



GÖTEBORGS
UNIVERSITET

DEPARTMENT OF POLITICAL SCIENCE

PARTISAN ELECTORAL CYCLES AND GOVERNMENT RESPONSE TO THE COVID-19 PANDEMIC

A quantitative study of subnational governments in
the US and Canada

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Master's Thesis:	30 credits
Programme:	Master's Programme in Political Science
Date:	17 th August, 2020
Supervisor:	Nicholas Charron & Jana Schwenk
Words:	19961

Abstract

Although decisive government response to the COVID-19 pandemic have been critical to keep down infection rates such policies have also brought with it substantial social and economic costs. Much scholarly attention has been directed towards how political determinants have influenced elected leaders' decision making on this. While these studies have provided important insights regarding the role of for example centralization, electoral system, and government ideology, less is known about more direct elements of political competition like elections. In this thesis, I investigate whether upcoming elections have influenced elected governments' containment policy choices, and whether this effect have varied by partisanship. Drawing on the Electoral Cycles framework, I develop an argument that approaching elections will in general lead governments to relax containment measures as election approaches, but that this effect is mainly driven by politically conservative governments. I test these expectations on subnational elections in two similar countries that are likely to exhibit the effect: the US and Canada. Employing Two-way Fixed Effects models, I find that approaching elections are associated with a weak general decrease of containment policies. However, contrary to expectations, this pattern is most prevalent within liberal states and provinces. Analysing the countries separately does however not lend support to the main findings. I therefore conclude that approaching elections have had little to no effect on containment policy choices. These results are, however, interesting in themselves and add both to the literature on government COVID-19 response, as well as to the studies of Electoral Cycles.

Keywords: COVID-19, government response, subnational, Electoral Cycles, partisanship

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1. Introduction

Public health emergencies have always and will always be around (Ferguson et al. 2020). But the spread and severity of the recent COVID-19 pandemic are unprecedented in modern times (ibid). The SARS-CoV-2 virus has so far claimed over 6 million lives (John Hopkins University 2022).

Since its rapid onset in early 2020, governments worldwide have been required to take action to curb the spread of the disease and the suffering of their citizens. Due to the close-contact transmission of the COVID-19 virus (WHO 2021a), strict and coercive containment measures¹ like mandatory face coverings, quarantines, and lockdowns have been required. As of 2020, the following years have been characterized by levels of state intervention in citizens' lives not seen since the second world war (Cepaluni et al. 2020).

While these types of disruptive regulations have been necessary for curbing rising numbers of infections, hospitalizations and deaths (Pradhan et al. 2020; Pleninger et al. 2022), they have also meant a trade-off between public health versus individual freedom, social well-being and economic stability (Brodeur et al. 2021).

Countries worldwide have faced the same virus and implemented the same types of necessary measures, but the intensity between them seems to have varied substantially. Early studies of governments' pandemic responses for example, observed that quick and effective measures significantly lagged in democratic countries (Bosancianu et al. 2020; Cepaluni et al. 2020; Cheibub et al. 2020²; Cronert 2020; Frey et al. 2020). Theoretical and empirical insights attributed this reluctance to democratic accountability; elected leaders need to consider the civil and political rights of their citizens in their decision-making processes, especially so when the policy entails the coerciveness associated with COVID-19 containment policies.

Yet, it still remains that democratic countries exhibited substantial response heterogeneity (Cheibub et al. 2020:11f). While for example countries such as Denmark and New Zealand instituted nation-wide lockdowns even before experiencing *any* death cases, other countries such as Brazil and the US demonstrated considerable reluctance to implement measures (ibid). This observed heterogeneity have partly been explained by for example differences in state

¹ I use the *containment policy/measure* as an umbrella term in this thesis to refer to all types of government regulations or restrictions intended to curb the spread of the virus. A plethora of different terms are used between the studies on government response, but they all generally refer to the same thing as they mostly operationalize it with the OxCGRT Stringency Index, as also done here. A more specific list is found in the appendix.

² Cheibub et al. (2020) also control for state capacity, which would otherwise usually correlate with regime type.

capacity resources such as hospital quality, (de)centralized political institutions, and ideology of the government (Bosancianu et al. 2020; Toshkov et al. 2021).

