Party Switching in Elected Upper Chambers: The Case of the Brazilian Senate[*]

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Abstract

Party switching has received considerable attention in academic literature in recent years, especially in Brazil. Surprisingly, however, very little is known about the reasons why senators decide to change their party affiliation. Against this backdrop, this study takes the first step and sheds light on the matter by investigating what is behind senatorial party defection in Brazil. Overall, the results indicate that ideological distance between senators and parties emerges as the primary factor explaining the switch, although this relationship is slightly conditioned by office and vote considerations. However, the findings also highlight how the behaviour of senators changes according to the degree of the seats up to contest in the upcoming elections (i.e. one-third or two-thirds of the chamber). Thus, our results add another piece to understanding the party switching puzzle in Brazil and bring important implications for legislative studies and legislative behaviour.

Keywords: Brazil, Legislative Behaviour, Party Affiliation, Party Switching, Upper Chamber

1   Introduction

Recently, the 56th Legislature of the Brazilian National Congress was marked by a staggering number of party defections within the Federal Senate. Overall, more than 40 senators (barely half of the Senate) disaffiliated from one party or joined another,[1] leading to an annual rate of over ten switching senators between 2019 and 2023. Some senators, in fact, changed parties more than twice during this period, as was the case with Sen. Flávio Bolsonaro and Sen. Jorge Kajuru. However, this degree of interparty mobility is not unprecedented in Brazil's second chamber. For instance, from 2003 to 2006, Sen. Leomar Quintanilha switched parties no fewer than four times. The frequency and historical recurrence of senators changing parties highlight the degree to which party defection is widespread within the sphere of the Federal Senate.

In Brazil, a substantial body of research has extensively examined the subject (e.g. Desposato, 2006; Diniz, 2000; Melo, 2004). The same rings true for the comparative literature (e.g. Mershon and Shvetsova, 2008; O'Brien and Shomer, 2013). However, the predominant focus has been on party switching within lower houses.[2] This emphasis is reasonable within parliamentary democracies, given that lower houses are typically granted far more constitutional powers compared to their respective upper houses (Neiva, 2006). However, such precedence is not commonly observed in the upper houses of presidential democracies, especially in Latin America, where bicameralisms are usually symmetric, i.e. the two houses hold similar powers (Llanos and Nolte, 2003).

In addition, the lack of studies on party switching within the Brazilian Senate is particularly disconcerting for several reasons. First, besides being a constitutionally powerful chamber (Araújo, 2012), recent scholarship has underscored the pivotal role of the Brazilian upper house in advancing or preventing passage of legislation related to presidents' policy agenda. (Araújo, 2014; Couto and Albala, 2023; Izumi, 2016; Neiva and Soares,

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[1]The complete list of senators who changed party affiliation in this parliamentary term can be found in Table A.1 in the Supplementary Material.

[2]With a notable exception found in Fashagba (2014).

2013). Substantively, the clear links of the chamber with the federal structure of the country do not thwart senators from casting votes along ideological lines (Neiva and Soares, 2013). Secondly, following the June 2013 Protests, the country has been entrenched in a distressing crisis of representation (Avritzer, 2019). According to the Latinobarómetro (2023), approximately 70% of Brazilians were dissatisfied with the way by which political parties work within the country in 2023. Critically, party switching contributes to widening the gap between representatives and their constituencies, as constant party shifts impede the establishment of meaningful party brands among the electorate.

Against this backdrop, our objective is to find out the motivations leading to senators' party switching. Hence, the research question steering this investigation is: 'Which are the determinants for senators to switch parties?' To address this, we hinge upon the premise that political actors harbour three intrinsic interests: the pursuit of office, influence in public policies, and gathering votes (Müller and Strøm, 1999). Consequently, our argument centres on the premise that senators change their party affiliations by seeking parties that (i) are part of the presidential cabinet, (ii) align with their ideological positions, and (iii) offer platforms to expand their vote count in upcoming elections. Moreover, we posit that the impacts of these motivations are interdependent. Thus, similar to what happens with deputies (Radean, 2019), the relevance of a particular rationale is contingent upon the magnitude of others, signifying that senators have difficulty finding a new party that maximizes all their preferences.

In the rest of this article, we first present several reasons for conducting a case study on the Brazilian upper house and discuss how its study contributes to the broad literature on party switching. Next, we elaborate policy-, office-, and vote-seeking hypotheses to party defection in the Brazilian senate. In the subsequent section, we present our data and highlight the effectiveness of conditional logistic regressions in analysing choice-related problems. Finally, after testing our hypotheses, the conclusion takes stock of the results, compares them with what we know about party switching in Brazil's lower chamber, and suggests a fruitful avenue for future research.

2 The Brazilian Case in Comparative Perspective

The case of Brazil appears particularly suitable for studying party switching among members of the second chamber. This is because Brazilian legislators, especially senators, operate within a complex institutional framework, enabling the exploration of various hypotheses concerning their electoral and legislative behaviour. Unsurprisingly, then, the literature on party dissidents in Brazil has expanded beyond the national level to encompass subnational levels (Hott and Sakurai, 2021).

As a matter of fact, while not the only case, Brazil stands as a paradigmatic case of coalition presidentialism (Albala, 2017; Borges and Turgeon, 2019; Zucco and Power, 2024). This has a dual consequence in examining party switching. First, owing to power-sharing within a multiparty structure, the pool of appealing parties for party switching significantly broadens when compared to single-party governments. Second, the potential of party switching is not driven exclusively by the ambition of individual legislators; it also reflects a genuine interest of the governing coalition. This is because governmental interests face concrete opposition prospects within an adversarial upper chamber (Hiroi, 2008). Therefore, fluctuations in the Senate's supporting bloc, be it a decrease or increase, hold fundamental importance for the government.

Furthermore, the party system portrays a complex picture of party competition in the country. In Brazil's political landscape, excessive party fragmentation emerges as a prominent feature of the system. Except for the Workers' Party (PT, *Partido dos Trabalhadores*), most parties have limited societal outreach and negligible levels of party identification (Lucas and Samuels, 2010; Mainwaring, Power and Bizzarro, 2018; Samuels and Zucco, 2018). Within this context, a considerable portion of parties is frequently associated with a blend of organizations characterised by fluid ideological preferences and predominantly non-programmatic orientations (Ames, 2002; Epstein, 2009; Novaes, 2018).

As a result, it is natural to question the extent to which ideology influences the legislative behaviour of senators. This inquiry gains heightened importance given the

significant role of ideology in elucidating patterns of party affiliation change in other contexts, as observed in Italy (Pinto, 2015) and Romania (Radean, 2022).[3] Surprisingly, prior research suggests that ideology plays a relevant role in explaining the process of party switching among Brazilian deputies (Desposato, 2006; Desposato and Scheiner, 2008; Radean, 2019). Therefore, examining party switching in the Brazilian upper house presents a twofold opportunity. On the one hand, Brazil represents a scenario that is least likely to the association between ideology and party switching, thus posing a theoretical challenge for our hypothesis testing (George and Bennett, 2005). On the other hand, the Brazilian context offers the chance to validate the insights gained from studying party switching in the lower chamber and to evaluate the extent to which ideological preferences contribute to explaining senators' legislative behaviour.

Finally, senators are integrated into a distinctive electoral framework compared to deputies, though they still share a key feature of electoral institutions for party switching. For one, senators are elected for staggered eight-year terms through a majoritarian electoral system, where each electoral district has a fixed district magnitude of either one or two seats, which is contingent upon the degree of renewal within the chamber. Traditionally, the academic literature has, for long, depicted majoritarian systems as more prone to personalistic ties between legislators and representatives, lowering the centrality of party brands (Duverger, 1981). Nevertheless, the open-list PR is used for election to four-year terms for deputies in Brazil. In this way, despite the differences, both pertain to the domain of candidate-centred electoral systems, in which deputies and senators have clear incentives to build their personal reputations, and parties lack the tools to electorally punish those who toss the party line. Consequently, it deserves exploration whether senators have some reasons in common for their interparty mobility with deputies, as the legislators of both chambers compete under candidate-centred electoral rules.

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[3]Nevertheless, it is important to note that ideological concerns do not always serve as the primary driving force in explaining patterns of party switching, as evidenced in Mexico (Kerevel, 2014) and Zambia (Arriola, Choi, Davis, Phillips and Rakner, 2022).

3 Theoretical Framework

Most studies on party switching have relied on the seminal works of Aldrich and Bianco (1992) and Müller and Strøm (1999) to grasp the reasons prompting legislators to change parties during the legislative term. These motivations include seeking benefits linked to office positions, policy incentives, and maximising electoral support (Desposato, 2006; Heller and Mershon, 2005; Mershon and Shvetsova, 2008; O'Brien and Shomer, 2013; Reed and Scheiner, 2003).

To start with, politicians prioritise access to state resources due to the advantage they confer, especially in terms of voter appeal (Desposato, 2006). To enhance their prospects of securing their elected office, legislators seek parties capable of distributing office-related perks either through patronage appointments within the government or through the disbursement of targeted pork barrel (Desposato, 2006; Desposato and Scheiner, 2008; Flório Lima and Bodet, 2023). With this in view, the upshot is that, in multiparty governments, the parties closest to these levers of power are precisely those with coalition membership.

More specifically, in the Brazilian case, within the context of the Chamber of Deputies after the redemocratisation process, Melo (2004) identifies that the attractiveness of government parties is directly linked to their ability to share access to decision-making arenas and government resources. Thus, the reasoning follows the idea that when parties within the coalition cabinet hold significant influence in designing policies and resource allocation, they become more appealing to switching legislators. Hence, we hypothesise that senators are more likely to be drawn to parties with access to political office assets. From this, our first hypothesis states:

H1: Senators switch to parties that control greater access to state resources.

The ideological alignment between legislators and parties is a predominant factor in the analysis of party switching (Desposato and Scheiner, 2008; Klein, 2021; Volpi, 2019). Legislators and parties sharing a linear ideological orientation tend to face fewer challenges in building coherent policy agendas, while those distant from party goals and

orientations encounter conflicts stemming from ideological differences.

O'Brien and Shomer (2013) emphasise that ideological compatibility between lawmakers and their respective parties is essential in minimising conflicts and dissatisfaction. When a legislator's ideological inclinations differ from those of the party line, they might find themselves compelled to vote against their own preferences to uphold the party's position. Otherwise, the legislator is subject to intraparty sanctions, such as lack of party support in bills or limited provision of better positions (committee leadership or party posts). From this, we hypothesise:

H2: Senators switch to parties ideologically more aligned to their preferences.

One of the main objectives of legislators is to remain in office through reelection. Previous studies have shown a higher propensity among lawmakers to switch parties at the beginning of each legislative term, primarily seeking parties with higher approval ratings (Desposato, 2006; Heller and Mershon, 2005; Mershon and Shvetsova, 2008; O'Brien and Shomer, 2013; Reed and Scheiner, 2003). This is no different in the Brazilian political landscape, wherein legislators frequently adopt party switching as a strategy to bolster their chances of reelection. Past scholarship has traced that deputies, in particular, show a considerable inclination to change their party affiliation in years close to elections (Ferreira, 2011; Freitas, 2008,1; Teles, 2015).

In the case of the Brazilian Federal Senate, the low number of positions at stake may further encourage switching to a party with high electoral support and a robust presence in the state of the candidate vying for a seat in the upper house. The majoritarian electoral system used to elect senators means that even slight shifts in voter support can significantly impact electoral outcomes, making party affiliation a critical consideration. In this regard, parties that can provide resources and strong organisational structures, which can be mobilised during electoral campaigns, are especially appealing to defectors. This is especially true as senators face a different strategic context compared to deputies, by which the former must maintain their electoral relevance while being subject to staggered elections and terms twice as long as those of the latter.

To show the importance of vote-seeking behaviour, previous studies indicate that larger parties are not heavily affected by party switching in years close to municipal and presidential elections (Ferreira, 2011; Hott and Sakurai, 2021). This is partly due to the pursuit of more popular parties, as legislators actively aim to improve their reelection chances, especially when they are electorally vulnerable (Freitas, 2008).

Thus, we posit that senators choose to switch to parties that can enhance their reelection chances:

H3: Senators switch to parties that can enhance their chances of reelection.

Finally, we argue that the above-described stimuli influencing party affiliation do not act in isolation (Freitas, 2008,1). The conventional approach, where legislators are seen as driven by a specific incentive, fails to consider the complexity of party switching (Freitas, 2008). From this perspective, Radean (2019) argues that research on party switching often yields inconsistent results when treating motivations based on office-, policy-, and vote-seeking as mutually exclusive approaches.

Hence, a party may attract or repel legislators on different fronts. Building on this, a party might be attractive due to its electoral strength but also due to greater ideological correspondence with a specific senator. Conversely, it is plausible for a party to be electorally strong yet simultaneously hinder access to governmental positions and resources. As a result of this confluence of reasons, the effects of a single specific motive are expected to decrease as the attractiveness of others increases (Radean, 2019). Consequently, the presence of several appeals may obscure the weight of each in the end. On the other hand, the effect is much clearer when legislators are enticed by only one reason.

Thus, we assume that senators are more inclined to switch parties when the benefits related to i) maximising votes, ii) ideological correspondence, and iii) access to the state apparatus are more pronounced compared to alternative options. As such:

H4: Senators are more stimulated to change parties as the benefits linked to access to state resources, ideological correspondence, and maximising votes increase. The positive effect of one motivation is heightened when the advantages of the other motivations are

low; conversely, this effect diminishes as the attractiveness of the remaining motivations increases.

4   Data and Method

To analyse the dynamics of party switching in the Brazilian Senate, we examine the party affiliation of all sitting senators, including surrogates, from 1990 to 2022. Importantly, though, the period between 2008 and 2014 is not considered due to the precedent set by the Superior Electoral Court (TSE, Tribunal Superior Eleitoral) and the Supreme Federal Court (STF, Supremo Tribunal Federal), which stipulated that parliamentarians changing parties could forfeit their office.[4] We are able to include every year after 2015 due to the enactment of a new regulation by the STF, by which candidates elected through a majoritarian system are exempt from the loss of office in case of party switching. Consequently, the anti-defection rule remains applicable only to federal deputies, state deputies, and municipal councillors, but not to senators, governors, and presidents.[5]

To effectively test our hypotheses, we use conditional logistic regressions. For the analysis of party switching, this model assumes that legislators make their affiliation choices within an environment brimming with several available party organisations.[6] As a consequence, conditional logistic regression allows the examination of the factors pushing senators away from their original parties and those drawing them towards the destination

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[4]Importantly, recent literature has stressed that party switching has not, in fact, ceased to happen in the Chamber of Deputies, despite the clear legal framework aimed at preventing it (Damin Jr., 2015; Flório Lima and Bodet, 2023). To see whether this also happened in the Brazilian upper chamber, we analyse every party defection in that house between 2008 and 2014. We come to the conclusion that including this period in the analysis would do more harm than good, as the rule indeed constrained and fundamentally changed the senators' legislative behaviour with regard to their party affiliation. Thus, since the frequency of party switching decreased, and most of the reasons behind it were aligned with the anti-defection rulings at the time, the 2008-2014 period is left aside from our empirical test. This analysis is available in the second section of the Supplementary Material.

[5]Nevertheless, it is worth pointing out that the electoral rule in Brazil still foresees some exemptions for legislators elected through proportional systems. For example, they are not subjected to losing their office if parties agree with their departure and when parties deviate from their manifestos. Notably, there also exists the "party-switching window," a 30-day period before elections during which incumbent politicians can change their party affiliation without any legal objection.

[6]One drawback of this model, though, is its exclusive focus on the legislator's perspective, disregarding the parties' capacity to prevent the entry of new members into their ranks.

parties (Radean, 2019).

