

**UNIVERSIDADE DE SÃO PAULO
FACULDADE DE ECONOMIA, ADMINISTRAÇÃO E
CONTABILIDADE DE RIBEIRÃO PRETO
DEPARTAMENTO DE ECONOMIA
PROGRAMA DE PÓS-GRADUAÇÃO EM ECONOMIA – ÁREA:
ECONOMIA APLICADA**

Ruan Cursino Thomé

**The political timing of switching parties: an analysis of the
party switching window law in Brazilian city councillors and
its impacts on electoral performance**

Ribeirão Preto

2024

Ruan Cursino Thomé

The political timing of switching parties: an analysis of the party switching window law in Brazilian city councillors and its impacts on electoral performance

Dissertação apresentada ao Programa de Pós-Graduação em Economia Aplicada da FEA-RP, Universidade de São Paulo, como parte dos requisitos para a obtenção do título de Mestre em Ciências.

Área de concentração: Economia Aplicada

Advisor: Prof. Dr. Sérgio Naruhiko Sakurai

Corrected version
(Original version available at FEA-RP/USP)

Ribeirão Preto

2024

AUTORIZO A REPRODUÇÃO E DIVULGAÇÃO TOTAL OU PARCIAL DESTE TRABALHO, POR QUALQUER MEIO CONVENCIONAL OU ELETRÔNICO PARA FINS DE ESTUDO E PESQUISA, DESDE QUE CITADA A FONTE.

"This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Finance Code 001"

T465 Cursino Thomé, Ruan
The political timing of switching parties: an analysis of the party switching window law in Brazilian city councillors and its impacts on electoral performance / Ruan Cursino Thomé ; Orientador Sérgio Naruhiko Sakurai. – Ribeirão Preto, 2024.
62 p. : il. ; 30 cm.

Dissertação (Mestrado - Programa de Pós-Graduação em Ciências e Área de Concentração em Economia Aplicada) – faculdade de economia administração e contabilidade de ribeirão preto, universidade de são paulo, 2024.

1. Party Switching. 2. Electoral Performance. 3. Heterogeneous Treatment Effects. I. Sakurai, Sérgio Naruhiko, orient. II. The political timing of switching parties: an analysis of the party switching window law in Brazilian city councillors and its impacts on electoral performance.

To family and friends

"Voting tends to become a substitute for negotiations rather than a measure of the amount of agreement reached or a final resort when negotiations fail." - Director-General of ILO (1970-73)

ABSTRACT

CURSINO THOMÉ, R. **The political timing of switching parties: an analysis of the party switching window law in Brazilian city councillors and its impacts on electoral performance.** 2024. 62p. Dissertation (Master) - Universidade de São Paulo, Ribeirão Preto, 2024.

This research studies party-switching effects for Brazilian city councillors from 2008 to 2020. The research is focused on party-switching timing; while previous literature focuses mainly on members of parliaments, this research uses city councillors seeking re-election. To measure different timings, this research uses the introduction of a new Brazilian law that creates a party-switching window of thirty days that occurs six months before the election. Before, city councillors could only switch parties until one year before their next election. The results suggest that party switchers increased their chances of re-election after the introduction of the new law despite increased voter punishment.

Keywords: Party Switching · Electoral Performance · Heterogeneous Treatment Effects

RESUMO

CURSINO THOMÉ, R. **O timing político migração partidária: uma análise da lei da janela de migração partidária nos vereadores brasileiros e seus impactos no desempenho eleitoral.** 2024. 62p. Dissertação (Mestrado) - Universidade de São Paulo, Ribeirão Preto, 2024.

Esta pesquisa estuda os efeitos da mudança partidária para vereadores brasileiros de 2008 a 2020. A investigação centra-se no momento da mudança de partido, enquanto a literatura anterior concentra-se principalmente em parlamentares, esta pesquisa utiliza vereadores em busca da reeleição. Para medir momentos diferentes, esta pesquisa utiliza a introdução de uma nova lei brasileira que cria um janela de mudança de partido de trinta dias que ocorre seis meses antes da eleição. Antes, vereadores podiam somente mudar de partido até um ano antes da próxima eleição. Os resultados sugerem que os que mudam de partido aumentam as suas chances de reeleição após a introdução da nova lei, apesar do aumento da punição dos eleitores.

Palavras-chave: Migração Partidária · Performance eleitoral · Efeitos Heterogêneos

LIST OF TABLES

Table 1 – Descriptive Statistics for the Control Variables	48
Table 2 – Educational Levels	48
Table 3 – Number of Candidates in Each Group	49
Table 4 – Specification A - Percentage of Votes	54
Table 5 – Specification A - Probability of Re-election	55
Table 6 – Specification B - Percentage of Votes	56
Table 7 – Specification B - Probability of Re-election	57

LIST OF ABBREVIATIONS AND ACRONYMS

CCS	Candidate Centered System
CPF	Cadastro de Pessoas Físicas
IBGE	Instituto Brasileiro de Geografia e Estatística
PCS	Party Centered System
PSW	Party Switching Window
USP	Universidade de São Paulo

LIST OF SYMBOLS

α	Greek lowercase letter Alpha
β	Greek Letter Beta
δ	Greek lowercase letter Delta
ε	Greek letter Epsilon
θ	Greek lowercase letter Theta

CONTENTS

1	INTRODUCTION	19
2	RELEVANT LITERATURE	23
2.1	Theoretical Basis	23
2.2	Empirical Evidence	31
3	ELECTORAL PROCESS AND THE PARTY SWITCHING WINDOW LAW	37
4	OBJECTIVES AND HYPOTHESES	41
5	METHODOLOGY	43
6	DATABASES	47
7	RESULT ANALYSIS	51
8	CONCLUSION	59
	REFERENCES	61

1 INTRODUCTION

Political economists have been trying to comprehend many phenomena that occur in the political arena. One relates to party affiliation, specifically, party switching or migration. According to Radean (2022), party switching can be summarised by any instance when a politician changes parties for any reason. Therefore, the natural questions followed by the literature are: why would a politician switch parties? To what end? What are the risks and rewards involved? Could a political system's characteristics motivate these choices, or are they personal? Do voters like or dislike switching? These are some of the main questions that prominent scholars in the field have asked.

Scholars have been trying to find answers to understand one specific phenomenon on the topic of party switching, namely, the *Party Switching Puzzle*. This puzzle is relevant because, for instance, Hott and Sakurai (2021) find that politicians who switch parties have no electoral benefit or are even negatively affected by it. Aldrich and Bianco (1992) explain this puzzle more intuitively as a game where a politician sees some advantage/reward from switching (possibly better chances of re-election or being part of a majority) and effectuates the switch. Conversely, voters tend to dislike switchers, as they see the switching as a potential *breach of contract*. Explaining how these opposing incentives unfold for politicians and society is at the core of this enigma.

This research mainly explores the consequences for a politician who switches parties. According to Radean (2022), if voters tend to punish the switcher by voting for their opponent, the politician anticipates this and reduces or eliminates it depending on factors related to the political system.

In Brazil, a country in which a *Candidate Centred System*¹ dominates the electoral process for the executive branch, politicians may try to minimise the potential punishment from voters by switching early in their term to take advantage of the short-term memory of electors (RADEAN, 2022). Thus, by the time elections come around, electors will not be as likely to remember that a candidate switched parties, and therefore, will punish them less². Radean (2022) also argues that in a *Party Centred System*³ The opposite is true; candidates who switch parties closer to the election have more advantages because the information about party strength is more reliable as the election date is closer.

Therefore, politicians' anticipation of events can make identifying the effect of switching on electoral performance difficult at best. The treatment is entirely endogenous to the candidate

¹ In this type of system, electors identify themselves with the politician they are voting for, not the party.

² Punishment is measured by the number of votes a candidate receives.

³ In this system, electors identify themselves with the party they are voting for.

since they are the ones who choose if, when, and to which party to switch, effectively extracting all possible benefits from the process.

Switch timing is the main focus of this study. Even though scholars like [Aldrich and Bianco \(1992\)](#) agree that this puzzle is a question of timing, the decision about the optimal switching time is one of the most relevant parts of this process because the data that is usually available makes it challenging to test their proposed hypothesis. Often, as shown in [Hott and Sakurai \(2021\)](#), politicians in the executive branch, specifically mayors, tend to switch parties at the same period and relatively early in their term, making the identification process challenging.

However, recent developments in Brazilian law may provide an opportunity to investigate this hypothesis proposed in [Radean \(2022\)](#): changing early in a *Candidate Centred System* is more beneficial than changing closer to the election; And that changing closer to an election in a *Party Centred System* is more advantageous than changing further away from it.

In 2015, Brazil underwent a political reform that established a party-switching window in the country, a period when politicians may change parties without losing their mandates. Before the law, any elected officeholder could switch parties as much as they wanted and choose when to switch. However, after the enactment of this new law, candidates can only switch closer to the elections than they previously could.

Thus, this research measures the electoral performance difference, if any, between the candidates who switched when the old system was in effect versus the ones who switched when the new system was established. This research evaluates candidate's performance in two different ways: (1) the total percentage of votes they received and (2) if they were elected or not. To identify the effects of the switching, this research uses the *Panel Fixed Effects Regression Model* and the *Conditional Logistic Regression Model*.

These models are used to test two hypotheses: (I) Electors punish switchers more after the introduction of the *Party Switching Window Law*; (II) Candidates that switched parties perform better after the introduction of the *Party Switching Window Law*. As was previously discussed, these hypotheses are mainly based on [Radean \(2022\)](#), and they will be further detailed in chapter 4.

For the databases, this research explores data from the *Tribunal Superior Eleitoral* and the *Instituto Brasileiro de Geografia e Estatística*. These datasets, which consist of all results for each one of the municipal elections in Brazil from 2008 to 2020, are explored to study the effects of the new law on city councillors seeking re-election. It is expected that city councillors will perform better after introducing the law than before it. The research found evidence that the PSW increased re-election chances among city councillors and that candidates faced little to no elector punishment for switching.

Chapter 2 consists of a literature review of the subject. Following, chapter 3 is dedicated to explaining the party switching window law. The research objectives and hypothesis are

discussed in chapter 4. Chapter 5 describes the methodology used in the study, while chapter 6 discusses the databases. Chapter 7 is the analysis of the results and chapter 8 are the concluding remarks of the dissertation.

2 RELEVANT LITERATURE

2.1 Theoretical Basis

This dissertation aims to study the phenomenon of party switching, specifically in Brazil. As mentioned, this event has puzzled political economists because the reasons behind party defection are not observed, and punishments/rewards for it are challenging to identify. Since the literature on party switching is vast, this chapter first discusses the main theoretical determinants of party switching. Then, it shifts the focus to theories that explain why the moment the switch happens is relevant.