Nevertheless, while providing important insights, few studies so far have considered the effect of political competition and electoral cycles that are central to democratic systems. If accountability affects government response decisions, approaching election dates, i.e., the formally day for leader accountability, are likely to exacerbate such dynamics. The studies that do touch upon this have so far provided contradicting results, which could be attributed to the limited time frame examined, as well as assuming a uniform government response, overlooking how for example ideology might structure such effects.

In this thesis, I address this gap in the literature by developing arguments of how elections will lead to 1) an observed overall lower level of containment policies, but that 2) this effect is only driven by governments of political conservative partisanship. The overarching research questions of this thesis are thus: *Have upcoming elections systematically influenced elected governments' COVID-19 containment policy choices? Has this been different depending on the partisanship of the government?*

I intend to test the argued expectations by looking at subnational election timings within two countries likely to exhibit electorally motivated shifts in containment policies, namely the US and Canada. These are two countries where election timings have been shown to shape policy decisions in normal times (Krause 2004; Kneebone & McKenzie 2001), that exhibited much variation in subnational government policies (Hallas et al. 2021; Cameron-Blake et al. 2021), and where pandemic response came to become subject of political polarization (Akovali & Yilmaz 2020; Pennycook et al. 2020).

Using the Oxford COVID-19 Government Response Tracker dataset, I employ Two-way Fixed Effects models to explore patterns in policy changes over the two first years of the pandemic. The analyses suggest that approaching elections are associated with lower levels of containment policies, but that this effect is mostly driven by liberal governments, with little to no effects observed in states and provinces with right-wing conservative governments. The observed effects are however quite small, and lose significance when examining each country separately.

This thesis contributes to the growing literature on government response to the COVID-19 pandemic in several ways. Firstly, most studies on government response have focused on the first initial months of the pandemic which were characterized by uncertainty over the severity of the situation, appropriate responses (Allam 2020; Basit Adeel et al. 2020), as well as short-lived rally-around-the-flag effects (Baekgaard et al. 2020; Esaiasson et al. 2020; Bol

et al. 2021). Political and electoral factors might not have been as prevalent in the volatile and uncertain times that characterized the initial months, compared to later stages of the pandemic. Here, I instead extend the timeframe to include all the relevant elections during the two first years of the pandemic, which provides more robust testing of the studied relationship.

Secondly, previous studies on government COVID-19 response are mostly cross-country studies and, perhaps, for this reason, have yielded few unanimous insights on the political determinants of containment policy choices. This thesis instead takes a subnational focus, adding to the few studies of *subnational* government response. This approach is beneficial for several reasons. In countries like the US and Canada, containment measures have been decided and implemented on the subnational level (Adeel Basit et al. 2020). Moreover, subnational elections in the US and Canada do not occur at the same time but are rather spread out over time. This provides for a research design where governments that experienced the factor of interest (election) can be compared to similar governments whose elections are further away. Thus, the extended timeframe, the subnational focus, and the differential election timings open for an improved research design and more robust testing of the effect of interest. While limiting the potential for generalizability, this thesis puts the focus on the mechanism itself and seeks to primarily test the theory of (Partisan) Electoral Cycles on containment policy choices.

This thesis also adds to the field of Electoral Cycles studies. The Electoral Cycles literature has since its emergence come to encompass more and more fields of politics, the perhaps latest being crisis response (see Cooperman 2022). I here seek to further advance the literature and this later extension by applying and testing the framework on government pandemic response.

This also motivates the thesis's empirical relevance. The likelihood of pandemics has increased in the last decade due to for example rising animal viral diseases, changes in land usage, and increased mobility, (Madhav et al. 2017) and researchers have argued that pandemics are something of the inevitable (Garrett 2007; Keogh-Brown et al. 2008; Madhav et al. 2017; Fan et al. 2018). As we know that approaching elections can lead to trade-offs between short and long-term interests in normal times (Franzese 2002), it is important to examine whether this also affects containment policies, which ultimately may lead to excess mortality (Flaxman et al. 2020). Shedding further light on factors and circumstances where political incentives trump the lives and well-being of citizens should naturally warrant scholarly attention.