The sample comprises party choices senators make monthly within the analysed time frame. The fundamental aspect is for the dataset to include all available party options for senators in the reference month. In other words, each senator is allocated a row for every party with representation in the Federal Senate.[7] This setup allows for a meticulous analysis of the calculations made by senators regarding their decision to stay put or switch to another party. Thus, our dependent variable is 'Party Affiliation,' a dummy variable coded as 1 for the party the senator is affiliated with and 0 for all other parties.

The first three independent variables in the model correspond to the three primary hypotheses previously posited: i) the pursuit of state resources, ii) the ideological distance between senators and parties, and iii) the search to maximise votes in the next elections.

Per the first hypothesis, senators move from one party to another to gain access to state resources. We employ two independent variables to test whether this is indeed the case. The first is the *Presidential Coalition*, which represents whether parties are members of the presidential cabinet. Based on Amorim Neto (2019), this variable is binary-coded, attributing 1 to parties in the presidential cabinet during the reference month and 0 otherwise. Consecutively, the second variable is the *Weighted Participation in Coalition*. Recent scholarship has stressed how ministerial portfolios differ in their qualitative importance from one another in Brazil (Batista, 2018; Batista, Power and Zucco, 2023; Zucco, Batista and Power, 2019) and, broadly speaking, in Latin America (Camerlo and Martínez-Gallardo, 2022). In light of this, we discriminate whether parties become more appealing for party switching based on their weighted share of cabinet posts. Thus, instead of relying on mere government participation, we adjust for the relative importance of the ministerial posts parties hold based on estimates provided by Zucco, Batista and Power (2019) and portfolio allocation data from Batista (2022).

Turning to the test of the second hypothesis, we assess the ideological distance be-

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[7]For comparison purposes, this method mirrors that adopted by Desposato (2006), Desposato and Scheiner (2008), Radean (2019), and Radean (2022).

tween senators and political parties (*Ideological Distance*). This variable quantifies the ideological leanings of senators and parties using W-NOMINATE (Poole and Rosenthal, 2001), which provides ideological point estimates based on roll call votes. Here, the focus is on the traditional one-dimensional left-right placement.[8]

The third hypothesis suggests that senators switch parties to enhance their chances of reelection. To assess the influence of vote-seeking behaviour on the senatorial decision to stick with the current party affiliation or to switch parties, we use a proxy called 'Party Strength.' Since the electoral rule for electing senators differs from that used for deputies, replicating measures used in previous studies is unfeasible (e.g. Desposato, 2006; Radean, 2019). In contrast to deputies, senators are chosen through a majoritarian system, where only one or two candidates run for each party or coalition. Hence, gauging how parties fared in the last senatorial elections would complicate differentiating between the performance of parties and the performance of the candidates themselves.[9] To circumvent this, *Party Strength* measures the parties' vote share in each electoral district in the last elections for the Chamber of Deputies. This strategy seems adequate for the Brazilian case as the electoral districts for deputy elections match those for the election of senators. Data on parties' electoral performance come from Borges (2015) and the Superior Electoral Court.[10]

However, it is plausible that electorally motivated switchers are potentially influenced by the level of competitiveness observed in the preceding senatorial elections of their

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[8]This distance is calculated based on how senators voted on roll calls for constitutional amendment proposals during the legislative terms. We focus on these proposals for two reasons. First, we effectively exclude less controversial bills, such as those related to commemorative dates, honours, and decorations, from the estimation procedure by doing so. Second, and more importantly, the emphasis on constitutional amendments helps to serve as a safeguard against the influence of coalition membership on ideological estimates. We explore this matter at a great length in the third section of the Supplementary Material. The data come from Nipe-Cebrap (2020).

[9]This is the same problem with the measures employed by the comparative literature on party switching. In examining politicians' electoral prospects, O'Brien and Shomer (2013) and Klein (2021) calculate the difference between the parties' vote share in the subsequent election and their vote share in the election that put them in office.

[10]Available at: https://www.tse.jus.br/eleicoes/eleicoes-anteriores. For presentational purposes, the electoral performance of major parties in the Chamber of Deputies in recent Brazilian political history is shown in Figure A.3 in the Supplementary Material.

electoral districts. This proposition is rooted in the rationale that senators may find it strategic to explore alternative political affiliations following closely contested elections. To examine this proposition empirically, we quantify the extent of electoral competition in senatorial contests across states over the timeframe of our analysis by employing a measurement akin to Chacón, Robinson and Torvik (2011) and Rozo, Quintana and Urbina (2023). Initially, the calculation for *Electoral Competition* remains consistent as originally formulated, where *Electoral Competition* = [1 - (Percentage of votes for the 1st place - Percentage of votes for the 2nd place)]. This formulation remains unaltered when the district magnitude is 1. However, when two senators are elected for the subsequent electoral cycle, the calculus is slightly adjusted to *Electoral Competition* = [1 - (Percentage of votes for the 2nd place - Percentage of votes for the 3rd place)]. As such, the metric *Electoral Competition* serves as an indicator of the challenge associated with securing a Senate seat within a specific election and state context.[11]

The remaining explanatory variables consist of the interactive terms derived from the three broad motivations for party switching: *Weighted Coalition Participation * Ideological Distance*, *Weighted Coalition Participation * Party Strength*, *Ideological Distance * Party Strength*, and *Weighted Coalition Participation * Ideological Distance * Party Strength*.

Finally, we control for several confounding factors in the models. We begin by taking into account party-related variables. The first, *Home Party*, is the senators' tendency to stay in their elected party as opposed to moving to another partisan organisation. Moreover, we capture with *Governor's Coalition* the senators' position with regard to the support for the governor of their electoral district in the previous elections. We do so by coding it as 1 if senators' parties took part in the governor's pre-electoral coalition and 0 otherwise.

Turning to control variables at the politicians' individual level, *Surrogate* is a dummy

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[11]Generally, elections with a higher number of seats at stake tend to exhibit greater 'competitiveness', which is characterised by narrower victory margins. Nonetheless, this trend is not universally consistent, as illustrated in Figure A.3 in the Supplementary Material.

representing whether senators are the original officeholders or are replacing someone else. On top of that, *Number of Legislatures* captures the seniority of senators in the Federal Senate by measuring the total number of legislative terms served up to the reference month. To conclude, *Rural Population* measures the percentage of the rural population in each of the 27 Brazilian federal units, which taps into the idea that senators from less urban states might rely more on a clientelistic linkage with their constituencies and, as a result, might care less about the potential electoral consequences of party switching.

5 Results and Discussion

Before getting to model details, we first present descriptive data on the movement of senators from one party to another. To start with, Figure 1 provides a temporal sight of party defection in the Federal Senate. As contradictory as it seems, the most noticeable aspect of the visualisation is that there is no clear pattern of party switching vis-à-vis the Brazilian electoral calendar. In some electoral cycles, senators switched parties at the beginning of legislative terms. In others, they did so close to the end of their time in office. Most notably, this shows that the behaviour of senators is in stark contrast to that of deputies and mayors when it comes to *when* politicians stay or change their political affiliation in Brazil (Diniz, 2000; Hott and Sakurai, 2021).

In turn, Figure 2 depicts the party pairs with the highest frequency of senatorial movement from one party to another.[12] From there, the key point is that party switching primarily occurs among centre, centre-right, and right-wing parties in the Federal Senate, except for a few senators who changed from left-leaning parties (i.e. the Democratic Labour Party (PDT, *Partido Democrático Trabalhista*) and the Brazilian Socialist Party (PSB, *Partido Socialista Brasileiro*)) towards more centre-rightist parties.[13] Curiously,

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[12]Senators who exited their parties and remained independents for any given time before hopping on to another party are not included in the figure.

[13]Despite its name, the Brazilian Labour Party (PTB, *Partido Trabalhista Brasileiro*) has been on the right of the political spectrum since the country returned to democratic normalcy in the late 1980s (Zucco and Power, 2024).

Figure 1: Frequency of Party Defection in the Federal Senate
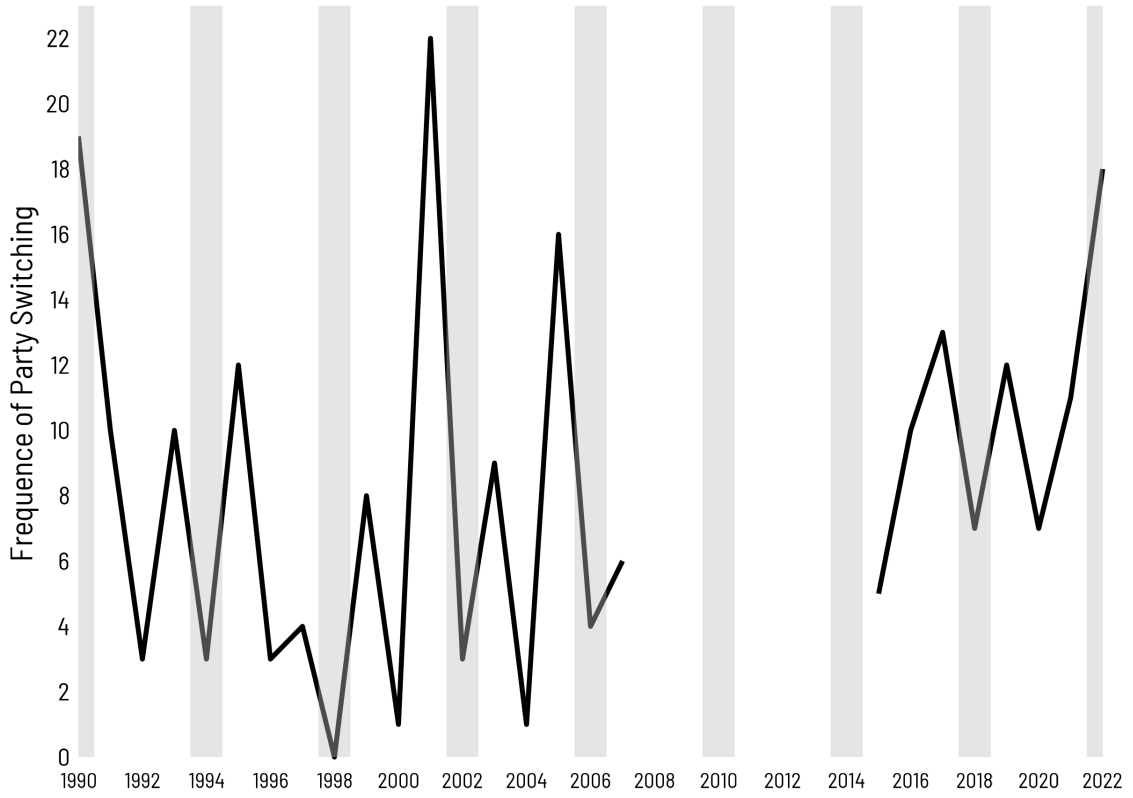
the parties that have received the most party defectors, the Brazilian Democratic Movement Party (PMDB, *Partido do Movimento Democrático Brasileiro*) and the Brazilian Social Democracy Party (PSDB, *Partido da Social Democracia Brasileira*), have experienced a substantial influx from each other. Taken together, these two points are a sign of the importance of policy-seeking behaviour in explaining party switching in the Brazilian second chamber.

Despite gaining weight from descriptive evidence, the soundness of our test of hypotheses depends on careful and appropriate statistical analysis. For that reason, Table 1 presents the results for the first set of conditional logistic regressions. We first estimate models one to three based on the complete dataset. However, as the Brazilian upper house has staggered elections, we derived two subsets from our data. Models four to five are restricted to legislative terms preceding elections where only one seat is up to contest

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Figure 2: Pairs of Parties with the Highest Frequency of Party Switching in the Federal Senate
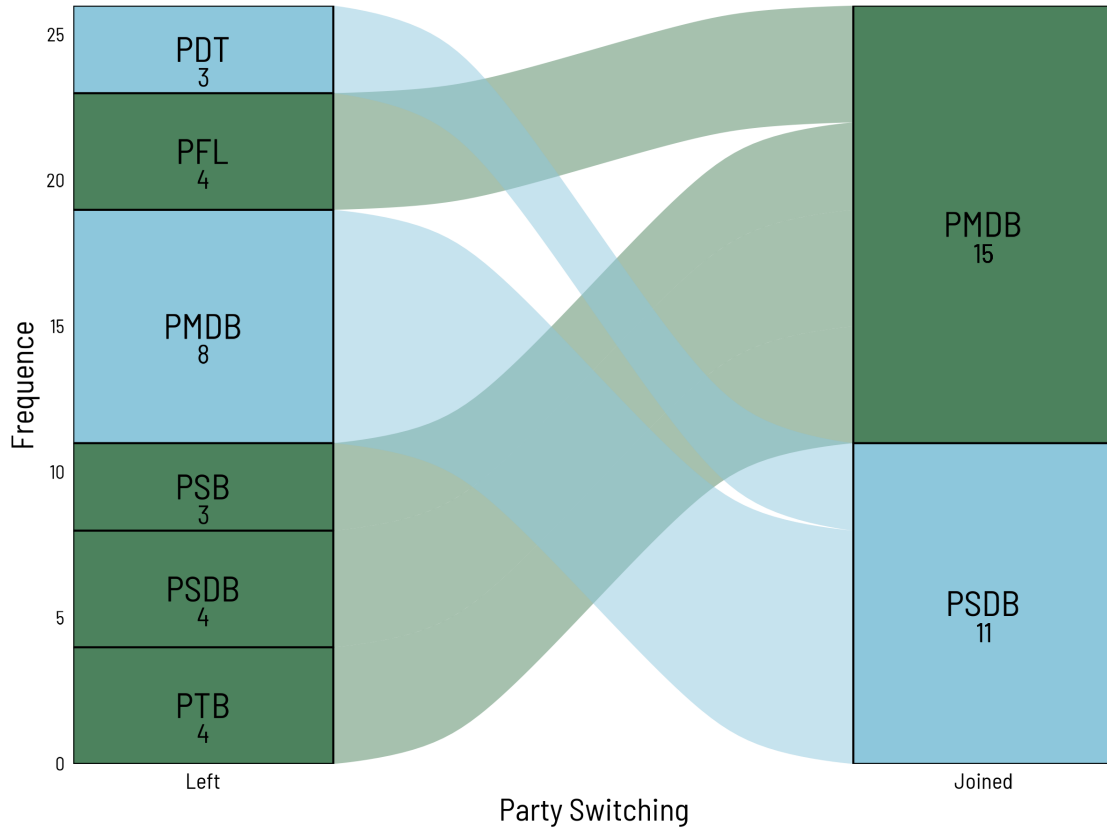
in each electoral district.[14] Conversely, the remaining models cover those legislative terms preceding elections with binomial districts.[15]

Initially, mere participation in the presidential coalition fails to reach conventional levels of statistical significance in the first model. Apparently, being a member of the governing coalition does not matter for party switching in the Senate. However, the coefficient of the alternative variable to understand the office-seeking behaviour of senators is positive and statistically significant at the 0.10 level in models two and three. In practical terms, an increase of one unit in *Weighted Participation in Coalition* increases the probability of switching by 12%. Yet, this effect disappears when we segregate the data based on the number of seats to be elected in the next senatorial elections.

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[14]This means that the underlying data of these models include only senators from the 48$^{\text{th}}$, 50$^{\text{th}}$, and 52$^{\text{nd}}$ Legislatures.

[15]In other words, the last models cover only senators from the 49$^{\text{th}}$, 51$^{\text{st}}$, and 53$^{\text{rd}}$, 55$^{\text{th}}$ Legislatures.

