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### Hidden Majoritarianism and Women's Career Progression in Proportional Representation Systems

DANIEL M. SMITH University of Pennsylvania, United States
ALEXANDRA CIRONE London School of Economics, United Kingdom
DAWN L. TEELE Johns Hopkins University, United States
GARY W. COX Stanford University, United States
JON H. FIVA BI Norwegian Business School, Norway

The share of women in politics is higher, on average, under closed-list proportional representation (PR) electoral systems compared to majoritarian systems. Yet, even in PR systems, progress toward gender parity has been slow and uneven. We argue that women's representation and career progression under PR might be impeded when single-occupant positions, such as local mayor and list leader, serve as important stepping stones in political career paths. Using a century of detailed candidate-level data from Norway, we investigate (1) whether gaps in women's representation emerge at these "majoritarian stepping stones" and (2) how access to these positions affects women's progression into higher offices. Our empirical analysis reveals that gender gaps indeed emerge at majoritarian stepping stones. However, we also document how Norwegian parties have employed workarounds—promoting women occupants of these positions at higher rates than men—to mitigate the adverse effects of this hidden majoritarianism on women's representation in higher offices.

#### INTRODUCTION

large body of research in comparative politics finds that proportional representation (PR) electoral systems are more favorable to women's representation than majoritarian systems (Matland and Studlar 1996; Paxton, Hughes, and Painter 2010; Rule 1987; Salmond 2006). But even in democracies using PR systems, women's ascent into positions of political power has occurred at a glacial pace: while many democracies gave women the rights to vote and run for office prior to 1950, real progress in representation did not accelerate until well into the 1980s (Teele 2018). Moreover, even where the share of women in national legislatures approaches parity, women continue to be underrepresented in executive offices, both at the local

Daniel M. Smith , Associate Professor, Department of Political Science, University of Pennsylvania, United States, dms2323@sas.upenn.edu.

Corresponding author: Alexandra Cirone D, Assistant Professor, School of Public Policy and Department of Government, London School of Economics, United Kingdom, a.e.cirone@lse.ac.uk.

Dawn L. Teele , SNF Agora Associate Professor, Department of Political Science, Johns Hopkins University, teele.academic@gmail.com.

Gary W. Cox , William Bennett Munro Professor, Department of Political Science, Stanford University, United States, gwcox@stanford.edu.

Jon H. Fiva D, Professor, Department of Economics, BI Norwegian Business School, Norway, jon.h.fiva@bi.no.

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level and in the national cabinet (e.g., Armstrong et al. 2024; Barnes and O'Brien 2025; Folke and Rickne 2016).

Why has progress toward gender parity in national political representation been slow even in PR systems? Scholars of majoritarian elections (particularly in the United States) explain women's underrepresentation with reference to potential biases among voters (e.g., Fulton 2012; Sanbonmatsu 2002), competing demands on women's time due to family obligations (e.g., Bernhard, Shames and Teele 2021), or a lack of ambition or risk-taking among women (e.g., Bos et al. 2022; Fox and Lawless 2011; Kanthak and Woon 2015), yet these kinds of candidate-centered explanations perform less well in countries using PR (Coffé and Davidson-Schmich 2020; Iversen and Rosenbluth 2010; Kostadinova 2007; Piscopo 2019; Schwindt-Bayer 2009). In PR systems—particularly those with closed lists—political parties play an outsized role in candidate recruitment and promotion. As a result, women's descriptive representation can either be bolstered or stymied by the internal rules that parties employ to recruit members and advance them into positions of leadership (Bjarnegård and Zetterberg 2016; 2019; Folke and Rickne 2016; Krook 2016; Norris and Lovenduski 1995; Valdini 2019).

In this study, we emphasize that no PR system is proportional all the way down. Even within PR systems, some important political positions—such as local mayor

<sup>&</sup>lt;sup>1</sup> Apart from political institutions, scholars have also pointed to cultural, historical, and socioeconomic reasons for women's lagging representation (e.g., Christmas-Best and Kjær 2007; Matland 1998; Paxton, Hughes, and Barnes 2020).

and list leader (a party's top-ranked candidate in each district) in national elections—are single-occupancy, making them inherently majoritarian and hence potentially disadvantageous to women.<sup>2</sup> A further challenge for women could emerge if such single-occupant positions serve as important stepping stones in parties' seniority systems for structuring advancement. If parties favor local mayors in new candidate nominations for national elections, and list leaders in ministerial appointments to cabinet, then the monopolization of these positions by men might create significant obstacles in women's career progression. In other words, even under the best conditions—where countries use PR in national elections and parties are nominally committed to gender equality—women's representation might be impeded by "majoritarian stepping stones" in the typical path through parties' organizational hierarchies.

We investigate whether gaps in women's representation emerge in majoritarian positions, and whether access to these positions affects women's subsequent progression into higher offices. Our empirical focus is Norway—a classic case of closed-list PR featuring strong parties that generally adhere to seniority norms in determining nominations and leadership opportunities (Aardal 2002; Cirone, Cox and Fiva 2021; Narud and Strøm 2011; Valen 1988; Valen, Narud, and Skare 2002). Although women were historically excluded from Norwegian politics (Blom 1980; Skorge 2023; Teele 2023), women's movements and national politicians began to push hard for women's equal representation around 1967 (Means 1972; Skjeie 1997), and today it is currently hailed as a leader in women's representation. In this sense, Norway can be considered a least-likely case for finding persistent gender inequalities in political careers.

The Norwegian case also offers the advantage of a century of detailed longitudinal information on the personal backgrounds and career outcomes of all candidates for national office from 1921 to 2021, including information on experience in local offices prior to candidacy (Fiva and Smith 2017; Fiva, Sørensen, and Vøllo 2024). With a few exceptions, prior related research focuses only on recent decades or analyzes just one stage of a political career (e.g., Ferreira and Gyourko 2009; Folke and Rickne 2016; Muriaas and Stavenes 2024; Piscopo et al. 2021; Smrek 2022; Volden, Wiseman, and Wittmer 2013). Our expansive data coverage allows us to pair descriptive analyses of officeholding and promotion outcomes over time with more rigorous panel data analyses to isolate the roles of gender and seniority in political advancement.

Our empirical analysis reveals two key patterns. First, we find that gaps in women's representation indeed appear in both mayoral posts (which are the highest positions in local government) and in list-leader positions for national elections. The overrepresentation of men in these single-occupant positions—relative to their share among rank-and-file local-level councilors and

national-level candidates or members of parliament (MPs)—peaked in the 1980s and 1990s, but persists today. These patterns are consistent with the idea that single-occupant positions can introduce elements of "hidden majoritarianism" into an otherwise proportional system.

Second, we find that attaining a single-occupant position is positively associated with progression into higher positions in the party hierarchy for both men and women. However, the rate of advancement from these positions is significantly higher for women. Women mayors are more likely to appear as a candidate on a national list, and more likely to win a seat in parliament, than their male counterparts—thus, the slow flow of women into this majoritarian stepping stone appears to be offset by a higher rate of promotion for women occupants. Moreover, women in the top-rank position on national lists are more likely to be tapped as ministers than men, and women in the second rank are also more likely to catapult into the cabinet—thus, the slow flow of women into the top list positions has also been offset by a higher promotion rate for women.

In interpreting the full set of findings in historical context, we argue that Norway's party elites have used "workarounds" as compensatory measures against the potential for gender gaps at majoritarian stepping stones to produce negative "cascade effects" on women's representation at higher levels of office. Qualitative accounts of the history of women's advancement in Norway suggest that these workarounds were incrementally adopted in the face of pressure to meet normative targets of representation at each successive level of office (Freidenvall, Dahlerup, and Skjeie 2006; Means 1972; Skjeie 1997). If the pool of eligible women in line for promotion at a given career stage was shallower than the pool of eligible men, a solution for parties was simply to advance a greater share of the women in the pool.

Our study makes three key contributions to the literatures on electoral systems, party organization, and gender representation. First, our concept of hidden majoritarianism in PR systems invites a reassessment of dichotomous understandings (and analytical operationalizations) of electoral systems. We argue that the potential for gender gaps to emerge at majoritarian stepping stones extends beyond the case of Norway, since most European democracies (and many outside of Europe) employ some form of list-based PR at the national level (with list leaders in each electoral district), and feature single-member executives at the local level.

Second, most existing research focuses on women's outcomes at one level of political office, without considering the career-length dynamics of political selection across party hierarchies. Our finding that women face barriers in obtaining mayoral positions resonates with a large body of previous work (Brown et al. 2025; Cipullo 2021; Folke and Rickne 2016; Fulton et al. 2006; Franceschet and Piscopo 2014; Holman 2017; Martin and Conroy 2024; Payson, Fouirnaies, and Hall 2023; Thomsen 2015), but we also introduce the idea, backed by novel empirical evidence, that list-leader positions in

<sup>&</sup>lt;sup>2</sup> At the apex of the political hierarchy, the positions of party leader and prime minister are generally also majoritarian.

national elections represent another important potential barrier to women's careers in PR systems.

