfolios being female. This stands in marked difference to the group of parties whose voters have less progressive social attitudes towards women, where the predicted margins indicate that the probability of a woman being appointed to a feminine portfolio (0.42) is over eight times greater than appointments to masculine portfolios (0.05).

This lends evidence to suggest that party leaders are considering their voters’ views when appointing the cabinet, and that voter attitudes have a significant effect on the appointment of women to the cabinet. This indicates that changing perceptions of women’s role in society may lead to a change in the policy areas women are allocated to in government.

In all except Models 3 and 6, time has a statistically significant impact on the allocation of portfolios to women: women are more likely to be appointed core,

high salience, and masculine portfolios over time. This reflects the results of existing analyses of the representation of women in elected and appointed political positions whereby women's representation increases over time (Escobar-Lemmon and Taylor-Robinson 2016; M. Krook and O'Brien 2012; O'Brien et al. 2015).

This analysis of the impact of coalition governments suggests that there is no statistically significant difference between coalition and single-party governments in the allocation of portfolios to women ministers, including in the baseline model. That parties behave similarly in single party and coalition governments suggests that while coalition dynamics may play an important part in the allocation of parties to portfolios (Bäck, Debus, and Dumont 2011a), they do not necessarily have an impact on parties' allocation of portfolios to women ministers. How coalition dynamics influence the allocation of women to ministerial portfolios could provide a fruitful area for future analysis. The analysis of the impact of women's representation in the Parliament (presented in the Appendix) also suggests that the presence of women in the legislature has an impact on the appointment of women ministers (in the subset of this dataset for which data is available). In all seven models, the factor of women's representation in the legislature is statistically significant and has a positive effect on the likelihood of a ministerial appointment being female (holding all other variables constant).

Discussion and Conclusions

Under which circumstances do women get appointed to different ministerial portfolios? In this paper, I have addressed this question by considering how the policy, office and vote-seeking motivations of party leaders influence the allocation of women to ministerial portfolios across Europe. This analysis of 7,005 ministerial appointments across 29 European countries builds upon existing analyses of women's appointment to government positions (Escobar-Lemmon and Taylor-Robinson 2009, 2016; M. Krook and O'Brien 2012) to provide an examination of how party and portfolio characteristics influence the allocation of appointment of women ministers. Both empirically and in terms of our theoretical understanding, I provide an approach by which to assess how the motivations we know shape government appointments also shape the role of women in those

governments.

To the extent that party leaders are office-motivated, they seek to ensure the ministers they appoint are loyal to them; in particular those they allocate to the most important portfolios. The motivation to have loyal ministers has a disproportionately detrimental effect on women, who are less likely to have access to the high-trust networks which promote and engender these trusting relationships. This effect is played out across European governments: ministers appointed to both high salience and 'core' portfolios are less likely to be female. For the 'core' portfolios, this effect is moderated by party ideology, as the gender gap in appointments is not present in left-wing parties.

The effect of ideology in moderating the gendered nature of ministerial appointments is a consistent theme throughout this analysis. This suggests that a more gender-balanced talent pool in left-wing parties impacts the appointment of women to ministerial portfolios. These party-level differences highlight the importance of looking beyond the representation of women in the government as a whole and considering trends in the characteristics of ministerial appointments at the individual level.

This analysis suggests that party leaders' perceptions of the competencies of female ministerial appointments do influence their portfolio allocation decisions. Women are significantly more likely to be appointed to 'feminine' portfolios than their male counterparts and are also less likely to be appointed to lead 'neutral' policy areas. The effect of these gender dynamics is moderated by party ideology, where women are over twice less likely to be allocated a 'masculine' portfolio in a right-wing party than a left-wing one. This shows how important the party ideology of governing parties can be influencing the appointment of women ministers - the effect of which is not necessarily so prevalent in other elected and appointed political offices.

Winning votes matters to party leaders and this analysis of the appointment of women to the cabinet suggests that the attitudes of a party's electorate play a role in who they appoint to their top posts. In political parties whose voters have more progressive gender attitudes, women are significantly more likely to be

allocated to masculine portfolios, even when controlling for party ideology. This significant effect indicates that the symbolic act of appointing women to the government can act as a means to communicate the party's perceptions about gender to voters. Where voters are receptive to women's presence in different policy areas, the political parties meet this expectation.

Based on this analysis, which emphasises the importance of party-level factors, future research could turn to exploring how other party-level factors, such as party selection pools and intra-party groups and networks, impact on the appointment of women to public office. Building on this theoretical framework, as well as O'Brien et al.'s (2015) study of female party leaders and Escobar-Lemmon and Taylor-Robinson's (2016) detailed investigation of the allocation of women to presidential cabinets, future research could consider how political parties and their leaders play a role in who is appointed to the government.

The findings of this analysis also have important implications for those who seek to see more women around the cabinet table, and less gender differentiation in the allocation of portfolios. Firstly, voter attitudes about women's role in society and the economy appear to have an impact on the gender composition of the cabinet. Therefore, working to change societal attitudes towards women leaders and politicians can influence who gets represented in the top jobs. Secondly, party ideology is a moderating factor in the process of government appointments which plays an important part in determining which portfolios women are allocated. This evidence suggests that in general, there is less gender differentiation in portfolio allocation in left-wing parties than right-wing parties. Thirdly, across the political spectrum, women's competencies and interest in the more 'masculine' areas of government may be overlooked due to gendered conceptions of 'who is good at that kind of thing'. By not appointing competent women who may be interested in 'masculine' policy areas, and men who have experience and interest in the 'feminine' areas of government, party leaders are not maximising the policy competence of their top appointments. Due to the importance of ministers for the government's successful implementation of their policy program (Laver and Shepsle 1996), all party leaders should be interested in ways in which to maximise the experience of their government appointments. This analysis shows that there is still work to be done in this area.

References

Alexiadou, Despina. 2015. ‘Ideologues, Partisans, and Loyalists: Cabinet Ministers and Social Welfare Reform in Parliamentary Democracies’. *Comparative Political Studies* 48(8): 1051–86.

———. 2016. *Ideologues, Partisans, and Loyalists: Ministers and Policymaking in Parliamentary Cabinets*. Oxford: Oxford University Press.

Annesley, Claire. 2015. ‘Rules of Ministerial Recruitment’. *Politics & Gender* 11(4): 618–42.

Annesley, Claire, and Francesca Gains. 2010. ‘The Core Executive: Gender, Power and Change ’. *Political Studies* 58(5): 909–29.

Bäck, Hanna, Marc Debus, and Patrick Dumont. 2011a. ‘Who Gets What in Coalition Governments? Predictors of Portfolio Allocation in Parliamentary Democracies’. *European Journal of Political Research* 50(4): 441–78.

———. 2011b. ‘Who Gets What in Coalition Governments? Predictors of Portfolio Allocation in Parliamentary Democracies ’. *European Journal of Political Research* 50(4): 441–78.

Bäck, Hanna, Marc Debus, and Jale Tosun. 2015. ‘Partisanship, Ministers, and Biotechnology Policy’. *Review of Policy Research* 32(5): 556–75.

Bakker, Ryan et al. 2015. ‘Measuring Party Positions in Europe’. *Party Politics* 21(1): 143–52.

Bashevkin, S. 2014. ‘Numerical and Policy Representation on the International Stage: Women Foreign Policy Leaders in Western Industrialised Systems’. *International Political Science Review* 35(4): 409–29.

Beckwith, Karen. 2011. ‘Interests, Issues, and Preferences: Women’s Interests and Epiphenomena of Activism’. *Politics & Gender* 7(3): 424–29.

Blondel, Jean, and Nick Manning. 2002. ‘Do Ministers Do What They Say? Ministerial Unreliability, Collegial and Hierarchical Governments’. *Political Studies* 50(3): 455–76.

Blondel, Jean, and Jean-Louis Thiebault. 1991. *The Profession of Government Minister in Western Europe*. Basingstoke: Macmillan.

Budge, Ian et al. 2001. *Mapping Policy Preferences. Estimates for Parties, Electors and Governments 1945-1998*. Oxford: Oxford University Press.

Campbell, Rosie, and Sarah Childs. 2015. ‘``To the Left, to the Right’: Representing Conservative Women’s Interests’. *Party Politics* 21(4): 626–37.

Caul, Miki. 2001. ‘Political Parties and the Adoption of Candidate Gender Quotas:

A Cross-National Analysis.' *Journal of Politics* 63(4): 1214–29.

Celis, Karen, and Sarah Childs. 2008. 'Introduction: The Descriptive and Substantive Representation of Women: New Directions'. *Parliamentary Affairs* 61(3): 419–25.

Chiva, Cristina. 2005. 'Women in Post-Communist Politics: Explaining Underrepresentation in the Hungarian and Romanian Parliaments'. *Europe-Asia Studies* 57(7): 696–994.

Claveria, Silvia. 2013. 'Women in Executive Office in Advanced Industrial Democracies: Presence, Portfolios and Post- Ministerial Occupation'. Universitat Pompeu Fabra.

———. 2014. 'Still a "Male Business"? Explaining Women's Presence in Executive Office'. *West European Politics* 37(5): 1156–76.

Dahlerup, Drude. 2006. *Women, Quotas and Politics*. New York: Routledge.

Dathan, Matt. 2015. 'Jeremy Corbyn Comes out Fighting amid Sexism Row and Insists Shadow Cabinet Positions He Has given to Women Are the Real "Top Jobs"'. *Independent*. https://www.independent.co.uk (January 6, 2018)..

Davis, Rebecca. 1997. 1997 *Women and Power in Parliamentary Democracies: Cabinet Appointments in Western Europe 1968–1992*. Lincoln: University of Nebraska Press.

Debus, Marc. 2008. 'Office and Policy Payoffs in Coalition Governments '. *Party Politics* 14(5): 515–38.

Döring, Holger, and Philip Manow. 2015. 'Parliament and Government Composition Database: Party Positions'. 2014(03/10). http://parlgov.org/stable/documentation/party-position.html.

Druckman, James, and Andrew Roberts. 2007. 'Communist Successor Parties And Coalition Formation In Eastern Europe'. *Legislative Studies Quarterly* 32(1): 5–31.

Escobar-Lemmon, Maria, and Michelle Taylor-Robinson. 2005. 'Women Ministers in Latin American Government: When, Where and Why?' *American Journal of Political Science* 49(4): 829–44.

———. 2009. 'Pathways to Power in Presidential Cabinets: What Are the Norms for Different Cabinet Appointments and Do Female Appointees Conform to the Norm? A Study of 5 Presidential Democracies'. In *Annual Meeting of the American Political Science Association*, Toronto.

———. 2016. *Women in Presidential Cabinets: Power Players or Abundant Tokens?* Oxford: Oxford University Press.

European Values Study. 2015. ‘European Values Study- Longitudinal Data File’. : http://www.gesis.org/unser-angebot/daten-analysier (October 1, 2017).

Freidenvall, Lentia. 2013. ‘Step by Step – Women’s Inroads to Parliamentary Politics’. In *Breaking Male Dominance in Old Democracies*, eds. Drude Dahlerup and Monique Leyenaar. Oxford: Oxford University Press, 97–123.

Giannetti, Daniela, and Michael Laver. 2005. ‘Policy Positions and Jobs in the Government’. *European Journal of Political Research* 44(1): 91–120.

Greene, Zachary, and Christian B Jensen. 2014. ‘Manifestos, Salience and Junior Ministerial Appointments’. *Party Politics*.

———. 2017. ‘Ruling Divided: Disagreement, Issue Salience and Portfolio Allocation’. *Party Politics*: 135406881668836.

Henley, Jon. 2017. ‘Europe’s Defence Minister Roles Become Female Stronghold’. *The Guardian*.

Heppell, Timothy. 2012. ‘Ministerial Selection and the Cameron Government: Female Ministerial Representation and the One-Third Objective’. *Representation* 48(2): 209–19.

Huber, John D., and Cecilia Martinez-Gallardo. 2008. ‘Replacing Cabinet Ministers: Patterns of Ministerial Stability in Parliamentary Democracies’. *The American Political Science Review* 102(2): 169–80.

Jacob, Surajl, John Scherpereel, and Melinda Adams. 2014. ‘Gender Norms and Women’s Political Representation: A Global Analysis of Cabinet 1979–2009’. *Governance* 27(2): 321–45.

Kaiser, André, and Jörn Fischer. 2009. ‘Linkages between Parliamentary and Ministerial Careers in Germany, 1949–2008: The Bundestag as Recruitment Pool ’. *German Politics* 18(2): 140–54.

Kam, Christopher, William T Bianco, Itai Sened, and Regina Smyth. 2010. ‘Ministerial Selection and Intraparty Organization in the Contemporary British Parliament’. *American Political Science Review* 104(2): 289–306.

Kanter, Rosabeth Moss. 1977. *Men and Women of the Corporation*. New York: Basic Books.

Kenworthy, Lane, and Melissa Malami. 1999. ‘Gender Inequality in Political Representation: A Worldwide Comparative Analysis’. *Social Forces* 78(1): 235–68.

Kitschelt, Herbert. 1994. *The Transformation of European Social Democracy*. Cambridge, UK: Cambridge University Press.

Krook, Mona Lena. 2007. ‘Candidate Gender Quotas: A Framework for Analysis’.

European Journal of Political Research 46(3): 367–94.

Krook, Mona, and Diana Z O'Brien. 2012. 'All the President's Men? The Appointment of Female Cabinet Ministers Worldwide'. *The Journal of Politics* 74(3): 840–85.

Laver, Michael, and Kenneth Shepsle. 1996. *Making and Breaking Governments: Cabinets and Legislatures in Parliamentary Democracies*. Cambridge: Cambridge University Press.

Leftly, Mark. 2014. 'Liberal Democrat Women Criticise Nick Clegg's All-Male Cabinet Team'. *The Independent*.

Mansbridge, Jane. 1999. 'Should Blacks Represent Blacks and Women Represent Women? A Contingent "Yes"'. *The Journal of Politics* 61(3): 628.

Matland, Richard. 1998. 'Women's Representation in National Legislatures: Developed and Developing Countries'. *Legislative Studies Quarterly* 23(1): 109–25.

Mershon, Carol. 2001. 'Party Factions and Coalition Government: Portfolio Allocation in Italian Christian Democracy'. *Electoral Studies* 20(4): 555–80.

Mölder, M. 2013. 'The Validity of the RILE Left-Right Index as a Measure of Party Policy'. *Party Politics* 22(1): 37–48.

Moury, Catherine. 2011. 'Coalition Agreement and Party Mandate: How Coalition Agreements Constrain the Ministers'. *Party Politics* 17(3): 385–404.

Müller, Wolfgang C, and Kaare Strøm. 1999. *Policy, Office, Or Votes?: How Political Parties in Western Europe Make Hard Decisions*. Cambridge: Cambridge University Press.

Norris, Pippa, and Joni Lovenduski. 1995. *Political Recruitment: Gender, Race and Class in the British Parliament*. Cambridge: Cambridge University Press.

O'Brien, Diana Z., Matthew Mendez, Jordan Carr Peterson, and Jihyun Shin. 2015. 'Letting Down the Ladder or Shutting the Door: Female Prime Ministers, Party Leaders, and Cabinet Ministers'. *Politics & Gender* 11(4): 689–717.

Ono, Yoshikuni. 2012. 'Portfolio Allocation as Leadership Strategy: Intraparty Bargaining in Japan'. *American Journal of Political Science* 56(3): 553–67.

Pitkin, Hanna Fenichel. 1967. *The Concept of Representation*. California: University of California Press.

Poguntke, Thomas. 2002. 'Green Parties in National Governments: From Protest to Acquiescence?' *Environmental Politics* 11(1): 133–45.

Polk, Jonathan et al. 2017. 'Explaining the Salience of Anti-Elitism and Reducing Political Corruption for Political Parties in Europe with the 2014 Chapel Hill

Expert Survey Data'. *Research & Politics* 4(1): 205316801668691.

Raabe, Johannes, and Eric Linhart. 2014. 'Disentangling the Value of a Ministry: Party Leaders' Evaluations of German State Ministries'. *West European Politics* 37(5): 1065–86.

Reynolds, Andrew. 1999. 'Women in the Legislatures and Executives of the World: Knocking at the Highest Glass Ceiling'. *World Politics* 51(4): 547–72.

Rose, Richard. 1987. *Ministers and Ministries: A Functional Analysis*. Oxford: Oxford University Press.

Rule, Wilma. 1987. 'Electoral Systems, Contextual Factors and Women's Opportunity for Election to Parliament in Twenty-Three Democracies'. *The Western Political Quarterly* 40(3): 477–98.

Schleiter, Petra, and Edward Morgan-Jones. 2009. 'Party Government in Europe? Parliamentary and Semi-Presidential Democracies Compared'. *European Journal of Political Research* 48(5): 665–93.

Seki, Katsunori, and Laron K. Williams. 2014. 'Updating the Party Government Data Set'. *Electoral Studies* 34: 270–79.

Siaroff, Alan. 2000. 'Women's Representation in Legislatures and Cabinets in Industrial Democracies'. *International Political Science Review* 21(2): 197–215.

Strøm, Kaare. 2000. 'Delegation and Accountability in Parliamentary Democracies'. *European Journal of Political Research* 37: 261–289.

Volkens, Andrea. 2007. 'Strengths and Weaknesses of Approaches to Measuring Policy Positions of Parties'. *Electoral Studies* 26(1): 108–20.

Warwick, Paul V., and James N. Druckman. 2006. 'The Portfolio Allocation Paradox: An Investigation into the Nature of a Very Strong but Puzzling Relationship'. *European Journal of Political Research* 45(4): 635–65.

Williams, Laron, and Katsunori Seki. 2016. 'Seki-Williams Government and Ministers Data'.

Woldendorp, Jaap, Hans Keman, and Ian Budge. 2000. *Party Government in 48 Democracies (1945–1998): Composition - Duration - Personnel*. Dordrecht: Springer.