Table 1: The Determinants of Party Switching in the Federal Senate - Without Interactions

	Full Dataset			M = 1		M = 2	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Presidential Coalition	−0.02						
	(0.15)						
Weighted Part. in Coalition		0.12*	0.12*	0.13	0.13	0.07	0.06
		(0.07)	(0.07)	(0.08)	(0.08)	(0.12)	(0.12)
Ideological Distance	−1.90***	−2.04***	−2.04***	−2.34***	−2.34***	−1.42***	−1.42***
	(0.25)	(0.30)	(0.30)	(0.38)	(0.38)	(0.51)	(0.51)
Party Strength	1.14	1.17	5.54	0.09	−11.64	2.87*	6.51
	(0.76)	(0.89)	(5.59)	(1.20)	(25.22)	(1.48)	(7.15)
Party Strength * Electoral Competition			−4.97		12.35		−4.40
			(6.22)		(26.57)		(8.40)
Controls							
Home Party	6.88***	6.89***	6.89***	6.84***	6.82***	7.49***	7.49***
	(0.24)	(0.28)	(0.28)	(0.35)	(0.35)	(0.50)	(0.51)
Governor's Coalition	−0.04	0.06	0.06	0.57**	0.57**	−0.89***	−0.88***
	(0.16)	(0.18)	(0.18)	(0.23)	(0.23)	(0.33)	(0.33)
Surrogate	0.66**	0.59*	0.60*	0.57	0.56	0.56	0.56
	(0.26)	(0.33)	(0.33)	(0.44)	(0.44)	(0.51)	(0.51)
Number of Legislatures	−0.23**	−0.25**	−0.25**	−0.27	−0.27	−0.02	−0.02
	(0.10)	(0.12)	(0.12)	(0.16)	(0.16)	(0.18)	(0.18)
Rural Population	−0.01	−0.01	−0.01	−0.01	−0.01	−0.01	−0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
Pairs Senators-Parties	246,994	209,727	209,727	110,246	110,246	99,481	99,481
R^2	0.334	0.342	0.342	0.340	0.340	0.344	0.344
Max. Possible R2	0.339	0.346	0.346	0.345	0.345	0.347	0.347
Log Likelihood	-886.359	-644.211	-643.868	-398.351	-398.245	-235.271	-235.130
Senatorial Choices	21,217	18,732	18,732	9,865	9,865	8,867	8,867

Note: M corresponds to District Magnitude. $^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Next, the coefficient of *Ideological Distance* is substantially negative and statistically significant at the 0.01 level across all models. According to the second model, an increase in the ideological difference between a party and a senator by one unit decreases the chance of party switching by approximately 87%.

In contrast, estimates related to vote-seeking behaviour do not acquire the same level of statistical significance. In fact, *Party Strength* does not show a statistically significant impact in the initial five models. An intriguing shift, however, occurs when focusing the analysis on a period coinciding with legislative terms right before the contest of two-thirds of Senate seats; in this period, *Party Strength* becomes statistically significant at the 0.10 level. Specifically, in the sixth model, an increase in the vote share of a given party by one percentage point amplifies the likelihood of party switching to that party by 17%. Nonetheless, the interaction between *Party Strength* and *Electoral Competition* is not statistically significant in any model, demonstrating that the effect of the former is not conditioned on the degree of the latter.[16] Thus, though the interaction is statistically insignificant, we find suggestive evidence that senators pay considerably more attention to parties' past electoral performance in legislative terms preceding senatorial elections with greater district magnitude.

To test the fourth hypothesis, Table 2 provides the results for the interactions between the hypothesised main drivers of party defection. To begin, to a large extent, the interactions do not yield statistically significant effects. The only exception emerges in the interaction between *Weighted Participation in Coalition* and *Party Strength*, specifically in the fifth model, even though the estimate is barely statistically significant. In any case, this does not imply that the fourth hypothesis has been outright falsified. This is because we have to inspect the marginal effects of every interaction term since they might conceal statistically significant effects at some point of the observed values (Brambor, Clark and

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[16]In the Supplementary Material, Figure A.5 displays the marginal effects of *Party Strength* across the entire observed range of values for *Electoral Competition*. As can be seen, irrespective of the specification, the results consistently show that the interactive term is never statistically different from zero. This same pattern holds when examining the effects of *Electoral Competition* based on the values of *Party Strength*, as depicted in Figure A.6.

Golder, 2006).

Table 2: The Determinants of Party Switching in the Federal Senate - With Interactions

|	Full Dataset		M = 1		M = 2	
	(1)	(2)	(3)	(4)	(5)	(6)
Weighted Part.						
in Coalition	0.28**	0.22	0.09	−0.02	0.49**	0.51*
	(0.14)	(0.16)	(0.18)	(0.23)	(0.22)	(0.26)
Ideological Distance	−2.05***	−2.20***	−2.20***	−2.41***	−1.43*	−1.40*
	(0.43)	(0.47)	(0.52)	(0.57)	(0.74)	(0.82)
Party Strength	2.06	1.58	0.92	0.15	3.20	3.28
	(1.43)	(1.56)	(1.85)	(2.04)	(2.33)	(2.49)
Interactions						
Weighted Participation *						
Ideological Distance	−0.03	0.22	0.17	0.53	−0.55	−0.62
	(0.20)	(0.38)	(0.23)	(0.43)	(0.34)	(0.80)
Weighted Participation *						
Party Strength	−1.07	−0.59	−0.06	0.74	−1.84*	−1.93
	(0.71)	(0.95)	(0.96)	(1.31)	(1.03)	(1.36)
Ideological Distance *						
Party Strength	0.42	2.34	−3.26	−0.74	5.39	5.03
	(3.33)	(4.15)	(4.41)	(5.22)	(4.91)	(6.13)
Weighted Participation *						
Ideological Distance *						
Party Strength		−2.24		−3.12		0.48
		(2.88)		(3.41)		(4.85)
Controls						
Home Party	6.89***	6.89***	6.84***	6.86***	7.53***	7.53***
	(0.28)	(0.28)	(0.35)	(0.35)	(0.51)	(0.51)
Governor's Coalition	0.05	0.05	0.58**	0.59**	−0.85**	−0.85**
	(0.18)	(0.18)	(0.23)	(0.23)	(0.33)	(0.33)
Surrogate	0.59*	0.59*	0.58	0.57	0.56	0.56
	(0.33)	(0.33)	(0.45)	(0.45)	(0.51)	(0.51)
Number of Legislatures	−0.25**	−0.25**	−0.26	−0.26	−0.02	−0.02
	(0.12)	(0.12)	(0.16)	(0.16)	(0.18)	(0.18)
Rural Population	−0.01	−0.01	−0.01	−0.01	−0.01	−0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
Pairs Senators-Parties	209,727	209,727	110,246	110,246	99,481	99,481
R^2	0.342	0.342	0.340	0.340	0.344	0.344
Max. Possible R2	0.346	0.346	0.345	0.345	0.347	0.347
Log Likelihood	-643.111	-642.814	-397.888	-397.469	-232.435	-232.430
Senatorial Choices	18,732	18,732	9,865	9,865	8,867	8,867

Note: M corresponds to District Magnitude. $^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Starting with plotting the marginal effects of *Party Strength* across the range of values of *Weighted Participation in Coalition* in Figure 3, it is clear that this effect is truly distinguishable from zero when the latter is at its lower bound in parliamentary terms

prior to senatorial elections with increased district magnitude. In this way, for a subset of our data, the effect of *Party strength* decreases as *Weighted Participation in Coalition* increases in size. In effect, this means that, prior to elections for two-thirds of the senatorial seats, incumbent senators prefer to move to coalition parties that hold qualitatively important portfolios at the expense of parties with better electoral performance in their districts. More specifically, a change in the degree of involvement in the presidential cabinet from zero (i.e. not having any cabinet seat) to 1.23 (i.e. roughly holding the Ministry of Mines and Energy and the Ministry of Justice) implies a reduction in the impact of *Party Strength* on party switching from 6.01 (1.94; 10.08) to 3.70 (0.004; 4.33) times.

Figure 3: Marginal Effects of Party Strength on Party Switching
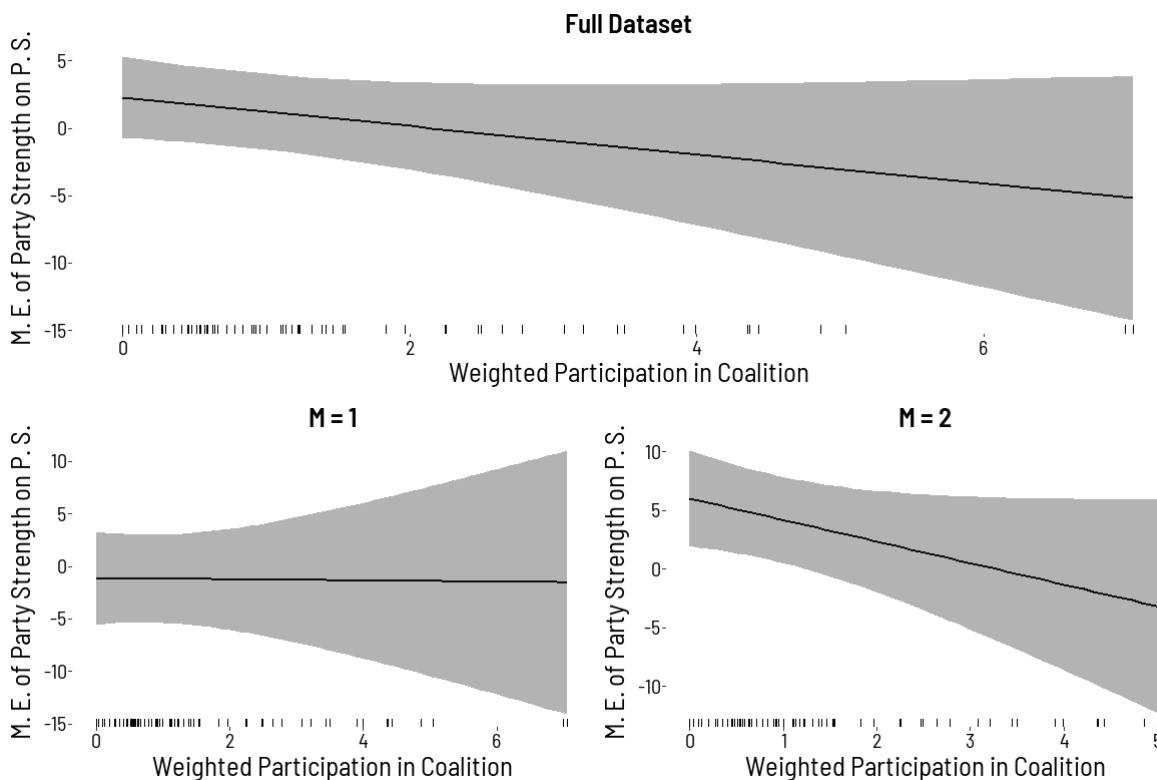
Note: Based on the first, third, and fifth model from Table 2.

Furthermore, despite the lack of statistical significance for the two-way interactions involving *Ideological Distance* in Table 2, Figure 4 reveals an intricate scenario. At first, both the top-left and the top-right plots show that the effects of *Ideological Distance* are not overly conditioned by either *Weighted Participation in Coalition* or *Party Strength.*

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This can be seen by the fact that the marginal effects are nearly flat as the values of the underlying variables increase. In this case, although statistically significant, the results are not *substantively* significant (Berry, Golder and Milton, 2012). Yet, when breaking down the data according to the extent of seats up to the contest in the next electoral cycle, the conditional aspect of the policy-seeking behaviour becomes evident. The bottom-leftmost plot of Figure 4 points out how the marginal effect of *Ideological Distance* on party switching decreases as parties hold qualitatively more important cabinet seats up to all values less than 4.17 in the presidential cabinet when the district magnitude of the next elections is equal to one. On the other hand, when there are two seats to be filled, the effects of ideological considerations are lessened when *Party Strength* is less than 0.13. To conclude, counterintuitively, this negative effect is reversed in legislative terms preceding elections with uninominal districts; that is, the effect of *Ideological Distance* is reinforced when *Party Share* is less than or equal to 0.49.

Figure 4: Marginal Effects of Ideological Distance on Party Switching
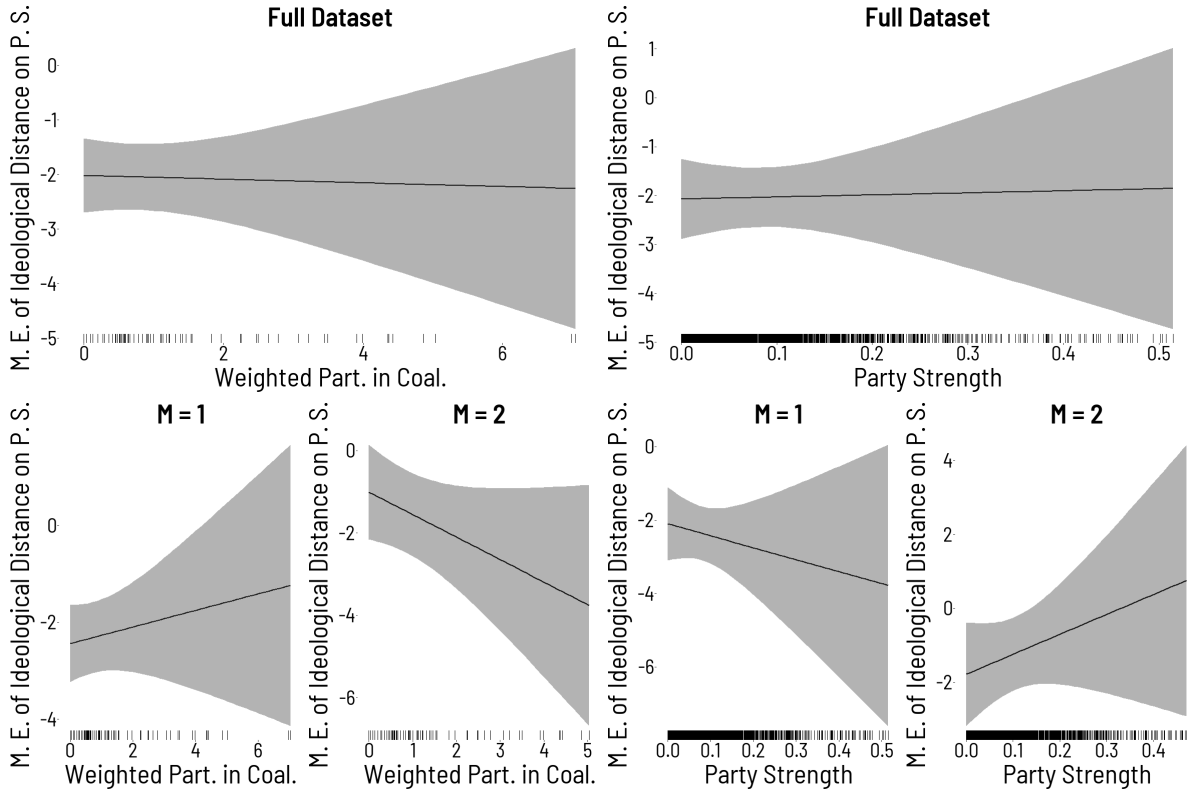
Note: Based on the first, third, and fifth model from Table 2.

This notwithstanding, a note of caution is warranted before proceeding to more con-

clusive claims. Substantively, the symmetrical component of interactive terms is not entirely respected. That is to say that the alternative explanations do not mutually influence one another. This can be seen in Figures A.7, A.8 and A.9 in the Supplementary Material, where we show that the vote-seeking behaviour is not conditioned by ideological considerations, as well as the office-seeking behaviour is not conditional at any values of policy- and vote-related explanations. As a result, even with preliminary evidence in favour of our conditional hypothesis, we should guard against broad acceptance of it.