Finally, while we find that Norwegian parties employed workarounds to partially offset the negative cascade effects of having too few women in key stepping-stone positions, whether parties in other countries similarly use such remedies is an open question. A growing literature considers how women's representation in both majoritarian and PR systems depends on how parties choose to recruit members and advance them into positions of leadership (Bjarnegård and Zetterberg 2016; 2019; Barnes and Cassese 2017; Folke and Rickne 2016; Krook 2016; Norris and Lovenduski 1995; Valdini 2019). Our analysis highlights a key area where nominally gender-neutral seniority-based promotion rules can potentially produce biased career outcomes for men and women if party leaders are not proactive in addressing gender inequalities at different stages of the hierarchy.

## HIDDEN MAJORITARIANISM AND WOMEN'S POLITICAL CAREERS

Our theoretical argument builds from two basic institutional features of electoral systems and party organization. First, while the conventional wisdom is that PR systems are better for women's representation than majoritarian systems (Matland and Studlar 1996; Paxton, Hughes, and Painter 2010; Rule 1987; Salmond 2006), we note that no PR system is completely proportional across all offices and important party positions. Single-occupant positions like local mayor and national party list leader (as well as party leader and prime minister) are an important feature of most PR systems, and are filled through some form of majoritarian (winner-take-all) competition or selection process.<sup>3</sup>

Second, career advancement within parties in PR systems often operates according to a (formal or informal) seniority system (Cirone, Cox, and Fiva 2021; de Winter 1991; Heinsohn and Schiefer 2019). If parties treat majoritarian positions like mayor and list leader as important stepping stones in the seniority system, and women are less likely than men to obtain them, then any gender gaps that emerge at these career stages may have negative cascade effects on women's subsequent pathways into higher offices.

In this section, we first outline the basic stages of political careers in PR systems, and review where existing research has identified challenges that women face. We then explain the components of our theoretical argument and describe our empirical expectations.

## Party Hierarchies and Women's Representation at Different Career Stages

In most parliamentary democracies, politicians with progressive ambition must move through the ranks of their parties' hierarchies in a systematic manner before reaching the top leadership positions (Müller 2000). We can stylistically conceptualize this hierarchy at the national level as involving three stages: (1) initial nomination and list rank, (2) renomination and rank advancement, and (3) promotion to cabinet.

The first stage represents entry into national politics, which happens when an individual gains a spot on a national party list for legislative elections. Most new candidates receive a low (non-winnable) list position, so to continue pursuing a political career it is necessary to seek renomination even after an initial loss. In existing research on women's representation at this stage, scholars have suggested that incoming men and women may receive differential treatment-for example, women may receive fewer donations, loans, or transfers from parties to fund their campaigns (Piscopo et al. 2021). Institutionalized candidate selection, centralization, and inclusivity of decision-making can make parties' nomination processes more open to women candidates (Bjarnegård and Zetterberg 2016; Hinojosa 2012), but informal networks, statistical discrimination, and informational inequalities might hamper women's entry when a party selectorate is composed mainly of men (e.g., Crowder-Meyer 2013; Folke, Rickne, and Smith 2021; Niven 1998). In contexts where parties favor loyalty, women might also be less likely to be seen as having this qualification (Josefsson 2020).

The second stage represents the time in a politician's career after an initial debut on a national party list but before advancement (if it occurs) into the highest levels of leadership. For those who desire to stay in politics, the goal is to get renominated to progressively higher (i.e., electorally safer) ranks on the party's list, culminating in the top-rank (list leader) position. In this stage, women may face gender bias insofar as equal quality or accreditation does not get them to the same ultimate outcome (Folke and Rickne 2016; Muriaas and Stavenes 2024). In some cases, scholars have found that women who are incumbents are equally or more likely to be renominated (Black and Erickson 2003; Shair-Rosenfield and Hinojosa 2014), but this is not universal across comparative cases.<sup>4</sup>

Finally, the third stage represents promotion into higher offices, such as ministerial positions in the cabinet. In parliamentary democracies, the cabinet is the apex of power, and ministerial appointments are thus highly sought after by individual MPs. Cabinet ministers have influence over policy and the legislative agenda, and also enjoy perquisites, such as higher salaries and staff resources (Martin 2016). The visibility

<sup>&</sup>lt;sup>3</sup> Majoritarian competition could be avoided through the use of plural executives or by allocating executive posts by lottery. However, plural executives are rare—Switzerland's Federal Council and San Marino's Captains Regent are examples—and sortition is wholly absent in the modern world (Cirone and Van Coppenolle Forthcoming).

<sup>&</sup>lt;sup>4</sup> For example, Nowacki (2025) finds that in open-list PR elections in Norwegian municipalities, women's incumbency advantage is 60% smaller than that of men. There is also evidence that women have to work harder to achieve equal outcomes (Smrek 2022).

of a cabinet position might also make it easier for an MP to launch a lucrative postretirement career outside of politics. Most research finds that women are less likely to attain higher office, including cabinet positions (Krook and O'Brien 2012; Verge and Claveria 2016). Women often come to power through opposition parties with declining seat shares (O'Brien 2015), take longer to advance (Kroeber and Hüffelmann 2022), and attain lower-prestige posts (Escobar-Lemmon and Taylor-Robinson 2009; Reynolds 1999).<sup>5</sup>

#### **How Majoritarianism Creeps Into PR Systems**

Research on gender and electoral systems differentiates between countries that use majoritarian rules to elect leaders and those that use PR. Yet while this dichotomous conceptualization might be reasonable for making broad comparisons across national legislatures, we highlight that aspects of majoritarianism are present even in PR systems. Indeed, all democracies have local executives, such as mayors and governors. Sometimes these executives are directly elected, in which case the electoral rules are inherently majoritarian, since only a single seat is at stake.

Even if local executives are indirectly elected by councils or legislatures, majoritarian competition still emerges within parties over key nominations. For example, in local assemblies in Norway, it is a strong empirical regularity that a top-listed candidate from the largest party list becomes mayor. Since there can be only one person at the top of the list, competition to secure this position is also majoritarian in nature.

Existing research highlights the challenges that majoritarian offices pose to women, even when voters (and whatever biases they may hold) are removed from the selection process. First, such offices tend to place greater time demands on officeholders, making it harder to balance a political career with family obligations (Bernhard, Shames, and Teele 2021; Iversen and Rosenbluth 2010). In addition, research in several contexts shows that women in politics face more violence and abusive public treatment than men, and this is exacerbated in majoritarian offices (Håkansson 2021; Krook 2020).<sup>7</sup>

Finally, when faced with majoritarian competition, risk aversion or endogenous preferences may emerge and discourage women from running as candidates (Fox and Lawless 2011; Kanthak and Woon 2015). These considerations may also apply to progressive

We argue that gaps in women's representation within PR systems might arise wherever positions are majoritarian (or single-occupancy) in nature. This includes both formal executive offices like mayor and prime minister, as well as important party positions like list leader, which are not strictly "offices" but nevertheless serve important and focal roles within party organizations. The combination of majoritarian rules and coveted status means that, as in majoritarian electoral systems, gender disparities may be larger and harder to eradicate in these positions. Our core empirical expectation is that, even within PR systems, gaps in women's representation will appear in these majoritarian positions.

## Majoritarian Stepping Stones in Parties' Seniority Systems

If gaps in women's representation appear in singleoccupant positions in early career stages, will these gaps produce negative cascade effects for women's progression into higher-level offices? Here, it is important to return to the role of parties in structuring careers. We focus in particular on a common feature of party organization: seniority-based systems of promotion.

Seniority systems are present within parties and legislatures across various contexts, operating in some cases as a formal rule and in others as a strong informal norm (Cirone, Cox, and Fiva 2021; de Winter 1991; Hall and Shepsle 2014; Heinsohn and Schiefer 2019; Ranney 1981). In either case, a seniority system features two basic regularities. First, any incumbent in good standing will (if they wish) be renominated or reappointed to their current positions. Such norms have been documented in US congressional committees, under the rubric of the "property rights" norm (Shepsle 1978), and in candidate nominations in a wide range of democracies, from Japan (Cox and Rosenbluth 1996) to Norway (Cirone, Cox, and Fiva 2021). As Ranney (1981, 99) notes, while parties aim to balance many considerations in candidate nominations, "the greatest single advantage an aspirant for a candidacy can have is to hold the office already."