Paper Two: Appendix

Table 1: : Logit regression analysis, logit coefficients (gender of minister appointed as dependent variable)

	Baseline	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
		Core Portfolios		Salience	Gendered Portfolios			
Core (reference:non-core)		-1.016 *** (-0.08)	-1.083*** (-0.09)					
Core X Right-Left Score (reference:non-core)			-0.013* (0.00)					
Medium Salience Portfolio (reference:low salience)				-0.236 (-0.2)				
High Salience Portfolio (reference:low salience)				-0.770*** (-0.17)				
Neutral Portfolio (reference:masculine)					0.697*** (-0.09)	0.744*** (-0.10)	0.793*** (-0.12)	0.392* (-0.2)
Feminine Portfolio (reference:masculine)					1.572*** (-0.09)	1.638*** (-0.09)	1.672*** (-0.12)	1.249*** (-0.19)
Neutral Portfolio X Right-Left Score (reference:masculine)						0.011 (-0.01)		
Feminine Portfolio X Right-Left Score (reference:masculine)						0.015** (-0.01)		
Vote Gender Attitudes							-0.007 (-0.01)	-0.026** (-0.01)

Neutral Portfolio X Gender attitudes (reference:masculine)								0.024** (-0.01)
Feminine Portfolio X Gender attitudes (reference:masculine)								0.025** (-0.01)
Right-left party ideology	-0.011*** (0.00)	-0.010*** (0.00)	-0.008** (0.00)	-0.013*** (0.00)	-0.008*** (0.00)	-0.017*** (0.00)	-0.009** (0.00)	-0.009** (0.00)
Female Prime Minister (reference:male PM)	0.182 -0.13	0.206 (-0.13)	0.196 (-0.13)	0.337 (-0.19)	0.037 -0.14	0.015 -0.14	-0.017 (-0.18)	-0.028 (-0.18)
Start year of minister's appointment	0.040*** (0.00)	0.040*** (0.00)	0.040*** (0.00)	0.01 (-0.01)	0.039*** (-0.01)	0.040*** (-0.01)	0.027*** (-0.01)	0.026*** (-0.01)
Constant	-81.802*** -9.65	-80.748*** (-9.79)	-81.521*** (-9.79)	-20.544 (-16.47)	-80.638*** (-10.50)	-81.395*** (-10.48)	-55.091*** (-16.09)	-52.803*** (-16.00)
lnsig2u Constant	-0.872** -0.29	-0.826** (-0.29)	-0.822** (-0.29)	-1.148*** (-0.33)	-0.606* (-0.29)	-0.603* (-0.29)	-0.726* (-0.34)	-0.742* (-0.34)
N	6095	6095	6095	3058	5370	5370	2883	2883
bic	5928.011	5772.48	5774.86	2835.154	5053.464	5061.889	2858.29	2878.868
* p<0.05, ** p<0.01, *** p<0.001								

Table 2: Summary statistics of left-right score by party family (Volkens et al. 2016)

Party Family	Observations	Mean	Standard Deviation	Minimum	Maximum
Ecologist	71	-15.37	10.32	-36.11	1.39
Socialist or other left	93	-13.40	25.57	-45.42	16.82
Social democratic	2,044	-11.11	13.65	-45.46	35.29
Liberal	850	3.75	12.84	-29.64	45.76
Christian democrat	1,045	6.41	15.08	-26.76	40.42
Conservative	1,352	3.76	15.55	-30.50	48.19
Nationalist	167	7.31	13.61	-18.03	48.19
Agrarian	273	-3.99	10.50	-21.09	35.90
Ethnic-regional	90	-5.37	10.84	-29.53	14.52
Special issue	35	-3.49	8.72	-20.70	9.65
Diverse alliance	75	-13.76	3.61	-28.85	-12.91

Impact of women's representation in the legislature

Data and Methods

In this Appendix, I examine the effect of women's representation in the parliament on the allocation of portfolios to female ministers. Data on women's presence in parliament is from the Inter-Parliamentary Union (2018) and details the proportion of seats held by women in the single or lower chamber of the national parliament. Data is available for 1990 and 1995 to 2015. While data is not available on the gender composition of the legislature at a party level, the representation of women in the legislature provides an insight into the 'supply' of women in the pool of candidates for ministerial positions.

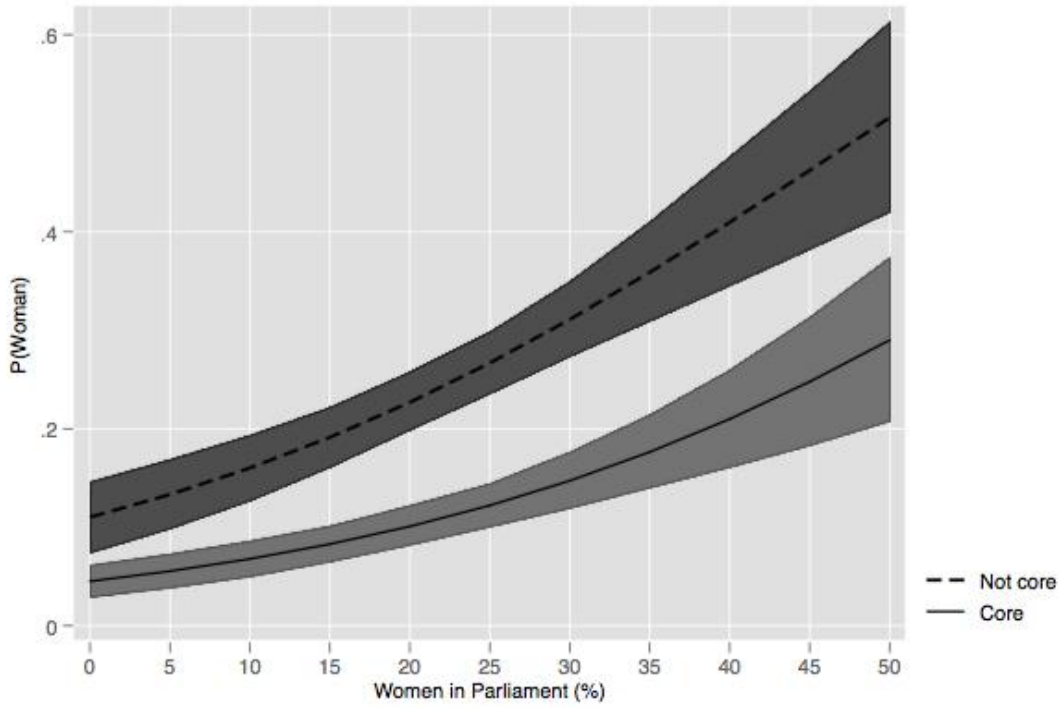
The results presented here are based on the same models as in the full paper: logistic (logit) regression models with country fixed effects. The outcome variable is the gender of the ministerial appointment. Due to the limited availability of data on women's representation in parliament, the number of observations is significantly reduced in this analysis (4945 rather than 6095 observations).

Analysis

The results in Table 3 indicate that the representation of women in parliament does indeed have an impact on the appointment of women ministers (in the subset of this dataset for which data is available). In all seven models, the factor of women's representation in the legislature is statistically significant and has a positive effect on the likelihood of a ministerial appointment being female (holding all other variables constant).

Figure 1 shows the predicted margins for Model 8, which demonstrates the predicted increase in the probability of appointments to both core and non-core portfolios being female when the representation of women in parliament increases. Where 10% of MPs are women, the model's predicted probability of a core appointment being a woman is 0.07 and for non-core appointments it is 0.16. Where the legislature is 30% female, this increases to 0.15 for core appointments and 0.31 for non-core appointments.

Figure 1: Predicted probability of ministers being female, core portfolios with margins for women in parliament (95% confidence intervals)



In all models except Model 14, the substantive effects of this analysis are the same as in the full paper. This suggests that the findings presented in the main paper are robust – ministerial appointees are more likely to be women if they are appointed to feminine, neutral or non-core portfolios. Appointees are also more likely to be female if they are appointed by a left-wing government or by a party whose voters have more progressive gender attitudes. Unlike the analysis in the full paper, the interaction between the neutral portfolio and gender attitudes does not achieve statistical significance (Model 14).

In all models which include the representation of women in the legislature, the year the government is appointed is not significantly significant (unlike in the full paper). This suggests that women's representation in the legislature is a more effective predictor of women's appointment to the government than the year the government is appointed. The correlation between the year of appointment and the percentage of women in parliament is only 0.309. However, this finding may be influenced by this analysis only being conducted on a subset of the full data (for the year 1990, and 1995 to 2015). This, therefore, excludes most data from 1980 to 1995 from the full analysis.

This analysis suggests that the representation of women in the legislature does have an impact on the gendered allocation of ministerial portfolios. Future analyses could build on this finding to undertake an analysis of the impact of the number of women in parliament at the party level on executive appointments.

References

Volkens, A. et al., 2016. *The Manifesto Data Collection. Manifesto Project (MRG/CMP/MARPOR). Version 2016a*, Berlin: Wissenschaftszentrum Berlin für Sozialforschung (WZB).

Table 3: : Logit regression analysis, odds ratios (gender of minister appointed as dependent variable) Logit coefficients

	Baseline	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14
		Core Portfolios		Salience	Gendered Portfolios			
Core (reference:non-core)		0.380*** (-0.03)	0.354*** (-0.03)					
Core X Right-Left Score (reference:non-core)			0.987* (-0.01)					
Medium Salience Portfolio (reference:low salience)				0.839 (-0.16)				
High Salience Portfolio (reference:low salience)				0.472*** (-0.08)				
Neutral Portfolio (reference:masculine)					1.837*** (-0.18)	1.948*** (-0.20)	2.438*** (-0.44)	1.68 (-0.60)
Feminine Portfolio (reference:masculine)					4.441*** (-0.41)	4.896*** (-0.48)	5.980*** (-1.07)	2.640** (-0.92)
Neutral Portfolio X Right-Left Score (reference:masculine)						1.012 (-0.01)		
Feminine Portfolio X Right-Left Score (reference:masculine)						1.020*** (-0.01)		
Voter Gender Attitudes							0.988 (-0.01)	0.965* (-0.01)
Neutral Portfolio X Gender attitudes (reference:masculine)								1.021 (-0.02)
Feminine Portfolio X Gender attitudes (reference:masculine)								1.042** (-0.02)

Women in Parliament	1.043*** (-0.01)	1.044*** (-0.01)	1.044*** (-0.01)	1.047*** (-0.01)	1.045*** (-0.01)	1.045*** (-0.01)	1.039*** (-0.01)	1.038*** (-0.01)
Right-left party ideology	0.989*** (0.00)	0.989*** (0.00)	0.992** (0.00)	0.987*** (0.00)	0.992** (0.00)	0.981*** (0.00)	0.990* (0.00)	0.990* (0.00)
Female Prime Minister (reference:male PM)	1.158 (-0.16)	1.167 (-0.16)	1.156 (-0.16)	1.26 (-0.24)	1.011 (-0.15)	0.978 (-0.15)	1.21 (-0.28)	1.184 (-0.27)
Coalition (reference:single-party government)	1.062 -0.15	1.035 -0.15	1.034 -0.15	0.786 -0.13	0.967 -0.15	0.967 -0.15	0.755 -0.14	0.726 -0.14
Start year of minister's appointment	1.008 -0.01	1.007 -0.01	1.008 -0.01	0.977* -0.01	1.006 -0.01	1.007 -0.01	0.998 -0.01	1.001 -0.01
N	4945	4945	4945	2496	4371	4371	1157	1157
bic	5039.250	4918.101	4921.355	2419.668	4336.716	4341.898	1261.378	1268.241
* p<0.05, ** p<0.01, *** p<0.001								

Government policy making on leave for fathers: a qualitative comparative analysis

There is significant variation in fathers' entitlements to parental leave across Europe. While extensive research into parental leave has concluded that the duration and gender balance of leave can impact a broad range of outcomes, the government policy-making which shapes leave entitlements has been overlooked. When governments decide to reform leave for fathers, under which circumstances do they introduce or extend a more gender-balanced 'dual-earner/dual-carer' model of family policy? In this paper, I set out a theory of government policy making on leave for fathers which informs a fuzzy-set qualitative comparative analysis of all instances of policy reform of fathers' leave in the 20 OECD European countries since 1990. I find women's active engagement in paid work to be a necessary condition for a family policy reform to follow the 'dual-earner/dual-carer' model. I find two pathways which are sufficient for a reform of fathers' leave to follow the more gender-balanced model: 1) a female, left-wing cabinet minister in a context of high female labour force participation and a left-dominated parliament; and 2) a male, right-wing minister in a context of positive public attitudes about women's role in the workplace and high female labour force participation.

Introduction

All governments face the question of how to design policies for new parents, including the duration, flexibility and balance of leave between mothers and fathers[12] While there is extensive research on the implications of parental leave for fathers on various policy outcomes, there has not been cross-national analysis of the conditions under which governments decide to introduce leave policies which promote balance between parents in work and home life. In this paper, I examine the conditions under which governments introduce and extend models of parental leave which balance responsibilities between parents.

Depending on the European country they live in, new fathers may be entitled to over a years' leave (Sweden, Spain and France) or no statutory entitlement whatsoever (Slovakia and Switzerland). The design of family policy can have a very tangible impact on the care of babies and young children, and has even been dubbed a 'state intervention in the battle of the sexes' which, with an appropriately stipulated provision, can lead to a shift in household divisions of labour for new parents (Kotsadam & Finseraas 2011). There is also evidence to suggest that men taking paternity leave at the start of their children's lives can encourage fathers to develop the parenting skills and sense of responsibility that then enables them to be active co-parents rather than helpers to their female partners (Rehel 2013). Some argue that statuary leave for fathers 'raises the possibility of a new polarisation for infants: being born into either a parental-leave-rich or -poor household and, indeed, country' (O'Brien 2009, 190). How governments chose to structure family policy, therefore, can have important impacts on families.

In this paper, I consider all reforms of leave for fathers, and theorise the conditions under which these reforms take the most progressive forms, which are targeted at promoting balance in caring responsibilities between parents. I ask: When governments decide to reform leave for fathers, under which circumstances do they introduce or extend a more gender-balanced 'dual-

[12] This analysis considers family policy through the lenses of motherhood and fatherhood given that these are the prevailing models of approaches to family policy. However, many of the policies available for fathers are also available for the 'other parent' in same-sex relationships.

earner/dual-carer' model of family policy? Based on data on all reforms of all cases of leave for fathers across 20 European OECD countries since 1990, I use a fuzzy-set Qualitative Comparative Analysis (fsQCA), guided by theory, to identify causally-relevant conditions for instances of progressive reforms of father-specific leave. These cases are also explored in detail throughout the analysis.

Parental leave policies

Parental leave policy packages vary dramatically over time and across otherwise similar countries. In this section, I provide some background on the evolution of family policy reforms. A wide range of complicated and multidimensional family policy options are available, including the division of leave between parents, financing periods of leave, eligibility, and flexibility (Ray et al. 2010).

A brief history of parental leave policies

In the late nineteenth and early twentieth centuries, many countries introduced maternity leave policies to recognise the importance of working women taking time to recover from childbirth and to care for young children (Kelly & Dobbin 1999). Maternity leave became a foundational part of the welfare state, with around four weeks of low-paid protected leave becoming the norm. These provisions were largely established to 'protect' the mother and child, in the interests of their physical wellbeing.

Following this 'foundational phase', many governments sought to build on existing maternity leave policies entitlements (Daly & Ferragina 2017). From the 1960s to the 1980s, maternity leave policies were redesigned to extend the duration and payments for mothers.

From the 1980s onwards, governments took new approaches to providing a statutory basis for care for children in the first weeks of their lives. Many of these policy reforms were motivated by calls for increased gender equality, especially in terms of providing choice for women in their approach to managing child rearing and work (Daly & Ferragina 2017). Between 1980 and 2010 across the

OECD countries, the average duration of paid parental leave increased from 18 to 54.2 weeks, and the average salary replacement rate almost trebled (from 11.3% to 33.2% of the average production worker's wage) (Daly & Ferragina 2017, p.9).

Leave for fathers

To all intents and purposes, paid father-specific leave did not exist in OECD countries in 1970, with only three countries (Spain, Luxembourg and Belgium) providing any kind of paid entitlement for fathers (for one, two and three days respectively) (OECD 2017b). In the 1990s, many countries began to allocate 'paternity leave' to fathers - one or two days on the birth of the child. Some then made those paternity days compulsory, and some extended this protected leave of absence to one or two weeks.

However, governments then faced the challenge that these policies weren't necessarily meeting their objective of more equalised relations between new fathers and mothers. Enabling new fathers to have short periods of paternity leave was not effectively promoting the objective of gender balance in care and work between parents. Therefore, some governments tried to address this challenge by promoting a 'dual-earner/dual-carer' model of leave.

The 'dual-earner/dual-carer' model of parenthood seeks to resolve the underlying tension between the importance of women's access to paid work in the labour market, and recognising the importance of caregiving in the home (Crompton, 1999; Gornick & Meyers, 2005; Gornick & Meyers, 2008; Pfau-Effinger, 2005; Ray et al., 2010). Following early pioneers of this model of shared parental leave, such as Germany and Sweden, others sought to make leave more flexible for mothers and fathers and introduced shared periods of paid leave. For example, under the German 'Elternziet', mothers and fathers can share the parental allowance, receiving around two-thirds of their salary for a maximum of 14 months. Each parent can draw a minimum of two and a maximum of twelve months' parental allowance. Some systems also guarantee fathers a period of leave within the overall leave allocation on a 'use it or lose it' basis (Daly & Ferragina 2017, p.9). These father-targeted schemes of shared parental leave

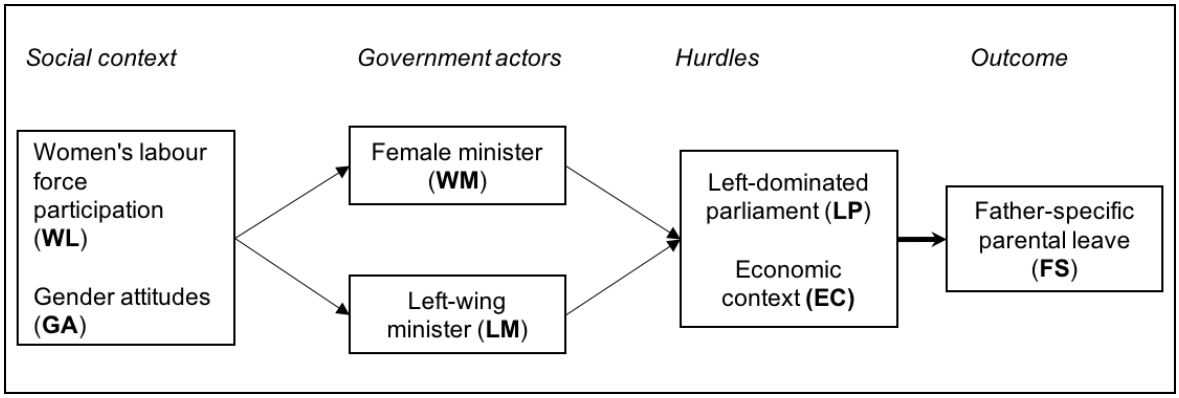
increase their usage (O'Brien 2009). This paper investigates the introduction and extension of this 'dual-earner/dual-carer' model.