[Aldrich and Bianco \(1992\)](#) seminal paper formalises this issue into a comprehensive economic model. The authors develop a game theory model, making different assumptions about the candidate's behaviour. First, they assume that candidates only derive utility by holding office (purely office seeking) and find that politicians should change parties only considering their *ex-ante* chance of winning the election. Then, they expand the model by assuming that the politician also values policy, considers the benefits and costs of running in a specific party, etc., finding that a candidate may switch parties even if the new party diminishes their chances of winning. That happens because as the new variables that affect the politician's expected utility change, their payoffs are altered so that even parties with less electoral strength become more attractive. For example, as running costs in a specific party increase, a candidate may be willing to change parties, even if their chances of winning are slimmer.

The second party switching theory considers political systems and their relation to party switching. [Cox and Rosenbluth \(1995\)](#) argue that for Proportional Representation systems, placement in the ballot list is also relevant to understanding party switching. The proposed hypothesis poses that the further down a candidate is in the ballot list¹ The more incentive they have to seek out other parties that can place them above their current position.

Another party switching theory is highlighted in [Kreuzer and Pettai \(2003\)](#). The authors generalise and classify party switching as political moves elected officials can make. Individuals can make five types of moves: stay put, switch parties, party fusion, party fission, and start a new party. As the name suggests, staying put is the decision to not switch parties, the opposite of the second decision: switching. Fusion happens when two parties merge, and fission occurs when one party splits into two or more parties. The last happens when unaffiliated individuals form a new party and, therefore, have no parliamentary representation at its creation.

[Kreuzer and Pettai \(2003\)](#) use this framework to study the patterns of political instabil-

¹ Proportional Representation Systems usually have a ballot list for candidates. In some cases, the ballot list is organised by the party itself, which means that after the votes are counted. The party knows how many seats it will have in Parliament; it attributes these seats from first to last in the ballot list.

ity. They argue that there are two components of stability: politician-led inter-party mobility (top-down) and voter-induced electoral shifts (bottom-up); the interaction between these two components can generate different instability classes. The authors argue that changes in voters' electoral preferences can lead to political instability. Therefore, the interaction between these two components can cause more alignment with the current political system, a re-alignment of the political system, or a de-alignment of the political system. When there are no voter preference changes, alignment happens when a politician chooses to stay put, and the current political system is becoming more consolidated, or new political actors are introduced into the arena via a new party. Party fusion and fission are de-alignment moves regardless of the voter's preference changes, just as party switching is always a re-alignment move. However, when voter preference changes are present, staying put is considered a re-alignment move, and starting a new party is a de-alignment move. So, if party stability is only measured by the traditional methods (volatility and fragmentation, for instance), it is impossible to understand what is happening in the political system.

Desposato (2006) generalises the framework developed by Aldrich and Bianco (1992) in their first party switching model to research how party labels can affect the decision to change parties. The first generalisation of the model is to consider that switching payoffs have two distinct varieties: they can either be private goods or club goods. Private goods are rival and excludable (a specific legislative or party perk, for instance), while club goods are excludable but non-rival to members (the party label is a club good). They further expand this model by hypothesising that every candidate contributes, positively or negatively, with an intrinsic and exogenous characteristic to the party label. This characteristic is relevant because it determines how much one can contribute to the overall value of the party label. For example, candidates who are more charismatic or famous draw more votes to their party and, therefore, are more desirable to the other members. Members also have access to party funds that are divided among themselves².

Legislators³ also take simultaneous votes (based on their own expected payoffs) to accept or reject switchers⁴. Based on this, the legislators decide to switch or stay based on their expected utility, a function of the share of the party resources they receive by being a member, the value that all members add to the party and transition costs.

Desposato (2006)'s party switching game is then played by firstly the current members taking votes to accept or reject members, then the accepted legislators decide if they switch or stay, all receive payoffs for their decisions, then, the game ends⁵. Like Aldrich and Bianco (1992),

² This division is not necessarily equal

³ Legislators and party members can be used interchangeably in this model

⁴ The value of an additional party member also depends on the political system. In a proportional representation system, this is a linear function increasing with the number of members. Still, in a winner-takes-all system, the value depends on whether the new member can flip the balance of power

⁵ The results of the paper are for a simple, two-party model. However, adding more parties and

this game has many possible equilibria, ranging from all candidates switching to no one switching. This set of equilibria is observed as the values from the member's utility functions are changed, such as increasing party transition costs decreases party switching, increasing a legislator's charisma or fame increases switching probability, and as the party resources difference between the parties increases, switching also increases.

Relevant literature also considers how the overarching political system explains party switching. [Thames \(2007\)](#) not only argues that political systems play a role in determining the amount of switching but also that there is a path to curb party switching via legislative reform. The central hypothesis proposed by the authors is that incumbents in candidate-centred systems switch earlier and less frequently than in party-centred ones. This is because electors could face more difficulties in punishing defectors in a party-centred party system. That happens because they create an association with a party, not a candidate, so it does not matter much for the electorate when a candidate switches parties. In a candidate-centred system, identifying and punishing defectors is much easier because people know more about those they voted for. Therefore, the author also hypothesises that in a candidate-centred system, politicians switch parties earlier than in a party-centred system. In the first system, incumbents have to exploit the short-term memory of voters, creating an incentive to switch as early as possible. In the second one, switching as late as possible is more advantageous because the closer to the election day, the more information about the parties' performance in the next election is available, and politicians switch based on that.

Another critical theory to consider relates to the party systems. [Desposato \(2006\)](#) proposes the general model of party switching⁶, which lays out the rationality behind the decision of affiliation and switching in a multi-partisan environment. In the study, the author first describes a market for parties, in which legislators choose every term to either remain in their parties or switch. They have reasons to switch (maximise their chances of re-election, access to pork and ideological compatibility with their own goals) that are deterred by the voter's punishment of switching.

[Desposato and Scheiner \(2008\)](#) utilise a similar version of the model proposed in [Desposato \(2006\)](#), but with one fundamental change: Initially, the model was only preoccupied with explaining party switches. The authors are also preoccupied with how politicians choose a specific party. They do this by considering two hypotheses: (I) they make the traditional hypothesis that politicians act to maximise their long-term utility, and (II) that politicians seek out parties with more resources under their control. That is, candidates re-affiliate themselves to whatever party can give them more discretionary funds. The main consequence is an incentive for switchers in countries with a more centralised political system to align themselves with the president's party. As a political system becomes more decentralised, the alignment follows suit,

candidates does not change the conclusions

⁶ The author argues that this model applies to any party system with some changes; however, initially, it was developed with Brazil in mind.

occurring in more local levels of government.

[Kemahlioğlu and Sayarı \(2017\)](#)'s theory considers the differences between *faction* and individual switching. *Faction* switching happens when a group of politicians change parties at the same time, while individual means a solo switcher. *Faction* switching differs from the individual because the first is usually much more policy-driven ⁷, while the individual is mostly driven by their interests ([Kemahlioğlu and Sayarı \(2017\)](#)). It is also relevant to consider that groups have a larger impact on party positions over time, so parties may think twice before accepting a group of defectors.

[Nielsen, Andersen and Pedersen \(2019\)](#) consider other variables that politicians consider when deciding to switch parties: their current position in their party, their electoral strength/charisma, how the party leader makes decisions and how large their party is. The first of these variables relates to the first hypothesis that politicians with higher or more essential offices are less likely to switch. According to the authors, this happens because having higher offices makes the switching cost higher because the switcher has to leave office perks and benefits when they change parties. The second relates to the hypothesis that politicians with higher charisma/personal electoral strength change parties more frequently because they have more power to move electors along party lines. The third one argues that parties with a stronger leader⁸ face more frequent switches because politicians have fewer opportunities to influence their party and voice their specific demands. This leads to more dissatisfaction, which leads to more switching. The last two hypotheses are related to party size and relevance in the political space. They argue that the more prominent and influential a party is, the less likely their members will switch parties. The authors state that more extensive and influential parties have more bargaining power, perks, and chances for members to achieve their policy goals. Thus, the switching cost is higher than that of the other parties.

Another theory considers the relation between access to funds and party switching. [Hamel and Yoshinaka \(2020\)](#) argue that candidates may find themselves in a position where they can increase the amount of funds they have for their campaign by switching parties or at least have more stability regarding campaign funds. They assume that changing parties is costly for the candidate because politicians in their old party resent them, the new party members do not completely trust a new member, and voters will be displeased. Hence, politicians who are disloyal to their current party will seek ways to minimise switching costs. One of these ways is by having more campaign funds. Because for most types of campaigns, money can be donated from anywhere in a country, switchers can offset switching costs by finding more *out-of-district*⁹

⁷ Groups may be willing to take higher political costs because they are dissatisfied with party leadership.

⁸ Stronger in the sense that they impose the party's will on votes more frequently.

⁹ The authors assume two types of donors: *within district* and *out-of-district*. The first type is the local donor, who connects to the politician and feels betrayed by the switching. The other one is a much more ideological donor with no connection to the politician who does not feel betrayed by the switching and donates along party lines.

donors. Therefore, according to Hamel and Yoshinaka (2020), the more *out-of-district* funds available in other parties, the less costly it is to change parties, and more switching occurs.

Much of the previous literature is focused on analysing politician's behaviour in the legislative body. However, party switching is not exclusive to this branch of government and happens in the executive. Hott and Sakurai (2021) research party switching in the executive body, specifically among mayors. They form a series of hypotheses on the determinants of party switching and its consequences. Firstly, they propose that mayors belonging to the same party as the president or state governor change parties less frequently because the governor's/president's party is more attractive to outsiders¹⁰. Then, they propose that mayors belonging to larger parties also change parties less frequently because these mayors are already more well-positioned for re-election. Lastly, they suggest that party switching is more prominent among first-term mayors than second-term ones. The reasoning behind this is that first-term mayors are more incentivised to act as pure office seekers; therefore, they switch more frequently if they believe it helps them get re-elected.

In addition to the theories that generally explain party switching, this research also considers theories that explain why the moment the candidate chooses to switch parties is relevant. The first theory related to the political timing of party switching, which this research references, is proposed in Mershon and Shvetsova (2008). The authors theorise that there are specific political cycles in a mandate and that politicians change parties at different times during their mandates for various reasons related to these cycles.

According to Mershon and Shvetsova (2008), a mandate can be divided into four stages, or cycles¹¹: *Affiliation* (A), *Benefits* (B), *Control of Policy* (C) and *Elections* (E). When candidates switch during stage A, they do so because of office reasons¹². As for stage B, politicians are expected to change for office reasons. This is the stage in which parties can offer office perks and benefits to their members, so if a politician is dissatisfied with their party's offering, they can switch. During stage C, switching occurs to alter policy choices and agenda control. Mershon and Shvetsova (2008) argue that stage C is the most productive stage of the parliamentary cycle. Consequently, politicians switch parties to control the agenda and secure policy goals. The last stage, Elections (E), involves switching to better position candidates for the next election cycle. The authors argue that politicians receive new information¹³, learn from this, and decide whether to stay at their current party or switch. Another stage, the *Dormant* (D), also fills in the gaps, if any, between these four other stages. The authors expect no switching during this stage, as no advantages are offered.