Second, seniority progression rules ensure that open nominations for offices (e.g., those with no incumbent claiming them) will generally be allocated preferentially to party members with the highest accrued seniority or those holding predefined feeder offices. For example, committee chairs in the US (Shepsle 1978) and initial cabinet promotions in Japan (Epstein et al. 1997; Ono 2012) have been awarded on the basis of

ambition within party hierarchies, especially for highprofile positions like mayor or list leader. Indeed, a survey of Norwegian party youth members found that women expressed lower ambition than men for elected offices, and that these differences were more pronounced for executive offices (prime minister, cabinet minister, and mayor) compared to legislative offices (MP and councilor) (Kolltveit 2022).

<sup>&</sup>lt;sup>5</sup> But cf. Höhmann (2023).

<sup>&</sup>lt;sup>6</sup> In councils where one party does not control a majority of seats, the mayor is elected following negotiations among parties, but the largest party typically has an advantage in these negotiations. Between 2003 and 2023, for example, mayors came from the largest party in roughly three-quarters of cases, and were nearly always the top-ranked candidate (Figure A.1 in the Supplementary Material).

<sup>&</sup>lt;sup>7</sup> Majoritarian offices also get more media attention. In Norway, male MPs get more coverage in the news than MPs who are women, but this gap narrows in smaller magnitude districts, and candidates in top ("safe") list positions tend to get more media attention in general (Thesen and Yildirim 2023).

<sup>&</sup>lt;sup>8</sup> The argument could extend to other single-occupant positions, like committee chairperson.

accrued seniority, while winnable list spots in Norway also tend to be awarded based on previous experience (Cirone, Cox, and Fiva 2021).

How might seniority systems affect women's progression through the party hierarchy? If promotion occurs purely on the basis of seniority, then women's advancement into higher levels of office will initially be delayed. In any seniority system that begins with significant gender disparities, it will not be possible to achieve gender parity across all levels quickly, unless seniority is waived at the expense of men in the pipeline. Gender quotas with placement mandates are a key tool to overcome this generational lag in list placement by forcibly displacing some men from the hierarchy (e.g., Besley et al. 2017; Dahlerup 2006; Krook 2006; O'Brien and Rickne 2016).

Women's advancement into the highest offices can also be stymied by seniority systems if women tend to enter politics at more advanced ages (e.g., due to motherhood and family care obligations) than their male colleagues, and therefore have less time to develop the requisite level of seniority for a given promotion before their retirement (e.g., Lazarus, Steigerwalt, and Clark 2023). However, age of entry and career length appear to be less correlated with gender outside of majoritarian contexts (Joshi and Och 2021; Muriaas and Stavenes 2024).

Beyond these potential sources of friction in the seniority system, our focus is whether the presence of single-occupant positions in a party hierarchy—what we call majoritarian stepping stones—affects women's career progression. If women face challenges in obtaining these positions, or avoid pursuing them in the first place, then the supply of women eligible for promotion to the next level in the party hierarchy will be reduced, and women's advancement might be differentially slowed compared to men, creating negative cascade effects in the career pipeline.

We argue that high-level local offices like mayoralties are potential majoritarian stepping stones to national careers in PR systems. This argument resonates with a large body of previous work on the impediments women face in local, entry-level politics (Brown et al. 2025; Cipullo 2021; Folke and Rickne 2016; Fulton et al. 2006; Franceschet and Piscopo 2014; Holman 2017; Martin and Conroy 2024; Payson, Fouirnaies, and Hall 2023; Thomsen 2015).

Similarly, top national list positions may be majoritarian stepping stones into cabinet. While many factors contribute to cabinet selection decisions, seniority is often privileged, and party leaders routinely tap members in top list positions for ministerial roles (Blondel and Thiébault 1991; Cox et al. 2021). <sup>10</sup> This means that

women's promotion to cabinet might be affected by their access to list-leader positions. If parties deny equally qualified women the top-rank positions, but favor this rank in cabinet promotion decisions, this would reduce women's chances to advance into the executive.

Ultimately, whether majoritarian positions create negative cascade effects on women's aggregate representation throughout the party hierarchy is an empirical question, and depends on three conditions: (1) these positions are indeed important stepping stones in the seniority system; (2) women are indeed underrepresented in them; and (3) parties strictly adhere to seniority rules that require passing through them to reach higher offices. Our empirical analysis will shed light on whether each of these conditions is met in the case of Norway.

#### THE NORWEGIAN CASE

Norway is an ideal case setting for studying gender gaps in the political hierarchy, as well as the longue-durée dynamics of career progression for men and women. First, it has maintained a relatively stable electoral system and party system for most of its democratic history (Aardal 2002; Fiva and Smith 2017; Narud and Strøm 2011), and it is one of the few countries where gender parity has been closely approximated in recent years. Like its Nordic neighbors, Norway scores high on indicators of egalitarian attitudes among citizens and elites toward women in politics (Inglehart and Norris 2003; Wängnerud 2000) and for women's labor force participation (Iversen and Rosenbluth 2010).

These cultural and socioeconomic conditions would seemingly make Norway a least-likely case for uncovering major hurdles in women's political careers. However, scholars of gender representation in Norway (and the other Nordic democracies) have emphasized that such gains came *incrementally* over time, through the concerted (and contested) efforts of women's groups within and outside of political parties, and a relatively limited role played by gender quotas (Freidenvall, Dahlerup, and Skjeie 2006; Skjeie 1997).

Indeed, although Norwegian parties were early adopters of gender quotas, these reforms occurred *after* an already increasing trend of women entering politics. In 1967, Prime Minister Per Borten of the Centre Party led a cross-partisan committee whose function was to nominate and elect more women (Means 1972).

<sup>&</sup>lt;sup>9</sup> A handful of Norwegian municipalities have experimented with collective executives (akin to parliamentary cabinets at the local level). We focus only on mayors in our analysis, but such systems would potentially expand the pool of politicians with some form of local executive experience.

<sup>&</sup>lt;sup>10</sup> Cox et al. (2021) show that in Italy, Portugal, and Norway, top-ranked candidates are significantly more likely to advance into cabinet. Similar promotion advantages accrue to candidates who

win the most preference votes in (semi)open-list systems in Finland and Sweden (Folke, Persson, and Rickne 2016; Meriläinen and Tukiainen 2018). Of course, parties also tend to allocate the top ranks to high-quality MPs who will make good ministers (Buisseret et al. 2022; Cox et al. 2021), but because there are relatively few such positions, there will often be many high-quality candidates in lower-ranked positions.

<sup>&</sup>lt;sup>11</sup> Norway has even been ranked by the Economist Intelligence Unit as the world's most democratic country. See https://www.eiu.com/n/campaigns/democracy-index-2020/.

Beginning in the 1970s, several parties voluntarily introduced quotas requiring at least 40 percent of candidates to be women (or men), including the Liberals (1974), Socialist Left (1975), Labor (1983), Centre (1989), and Christian Democrats (1993). A norm of aiming for similar levels of representation in cabinet appointments emerged following the 1986 cabinet of Labor Prime Minister Gro Harlem Brundtland (Freidenvall, Dahlerup, and Skjeie 2006, 72). Earlier, the Equal Status Act of 1978 aimed to promote gender equality across all sectors of society, and prescribed a 40% minimum share of representation on publicly appointed bodies (Skjeie 1997). Earlier, 1997 (Skjeie 1997).

#### Procedures and Priorities in Selection Decisions Across the Hierarchy

Norwegian parties feature common pathways of career progression, and a documented use of seniority systems in promotion (Cirone, Cox, and Fiva 2021). At the local level, municipalities are run by local councils, each headed by a mayor. Typically, mayors tend to be top-ranked candidates from the largest parties. Local elections are conducted under a flexible-list PR electoral system, in which voters can cast preference votes for any candidate on any party list, but local parties control the composition of the list and can give candidates a "head start" worth up to 25% of the total votes. Previous research shows that parties tend to reward incumbents with these privileged (safe) rank positions (Fiva and Røhr 2018).

Local office is an important stepping stone to national office in Norway, and a high proportion of first-time MPs have prior local-level experience (Cirone, Cox, and Fiva 2021). From 1945 to 2021, around 80 percent of men and 70 percent of women MPs had prior local council experience. <sup>17</sup> In the first few decades of the same period, around 30 percent of male MPs previously held a mayoral post, but this dipped to around 20 percent since the 1970s. For women MPs, in contrast, mayoral experience was exceedingly rare until the early 2000s. Since then, women have only modestly trailed their male counterparts, with around 15 percent of women MPs having prior mayoral experience. While these patterns make clear that serving as a local mayor is not a *sine qua non* 

for nomination as a candidate in national elections, our empirical analysis will investigate the differences in probability of advancement from this position.

To elect 150–169 members to the Storting, the national parliament, Norway has used a PR electoral system since 1921. Candidate nominations and rank positions on party lists are determined in a decentralized fashion in each district by dues-paying party delegates at nominating conventions (Valen 1988; Valen, Narud, and Skare 2002), and very few party spots are contested, given the proposals of nomination committees (Cirone, Cox, and Fiva 2021). Because of this, the nomination procedure is considered to be closed (Narud and Valen 2007).