The remainder of the paper is organized as follows. I first review the existent literature on governments' COVID-19 response, showing that cross-country comparisons have so far

yielded limited insights. Regional studies seem more promising, but no such study has been conducted on election timings, which motivates the research gap I attempt to fill. Second, I introduce the Electoral Cycles framework and develop a theoretical argument of how this might have affected governments' policy choices. Thirdly, I discuss and motivate the methodological choices best suited to answer the research questions at hand. I then present the results from the analyses and discuss their validity, generalizability, and possible reasons for the unexpected. Lastly, I sum up the thesis, discuss wider implications, and give some recommendations for future research.

2. Literature review

What do we already know about political determinants of government COVID-19 response? Due to the novelty and uniqueness of the phenomenon, many studies have taken an exploratory approach in explaining the heterogeneity of government actions and have thus provided a multitude of somewhat similar and different mechanisms. In broad terms, drawing on the work of Bosancianu et al. (2020), political determinants can be categorized into two groups: “**political institutions**, which shape government incentives, and matter for what a government is *willing* to do, and [...] **political priorities**, which matter for which policies are chosen” (ibid:3). I draw on this categorization to structure the literature review and present what insights we have so far. I also include studies on other COVID-related outcomes such as mortality and economic support, as these should correlate with containment policies (Bosancianu et al. 2020), provide more to the general picture, and further motivate the research gap.

2.1 Political institutions

Whereas state capacity such as hospital resources or economic means may determine a government’s ability to deal with a health emergency (Toshkov et al. 2021), political institutions shape their incentives (Bosancianu et al. 2020:6).

Scholarly insight usually argues democratic features such as accountability to be a guarantor of citizens’ welfare since their leaders are elected by and for the people. Consequently, these elected leaders may go to great lengths to protect their citizens. As for example Baekkeskov & Rubin put it: “the costs of pursuing a precautionary strategy [...] are miniscule compared to the political costs of inadequate protection in case of a full-blown epidemic” (2014:83).

However, this did not seem to favour democracies in the early battle against the spread of the COVID-19 virus. As political scientists sought to explore and untangle the political factors of government response, early studies reported that there seemed to be something about democracies as compared with autocracies that hamper implementation of swift and effective containment policies (Cheibub et al. 2020; Cepaluni et al. 2020). Frey, Chen & Presidente, for example, summarize their study by stating that “for a given number of infections, our policy stringency index was 17 percent higher in autocratic regimes” (2020:2).

The proposed mechanisms in these studies suggest that the very political institutions associated with democracies are responsible for the hesitancy observed. For example, an elected leader needs to consider the freedoms and rights of their citizens, and this may have posed a

condition for implementing coercive measures upon their citizens. Such worries are not as salient in autocratic regimes who can enact more restrictive measures without worrying about political legitimacy (Cheibub et al. 2020:2f). Indeed, Toshkov et al. (2021) show that rule of law, as well as higher regard for political rights and civil liberties correlate with slower response rate. Likewise, Ferraresi et al.'s (2020b) study reports that higher regard for civic participation and fundamental rights are associated with less effective response. Cronert's study (2020) however, finds that greater regard for freedom is associated with quicker school closures and Plümper & Neumayer (2021) show a correlation between more civil liberties and higher levels of restrictions.

But even though hesitance may be associated with democratic institutions, these countries exhibited great response heterogeneity (Cheibub et al. 2020:11). Governments in for example Denmark and New Zealand were quick to institute nationwide lockdowns even before experiencing *any* death cases. In other parts of the world, countries such as Brazil and the United States demonstrated considerable reluctance to implement restrictions (ibid).

Studies that sought to shed light on this heterogeneity point to the power-sharing mechanisms of these institutions as being partly responsible. For example, more decentralized systems, or those with more veto points (i.e. systems which require support of multiple actors for political change), usually prolong policy-making in normal times and perhaps so during crisis (Bosancianu et al. 2020).