¹⁰ these parties have more political influence and can distribute more pork.

¹¹ All of these stages occur one after the other with no rigorous time, except that the first stage starts when the mandate begins and the last stage ends when the mandate ends. Some stages can last longer than others, and the length of the stage can vary.

¹² The argument is that politicians see which parties can offer them better positions to advance their career goals or parties that need more members to achieve their threshold for electoral representation

¹³ Opinion polls, for instance.

Given all of the stages described and the general assumption that politicians are guided by their goals, [Mershon and Shvetsova \(2008\)](#) make the hypothesis that switching should occur frequently during stages A, B, C and E. They also hypothesise that the profile of the switcher should be different between the stages: during Stages A and B, switches should occur for office reasons, while in Stage C, they expect to see switching related to policy reasons, and in Stage E, switching occurs for electoral reasons only.

Another relevant theory on the topic is [Mershon and Shvetsova \(2013\)](#), which explicitly considers a party-switching model where timing is a relevant variable. The authors want to understand how this variable relates to the stability of a party system. They start by arguing that switching occurs at any given time if switching increases the utility of the switcher. This utility function is reassessed periodically; thus, the decision to survive in one's original party is constantly reconsidered. The main point is that party infidelity can only occur if the expected utility of switching is greater than the utility of staying. The authors assume that the politician's utility function is explained by how likely one is to get re-elected and how much one values office perks and policy gains. Another critical assumption is that the elected politician chose their policy platform to maximise their votes. Thus, voters identified themselves with the policy platform and party of the candidate they voted for and elected. They also assume that voters derive utility from the policy platform they supported in the previous election, less any deviations from it¹⁴.

The costs of switching according to [Mershon and Shvetsova \(2013\)](#) are of two distinct functions: the costs associated with the previous election and the costs associated with the upcoming election. Previous election costs are related to deviations from their policy platform: the closer to the previous election they switch, the more voters perceive them to be deviating from their original proposals. As for the upcoming election costs, these are related to the perception of loyalty voters have: the closer to a forthcoming election, a politician switches parties, the more voters deem the switch to be opportunistic and punish more severely. Therefore, a few key variables can affect the relation between the utility of staying in your current party and the utility of leaving: the time to the next election, the time from the previous election, and the electoral system itself. These three variables change party affiliation decisions because they change the voter's utility function; the first one negatively affects the voter's perception of the candidate (voters see them as disloyal) the closer the next election cycle is. The second works precisely like the first one. Still, it relates to the previous election¹⁵. The last pertains to specific characteristics of the electoral system and is usually treated as constants.

The interaction between the first and second variables previously mentioned creates a

¹⁴ Here, the critical aspect is that they assume politician may not implement their whole platform and may even vote against it if their party demands it.

¹⁵ The authors assume that voters prefer predictable politicians, so early switchers are considered more erratic and are punished by the voter for this.

window of opportunity in the middle of a mandate¹⁶ where switches are more likely to occur. This window is the *conditional midterm effect*: it refers to a period in which voters do not punish switchers heavily for early switching and also do not punish switchers heavily for late switching, i.e., a period in which the expected utility of switching is greater than the utility of staying. According to [Mershon and Shvetsova \(2013\)](#) “*Members of Parliament utility loss from switching is minimised and benefits are maximised, all else equal, if the Members of Parliament time moves near the middle of a term*”.

Another theory is proposed in [Pinto \(2015\)](#). The author assumes that office-related incentives, such as more discretionary budget, office perks and positions, are decided during critical moments in a term: during government formation, salient policy-making and proximity of second-order elections¹⁷. Legislative incentives evolve and change in these critical moments because parties reassess their positions to fit their supporters better. Once they finish this process, members who are unhappy because they no longer agree with the party’s position or did not get as many office perks or positions as they desired look for alternatives. Dissatisfied members switch parties, altering the composition and distribution of power in the legislative house and forcing parties to reassess their position again. Therefore, the whole process starts again, continuously. Hence, the closer these stages are to a mandate, the more switching should occur.

The next theory this research considers also uses the political system and the political cycle to explain when a politician changes parties and why they do so. [Klein \(2016\)](#) proposes that switching can be explained by different incentives depending on when it happens during the political cycle. The author argues that politicians have a *hierarchy of goals* they value; for instance, they can all value office perks and re-election; however, re-election comes first according to the author. [Klein \(2016\)](#) even argues that the closer to an election, the more re-election concerns take priority, and if there is no upcoming election, office motives will explain switching. Therefore, the author hypothesises that during the beginning of the political cycle office, office-related reasons explain switching (*office-driven switching*), but as the mandate comes to a close, re-election concerns alone determine switching (*vote-driven switching*).

[Radean \(2022\)](#) also provides a theory on how the political system impacts party switch timing. The research starts by dividing electoral systems into two broad categories: *Candidate Centred Systems* (CCS) and *Party Centered Systems* (PCS). A CCS is any system in which the voter votes for a particular candidate, while a PCS is any system in which the voter votes for a party in an election. [Radean \(2022\)](#) argues that a PCS system exhibits more party switching than a CCS because while in the former, it is much harder to hold switchers accountable¹⁸, in

¹⁶ The authors argue that it happens in the middle because that is what the data usually corroborates. However, their model is more general than that. For instance, by changing the functions determining voter punishment and the switching benefits, it is possible to generate an optimal party switching window at any interval within a term.

¹⁷ Second-order elections are elections that decide positions within a legislative house, such as the speaker for instance.

¹⁸ Parties can protect switchers by placing them higher on the closed party lists.

the latter voters vote for a specific politician, so it is much simpler to punish them. As for the switch timing in these two systems, the author states that PCS provides incentives to switch as close to the election as possible, while CCS provides the opposite incentives. This happens because the author assumes that PCS can insulate switchers completely. So, those considering switching only do so very close to an election, as the best information about how parties will perform is available. However, if one can be directly punished by switching, it is best to switch earlier so that the voters, assumed to have a short memory time horizon, do not remember the switch. Thus, the author hypothesises that CCS provides fewer incentives for parties to switch and switch closer to an election.

2.2 Empirical Evidence

This section discusses the empirical evidence related to party switching. Akin to the previous section, the review of the existing literature is divided into two parts: first, general empirical party switching results are discussed, and then, empirical results that relate directly to switch timing are discussed.

An important aspect of party switching is the findings about electoral performance and party switching. For instance, [Grose and Yoshinaka \(2003\)](#) use data for the US Congress from 1947-2000 and have two key findings. The first is that party switching diminishes the candidate's chances in the primaries¹⁹. At first, however, this effect dissipates over time. The second, in turn, is that in general elections, on average, switching always hurts the candidates' chances. Another finding especially relevant to this research is that candidates are only significantly hurt in elections if they switch close to the election date. Thus, switches are more prominent during non-election years.

Another vital source of party-switching evidence is the question of whether the changes in the political system can affect party-switching. [Heller and Mershon \(2005\)](#) find that for Italy, from 1994 - 2001, the legislative branch was indeed affected by the Italian Referendum of 1993²⁰. Previously, switching was rare and usually happened in large groups. After the reform, party switching became commonplace and individual switching grew significantly. The authors conclude from the results that switching is motivated by political ambition and political ambition under great uncertainty, which can come in the form of an electoral reform. Italian politicians were not used to the new system. Thus, it was harder for them to adjust their expectations based on the latest information because they did not know how these changes affected the power balance in the Senate. Therefore, they resorted to switching parties more often to mitigate this uncertainty.

[Desposato \(2006\)](#) uses data for Brazilian legislators and finds that previous interpretations of the party switching²¹ are at best incomplete. The author finds that party switching is a systemic phenomenon in which Brazilian legislators change parties not for institutional gains but for their reasons²². The author defines this phenomenon as *renting a party*, the idea that Brazilian politicians affiliate themselves with a party because it increases their chances of election, and then, once elected, they switch to another party. The author also finds that, at least in Brazil, political representation appears to work despite party switching. That is because voter agency is not usually eroded when a switch occurs. Politicians usually move to parties with similar

¹⁹ a corollary of this result is that primaries with incumbents that switched parties are more competitive. Political revenge and incentives to try to gain the district back from the former party may explain the competitiveness.

²⁰ In this year Italians were asked, among other issues, if they wished to switch the Proportional Representation System they currently had in place for the Senate, for a Winner-takes-all system.

²¹ Many scholars saw party switching as a mere indicator of the strength of the political system

²² electoral, ideological, and distributive ends

ideologies and parties that better match their constituents' preferences for public goods. So, the research surmises that at least in the case of Brazil, party switching does not appear to pose a significant threat to democracy.

Literature also exists for nascent democracies. For instance, [Thames \(2007\)](#) analyses the case of party switching in the Rada region in Ukraine from 1998 - 2002. The author analyses the behaviour of switchers in a nascent democracy and whether party switching helped or hindered the new political system. The author has two main findings: the first is that office-seeking behaviour predominated switching instances²³, and the second is that there is no clear evidence that party-switching hampered democratic efforts in Ukraine.

Another relevant research, by [Heller and Mershon \(2008\)](#), tests whether parties' restrictions and punishments affected switching rates. They use data from the Italian Chamber of Representatives and find that the more discipline and restrictions parties imposed on their members, the higher the switching rates are²⁴. They also find that the further the ideological distance from a Member of Parliament (MP) to their respective party is, the higher their probability of defecting to another party. Finally, like other studies, they also find that MPs have higher chances of switching to the larger parties in the Parliament because they are concerned with re-election prospects.

According to the research done by [Ferreira \(2011\)](#) on party switching in the Brazilian Chamber of Deputies, no evidence supports the argument that higher levels of party switching lead to greater political instability. In the article, the author presents evidence that from 1995-2006, party switching did not lead to significant shifts in power in the chamber of deputies, nor did it lead to switching among higher officials (President and first Vice President). The evidence suggests that smaller parties experience greater switching levels, but the four major Brazilian parties do not²⁵. Therefore, according to this research, party switching, at least in the deputy chamber, is unrelated to political instability.

[O'Brien and Shomer \(2013\)](#) finds that country differences are pertinent. The authors utilise an extensive international database to evaluate party switching in twenty democracies and find that institutional arrangements and the politicians' preferences towards maximising vote and policy-seeking functions contribute significantly to changing rates. The author also finds that party switching is a global phenomenon affecting democracies of all ages, albeit at different rates, and that there are two main motives behind party switching in general, that is, two things parties must deliver in order not to face defectors: re-election and advancements in legislature supported by their politicians.

[Young \(2014\)](#) analyses party switching in African Politics. The author finds that for

²³ Especially when it came to switching to the president's party. So even in young democracies where parties are relatively weak, electoral preoccupations dominate party-switching behaviour.

²⁴ Discipline in the sense of implementing punishments for not voting along party lines.

²⁵ At least not enough to alter the political balance.