Turning now to the evaluation of three-way interactions, Figure 5 displays the impact of *Ideological Distance* contingent on both values of *Weighted Participation in Coalition* and *Party Strength*. It can be seen that the effects of policy preferences on the senators' party affiliation change at low levels of office- and vote-seeking considerations, especially in legislative terms preceding elections with uninominal districts. Most notably, the effect of *Ideological Distance* decreases as *Weighted Participation in Coalition* grows stronger (up to 2.44) and marginally increases as *Party Strength* does so (up to a vote share of 10.54% in the senator's district). However, it is worth bringing to attention that this effect is no longer statistically significant at high levels of both office- and vote-seeking approaches. Moreover, when the district magnitude of the looming elections corresponds to two seats, the effect of ideological inclinations is not moderated by the alternative explanations for interparty senatorial movements. Relatedly, the impact of office and vote does not seem to be conditioned in three-way interactions, as shown in Figures A.10, A.11, A.12, A.13, and A.14 in the Supplementary Material.

To probe the soundness of our findings, we conduct a few additional tests in the Supplementary Material. All in all, while we have a myriad of null results, the robustness checks give credence to two findings in particular. First, ideological considerations are dramatically important in explaining patterns of party switching in the Federal Senate. At worst, their influence is ever so slightly diminished by office- and vote- explanations. Second, the Senate's institutional settings influence party switching through staggered elections. Although negligible for legislatures before elections for one-third of the chamber, the parties' electoral performance emerges as a relevant motivation to account for

Figure 5: Three-Way Interaction: Marginal Effects of Ideological Distance on Party Switching
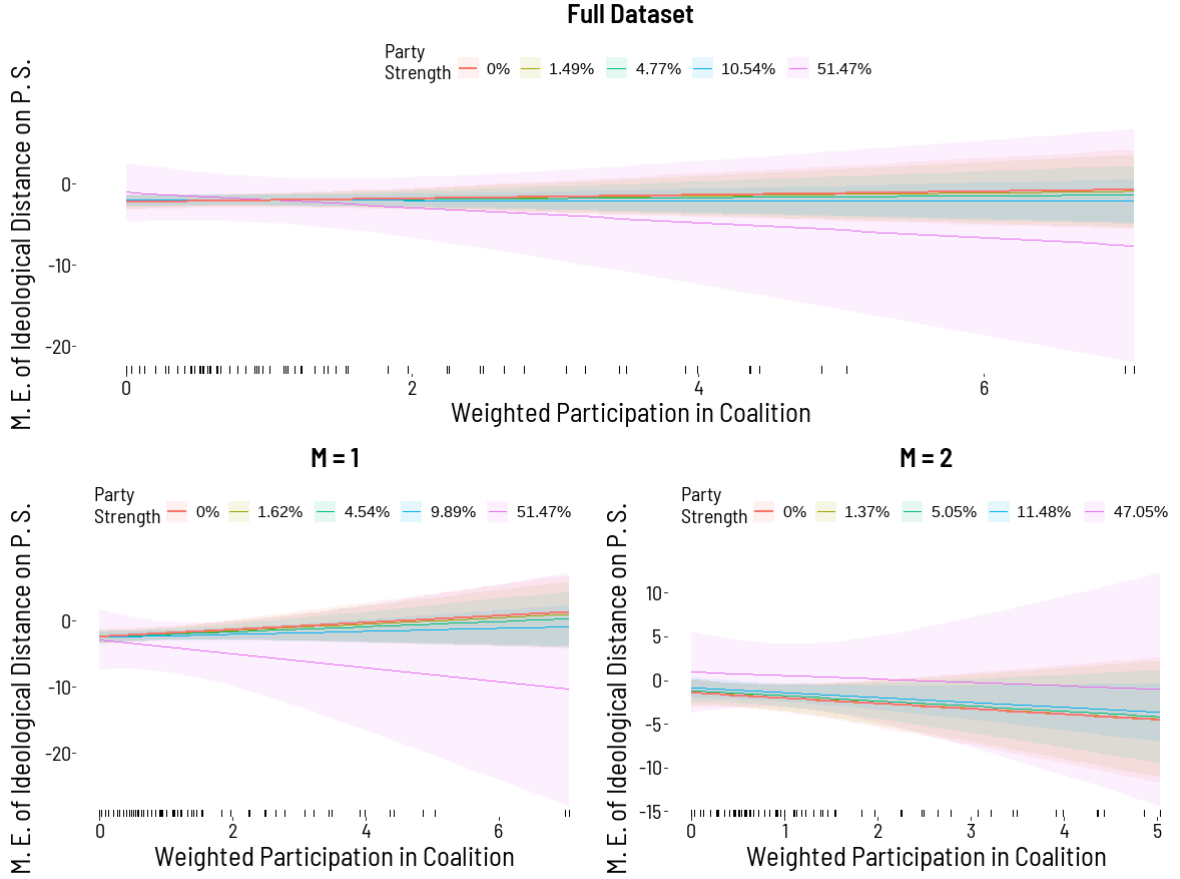
Note: Based on the second, fourth, and sixth model from Table 2.

the direction of party switching in legislatures preceding elections where more seats are on the line in each electoral district. However, it should be noted that the importance of this effect decreases as parties hold qualitatively more salient cabinet posts.

6   Concluding Remarks

Our findings contribute to the literature in several ways. First, ideology emerges as a crucial factor influencing the decisions of senators with regard to their party affiliation. Irrespective of any particular legislative term, senators tend to switch to parties with like-minded ideological preferences. This is no minor finding, as we now know that policy drives party defection in both chambers of the Brazilian legislature. Interestingly, this points to a disconnection between the intersection of ideology and party politics in the

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electoral and legislative arena in Brazil. Even if programmatism is not the norm in Brazil and ideology seemingly plays, at best, a marginal role in shaping the electoral fortune of parties (Ames, 2002; Epstein, 2009; Novaes, 2018), the legislative behaviour of politicians is strongly shaped by ideological incentives, at least when it comes to the decision to continue with or change their party affiliation.

Even so, it is worthwhile to highlight that the impact of ideological preferences on party switching is contingent on the office- and vote-seeking behaviour of senators. As a result, while ideology undoubtedly remains a significant driver, senators exhibit a willingness to moderately compromise on ideological alignment with their new parties depending on the district magnitude of the next elections. As such, another theoretical contribution of this study is to point out how electoral rules influence the legislative behaviour related to party switching. This not only follows recent findings in the literature (e.g. Radean, 2022), but also demonstrates that even subtle differences in electoral systems, such as the adoption of staggered elections, can have an impact on the account for party switching.

Furthermore, we also show that, unlike their counterparts in the lower chamber, whose decisions of party hopping are heavily influenced by a party's affiliation with the government (Desposato, 2006; Desposato and Scheiner, 2008; Flório Lima and Bodet, 2023; Radean, 2019), senators place less importance on office-seeking motivations. While a weak correlation exists between the degree of party investment in the government coalition and party switching, these results notably lack robustness across various tests. Though purely speculative, two possible explanations for this discrepancy are (i) the fact that senators hold more prominent positions and, as such, do not necessarily need more influence and resources, and (ii) the fact that majoritarian electoral systems with staggering elections might entail a different citizen–politician linkage from that observed between deputies and their constituencies.

When we compare our results for the Federal Senate with past findings for the Chamber of Deputies, we also contribute to the literature by illustrating that two legislative bodies of the same bicameral setting, each of which adopts candidate-centred electoral

rules, do not necessarily share the exact reasons for explaining the party defection of their members. As a consequence, we highly suggest that future studies on party switching focused on single legislative chambers of bicameral legislatures should be cautious when generalising their findings from one house to another.

This notwithstanding, several questions remain regarding party switching in upper chambers. Specifically, when it comes to Brazil, most studies focus on the *causes* of party switching in the country. Going forward, an emphasis on its *consequences* is more than welcome, especially considering the increasing context of low(er) party identification and the representation crisis in the country.

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Supplementary Material for 'Party Switching in Elected Upper Chambers: The Case of the Brazilian Senate'

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Section 1: List of Changes in Senators' Party Affiliation in the 56th Legislature

Table A.1: Party Switching in the Brazilian Federal Senate from 2019 to 2022

Senator	State	Date	Original Party	New Party
Eduardo Girão	CE	02/02/2019	PROS	PODE
Styvenson Valentim	RN	02/02/2019	REDE	PODE
Lasier Martins	RS	06/02/2019	PSD	PODE
Jorge Kajuru	GO	09/08/2019	PSB	–
Jorge Kajuru	GO	12/08/2019	–	PATRIOTA
Marcos do Val	ES	14/08/2019	CID	PODE
Reguffe	DF	17/09/2019	–	PODE
Jorge Kajuru	GO	18/09/2019	PATRIOTA	CID
Juíza Selma	MT	18/09/2019	PSL	PODE
Flávio Bolsonaro	RJ	20/11/2019	PSL	–
Antonio Anastasia	MG	19/02/2020	PSDB	PSD
Vanderlan Cardoso	GO	09/03/2020	PP	PSD
Kátia Abreu	TO	26/03/2020	PDT	PP
Flávio Bolsonaro	RJ	08/04/2020	–	REP
Flávio Arns	PR	01/09/2020	REDE	PODE
Elmano Férrer	PI	02/10/2020	PODE	PP
Carlos Portinho	RJ	28/12/2020	PSD	PL
Rose de Freitas	ES	12/01/2021	PODE	MDB
Veneziano Vital do Rêgo	PB	12/01/2021	PSB	MDB
Romário	RJ	09/04/2021	PODE	PL
Jorge Kajuru	GO	15/04/2021	CID	PODE
Flávio Bolsonaro	RJ	01/06/2021	REP	PATRIOTA
Leila Barros	DF	05/08/2021	PSB	CID
Giordano	SP	17/08/2021	PSL	MDB
Marcio Bittar	AC	30/09/2021	MDB	PSL
Rodrigo Pacheco	MG	27/10/2021	DEM	PSD
Flávio Bolsonaro	RJ	30/11/2021	PATRIOTA	PL

Table A.1: Cont.

Senator	State	Date	Original party	New Party
Fabiano Contarato	ES	14/12/2021	REDE	PT
Marcos Rogério	RO	26/01/2022	DEM	PL
Carlos Viana	MG	27/01/2022	PSD	MDB
Zequinha Marinho	PA	15/03/2022	PSC	PL
Alessandro Vieira	SE	22/03/2022	CID	PSDB
Leila Barros	DF	30/03/2022	CID	PDT
Reguffe	DF	30/03/2022	PODE	UNIÃO
Luiz Carlos do Carmo	GO	31/03/2022	MDB	PSC
Roberto Rocha	MA	01/04/2022	PSDB	PTB
Carlos Viana	MG	01/04/2022	MDB	PL
Fernando Collor	AL	04/04/2022	PROS	PTB
Eduardo Gomes	TO	05/04/2022	MDB	PL
Dário Berger	SC	12/04/2022	MDB	PSB
Rodrigo Cunha	AL	12/04/2022	PSDB	UNIÃO
Maria do Carmo Alves	SE	25/04/2022	UNIÃO	PP
Daniella Ribeiro	PB	28/04/2022	PP	PSD
Reguffe	DF	09/08/2022	UNIÃO	–
Guaracy Silveira	TO	01/09/2022	AVANTE	PP
Zenaide Maia	RN	20/12/2022	PROS	PSD

Source: Reports of the Presidency: Federal Senate and National Congress and Superior Electoral Court.

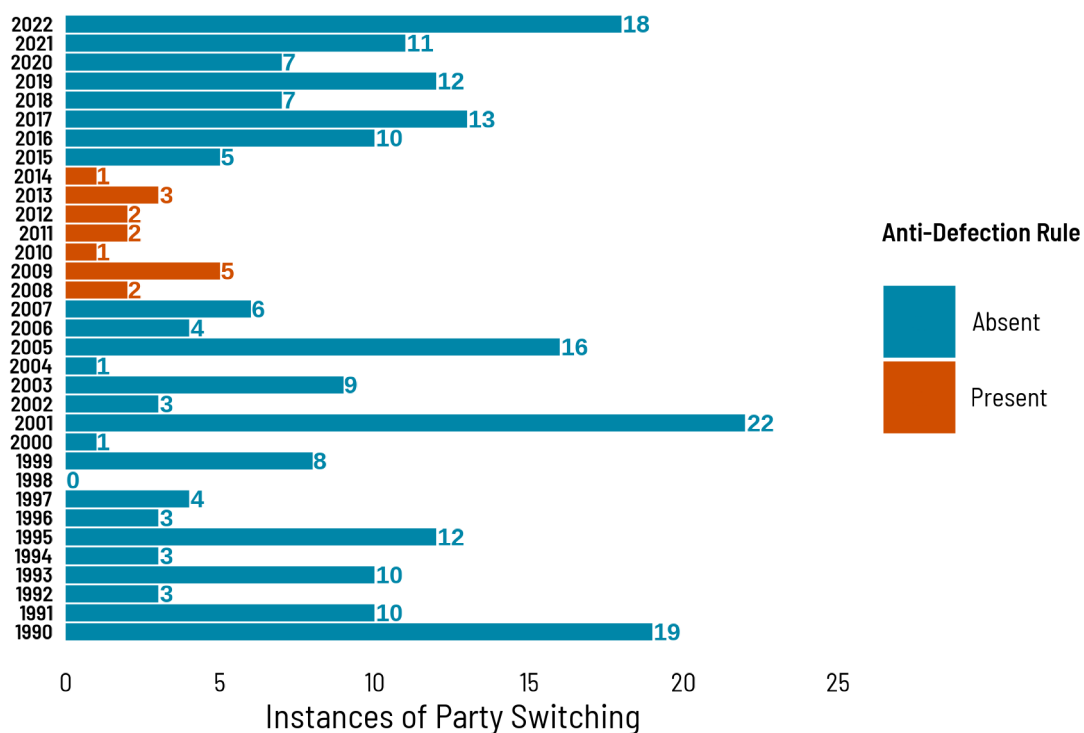# Section 2: Legal Constraints on Party Switching in the Brazilian Senate

In the main text, we have brought to attention the fact that Brazilian policy-makers juridically devised mechanisms to ensure party loyalty during legislative terms. This came firstly in the form of court rulings and, later on, a statutory law (Teles, 2017). The upshot is that between 2008 and 2014, the institutional settings for party switching were different from those of the rest of the period under analysis in the Brazilian second chamber. Notably, however, Damin Jr. (2015) and Flório Lima and Bodet (2023) note that the legal constraints to tame party switching failed miserably in the Chamber of Deputies, as the legal framework failed to be implemented and, consequently, the rates of party switching did not end up going down so dramatically. The question is, thus, whether the same occurred in the Brazilian Senate.

To inspect if the anti-defection rules actually made a difference in the context of the

Senate, we strategically look both for the quantitative and qualitative aspects of party switching. First, we suspect that the trend of party switching should change if the legal constraints were to be successful, more explicitly manifesting the rate of party hopping on a downward slope. Second, even if some senators did change their party affiliation, we expect that the reasons for that largely fit the exceptions covered in the electoral rule.

To see if this is the case, we first look at the rate of party switching in periods without and with legal constraints on party defection. Figure A.1 breaks down the development of party switching in the Federal Senate by year. It can be immediately seen that the frequency of party switching went down after the Judiciary made inroads into anti-defection rulings.

Figure A.1: The Progression of Party Switching in Brazil's Upper Chamber

Even if some years had remarkably low figures for party switching without the presence of any anti-defection rule (e.g. 1998, 2000, 2004), a t-test reveals that the difference between groups is not random (t = -4.784, df = 30.887, p-value = < 0.001). Thus, even

if the sample sizes are not sufficiently large to affirm anything more conclusively, there is a robust suggestion that movements from one party to another were *quantatively* very different in the Brazilian second chamber between 2008 and 2014 when contrasted to the rest of the period under analysis.

We now turn to qualitative evidence so as to examine if party hopping wrought differently when Brazilian policy-makers opted to impose rules against interparty mobility in the scope of the second chamber. To do so, we investigate the reasons for every party switching in the Brazilian Senate under the influence of institutional constraints against such behaviour. These reasons are listed below in Table A.2.