Empirical evidence is somewhat mixed though. Toshkov et al. (2020) do not find that federalist countries differed in COVID-19 response in the initial months, but that a higher degree of regional administrative division is associated with slower COVID policy processes. They also report non-significant effects of bicameral legislatures. Bosancianu et al. (2020), report no significant relationship between centralization and mortality rate, whereas Béland et al.'s (2020) comparative case study argues that Canada was considerably faster in enacting unemployment aid than the US due to the centralized nature of the program. Ferraresi et al. (2020a) find that decentralization, in terms of more levels of government, is associated with less stringent regulations. Plümper & Neumayer (2021) find weak evidence of number of veto points correlating with higher stringency levels early on, but no effect later.

Some attention has also been directed toward electoral systems. Proportional representation systems are usually associated with more universal welfare provision as representatives need to build wider electorate support. On the other hand, majoritarian systems are more associated with strong executive leadership and policy-processes require less bargaining (Bosancianu et al. 2020; Plümper & Neumayer 2021). Bosancianu et al. (2020) find

that proportional systems were associated with higher mortality early on, whereas Plümper & Neumayer (2021) find no systematic effect in the two waves they analyse.

In sum, it seems that democracies have shown more reluctance on average, but studies comparing the political institutions between these democracies provide more contradicting than consistent results.

2.2 Political priorities

Coercive containment measures come with social, economic, and political trade-offs (Brodeur et al. 2021). Whereas state capacity and political institutions determine the ability and incentives of governments, these choices may also be affected by their political priorities in terms of ideological platform or election concerns (Bosancianu et al. 2020:6).

The political platform, or the ideological affiliation of elected leaders, has shown to provide some, but mixed, explanatory power in terms of COVID-19 policy choices. Theoretically, right-leaning parties tend to emphasize economic values and oppose state intervention, whereas left-wing parties are more geared towards social values and more open to the state having a greater role in citizens' lives. If governments are chosen on these ideological positions, they may prioritize accordingly (Toshkov et al 2021:9; Bosancianu et al. 2020:9). Empirically, neither Ginter (2021) nor Toshkov et al. (2021) find that economic left-right government differences had any systematic effect on containment policy decisions. Toshkov and colleagues do however report that general right ideology, as well as leaders characterized as traditional, authoritarian, and nationalist have on average been faster in imposing school closures and lockdowns. Kavakli (2020) on the other hand, shows that this effect is conditional, where strongly right-wing governments in poorer countries tended to act faster, while right-wing governments in rich countries on average acted slower. Further adding complexity to the picture, Plümper & Neumayer (2021) draws on Toshkov et al.'s (2021) data on party ideology and find that right-wing conservative governments showed no systematic effect earlier on in the pandemic but were associated with more regulations later on.

More unanimous evidence comes from studies focusing on populism. Populist leaders tend to express distrust in (health) expert advice, denying the severity of the situation, or attributing blame and responsibility to others (McKee et al. 2021) and may thus be less likely to impose restrictive policies. Indeed, Kavakli (2020) does find empirical support for this idea by showing that governments characterized by strong populist leaders implemented less stringent containment measures. And while Bosancianu et al. (2020) do not find any

relationships between populism and mortality, Gil & Herrera (2021) as well as Bayerlein et al. (2021) do. In sum, the studies do not provide a unanimous picture, but much point toward the notion that the political platform of elected governments seems to have shaped COVID-19 policy choices in some regard.

Government priorities are however not only shaped by their political platform but also by the desire to remain in office. Knowing that their performance will be formally evaluated in the foreseeable future may cause them to adjust policy decisions to secure re-election. For example, it has been noted under non-pandemic times that incumbent governments tend to prioritize lucrative short-term economic policies to please electorates, over necessary but politically unprofitable long-term economic policies in times of elections (Bosancianu et al. 2020; Pulejo & Querubín 2021). The economic downturn and mass unemployment brought on by the pandemic would likely have invoked this logic on incumbents' pandemic policy responses (ibid). On the other hand, as COVID-19 became a highly prioritized issue, incumbents may want to show competence and that they care about their citizens (Ferraresi et al. 2020), which could lead to increasing containment measures.

The empirical findings are however mixed. Ginter (2021) tests whether years left to the next election affect decisions on economic stimulus for governments in the EU but does not find any such effects. Similarly, Bosancianu et al. (2020) find no systematic effect of days to next election on mortality rate. However, Ferraresi et al.'s (2020a) study which looks at countries in a pre-election year finds that these countries on average exhibited *higher* levels of stringent measures compared to those that did not hold elections. On the other hand, Cronert (2020) draws on the relative size of the incumbent party as a proxy for re-election safety and finds that larger seat shares are associated with faster school closures. Similarly, Pulejo & Querubín (2021) find in a cross-sectional study that days until next election is significantly associated with *less* stringency, but only so if the incumbent leader is eligible to run again.