Theory: Family policy reform

When governments decide to reform leave for fathers, under which circumstances do they opt for a 'dual-earner/dual-carer' model of family policy? In this paper, I explore how the conditions under which governments make decisions about parental leave policies shape what form those policies take. To capture the complexities of policy change and policy-making processes, I develop a combinatorial model of policy making. Rather than a deterministic consideration of which factors shape policy outcomes (i.e. X causes Y), this approach sets out how multiple factors interact in shaping the policy outcome (i.e. in most cases where X, A and B are all present, Y is also present). Throughout, I use the fsQCA terminology of necessity and sufficiency. Necessary conditions are those where the condition must be in place for the outcome to be observed. Sufficient conditions (or combinations of conditions) are adequate to draw the conclusion that the outcome is true, although there may be cases in which the outcome occurs under other conditions.

This theoretical framework is based on three stages, I theorise that all three of these stages should be met for a reform of leave for fathers to follow the 'dual-earner/dual-carer' model. The first stage is a progressive social context, which is important for the 'demand' for more gender egalitarian parental leave policy. I argue that this stage will be necessary for a reform to follow the 'dual-earner/dual-carer' model. The second stage of this theoretical model is for political actors to be in place to respond to this demand for reform. As cabinet ministers act as important gatekeepers for policy reform, I propose that either a female or left-wing minister will be in the relevant portfolio for a reform of leave to follow the 'dual-earner/dual-carer' model. The third stage is that these policy initiatives must pass the 'hurdles' of the legislature and economic context, which shape policy outcomes. An overview of these theoretical expectations is provided in Figure 1.

Figure 1: Theoretical expectations



Social context: women's labour force participation and gender attitudes

Family policy is a social issue - it shapes the structure of families, the balance of responsibilities between parents, and the relationship between parents and children. Government policy making on family leave entitlements is, therefore, driven by the social context in which decision making takes place. I suggest that governments will seek to introduce more gender-balanced leave reforms following the 'dual-earner/dual-carer' model where women are actively engaged in the workforce and voters hold more positive attitudes towards women in work. I argue that both of these conditions are necessary for a reform of leave for fathers to follow the gender-balanced model.

Women's labour force participation

Women's role in the workplace has changed dramatically over the last 30 years, with more women engaging in paid work in a more diverse range of roles and sectors (Crompton 2007). This has had a significant impact on the role of women in work, and therefore their role as carer in the home. As of 2016, more men participated in paid work than women in all European OECD countries. The most gender-equal context was Iceland, where the ratio of female to male engagement in the labour market was 91%, meaning that 91 women out of 100 men were in paid work. Norway was the second most-equal context with a ratio of 89%. The least equal country was Italy, where 68 women per 100 men were economically active, and in Greece this was 73% (Ortiz-Ospina & Tzvetkova 2017). In all European OCED countries, there was a rapid increase in women's engagement in paid work between 1970 and 2000, but since the turn of the century there has

been a plateau in some countries. This has been attributed to a broad reduction in the number of hours per worker, which has paralleled the increased supply of women in the labour force (Fortin 2015; Ortiz-Ospina & Tzvetkova 2017).

All workers have limited time resources, and are required to balance the competing demands of paid and unpaid work. When families and children are involved, this means balancing childcare at home with paid work, so parents' involvement in paid work inevitably impacts on their involvement in work in the household. In 2015, the European Working Condition Survey identified a gender gap of over 14 hours per week spent on unpaid household work in Cyprus, Hungary, Malta, the Netherlands and Slovenia, amongst others. In comparison, the gap in Denmark, Finland and Sweden was under eight hours (Eurofound 2015). These gendered differences in time spent in the home are reflective of gendered differences of women's engagement in the workforces.

In contexts where more women are involved in the labour force, I suggest that there will be increased demand for a greater balance of responsibilities between mothers and fathers in the care of young children. Where women are actively engaging in paid work, there will be demand for government to enact policies which enable women to return to work after the birth of their children, and for fathers to also participate in child rearing.

One of the aims of 'dual-earner/dual-carer' family policies are to promote mothers' return to the workforce, so they can lead to increases in women's labour force participation (Lefebvre & Merrigan 2008). So, to an extent, the explanatory factor of women's workforce engagement may be endogenous to the outcome of dual-earner/dual-carer leave for fathers. However, trends in women's engagement in paid work are also driven by a range of factors including maternal health, the number of children per family, the cost and availability of childcare, labour-saving consumer durables (washing machines, vacuum cleaners, etc.), and other social and cultural factors (Ortiz-Ospina & Tzvetkova 2017). Therefore, female labour force participation remains an effective measure of the broad cultural context in relation to gender equality.

Women's role in the workforce also provides a more relevant indication of socio-

economic context than traditional welfare regime typologies, on which studies of welfare policies have traditionally relied. These typologies are based on Esping-Andersen's (1990) seminal work categorising welfare states as liberal, conservative/corporatist, or social democratic. They were identified to categorise how socio-economic dynamics shape approaches to welfarism. Feminist scholars of welfare states have, however, criticised this approach for neglecting to consider women's access to paid work (Orloff 1993). Feminist scholars have also raised related concerns that scholars of the welfare state have failed to recognise the connection of care as work, or view the welfare state from the perspective of caregivers (Leira 1992).

Public attitudes

Public attitudes towards women's role in the workplace also shape the social context for the introduction of family leave reforms. Parties and governments are vote-seeking (Müller & Strøm 1999), I therefore expect that progressive gender attitudes towards women in work will be a necessary condition for the introduction of the progressive 'dual-earner/dual-carer' model of family policy.

Some studies suggest that public, societal attitudes toward women's role in the home and the workplace are deeply historical. People from countries which historically relied on men's physical strength for plough-based agriculture are found to hold less equal beliefs about gender roles (Alesina et al. 2013). Dyble et al. (2015) suggest that levels of sex egalitarianism during human evolutionary history shape views about social organisation, and roles of cohabiting men and women in particular. In more recent history, views towards women's role in the workplace have been shaped by religiosity, education and politics (Price 2015).

Where voters hold gender-progressive attitudes towards women's role in the workforce, governments may seek to respond by designing welfare reforms in a way which promotes mothers' ability to return to the workforce and more equally distribute caring responsibilities between parents. This does not mean that voters will lobby for progressive family policy in particular, but rather that governments will be inclined to make progressive leave reforms where there is a general cultural context of women's engagement in the workforce, and positive gender

attitudes towards women in work.

Government actors: female and left-wing cabinet ministers

While social attitudes and women's engagement in paid employment shapes the demand for progressive family policy, government is responsible for recognising this demand and deciding how to respond to it. Policy change is often driven by key political actors taking steps to move public policy on an issue. 'Punctuated equilibrium' models of policy change (Kay 2006) similar to 'stick-slip' models of public budgets (Jones et al. 2009), suggest that the policy-making process is characterised by periods of no change interrupted by bursts of rapid transformation. These periods of policy change are initiated by political actors who advocate for policy reform – and can include party leaders, parliamentary committees, Parliamentarians, civil society groups, and other policy entrepreneurs (Mintrom 1997; Béland & Cox 2016).

Cabinet ministers are uniquely placed to act as gatekeepers for policy reform, as they have responsibility for overseeing all policy making within their portfolio's jurisdiction. 'Policy is ultimately made by governments, even if the ideas come from outside government or through the interaction of government and nongovernmental actors' (Birkland 2016, p.8). Ministers do not have complete autonomy due to collective responsibility (Rose 1971), coalition agreements (Moury 2011), and a number of veto players cabinet decision making including the Prime Minister (Tsebelis 2002). However, government ministers have responsibility for oversight of all policy made within their department's remit, and therefore play an important role in shaping the policy agenda. There is evidence of the partisanship and background of ministers shaping spending patterns (Giannetti & Laver 2005) and social welfare policy (Alexiadou 2015; Alexiadou 2016).

For these reasons, I propose that the combination of conditions for a progressive reform of fathers' leave will include the presence of either a leftist or female labour/employment minister. I set out both of these expectations below.

Leftist ministers

Leftist parties have stronger connections to feminism and feminist movements both inside and outside of Parliament than their right-wing counterparts (Dahlerup, 2006; Freidenvall, 2013; Krook, 2007). This can play an important role in setting policy agendas and setting agendas of policy reform (Allen & Childs 2018). At the individual level, attitudes towards welfare state responsibilities and gender inequality more broadly are seen to influence support for statutory paid maternity leave (Staerklé et al. 2003). Therefore, left-wing ministers who favour a strong welfare state and advocate for a more active role for the state in addressing gender inequalities will also be more likely to introduce progressive leave policies.

This is evidenced by a long history of left-wing parties initiating social policy reforms to equalise gender relations in the home. Alliances between left-wing and liberal political parties have been identified in a number of case studies as critical factors shaping reforms of family policy and childcare infrastructure (Daguerre & Taylor-Gooby 2003; Kuebler 2007). Furthermore, in a seminal study of party competition, Kitschelt (1994) found that in order to appeal to an electorate which has shifted away from more authoritarian models of socialism, leftist parties have sought to pivot towards more libertarian and capitalist policy positions. In line with this, and given the importance of progressive policy reforms for women's role in work, signalling a commitment to gender equality in the workplace may play a role in left-wing parties' appeal to voters.

Female ministers

Family policy is also identified as a 'feminine' policy area, as it pertains the to the private sphere of home and the family (Escobar-Lemmon & Taylor-Robinson, 2005; Krook & O'Brien, 2012, p. 846). Parenthood affects women's employment more than men's (Craig & Mullan 2010). The 'self-interest theory' of welfare attitudes suggests that there is a direct relationship between individuals' position in social structures and their attitudes to welfare reform, and therefore that women's role in society shapes their attitudes to parental leave policy (Valarino et al. 2018). Analyses of policy preferences suggest that women have different social policy preferences to men (Shapiro & Mahajan 1986; Caughell 2016). For

example, in US' governors' speeches, female governors devote more attention to social welfare policy than their male colleagues (Heidbreder & Scheurer 2013). Also in the US, female legislators express significantly more liberal welfare policy preferences than men (Poggione 2004).

Female political actors are found to be more supportive of progressive parental leave policies than their male counterparts. Studies of attitudes to parental leave reforms find that women are significantly more supportive than men of parental leave in the United States (Grover 1991), and of father-friendly leave in the United Kingdom and the United States (Hyde et al. 1993; Warren et al. 2008). Atchison and Down (2009) and Atchison (2015) find that across 18 European countries from 1980 to 2003, the percentage of women in the cabinet has a positive effect on a 'female friendly' labour environment (Atchison & Down 2009; Atchison 2015).

Passing the hurdles: parliament and economic context

In the third stage of this model, I identify the 'hurdles' that reform of family policy will need to pass to become government policy. These are the ideological composition of Parliament and the economic context. I theorise that both of these conditions will form part of a sufficiency pathway for reform of leave for fathers to follow the gender-balanced 'dual-earner/dual-carer' model.

Leftist parliament

While government has the advantage of setting the agenda for policy making, parliaments can also play an important role in shaping legislation and responses to the executive's policy agendas (Martin & Vanberg, 2011). Government makes policy in anticipation of parliament's response, parliament can amend legislation (Martin & Vanberg, 2004, 2005), and even act as a veto to the government's agendas. Therefore, government policy making and the policy agendas of ministers are shaped by the composition of the legislature.

There are, of course, varying numbers of veto players within parliamentary institutions. Bicameral parliaments have more institutional vetoes than

unicameral parliaments, and in some presidential and semi-presidential systems presidents must also give assent to legislation (Tsebelis 2002; Tsebelis 2000; Zubek 2011). Parties, however, provide an important means by which legislators coordinate their policy preferences. Therefore, the partisan composition of parliament provides a useful indicator of legislators' willingness to pass legislation on some policy issues.

As elaborated above, left-wing political actors address issues of welfare and family policy differently to their right-wing counterparts. They have an ideological commitment to egalitarianism, closer ties to feminist organisations and institutions, and more positive attitudes towards welfare interventions more broadly. The dominance of left-wing parties in legislatures has shaped welfare policy making (for a full discussion see: Schmidt 1996). Left-dominated parliaments can generate the construction of an imperative for welfare reform (Cox 2001), and shape approaches to welfare state retrenchment (Starke 2006).

Therefore, I expect that a left-dominated parliament will form part of the sufficiency pathway for a reform of father's leave to follow the progressive model. It is important to note that this explanatory factor is not coterminous with the labour/employment minister being left-wing, as many European governments are coalitions, and often leftist parties can be in government with a right-dominated parliament, and *vice versa.*

Economic context

The economic context shapes all policy decisions which incur a cost to the public (Pollitt 2013). The range and complexity of options available to governments in family policy mean that proposals can vary widely in their costs to the public purse. Some policy options require the private sector to shoulder the cost of parental leave, while others require more state resources. The average public expenditure on maternity, paternity and parental leave across the European OECD countries between 1980 and 2013 was 0.32% of GDP, with a standard deviation of 0.26 percentage points (OECD 2017b). This variation is shown where Finland's expenditure was over 1% of GDP between 1991 and 1994, before settling between 0.6 and 0.7% of GDP between 1997 and 2013 (OECD 2017b).

Whereas public expenditure on maternity, paternity and parental leave was less than 0.1% of GDP in Switzerland between 1980 and 2004.

Given considerations of the cost to the public, governments will need to be aware of the economic context in which they are making family policy, as this can shape government spending. I suggest, therefore, that governments in a context of economic growth (rather than recession) are more likely to enact more gender-balanced, progressive family policy reform. Due to the influence of budgetary considerations, the treasury department and finance minister can also have a veto over policy making (Bäck et al. 2015; Hallerberg & von Hagen 1999). Therefore, the autonomy of cabinet ministers in their policy jurisdiction is greater for policies that are not costly (Becher 2010). However, finance ministers' control of the purse strings can influence which policy options become law. Finance ministers will, however, also be influenced by the economic context in which family policy reforms take place. Therefore, the context of economic growth or recession is a useful proxy for this treasury veto.

Akin to the role of leftist parliaments in the process of policy making, overcoming the hurdle of the economic context is expected to be part of a sufficiency pathway for progressive family policy reforms.

Theory overview

Policy making is a complex process, and is dependent on a range of factors and contingencies. In this combinatorial theory, I simplify these processes into three stages. I theorise that meeting the combination of conditions for all three stages will be sufficient for the implementation of the more gender egalitarian model of father-specific leave. However, I theorise that the first stage – the social context of women's engagement in the workforce and gender attitudes – will be necessary (but not sufficient) for governments to choose to implement the more progressive model of leave for fathers. The second stage of this theory is that government actors will need to be proactive in leading a progressive reform; and therefore, that a left-wing or female minister will be responsible for labour policy where progressive reforms are implemented. Thirdly, the 'hurdles' of the economic context and leftist Parliament will also need to be passed. I expect that

meeting the combination of these conditions for the three stages will form the sufficiency pathway for governments who reform leave to choose a more progressive model for fathers.

Data and Methods

Fuzzy-set qualitative comparative analysis (fsQCA)

There are significant methodological difficulties with analysing policy change, especially in a comparative context. Analyses often view policy change homeostatically, and therefore neglect the influence of historical patterns and exogenous shocks (Howlett & Cashore 2009). Reforms are often non-linear in nature (Capano 2009), and attempts to measure multi-dimensionality can be complex. There are also a number of veto players in policy making, which can vary within and between countries (Tsebelis 2000; Tsebelis 2002).

FsQCA can address some of these issues when there are a medium number of cases by drawing on Boolean algebra and set theory to make comparisons between cases and identify causally-relevant conditions for the presence or absence of an outcome of interest (Rihoux & Ragin, 2009; Schneider & Wagemann, 2012). Due to the method's scope for untangling causal complexity, fsQCA is a useful tool in the analysis of a range of public policy outcomes. FsQCA has been used to analyse policy reform of child protection measures (Svevo-Cianci et al. 2010), active labour market policies (Vis 2011), welfare recommodification (Shahidi 2015), the independence of fiscal councils (Belling 2018), and the absorption of EU funds (Hagemann 2019). For an extensive systematic review of the use of the method in public policy analysis, see Rihoux et al. (2011).

There has been some debate within the discipline on the utility of fsQCA for empirical analysis, including criticisms of the methods' assumptions in relation to missing variables and association as causation (Seawright 2005) and the epistemological basis of the assumptions of fsQCA (Lucas & Szatrowski 2014). However, many of these concerns can be overcome through ensuring that the analysis returns to consider the specific cases under consideration; transparency

about the selection of cases and calibration of sets; and the publication of the raw data, truth tables and simplifying assumptions for the analysis (Schneider & Wagemann, 2010). The results of fsQCA should not be interpreted over-deterministically, but instead can suggest how combinations of relevant conditions are associated with an outcome. Further analyses, both qualitative and quantitative, can help explore the associations identified in this research.