Malawi, politicians changed parties for two main reasons: re-election prospects (change to a party performing well in the polls) and joining the government party (YOUNG, 2014). The author also finds that the link between ethnicity and party alliance is weak and that government politicians do not switch parties to avoid blame for poor governing performance.

Kemahlioglu and Sayari (2017) test if there is any difference between a candidate that switches parties alone versus faction switching, using Turkish data for testing. The authors find that switching behaviours differ among these two types of switchers. While the ones that switch alone are motivated by more personal reasons (electoral concerns in general), for factional switchers, policy plays a significant role. This suggests that candidate accountability concerns should only be a problem for individual switching, not collective switching. However, collective switching still has its share of issues, as the authors also find that the more occurrences of faction switching there are, the more unstable the political system tends to be²⁶.

Literature also studies whether the known reasoning for the switch is essential to determine the electoral performance of the candidate. The research by Snagovsky and Kerby (2018) uses newspaper data²⁷ as well as the Canadian party affiliation data to test whether the given reason for switching parties has any effect on electoral performance. The authors focus on three reasons: office, electoral, or expulsion. Office switching means that politicians declare they have switched to take on a cabinet position. In contrast, electoral reasons mean politicians believe they have better chances of winning in another party or forming a government coalition. Finally, party expulsion means that the representative was expelled from the party and was forced to find another party. All motives negatively impacted electoral performance; however, candidates expelled from their previous party were punished more, while those who switched for office reasons were punished less.

The research by Nielsen, Andersen and Pedersen (2019) finds results for Danish legislative party switchers. The authors find that the Danish case follows the evidence for the rest of the globe in some aspects. However, it diverges in others. Starting with the similarities, Dane representatives are less likely to change parties if their positions in the party/in government are higher. However, unlike other findings, Dane representatives are more likely to change parties if they belong to the government party. The authors explain this by stating that the evidence that points to the contrary is all made for presidential systems, and Denmark is a multi-party parliamentary system. Therefore, it is possible that representing the government is less important in this system than in the presidential system. The authors also find evidence that supports the case that party switching could even be beneficial for democracies, as they do not find evidence of increased political instability in the decoherence of switching. Party migration, according to the authors, can even be a vehicle to improve political accountability because if a party chooses

²⁶ The authors show that these types of switching significantly change the balance of power, and consequently, coalitions. Therefore, it can cause instabilities.

²⁷ the authors use official declarations by the switchers that appeared on the media or the official reason given by the party.

to deviate from their proposed political platform, switching can be a way for politicians to realign themselves with their electors while also imposing costs for the party they left.

Another critical piece of evidence that helps to explain why party switching happens is the possible incentive to secure more campaign funds. In the research by [Hamel and Yoshinaka \(2020\)](#), the authors use data from the United States of America (USA) to test this hypothesis and find that individual ideological donors donate more to switchers because they see them as team members. They also find that party funds are more directed to switchers than the other incumbents already belonging to their party. This could happen because party leaders are paying or attracting switchers with promises of more certainty and the facility of having more campaign funds for the next election cycle.

Another research that to consider is [Hott and Sakurai \(2021\)](#). The authors consider mayors seeking re-elections in Brazil from 2004 to 2012 and mostly confirm their proposed hypothesis, that is, that first-term mayors switch more frequently than second-term mayors, mayors belonging to the governor's/president's party switch less often and larger parties have fewer switchers than smaller ones.

This research focuses on articles about party switch timing to discuss the relevant literature on this topic. Starting with [Mershon and Shvetsova \(2008\)](#), a comparative study between Russia and Italy, in which the authors are concerned with identifying patterns in the political cycle that can influence switching. They find that switching patterns in both countries are linked with specific stages of the political cycle, usually, the ones that distribute perks, agenda, policy advantages, and pre-electoral advantages. However, they differ in other areas: in Italy, switching occurs after the sub-national elections, as politicians adjust their expectations about voters. In Russia, they occur during the national elections. According to the authors, this finding corroborates the hypothesis that the political system itself may be a determinant of the timing of the switch.

[Mershon and Shvetsova \(2013\)](#) also consider switch timing in their research. Building upon previous work, the authors test whether the time from the last election and the time until the next election is relevant to understanding why candidates switch parties. They find that both variables are relevant to explain both the absolute number of switches and the fact of switching itself for eight countries²⁸. The *conditional mid-term effect* was especially relevant in the CCS, indicating that this effect is more prominent in systems where voters have more incentives to pay attention to individual candidates than a party.

Additionally, the subtopic related to the influence of party switching timing by the political system, the second result this research references is [Radean \(2022\)](#). In [Radean \(2022\)](#)'s research, the author tests this hypothesis by focusing on the Romanian case. In 2008, Romania changed its electoral system from a Party Centred System (PCS) with a representative list²⁹ to a

²⁸ Australia, United Kingdom, Romania, Canada, Germany, Spain, Italy and France.

²⁹ The party makes a list with all of its candidates and fills seats based on the number of votes it gets. In

Candidate Centred System (CCS)³⁰. The author finds that the political system impacted both the number of switches and the timing of the switches. After the change, Romanian politicians switched parties less frequently and earlier. Thus, the research concludes that changes in the political system may be a path to curb party switching and that the party-switching phenomenon is not as persistent as other studies have claimed it to be.

this case, the party chooses internally the order the candidates appear in the list as well.

³⁰ All other election rules remained mostly equal.

3 ELECTORAL PROCESS AND THE PARTY SWITCHING WINDOW LAW

This Chapter discusses the Brazilian electoral system for the legislative branch and the *Party Switching Window Law*. Firstly, this research examines the electoral process and then discusses the *Party Switching Window Law*.

Before the discussion about the electoral process, there are three particularities of the Brazilian electoral system that are worthy of note: according to the Brazilian Constitution, voting is obligatory for all literate people from the ages 18-70¹; In the legislative elections, it is not necessary to vote for a politician. Instead, it is possible to cast a vote for a party. Lastly, running for office without a party, i.e., no independent candidates, is impossible. Noting these three characteristics, this research discusses the legislative election system.

Unlike the executive branch, which utilises a simple majority rule to determine the winner, the legislative uses the *Proportional System*. The *Proportional System* consists of two significant steps to determine the winners of an election. Firstly, the votes are counted for the party or coalition², then, they are counted for each candidate. Thus, the system first finds the parties/coalitions that won. Then, inside each party/coalition that received the most votes, the candidates who received more votes are declared the winners.

To determine these exact numbers, election officials utilise the *Electoral Coefficient* and the *Party Coefficient*. The first coefficient is calculated by adding all valid votes³ and dividing it by the number of seats available in the election, the second is calculated by dividing all valid votes that were cast in a single party/coalition by the *Electoral Coefficient*. The number of seats that a party/coalition wins in an election is determined by the *Party Coefficient* and the elected politicians are decided from the most voted to the least voted inside this party/coalition.

Given the previous discussion on the General Brazilian Electoral Process for the legislative branch, this research can now begin discussing the *Party Switching Window Law*. This research starts by summarising the history of political parties in Brazil and party switching, and then the Law itself is discussed.

Brazil's first two constitutions did not reference political parties in their text. Considering that these two constitutions lasted 110 years, for much of Brazilian history, the organisation and formalisation of political parties remained out of public interest (SANTOS, 2009). It was only in the 1946 constitution that political parties were formally recognised and institutionalised. The current Brazilian Constitution, established in 1988, initially did not set any particular party-

¹ for non-literate, 16-18; and over 70 voting is optional.

² coalitions in Brazil mean a temporary aggregation of parties to dispute an election. In practical terms, the vote count is considered as one Party.

³ Valid votes are all votes cast in a party or politician. They do not consider votes that were cast in *blanche* of those that annulled their vote.

switching rule, except for article 18° of the chapter related to party affiliation. It stated that for a candidate to run for any office, they must be affiliated with their respective Party for at least one year before election day. This was valid until 2015 when Brazil went through an electoral reform that will be discussed in more detail when this research considers the *Party Switching Window Law* itself. The Constitution also established that party infidelity could not be a reason for revoking one's mandate⁴, and that any punishments for party infidelity were up to the parties themselves. In practice, parties were limited on how they could punish their members⁵, for instance, it was impossible to revoke a mandate. (SANTOS, 2009)

Therefore, incumbents had great control over when the migration occurred and which Party they would switch to. This mechanism, coupled with the high rates of party infidelity in Brazilian politics, became colloquially known as the *Dança das Cadeiras* or Musical Chairs for the popular children's game. Like the children's game, switching parties for elected officials in Brazil is very straightforward. There are two ways one can change parties in Brazil: the first way is to leave their current Party and then join another one, which could be done at almost any time⁶. The second way is to join the Party that one wishes without leaving one's current Party. This triggers the multiple affiliation rule, which states that no one can be affiliated to more than one Party, which causes the *Tribunal Superior Eleitoral* (TSE) to consider only the most recent affiliation⁷.

This game gave rise to another phenomenon in Brazilian politics: *renting a party* (DE-SPOSATO, 2006) for an election. Especially in the legislative, where Brazil uses the proportional voting system, *renting a party* to get elected became commonplace. A usual trajectory in the Brazilian political arena is as follows: a candidate joins a party and uses the proportional voting system to get elected. Once they are elected, they switch parties. Because there were no real consequences to this political move, some politicians used to do it more than once in their mandate (SANTOS, 2009). The exploitation of the proportional system became so prevalent that in the 2002 election for Congress, only 28 candidates elected themselves with their votes, and the rest (485) made use of the proportional system (SANTOS, 2009). Thus, *renting a party* became an essential tool for the political class.

However, in 2007, the *Tribunal Superior Eleitoral* (TSE), the most important juridical Brazilian governmental body for election affairs, decided that, according to the Constitution, the mandate of a politician did not belong to the elected official. Still, to the Party itself (Resolution

⁴ Although it did not establish this directly. It stated motives that could cause an elected official to lose their mandate, and switching parties was not among them.

⁵ It would be impossible for a party to punish a switcher because they left that Party.

⁶ it was not possible to change parties after formally becoming a candidate and it was only possible to switch up to one year before the election. One could only change parties again after the election.

⁷ The TSE only checks the party affiliation database twice a year, once in April and once in October. They also rely on parties to send their most recent party affiliation numbers, and if one Party fails to comply, the most recent list will be considered.

22.610/2007)⁸. This decision came as a response to a consultation from the *DEMOCRATAS* party about the Party switching legislation. While beneficial for some politicians and parties, the lack of regulation on party switching became very costly for others⁹. Switching became costly for the parties that *rented* for the election because they lost seats.

Therefore, it would not be possible for an elected official to switch parties and keep their current office, *de facto* imposing a new cost of migration. In 2015, in another court decision (Edit to Resolution 22.610/2007) by the Brazilian Supreme Court, the Justices decided that this interpretation of the Law is not valid for candidates elected in the majority System. There are some exceptions to this rule. For instance, candidates can switch freely to new parties if their current Party fuses with another or is dissolved.