In constructing lists of candidates, local party nominating conventions aim to balance representation on several dimensions, including geography, gender, age, and organizational ties to important interest groups (Means 1972; Valen 1988; Valen, Narud, and Skare 2002). Ticket-balancing across such dimensions helps to keep party activists and interest groups satisfied, and also enhances mobilization efforts (Fiva, Halse, and Smith 2021). But seniority is arguably the first criterion used in candidate selection. Prior to an election, incumbents are asked if they are interested in renomination, and those who answer affirmatively tend to be considered unless they have lost the confidence of local activist groups or networks in the party (Valen, Narud, and Skare 2002, 202).

Norway is rare among parliamentary systems in that early dissolution of the Storting is not allowed. Members serve four-year terms (three-year terms prior to 1945). As in other parliamentary systems, however, cabinets are formed through party negotiations after elections, and can be forced to resign with a no confidence vote. Norway's cabinets have featured a mix of single-party majority, single-party minority, and coalition governments (Narud and Strøm 2011). The prime minister's discretion in selecting cabinet ministers has varied, depending on pressure from the party organization and constraints on personnel decisions involving coalition partners.

Many cabinet ministers have prior experience as MPs, but it is not a requirement, and ministers appointed from outside of parliament (including the party organization hierarchy) are common. Nonetheless, MPs tend to be promoted to the more important portfolios (such as prime minister and finance minister) and tend to have more extensive experience in parliament (Narud and Strøm 2011). If appointed, an MP must resign from the Storting and is replaced by a deputy (a lower-ranked candidate on the same party list). For the purposes of our analysis, we focus only on the sample of MPs who are appointed to cabinet following an election (i.e., we do not analyze ministers appointed from outside of parliament).

<sup>&</sup>lt;sup>12</sup> Figure A.2 in the Supplementary Material shows how the upward trend in women's representation precedes quota adoption. The trend applies even for parties (Conservatives and Progressives) that never adopted quotas.

<sup>&</sup>lt;sup>13</sup> Brundtland became Norway's first woman to serve as prime minister in 1981.

minister in 1981.

14 A 40 percent minimum share of representation for both men and women was formally introduced to all local executive boards (which are headed by the mayor) in 1992, but this reform had negligible spillover effects on gender representation in the councils or mayoralties, and no clear effect on substantive policies (Geys and Sørensen 2019).

<sup>&</sup>lt;sup>15</sup> The number of municipalities has varied over time (from as many as 747 in 1930 to 356 in 2023).

<sup>&</sup>lt;sup>16</sup> See Figure A.1 in the Supplementary Material.

<sup>&</sup>lt;sup>17</sup> See Figure A.3 in the Supplementary Material.

<sup>&</sup>lt;sup>18</sup> The seat allocation method, district magnitudes, and the size of parliament have changed moderately over time (see Fiva and Smith 2017). Until 2023 (when the provision was abolished), voters could indicate candidate preferences; however, the threshold to alter predetermined rankings was so high that the system was effectively closed-list.

#### **Data and Methods**

Our analysis will make use of a century's worth of detailed, micro-level data on Norwegian politicians, and this expansive coverage is one of our study's significant contributions. We collect and link data sources on election outcomes for individual politicians across local and national politics to data on individual background characteristics (i.e., education) from 1921 onward. For comparison, prior research on gender in national elections typically focuses on recent decades, starting in the 1980s or 1990s (e.g., Piscopo et al. 2021; Smrek 2022), or in the case of the US, the 1970s (e.g., Volden, Wiseman, and Wittmer 2013). Similar research on local elections begins in the 1950s for the US (Ferreira and Gyourko 2009) or the 1980s for Sweden (Folke and Rickne 2016). In addition, while prior research tends to focus on one stage of a political career, we consider women's outcomes across the entire hierarchy of a typical career.

Our dataset includes national-level candidate data from Fiva and Smith (2017) and local-level candidate data from Fiva, Sørensen, and Vøllo (2024), updated with information on recent candidates, and linked with municipality-level information from Fiva, Halse, and Natvik (2023). Our primary dataset covers the universe of candidates in Norwegian parliamentary elections from 1921 to 2021 (N = 68,207), and includes individuallevel information on party, list rank, party vote share, electoral outcomes, postelectoral cabinet appointments, and personal characteristics (such as gender, age, education, and prior political experience). 19 We include postelection cabinet appointments through June 2024. A secondary dataset on local-level offices covers all mayors elected from 1971 to 2023 (N = 5,987). Personal identifiers included in the datasets allow us to track individuals across political offices.<sup>20</sup>

For most of our research questions, we can gain considerable insight from a simple descriptive analysis of longitudinal patterns. For others, we pair the descriptive analysis with panel data regressions to investigate individual candidates' career progression outcomes controlling for party, district, and year fixed effects. <sup>21</sup> We limit our data sample to candidates running for one of the seven main parties that have dominated Norwegian politics since the introduction of PR, unless stated otherwise. <sup>22</sup>

### DO GENDER GAPS EXIST IN MAJORITARIAN POSITIONS?

In this section, we examine our first research question: do gender gaps emerge in majoritarian (single-occupant) positions? Figure 1 presents the share of women over time in each step of a typical political career in Norway: local-level councilors, mayors, national-level candidates, MPs, and cabinet ministers. We also include women's share among candidates who are list leaders (the top-ranked candidate in each party's district list), as this is a single-occupant position of interest. The fraction of women in all positions was low until the late 1960s. Around 1967, when the crossparty committee advocated for greater gender representation, the share of women began to climb.

At the local level, women's representation on municipal councils took off in the 1970s, reaching 30 percent by 1987 and 40 percent by 2019. Yet long after the surge in women's election to local councils, women remained sparse among mayors. Prior to the 1970s, only one woman, Aasa Helgesen, was elected to serve as a mayor.<sup>23</sup> In 1971, the first year when systematic data on the gender of mayors are available, only 3 out of 444 local councils elected a woman to the top leadership position. By 1995, around 15 percent of all mayors were women. Thereafter, the share of women mayors increased more rapidly, reaching 37 percent in 2023.

At the national level, women's representation as candidates and MPs also began to increase steadily around 1970. In 1985, women were about 34 percent of MPs, and by 2021, they comprised 45 percent. Women's share of list-leader positions roughly tracked their share of MPs until the 1990s, when it temporarily dipped below 20 percent. Norway is noteworthy in that the first woman to serve as prime minister—Gro Harlem Brundtland—appointed women to 8 of 18 ministerial posts in her second cabinet (1986-1989). This marked, at the time, the highest proportion of women in higher office ever attained in the world. Moreover, between Brundtland (1981; 1986-1989; 1990-1996) and the second woman to serve as prime minister, Erna Solberg (2013–2021), women have held the top executive office for 18 of the past 43 years (42 percent).<sup>24</sup> Somewhat surprisingly, then, although women's nominations

<sup>&</sup>lt;sup>19</sup> Some biographical variables (such as education) are not available for all candidates.

<sup>&</sup>lt;sup>20</sup> Fiva and Smith (2017) and Fiva, Sørensen, and Vøllo (2024) provide details on how these historical data were compiled.
<sup>21</sup> In a supplementary analysis, we also use a regression discontinuity

<sup>(</sup>RD) design for better causal inference, allowing us to address potential confounding variables like a politician's quality.

22 These are Liberal Party (established in 1884), Conservative Party

<sup>1884),</sup> Labor Party (1887), Centre Party (1920), Christian Democratic Party (1933), Socialist Left Party (1961), and Progress Party (1973). The Conservatives ran together with the Progressive Liberals (established in 1909) in the 1921–1936 period. These lists are included in our analysis as lists from the Conservative Party. We exclude smaller parties that rarely succeeded in electing candidates into office, thus truncating political careers.

<sup>&</sup>lt;sup>23</sup> Helgesen, who worked as midwife on a remote island of Utsira, served from 1926 to 1928 after the island became an independent municipality and a citizen submitted a candidate list composed of mostly women (and one man) as a practical joke. The interim members of the new municipality's council (many of whom were the husbands of the "joke" list candidates) failed to follow the election rules and submit their own list (Means 1972). Helgesen followed the interim mayorship of her husband. As in many democracies, early women in Norwegian politics often came from political dynasties (Folke, Rickne, and Smith 2021). See *Norsk biografisk leksikon* (in Norwegian), available at https://snl.no/Aasa:Helgesen (accessed on March 28, 2024).

<sup>&</sup>lt;sup>24</sup> The male prime ministers during this period were Kåre Willoch (1981–1986), Jan Peder Syse (1989–1990), Thorbjørn Jagland (1996–1997), Kjell Magne Bondevik (1997–2000; 2001–2005), Jens Stoltenberg (2000–2001; 2005–2013), and Jonas Gahr Støre (2021-present). Although it is a single-occupant position, we do not plot the fraction of women in the office of prime minister in Figure 1, as it is either 0 or 1.