The procedure of fsQCA is based on each case being represented configurationally as a combination of causally relevant conditions, where the presence or absence of these conditions is linked to the presence or absence of the outcome. The method assumes that the combination of conditions, rather than individual factors, shape outcomes (causal complexity), and that multiple paths or solutions may lead to the same outcome (equifinality). Set relations are also assumed to be asymmetric, in that the factors shaping the outcome are not the same as those which shape the negation of the outcome (Schneider & Eggert, 2014).

In the fsQCA method, cases are systematically compared to identify patterns in the combination of factors which contribute to the outcome. Through logical comparisons and simplifications based on Boolean algebra, complex data structures undergo a process of logical minimisation to identify the necessary and sufficient conditions and combinations of conditions for the presence or absence of an outcome of interest (for further information on the fsQCA method see: Ragin, 2008a). In this analysis, I use a fuzzy-set approach to QCA. Crisp-set QCA uses Boolean sets, so conditions must be dichotomised. Fuzzy sets extend crisp sets by permitting membership scores in the interval between 0 and 1. Continuous fuzzy set scores are assigned to cases to identify the extent to which the case is a member of a set. This analysis was performed using the *Fuzzy-Set/Qualitative Comparative Analysis 3.0* software (Ragin & Davey, 2016).

In fsQCA, the evaluation of results is based on two parameters of fit. Consistency indicates the degree to which the solution or result is sufficient for producing the outcome. Coverage gives an indication of the degree to which cases correspond to the (combination of) conditions.

Outcome: reform of father-specific parental leave

In this analysis, I consider all instances of an increase in the leave entitlement for fathers between January 1990 and April 2016 in 20 European OECD countries.[13] The countries included in this analysis are Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Spain, Sweden, and the United Kingdom.

The scope of this analysis is every case of the introduction or expansion of leave for fathers. The online appendix to this paper provides a summary detail of all of these reforms. I have identified instances of reform using longitudinal data on parental leave policies from the OECD Family Policy Database (OECD 2017b), details of each introduction or extension of fathers' leave entitlements are provided in the Annex to that dataset (OECD 2016). In this time period, there are 49 instances of expansions to the duration of leave for fathers. There are two European OECD countries – Slovakia and Switzerland – which have no father-specific parental leave entitlement, and are therefore do not appear in this analysis.

The outcome in this analysis is whether the extension of leave for fathers is the introduction or expansion of father-specific parental leave (**FS**). This is defined as 'any weeks of employment-protected parental or home care leave that can be used only by the father or "other parent"' (OECD 2017a, p.2). This includes both a) individual non-transferable entitlements for the father, and b) any sharable leave which is effectively reserved because they must be taken to qualify for any bonus weeks.

Father-specific parental leave is a more gender-balanced approach to fathers' leave than traditional paternity leave, which is defined as leave of absence for

[13] Due to data availability, the scope of this analysis is for all reforms since 1990. The end date of April 2016 is set by the OECD's data collection. Prior to 1990, eight countries had some form of leave for fathers: Belgium (3.5 days), Denmark (two weeks), France (156 weeks), Greece (13 weeks), Luxembourg (four days), Norway (54 weeks), Spain (52.4 weeks), and Sweden (78 weeks).

employed fathers at or in the first few months after childbirth (OECD 2017a, p.1). Father-specific parental leave sets up incentives for mothers and fathers to balance their leave and childrearing responsibilities more equitably. The traditional approach of paternity leave is based on encouraging fathers to take (often unpaid) leave with mothers in the first few days of their child's life, which is not found to have the long-lasting positive effects of parents sharing leave more equitably. Table 1 provides an overview of father-specific entitlements in the European OECD countries between 1980 and 2015 (OECD 2017b).

Table 1: Father-specific leave entitlements in weeks, 1980 – 2015 (OECD 2017b)

Country	1980	1985	1990	1995	2000	2005	2010	2015
Austria	0	0	0	0	26	26	8.6	8.6
Belgium	0.6	0.6	0.6	0.6	13.6	15	15	19.3
Czech Republic	0	0	0	0	0	0	156	156
Denmark	0	2	2	15	17	34	34	34
Finland	0	0	0	3	3	7	7	9
France	0	104	156	156	156	156	156	156
Germany	0	0	0	0	0	0	8.6	8.6
Greece	0	13	13	15.1	15.6	15.6	15.6	17.7
Hungary	0	0	0	0	0	1	1	1
Iceland	0	0	0	0	2	26	26	30.3
Ireland	0	0	0	0	14	14	14	18
Italy	0	0	0	0	21.6	21.6	21.6	21.9
Luxembourg	0.4	0.4	0.4	0.4	26.4	26.4	26.4	26.4
Netherlands	0	0	0	13	13	13.4	26.4	26.4
Norway	54	54	54	58	58	59	64	64
Poland	0	0	0	0	0	0	1	6.33
Portugal	0	0	0	0.4	17	17	21.3	21.3
Slovakia	0	0	0	0	0	0	0	0
Spain	0.4	0.4	52.4	52.4	52.4	52.4	54.1	54.1
Sweden	78	78	78	78	78	78	78	78
Switzerland	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	13	15	15	20

The OECD Family Policy Database identifies whether extensions in weeks of

leave available to fathers take the form of father-specific parental leave or more traditional paternity leave (OECD 2017a). Throughout, I supplement the discussion of this outcome of the fsQCA with qualitative case analysis.

Conditions

The social context of the policy change is operationalised through two conditions. Women's engagement in the workplace (**WL**) is measured through the International Labour Organisation's ILOSTAT database, which details women's labour force participation (International Labour Organization 2018). The measure is the percentage of women over the age of 15 who engage in paid work.

I use survey data to examine the effects of gender attitudes (**GA**). Using the combined World Values Survey and European Values Study longitudinal dataset, I calculated an annual measure of the weighted percentage of respondents within each country who agreed to the statement 'c001- When jobs are scarce, men have more right to a job than women' (European Values Study 2015; World Values Survey Association 2015). This measure provides an indication of the acceptance or hostility of public attitudes to women's engagement in the workplace. In this measure, a score of 0.99 means that 1% of respondents in that country in that survey wave responded that men should have more of a right to a job than women.

I also compile data on government actors which identifies the gender (**WM**) and partisanship (**LM**) of the minister responsible for the employment/labour portfolio. Data on which party holds the labour/employment ministry is based on the Williams & Seki (2016) *Governments and Ministers* dataset. Identifying the party with control of the employment/labour portfolio, I matched this data with the Comparative Manifestos Project's (Lehmann et al. 2018) left-right score to calculate the left-right score of the minister responsible for the employment/labour portfolio. In the Comparative Manifestos Project, the time-variant 'rile' indicator ranges from –100 (the whole manifesto is devoted to 'left' categories) to +100 (the whole manifesto is devoted to 'right' categories)' (Mölder 2013, p.3). The gender of the minister appointed to the social affairs/labour government portfolio has been calculated based on the Williams & Seki (2016) *Governments and Ministers* dataset. I also undertake an analysis using the party family

categorisations (**PF**) from the Comparative Manifestos Project (Lehmann et al. 2018).

To operationalise 'hurdles' to reform, data on the complexion of parliament (**LP**) is drawn from the Williams & Seki (2016) *Governments and Ministers* dataset. Years in which a country's government and parliament have a left-centre complexion (share of seats of left and centre parties in government and supporting parties in parliament between 33.3 and 66.6% each) and left-wing dominance (share of seats in government and supporting parties in parliament larger than 66.6%) are coded as a one (Seki & Williams 2016). The broad economic context (**EC**) is measured through GDP per capita (annual %) growth, this data is from the World Bank§ (World Bank 2018). In the Appendix, I also present an analysis including the factor of the representation of women in parliament (**WP**). Data on the proportion of seats held by women in the single or lower chamber of the national parliament is from the Inter-Parliamentary Union (2018).

The logarithmic calibration of the fuzzy-set thresholds for this analysis is set out in Table 2. Fuzzy sets are calibrated based on the three theoretically-informed anchor points of full membership (fuzzy score = 0.95), full non-membership (fuzzy score = 0.05), and the cross-over point (fuzzy score = 0.5) (Ragin, 2008b).

For example, the calibration of the female labour force participation rate (**WL**) is based on conditions set out by non-governmental organisations as targets for women's engagement in paid work (OECD 2015). The threshold for full membership is 50% of women over aged 15 engaged in paid work, which is seen as an international standard for women's engagement in the labour force. The threshold for full non-membership is 30%, which is significantly behind international targets. Further details about the calibration of conditions is available in the appendix.

Table 2: Variable calibration and data sources

Variable	**Description**	**Calibration** Threshold for full non-membership (0.05)	Cross-over point (0.5)	Threshold for full membership (0.95)	**Data Source**
Father-specific parental leave **(FS)**	Any weeks of employment-protected parental or home care leave that can be used only by the father (or 'other parent')	0	-	1	OECD Family Database
Female labour force participation rate **(WL)**	Labour force participation rate, female (% of female population ages 15+) (modelled ILO estimate)	30	40	50	International Labour Organization, ILOSTAT database
Economic context **(EC)**	GDP per capita growth (annual %)	0	1	3	International Labour Organization, ILOSTAT database
Gender attitudes **(GA)**	1 - (Weighted score of respondents who agree with the statement that 'when jobs are scarce, men should have more right to a job than women'.)	0.7	0.8	0.9	European Values Study and World Values Survey
Female labour/employment minister **(WM)**	Gender of social spending minister	0	-	1	Seki-Williams Government Data
Left-wing labour/employment minister **(LM)**	CMP rile score of party of social spending/labour minister	5	0	-5	Seki-Williams Government Data, Comparative Manifestos Project
Left-wing complexion of government and parliament **(LP)**	Left-center complexion or left-wing dominance in Parliament and Government	0	-	1	Seki-Williams Government Data

Analysis

Throughout this analysis, I consider the core research question of this paper: when governments decide to reform leave for fathers, under which circumstances do they introduce or extend a 'dual-earner/dual-carer' model of family policy? I present both the results of the fsQCA and detail of the cases of policy reform. An overview of fsQCA notation is provided in Table 3.

Table 3: Notation

Boolean notation and operators
• Upper case letters e.g. [**WM**] represent the 1 value for a given condition. • Lower case letters e.g. [**wm**] represent the 0 value for a given condition. • Logical 'AND' is represented by the [•] symbol. • Logical 'OR' is represented by the [+] symbol.

The analysis of necessary conditions is concerned with determining whether any condition (or combination of conditions) is necessary for an outcome to occur. This means that the condition must be in place for the outcome to be observed. Sufficient conditions (or combinations of conditions) are adequate to draw the conclusion that the outcome is true, although there may be cases in which the outcome occurs under other conditions.

Necessary condition

Women's engagement in the labour force

Women's engagement in the labour force (**WL**) is the only condition which meets the thresholds of necessity (consistency 0.9 and coverage 0.6). As Table 4 shows, 69% of the 33 cases with the more progressive form of fathers' leave have high women's labour force participation. This suggests that the socio-economic factor of women's role in the workforce, and the likely impacts this has on women's role in home and family life, play an important role in how governments approach the issue of the balance of responsibilities for childcare between parents. As mentioned above, to an extent, women's engagement in the labour force is an outcome of more progressive models of reform. However, due to the number of factors shaping women's role in the

workplace, this factor is still an effective indicator of women's role in society more broadly.

Table 4: Analysis of necessary conditions for the presence of father-specific parental leave reform

	WL
Consistency	0.90
Coverage	0.69

Examples of this include Norway, which first introduced a four-week 'use-it-or-lose-it' father-specific parental leave (**FS**) entitlement in 1993, to promote men's take-up of shared parental leave. Four years later, 75% of fathers entitled to the leave took it, up from 2.4% who took paternity leave in 1992 (Chemin 2011). At that time, Norway's female labour force participation rate (55.08%) was 8.6 percentage points above the European average (46.52%) (International Labour Organization 2018). As the Norwegian Labour Party's Minister for Childhood and Family at the time, Grete Berget, commented 'we lived in a society where the distribution of roles was clear-cut: the men worked and the women took care of the family. Now that women have entered the labour market the men must take on their share of the family responsibilities. That's equality' (Chemin 2011).

On the other hand, in countries where women's engagement in the workplace is still lagging, we see very modest reforms to father's access to parental leave. Italy has a serious problem of women's participation in the workforce (Del Boca 2002). Women's engagement in the Labour force in Italy has consistently fallen ten percentage points short of European averages since 1990, peaking at a meagre 39.64% in 2017. In Italy, there has been limited reform to men's entitlement to parental leave. While reforms in 2000 meant fathers could take six months leave, and were incentivised to take over three months by a 'bonus' month leave, this was only paid in cases where the mother was ill or deceased. By 2015, the take-up of this scheme was only 11% (van Belle 2016). In this context, in 2013 the Italian government introduced one day of compulsory paid paternity leave for fathers, and this limited provision was extended to two days in 2016. In the Italian case, women have had limited engagement in the workforce, and there are very modest father-specific parental leave entitlements. These factors may, however, be mutually constitutive, in that women may face

greater barriers to the paid labour market where there are not sufficient options for fathers to engage in family responsibilities.

Sufficient conditions

The ‘complex solution’ of this fsQCA analysis provides two sufficiency pathways for the leave reforms to follow the progressive model.[14] The outcomes of the fsQCA analysis are presented in Table 5 and Figure 2. While some elements of this model match the theoretical expectations, others do not. In this section, I discuss the two pathways identified in the analysis, drawing on the details of individual cases.

Due to the number of conditions in this analysis, some combinations of cases which have no observations, these are known as logical remainders (Ragin, 2008a). There have been some debates amongst fsQCA scholars regarding the handling of logical remainders, with some scholars drawing on the qualitative analysis of cases to supplement the analysis with additional fictive cases to address contradictory simplifying assumptions (Delreux & Hesters 2010). In this analysis, I have set the frequency cut-off to one case, so combinations of conditions with no empirical observations are excluded. For this analysis, all conditions are assumed to have an impact on the outcome when they are present.

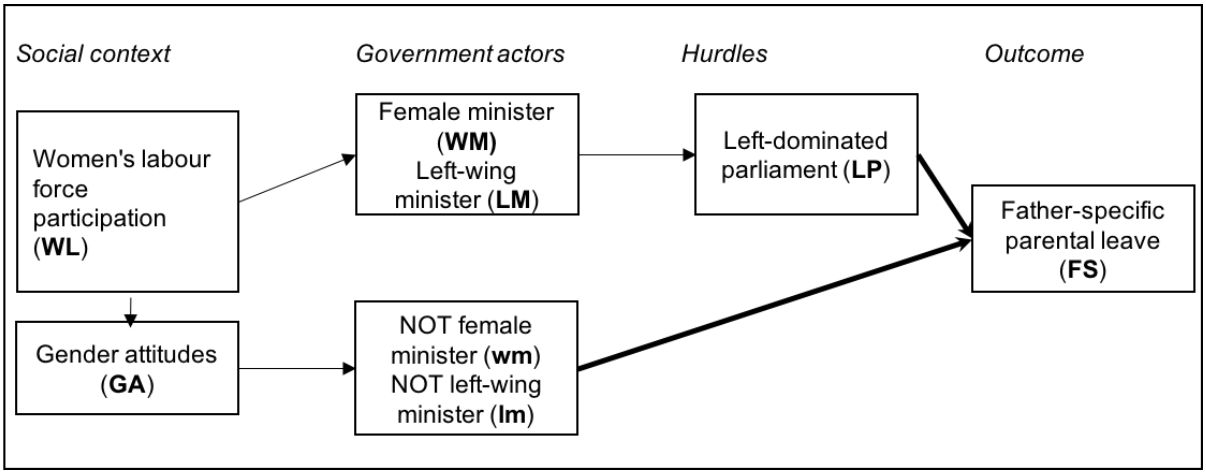
The consistency cut-off, which determines the threshold at which a combination of conditions is coded as contributing to the outcome, is set at 0.9 (Braumoeller & Goertz 2000; Legewie 2013). This means that for a combination of conditions to be considered to be sufficient for the outcome, over 90% of the cases with that combination of conditions must lead to a positive outcome (FS).

[14] The fsQCA parsimonious and intermediate solutions are also presented in the online appendix.

Table 5: Analysis of sufficient conditions for the presence of father-specific parental leave reform

Complex Solution	WL•WM•LM•LP	+	WL•wm•lm•GA•lp	⇒ FS
Cases	Norway 2009, Norway 2011, Portugal 2009, Finland 2003, Finland 2011, Norway 1993, Denmark 1998, Belgium 1998		Denmark 1992, United Kingdom 2013, Netherlands 2009, Ireland 1999, Czech Republic 2007, Norway 2014	
Consistency	1.00		0.96	
Raw coverage	0.23		0.19	
Unique coverage	0.23		0.19	
Solution consistency	0.98			
Solution coverage	0.43			

Figure 2: Analysis of sufficient conditions (fsQCA results)



Government actors: left-wing, female ministers

The first solution pathway is the combination of the presence of a left-wing, female minister with a left-dominated parliament, with the necessary condition of women's active engagement in the paid workforce (**WL•WM•LM•LP**). This pathway covers 23% of the cases of policy reform, and all of the cases which follow this pathway fall into the more gender-balanced category of parental leave (father-specific leave).

This combination of conditions is similar to the theoretical expectation, but combines the expectations in relation to government actors, finding that in contexts where

women are actively engaged in the labour force, female left-wing government actors introduce or extend a more progressive system of leave for fathers. This suggests that left-wing, female ministers are entrepreneurial in introducing gender-balanced parental leave. This pathway also suggests ministers must also pass the 'hurdle' of the partisanship of the Parliament (**LP**), and contrary to theoretical expectations, the economic context (**EC**), is not part of either sufficiency pathway. I discuss these findings further at the end of this section.