Table A.2: Party-Switching in an Inhospitable Setting in Brazil's Upper Chamber

Senator	State	Date	Original Party	Reason	Source
Lobão Filho	MA	03/08	DEM	Party's Consent	Teles (2017)
Marina Silva	AC	08/09	PT	Party's Consent	Vermelho (2009)
Flávio Arns	PR	09/09	PT	Allegedly Violatation of the Party's Manifesto	Senado (2009)
Expedito Júnior	RR	09/09	PR	Party's Consent	Teles (2017)
Mão Santa	PI	09/09	PMDB	Unfair Treatment	Góis (2009)
Augusto Botelho	PR	08/10	PT	Unfair Treatment	Senado (2010)
Kátia Abreu	TO	10/11	PFL	Switching to a New Party	Senado (2011)
Sérgio Petecão	AC	10/11	PMN	Switching to a New Party	Lemos (2011)
Clésio Andrade	MG	03/12	PR	Unfair Treatment	Santos and Lemos (2011)
Demóstenes Torres	GO	04/12	DEM	Expelled from the Party	Brasil (2012)
Vicentinho Alves	TO	10/13	PR	Switching to a New Party	TO (2013)
Kátia Abreu	TO	10/13	PMDB	Party's Consent	Azevedo (2013)
Ataídes Oliveira	TO	12/13	PSDB	Switching to a New Party	Bragon (2013)
Ataídes Oliveira	TO	12/14	PROS	Party's Consent	Martins (2014)

Crucially, Table A.2 shows that every party switching between 2008 and 2014 is backed by the exemptions from which senators are not penalised with the loss of office. Delving into the 14 party exits, most occurred with the party's consent (e.g. the party leader of the PSD agreed on Sen. Kátia Abreu leaving for the PMDB (Azevedo, 2013)), with senators alleging unfair treatment by their parties (e.g. Sen. Clésio Andrade declared that he had received 'grave personal discrimination' by his then-party, the PR (Santos and Lemos, 2011)), or because senators went toward newly founded parties[1] (e.g. Sen. Kátia Abreu and Sen. Sérgio Petecão switching to the PSD). It is equally noteworthy that all

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[1] In broad terms, this is a particularly prominent feature of contemporary Brazilian politics, in which politicians purposefully look to reign in new and small parties (Zucco and Power, 2021).

cases somewhat referred to the anti-defection rulings, thus making clear that legislative behaviour was conspicuously constrained between 2008 and 2014 in the Senate.

In this context, we believe we have gathered sufficient evidence to show that the transaction costs associated with switching parties changed fundamentally both in number and substance with the insertion of anti-defection rules. Consequently, as senators were not operating in the same institutional setting, we opted against including the seven years marked by anti-defection rulings in our dataset. By doing so, even if it comes with the downside of losing some information in the process, we are guaranteed to preserve the unit homogeneity of our analysis.

Section 3: Parties' Policy Positions and Ideological Point Estimates

Researchers and practitioners commonly employ scaling methods, such as W-NOMINATE, to retrieve ideological positions from political actors (Poole and Rosenthal, 2001). This is precisely the case with legislators in assemblies, whereby their ideological positions are measured based on their legislative behaviour. Not coincidentally, past scholarship on party switching in Brazil has repeatedly resorted to roll call analysis to spatially locate legislators across the left–right space (e.g. Desposato, 2006; Desposato and Scheiner, 2008; Radean, 2019).

A point of concern, however, is that legislative behaviour through the observable aspect of roll call votes does not always provide us with legislators' ideological positions. This might happen as the underlying dimension of conflict might not be driven by ideological lines but rather by something else. Most importantly for our purposes here, Zucco and Lauderdale (2011) warn that W-NOMINATE estimate points in Brazil point in the direction of the government-opposition cleavage rather than providing meaningful information for legislators' placements on the left-right dimension in some legislative terms.

To circumvent this problem, we centre our examination on a specific subset of roll call votes, specifically on constitutional amendment proposals. We do so for two reasons. First, while ordinary bills and similar pieces of legislation on the floor clearly matter in the political arena, not all carry the same relevance. For instance, even when there is enough dissent, some votes still refer to subjects of lesser importance, such as the establishment of commemorative dates and honours. In contrast, constitutional amendment proposals invariably seek to change enshrined norms within the constitution, which can prime legislators to think and vote more ideologically.

Second, constitutional amendment proposals require higher legislative support to be approved than other legislative pieces.[2] The key point is that governments in Brazil do not easily obtain such a level of support in the second chamber to approve constitutional amendments smoothly (Amorim Neto, 2019; Araújo, 2014). Consequently, presidents often have to employ alternative tools to ensure legislative support in the Federal Senate to achieve their ends, such as disbursing targeted benefits to individual legislators. Critically, the use of the state machinery might still not be enough to guarantee enough support for the government's position in some votes, either because senators might still prefer to cast a vote based on their ideological preferences (given the importance of changing the constitutional text) or because the government might not have resources to rely on this strategy on a continuous basis.

In addition, a point that merits attention is that some parties have a considerably smaller seat share in the Federal Senate than in the Chamber of Deputies. As such, their point estimates stem from the behaviour of very few senators. While this does not represent a problem *per se*, it may be the case that the legislative behaviour of these senators could push the parties' ideological positions in our dataset further away from their true position.

To test the face validity of our ideological measure, we compare our estimates with those from the Brazilian Legislative Survey (BLS), an elite survey conducted in every

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[2]Specifically, constitutional amendment proposals must garner 60% of support in their favour in both legislative chambers in order to pass.

legislature since redemocratisation (Zucco and Power, 2024). Importantly, the BLS has asked legislators to place parties with representation in Congress on a left-right scale in every wave, thus allowing our exercise to cross-check to what extent our own measure is valid. To do so, Figure A.2 pits our ideological measure against that from the BLS.

Figure A.2: Left-Right Placements from Elite Survey and Roll-Call Votes in Brazil's Upper Chamber
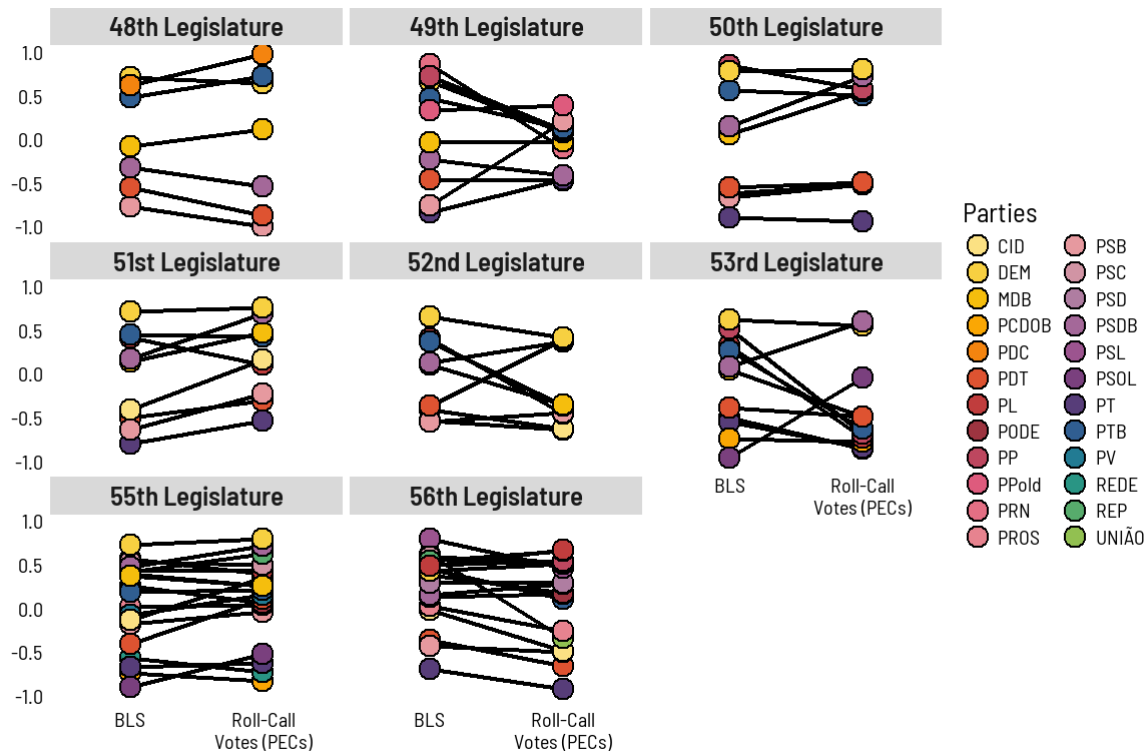
Note: The ideological scale runs from -1.0 to 1.0 for both measures. Values closer to -1.0 indicate left-leaning tendencies, whereas values closer to 1.0 point to right-leaning tendencies. Following the BLS's protocol, the parties' abbreviations reflect the most current nomenclature of each party. Data for roll-call votes come from Nipe-Cebrap (2020) and BLS data come from Zucco and Power (2024).

Ideally, parties' policy positions should align consistently across both measures, such as in the 48th legislative period. Nevertheless, some parties display an ideological profile upside down when comparing their members' legislative voting behaviour with the parties' collective left-right placements according to elite surveys. This is particularly evident in the 52nd and the 53rd legislatures, when right-of-centre coalition partners frequently voted with the government on roll call votes on constitutional amendment proposals. That is, in these two particular periods, government membership largely conflates with our ideological measure.

An exemplification of the above-discussed government-opposition cleavage in roll call votes comes in the form of the Socialism and Liberty Party (PSOL, *Partido Socialismo e Liberdade*) in the 53rd Legislature. Notoriously a left-wing party and a splinter from the Workers' Party (PT, *Partido dos Trabalhadores*), the PSOL stands in the centre of the ideological continuum in that legislative period, much because the party declared to be in opposition to the PT-led government (Nery, 2006).

Additionally, as we suggested previously, the small seat share of some parties, in fact, adds some noise to our measure of ideology. This is seen with the ideological standing of the Popular Socialist Party (PPS, *Partido Popular Socialista*) in the 55th Legislature. Since the party did not boast a large seat share in that legislative term in the Senate, its ideological position based on legislative voting records was heavily influenced by one senator in particular. In this way, despite belonging to the centre-left, according to legislators themselves, the PPS is positioned slightly at the centre-right as per its roll call votes on constitutional amendment proposals, as one of its members, Sen. José Medeiros, constantly voted with the right. Not surprisingly then, Sen. Medeiros migrated towards right-of-centre parties twice in that same legislative term.

Overall, we identified 15 instances for which the parties' policy positions deviate substantially from those reported in the BLS. These cases are listed below in Table A.3. As government membership and the erratic behaviour of some senators give birth to measurement errors in our measure of *Ideological Distance*, we must ensure that our results are not sensitive to excluding these cases. Thus, we re-estimate our main models without the cases in Table A.3 and show the results in Table A.4. As can be seen, leaving parties with misleading ideological positions out of the estimation process does not strip the statistical significance of *Ideological Distance* in any model, thereby serving as an additional indicator of the empirical relevance of ideology for party switching in the Brazilian Senate.

Table A.3: Deviant Cases: Contrast between ideology from roll-call Votes and ideology from BLS

Source	PRN 49th	PSB 49th	PPS 51st	PR 52nd	PTB 52nd	PMDB 52nd	PDT 52nd	PR 53rd	PP 53rd	PTB 53rd	PMDB 53rd	PSOL 53rd	PDT 55th	PPS 55th	UNIÃO 56th
Roll-Call Votes (PECs)	-0.09	0.21	0.16	-0.45	-0.35	-0.34	0.39	-0.72	-0.67	-0.62	-0.48	-0.03	0.12	0.35	-0.33
BLS	0.86	-0.74	-0.39	0.41	0.37	0.11	-0.35	0.32	0.52	0.27	0.05	-0.95	-0.40	-0.12	0.61
Difference	0.95	0.95	0.55	0.86	0.72	0.45	0.74	1.04	1.19	0.89	0.53	0.92	0.52	0.47	0.94

Note: The ideological scale runs from -1.0 to 1.0 for both measures. Values closer to -1.0 indicate left-leaning tendencies, whereas values closer to 1.0 point to right-leaning tendencies. Unlike Figure A.2, the parties' abbreviations correspond to the nomenclature of each party in the respective legislature. Data for roll-call votes come from Nipe-Cebrap (2020) and BLS data come from Zucco and Power (2024).

Table A.4: Party Switching in the Federal Senate - Accounting for Measurement Error in Ideology

	Full Dataset			M = 1		M = 2	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Presidential Coalition	−0.09						
	(0.16)						
Weighted Part. in Coalition		0.10	0.09	0.13	0.13	0.01	0.01
		(0.08)	(0.08)	(0.11)	(0.11)	(0.13)	(0.13)
Ideological Distance	−1.90***	−2.01***	−2.01***	−2.29***	−2.30***	−1.35**	−1.35**
	(0.27)	(0.32)	(0.32)	(0.40)	(0.40)	(0.54)	(0.54)
Party Strength	0.79	0.90	4.86	0.09	−2.58	2.08	5.24
	(0.80)	(0.94)	(5.69)	(1.25)	(28.19)	(1.60)	(7.35)
Party Strength * Electoral Competition			−4.53		2.82		−3.85
			(6.36)		(29.63)		(8.65)
Controls							
Home Party	6.87***	6.84***	6.85***	6.74***	6.73***	7.61***	7.61***
	(0.26)	(0.31)	(0.31)	(0.37)	(0.38)	(0.61)	(0.62)
Governor's Coalition	−0.02	0.09	0.10	0.59**	0.59**	−0.91**	−0.90**
	(0.16)	(0.19)	(0.19)	(0.23)	(0.23)	(0.38)	(0.38)
Surrogate	0.66**	0.50	0.50	0.52	0.52	0.32	0.32
	(0.29)	(0.38)	(0.38)	(0.49)	(0.49)	(0.64)	(0.64)
Number of Legislatures	−0.22**	−0.29**	−0.29**	−0.18	−0.18	−0.15	−0.16
	(0.11)	(0.14)	(0.14)	(0.16)	(0.16)	(0.24)	(0.24)
Rural Population	−0.01	−0.01	−0.01	−0.01	−0.01	−0.01	−0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
Pairs Senators-Parties	211,106	178,859	178,859	95,913	95,913	82,946	82,946
R^2	0.330	0.336	0.336	0.324	0.324	0.349	0.349
Max. Possible R2	0.335	0.340	0.340	0.329	0.329	0.352	0.352
Log Likelihood	-754.970	-536.005	-535.732	-346.029	-346.024	-179.968	-179.866
Senatorial Choices	19,032	16,662	16,662	8,524	8,524	8,138	8,138