Share of Women Among Local Councilors, Local Mayors, National Candidates, National List Leaders, MPs, and Cabinet Ministers Over Time **Local Councilors Local Mayors** National Candidates .5 .5 .5 Fraction women Fraction women women .3 .3 .3 Fraction .2 .2 .2 Election year Election year Election year Members of Parliament National List Leaders Cabinet Ministers .5 .5 .5 womer Fraction womer Fraction women .3 .3 .3 .2 .2 .2 0 Election year Election year Election year

Note: This figure reports the average share of women among local-level councilors and mayors, national-level candidates and list leaders, MPs, and cabinet ministers (among MPs, including the prime minister, but excluding ministers appointed from outside of parliament), over time. For local councilors prior to 2003, we supplement the individual-level observations from our dataset with municipality-level data from the Norwegian Agency for Shared Services in Education and Research (Sikt) (1919–1967) and Fiva, Halse, and Natvik (2023) (1971–1999). Data about local councilors for the 1931 and 1934 elections are missing. Our individual-level data on mayors start in 1971. Prior to the 1970s, systematic data on the gender of mayors are unavailable. However, historical sources indicate that only one woman was elected as a mayor before this period (in 1926). The number of municipalities has decreased over time (from 747 in 1930 to 356 in 2023). All parties are

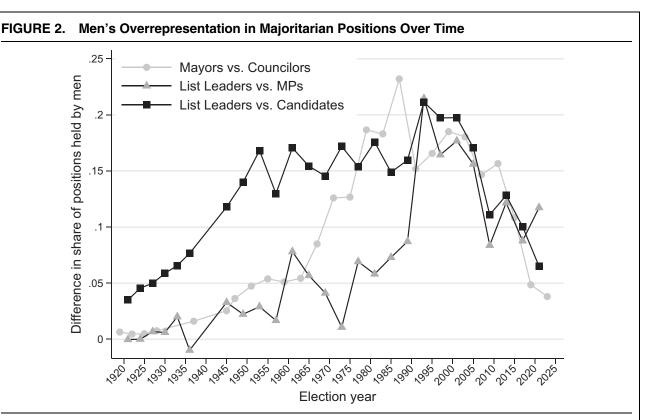
to list-leader positions have lagged behind, their appointments to cabinet, including as prime minister, have kept pace with (and even exceeded) their share of MPs. This descriptive pattern already suggests an absence of negative cascade effects from women's underrepresentation in the list-leader position, which we will analyze more rigorously in the next section.<sup>25</sup>

We clarify the evolution of men's overrepresentation in majoritarian positions in Figure 2, which plots the difference in men's share of single-occupant positions (mayor and list leader) and their overall share among the multiple-occupant positions (councilor, candidate, and MP) at the local and national levels. We include both candidates and MPs as reference groups for list leaders since many candidates are nominated in hopeless (low-rank) positions (Cox et al. 2021); for larger parties, a toprank position virtually guarantees election, so it is useful to compare this position to the pool of elected MPs from

all ranks (including the list leaders themselves). When the lines are closer to zero, it means that men were not overrepresented in the majoritarian position vis-à-vis their representation in the larger group category; higher values indicate that men were capturing a disproportionate share of the single-occupant positions.

In the period prior to the take-off in women's representation in the 1970s, men were only slightly overrepresented in single-occupant positions because there were so few women serving in any position. Yet as women began to enter local and national politics, men's relative overrepresentation in the majoritarian positions increased, reaching an apex in the 1980s and 1990s. Following local elections in 1987, women held about 30 percent of municipal council positions, but only 7 percent of the mayoral spots. In other words, the share of men among mayors was 23 percentage points higher than their share among all local councilors. The national-level peak occurred in 1993, when the share of men among list leaders was about 21 percentage points higher compared to all candidates (as well as MPs). Only since the 2000s has men's overrepresentation in single-occupant positions slowed, but a slight advantage remains. Overall, these patterns

<sup>&</sup>lt;sup>25</sup> Similarly, the share of women among national candidates is higher than the share among local mayors (Figure A.4 in the Supplementary Material).



Note: This figure illustrates the representation of men in majoritarian positions—local mayors and national list leaders—compared to their representation overall in the corresponding proportional positions—councilors and candidates or MPs—over the period 1919–2023. Individuals appointed as mayors or list leaders are included in the calculations for the larger group category. Each line represents the difference between the share of men in the single-occupant (majoritarian) position and the share of men in the corresponding multiple-occupant (proportional) positions. All parties are included.

provide clear support for our theoretical expectation that gender gaps will emerge in majoritarian positions within PR systems.

# DOES ACCESS TO MAJORITARIAN POSITIONS AFFECT WOMEN'S CAREER PROGRESSION?

In the prior section, we documented that gender gaps appear in the majoritarian positions of mayor and list leader within Norway's PR system. We now turn our empirical focus to the second research question: whether access to these positions affects women's subsequent progression into higher offices. As we argued in the theoretical discussion, whether majoritarian stepping stones create negative cascade effects on women's aggregate representation throughout the party hierarchy depends on the extent to which three conditions are met: (1) these positions are indeed important stepping stones in the seniority system; (2) women are indeed underrepresented in them; and (3) parties strictly adhere to seniority rules that require passing through them to reach higher offices.

Prior research and our own data already provide some evidence in support of the first condition (Cirone, Cox, and Fiva 2021; Cox et al. 2021, and see Appendix Figure A.3), and our preceding analysis

confirms that the second condition has been met. Our empirical analysis in this section will shed light on the extent to which the third condition is met in the Norwegian case. In other words, women's chances of getting nominated to a (winnable) position on a national party list should be lower if they do not reach the majoritarian stepping stone of the mayoralty, and their chances of getting appointed to cabinet should be lower if they do not reach the majoritarian stepping stone of list leader.

The aggregate patterns in Figure 1 already indicate that women's underrepresentation in mayoralties and list-leader positions does not automatically mean that they will be similarly underrepresented in parliament or cabinet, respectively. <sup>26</sup> But our data allow us to more rigorously study the individual-level dynamics of how holding (or not holding) one of these positions affects future career outcomes for men and women.

<sup>&</sup>lt;sup>26</sup> Indeed, if we view the hierarchy of political power in Norway as flowing in the order of local office → parliament → executive, then our findings thus far do not suggest the kind of "bottom-to-top inequality acceleration" that might characterize patterns of a glass ceiling in some contexts (Folke and Rickne 2016). If anything, women's disadvantages appear to be somewhat greater at the local level than at the national level, even as the gap between single-occupant positions and multiple-occupant positions persists in each.

#### **Moving from Local Politics to National Politics**

Experience in local politics is a common feature of national-level candidates' biographies (Cirone, Cox, and Fiva 2021). As noted earlier, since 1945, around 80 percent of men and 70 percent of women who became MPs had local council experience, and as much as 30 percent of men MPs (but, until recently, not women MPs) had mayoral experience. As Figure 1 shows, there were virtually no women mayors prior to 1970, and women's share of mayoralties exceeded 25 percent only after 2015, never rising above 40 percent.

These patterns already suggest that local offices are an important stepping stone (condition 1), but that parties do not strictly adhere to seniority rules that *require* passing through them—especially the mayoralty—to be nominated as a candidate on a national list (condition 3). Nevertheless, there may be differential treatment of men and women who do (and do not) pass through the majoritarian stepping stone of the mayoralty, which may either impede or enhance women's representational outcomes throughout the party hierarchy.

Data on local candidates are not available for the entire time period covered by the national-level data. However, we can examine the effect of holding the mayoralty on men's and women's national political careers for the period between 2003 and 2011, for which we have complete data on all candidates for local election lists (Fiva, Sørensen, and Vøllo 2024). For these years, we are able to compare candidates' progressive trajectories while controlling for party-district-year fixed effects.

We analyze progression from local to national politics separately for men and women using the following specification:

$$Y_{rpmdt} = \gamma_{pdt} + \beta_r + \lambda_r Woman_{rpmdt} + u_{rpmdt}$$
 (1)

where  $Y_{rpmdt}$  represents a future electoral outcome for the candidate ranked r for party p in municipality m belonging to parliamentary election district d at time t (that is, we aggregate the data from municipal council elections to the larger election district to which the municipalities belong in national parliamentary elections).

We consider two outcome variables: (i) running for national office (Run) in the future and (ii) winning national office (Win) in the future.  $Woman_{rpmdt}$  is a dummy for women candidates. Because our model controls for party-district-year fixed effects ( $\gamma_{pdt}$ ) and rank fixed effects ( $\beta_r$ ), the parameter  $\lambda_1$  isolates the differential effect of becoming mayor by comparing outcomes for women and men running for the same party in the same parliamentary district in the same election year (but in a different municipality). This is captured by the coefficients  $\lambda_1, ..., \lambda_{10}$ .