In Portugal in 2009, wholesale reform of parental leave policies was brought forward to a left-dominated Parliament by the female Socialist Party Minister for Labour and Social Solidarity, Helena André. This reform saw the initial 'maternity' section of leave replaced by the 'Initial Parental Leave'. While 45 days of leave were for the exclusive use of the mother, fathers have ten obligatory working days to be taken during the first month after birth with an option for a further ten days. There is then the opportunity for parents to divide the 150 days of leave paid at 100% of earnings, or 180 days at 80% of earnings, between themselves. This led to a strong initial increase in fathers' take-up of leave (from 596 fathers sharing maternity leave in 2008 to 16,426 fathers sharing Initial Parental leave in 2010) (Wall & Leitão 2017). This was followed by a steady increase, with 31% of Portuguese fathers taking at least 30 days of leave without the mother in 2016 (Wall & Leitão 2017).

Belgium's early introduction of a three-month parental leave for fathers in 1996 was brought forwards by female Minister for Social Affairs for the Socialist Party - Magda De Galan. One of the few women around cabinet tables in Europe at that time, De Galan oversaw an extension fathers' entitlement from three working days to three months of paid leave, which was available to both parents.

Fifteen years later, in 2001, the extension of Norway's shared parental leave was introduced by the female, left-wing Minister of Labour and Social Inclusion Anniken Huitfeldt of the Norwegian Labour Party. The extension saw the 'father quota' increase to 12 weeks, paid at 100% of earnings. At that time, both the male justice minister and male family affairs minister were themselves on paternity leave (Gibbs 2011). These examples show how individual female ministers from leftist parties, supported by a left-dominated parliament, can introduce reforms which transform caring responsibilities in the home.

Reflecting this, the discussions introduced to the debate of family reform by female left-wing ministers can be significantly different to those employed by right-wing or male ministers. In 2014, legislative reforms in France combined increases in fathers' leave with other measures such as access to abortions and street harassment. At the time, the minister for women's rights, Najat Vallaud-Belkacem, set out her proactive approach to this issue: 'I don't believe that history is going to spontaneously take us forward, so going towards more equality needs us to be politically proactive' (Willsher 2014). On the other hand, when the EU was debating introducing three months' unpaid leave for fathers in 1994, the UK's Conservative Party Employment Secretary, Michael Portillo, was in active opposition to the proposals. The then Conservative Prime Minister, John Major, said 'We have unemployment falling - most of our European partners don't. I want to keep unemployment falling. I don't want to pile further costs on employers so that they are less likely to employ people' (Ritchie 1994).

This pathway suggests that where governments do choose to reform father's leave, they promote more equal shared parental leave where there is of a female left-wing minister, in the context of a left-dominated Parliament and the active engagement of women in the workforce. This combines the two theoretical expectations about government actors.

Government actors: right-wing, male ministers and public attitudes

The second pathway arising from this analysis provides a particularly interesting insight into the role of government actors involved in family policy making. Here, the absence of a left-wing female minister (i.e. a male, right-wing minister) is expected to be sufficient for the introduction of progressive reforms of leave for fathers, but only when in combination with more progressive gender attitudes among voters. This is alongside women's active engagement in work, as in the previous pathway, but not the presence of a leftist Parliament (**WL•wm•lm•GA•lp**). This pathway accounts for 19% of the cases in this dataset, and 96% of reforms which fall in this combination take the form of the more progressive father-specific leave (**FS**).

These findings are contrary to my theoretical expectations and suggest that even right-wing male ministers, whom I theorise will be less inclined to introduce progressive reforms, can introduce such reforms in contexts where there are positive

attitudes towards women's role in work. Several examples following this pathway include those in the social democratic, Scandinavian models of welfare systems such as Denmark and Norway, which have a political culture of progressive gender attitudes (Borchorst & Siim 2008). This 'egalitarian tradition' influences how policies are made and framed (Inglehart & Norris 2003). Danish reform of father-specific leave in 2002 saw the provision of 32 weeks of paid leave allocated per family, in addition to two weeks of paternity leave and 18 weeks of maternity leave. The male Minister for Employment from the conservative-liberal Venstre party at the time, Claus Hjort Frederiksen, introduced the measure as an opportunity for 'individual freedom of choice' (Jørgensen 2002), and the reform was brought about with an Act of Parliament entitled 'Equal Treatment of Men and Women as regards Access to Employment and Maternity Leave, etc' (Anon 2002). Quite distinct from the egalitarian narratives of left-wing ministers, right or centre-right ministers have chosen to introduce greater flexibility in leave for fathers when there is a context of gender-equal public attitudes and women have a more active role in the workplace.

Another example in a context with more egalitarian gender attitudes, is the Netherlands where the entitlement of both parents to parental leave was doubled from 13 to 26 weeks under a male minister for the Dutch Christian Democratic Appeal party, Piet Hein Donner. The leave was previously unpaid, but a tax incentive meant that parental leave was reformed to be paid at a low level (around €690 a month for parents on full-time leave) (Moss 2009). This progressive reform was introduced under a right-wing, male minister. This pathway also includes the UK's 2013 extension of unpaid parental leave for fathers from 13 weeks to 18 weeks, in addition to two weeks of paternity leave. This reform was, in part, driven by the EU Parental Leave Directive (see discussion below) but was brought about under the Conservative Work and Pensions Minister, Iain Duncan Smith.

In a qualitative analysis of leave reforms in Western Europe, Morgan & Zippel (2003) also find that centrist and conservative parties introduce and advocate for more progressive parental leave policies, but do so in terms of offering parents more choice in how they undertake childcare. Right-wing parties have also been seen to undertake parental leave reforms which have beneficial labour market effects, even if this is in tension with more traditional family values or gender values. With the aim of positive labour market outcomes and introducing more choice for parents, rightist governments can be motivated to introduce more progressive models of shared

parental leave.

Extensions of entitlements to parental leave in France by centre-right governments in the 1990s were justified by opportunities for job creation (Morgan & Zippel 2003, p.60). The most vocal champions of care leave in Austria have been centre-right or right-wing parties, who do so as a means to promote employment (Ditch et al. 1996). This pattern of Conservative and centre parties introducing progressive leave reforms has also been a driving factor in the creation of paid long-term care leaves in both Finland and Norway (Morgan & Zippel 2003). The Norwegian leave reform of 2014 introduced by the neoliberal Progress Party falls within this fsQCA pathway. The neoliberal Labour Minister extended the shared period of leave to 26 weeks at 80% of salary or 36 weeks at 100% of salary (Brandth & Kvande 2018).

This trend of rightist parties introducing more progressive leave reforms is reflected in the narratives around expenditure on family leave policies, where support can come from political quarters which are not usually in favour of increased welfare budgets. The female German Christian Democratic Family Affairs Minister, Ursula von der Leyen, said of the overspend on Germany's 2007 shared parental leave reform – 'Fathers blew the budget for 2007 [...] I think it's the best thing that could have happened to our country' (Deutsche Welle 2007).

These two pathways provide an insight into patterns of reform of men's access to paternity leave entitlements – this analysis suggests there are more progressive reforms in cases with either a proactive female left-wing minister to lead reforms, or gender attitudes amongst the public which shift policy impetus towards progressive leave reforms. However, the coverage score for these pathways (0.44) shows that a number of cases fall outside of the fsQCA solution. While these two pathways are highly consistent, meaning that the cases which belong to each pathway almost all lead to a more flexible system for both parents, not all cases of such reform follow one of these sufficiency pathways.

In the Appendix, I show how this finding is robust where the partisanship of social spending ministers is coded by party family rather than the party's left-right score. Here, minsters are coded as either being a member or non-member of a socialist or social democratic party. The complex solution for this analysis includes three terms for more progressive leave reforms. The first term is the presence of a leftist female

minister in a context with women's engagement in the labour force and a left-dominated Parliament **(WL•WM•PF•LP)**. This is akin to the findings of the analysis presented above. The second term is the presence of a female, leftist minister in a context with progressive gender attitudes and economic context with high levels of women's representation in the labour force **(WL•EC•GA•WM•PF).** The final term for a more progressive model of leave reform is the presence of a male minister from a non-leftist party in a context of women's active engagement in the labour force, positive gender attitudes, a positive economic context and a right- or centre-dominated Parliament **(WL•EC•GA•wm•pf•lp).**

These pathways account for 40% of cases in the analysis, with a consistency score of 0.96. While the results of this analysis do not exactly mirror the full analysis presented in the main paper, it does lend evidence towards the finding of more progressive reforms where there is a female leftist minister or a male rightist minister in a context with more gender-equal public attitudes.

Leftist parliament

For the first sufficiency pathway, the introduction or extension of the most progressive forms of leave for fathers is dependent on reforms passing the 'hurdle' of the legislature. In the European context, coalition governments are the norm (Müller & Strøm 2000). While a party sympathetic to more progressive parental leave may have control of the employment/labour portfolio, they may not command a majority in Parliament. Parliament has also been found to be an important factor shaping policy congruence with women's policy preferences (Dingler et al. 2019). Therefore, the ideological composition of Parliament can play an important role in shaping policy outcomes.

In Denmark in 2013, the left-wing government was forced to pull back on proposals to equalise access to leave between parents, due to calls from centrist and right-wing parties in Parliament that the reforms would mean that families had less choice in allocating leave between parents. At the time, the Liberal Party's equality spokesperson, Fatma Øktem, said 'it's great news because we think families should have the freedom to choose how to divide up their parental leave'. Whereas the Red-Green Alliance MP Johanne Schmidt-Nielsen said 'it is disappointing that Socialdemokraterne [Social Democrats] and Radikale [Radical Left] won't give

fathers the same parental leave rights as mothers', stating that the policy U-turn was 'old-fashioned cowardice' (CPHPost 2013). Where governments face Parliamentarians that are not sympathetic to progressive leave reforms, they can be forced to step back on passing legislation.

There are also examples of rightist parties calling for retrenchments of leave entitlements for fathers. For example, in 2004, Iceland's Parliament (which was dominated by the liberal-conservative Independence Party) passed a retrenchment of shared parental leave (Gíslason 2007). Parliamentarians called for a ceiling on payments and for average salaries to be calculated over a 24, rather than 12-month, window to cut the costs of the entitlement.

In the Appendix, I also provide the results of an fsQCA analysis which includes the explanatory factor of the representation of women in parliament. Given the number of observations in this analysis (49), the number of explanatory factors for the fsQCA should not exceed five. Therefore, for this analysis I have recreated the full model but have removed the variable of the partisanship of the parliament due to the joint subsistence relationship (correlation) between the partisanship of the legislature and women's representation in parliament (Ragin, 2008a).

Through this fsQCA analysis, I find that women's representation in parliament is not an essential condition for the presence of more progressive leave reforms. The complex solution for more progressive leave reforms is: the presence of women in the labour force and a female left-wing minister in a context with a high level of women's representation in parliament and progressive gender attitudes **(WL•WM•LM•GA•WP)**. This pathway accounts for 24% of cases and has a consistency score of 0.94. This suggests that the presence of women in the legislature can also have an impact on the form of leave reforms, in a context with a leftist woman in the relevant ministerial portfolio.

Economic context

Throughout this analysis, the economic context (as measured as GDP growth) is not found to be a necessary condition for reform, and the condition is not included in either sufficiency pathway. This is contrary to my theoretical expectation that the economic context would provide a hurdle which governments must pass for a reform

of father's leave to follow the more gender-balanced model.

Between 1980 and 2010 across the OECD countries, both the average duration and salary replacement rate of paid parental leave trebled (from 18 to 54 weeks, and 11.3% to 33.2% respectively) (Daly & Ferragina, 2017, p. 9). This growth in expenditure on parental leave has taken place in a context of widespread welfare state retrenchment, where governments have been rolling back the welfare state and cutting spending on welfare assistance (for a review of the literature on this subject see: Starke 2006).

On the other hand, even leftist ministers in countries with more traditional gender attitudes can struggle to reconcile the costs of these policies. In 2005, Spanish Socialist Party employment minister, Jesús Caldera, pledged that paternity leave would be introduced for new fathers, but that this would bear significant costs. Since 1989, men had been entitled to some of the mother's leave, but this was the first proactive attempt to actively encourage men's involvement in childcare (Escobedo et al. 2012). The minister said, the costs were 'very high, almost €500 million in social security payments per week, bearing in mind that 420,000 babies are born each year in Spain' (ThinkSpain 2002). Spanish public expenditure on these policies has never been above 0.33% of GDP (OECD 2017b).

However, a number of reforms of paternity leave which fall outside these pathways have also taken place to adopt EU Directives in this area into national law. The EU has made two major interventions in this area. The 1996 EU Parental Leave Directive required that all workers be granted an individual right to parental leave for at least three months. In 2012, the EU Directive on parental leave (Council Directive 2010/18/EU) granted all parents, men and women, a minimum unpaid leave period of four months. Not all countries have warmly embraced these changes. In 2016, Greek independent Labour Minister Zeta Emilianidou said 'There is no doubt that it [the introduction of four weeks of paternity leave] must be done. It is also an EU requirement'. However, the minister said the rise in tax contributions needed to be increased to finance the €10 million reform would 'create a huge problem' (Psyllides 2016).

This fsQCA analysis also provides an insight into the types of reform government introduce when they choose to reform fathers' leave. I find that women's engagement

in the labour force is a necessary feature for these reforms to follow the progressive model of father-specific leave. There are two pathways which are sufficient for the introduction of father-specific leave, women's labour force participation and combined with either 1) a left-wing, female employment/labour minister and a left-wing parliament; or 2) a right-wing, male minister in countries with more progressive gender attitudes.

Conclusion

In this complex policy space, the steps governments take to incentivise or disincentivise fathers' engagement in childcare in early parenthood can promote gender balance in family responsibilities more broadly (Kotsadam & Finseraas 2011). As the French Socialist Party Minister for Children, Segolene Royal, said of France's 2002 reform of leave for fathers: 'This is almost as important as the day when women got the vote. We are going to abandon traditional patterns, which penalise men as well as women' (Sage 2001). While the policy implications of these decisions are subject to extensive academic investigation, there has not been a cross-national comparison of what leads governments to enact the most progressive forms of parental leave which balance leave between mothers and fathers.

This paper provides an insight into the conditions under which governments choose to promote a dual-earner/dual-carer family model. There is still substantial variation in the entitlements governments grant to new parents within their jurisdiction, and to new fathers in particular. Through investigating the necessary and sufficient conditions for reform of leave policies to follow a more progressive model, the fsQCA approach provides a tool to systematically compare and identify patterns in cases of reform of leave for fathers.

I find that women's active role in the paid workforce is a necessary condition for governments to promote more gender balance between parents in caring and earning through leave entitlements, when they choose to implement reforms of fathers' leave. This suggests that the role of women in the workforce plays an important part in setting the tone for expectations about men's role in the family. Building on my theoretical expectations, this analysis demonstrates the importance of women's engagement in paid work for shaping government approaches to leave policies. This analysis suggests that left-wing, female ministers will introduce more progressive

reforms, but that right-wing male ministers will also do so in contexts with more gender egalitarian public attitudes. I theorise that this is due to rightist parties' motivation to promote the positive labour market impacts of shared parental models of leave and offer more choice to parents. For left-wing ministers, a left-wing parliament is also part of the pathway for shaping more progressive policy outcomes.

This analysis has important implications for those who seek to see greater equality between parents in childcare – changing public attitudes may well make a difference, as will the election of a left-wing female minister and leftist Parliament. But critically, women need to be engaged in paid work for government to seek to make these reforms. This paper shows the value in considering when and why governments might seek to implement different forms of leave, not just the outcomes of those reforms. Future analyses of government policy making can build on this analysis to use an fsQCA approach for other public policy outcomes, as well as testing the theoretical expectations of this paper on other policy decisions which affect and reflect government attitudes to gender issues. Given the complexity of this policy landscape, there is also scope for retrenchment in fathers' leave. While these cases of retrenchment are not included in this analysis, further exploration of the circumstances under which leave entitlements are reduced could also provide a fruitful area for future research.

References

Alesina, A., Giuliano, P. & Nunn, N., 2013. On the Origins of Gender Roles: Women and the Plough. *The Quarterly Journal of Economics*, 128(2), pp.469–530. Available at: http://dx.doi.org/10.1093/qje/qjt005.

Alexiadou, D., 2015. Ideologues, Partisans, and Loyalists: Cabinet Ministers and Social Welfare Reform in Parliamentary Democracies. *Comparative Political Studies*, 48(8), pp.1051–1086. Available at: http://cps.sagepub.com/cgi/doi/10.1177/0010414015574880.

———. 2016. *Ideologues, Partisans, and Loyalists: Ministers and Policymaking in Parliamentary Cabinets*, Oxford: Oxford University Press.

Allen, P. & Childs, S., 2018. The Grit in the Oyster? Women's Parliamentary Organizations and the Substantive Representation of Women. *Political Studies*, p.3232171879308. Available at: http://journals.sagepub.com/doi/10.1177/0032321718793080.

Anon, 2002. *Act No. 711*, Denmark.

Atchison, A., 2015. The Impact of Female Cabinet Ministers on a Female-Friendly Labor Environment. *Journal of Women, Politics & Policy*, 36(4), pp.388–414.

Atchison, A. & Down, I., 2009. Women Cabinet Ministers and Female-Friendly Social Policy. *Poverty & Public Policy*, 1(2), pp.164–186. Available at: http://www.degruyter.com/view/j/ppp.2009.1.2/ppp.2009.1.2.1007/ppp.2009.1.2.1007.xml.

Bäck, H., Debus, M. & Tosun, J., 2015. Partisanship, Ministers, and Biotechnology Policy. *Review of Policy Research*, 32(5), pp.556–575.

Becher, M., 2010. Constraining Ministerial Power: The Impact of Veto Players on Labor Market Reforms in Industrial Democracies, 1973-2000. *Comparative Political Studies*, 43(1), pp.33–60.

Béland, D. & Cox, R.H., 2016. Ideas as coalition magnets: coalition building, policy entrepreneurs, and power relations. *Journal of European Public Policy*, 23(3), pp.428–445.

van Belle, J., 2016. *Paternity and parental leave policies across the European Union*, Available at: https://www.rand.org/content/dam/rand/pubs/research_reports/RR1600/RR1666/RAND_RR1666.pdf.