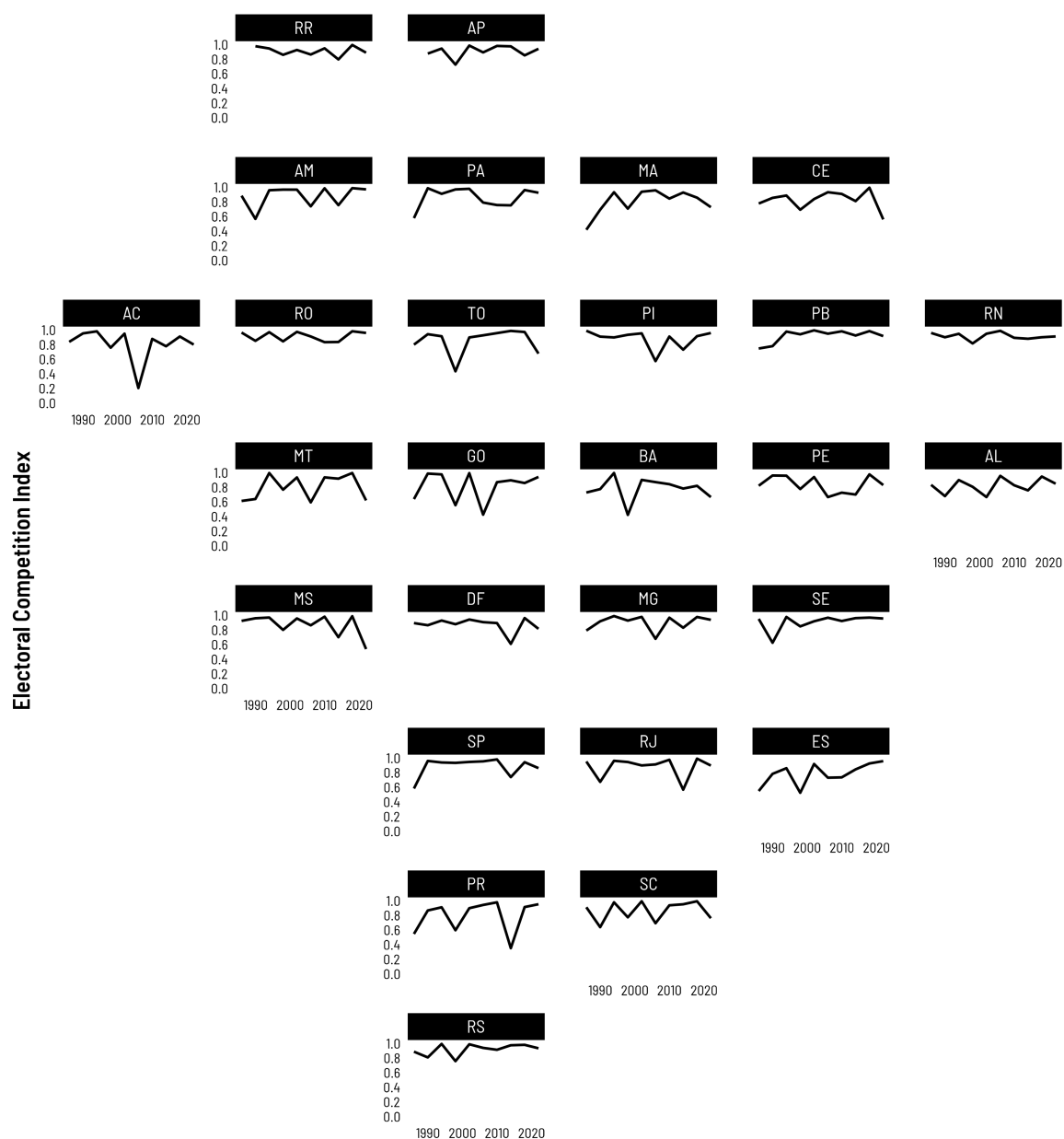*Note:* M corresponds to District Magnitude. $^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Section 4: Visualisations Related to Office-Seeking Proxies

Figure A.3: Vote Share of Major Parties in the Chamber of Deputies
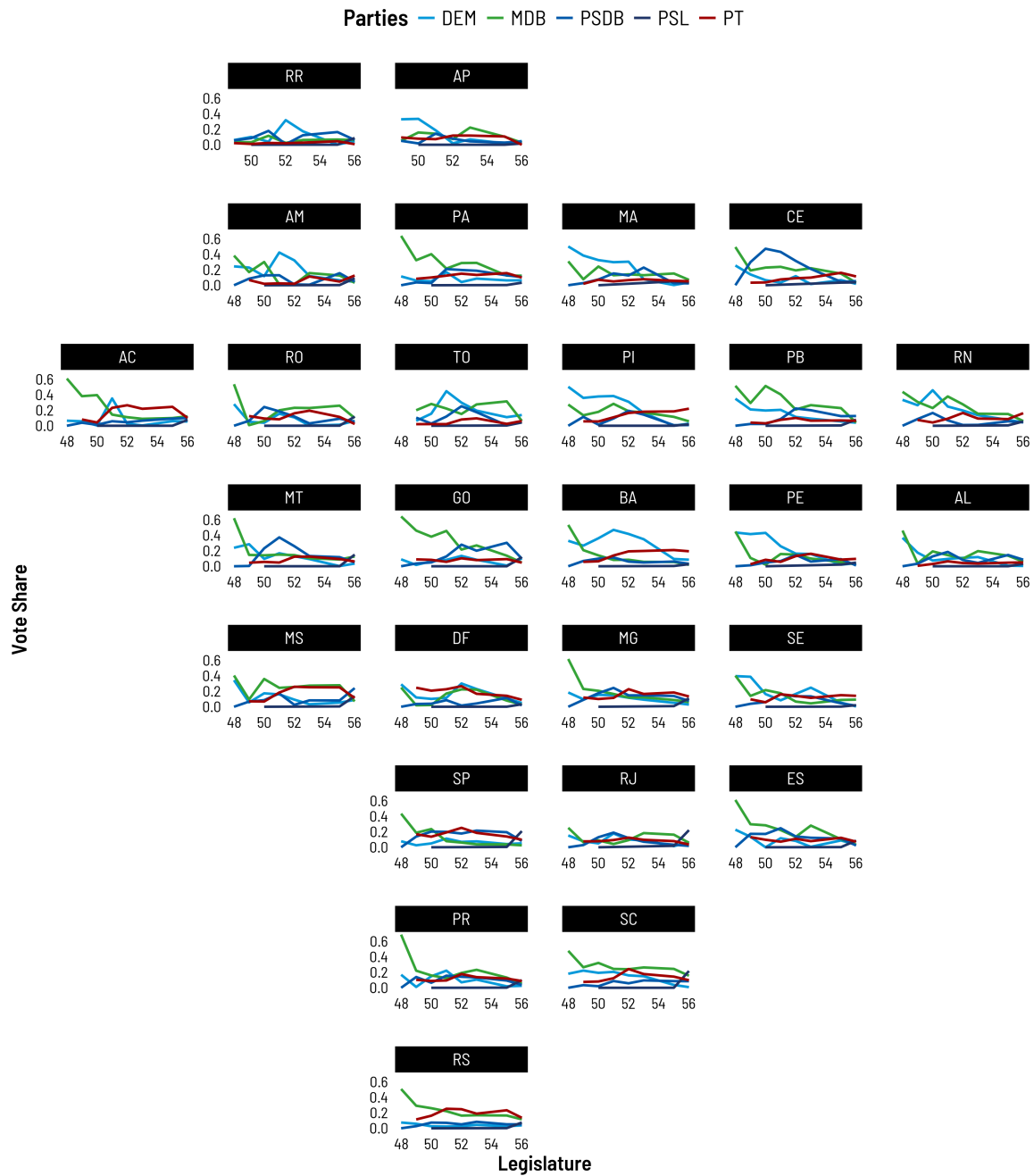
Source: Borges (2015) and Superior Electoral Court

Figure A.4: Electoral Competition in Senatorial Races in Brazil

Source: Chacón et al. (2011), Rozo et al. (2023), and Superior Electoral Court.
Note: The index is directly proportional to the elections' competitiveness. In the context of our study, this translates into the idea that the closer the elections score 1 on the index, the smaller the gap between elected and non-elected senatorial candidates.
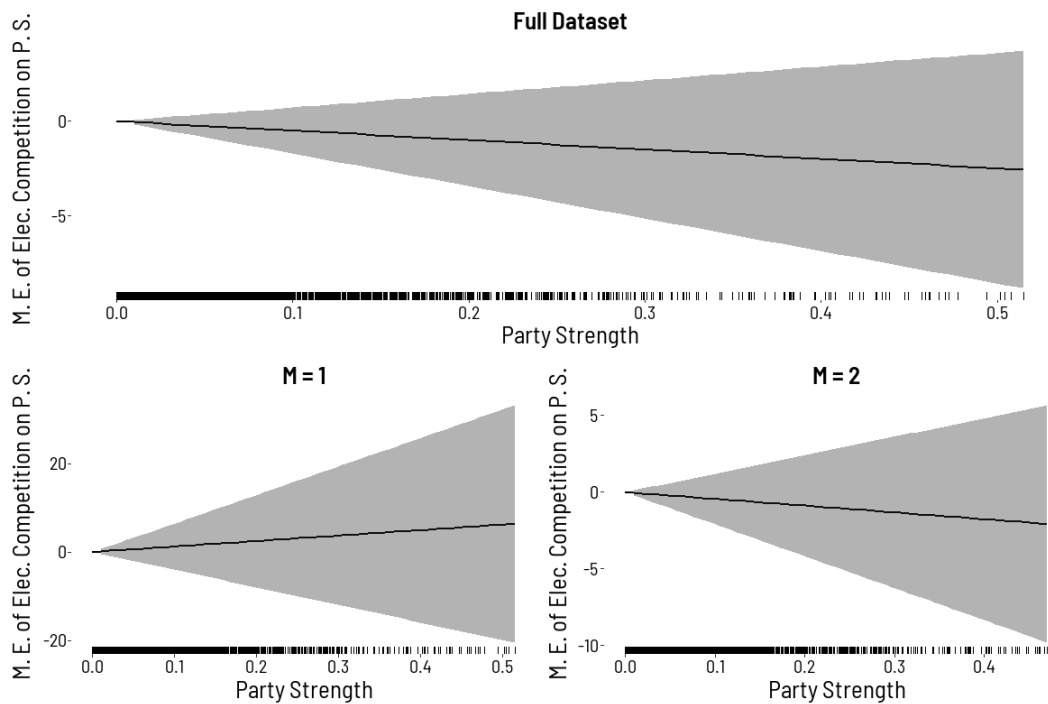
Section 5: Marginal Effects

Figure A.5: Marginal Effects of Party Strength vs. Electoral Competition
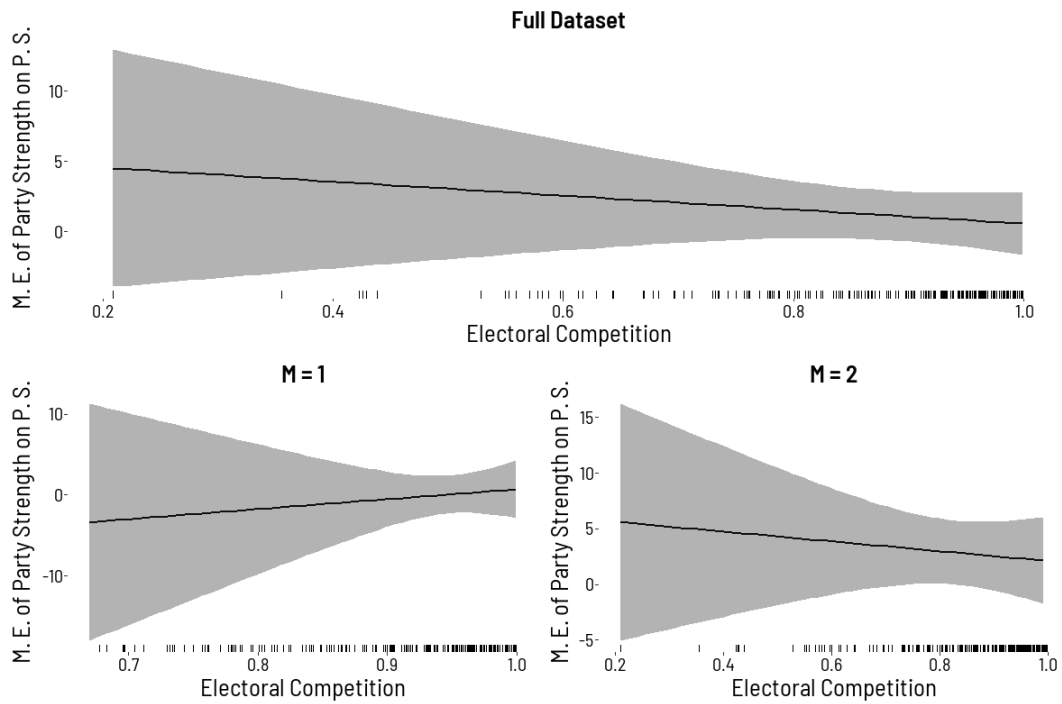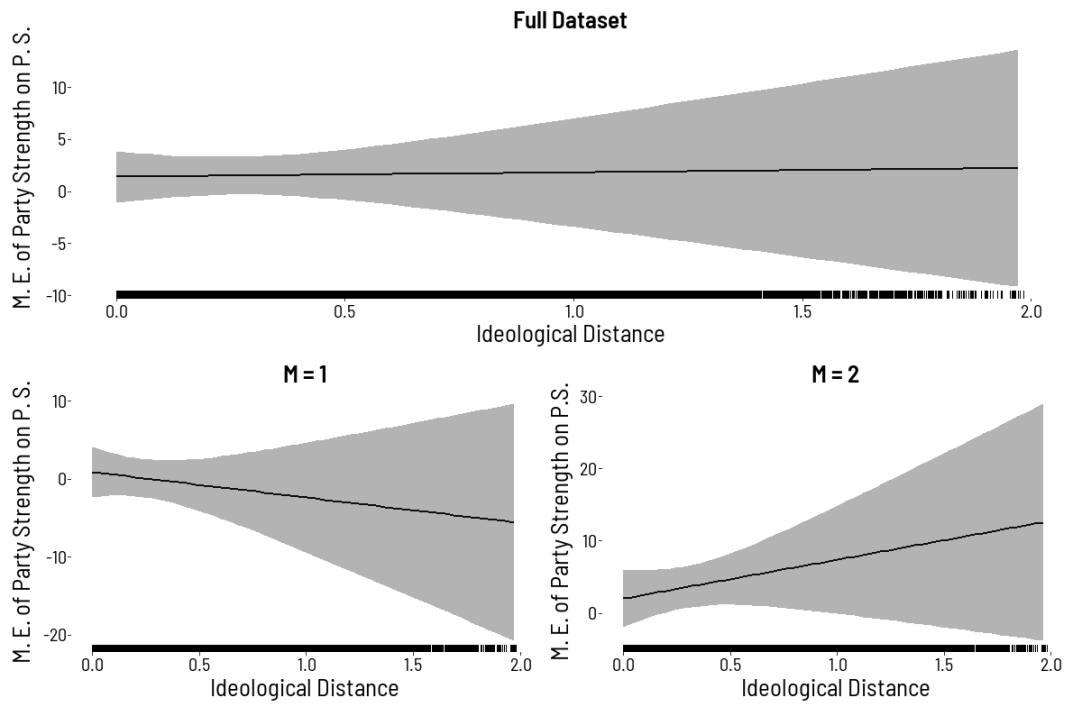

Source: Based on Models 3, 5, and 7 from Table 1 in the main text.

Figure A.6: Marginal Effects of Electoral Competition vs Party Strength
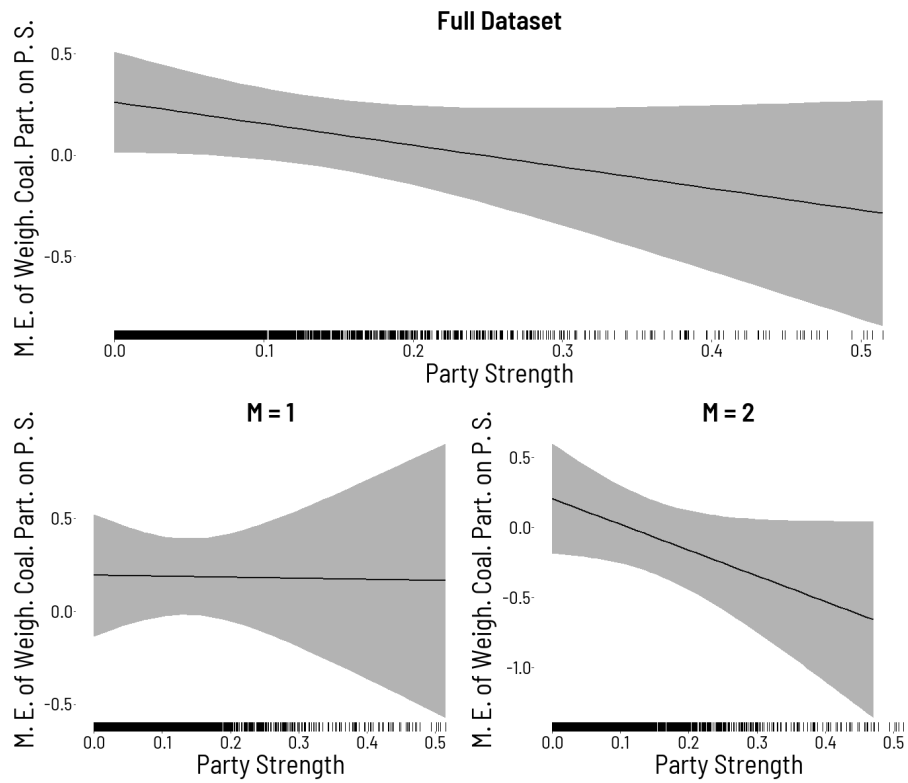

Source: Based on Models 3, 5, and 7 from Table 1 in the main text.