In our baseline analysis, we consider only the local party lists where the first-ranked candidate ultimately became mayor.<sup>28</sup> Figure 3 presents the results. There are two big takeaways. First, it is much more common for candidates who won the mayoral spot to run in a future national election than candidates who were ranked farther down the list. For local parties that held the mayoralty, only about 10 percent of candidates ranked second or third went on to run in a national election, compared to about 47 percent of first-ranked women and 35 percent of first-ranked men. Winning national office is uncommon, but virtually unheard of for candidates ranked below the top position. Outside of the first rank, less than 10 percent of candidatesboth men and women—ran for national office, but very few won a seat in parliament (as measured up to the 2021 national election).

The second major takeaway from Figure 3 is that women who won the mayoralty were much more likely to run for national office, and also more likely to win, compared to men. Around 8 percent of women mayors won a seat, compared to approximately 3 percent of the men. The bottom panels of Figure 3 plot the  $\lambda_r$  coefficients, for  $r=1,\ldots,10+$ , along with 95% confidence intervals. As can be seen, the largest, and statistically significant, effects are those comparing (first-ranked) women mayors to (first-ranked) men mayors. Women in the second rank position (i.e., not mayors) were also slightly more likely to "catapult" into a national candidacy, but not more likely to win.

To understand these findings in terms of their substantive significance, we refer to Cirone, Cox, and Fiva (2021, 242) who note that, "in any given year, there are about 11,000 local councilors chasing only 169 seats in parliament." The baseline probability of a parliamentary candidacy is 0.056, and only 0.002 of a win. In this sense, the probability of transitioning from the mayoralty to a national run or win, when compared against these benchmarks, is impressive.

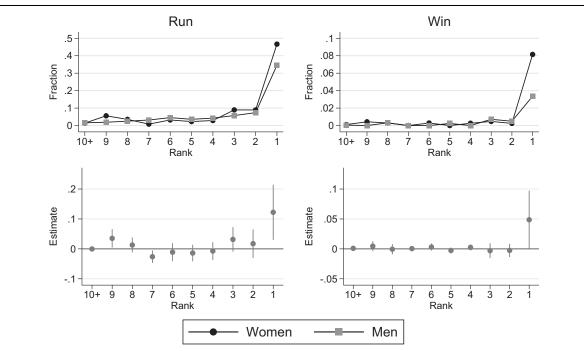
In sum, although women have been underrepresented in mayoral positions (Figure 2), those who do make it onto this local stepping stone have better chances of getting nominated to a national list, and winning, than their male counterparts (Figure 3). One limitation of this analysis is that we only have local-level candidate data to study differential outcomes for men and women since 2003, a time when men's overrepresentation in mayoral positions was beginning to decline. For the elected mayors, however, our data go back to 1971, and show that women mayors have been more likely to appear on a future list, and win national

<sup>&</sup>lt;sup>27</sup> We restrict the sample to candidates for one of the seven main parties in the 2003–2011 period. List positions below 10 are in the "10+" category. While Cirone, Cox, and Fiva (2021) use a similar specification to document strong seniority progression from becoming mayor to

national politics, we consider differential seniority progression by men and women.

<sup>&</sup>lt;sup>28</sup> We exclude the small number of lists where the party won the mayoralty, but the candidate was not first-ranked. In the Supplementary Material, we consider what happens to candidates on lists that did not win the mayoralty. For top-ranked candidates on these lists, women were also more likely to make a national run, but winning was even rarer for both men and women (Figure A.5 in the Supplementary Material).

FIGURE 3. The Differential Effect of Local List Rank, and Becoming Mayor, on Running and Winning in Future National Elections, 2003–2011



Note: The top panels display averages of Run and Win for women and men, by list rank of the local candidate. The bottom panels provide estimates of  $\lambda_1, \ldots, \lambda_{10+}$  based on Equation 1. The sample is restricted to local candidates for one of the seven main parties in the 2003–2011 period where the first-ranked candidate on the relevant list ultimately became mayor. List positions below 10 are in the "10+" category. We exclude candidates that previously ran for national office and municipalities with directly elected mayors. Standard errors are clustered at the party-district-year level. Table A.1 in the Supplementary Material provides the results in table format.

office, in nearly every year observed.<sup>29</sup> A second limitation is that we lack variables at the local level to explore the mechanisms behind women's differential promotion outcomes. It could be that women mayors are promoted to national candidacies at higher rates because they are of higher quality than their male counterparts, or because they have served longer in local politics and have therefore accrued more seniority. We can, however, overcome these limitations in our analysis of national-level careers.

#### **Moving from Parliament to Cabinet**

Once a politician makes it onto a national list, the goal is to secure the top rank, as these are the safest spots and are associated with prestige and power within the party. Our data on national candidates indicate that women debut at a similar average list position as men, and progress upward through the ranks at the same rate, but that they have been much less likely to win the top spot for nearly all of the last century.<sup>30</sup> These dynamics

produce the gaps in Figure 2, where men are relatively overrepresented in the top list positions vis-à-vis their representation on the lists as a whole.

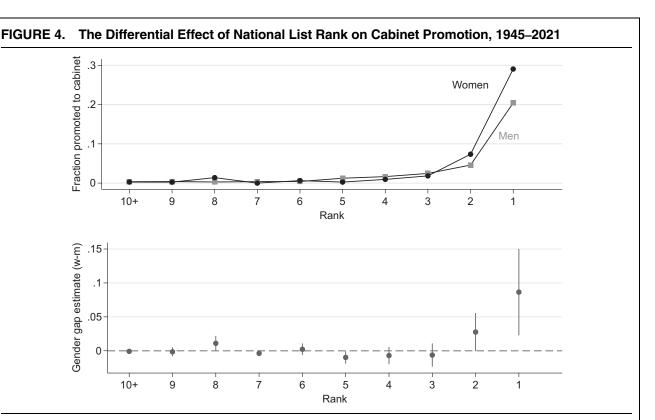
At the same time, Figure 1 reveals a different pattern for the cabinet, where the share of women among ministers has consistently led the share of women MPs and candidates (including list leaders) since the 1960s (despite the absence of firm quotas for women ministers). As in the preceding analysis for advancement from local politics to national politics, here we investigate whether there is differential treatment of men and women who do (and do not) pass through the majoritarian stepping stone of the list leader position when it comes to promotion into cabinet.

Figure 4 presents descriptive plots of the fraction of women and men who are promoted to cabinet positions conditional on their list positions. For both men and women who hold less prestigious list positions, there is a negligible chance of promotion to cabinet. Once the second spot is attained, however, the chance of getting into cabinet rises substantially. Notably, the probability that a woman gets promoted into cabinet is higher at both the second and first list positions. About 8 percent

 $<sup>\</sup>frac{\overline{29}}{29}$  See Figure A.6 in the Supplementary Material.

<sup>&</sup>lt;sup>30</sup> See Figures A.7 and A.8 in the Supplementary Material. During the entire period, less than 6 percent of all first-time candidates debuted in rank one, and less than 8 percent debuted in rank two. There were large differences between men and women first-time candidates for most of the last century. Indeed, first-time men were

likelier to get the top spot until 2005, and likelier to get the second spot until 1973. After the 1970s, women were more likely to get the second position than men, although only about 6 percent of first time women candidates were allocated to these safe spots.



Note: This figure examines whether there are gender differences in cabinet promotions based on national list position. The top panel shows the raw data, and the bottom panel shows the coefficient estimates of promotion to cabinet by list rank and gender using data from the 1945–2021 period. We include cases where a cabinet appointment occurs after the election as well as when it continues over from the previous term (i.e., reappointment). The samples are limited to candidates running for parties that were part of any cabinet following the election. List positions below 10 are in the "10+" category. Table A.2 in the Supplementary Material provides the results for the bottom panel in table format

of women and 5 percent of men move from the second spot into a ministerial role, while 29 percent of women and 20 percent of men move up from the first spot. These gender differences are statistically distinguishable from zero (p = 0.054; p = 0.008), as shown in the bottom panel of Figure 4.

These descriptive patterns reveal that top list spots, and not positions lower down, are important stepping stones for reaching the cabinet. But this analysis does not account for other features of candidates' political careers or abilities that might be driving cabinet appointments. In contrast to the local-level data, our national-level data allow us to evaluate promotion rates for men and women list leaders conditional on seniority and higher education (one observable measure of quality).