The empirical insights on political priorities thus seem to indicate that the ideology of the incumbent in some regard shapes containment policy choice but that these findings are quite heterogeneous. Similarly, the studies touching upon the effect of upcoming elections provide conflicting results.

2.2.1 Subnational studies on political priorities

As the surveyed literature shows, cross-country studies on political determinants of government response do not provide unanimous results. Although few in numbers, more progress has been made studying political priorities by subnational studies.

On the notion of political platforms, Akovali & Yilmaz (2020) demonstrate how government response differed considerably between Republican and Democrat-led states in the US during the first five months, where the latter enacted significantly more stringent measures. This partisan pattern seems present for the rest of 2020 for containment policies (Shvetsova et al. 2021) as well as COVID-19 cases and deaths (Neelon et al. 2021).

Charron et al. (2022) show similar findings of partisanship in Europe. Looking at excess mortality across European subnational regions during the first 27 weeks of the pandemic, they find that regions whose governments lean more towards being traditional-authoritarian-nationalistic exhibited higher rates of excess mortality. They also find a partisan division of attitudes towards the EU to be a significant determinant, which they attribute as a proxy for populism.

Some light has also been shed on subnational re-election concerns by two studies on Brazil. Filho & Komatsu (2021) show that municipalities with term-limited mayors are associated with stricter containment measures compared to mayors that are eligible to run again. Similarly, Chauvin & Tricaud (2021) show that municipalities with non-term-limited female mayors are associated with more deaths than those with male mayors at the beginning of the pandemic, while later exhibiting fewer deaths close to the 2020 municipal elections in Brazil. This implies election proximity affects COVID-related outcomes. While no study has explicitly investigated the effect of approaching elections on containment measures, these two studies provide indications that elections induce change in COVID-related outcomes.

2.4 Research gap

To sum up some takeaways from the literature reviewed, much suggest that democratic regimes have tended to be slower in enacting harsh and effective containment policies in their response to the COVID-19 pandemic. However, cross-country studies that seek to explore the political determinants of this heterogeneity between different democratic governments seem to be inconclusive. Subnational studies have proved to be more promising. These are however few in numbers so far and no study has yet examined the role of election timings on subnational government response.

Regarding the mechanisms, partisanship seems to have structured COVID-19 response in some capacity. Less is clear about the effect of election concerns on containment policy decisions.

Taking a step back, one can be noted that these studies also assume a uniform effect for all electioneering governments. This is likely not the case since much literature suggests that government response varies by political platform.

Many studies also only focus on the initial phase of the pandemic which was characterized by great uncertainty (Allam 2020; Adeel Basit et al. 2020). This might challenge their generalizability to later stages of the pandemic. As for example Plümper & Neumayer's (2021) study shows, political factors such as ideology might have played out differently at different stages of the pandemic.

It thus remains unclear what effects elections might have had throughout the pandemic, and if these effects have been the same for governments of different political platforms. As Ginter requests in his review: "further research is required to reach a scientific consensus if and to what extent close election dates contributed to the stringency of restrictive measures imposed" (2022:13). These considerations motivate the research gap this thesis seeks to fill.

In the following section, I introduce the theoretical framework and what observable implications should follow given the cases analysed here.

3. *The (Partisan) Electoral Cycles framework*

An underlying assumption within the study of elected representatives' behaviour is that they seek to maximize time in office. Thus, in a democracy, a main driver of political decision-making is the quest for (re-)election (West 1993; de Mesquita et al. 2003; Mayhew 2004; Morrow et al. 2008). Consequently, vote-seeking politicians will use available tools to increase their chances to remain in office. Much scholarly effort has been put into showing how such re-election concerns not only shape policy content but also its timing. This is what has emerged into Electoral Cycles studies.