This changed with the Political Reform of 2015. There were a few changes to the Brazilian Electoral System. However, this research's most essential and relevant reform is a new law denominated the *Party Switching Window Law*. It states that for every election year, incumbents have a period of 30 days, six months before the election day, when they could switch parties without losing their mandates¹⁰. During the *Party Switching window*, party-switching rules for elected legislators work just like they did in the pre-2007 era. Therefore, it is relatively simple to switch parties during this time.

The Law was modified by a TSE's decision in 2018, allowing only politicians at the end of their mandate to benefit from the Party Switching Window. This decision is relevant because elections in Brazil happen every two years (once for the president, governors, and some members of the legislative body and once for mayors, local representatives, and other legislative body members). Consequently, politicians in the middle of their mandates were taking advantage of this loophole, which was not the original intention of the Law. It is also relevant to consider that parties may establish their own party-switching rules, with the only condition that they cannot be less restrictive than the Constitution.

Considering the previous discussion, it is now possible to consider how this research explores the *Party Switching Window Law* to study the timing aspect of party switching. First, let's consider Party switching as a treatment divided into two sub-types: the pre *Party Switching Window Law* and the post *Party Switching Window Law*. As was previously discussed, before the electoral reform, politicians could change freely but needed to be affiliated with the Party they wished to run for at least one year before the elections. Afterwards, they could only change within thirty days, six months before the elections. Because the switch timing between these two groups is necessarily different, it is possible to test whether changing closer or farther away from the

⁸ TSE made this decision because of how the Proportional System works. As previously explained, firstly, it is decided which political party/coalition won and who was elected. The party/coalition wins the seat, not the legislator.

⁹ parties that can attract switchers benefit from the new members, their previous Party loses a seat in Congress.

¹⁰ The country saw then party switching rates similar or even higher than the pre-2007 era.

election impacted their electoral performance. According to previous literature, mainly the study by [Mershon and Shvetsova \(2013\)](#), there is empirical evidence to support that timing is relevant to understand party-switching behaviour. Thus, in the next chapter, this research discusses the hypotheses and objectives of the experiment, and in chapter 5, this research examines the method used to identify the possible effects.

4 OBJECTIVES AND HYPOTHESES

In this chapter, this research discusses the hypotheses that are tested in chapter 7. In chapter 2, according to Radean (2022), this research discussed the theory of dividing electoral systems into two main categories: the *Party Centred Systems* and the *Candidate Centred Systems*. Continuing with this terminology, this research now argues that the Brazilian electoral system for city councillors does not precisely belong to one of these categories but borrows elements from both.

It borrows from CCS that electors vote for a specific politician, not a party. Still, it also has characteristics from PCS because party performance matters in explaining candidate election. In sum, as this research discussed in Chapter 3, the city councillors' election in Brazil behave closer to a PCS. Still, electors do not vote for a party, and the party does not have complete control over the order of the candidates in the list that will occupy their seats. Each candidate's performance determines the list order; the one that gets the most votes is placed at the top of the party list until the one with the least votes.

Therefore, elector punishment for party switching is not necessarily directly translated into election performance. For instance, even if electors are willing to punish switchers more by voting for other candidates, as party performance is relevant, switchers can defect to parties that perform better in the next election cycle and possibly evade voter punishment.

As discussed in Chapter 3, recent legislation changes in Brazil provide an opportunity to research the timing of the switch. Recently, the country stopped allowing politicians to change their parties whenever they wished. Now, there are 30 days when politicians can change parties without risking their mandates. This switching window opens every election year, six months before election day. Thus, politicians can no longer choose entirely the timing of the switch. This research aims to test whether the switch's moment is relevant to the performance in the next election.

The electoral performance is the focus of this research. The main goal is to analyse if the new *party switching window* impacted the electoral performance of city councillors seeking re-election in Brazil from 2012 to 2020. City councillors seeking re-election are particularly interesting to analyse for a few reasons. First, they have all been elected at least once, providing a similar group to councillors seeking election. Second, Brazil currently has 5570 municipalities, so there is more than enough data for the analysis.

Considering the theory and results discussed in Radean (2022), this research expects that candidates who switched closer to the election date were more punished by the elector due to the CCS aspect in this electoral process. Ergo, the PSW increased voter punishment; in other words, candidates who switched parties after introducing the PSW had fewer votes.

Hypothesis I: Electors punish more switchers after the introduction of the *Party Switching Window Law*.

The PSW obligated candidates to switch closer to the election. Thus, the information about party strength, according to Radean (2022), is more accurate. So, this research expects that the PSW will increase their probability of re-election. In other words, candidates who switched parties after the PSW have higher re-election probabilities than in the previous period.

Hypothesis II: Candidates that switched parties perform better after the introduction of the *Party Switching Window Law*.

To test Hypothesis I, this research uses the Fixed-Effects Panel Regression Model. For Hypothesis II, this research uses the Conditional Logistic Regression Model, which will be more detailed in chapter 5.

5 METHODOLOGY

In the previous Chapter, it was discussed and established that the primary goal of this research is to test whether the timing of a city councillor's party change to get re-elected helps or hinders their electoral performance. Therefore, this research explores the relationship between electoral performance, the dependent variable, and the timing of the switch, the primary explanatory variable.

To analyse and test these hypotheses proposed in chapter 4, this research uses databases from four Brazilian municipal elections¹. The data consist mainly of election results and information about the candidates. Therefore, this research can observe individual city councillors seeking re-election in each political cycle, whether they changed parties during their mandates and when they did it.

The main reasons for choosing city councillors seeking re-election were thoroughly detailed in the previous Chapter. However, it is essential to consider their impact on the methodology used in this research. The re-election aspect is critical since it guarantees that the individuals have some similarity². City councillors were chosen, as detailed in Chapter 3, due to the lack of studies in this instance of the legislative branch. Besides, there are many municipalities in Brazil and, consequently, many city councillors, making the analysis possible in the first place.

Therefore, the relations this research explores are:

$$\begin{aligned} \text{Election Performance} = & \alpha + \beta \text{ Groups} + \gamma \text{ PSW} \cdot \text{Groups} \\ & + \delta \text{ PSW} + \theta \text{ Controls} + \varepsilon \end{aligned} \quad (5.1)$$

$$\begin{aligned} \text{Election Result} = & \alpha + \beta \text{ Groups} + \gamma \text{ PSW} \cdot \text{Groups} \\ & + \delta \text{ PSW} + \theta \text{ Controls} + \varepsilon \end{aligned} \quad (5.2)$$

This research divides the explanation into three different categories to explain these relations. Firstly, it describes the two different dependent variables. Next, it explains the other groups used to identify the effects and considers the PSW.

Electoral Performance and *Election Result* are both the dependent variables. The first variable indicates the percentage of votes cast for each city councillor seeking re-election. The second variable is a dummy variable that assumes the value of 1 when the candidate was elected and 0 otherwise. This research uses these two variables to measure electoral performance in two different ways: (i) the candidate's performance, which is reflected in the first equation, and (ii) their re-election prospects, measured by the dummy variable. This distinction is important

¹ 2008, 2012, 2016, and 2020.

² All of them have in common that they were at least elected once.

because, as explained in Chapter 3, party performance is relevant to explaining electoral success. Therefore, an incumbent who switched parties and was personally punished by electors may increase their chances of being re-elected because, in that election cycle, the party that they switched to is stronger.

Another crucial methodological decision this research must make is which party switches this research considers actual party switches. This research considers all instances where a candidate switches their party label to be an instance of party switching³. However, the only exception to this rule is the case of a party that switches only its name. The reasoning behind this decision is that all the other types of switching⁴ have at least some degree of ideological change. Even if they are subtle changes, this research argues that they exist. However, a change in the name of a party solely does not. This research argues that these are just name changes that do not impact party policy.

Considering the definition of party switching for this dissertation, this research divides the sample into different groups to measure the effects of each one. This research approaches this differently: Specification A and Specification B.

Specification A consists of dividing the sample into four different groups: *Never*, *Always*, *After* and *Before*. They are group dummies that compare candidates according to their actions, in this case, the action to switch parties. Thus, the groups are *Never*, candidates that never changed parties during the period; *Always*, candidates that switched parties in both periods; *Before*, candidates that only switched parties before the introduction of the PSW; and *After*, candidates that only switched parties after the introduction of the PSW. For example, the dummy variable *Never* assumes the value of 1 when a candidate did not switch parties in the period 0 otherwise. *Always* equals to 1 when the candidate switched parties in all periods of the analysis, and 0 otherwise; the other two groups follow the same logic.

We take the same approach further in Specification B. Then, the sample is divided into eight different groups: *Never*, *Always*, *Always 2016*, *Always 2020*, *After*, *After 2016*, *After 2020* and *Before*. *Never* and *Before* are exactly the same groups in Specification A. However, this research further divides *After* and *Always* into three subgroups. *After 2016* and *After 2020* represent candidates that only switched after introducing the PSW but did it only in one election, the 2016 and the 2020 elections, respectively. The *After* group remains the same. *Always 2016*, *Always*, and *Always 2020* function similarly to the previously described groups; however, in their cases, the candidate also switched before the introduction of the PSW.

The *PSW* is a variable that assumes the value of 1 in the 2016 and 2020 elections and 0 in 2012. There are two types of Controls: candidate and municipal characteristics. They are further detailed in the next Chapter.

³ Including party fusions and extinctions.

⁴ Switching for their own terms, party fusion, party extinction, etc.

For the identification, this research divides the explanation into two parts. The first part is related to Equation (5.1) and the second to Equation (5.2).

Starting with Equation (5.1), this research uses a *Fixed-Effects Panel Regression* to identify the effects. The reasoning behind this strategy is that the data can be organised in a balanced panel, with the individuals i being the city councillors and the period t being the elections. It is also reasonable to assume that individual characteristics, which are constant over time but different across the individuals in the sample, can lead to bias in the estimation. Since the Fixed Effects model corrects these possible biases, it was chosen to identify this relation.

For similar reasons, this research uses the Conditional Logistic model to identify the effects in Equation (5.2). The only difference between Equation (5.1) and Equation (5.2) is the dependent variable, which is a binary variable. Therefore, the Conditional Logistic model was constructed to estimate relations between a binary dependent variable and independent variables that can be organised in a panel. This research chose this model to identify the effects of Equation (5.2).

We also estimate other models for comparison. In the case of eq. (5.1), this research uses the standard *Ordinary Least Squares Regression*. In eq. (5.2), this research uses the *Ordinary Least Squares Regression* and the *Fixed-Effects Panel Regression*. The results are also compared with and without the control variables.

As for the expected results, switching likely harms the percentage of votes and the closer the switching occurs to the election, the more significant this expected effect. However, before introducing the party-switching window, politicians could change very early to mitigate these negative impacts, possibly even negating them. Thus, this research is expected to observe these negative impacts more predominately after the introduction of PSW. It is also likely that the *PSW* increases their re-election chances. As previously discussed, the party's performance is relevant to determining the outcome of elections; therefore, by switching closer to the election, candidates can have better information about party strength and thus gain more from switching.