Belling, D., 2018. Fiscal Governance, Political Rationales and the Independence of Fiscal Councils. In *Comparative Politics meeting, Department of Political Science, Lund University, 6 March 2018*. Lund.

Birkland, T.A., 2016. *An introduction to the policy process: theories, concepts and models of public policy making* 4th Editio., New York: Routledge.

Del Boca, D., 2002. Low fertility and labour force participation of Italian women: evidence and interpretations. *OECD Labour Market and Social Policy Occasional Papers*, (61). Available at: http://ideas.repec.org/p/oec/elsaaa/61-en.html.

Borchorst, A. & Siim, B., 2008. Woman-friendly policies and state feminism: Theorizing Scandinavian gender equality. *Feminist Theory*, 9(2), pp.207–224. Available at: http://journals.sagepub.com/doi/abs/10.1177/1464700108090411.

Brandth, B. & Kvande, E., 2018. Norway country note. In *International Review of Leave Policies and Research 2018*. pp. 313–322. Available at: http://www.leavenetwork.org/lp_and_r_reports.

Braumoeller, B.F. & Goertz, G., 2000. The Methodology of Necessary Conditions. *American Journal of Political Science*, 44(4), pp.844–858. Available at: http://www.jstor.org/stable/2669285.

Capano, G., 2009. Understanding Policy Change as a Historical Problem. *Journal of Comparative Policy Analysis: Research and Practice*, 11(1), pp.7–31.

Caughell, L.A., 2016. *The Political Battle of the Sexes: Exploring the Sources of Gender Gaps in Policy Preferences*, Lanham: Lexington Books.

Chemin, A., 2011. Norway, the fatherland. *The Guardian*. Available at: https://www.theguardian.com/money/2011/jul/19/norway-dads-peternity-leave-chemin.

Cox, R.H., 2001. The Social Construction of an Imperative: Why Welfare Reform Happened in Denmark and the Netherlands but Not in Germany. *World Politics*, 53(3), pp.463–498.

CPHPost, 2013. Mixed reactions to government backtracking on paternity leave. *CPHPost*. Available at: http://cphpost.dk/news/national/mixed-reactions-to-government-backtracking-on-paternity-leave.html.

Craig, L. & Mullan, K., 2010. Parenthood, Gender and Work-Family Time in the United States, Australia, Italy, France, and Denmark. *Journal of Marriage and Family*, 72(5), pp.1344–1361. Available at: https://doi.org/10.1111/j.1741-3737.2010.00769.x.

Crompton, R., 1999. *Restructuring Gender Relations and Employment: The Decline of the Male Breadwinner*, Oxford: Oxford University Press.

———. 2007. *Women, Men, Work and Family in Europe*, London: Palgrave Macmillan.

Daguerre, A. & Taylor-Gooby, P., 2003. Adaptation to labour market change in France and the UK: Convergent or parallel tracks? *Social Policy and Administration*, 37(6), pp.625–638.

Dahlerup, D., 2006. *Women, Quotas and Politics*, New York: Routledge.

Daly, M. & Ferragina, E., 2017. Family policy in high-income countries: Five decades of development. *Journal of European Social Policy*, p.95892871773506. Available at: http://journals.sagepub.com/doi/10.1177/0958928717735060.

Delreux, T. & Hesters, D., 2010. *Solving contradictory simplifying assumptions in QCA: presentation of a new best practice*,

Deutsche Welle, 2007. German Family Minister Calls New Parental Leave Law a Success. *Deutsche Welle*. Available at: https://www.dw.com/en/german-family-minister-calls-new-parental-leave-law-a-success/a-3005391.

Dingler, S.C., Kroeber, C. & Fortin-Rittberger, J., 2019. Do parliaments underrepresent women's policy preferences? Exploring gender equality in policy congruence in 21 European democracies. *Journal of European Public Policy*, 26(2), pp.302–321. Available at: https://doi.org/10.1080/13501763.2017.1423104.

Ditch, J., Barnes, H. & Bradshaw, J., 1996. *Developments in national family policies in 1995*, York.

Dyble, M. et al., 2015. Sex equality can explain the unique social structure of hunter-gatherer bands. *Science*, 348(6236), p.796 LP-798. Available at: http://science.sciencemag.org/content/348/6236/796.abstract.

Escobar-Lemmon, M. & Taylor-Robinson, M., 2005. Women Ministers in Latin American Government: When, Where and Why? *American Journal of Political Science*, 49(4), pp.829–844.

Escobedo, A., Flaquer, L. & Navarro-Varas, L., 2012. The Social Politics of Fatherhood in Spain and France: a Comparative Analysis of Parental Leave and Shared Residence. *Ethnologie française*, 42(1), p.117. Available at: http://www.cairn.info/revue-ethnologie-francaise-2012-1-page-117.htm.

Esping-Andersen, G., 1990. *The Three Worlds of Welfare Capitalism*, Cambridge: Polity Press.

Eurofound, 2015. European Working Conditions Survey. Available at: https://www.eurofound.europa.eu/surveys/european-working-conditions-surveys.

European Values Study, 2015. European Values Study- Longitudinal Data File. , p.http://www.gesis.org/unser-angebot/daten-analysier.

Fortin, N.M., 2015. Gender Role Attitudes and Women's Labor Market Participation: Opting-Out, AIDS, and the Persistent Appeal of Housewifery. *Annals of Economics and Statistics*, (117/118), pp.379–401. Available at: http://www.jstor.org/stable/10.15609/annaeconstat2009.117-118.379.

Freidenvall, L., 2013. Step by step – Women's Inroads to Parliamentary Politics. In D. Dahlerup & M. Leyenaar, eds. *Breaking Male Dominance in Old Democracies*. Oxford: Oxford University Press, pp. 97–123.

Giannetti, D. & Laver, M., 2005. Policy positions and jobs in the government. *European Journal of Political Research*, 44(1), pp.91–120.

Gibbs, W., 2011. Norway PM thrilled as paternity leave hits cabinet. *Reuters*. Available at: https://www.reuters.com/article/us-norway-parentalleave/norway-pm-thrilled-as-paternity-leave-hits-cabinet-idUSTRE71F5UB20110216.

Gíslason, I. V., 2007. *Parental leave in Iceland: bringing the fathers in: developments in the wake of new legislation in 2000*, Reykjavik: Jafnréttisstofa.

Gornick, J. & Meyers, M., 2005. Families That Work: Policies For Reconciling Parenthood And Employment. *Industrial & Labor Relations Review*.

Gornick, J.C. & Meyers, M.K., 2008. Creating gender egalitarian societies: An agenda for reform. *Politics and Society*, 36(3), pp.313–349.

Grover, S., 1991. Predicting the perceived fairness of parental leave policies. *Journal of Applied Psychology*, 76, pp.247–255.

Hagemann, C., 2019. How politics matters for EU funds ' absorption problems – a fuzzy-set analysis. *Journal of European Public Policy*, 26(2), pp.188–206. Available at: https://doi.org/10.1080/13501763.2017.1398774.

Hallerberg, M. & von Hagen, J., 1999. Electoral Institutions, Cabinet Negotiations, and Budget Deficits within the European Union. In J. Poterba & J. von Hagen, eds. *Fiscal Institutions and Fiscal Performance*. Chicago: University of Chicago Press, pp. 209–232.

Heidbreder, B. & Scheurer, K.F., 2013. Gender and the Gubernatorial Agenda. *State and Local Government Review*, 45(1), pp.3–13. Available at: http://slg.sagepub.com/cgi/doi/10.1177/0160323X12463945.

Howlett, M. & Cashore, B., 2009. The Dependent Variable Problem in the Study of Policy Change: Understanding Policy Change as a Methodological Problem. *Journal of Comparative Policy Analysis*, 11(1), pp.33–46.

Hyde, J., Essex, M. & Horton, F., 1993. Fathers and Parental Leave: Attitudes and Experiences. *Journal of Family Issues*, 14(4), pp.616–638. Available at: https://doi.org/10.1177/019251393014004008.

Inglehart, R. & Norris, P., 2003. *Rising Tide: Gender Equality and Cultural Change around the World*, Cambridge: Cambridge University Press.

Inter-Parliamentary Union, 2018. Proportion of seats held by women in national parliaments (%).

International Labour Organization, 2018. Labor Force Participation Rate, women (% women 15+). Available at: https://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS [Accessed October 18, 2018].

Jones, B.D. et al., 2009. A General Empirical Law of Public Budgets: A Comparative Analysis. *American Journal of Political Science*, 36(June), pp.361–371.

Jørgensen, C., 2002. New government challenges trade union movement. *Eurofound*. Available at: https://www.eurofound.europa.eu/publications/article/2002/new-government-challenges-trade-union-movement.

Kay, A., 2006. *The Dynamics of Public Policy: Theory and Evidence*, Cheltenham: Edward Elgar.

Kelly, E. & Dobbin, F., 1999. Civil Rights Law at Work: Sex Discrimination and the Rise of Maternity. *American Journal of Sociology*, 105(2), pp.455–492. Available at: http://www.jstor.org/stable/10.1086/210317.

Kitschelt, H., 1994. *The Transformation of European Social Democracy*, Cambridge, UK: Cambridge University Press.

Kotsadam, A. & Finseraas, H., 2011. *The State Intervenes in the Battle of the Sexes: Causal Effects of Paternity Leave*,

Krook, M. & O'Brien, D.Z., 2012. All the President's Men? The Appointment of Female Cabinet Ministers Worldwide. *The Journal of Politics*, 74(3), pp.840–885.

Krook, M.L., 2007. Candidate gender quotas: A framework for analysis. *European Journal of Political Research*, 46(3), pp.367–394.

Kuebler, D., 2007. Understanding the Recent Expansion of Swiss Family Policy: An Idea-Centred Approach. *Journal of Social Policy*, 36(2), pp.217–237. Available at: https://www.cambridge.org/core/article/understanding-the-recent-expansion-of-swiss-family-policy-an-ideacentred-approach/63E5204A78B0B30AE7936A12C0DE7112.

Lefebvre, P. & Merrigan, P., 2008. Child-Care Policy and the Labor Supply of Mothers with Young Children: A Natural Experiment from Canada. *Journal of Labor Economics*, 26(3), pp.519–548. Available at: https://doi.org/10.1086/587760.

Legewie, N., 2013. An Introduction to Applied Data Analysis with Qualitative

Comparative Analysis. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research; Vol 14, No 3 (2013)DO - 10.17169/fqs-14.3.1961* . Available at: http://www.qualitative-research.net/index.php/fqs/article/view/1961/3594.

Lehmann, P. et al., 2018. Manifesto Corpus: 2017b. Available at: https://manifesto-project.wzb.eu/.

Leira, A., 1992. *Welfare States and Working Mothers: The Scandinavian Experience*, Cambridge, UK: Cambridge University Press.

Lucas, S.R. & Szatrowski, A., 2014. Qualitative comparative analysis in critical perspective. *Sociological Methodology*, 44(1), pp.1–79.

Martin, L. & Vanberg, G., 2005. Coalition policymaking and legislative review. *American Political Science Review*, 99(1), pp.93–106.

———. 2011. *Parliaments and Coalitions: The Role of Legislative Institutions in Multiparty Governance*, Oxford: Oxford University Press.

———.G., 2004. Policing the Bargain: Coalition Government and Parliamentary Scrutiny. *American Journal of Political Science*, 48(1), pp.13–27.

Mintrom, M., 1997. Policy Entrepreneurs and the Diffusion of Innovation. *American Journal of Political Science*, 41(3), pp.738–770. Available at: http://www.jstor.org/stable/2111674.

Mölder, M., 2013. The validity of the RILE left-right index as a measure of party policy. *Party Politics*, 22(1), pp.37–48. Available at: http://ppq.sagepub.com/content/early/2013/12/09/1354068813509525#corresp-1 [Accessed November 13, 2015].

Morgan, K.J. & Zippel, K., 2003. Paid to Care : The Origins and Effects of Care Leave Policies in Western Europe. *Social Politics*, 10(1), pp.49–85. Available at: https://doi.org/10.1093/sp/jxg004.

Moss, P., 2009. International Review of Leave Policies and Related Research 2009. *Employment Relations Research Series*, (102).

Moury, C., 2011. Coalition agreement and party mandate: How coalition agreements constrain the ministers. *Party Politics*, 17(3), pp.385–404.

Müller, W.C. & Strøm, K., 2000. *Coalition Governments in Western Europe*, Oxford: Oxford University Press.

Müller, W.C. & Strøm, K., 1999. *Policy, Office, Or Votes?: How Political Parties in Western Europe Make Hard Decisions*, Cambridge: Cambridge University Press.

O'Brien, M., 2009. Fathers, parental leave policies, and infant quality of life: International perspectives and policy impact. *Annals of the American Academy of Political and Social Science*, 624(1), pp.190–213.

OECD, 2015. Monitoring progress in reducing the gender gap in labour force participation.

OECD, 2017a. *PF2.1: Key characteristics of parental leave systems*,

OECD, 2017b. *PF 2.5. Trends in parental leave policies since 1970*, Available at: http://www.oecd.org/els/family/PF2_5_Trends_in_leave_entitlements_around_childbirth.pdf.

OECD, 2016. PF 2.5 annex: Detail of change in parental leave by country. , (January 2013), pp.1–49. Available at: https://www.oecd.org/els/family/PF2_5_Trends_in_leave_entitlements_around_childbirth_annex.pdf.

Orloff, A.S., 1993. Gender and the Social Rights of Citizenship: The Comparative Analysis of Gender Relations and Welfare States. *American Sociological Review*, 58(3), pp.303–328. Available at: http://www.jstor.org/stable/2095903.

Ortiz-Ospina, E. & Tzvetkova, S., 2017. Working women: What determines female labor force participation? *Our World in Data*. Available at: https://ourworldindata.org/women-in-the-labor-force-determinants#note-12 [Accessed August 20, 2018].

Pfau-Effinger, B., 2005. Culture and Welfare State Policies: Reflections on a Complex Interrelation. *Journal of Social Policy*, 34, pp.3–20.

Poggione, S., 2004. Exploring Gender Differences in State Legislators' Policy Preferences. *Political Research Quarterly*, 57(2), pp.305–314. Available at: http://journals.sagepub.com/doi/pdf/10.1177/106591290405700211.

Pollitt, C., 2013. *Context in Public Policy and Management: The Missing Link?*, Cheltenham: Edward Elgar Publishing.

Price, A., 2015. How national structures shape attitudes toward women's right to employment in the Middle East. *International Journal of Comparative Sociology*, 56(6), pp.408–432. Available at: https://doi.org/10.1177/0020715215625494.

Psyllides, G., 2016. Paternity leave scheme would cost state €10m. *CyrusMail*. Available at: https://cyprus-mail.com/2016/02/04/paternity-leave-scheme-would-cost-state-e10m/.

Ragin, C., 2008a. *Redesigning Social Inquiry: Fuzzy Sets and Beyond*, Chicago: University of Chicago Press.

——— 2008b. Measurement Versus Calibration: A Set-Theoretic Approach. *The Oxford Handbook of Political Methodology*, (September 2018), pp.1–33.

Ragin, C.C. & Davey, S., 2016. Fuzzy-Set/Qualitative Comparative Analysis 3.0.

Ray, R., Gornick, J.C. & Schmitt, J., 2010. Who Cares? Parental leave policies in 21

countries assessing generosity and gender equality. *Journal of European Social Policy*, 20(3), pp.196–216. Available at: https://ideas.repec.org/p/epo/papers/2008-23.html%5Cnhttp://www.cepr.net/documents/publications/parental_2008_09.pdf.

Rehel, E.M., 2013. When Dad Stays Home Too: Paternity Leave, Gender, and Parenting. *Gender & Society*, 28(1), pp.110–132. Available at: https://doi.org/10.1177/0891243213503900.

Rihoux, B. & Ragin, C.C., 2009. *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques*, Thousand Oaks, CA: SAGE Publications Inc.

Rihoux, B., Rezsöhazy, I. & Bol, D., 2011. Qualitative Comparative Analysis (QCA) in Public Policy Analysis: an Extensive Review. *German Policy Studies*, 7(3), pp.9–82.

Ritchie, M., 1994. Europe grants paternity leave to new fathers but UK sidelined. Britain out of step again. *The Herald (Glasgow)*.

Rose, R., 1971. The Making of Cabinet Ministers. *British Journal of Political Science*, 1(4), pp.393–414.

Sage, A., 2001. Paternity leave: is it a waste of money? *The Times*.

Schmidt, M.G., 1996. When parties matter: A review of the possibilities and limits of partisan influence on public policy. *European Journal of Political Research*, 30(2), pp.155–183. Available at: https://doi.org/10.1111/j.1475-6765.1996.tb00673.x.

Schneider, C.Q. & Wagemann, C., 2012. *Set-Theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*, Cambridge, UK: Cambridge University Press.

Schneider, C.Q. & Wagemann, C., 2010. Standards of good practice in qualitative comparative analysis (QCA) and fuzzy-sets. *Comparative Sociology*, 9(3), pp.397–418.

Schneider, M.R. & Eggert, A., 2014. Embracing complex causality with the QCA method: An invitation. *Journal of Business Market Management*, 7(1), pp.312–328. Available at: http://jbm-online.net/index.php/jbm/article/view/89.

Seawright, J., 2005. Qualitative comparative analysis vis-à-vis regression. *Studies in Comparative International Development*, 40(1), pp.3–26.

Seki, K. & Williams, L.K., 2016. Updating the Party Government data set Version 2 . 0 Codebook for “Data Set 1 : Governments .” , pp.270–279.

Shahidi, F.V., 2015. Welfare Capitalism in Crisis : A Qualitative Comparative Analysis of Labour Market Policy Responses to the Great Recession. , pp.659–686.