Figure A.7: Marginal Effects of Party Strength vs Ideological Distance
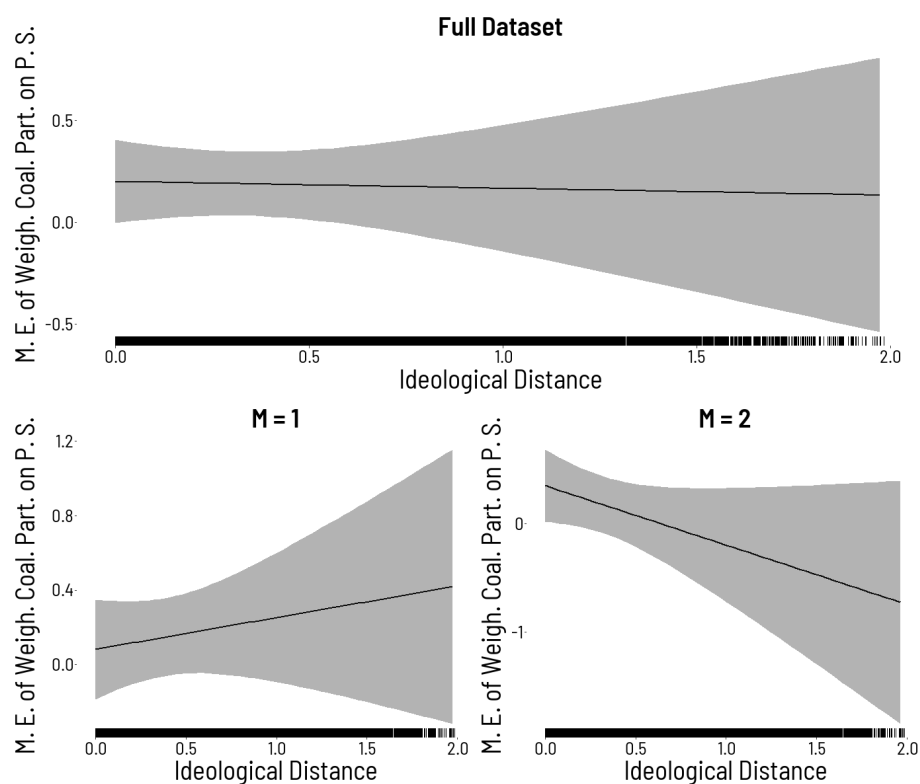

Source: Based on Models 1, 3, and 5 from Table 2 in the main text.

Figure A.8: Marginal Effects of Weighted Participation vs Party Strength
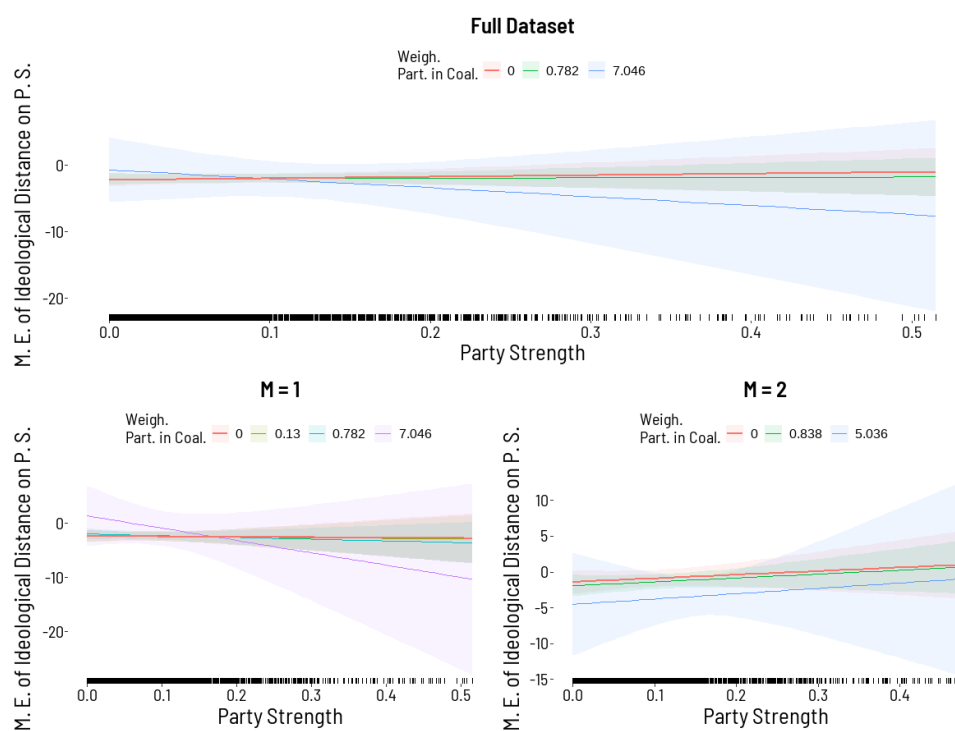

Source: Based on Models 1, 3, and 5 from Table 2 in the main text.

Figure A.9: Marginal Effects of Weighted Participation vs Ideological Distance

Source: Based on Models 1, 3, and 5 from Table 2 in the main text.

Figure A.10: Three-Way Interaction: another view of the effect of policy preferences

Source: Based on Models 2, 4, and 6 from Table 2 in the main text.

Figure A.11: Three-Way Interaction: the effects of office considerations

Source: Based on Models 2, 4, and 6 from Table 2 in the main text.

Figure A.12: Three-Way Interaction: another view of the effect of office considerations

Source: Based on Models 2, 4, and 6 from Table 2 in the main text.

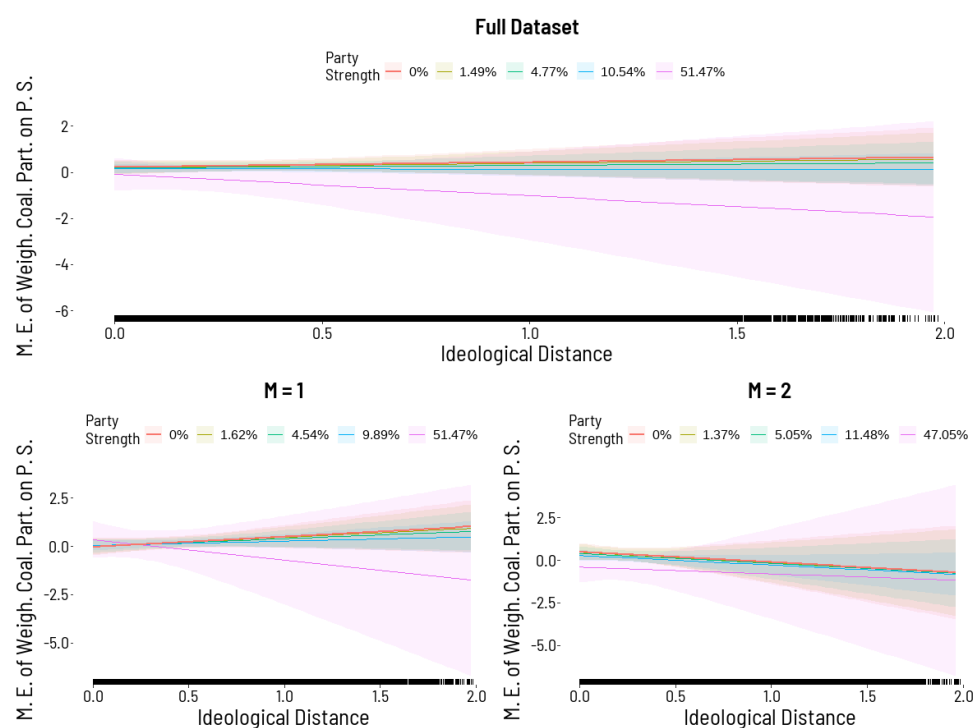Figure A.13: Three-Way Interaction: the effects of vote-seeking

Source: Based on Models 2, 4, and 6 from Table 2 in the main text.

Figure A.14: Three-Way Interaction: another view of the effect of vote-seeking

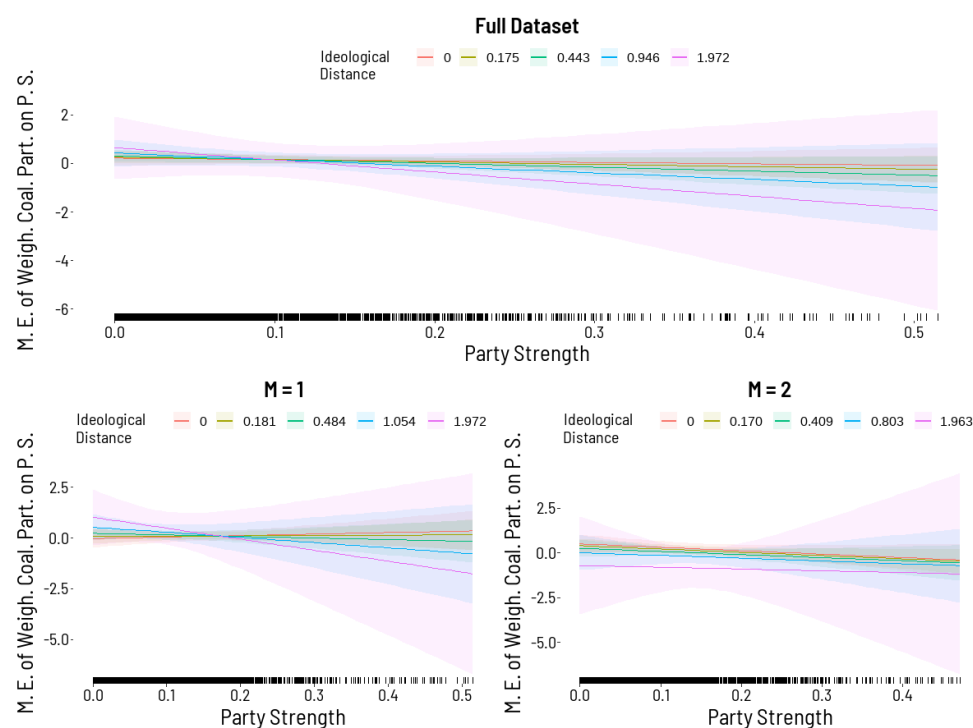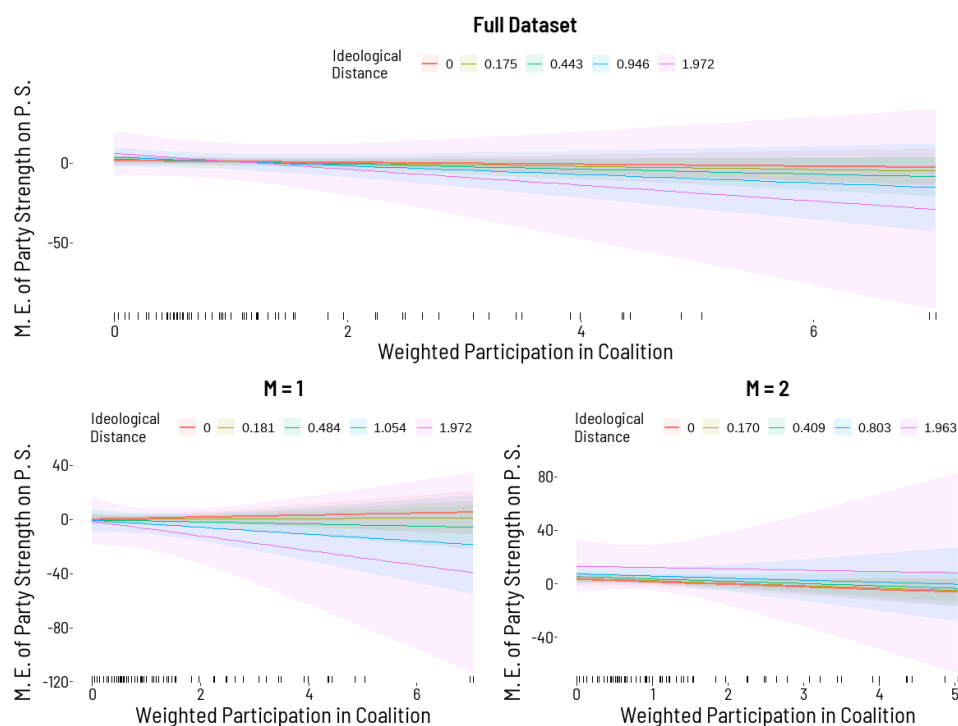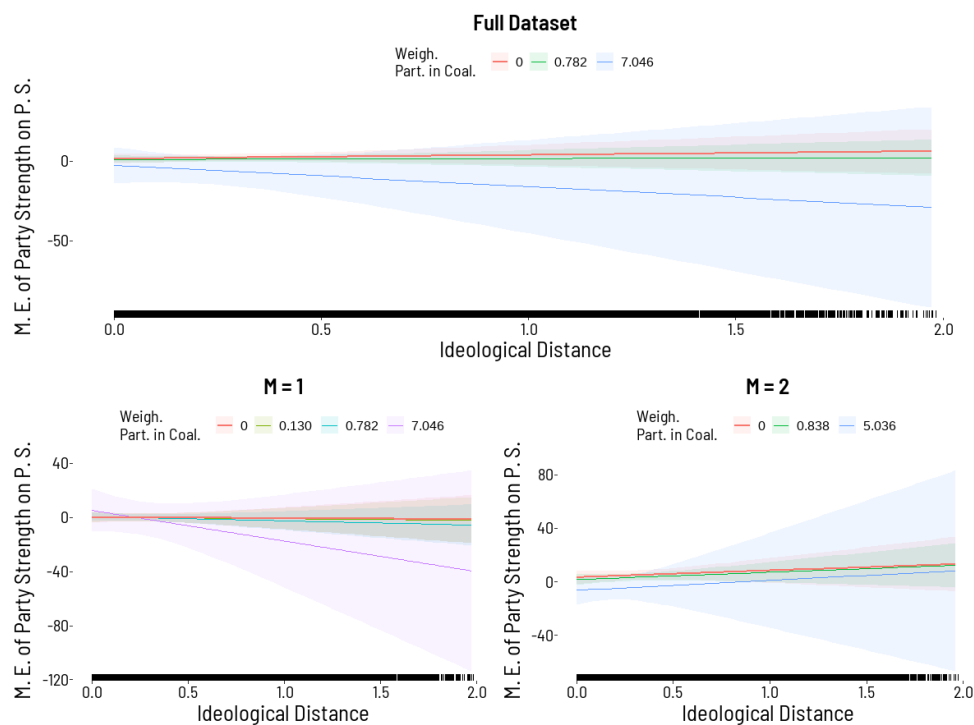Source: Based on Models 2, 4, and 6 from Table 2 in the main text.

Section 6: Robustness Tests

In this section, we provide a few robustness tests for the findings of the analysis in the main text. We begin by replacing the proxy used to capture the senators' vote-seeking intentions with an alternative measure.