6 DATABASES

To identify the effects of the hypothesis proposed in chapter 4, this research applies the methods described in the previous section to a database, or in this case, multiple combined databases. This research uses four datasets to identify the effects.

The first dataset reports party affiliation for every Brazilian from 1988 to 2021. This set of data has information for all party affiliations requests (name of the party-affiliated, dates of party affiliation and disaffiliation), which used two distinct methodologies for aggregating the data: up to 2015, when Brazil passed a political reform¹, parties were required to send their affiliates information to TSE twice a year (April and October) so that it could be aggregated. The Electoral Court then checks for cases of dual-party memberships and other types of inconsistencies in their reports, aggregates the information, and makes it available to the public. However, if one party does not report the data, the court works with the latest information. After the 2015 reform, parties had to register their affiliations in a centralised system at the moment of affiliation, and the court made the data available to the public.

The second dataset consists of election results. These include the results of all elections from all municipalities in Brazil from 2008 to 2020. It contains all the information about the results, such as the number of votes a candidate received, the city, the coalition, if there was any, the ticket the candidate was a part of, and the type of election it was disputed.

The third dataset concerns the candidates' characteristics. It includes information about ethnicity, age, gender, educational level, marriage status and place of birth. This database mainly obtains the control variables necessary to estimate the model. This research also uses the population data from *Instituto Nacional de Geografia e Estatística* (IBGE) to control for the size of the municipality.

All this data can be obtained from the *Tribunal Superior Electoral (TSE)* website under the databases section². Then, this research proceeds to filter the data sets for the variables used to estimate the effects. For this step, the *R* program was used.

This research starts by filtering the election results for only city councillors. Then, the votes of each candidate and the total number of votes per municipality are counted. The next step is to select each elected city councillor in 2008 so that the results of each subsequent election can be merged.

The database values are changed in sequence. As discussed in the methodology section of this dissertation, all instances in which a candidate changes parties are considered party-switching, regardless of motive. However, there is one exception to this rule: party name changes.

¹ the same political reform that introduced the PSW.

² The author is also available to share the databases

This dissertation does not consider this change to be party-switching and corrects it in this step.

Then, the control variables in the characteristics database are selected, and the R code merges with the election results data for each year. Subsequently, an inter-temporal unique identifier is generated. This identifier consists of the *Cadastro de Pessoas Físicas (CPF)* of each candidate combined with the code for each Brazilian municipality³.

After all of the controls and data sets for each election are done, this research merges them to generate a balanced panel that can track all city councillors elected in the electoral cycle of 2008 to 2020. After merging all elections, this research arrives at 12451 individuals from the initial 61553. The friction in the panel mainly occurs because candidates choose not to seek re-election for various reasons or are impeded by the TSE due to legal motives.

With the dataset complete, some descriptive statistics about the sample can be made:

Table 1 – Descriptive Statistics for the Control Variables

	2012		2016		2020		Total	
	Median	Mean	Median	Mean	Median	Mean	Median	Mean
Women	0	10.04%	0	10.06%	0	10.06%	0	10.05%
Age	46.00	46.48	50.00	50.49	54.0	54.5	50.00	50.49
Population	12,806	85,020	13,280	87,347	13,659	90,837	13,230	87,735

Source: Elaborated by the authors.

Table 2 – Educational Levels

	<i>Election Cycles:</i>		
	2012	2016	2020
Read and Write	302	286	338
Incomplete Elementary	2327	2189	1980
Complete Elementary	1996	1998	1904
Incomplete High-school	570	495	490
Complete High-school	4597	4610	4627
Incomplete University	425	329	289
Complete University	2233	2554	2823

Source: Elaborated by the authors.

³ This makes sure that each candidate in their respective municipalities can be followed over subsequent elections.

Table 3 – Number of Candidates in Each Group

	<i>Groups:</i>							
	<i>Never</i>	<i>Before</i>	<i>After</i>	<i>Always</i>	<i>After 2016</i>	<i>After 2020</i>	<i>Always 2016</i>	<i>Always 2020</i>
Simple	1,567	1,433	2,018	7,433	-	-	-	-
Robust	1,567	1,433	791	4,674	876	351	2,021	738

Source: Elaborated by the authors.

7 RESULT ANALYSIS

Four proposed model specifications were estimated as discussed in Chapter 5. The results of the estimation are in Table 4, Table 5, Table 6 and Table 7. The first two tables in the Chapter are the tables that follow Specification A; Table 4 shows the results when the dependent variable is the percentage of votes each candidate received and in Table 5 the dependent variable is a dummy for the election result.

In Table 4, four different models were estimated. The first two columns are the Ordinary Least Squares model, and the third and fourth are the Panel Fixed Effects model. This research also estimated both models with and without the control variables; Columns one and three do not contain controls, while two and four contain. Table 5 follows a similar logic by adding the Conditional Logistic model in columns five and six.

This research also estimated the same models again with Specification B. They are in Table 6 and Table 7. These tables follow the same logic as the previously described tables, with the sample divided into more groups. The result analysis is divided into two main parts: in the first, Specification A is discussed, and in the second, Specification B is discussed.

As it was considered in Chapter 3, the electoral system *borrow*s elements from both *CCS* and *PCS*, as defined in Radean (2022). It is a candidate-centred system in that the voter votes for a specific candidate, but it is also centred on parties because party performance matters. It is not purely one or the other. That is why in Chapter 4, this research proposed that punishment from voters would be observed in the share of votes¹ but their re-election probabilities would increase. The reasoning is that even if the electorate punishes the switchers, they can switch to a stronger party that will earn more seats and thus increase their re-election prospects.

Evidence to support this hypothesis is found in Specification A. When this research considers Table 4, especially the Panel Fixed Effects model with and without controls², this research finds that the effects of the interactions between the treatment dummy and the groups are negative³, albeit with statistically insignificant results. Therefore, no statistical difference exists between the *Never* group and any of the other groups. Thus, there is no evidence to support that the introduction of the PSW affected any of the groups that switched parties, at least in Specification A.

When this research considers Table 5, specifically the Conditional Logistic model with and without controls⁴, this research finds evidence to support that the PSW positively affects both

¹ The voters punish switchers by receiving fewer votes.

² Columns three and four.

³ Line six through eight.

⁴ Columns five and six.

After and *Always*, but does not affect *Before*⁵. The coefficients associated with the interactions between the treatment dummy and *After* and *Always* are respectively 0.161 and 0.208, indicating a positive increase in the election probability for these two groups after introducing the PSW.⁶ Therefore, switchers benefit more from switching parties closer to the election day, as the switching window happens six months before the election as opposed to the previous one-year limit.

This result is aligned with the theory proposed in Radean (2022), which suggests that politicians in a party-centred system⁷ benefit more from switching closer to the election because the information about which party is stronger in that election cycle is better.

In Specification B, it is observed that the result remains unchanged with a few exceptions. Considering Table 6, this research notices that voters still punish party switchers in the Fixed Effects models⁸. However, this research perceives that the results are statistically significant in most groups except for *Before* and *After*. The coefficients associated with the explanatory variable *After 2016* is -0.064; with *Always 2016* -0.110; and with *Always* -0.085. They are all significant at 10%. This indicates that these groups performed worse than *Never* after the PSW was introduced, in line with the hypothesis proposed in Chapter 4. The notable exceptions are *After 2020* with an associated coefficient of 0.132 and *Always 2020* with 0.317, both significant at 5%.

When this research considers Table 7, mainly the conditional logistic results⁹, the results follow the proposed hypothesis in Chapter 4 with some exceptions. Considering lines ten through sixteen, this research observes that switching generally increases the re-election probability in *After*, *After 2020*, *Always* and *Always 2020*, with all of the coefficients associated with their respective explanatory variables being statistically significant at 1%. *Before* is not statistically significant and thus is unaffected by the PSW. These findings are expected and are under *Hypothesis II* proposed in Chapter 4. *After 2016* and *Always 2016* are the exceptions because they are statistically significant at 1%, and the coefficients associated with them are respectively -0.419 and -0.532. Therefore, they require further explanation.

Specification B can capture more specific election cycle effects than Specification A. The differences identified in these four groups¹⁰ that behaved differently from which this research expected are due to these election cycle differences. For instance, the 2016 impeachment of President Dilma Rousseff could explain the overall negative performance of switchers comparatively

⁵ Line six through eight.

⁶ These Results are significant at the 5%.

⁷ As previously argued, the Brazilian system is not a pure PCS. However, it is akin to one in that party performance matters to determine the candidate's election.

⁸ Columns three and four.

⁹ Columns five and six.

¹⁰ *After 2020*, *Always 2020* in Table 6 and *After 2016*, *Always 2016* in Table 7.

to non-switchers¹¹.

As for the other control variables, they exhibit similar results across all specifications that contain them. Considering again Table 4 and Table 6, only *Population* and *Age* are statistically relevant at 1%¹². In Table 4, the coefficient associated with the *Population* variable is -0.516, and in Table 6 is -0.518. This suggests that city councillors seeking re-election in smaller municipalities receive fewer overall votes. The coefficients associated with *Age* are also negative, -0.108 and -0.108, respectively, which indicates that younger city councillors seeking re-election receive fewer votes.

The results for the Conditional Logistic model are similar to the ones discussed in the previous paragraph, at least when it comes to the control variables of the model. *Population* and *Age* are significant at 1% and all of the coefficients are negative. This suggests that in both specifications of the model, Table 5 and Table 7, younger city councillors and smaller municipalities are associated with lower probabilities of re-election.

In sum, the overall effect of the PSW is positive for switchers versus non-switchers. The Party Switching Window law improved the information about party strength for city councillors. It made them more likely to switch to a better-performing party, increasing their re-election chances. Punishment by voters is minor and is almost always insufficient to alter the probability of re-election. Therefore, the PSW provided more protection from voter punishment for switchers. While voters gained with the new law because it is much harder to lose voter agency¹³, they lost much of their ability to punish those who are disloyal to their original party.

¹¹ Both in the Percentage of Votes and the Probability of Re-election.

¹² Just like the previous discussion, in this part only the Panel Fixed Effects model is considered.

¹³ City councillor can no longer switch parties in the middle of their mandates, they must do so at the end.