We evaluate these dynamics with the following regression:

$$\begin{aligned} Cabinet_{it} &= \lambda_{p[i]t} + \alpha_1 Woman_i + \alpha_2 Seniority_{it} \\ &+ \alpha_3 ListPosition1_{it} + \alpha_4 Seniority_{it} \cdot Woman_i \\ &+ \alpha_5 ListPosition1_{it} \cdot Woman_i \\ &+ \alpha_6 HighEducation_i \\ &+ \alpha_7 HighEducation_i \cdot Woman_i + \epsilon_{it}, \end{aligned}$$

where  $Cabinet_{it}$  is a dummy variable that takes the value of 1 if candidate i is promoted to cabinet in election period t. As explanatory variables, we include a dummy variable for gender (Woman<sub>i</sub>), accrued seniority, a dummy variable for the list-leader position, and the interactions between these latter two variables and gender. In our full specification, we also include a dummy variable for higher education (i.e., postsecondary school). The regression also includes party-year fixed effects  $(\lambda_{p[i]t})$  ensuring that all inferences are drawn from candidates running for the same party in the same election year. The measure of seniority (Seniority<sub>it</sub>) is simply the number of times a candidate has previously run for a national office prior to the most recent election. A gender-neutral seniority system implies that  $\alpha_4 = 0$ , while a gender-neutral effect of the top-rank position as a stepping stone into cabinet implies that  $a_5 = 0$ .

Table 1 presents the results of this regression, for five separate models based on all candidates (models 1 and 2) or elected MPs only (models 3–5). We consider all candidates (not only MPs) because unelected candidates can still be appointed to cabinet. The samples are limited to candidates and MPs from the parties that participated in any cabinet following the election. Because we only have complete biographical data for MPs, we can only include the education dummy for this sample (model 5).

TABLE 1. Effects of Gender, Seniority, and Top-Rank Position on Cabinet Appointment (5)(1) (2)(3)ΑII ΑII MPs MPs MPs Woman 0.007\*\* 0.004 0.067\*\*\* 0.028 0.022 (0.003)(0.003)(0.026)(0.036)(0.045)0.017\*\*\* 0.017\*\*\* 0.027\*\*\* 0.027\*\*\* 0.031\*\*\*\* Seniority (0.002)(0.003)(0.007)(0.008)(0.008)0.181\*\*\* 0.163\*\*\* 0.164\*\*\* 0.167\*\*\* 0.156\*\*\* List position 1 (0.016)(0.018)(0.022)(0.030)(0.029)Seniority · Woman -0.002-0.000-0.001(0.004)(0.017)(0.017)List position 1 · Woman 0.085\* 0.063 0.067 (0.042)(0.057)(0.058)0.145\*\*\* High education (0.030)High education · Woman -0.024(0.049)0.026 0.026 0.168 0.168 0.168 Mean of outcome var. R-squared 0.14 0.15 0.08 0.11 0.14 Observations 16090 16090 2069 2069 2069

*Note*: Seniority is measured as the number of previous candidacies. We include cases where a cabinet appointment occurs after the election as well as when it continues over from the previous term (i.e., reappointment). The samples are limited to candidates running for parties that are part of any cabinet following the election. Standard errors are clustered at the individual level and reported in parentheses. All specifications include party-year fixed effects. \* denotes 10% statistical significance, \*\* 5% and \*\*\* 1%. Table A.3 in the Supplementary Material includes dummies for additional ranks.

The results show that seniority increases the probability of cabinet promotion across all models, as does the toprank position. There is also clear evidence that better-qualified MPs, as measured by education level, are more likely to get promoted.

The small and insignificant coefficients on the interaction term for *Seniority · Woman* indicate that the slope of the relationship between seniority and cabinet appointment does not vary by gender. Meanwhile, the coefficients on the interaction term for *ListPosition1 · Woman* are larger, and statistically significant in the sample of all candidates. This reflects the differential rates of promotion seen in Figure 4. Table A.3 in the Supplementary Material shows a positive effect for the interaction of the second list position and gender, as well, in line with the descriptive pattern.

In sum, these analyses produce two insights about women's progression into the cabinet. First, most cabinet appointments go to senior politicians in the top two list positions, and are not awarded to candidates or MPs elected from lower down on the list. Second, although women are underrepresented among list leaders throughout this entire period, they are more likely than men to be promoted from this position, and also more likely to catapult to the cabinet from the second rank (thereby bypassing the majoritarian stepping stone of list leader).

#### **Additional Analyses**

Our appendices consider two other potential factors that might affect the dynamics of women's career progression: differences in candidate quality and age of entry for men and women, and differences in renomination and advancement in list rank (prior to the toprank position).

First, if men and women have different characteristics—for example, if the men who seek national office are better educated, or are younger when they debut on a national list—this could be driving parties' placement of these candidates (e.g., Joshi and Och 2021; Lazarus, Steigerwalt, and Clark 2023; Muriaas and Stavenes 2024). In the Supplementary Material, we plot the average age of elected politicians and the fraction with higher education in each election year, and compare these variables by gender (see Figure A.3 in the Supplementary Material). After 1970, we see similar patterns for both men and women, suggesting that age and education are not driving gender gaps in representation.

Second, to test whether unequal renomination has created friction in women's representation (e.g., Black and Erickson 2003; Nowacki 2025; Shair-Rosenfield and Hinojosa 2014; Smrek 2022), we employ an RD design to isolate the causal effect of winning a seat in parliament on renomination to a winnable spot, separately for women and men. We estimate this equation using candidates who, for the first time, are either next in line to win a seat, or first in line to lose a seat, and measure the distance to the seat threshold using the metric proposed by Folke (2014), following Cirone, Cox, and Fiva (2021) and Fiva and Smith (2018).<sup>31</sup> Figure A.9 in the Supplementary Material indicates

<sup>&</sup>lt;sup>31</sup> We do this for a sample of national candidates from the main parties during the 1953–2017 period, when the structure of seat allocation formulas was stable.

that women have been just as likely to be renominated to a winnable spot on the party list as their male colleagues in these narrow-win scenarios. In sum, this analysis finds no evidence for gender bias in renominations, suggesting that the system is gender-neutral in this part of the career hierarchy.

## WHY DID WOMEN ADVANCE DESPITE MAJORITARIAN STEPPING STONES? PARTY WORKAROUNDS

Our analysis shows that Norwegian women in politics face challenges at two majoritarian stepping stones in the typical career path through the party hierarchy: one early-career position (mayor) and one late-career position (list leader). While our data do not allow us to determine the precise sources of the gender gaps that emerge in these offices, there are likely supply-side aversions—for example, surveys of party youth members find lower ambition among women for executive offices (Kolltveit 2022)—and demand-side biases in list composition decisions.

We suggest that women's ascent would have been even slower if Norwegian parties had not developed "workarounds" to mitigate the direct effects of these majoritarian stepping stones. Workarounds—methods of accelerating women's political careers and forestalling negative cascades beginning at local stepping stones—are a natural consequence of parties' desire to hit certain gender balance targets at given career stages (such as the 40% minimum norm in party list composition and cabinet appointments).

If there is no gender gap at the level below in the career hierarchy, then parties have no need of workarounds to hit gender balance targets, as they have comparable cohorts of men and women awaiting advancement. However, if gender gaps emerge at stepping-stone positions, and the gender equity target is demanding, then parties will necessarily have to find a workaround. One workaround is to promote women who achieve certain top positions faster than similarly top-listed men. Another workaround is to catapult women—i.e., advancing them from council seats to parliamentary lists, or from second-rank positions to cabinet posts—more often than similarly placed men. We observe both workarounds in Norway and discuss each of them in turn.

First, if party elites at the district-level nominating conventions wished to improve gender balance on candidate lists for national elections, while still prioritizing seniority, local experience, and geographic representation from across municipalities (Valen 1988; Valen, Narud, and Skare 2002), the easiest workaround would have been to advance women with local executive experience faster than men. Indeed, in Figure 3, we see that women mayors are much more likely to appear on a future parliamentary list and win a future national election than their male counterparts. Thus, the slow flow of women into this key local office was partly offset by a higher rate of promotion from it into national

politics. We also find some evidence of women catapulting from the second rank position into candidacy.

Second, we have also shown that, conditional on seniority, men were not more likely to get promoted into the cabinet than women. In fact, women were more likely to be elevated from list positions one and two. Figure 4 and Table 1 show that, for both men and women who hold less prestigious list positions, there is a negligible chance of promotion to cabinet. Once the second spot is attained, however, the chance of getting into cabinet rises substantially, and the probability that a woman gets promoted into cabinet is higher at both the second and first list positions.<sup>32</sup> Thus, the slow flow of women into the top list spot was partly offset by a higher rate of promotion from the top two list positions into cabinet.