Shapiro, R.Y. & Mahajan, H., 1986. Gender Differences in Policy Preferences: A Summary of Trends from the 1960s to the 1980s. *Public Opinion Quarterly*, 50(1), pp.42–61.

Staerklé, C. et al., 2003. Consensus and conflict in lay conceptions of citizenship: Why people reject or support maternity policies in Switzerland. *Psychologica Belgica*, 43, pp.9–32.

Starke, P., 2006. The Politics of Welfare State Retrenchment: A Literature Review. *Social Policy and Administration*, 40(1), pp.104–120.

Svevo-Cianci, K.A., Hart, S.N. & Rubinson, C., 2010. Protecting children from violence and maltreatment: A qualitative comparative analysis assessing the implementation of U.N. CRC Article 19. *Child Abuse & Neglect*, 34(1), pp.45–56. Available at: http://www.sciencedirect.com/science/article/pii/S014521340900266X.

ThinkSpain, 2002. Employment minister pledges `at least seven days´ paternity leave. *ThinkSpain*. Available at: https://www.thinkspain.com/news-spain/9951/employment-minister-pledges-at-least-seven-days-paternity-leave.

Tsebelis, G., 2002. *Veto Players: How Political Institutions Work*, United States: Princeton University Press.

——— 2000. Veto players and institutional analysis. *Governance*, 13(4), pp.441–474.

Valarino, I. et al., 2018. Exploring Leave Policy Preferences: A Comparison of Austria, Sweden, Switzerland, and the United States. *Social Politics*, 25(1), pp.118–147.

Vis, B., 2011. Under which conditions does spending on active labor market policies increase? An fsQCA analysis of 53 governments between 1985 and 2003. *European Political Science Review*, 3(2), pp.229–252.

Wall, K. & Leitão, M., 2017. Portugal Country Note 2017. In S. Blum, A. Koslowski, & A. Macht, eds. *International Review of Leave Policies and Research*. Available at: http://www.leavenetwork.org/fileadmin/Leavenetwork/Country_notes/2017/Portugal_Country_Note_2017_checked.pdf.

Warren, T., Fox, E. & Pascall, G., 2008. Innovative Social Policies: Implications for Work–life Balance among Low-waged Women in England. *Gender, Work & Organization*, 16(1), pp.126–150. Available at: https://doi.org/10.1111/j.1468-0432.2008.00433.x.

Williams, L. & Seki, K., 2016. Seki-Williams Government and Ministers Data. Available at: https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/0UNUAM.

Willsher, K., 2014. French MPs debate new equality law. *The Guardian*.

World Bank, 2018. World Bank, International Comparison Program: GDP per capita growth (annual %).

World Values Survey Association, 2015. World Values Survey 1981-2014 Aggregate Data File v.20150418. Available at: http://www.worldvaluessurvey.org/WVSDocumentationWVL.jsp.

Zubek, R., 2011. Negative Agenda Control and Executive–Legislative Relations in East Central Europe, 1997–2008. *The Journal of Legislative Studies*, 17(2), pp.172–192. Available at: https://doi.org/10.1080/13572334.2011.574025.

Paper Three: Appendix

All cases of extensions of leave for fathers

20 European OECD countries, January 1990 to April 2016. Extracted from OECD (2016) *Detail of Change in Parental Leave by Country.*

Country	Year	Leave before reform (weeks)	Leave after reform (weeks)	Father-specific leave reform	Detail
Austria	1996	0	26	1	1/7/1996: One parent could use up to 18 months of parental leave. In practice, this implies an introduction of a six month father quota (Lalive and Zweimuller 2005; Prskawetz et al. 2008).
Belgium	1998	0.6	13.6	1	1/1/1998: A three month, job-protected parental leave scheme was introduced (NATLEX). The scheme applied only to the private sector. The scheme was an individual based allowance, with each parent meeting the employment conditions being entitled to three months of paid leave. It was paid at a flat rate.
	2002	13.6	15	0	1/7/2002: Paternity leave was increased from three to ten days. Three days of paternal leave were mandatory. The payment was 100% of earnings for the first three days and then at 82% with a ceiling.
	2012	15	19.3	1	08/3/2012: The federal government has acted to implement the EU Directive 2010/18 on Parental Leave. A fourth month of Parental leave was set as an individual entitlement; the flat rate payment was also extended to a fourth month of leave for parents of children born after 8 March 2012.

Czech Republic	2007	0	156	1	1/1/2008: Introduction of flexibility in parental leave. Both parents could take leave until the third birthday of the child. Leave was an individual entitlement. Both parents could be on leave but income support could by paid out to only one parent. There were three payment options (from 1/1/2008): (i) a long option (after maternity or after birth if the person was not entitled to maternity benefit) at CZK 7600 monthly until the child was 21 months old and thereafter at CZK3800 monthly until the child was 48 months old; (ii) a mid-range option (only for parents entitled to maternity benefits) at CZK7600 monthly until the child was 36 months old; (iii) a short option (only for parents entitled to maternity benefits) of CZK11400 monthly until the child was 24 months old (Moss and Korintus, 2008).
Denmark	1992	2	28	0	7/1/1992: Introduction of a new childcare leave which was available to parents with children under eight years old (NATLEX). It entitled each working parent to 26 weeks of paid and job- protected leave, with a payment equal to 80% of the unemployment benefit (Pylkkänen and Smith, 2004). Parents who were in employment, self-employed, unemployed members of an unemployment insurance fund, or cash-benefit claimants were all eligible. If the child was over one year of age, the duration of leave was reduced to 13 weeks in 1995 (Jensen, 2000). Childminding leave could be taken after the 10 weeks of parental leave and 14 weeks of maternal leave.
	1998	15	17	0	1/4/1998 (law of 29/12/1997): Parental leave was increased from 10 to 12 weeks after birth via the addition of two weeks of leave which must be taken by the father (NATLEX).

	2002	17	34	0	27/3/2002: A new birth-related leave scheme was implemented for children born on or after 27th March2002. Parents of children born between 1st January and 26th March 2002 could choose to use the old or new child leave scheme. Under the new scheme, the childcare leave scheme was abolished. The two week father's quota from 1998 was eliminated. The 4 pre-birth and 14 post-natal weeks of maternity leave remained. Parental leave was extended. The parental leave benefit is paid up to 32 weeks per family, but parents could choose a longer option of 46 weeks with the payment for 32 weeks spread over the longer period (MISSOC). The other parent could take the same leave and extension of leave, but unpaid. Thus, parents were entitled to 52 weeks of paid leave (maternity leave plus paternity leave plus parental leave). The family could get a maximum of 112 weeks of job-protected leave. Of these 112 weeks, the mother could get a maximum of 64 weeks (18 maternity plus 46 parental leave weeks) and the father could get a maximum of 48 weeks (2 week paternity plus 46 week parental leave).
Finland	1991	0	1	0	1/1/1991: Fathers got six days of paternity leave.
	1993	1	3	0	1/1/1993: Paternity leave becomes 18 days.
	2003	2	7	1	1/1/2003: Fathers were entitled to two extra weeks (12 days) of bonus paternity leave, if they took two weeks (12 days) of the parental leave.
	2011	7	9	1	2010: The father's month was lengthened by two weeks, so fathers were entitled to four extra weeks of paid leave if they took the last two weeks of the sharable parental leave.
France	2002	156	156	0	1/1/2002: Introduction of a maximum of 3 days of paternal birth leave and 11 consecutive days of paternity leave (to be taken during the four months after birth). This leave was job-protected and fully paid.

Germany	2007	0	8.6	1	1/1/2007: A new earnings-related parental leave benefit with floors and ceilings (Elterngeld, or “parental money”), replaced the means tested flat rate child-raising benefit (Erziehungsgeld). The child rearing benefit was targeted at low income families, while the new parental money was more universal in nature (Kluve and Tamm 2009). Duration of the job-protected parental leave remained up to three years following childbirth, but there was an overhaul of child rearing benefits. The payment became income related (at 67% of the parent’s average earnings during the 12 months preceding childbirth, with a ceiling of 1800EUR per month and a floor at 300EUR). An extra payment for fathers was introduced. The payment was for ten months plus two extra months for the father if he used at least two months of parental leave, resulting in a total of 14 available months of payment. The maternity leave payment was included in this period, reducing the actual Elterngeld payment period to 12 months. It was possible to extend leave up to 24 plus four months (if each parent takes at least four months), with a proportionate reduction in the monthly payment rate. The actual Elterngeld payment period was then 28 months less the two months maternity payment which were included in the child rearing benefit period, i.e. 26 months. There still was unpaid and job-protected leave up to 36 months following birth (Moss and Korintus 2008).
Greece	1993	13	15.2	1	9/6/1993 (Day of the Act; retrospective application from 1/1/1993): The National General Collective Agreement extended the duration of unpaid job-protected parental leave from 3 to 3.5 months with the leave to be taken up to the point when the child reached the age of three years instead of two and a half years (from Parental leave in Greece: the impact of the framework agreement and the European Directive). Article 7 introduced 16 weeks maternity leave, of which eight pre-natal weeks were mandatory (Soumeli 1998).
	2000	15.2	15.6	0	23/5/2000: Two days of full paid paternity leave introduced.

	2012	15.6	17.7	1	04/2012: A new law on parental leave was passed by the Greek Parliament in April 2012 (articles 48-54, Law 4075/12).The law incorporates the EU Directive 2010/18 on Parental leave in the national legislation. According to the provisions of the law, the following main changes were introduced that concern all working people in the public or private sector: o Parental leave is extended, so it can be taken until a child was 6 years old (instead of 3.5 years as in the past). o Parental leave lasts 4 months (instead of 3½ months, as in the past o Requests for parental leave from parents of children with a disability or long-term illness or sudden illness and from single parents are dealt with as an absolute priority. o In the case of death of a parent or total removal of parental responsibility or non- recognition of the child, the other parent is entitled to receive the double amount of parental leave o Working people that adopt or foster a child that is less than 6 years of age, are entitled to parental leave which, under certain circumstances, could be extended until the child's eighth birthday. o Special leave was introduced to cover the unplanned and serious needs of parents whose children suffered from serious illness needing regular therapy or hospitalisation.
Hungary	2002	0	1	0	2002: Five days of job-protected and fully paid paternity leave were introduced.
Iceland	1998	0	2	0	1/1/1998: With this amendment, all Icelandic fathers gained the right to a two-week paternity leave, which could be taken at any time during the first eight weeks after the birth or the arrival of the child at home
	2001	2	17.3	1	1/1/2001: Maternity leave was made three paid months, parental leave was made three shareable months, and paternity leave was made one month. The unpaid parental leave was 13 unpaid weeks per parent (Social Protection in the Nordic Countries, 1995-2005). Two post-natal weeks become mandatory as part of the maternity leave.

	2002	17.3	21.7	1	1/1/2002: Paternity leave was increased by another month
	2003	21.7	26	1	1/1/2003: Paternity leave increased to three months (Social Protection in the Nordic Countries, 1995-2005). The system worked as follows: maternity leave was three months (of which one month must be taken before birth). Two weeks after birth were mandatory. Paternity leave was three months. Parental leave was three months following birth which could be shared. The right to leave expires when the child was 18 months old. Payment, equal for all the three schemes, was 80% of earnings up to a ceiling for those who have been in the workforce during the preceding 24 months. Others (including students) received a flat-rate payment. There was an additional available 13 weeks of unpaid parental leave.
	2014	26	30.3	1	2014: The ceiling on leave payments was raised from ISK 350,000 to ISK 370,000.
Ireland	1999	0	14	1	3/12/1998 (Parental Leave Act No. 30/1998): Introduction of 14 unpaid and job-protected weeks of parental leave per parent.15
	2013	14	18	1	08/03/2013: The length of parental leave was extended from 14 weeks to 18 weeks
Italy	2000	0	21.6	1	14/3/2000 (Day after the publication on the Gazzetta, Law 8/03/2000 n. 53): Maternity leave remained mandatory but mothers could now choose to start leave one month instead of two months before birth. Fathers could take leave for three months after birth (payment as for maternity at 80% and job-protected) but only in some restricted cases such as the mother's death, leave, or if the mother is ill. Six months parental leave per parent was introduced. If a father took three months, he was entitled to one additional month of parental leave (he could take a maximum leave of seven months). The total amount of the parental leave taken by two parents could not exceed 10 months, or 11 if the father takes at least three months. It could be used until the child was eight years old.

	2013	21.6	21.9	0	January 2013: A one day period of compulsory paid paternity leave was introduced. Fathers could take two additional days if the mother agreed to transfer these days from her maternity leave.
	2016	21.9	22.1	0	January 2016: Compulsory paid paternity leave extended from one to two days.
Luxembourg	1999	0.4	26.4	1	1/1/1999 (law 3/2/1999, applicable for children born from the 1st of January): Parental leave at flat rate payment was introduced. It was an individual entitlement of six months if taken on full-time basis or 12 months long if taken on part-time basis. The leave was job-protected (ILO Maternity protection database). Both parents cannot take full-time parental leave at the same time, but they were allowed to if they take it on a part-time basis. Once maternity or adoption leave ended, one of the parents could take parental leave, otherwise he/she will lose his/her right to this part of leave (this right was not transferable). The other parent could take parental leave until the child was five years old.
Netherlands	1991	0	13	1	1/1/1991: Introduction of 26 weeks part-time (50%) unpaid job-protected parental leave. It was an individual right up to the child's 4th birthday (Plantenga and Remery 2009).
	2001	13	13.4	0	1/12/2001: Fathers were entitled to two days of childbirth leave, fully paid and job-protected
	2009	13.4	26.4	1	1/1/2009: Parental leave was extended to six full-time months and the new saving scheme could be applied to the whole leave (a flat rate payment of EUR 667 per month) (Moss and Korintus, 2008).
Norway	1993	54	58	1	1/4/1993: Parental leave was 52 weeks of which nine were for the mother (three pre- and six post-birth weeks, all mandatory), four weeks of father's quota, and 39 "shareable" weeks. Parents could choose between a short option (42 weeks at 100%) and a long option (52 weeks at 80%) (Carneiro, Crawford, and Goodman 2007; Rønsen and Sundström 2002).
	2005	58	59	1	1/6/2005: Father's quota was increased by a week. The long option of leave became 53 weeks, of which nine weeks were reserved for the mother, five for the father and 39 weeks to be shared, all paid at 80%.

					The short and better paid option was 43 weeks paid at 100% (Moss and Korintus, 2008).
	2006	59	60	1	1/6/2006: The father's quota became six weeks, so that the longest leave option became 54 weeks (Moss and Korintus, 2008).
	2009	60	64	1	01/7/2009: The father's quota became ten weeks, so that the long option was 58 weeks and the short was 46 weeks. Eligibility of fathers was extended, but remained dependent on both parents being employed six of the last ten months prior to childbirth and earning half the basic amount.
	2011	64	66	1	01/7/2011: The parental payment period was extended to 47/57 weeks with 100/80 % of earnings for the short/long leave. Of these, the father's quota consists of 12 weeks. Fathers who were eligible for parental money may take parental leave for 12 weeks if the mother received a disability benefit and thus was unable to return to work or education after the birth.
	2014	66	68	1	01/07/2014: Length of the mother and father quotas reduced from 14 to 10 weeks, and the shared period increased to 26/36 weeks.
Poland	2010	0	1	0	1/1/2010: Paternity leave was granted to fathers for one week and from January 1st 2012 for two weeks.
	2012	1	2	0	1/1/2012: Paternity leave was granted to fathers for two weeks.
	2013	2	6.3	1	2013: Introduction of one-month mother and father quotas for the old three-year parental leave scheme. The leave period is still 36 months, but one moth is reserved for the mother and one month for the father. The remaining 34 months are a sharable family entitlement.

Portugal	1995	0	0.4	0	9/6/1995: two unpaid days of paternity leave.
	1999	0.4	17	1	30/9/1999: Two measures for father were introduced: five full paid working days of paternity leave and 15 sequential days fully paid to be taken immediately after maternity leave or after the five days of paternity leave.
	2009	17	21.3	1	05/2009: Parental leave was set at 120 days (30 days could be used pre- or post-birth) paid at 100%, or 150 days paid at 80% of previous earnings. Mothers had to take at least six weeks leave after the birth. The rest could be transferred to the father. A bonus of 30 days applied if the father took at least 30 continuous days or two periods of 15 days alone without the mother. The qualifying condition was six months of insurance contributions. Each parent was also entitled to three additional months of additional leave paid at 25% of the average earnings for three months, but only if taken immediately after the initial parental leave; payment could only be made to one parent at a time. Paternity leave was made mandatory for 10 working days, paid at 100% of earnings and to be used within the first month following childbirth. Additional parental leave was three months per parent.
	2016	21.3	22.3	0	03/2016: Paternity leave was extended from 20 to 25 working days, with 15 working days now mandatory. Five of the fifteen mandatory days must be taken consecutively immediately after birth, and the other ten days must be taken during the first month after birth. The remaining ten optional days must be taken while the mother is on Initial Parental leave.
Slovakia					*No paternity leave*
Spain	2007	52.4	54.1	0	24/3/2007: 15 full paid days of paternity leave were introduced, of which two days were paid by the employer and the remainder by social security. The 2007 legislation includes a commitment to a four weeks Paternity leave by 2012.
Sweden					*No reforms in time period*

Switzerland					*No paternity leave*
United Kingdom	2000	0	13	1	15/12/1999: Fathers and mothers with children under five years of age were each entitled to up to 13 weeks of unpaid leave. Where individual employers have not chosen to negotiate their own arrangements with employees, leave allowed within one calendar year was limited to 4 weeks. The minimum length of parental leave allowed was one week.
	2003	13	15	0	6/4/2003: Paternity leave was introduced around the birth of a child for two weeks at a flat rate payment.
	2013	15	20	1	2013: Unpaid parental leave was extended from 13 weeks to 18 weeks.