Table 4 – Specification A - Percentage of Votes

	<i>Dependent variable:</i> <i>Percentage of Votes</i>			
	<i>OLS</i>		<i>panel linear</i>	
	(1)	(2)	(3)	(4)
PSW	-0.379*** (0.056)	-0.131*** (0.046)	-0.379*** (0.029)	0.287*** (0.035)
<i>Before</i>	0.499*** (0.119)	0.583*** (0.098)		
<i>After</i>	-0.275*** (0.054)	-0.244*** (0.044)		
<i>Always</i>	-0.249*** (0.066)	-0.019 (0.056)		
<i>Never</i>				
PSW* <i>Before</i>	-0.086 (0.146)	-0.159 (0.120)	-0.086 (0.075)	-0.091 (0.074)
PSW* <i>After</i>	-0.012 (0.066)	0.023 (0.054)	-0.012 (0.034)	-0.005 (0.033)
PSW* <i>Always</i>	-0.035 (0.081)	-0.077 (0.067)	-0.035 (0.042)	-0.035 (0.041)
PSW* <i>Never</i>				
Days Before Election		-0.001*** (0.0002)		-0.0001 (0.0001)
Days Before Election ²		7.285 · 10 ⁻⁷ *** (1.870 · 10 ⁻⁷)		4.0325 · 10 ⁻⁸ (1.4092 · 10 ⁻⁷)
ln(Population)		-0.939*** (0.008)		-0.516*** (0.083)
Women		-0.054 (0.034)		-0.068 (0.400)
Incomplete Elementary		0.029 (0.067)		0.079 (0.057)
Complete Elementary		0.068 (0.068)		0.050 (0.059)
Incomplete High-school		0.030 (0.080)		0.092 (0.069)
Complete High-school		0.064 (0.065)		0.046 (0.061)
Incomplete University		0.019 (0.088)		0.061 (0.081)
Complete University		0.223*** (0.068)		0.090 (0.075)
Age		-0.036*** (0.001)		-0.108*** (0.004)
Constant	4.610*** (0.046)	15.205*** (0.112)		
Observations	37,353	37,349	37,353	37,349
R ²	0.011	0.346	0.035	0.075

Source:

Elaborated by the authors.

Note:

Coefficients associated with each regressor are above their respective standard deviations in brackets.
*p<0.1; **p<0.05; ***p<0.01

Table 5 – Specification A - Probability of Re-election

	<i>Dependent variable:</i>					
	<i>OLS</i>		<i>Elected</i>		<i>conditional</i>	
	<i>panel</i>	<i>linear</i>	<i>logistic</i>	<i>logistic</i>	<i>logistic</i>	<i>logistic</i>
	(1)	(2)	(3)	(4)	(5)	(6)
PSW	-0.132*** (0.011)	-0.086*** (0.011)	-0.132*** (0.010)	0.056*** (0.012)	-0.860*** (0.065)	0.396*** (0.082)
<i>Before</i>	0.023 (0.024)	0.027 (0.024)				
<i>After</i>	-0.098*** (0.011)	-0.102*** (0.011)				
<i>Always</i>	-0.079*** (0.013)	-0.069*** (0.014)				
<i>Never</i>						
PSW* <i>Before</i>	0.045 (0.030)	0.032 (0.029)	0.045* (0.025)	0.053** (0.025)	0.146 (0.184)	0.225 (0.188)
PSW* <i>After</i>	0.024* (0.013)	0.030** (0.013)	0.024** (0.011)	0.021* (0.011)	0.197*** (0.075)	0.161** (0.077)
PSW* <i>Always</i>	0.020 (0.016)	0.011 (0.016)	0.020 (0.014)	0.026* (0.014)	0.159* (0.092)	0.208** (0.094)
PSW* <i>Never</i>						
Days Before Election		-0.0001*** (0.00004)		0.0001* (0.00004)		0.001** (0.0002)
Days Before Election ²		1.797 · 10 ⁻⁷ *** (4.603 · 10 ⁻⁸)		-5.3255 · 10 ⁻⁸ *** (4.7531 · 10 ⁻⁸)		-5.620 · 10 ⁻⁷ * (3.053 · 10 ⁻⁷)
ln(Population)		-0.024*** (0.002)		-0.112*** (0.028)		-0.378** (0.186)
Women		-0.027*** (0.008)		0.063 (0.135)		0.405 (1.060)
Incomplete Elementary		0.034** (0.017)		0.019 (0.019)		0.092 (0.122)
Complete Elementary		0.027 (0.017)		0.013 (0.020)		0.075 (0.126)
Incomplete High-school		0.032 (0.020)		0.027 (0.023)		0.164 (0.148)
Complete High-school		0.026 (0.016)		0.008 (0.021)		0.074 (0.130)
Incomplete University		0.019 (0.022)		0.023 (0.027)		0.139 (0.174)
Complete University		0.072*** (0.017)		0.032 (0.025)		0.217 (0.162)
Age		-0.008*** (0.0003)		-0.031*** (0.001)		-0.208*** (0.008)
Constant	0.781*** (0.009)	1.343*** (0.028)				
Observations	37,353	37,349	37,353	37,349	18,630	18,630
R ²	0.019	0.047	0.026	0.054	0.018	0.037

Source:

Note:

Elaborated by the authors.
Coefficients associated with each regressor are above their respective standard deviations in brackets.
*p<0.1; **p<0.05; ***p<0.01

Table 6 – Specification B - Percentage of Votes

	<i>Dependent variable:</i> <i>Percentage of Votes</i>			
	<i>OLS</i>		<i>panel linear</i>	
	(1)	(2)	(3)	(4)
PSW	-0.379*** (0.056)	-0.129*** (0.046)	-0.379*** (0.029)	0.288*** (0.035)
<i>Before</i>	0.499*** (0.118)	0.559*** (0.098)		
<i>After</i>	-0.581*** (0.063)	-0.437*** (0.051)		
<i>After 2016</i>	0.086 (0.063)	-0.025 (0.051)		
<i>After 2020</i>	-0.434*** (0.083)	-0.333*** (0.068)		
<i>Always</i>	-0.504*** (0.081)	-0.183*** (0.068)		
<i>Always 2016</i>	0.202** (0.093)	0.210*** (0.078)		
<i>Always 2020</i>	-0.420*** (0.132)	-0.158 (0.109)		
<i>Never</i>				
PSW* <i>Before</i>	-0.086 (0.145)	-0.136 (0.119)	-0.086 (0.075)	-0.091 (0.074)
PSW* <i>After</i>	-0.007 (0.077)	0.025 (0.064)	-0.007 (0.040)	0.003 (0.040)
PSW* <i>After 2016</i>	-0.068 (0.077)	-0.052 (0.063)	-0.068* (0.039)	-0.064* (0.039)
PSW* <i>After 2020</i>	0.123 (0.102)	0.145* (0.083)	0.123** (0.052)	0.132** (0.052)
PSW* <i>Always</i>	-0.087 (0.099)	-0.110 (0.081)	-0.087* (0.051)	-0.085* (0.050)
PSW* <i>Always 2016</i>	-0.111 (0.114)	-0.141 (0.094)	-0.111* (0.059)	-0.110* (0.058)
PSW* <i>Always 2020</i>	0.317** (0.161)	0.283** (0.132)	0.317*** (0.083)	0.317*** (0.082)
PSW* <i>Never</i>				
Days Before Election		-0.001*** (0.0002)		-0.00005 (0.0001)
Days Before Election ²		6.717 · 10 ⁻⁷ *** (1.866 · 10 ⁻⁷)		2.2202 · 10 ⁻⁸ (1.4088 · 10 ⁻⁷)
ln(Population)		-0.929*** (0.008)		-0.518*** (0.083)
Women		-0.058* (0.033)		-0.084 (0.399)
Incomplete Elementary		0.012 (0.067)		0.078 (0.057)
Complete Elementary		0.054 (0.067)		0.051 (0.059)
Incomplete High-school		0.017 (0.079)		0.089 (0.068)
Complete High-school		0.049 (0.065)		0.046 (0.061)
Incomplete University		-0.003 (0.087)		0.062 (0.081)
Complete University		0.200*** (0.068)		0.090 (0.075)
Age		-0.036*** (0.001)		-0.108*** (0.004)
Constant	4.610*** (0.046)	15.148*** (0.112)		
Observations	37,353	37,349	37,353	37,349
R ²	0.023	0.350	0.036	0.076

Source:

Note:

Elaborated by the authors.
Coefficients associated with each regressor are above their respective standard deviations in brackets.
*p<0.1; **p<0.05; ***p<0.01

Table 7 – Specification B - Probability of Re-election

	Dependent variable:					
	OLS		panel linear		conditional logistic	
	(1)	(2)	(3)	(4)	(5)	(6)
PSW	-0.132*** (0.011)	-0.086*** (0.011)	-0.132*** (0.010)	0.056*** (0.012)	-0.860*** (0.065)	0.399*** (0.082)
Before	0.023 (0.024)	0.023 (0.024)				
After	-0.174*** (0.013)	-0.176*** (0.013)				
After 2016	0.007 (0.013)	-0.001 (0.013)				
After 2020	-0.176*** (0.017)	-0.177*** (0.017)				
Always	-0.137*** (0.016)	-0.131*** (0.017)				
Always 2016	0.038** (0.019)	0.038** (0.019)				
Always 2020	-0.152*** (0.027)	-0.140*** (0.027)				
Never						
PSW*Before	0.045 (0.030)	0.037 (0.029)	0.045* (0.025)	0.050** (0.025)	0.146 (0.184)	0.208 (0.188)
PSW*After	0.062*** (0.016)	0.066*** (0.016)	0.062*** (0.013)	0.061*** (0.013)	0.438*** (0.086)	0.410*** (0.089)
PSW*After 2016	-0.056*** (0.016)	-0.052*** (0.015)	-0.056*** (0.013)	-0.057*** (0.013)	-0.389*** (0.091)	-0.419*** (0.093)
PSW*After 2020	0.135*** (0.021)	0.138*** (0.020)	0.135*** (0.018)	0.135*** (0.017)	0.881*** (0.110)	0.874*** (0.112)
PSW*Always	0.042** (0.020)	0.036* (0.020)	0.042** (0.017)	0.046*** (0.017)	0.324*** (0.109)	0.354*** (0.111)
PSW*Always 2016	-0.063*** (0.023)	-0.069*** (0.023)	-0.063*** (0.020)	-0.058*** (0.020)	-0.580*** (0.149)	-0.532*** (0.152)
PSW*Always 2020	0.135*** (0.033)	0.128*** (0.032)	0.135*** (0.028)	0.140*** (0.028)	0.877*** (0.171)	0.937*** (0.175)
PSW*Never						
Days Before Election		-0.0001*** (0.00004)		0.0001 (0.00004)		0.001** (0.0003)
Days Before Election ²		1.629 · 10 ⁻⁷ *** (4.583 · 10 ⁻⁷)		-6.1845 · 10 ⁻⁸ (4.7360 · 10 ⁻⁸)		-5.962 · 10 ⁻⁷ * (3.070 · 10 ⁻⁷)
ln(Population)		-0.022*** (0.002)		-0.119*** (0.028)		-0.411** (0.188)
Women		-0.028*** (0.008)		0.058 (0.134)		0.371 (1.095)
Incomplete Elementary		0.030* (0.016)		0.019 (0.019)		0.109 (0.123)
Complete Elementary		0.024 (0.017)		0.015 (0.020)		0.106 (0.127)
Incomplete High-school		0.028 (0.019)		0.027 (0.023)		0.177 (0.149)
Complete High-school		0.023 (0.016)		0.009 (0.020)		0.092 (0.131)
Incomplete University		0.014 (0.021)		0.026 (0.027)		0.145 (0.176)
Complete University		0.067*** (0.017)		0.033 (0.025)		0.231 (0.164)
Age		-0.008*** (0.0003)		-0.031*** (0.001)		-0.208*** (0.008)
Constant	0.781*** (0.009)	1.327*** (0.028)				
Observations	37,353	37,349	37,353	37,349	18,630	18,630
R ²	0.030	0.057	0.034	0.062	0.023	0.043

Source:

Note:

Elaborated by the authors.
Coefficients associated with each regressor are above their respective standard deviations in brackets.
*p<0.1; **p<0.05; ***p<0.01

8 CONCLUSION

The results of this study point to the fact that timing is a crucial component of the party-switching game. Considering that [Aldrich and Bianco \(1992\)](#) stated that switching parties was a game of timing, [Mershon and Shvetsova \(2013\)](#) and [Radean \(2022\)](#) found evidence that the timing that candidates switch parties is a relevant factor in explaining electoral performance, this study also contributes to this literature.