In the main document, we modelled vote-seeking behaviour through *Party Strength*, which was based on the parties' electoral performance in each federal unit for congressional elections for the lower chamber. However, senators could plausibly consider the parties' electoral fortune in other electoral arenas when rationalising their party affiliation. More specifically, parties successful in gubernatorial elections in senators' electoral districts might be attractive options for party switching, especially as some senators have progressive ambitions and aim to run for higher offices. This is particularly notable when we consider that several senators, in effect, run for the governorship of their states either during their term in office or when their term is about to expire (e.g. Camargo, 2009).

As shown in Table A.5, however, the estimated effects of the vote-seeking variable are statistically insignificant when using parties' past records in gubernatorial elections (how many times each party elected a governor in senators' federal units) instead. Although we largely retrieve similar results in the main text, we uncover at least a positive, significant coefficient on *Party Strength* in legislative terms before elections with district magnitude equals two – a finding further substantiated in the tests below. Contrariwise, no coefficient is statistically significant here. As a result, we can confidently assert that senators do not factor in the number of times that parties elected governors in their electoral districts when they reflect on staying put or changing their party affiliation.

We now turn to evaluating whether our conditional logit models violate the assumption of Independence of Irrelevant Alternatives (IIA). To put it simply, this assumption requires that every alternative is, in fact, a feasible choice by the decision-makers (Mc-Fadden, 1974). In the context of our study, this means that parties must be meaningful choices and not consistently frowned upon by senators.

In examining party switching in Romania, Radean (2022, p. 674) provides an example

Table A.5: The Determinants of Party Switching in the Federal Senate - Vote-Seeking through Governorship

	Full Dataset			M = 1		M = 2	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Preisdential Coalition	0.02						
	(0.15)						
Weighted Part. in Coalition		0.14**	0.14**	0.14*	0.14*	0.12	0.12
		(0.07)	(0.07)	(0.08)	(0.08)	(0.11)	(0.11)
Ideological Distance	−1.93***	−2.06***	−2.06***	−2.38***	−2.37***	−1.41***	−1.40***
	(0.26)	(0.31)	(0.31)	(0.38)	(0.38)	(0.51)	(0.51)
Party Strength (Governorship)	0.10	0.07	0.30	0.09	−0.41	0.08	0.44
	(0.06)	(0.07)	(0.54)	(0.09)	(1.67)	(0.14)	(0.74)
Party Strength (Governorship)* Electoral Competition			−0.25		0.53		−0.45
			(0.59)		(1.75)		(0.89)
Controls							
Home Party	6.87***	6.88***	6.88***	6.84***	6.84***	7.48***	7.48***
	(0.24)	(0.27)	(0.28)	(0.35)	(0.35)	(0.50)	(0.50)
Governor's Coalition	−0.01	0.10	0.10	0.54**	0.55**	−0.72**	−0.70**
	(0.15)	(0.18)	(0.18)	(0.22)	(0.22)	(0.32)	(0.32)
Surrogate	0.68***	0.62*	0.62*	0.65	0.63	0.60	0.60
	(0.26)	(0.33)	(0.33)	(0.45)	(0.45)	(0.51)	(0.51)
Number of Legislatures	−0.21**	−0.24**	−0.24**	−0.25	−0.25	−0.02	−0.02
	(0.10)	(0.12)	(0.12)	(0.17)	(0.17)	(0.18)	(0.18)
Rural Population	−0.01	−0.01	−0.01	−0.01	−0.01	−0.02	−0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
Pairs Senators-Parties	246,994	209,727	209,727	110,246	110,246	99,481	99,481
R^2	0.334	0.342	0.342	0.340	0.340	0.344	0.344
Max. Possible R2	0.339	0.346	0.345	0.345	0.345	0.347	0.347
Log Likelihood	-886.189	-644.550	-644.459	-397.750	-397.705	-237.023	-236.889
Senatorial Choices	21,217	18,732	18,732	9,865	9,865	8,867	8,867

Note: M corresponds to District Magnitude. $^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

of what could be a problem in terms of an irrelevant alternative in the set of choices for interparty mobility. In brief, there exists an ethnic party in the party system called The Democratic Alliance of Hungarians in Romania (UDMR, *Uniunea Democrată Maghiară din România*). If the UDMR were not a viable option for party affiliation for many deputies, it could have been the case that including this party in the set of party choices might implicate a misspecification of the models. However, as Radean (2022, p. 674) reveals, it turned out not to be a problem in his analysis.

When it comes to Brazil, ethnicity plays no role in the party system, and party competition is powerfully captured by the typical left–right ideological scale (Martínez-Gallardo et al., 2023; Rosas, 2005; Zucco and Power, 2021). A point of concern, however, is the party system fragmentation, especially in the Federal Senate. In spite of the high number of Effective Number of Electoral Parties (ENEP) (Borges, 2018), several parties have a seat share of only one or two seats. Crucially, moreover, many parties gain or lose representation in the Brazilian upper chamber through the changing of party affiliation of the senators during the legislative terms. Consequently, it can be the case that several parties are not meaningful recipients of party switching, and, as a result, our models can be pointed in the wrong direction.

In advance, we believe this is not the case for two reasons. To begin with, even if parties have a small number of legislative seats in either the Chamber of Deputies or the Federal Senate, there is no substantive reason for Brazilian senators to disregard party switching to any party in particular. Once again, this happens because party competition is structured along left–right lines. Second, parties without representation in the Senate have missing values for *Ideological Distance* in our dataset. This is a direct consequence of our measure based on roll-call votes. As these parties do not have any members to register to build a legislative record in the Senate, there is no direct way to measure their policy positions.

In any case, we proceed to jack-knife our dataset by removing any party with less than four seats (the monthly median) in the Senate in any given month in our analysis. In so

doing, we guarantee that only the 'major' partisan forces are thrown into the conditional logit regressions. The results are shown below in Table A.6.

Table A.6: Party Switching in the Federal Senate - Testing for IIA

	Full Dataset			M = 1		M = 2	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Presidential Coalition	0.12						
	(0.17)						
Weighted Part. in Coalition		0.17**	0.17**	0.17*	0.17*	0.12	0.11
		(0.08)	(0.08)	(0.09)	(0.09)	(0.14)	(0.14)
Ideological Distance	−1.82***	−1.91***	−1.92***	−2.10***	−2.10***	−1.40**	−1.40**
	(0.29)	(0.35)	(0.35)	(0.41)	(0.41)	(0.62)	(0.62)
Party Strength	1.46*	1.71*	6.60	0.90	−16.20	3.10*	8.66
	(0.83)	(1.00)	(6.55)	(1.30)	(27.41)	(1.72)	(8.72)
Party Strength * Electoral Competition			−5.54		18.02		−6.67
			(7.26)		(28.92)		(10.14)
Controls							
Home Party	7.10***	7.11***	7.12***	6.96***	6.95***	7.79***	7.79***
	(0.27)	(0.32)	(0.32)	(0.39)	(0.39)	(0.62)	(0.62)
Governor's Coalition	0.01	0.12	0.12	0.53**	0.54**	−0.68*	−0.67*
	(0.18)	(0.21)	(0.21)	(0.25)	(0.25)	(0.39)	(0.40)
Surrogate	0.59*	0.55	0.56	0.35	0.35	0.80	0.80
	(0.31)	(0.38)	(0.38)	(0.54)	(0.53)	(0.58)	(0.58)
Number of Legislatures	−0.39***	−0.43***	−0.43***	−0.31*	−0.30*	−0.38	−0.39
	(0.13)	(0.16)	(0.16)	(0.18)	(0.18)	(0.28)	(0.29)
Rural Population	0.004	−0.001	−0.0005	−0.001	−0.002	0.005	0.01
	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)
Pairs Senators-Parties	214,827	182,577	182,577	94,150	94,150	88,427	88,427
R^2	0.339	0.347	0.347	0.347	0.347	0.347	0.347
Max. Possible R2	0.344	0.350	0.350	0.351	0.351	0.349	0.349
Log Likelihood	-691.881	-488.121	-487.803	-317.748	-317.557	-163.589	-163.362
Senatorial Choices	18,828	16,620	16,620	8,671	8,671	7,949	7,949

Note: M corresponds to District Magnitude. $^*p < 0.1;\ ^{**}p < 0.05;\ ^{***}p < 0.01$

Excepting for some details, the results replicate those from the main text. Initially, the coefficient of *Presidential Coalition* remains small and statistically insignificant. Most importantly, *Ideological Distance* remains negative and statistically significant across all specifications. Finally, the findings tell us that *Party Strength* is not moderated by *Electoral Competition* once again.

Nevertheless, a few changes emerge from the models depicted in Table A.6, such as the statistical significance of *Weighted Participation in Coalition* when district magnitude equals one, and the statistical significance of *Party Strength* in the models based on the

full dataset. Taken together, these slight changes do not contradict the results reported in the main text. Either way, they must be taken with a grain of salt since they are a by-product of the exercise of disregarding parties with few legislative seats in the Senate. In this process, non-negligible parties, such as the Democrats (DEM, *Democratas*) and the Democratic Labour Party (PDT, *Partido Democrático Trabalhista*), are discarded from the equation, even if they have been a constant part of Brazilian party politics.[3]

Next, we employ a more coarse model of party switching by relying on logit regressions instead of conditional logit regressions, just as does Radean (2022). This implies that we are not modelling party switching *per se* but rather party exiting. As logistic regressions are not geared towards contrasting different options, we basically examine the probability of senators leaving their parties every month. As a consequence, the models have a few changes compared to those in the main text. Namely, the variable *Home Party* is collapsed, as every monthly choice represents only the senatorial decision of leaving or staying in their parties. Furthermore, *Ideological Distance* only measures the divergence in policy preferences between senators and the parties to which they are affiliated. Finally, we try to simulate the nature of fixed effects of conditional logit models by successively including fixed effects at state, year, and party levels. As we are modelling only a specific action of interparty mobility, we focus on replicating the second model of Table 1 in the main text. Table A.7 presents the results.

Compared to the findings of the main text, the policy-seeking behaviour appears again with an unparalleled influence when it comes to a specific form of party switching. This can be seen in the positive sign of *Ideological Distance* and its consistent statistical significance across all models. The models tell us that senators are more likely to leave their parties as the distance between their policy positions and those of their parties increases.

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[3]Out of the 33 presidential cabinets formed between March 1985 and May 2016, at least one of these parties was in the government in 27 opportunities (Amorim Neto, 2019). No less important is the fact that both the DEM and the PDT have been important parties within the right and the left, respectively, in Brazil (Borges, 2021; Zucco and Power, 2024). In this way, it is very doubtful that senators consistently disregard either of these parties when considering changing their party affiliation.

Table A.7: The Determinants of Party Exiting in Brazil's Upper Chamber

	Full Dataset			
	(1)	(2)	(3)	(4)
Weighted Part. in Coalition	−0.09	−0.08	−0.05	0.21
	(0.08)	(0.09)	(0.10)	(0.13)
Ideological Distance	0.96**	0.88*	1.26**	1.69***
	(0.42)	(0.46)	(0.52)	(0.61)
Party Strength	−2.13**	−2.19*	−1.48	1.04
	(1.07)	(1.18)	(1.29)	(1.69)
Controls				
Governor's Coalition	−0.16	−0.16	−0.23	−0.14
	(0.23)	(0.24)	(0.25)	(0.29)
Surrogate	0.40	0.30	0.18	0.30
	(0.31)	(0.32)	(0.33)	(0.36)
Number of Legislatures	−0.15	−0.13	−0.12	−0.06
	(0.10)	(0.10)	(0.10)	(0.11)
Rural Population	−0.02**	−0.03	0.05	−0.01
	(0.01)	(0.02)	(0.04)	(0.05)
State Fixed Effects	No	Yes	Yes	Yes
Year Fixed Effects	No	No	Yes	Yes
Party Fixed Effects	No	No	No	Yes
Observations	18,748	18,748	18,748	18,748

Note: *p$<$0.1; **p$<$0.05; ***p$<$0.01

Interestingly, however, the *Weighted Participation in Coalition* is not statistically significant in any model. Simply put, this means that the qualitative share of cabinet seats is not part of the senatorial calculus of leaving or staying still in their parties. To conclude, *Party Strength* is statistically significant in the first two models but loses statistical significance as we input year and party fixed effects.

To sum up, this exercise confirms the importance of ideological considerations when senators rationalise their departure from the parties they are affiliated with. However, we warn against any more conclusive analysis. This is because the models capture a different form of party switching. In the main text, we adopt a broad operationalisation of inter-party mobility (i.e. switching to another party, disaffiliating from a party, independents affiliating with a party, and collective departure due to party fusion). Here, Table A.7 only captures the movement of senators leaving their parties to become independents or toward another party.

The last robustness check corresponds precisely to changing the operationalisation of party switching. Above, even if involuntarily, we restricted our analysis to cover only the cases of party exiting. We now include movements in the direction of newly founded parties while also disregarding switching on the grounds of party merges. The results are exhibited in Table A.8.

The results largely abide by those shown in the main text, except for *Weighted Participation in Coalition*. Most notably, the explanation based on the office-seeking behaviour of senators is sensitive to the operationalisation of party switching. In the main text, the coefficient of *Weighted Participation in Coalition* is statistically significant, even if barely so. In contrast, when including the movement toward new parties and excluding party merges, *Weighted Participation in Coalition* is no longer statistically significant. Thus, we caution against any meaningful relationship between party switching in Brazil's second chamber and parties' government membership.

Table A.8: Changing Operationalisation of Party Switching in the Brazilian Senate

	Full Dataset			M = 1		M = 2	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Presidential Coalition	−0.01						
	(0.17)						
Weighted Part. in Coalition		0.11	0.11	0.13	0.13	0.06	0.06
		(0.07)	(0.07)	(0.09)	(0.09)	(0.12)	(0.12)
Ideological Distance	−1.82***	−1.95***	−1.96***	−2.30***	−2.30***	−1.42***	−1.42***
	(0.27)	(0.31)	(0.31)	(0.40)	(0.40)	(0.51)	(0.51)
Party Strength	1.19	1.09	4.93	−0.40	−19.97	2.89**	6.49
	(0.85)	(0.95)	(5.97)	(1.35)	(28.98)	(1.47)	(7.12)
Party Strength * Electoral Competition			−4.36		20.58		−4.36
			(6.64)		(30.51)		(8.37)
Controls							
Home Party	6.77***	6.74***	6.75***	6.48***	6.46***	7.47***	7.47***
	(0.25)	(0.28)	(0.28)	(0.35)	(0.35)	(0.50)	(0.50)
Governor's Coalition	0.01	0.04	0.05	0.64***	0.65***	−0.89***	−0.89***
	(0.17)	(0.19)	(0.19)	(0.25)	(0.25)	(0.33)	(0.33)
Surrogate	0.67**	0.58*	0.58*	0.44	0.43	0.56	0.56
	(0.29)	(0.35)	(0.35)	(0.49)	(0.49)	(0.51)	(0.51)
Number of Legislatures	−0.21*	−0.22*	−0.23*	−0.26	−0.26	−0.02	−0.02
	(0.11)	(0.13)	(0.13)	(0.18)	(0.18)	(0.18)	(0.18)
Rural Population	−0.02**	−0.02**	−0.02**	−0.03**	−0.04**	−0.01	−0.01
	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)
Pairs Senators-Parties	244,452	208,480	208,480	109,767	109,767	98,713	98,713
R^2	0.335	0.342	0.342	0.341	0.341	0.344	0.344
Max. Possible R2	0.339	0.346	0.346	0.345	0.345	0.347	0.347
Log Likelihood	-739.559	-587.583	-587.352	-342.931	-342.710	-234.882	-234.743
Senatorial Choices	21,073	18,680	18,680	9,848	9,848	8,832	8,832

Note: M corresponds to District Magnitude. $^*p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

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