Variable calibration and data sources

Variable	Description	Calibration			Calibration Justification	Data Source
		Threshold for full non-membership (0.05)	Cross-over point (0.5)	Threshold for full membership (0.95)		
Father-specific parental leave **(FS)**	Any weeks of employment-protected parental or home care leave that can be used only by the father (or 'other parent')	0	-	1	Crisp set (binary)	OECD Family Database
Female labour force participation rate **(WL)**	Labour force participation rate, female (% of female population ages 15+) (modelled ILO estimate)	30	40	50	The calibration of the female labour force participation rate (WL) is based on conditions set out by non-governmental organisations as targets for women's engagement in paid work (OECD 2015). The threshold for full membership is 50% of women over aged 15 engaged in paid work, which is seen as an international standard for women's engagement in the labour force. The threshold for full non-membership is 30%, which is significantly behind international targets.	International Labour Organization, ILOSTAT database
Economic context **(EC)**	GDP per capita growth (annual %)	0	1	3	1	International Labour Organization, ILOSTAT database
Gender attitudes **(GA)**	1 - (Weighted score of respondents who agree with the statement that	0.7	0.8	0.9	As identified in the paper's data and methodology section, this measure of gender attitudes is an annual measure of the	European Values Study and World Values Survey

	'when jobs are scarce, men should have more right to a job than women'.)				weighted percentage of respondents within each country who agreed to the statement 'c001- When jobs are scarce, men have more right to a job than women'. In this measure, a score of 0.90 means that 10% of respondents in that country in that survey wave responded that men should have more of a right to a job than women. Cases of membership of the category therefore are country-years with more progressive social attitudes.	
Female labour/employment minister **(WM)**	Gender of social spending minister	0	-	1	Crisp set (binary)	Seki-Williams Government Data
Left-wing labour/employment minister **(LM)**	CMP rile score of party of social spending/labour minister	5	0	-5	In the Comparative Manifestos Project, the time-variant 'rile' indicator ranges from –100 (the whole manifesto is devoted to 'left' categories) to +100 (the whole manifesto is devoted to 'right' categories)' (Mölder 2013, 3). However, the range for governing parties is much smaller, across all governing parties in Europe between 1990 and 2014, the range for governing parties was between –58 and 82 (Goddard 2018). These low thresholds identify where the parties ministers below to can be identified as left or right wing. 10 of the 49 cases in this analysis have a score between 5 and -5.	Seki-Williams Government Data, Comparative Manifestos Project
Left-wing complexion of government and parliament **(LP)**	Left-center complexion or left-wing dominance in Parliament and Government	0	-	1	Crisp set (binary)	Seki-Williams Government Data

Women in Parliament **(WP)**	Proportion of seats held by women in the single or lower chamber of the national parliament	20	25	30	In feminist institutionalist studies of politics, 30% is identified to be a threshold for a 'critical mass' for women's representation to shape political outcomes and policy choices (see Dahlerup 2006 for an overview of the literature).	Inter-Parliamentary Union
Party family **(PF)**	Left-wing party family membership for the party of the social spending/labour minister	0		1	Coding with party families identifying if the party is from the socialist or social democratic party families. Coding: Ecological parties = 0 Socialist parties = 1 Social democratic parties = 1 Liberal parties = 0 Christian democratic parties = 0 Conservative parties = 0 Nationalist parties = 0 Agrarian parties = 0 Ethnic and regional parties = 0 Special issue parties = 0 Electoral alliances of diverse origin without dominant party = 0	Comparative Manifestos Project

FsQCA truth table

Female social spending minister **(WM)**	Left-wing complexion of government and parliament **(LP)**	Economic context **(EC)**	Gender attitudes **(GA)**	Female labour force participation rate **(WL)**	Left-wing social spending minister **(LM)**	Number	Father-specific parental leave (**FS**)	Raw consistency	PRI consistency	SYM consistency
1	1	1	1	1	1	4	1	1	1	1
1	1	0	1	1	1	2	1	1	1	1
1	1	0	0	1	1	1	1	1	1	1
1	1	1	0	1	1	1	1	1	1	1
0	0	0	1	1	0	3	1	0.964497	0.964497	0.964497
0	0	1	1	1	0	4	1	0.928962	0.928962	0.928962
1	0	1	1	1	1	2	0	0.840764	0.840764	0.840764
0	0	0	0	1	0	1	0	0.819277	0.819277	0.819277
1	0	1	0	0	1	1	0	0.785714	0.785714	0.785714
0	1	1	0	0	0	1	0	0.72093	0.72093	0.72093
1	0	0	1	1	1	1	0	0.663507	0.663507	0.663507
0	0	1	0	1	0	2	0	0.612613	0.612613	0.612613
0	0	0	1	1	1	2	0	0.606557	0.606557	0.606557
0	0	1	1	1	1	5	0	0.599558	0.599558	0.599558

0	1	1	0	1	0	4	0	0.560224	0.560224	0.560224
0	1	1	1	1	1	3	0	0.410188	0.410188	0.410188
1	0	0	0	1	1	1	0	0.401099	0.401099	0.401099
0	0	1	0	1	1	3	0	0.340164	0.340164	0.340164
0	1	1	0	1	1	2	0	0.337989	0.337989	0.337989
0	1	0	1	1	1	1	0	0.169725	0.169725	0.169725
1	0	0	0	0	1	1	0	0.166667	0.166667	0.166667
0	1	1	0	0	1	1	0	0.047619	0.047619	0.047619
1	0	1	0	1	0	1	0	0	0	0

FsQCA output: Main analysis
Fuzzy-Set/Qualitative Comparative Analysis 3.0 software (Ragin & Davey, 2016)

Analysis of Necessary Conditions

Outcome variable: dfatherspecificparleave

Conditions tested:

	Consistency	Coverage
wl	0.899091	0.690161

****
TRUTH TABLE ANALYSIS
****

Model: dfatherspecificparleave = f(wm, lp, ec, ga, wl, lm)
Algorithm: Quine-McCluskey

--- COMPLEX SOLUTION ---
frequency cutoff: 1
consistency cutoff: 0.928962

	raw coverage	unique coverage	consistency
wm*lp*wl*lm	0.230625	0.230625	1
~wm*~lp*ga*wl*~lm	0.199062	0.199062	0.960784

solution coverage: 0.429688
solution consistency: 0.981442

Cases with greater than 0.5 membership in term wm*lp*wl*lm: Norway2009 (1,1), Norway2011 (1,1), Portugal2009 (0.99,1), Finland2003 (0.99,1), Finland2011 (0.99,1), Norway1993 (0.99,1), Denmark1998 (0.81,1), Belgium1998 (0.61,1)
Cases with greater than 0.5 membership in term ~wm*~lp*ga*wl*~lm: Denmark2002 (0.99,1), Norway2014 (0.98,1), Denmark1992 (0.94,1), UnitedKingdom2013 (0.92,1), Netherlands2009 (0.92,1), Ireland1999 (0.82,1), CzechRepublic2007 (0.65,1)

****

Model: dfatherspecificparleave = f(wm, lp, ec, ga, wl, lm)
Algorithm: Quine-McCluskey

--- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1
consistency cutoff: 0.928962

	raw coverage	unique coverage	consistency
ga*~lm	0.224375	0.218438	0.841735
wm*lp	0.25	0.244063	1

solution coverage: 0.468438
solution consistency: 0.917381

Cases with greater than 0.5 membership in term ga*~lm: Denmark2002 (0.99,1), Norway2014 (0.98,1), Denmark1992 (0.94,1), UnitedKingdom2013 (0.92,1), Netherlands2009 (0.92,1), Ireland1999 (0.82,1), CzechRepublic2007 (0.65,1)
Cases with greater than 0.5 membership in term wm*lp: Belgium1998 (1,1), Portugal2009 (1,1), Finland2003 (1,1), Finland2011 (1,1), Norway1993 (1,1), Norway2009 (1,1), Norway2011 (1,1), Denmark1998 (1,1)

****

Model: dfatherspecificparleave = f(wm, lp, ec, ga, wl, lm)
Algorithm: Quine-McCluskey

--- INTERMEDIATE SOLUTION ---

frequency cutoff: 1
consistency cutoff: 0.928962
Assumptions:
wm (present)
lp (present)
ec (present)
ga (present)
wl (present)
lm (present)

	raw coverage	unique coverage	consistency
ga*wl*~lm	0.224375	0.218438	0.841735
wm*lp*wl*lm	0.230625	0.224688	1

solution coverage: 0.449063
solution consistency: 0.914122

Cases with greater than 0.5 membership in term ga*wl*~lm: Denmark2002 (0.99,1), Norway2014 (0.98,1), Denmark1992 (0.94,1), UnitedKingdom2013 (0.92,1), Netherlands2009 (0.92,1), Ireland1999 (0.82,1), CzechRepublic2007 (0.65,1)
Cases with greater than 0.5 membership in term wm*lp*wl*lm: Norway2009 (1,1), Norway2011 (1,1), Portugal2009 (0.99,1), Finland2003 (0.99,1), Finland2011 (0.99,1), Norway1993 (0.99,1), Denmark1998 (0.81,1), Belgium1998 (0.61,1)

FsQCA output: Analysis including women's representation in parliament

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**********
*TRUTH TABLE ANALYSIS*
**********

Model: dfatherspecificparleave = f(wm, ec, ga, wl, lm, wp)
Algorithm: Quine-McCluskey

--- COMPLEX SOLUTION ---
frequency cutoff: 1
consistency cutoff: 0.921053
                                raw       unique
                           coverage    coverage   consistency
                          ----------  ----------  ----------
wm*ga*wl*lm*wp            0.241935    0.241935    0.949367
solution coverage: 0.241935
solution consistency: 0.949367


Cases with greater than 0.5 membership in term wm*ga*wl*lm*wp: Finland2011 (0.99,1),
  Norway2009 (0.99,1), Norway2011 (0.99,1), Iceland2014 (0.99,1),
  Finland2003 (0.95,1), Denmark1998 (0.81,1), Norway1993 (0.77,1),
  Belgium2012 (0.57,1)
**********
*TRUTH TABLE ANALYSIS*
**********
Model: dfatherspecificparleave = f(wm, ec, ga, wl, lm, wp)
Algorithm: Quine-McCluskey

--- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1
consistency cutoff: 0.921053
                                   raw       unique
                              coverage    coverage   consistency
                             ----------  ----------  ----------
wm*ga*wp                     0.246129    0.246129    0.950187
solution coverage: 0.246129
solution consistency: 0.950187


Cases with greater than 0.5 membership in term wm*ga*wp: Finland2011 (0.99,1),
  Norway2009 (0.99,1), Norway2011 (0.99,1), Iceland2014 (0.99,1),
  Finland2003 (0.95,1), Denmark1998 (0.94,1), Norway1993 (0.77,1),
  Belgium2012 (0.57,1)
**********
*TRUTH TABLE ANALYSIS*
**********

Model: dfatherspecificparleave = f(wm, ec, ga, wl, lm, wp)
Algorithm: Quine-McCluskey

--- INTERMEDIATE SOLUTION ---
frequency cutoff: 1
consistency cutoff: 0.921053
Assumptions:
```

wm (present)
ec (present)
ga (present)
wl (present)
lm (present)
wp (present)

	raw coverage	unique coverage	consistency
wm*ga*wl*lm*wp	0.241935	0.241935	0.949367

solution coverage: 0.241935
solution consistency: 0.949367

Cases with greater than 0.5 membership in term wm*ga*wl*lm*wp: Finland2011 (0.99,1), Norway2009 (0.99,1), Norway2011 (0.99,1), Iceland2014 (0.99,1), Finland2003 (0.95,1), Denmark1998 (0.81,1), Norway1993 (0.77,1), Belgium2012 (0.57,1)

FsQCA output: Analysis including party families

```
**********
*TRUTH TABLE ANALYSIS*
**********

Model: dfatherspecificparleave = f(wm, lp, ec, ga, wl, pf)
Algorithm: Quine-McCluskey

--- COMPLEX SOLUTION ---
frequency cutoff: 1
consistency cutoff: 0.90411
                          raw       unique
                         coverage    coverage   consistency
                        ----------  ----------  ----------
wm*lp*wl*pf               0.244194    0.142258    1
wm*ec*ga*wl*pf            0.144516    0.0425806   0.969697
~wm*~lp*ec*ga*wl*~pf      0.115161    0.115161    0.92487
solution coverage: 0.401935
solution consistency: 0.966641



Cases with greater than 0.5 membership in term wm*lp*wl*pf: Norway2009 (1,1),
  Norway2011 (1,1), Denmark1998 (1,1), Portugal2009 (0.99,1),
  Finland2003 (0.99,1), Finland2011 (0.99,1), Norway1993 (0.99,1),
  Belgium1998 (0.61,1)
Cases with greater than 0.5 membership in term wm*ec*ga*wl*pf: Finland2011
(0.84,1),
  Denmark1998 (0.78,1), Norway1993 (0.77,1), Finland2003 (0.75,1),
  Ireland2013 (0.64,1), Iceland2014 (0.53,1)
Cases with greater than 0.5 membership in term ~wm*~lp*ec*ga*wl*~pf: Ireland1999
(0.82,1),
  Denmark1992 (0.72,1), CzechRepublic2007 (0.65,1), UnitedKingdom2013 (0.64,1)
**********
*TRUTH TABLE ANALYSIS*
**********

Model: dfatherspecificparleave = f(wm, lp, ec, ga, wl, pf)
Algorithm: Quine-McCluskey

--- PARSIMONIOUS SOLUTION ---
frequency cutoff: 1
consistency cutoff: 0.90411
                    raw       unique
                   coverage    coverage   consistency
                  ----------  ----------  ----------
wm*lp               0.258065    0.133226    1
ec*ga*~pf         0.115161    0.115161    0.68
wm*ec*wl*pf       0.178387    0.0535484   0.975309
solution coverage: 0.426774
solution consistency: 0.87907



Cases with greater than 0.5 membership in term wm*lp: Belgium1998 (1,1),
  Portugal2009 (1,1), Finland2003 (1,1), Finland2011 (1,1),
```

Norway1993 (1,1), Norway2009 (1,1), Norway2011 (1,1),
Denmark1998 (1,1)
Cases with greater than 0.5 membership in term ec*ga*~pf: Ireland1999 (0.82,1),
Denmark1992 (0.72,1), CzechRepublic2007 (0.65,1), UnitedKingdom2013 (0.64,1)
Cases with greater than 0.5 membership in term wm*ec*wl*pf: Norway1993 (0.87,1),
Finland2011 (0.84,1), Denmark1998 (0.78,1), Finland2003 (0.75,1),
Ireland2013 (0.64,1), Belgium1998 (0.61,1), Iceland2014 (0.53,1)
****
TRUTH TABLE ANALYSIS
****

Model: dfatherspecificparleave = f(wm, lp, ec, ga, wl, pf)
Algorithm: Quine-McCluskey

--- INTERMEDIATE SOLUTION ---
frequency cutoff: 1
consistency cutoff: 0.90411
Assumptions:
wm (present)
lp (present)
ec (present)
ga (present)
wl (present)
pf (present)

	raw coverage	unique coverage	consistency
ec*ga*wl*~pf	0.115161	0.115161	0.68
wm*ec*ga*wl	0.144516	0.0425806	0.947146
wm*lp*wl*pf	0.244194	0.142258	1

solution coverage: 0.401935
solution consistency: 0.872549

Cases with greater than 0.5 membership in term ec*ga*wl*~pf: Ireland1999 (0.82,1),
Denmark1992 (0.72,1), CzechRepublic2007 (0.65,1), UnitedKingdom2013 (0.64,1)
Cases with greater than 0.5 membership in term wm*ec*ga*wl: Finland2011 (0.84,1),
Denmark1998 (0.78,1), Norway1993 (0.77,1), Finland2003 (0.75,1),
Ireland2013 (0.64,1), Iceland2014 (0.53,1)
Cases with greater than 0.5 membership in term wm*lp*wl*pf: Norway2009 (1,1),
Norway2011 (1,1), Denmark1998 (1,1), Portugal2009 (0.99,1),
Finland2003 (0.99,1), Finland2011 (0.99,1), Norway1993 (0.99,1),
Belgium1998 (0.61,1)

References

Carneiro, Pedro, Claire Crawford, and Alissa Goodman. 2007. *The Impact of Early Cognitive and Noncognitive Skills on Later Outcomes*.

Dahlerup, D., 2006. The Story of the Theory of Critical Mass. *Politics & Gender*, 2(4), pp.513–522.

Goddard, Dee. 2018. "Entering the Men's Domain? Gender and Portfolio Allocation in European Governments." *European Journal of Political Research* Forthcoming.

Kluve, Jochen, and Marcus Tamm. 2009. *Now Daddy's Changing Diapers and Mommy's Making Her Career: Evaluating a Generous Parental Leave Regulation Suing a Natural Experiment*.

Lalive, Rafael, and Josef Zweimuller. 2005. *Does Parental Leave Affect Fertility and Return-to- Work? Evidence from a "True Natural Experiment."*

Mölder, M. 2013. "The Validity of the RILE Left-Right Index as a Measure of Party Policy." *Party Politics* 22(1): 37–48.

Moss, Peter, and Marta Korintus. 2008. *International Review of Leave Policies and Related Research*.

OECD. 2015. "Monitoring Progress in Reducing the Gender Gap in Labour Force Participation."

———. 2016. "PF 2.5 Annex: Detail of Change in Parental Leave by Country." (January 2013): 1–49.

Plantenga, Janneke, and Chantal Remery. 2009. *Parental Leave in the Netherlands*.

Prskawetz, Alexia et al. 2008. "Persistent Low Fertility since the Mid-1980s." *Demographic Research*.

Ragin, Charles C, and Sean Davey. 2016. "Fuzzy-Set/Qualitative Comparative Analysis 3.0."

Rønsen, Marit, and Marianne Sundström. 2002. "Policy and After-Birth Employment Among New Mothers – A Comparison of Finland, Norway and Sweden"." *European Journal of Population* 18(2): 121–52.

Soumeli, Eva. 1998. *Parental Leave in Greece: The Impact of the Framework Agreement and the European Directive*. www.eurofound.europa.eu/eiro/1998/01/word/gr9711136s.doc (June 1, 2016).