Qualitative and descriptive evidence from historical accounts, elite interviews, and MP surveys reinforces the idea that party leaders involved in selection decisions at different levels of the hierarchy felt pressure to meet gender equity targets (Freidenvall, Dahlerup, and Skjeie 2006; Skjeie 1997; Wängnerud 2000). Initially, this pressure came from the feminist movement and women's sections within party organizations, especially on the Left. Later, parties faced pressure from interparty competition for women's votes—the so-called "contagion" effect (Matland and Studlar 1996)—and even from international comparisons in gender equality outcomes among neighboring Nordic democracies (Freidenvall, Dahlerup, and Skjeie 2006). In a 1996 survey of Norwegian MPs, with an 88 percent response rate, 41 percent favored quotas for senior posts in the government, and 70 percent favored quotas (40 percent minimum for each gender) for seats in parliament (Wängnerud 2000). Our analysis sheds empirical light on how parties responded to these pressures in practice.

#### MOVING BEYOND THE NORWEGIAN CASE

The key contribution of our study is to highlight how hidden majoritarianism in PR systems can reduce women's representation in national legislatures. How far might our findings, which reveal that gender gaps in women's representation persist in majoritarian offices in Norway, generalize to other PR countries?

As of 2020, 74 democracies used closed-list or semiclosed-list PR to elect at least a portion of the national legislature (Cruz, Keefer, and Scartascini 2021); and respect for incumbency and seniority in nominations and promotions is a common norm in many parties (de Winter 1991; Heinsohn and Schiefer 2019; Ranney 1981). Among the countries with these institutional conditions, we have argued that Norway should represent a least-likely case to discover gender gaps in political careers, given its position as one of the most gender egalitarian countries in the world. In this sense, if the pathologies of majoritarianism creep into

<sup>32</sup> See also Table A.3 in the Supplementary Material.

women's career paths in Norway, this dynamic is likely to be found in other PR systems as well.

An entry-level form of hidden majoritarianism can potentially arise in any PR system in which local executive elections are majoritarian (whether directly or indirectly). This condition is met in most European democracies with PR systems, as we demonstrate with cross-national data on local electoral rules and the share of women among local politicians for 36 countries in Table B.1 in the Supplementary Material (see also Gendźwiłł, Kjaer, and Steyvers 2022). This table also shows that, in most European countries, the share of women in local executive offices is well below 50% consistent with the presence of gender gaps at this level. Existing comparative research similarly documents that women are often underrepresented in local mayoralties (e.g., Folke and Rickne 2016; Huidobro and Falcó-Gimeno 2023; Medir et al. 2024), and in top positions on party lists (e.g., Franceschet and Piscopo 2014; Verge 2023).

While we believe our findings can generalize, future research should consider context-specific factors. For example, variation in electoral rules (open, semiclosed, and closed) across levels of office, and other contextual factors of party organization, may matter.<sup>33</sup> Moreover, in some countries (especially those with federal systems), local executive offices may be viewed as more powerful than national legislative offices, and this would represent a different structure of the seniority system than what we document in Norway (cf. Lucardi, Micozzi, and Skigin 2022). Whether and how parties choose to employ workarounds might also vary considerably across cases. Even within the Nordic countries, there is variation in attitudes toward gender equality and the appropriate institutional solutions for parties to use (Segaard, Kjaer, and Saglie 2023; Wängnerud 2000).

Micro-level data like what we have employed in our analysis of Norway is needed to untangle these gendered dynamics at the individual level, and to determine how parties respond. Efforts to collect comparable longitudinal data from additional cases should yield opportunities to construct a more complete understanding of gender gaps in political careers and how they can be overcome.

#### CONCLUSION

Closed-list PR has been hailed as an institutional remedy to reduce women's underrepresentation in politics.

When parties exert influence over whom to place on national lists, party leaders can respond to transformations in ideology and societal demands by promoting women's political careers. Yet as we show, PR systems are not proportional all the way down. Competition for positions at key stages of a political career can operate according to majoritarian rules and smuggle in features of those systems to the advantage of men. Our concept of hidden majoritarianism in PR systems helps us understand women's continued underrepresentation even in countries that are far ahead in promoting women's equality.

Overall, our analyses produce both a pessimistic and an optimistic reading for the future of gender equality in political representation given the experience in Norway. A pessimist wishing to understand why Norway took so long to approximate gender parity would discover that majoritarian stepping stones in career hierarchies were never reformed away (e.g., no plural or rotating executives for municipalities). Moreover, unequal access to these majoritarian positions left women with less political power than men. Local municipalities, led by the mayor, employ about 17 percent of the labor force, and administer essential services, such as schooling, childcare, and elderly care. These are policy areas where women could obviously contribute a great deal, but have faced barriers in reaching leadership positions. Similarly, top list positions provide visibility and leadership opportunities that can enhance political prestige and influence.

An optimist wishing to understand Norway's success compared to other countries would discover that it was not just a simple story of closed-list PR, since such rules apply only at the national level, and majoritarian stepping stones exist at both the local and national levels. The parties' willingness and ability to work around the large gender gaps opened at these stepping stones, by promoting individual women who landed on them even before parties adopted quotas, was a key part of Norway's success.

Our findings from the Norwegian experience speak to three ongoing debates in the study of descriptive representation. First, so much of the cross-national literature on women's underrepresentation has emphasized the role of institutions, but scholars' categorization of those institutions has been relatively blunt. Countries are often sorted into whether the national system uses majoritarian or PR electoral rules (or a mix), but this research has not systematically examined whether local posts that are key stepping stones into national politics sneak majoritarian selection procedures into what is an otherwise proportional system. Our work suggests that a more nuanced measure might help to better explain cross-national patterns in descriptive representation.

Second, stemming in part from the robust literature on gender and politics in the United States, there is a conception that local politics is somehow friendlier to women. Since local politics feature lower-cost elections, are often informal or part-time rather than full-time career posts, and do not require travel from home,

<sup>&</sup>lt;sup>33</sup> In open-list PR systems, voters can support a specific party and cast preference votes for particular candidates on the party's list. Because of the element of voter choice, the open-list scheme shares features of majoritarian systems by encouraging personal votes, potentially disadvantaging women if voters harbor bias (Matland and Lilliefeldt 2014; Nowacki 2025; Segaard and Saglie 2021) or if personal votes are garnered through election to executive-style posts (Iversen and Rosenbluth 2010), or other personal traits and forms of experience that differ between men and women. In closed-list systems, in contrast, parties fully control nominations and rank order.

women may find it easier to enter politics in their own communities. Yet even in PR countries, majoritarian dimensions of leadership selection which relegate mayoral positions to the decision of a council (Folke and Rickne 2016; Huidobro and Falcó-Gimeno 2023), or which use open-list systems and strong norms in favor of the top recipient of votes (Gonzalez-Eiras, and Sanz 2021), may make local politics a rough place to make a political entry (Holman 2017), especially for a woman who wants to ascend to the national level.

Finally, our research raises the question of the role of elites versus institutions in cementing equality. In PR systems, there can be costs and benefits to the outsized role played by parties, as opposed to individual ambition and voters' preferences, in shaping political careers (Piscopo 2019). Parties can employ a number of practices that disadvantage women, from internalizing fears about voter stereotypes (Funk, Hinojosa, and Piscopo 2021), to failing to provide resources to women's candidacies (Martínez-Cantó and Verge 2023; Piscopo et al. 2021), to slow-walking the implementation of genderbalancing institutional reforms like quotas (Bjarnegård and Zetterberg 2016; Lang, Meier, and Sauer 2023). When the biggest prizes are awarded via majoritarian contests this will discourage the most talented and ambitious women from entering politics. If instead women have a fair shot at ascending to top positions, then this will also have backward ramifications, increasing the value of remedying gender bias in earlier career stages —both those associated with seniority systems and those associated with majoritarian elections.

A seniority system like that in Norway has the potential to act as a transparent promotion mechanism, but it is fundamentally elitist in that it grants more power to those who have been around the longest, or who are the most loyal (Josefsson 2020), rather than, say, those who are the most talented. This type of system which creates an elite cadre at the top is precisely what would appear, prima facie, most likely to facilitate discrimination. Past scholarship argues that parties with rule-bound selection procedures often follow the rules—for example, once a quota is implemented—but are not gender equalizers absent the rules (Bjarnegård and Zetterberg 2016). Our work reveals that in some settings, even absent a quota, elites may create compensatory measures to circumvent points of friction in women's political careers. A better understanding of the promises and pitfalls of that power will be the key to understanding the historical trajectory of women's representation around the world.

#### SUPPLEMENTARY MATERIAL

The supplementary material for this article can be found at https://doi.org/10.1017/S0003055425100786.

#### DATA AVAILABILITY STATEMENT

Research documentation and data that support the findings of this study are openly available at the

American Political Science Review Dataverse: https://doi.org/10.7910/DVN/HKICHB.

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#### CONFLICT OF INTEREST

The authors declare no ethical issues or conflicts of interest in this research.

#### **ETHICAL STANDARDS**

The authors affirm this research did not involve human participants.

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