This research followed the political system classification proposed in [Radean \(2022\)](#) with a few modifications. While [Radean \(2022\)](#) proposes two main types of system, the *Candidate Centred* and the *Party Centred*, this research argued that the Brazilian political system borrows from both of these. It is candidate-centred because the elector votes for candidates, and it is party-centred because party/coalition performance is relevant to the candidates' election. This hybrid system implies that due to the relevance of party/coalition, even when the elector is willing to punish party defectors, candidates who switch to stronger parties can increase their chances of re-election, even if they receive fewer overall votes.

This research also argues that introducing the PSW law makes the information about which parties are stronger in that particular election cycle more reliable. As it was proposed in [Radean \(2022\)](#), in systems where party performance is relevant, politicians tend to switch parties as close to the upcoming election as possible since information about party strength is more reliable. Previously, politicians had to be affiliated with their party for at least one year to be candidates for that party. After the PSW, they could only switch six months before the election. Thus, by switching closer, this research expected that switchers perform better due to their access to more information. This research found evidence to corroborate this hypothesis: that party switch timing is relevant for electoral performance.

Another aspect of the PSW considered by this research is the implications for the political system, more specifically, for the elector. The main argument behind introducing the PSW is that electors and parties lost their agency because politicians switched parties early in their mandates and did not adhere to their original campaign promises. While with the PSW, this is no longer technically possible, it introduces another problem: switchers are *generally* more protected from facing the consequences of their party infidelity.

Before the political reform of 2015, it was already difficult for electors to punish switchers directly because they could switch to a better-performing party and still get elected. However, now they can switch closer to the election when their information is more accurate and perform better. So even though electors no longer lose agency during the mandate, they have less power to punish party dissidents.

There is evidence to corroborate the idea that the PSW rewards switchers with better

electoral performance and thus increases the odds that those that *survive* in politics are those that switch parties. Therefore, future studies should consider who survives more in politics, if it is the party switcher or the loyalist, and whether the introduction of PSW sufficiently altered which kind of politician is more adapted to the political sphere.

REFERENCES

- ALDRICH, J. H.; BIANCO, W. T. A game-theoretic model of party affiliation of candidates and office holders. **Mathematical and Computer Modelling**, v. 16, n. 8-9, p. 103–116, ago. 1992. ISSN 08957177. Available at: <https://linkinghub.elsevier.com/retrieve/pii/0895717792900908>.
- COX, G. W.; ROSENBLUTH, F. Anatomy of a split: The Liberal Democrats of Japan. **Electoral Studies**, v. 14, n. 4, p. 355–376, dez. 1995. ISSN 02613794. Available at: <https://linkinghub.elsevier.com/retrieve/pii/0261379494000093>.
- DESPOSATO, S.; SCHEINER, E. Governmental Centralization and Party Affiliation: Legislator Strategies in Brazil and Japan. **American Political Science Review**, v. 102, n. 4, p. 509–524, nov. 2008. ISSN 0003-0554, 1537-5943. Available at: https://www.cambridge.org/core/product/identifier/S0003055408080374/type/journal_article.
- DESPOSATO, S. W. Parties for Rent? Ambition, Ideology, and Party Switching in Brazil's Chamber of Deputies. **American Journal of Political Science**, v. 50, n. 1, p. 62–80, jan. 2006. ISSN 0092-5853, 1540-5907. Available at: <https://onlinelibrary.wiley.com/doi/10.1111/j.1540-5907.2006.00170.x>.
- FERREIRA, M. C. As migrações partidárias e a correlação de forças na câmara dos deputados (1995-2006). **Revista de Sociologia e Política**, v. 19, n. 38, p. 205–215, fev. 2011. ISSN 0104-4478. Available at: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-44782011000100013&lng=pt&tlng=pt.
- GROSE, C. R.; YOSHINAKA, A. The Electoral Consequences of Party Switching by Incumbent Members of Congress, 1947-2000. **Legislative Studies Quarterly**, v. 28, n. 1, p. 55–75, fev. 2003. ISSN 03629805. Available at: <http://doi.wiley.com/10.3162/036298003X200809>.
- HAMEL, B. T.; YOSHINAKA, A. Who Donates to Party Switchers? **American Politics Research**, v. 48, n. 2, p. 295–307, mar. 2020. ISSN 1532-673X, 1552-3373. Available at: <http://journals.sagepub.com/doi/10.1177/1532673X19858336>.
- HELLER, W. B.; MERSHON, C. Party Switching in the Italian Chamber of Deputies, 1996–2001. **The Journal of Politics**, v. 67, n. 2, p. 536–559, maio 2005. ISSN 0022-3816, 1468-2508. Available at: <https://www.journals.uchicago.edu/doi/10.1111/j.1468-2508.2005.00328.x>.
- HELLER, W. B.; MERSHON, C. Dealing in Discipline: Party Switching and Legislative Voting in the Italian Chamber of Deputies, 1988-2000. **American Journal of Political Science**, v. 52, n. 4, p. 910–925, out. 2008. ISSN 00925853, 15405907. Available at: <https://onlinelibrary.wiley.com/doi/10.1111/j.1540-5907.2008.00350.x>.
- HOTT, H. A. C. F.; SAKURAI, S. N. Party switching and political outcomes: evidence from Brazilian municipalities. **Public Choice**, v. 187, n. 3-4, p. 403–438, jun. 2021. ISSN 0048-5829, 1573-7101. Available at: <https://link.springer.com/10.1007/s11127-020-00786-6>.
- KEMAHLI OĞLU, S.; SAYARI, O. Defecting alone or splitting together? Individual and collective party switching by legislators. **Public Choice**, v. 171, n. 1-2, p. 187–206, abr. 2017. ISSN 0048-5829, 1573-7101. Available at: <http://link.springer.com/10.1007/s11127-017-0433-0>.

- KLEIN, E. Electoral Rules and Party Switching: How Legislators Prioritize Their Goals: Electoral Rules and Party Switching. **Legislative Studies Quarterly**, v. 41, n. 3, p. 715–738, ago. 2016. ISSN 03629805. Available at: <https://onlinelibrary.wiley.com/doi/10.1111/lsq.12128>.
- KREUZER, M.; PETTAI, V. Patterns of political instability: Affiliation patterns of politicians and voters in post-communist Estonia, Latvia, and Lithuania. **Studies in Comparative International Development**, v. 38, n. 2, p. 76–98, jun. 2003. ISSN 0039-3606, 1936-6167. Available at: <http://link.springer.com/10.1007/BF02686269>.
- MERSHON, C.; SHVETSOVA, O. Parliamentary Cycles and Party Switching in Legislatures. **Comparative Political Studies**, v. 41, n. 1, p. 99–127, jan. 2008. ISSN 0010-4140, 1552-3829. Available at: <http://journals.sagepub.com/doi/10.1177/0010414007303651>.
- MERSHON, C.; SHVETSOVA, O. The Microfoundations of Party System Stability in Legislatures. **The Journal of Politics**, v. 75, n. 4, p. 865–878, out. 2013. ISSN 0022-3816, 1468-2508. Available at: <https://www.journals.uchicago.edu/doi/10.1017/S0022381613000716>.
- NIELSEN, M. K.; ANDERSEN, A. M.; PEDERSEN, H. H. Balancing Costs of Legislative Party Switching in the Danish Parliament 1953–2015. **Parliamentary Affairs**, v. 72, n. 1, p. 42–58, jan. 2019. ISSN 0031-2290, 1460-2482. Available at: <https://academic.oup.com/pa/article/72/1/42/4898984>.
- O'BRIEN, D. Z.; SHOMER, Y. A Cross-National Analysis of Party Switching: Party Switching. **Legislative Studies Quarterly**, v. 38, n. 1, p. 111–141, fev. 2013. ISSN 03629805. Available at: <https://onlinelibrary.wiley.com/doi/10.1111/lsq.12005>.
- PINTO, L. The Time Path of Legislative Party Switching and the Dynamics of Political Competition: The Italian Case (1996–2011). **The Journal of Legislative Studies**, v. 21, n. 3, p. 323–341, jul. 2015. ISSN 1357-2334, 1743-9337. Available at: <http://www.tandfonline.com/doi/full/10.1080/13572334.2015.1017369>.
- RADEAN, M. Perfect timing: Leveraging the timing of defection to assess the effect of electoral rules on party switching. **Party Politics**, v. 28, n. 4, p. 666–679, jul. 2022. ISSN 1354-0688, 1460-3683. Available at: <http://journals.sagepub.com/doi/10.1177/1354068821993727>.
- SANTOS, A. L. G. d. The party loyalty in Brazil: gênese, historic and consolidation. **Trabalho de Conclusão de Curso (Pós-Graduação em Administração Judiciária) – ESMEC – Escola Superior da Magistratura Brasileira, UVA - Universidade Vale do Acaraú**, 2009.
- SNAGOVSKY, F.; KERBY, M. The Electoral Consequences of Party Switching in Canada: 1945–2011. **Canadian Journal of Political Science**, v. 51, n. 2, p. 425–445, jun. 2018. ISSN 0008-4239, 1744-9324. Available at: https://www.cambridge.org/core/product/identifer/S0008423917001445/type/journal_article.
- THAMES, F. C. Searching for the Electoral Connection: Parliamentary Party Switching In the Ukrainian Rada, 1998-2002. **Legislative Studies Quarterly**, v. 32, n. 2, p. 223–256, maio 2007. ISSN 03629805. Available at: <http://doi.wiley.com/10.3162/036298007780907888>.
- YOUNG, D. J. An initial look into party switching in Africa: Evidence from Malawi. **Party Politics**, v. 20, n. 1, p. 105–115, jan. 2014. ISSN 1354-0688, 1460-3683. Available at: <http://journals.sagepub.com/doi/10.1177/1354068811436041>.