The theory of Electoral Cycles argues that incumbents have opportunistic incentives and tendencies to manipulate policy outputs in line with citizens' preferences as election day approaches to win more votes. Edward Tufte (1978) pedagogically likened electoral cycles to a murder mystery where the assailant must have a *motive*, *opportunity*, and *weapon*. Representatives in office find their motive in the desire for re-election and believe that favourable economic conditions will increase such chances. Their opportunity lies in the fact that they can control timing and content of policy and that voters weigh more recent events greater than distant ones on election day. The weapon he likens to popular policy outcomes that can be clearly attributed to the incumbent (Franzese 2002).

Electoral cycles thus (often) entail inter-temporal trade-offs fixed around election dates, where lucrative short-term policies are prioritized over more necessary long-term decisions, that often need to be compensated for after election (Franzese 2002:374f). The original argument was introduced by William Nordhaus (1975) in which he suggests that governments will seek to momentarily reduce unemployment at the expense of long-term inflation goals, to appease voters in an election year. As voters will experience the immediate effects of reduced unemployment before the election, they may evaluate the incumbent more favourably. Any inflation consequences will not be apparent until after the election is held and gives elected officials plenty of time deal with until next election (Franzese 2020).

Empirical evidence on real outcomes such as unemployment proved to be scarce, and scholars raised theoretical objections of incumbents' willingness and accessibility of such macroeconomic manipulations (Franzese 2002). Later turns of Electoral Cycles studies instead focused on more attainable instruments such as fiscal and monetary policy. This strand of research fostered a multitude of evidence indicating election-timed variation in economic policies. Examples include fiscal policy in OECD countries (Alesina, Cohen & Roubini 1993; Harrinvirta & Mattila 2001; Shi & Svensson 2002; Alt & Lassen 2006), Cameroon (Magloire

1997) India (Khemani 2004), Mexico (Gonzalez 2002) and developing countries (Schuknecht 1998; Schuknecht 2000; Block 2001; Shi & Svensson 2001), as well as monetary policy in OECD countries (Alesina, Cohen & Roubini 1993; Franzese 1999) and Cameroon (Magloire 1997), and also direct government transfers in the UK (Schultz 1995).

But that all governments will pursue the same policy choices is not a credible assumption. As Tufte points out: “just as the electoral calendar helps set the timing of policy, so the ideology of political leaders shapes the substance of economic policy” (1978:71). This clause is quite apparent and self-explanatory. Parties (and voters) cluster to different political positions because they champion policies and outcomes associated with these interest positions. For example, in general, economic left-right terms, lower (/upper) class groups are more affected by unemployment (/inflation) trends and will thus tend to vote for candidates representing these interests and policy choices (see Franzese 2002:391f).

Studies of such *partisan* electoral cycles have focused on different samples and outcomes but provide conclusive and indicative evidence. Tufte (1978:100) demonstrates how Democratic incumbents in the US have more prioritized unemployment measures over inflation in pre-electoral times compared to Republicans. Alesina et al. (1993) find some patterns of left-right differences on monetary policies in 14 OECD countries. Studying the Netherlands, Van Dalen & Swank (1996) find clear expenditure increases in election times, where left-wing governments tend to prioritize social security and health care while right-wing governments favour infrastructure and defence programs. Petry et al.’s (1999) study on Canadian provincial governments finds significant differences in government spending in on-election years and between incumbent parties. Kneebone & McKenzie (2001) report similar findings, also adding partisan differences on program spending choices in Canada. Krause (2004) finds partisan electoral effects on personal income growth in post-war USA. García-Sánchez et al. (2011) show that government debt undertaking in Spain differs from left and right cabinets, and that such patterns are maintained in election times. Also investigating Spain, Benito and colleagues (2012) find election-timed and partisan differences in municipal governments’ culture expenditure. Lastly, Bove et al.’s (2016) study of social-military policy trade-offs in 22 OECD countries shows that such election cycles exhibit significant ideological variance.

The observant reader may have noted that the Electoral Cycles studies cited here have mostly dealt with various types of economic policies. Although originally developed around economic policies, the logic of electoral cycles has been shown to apply to various other types of policy choices. Examples other than those raised above include electoral timing effects on engaging in war (Gaubatz 1990), police hiring (Levitt 1995), criminal justice (Dyke 2007),

teacher employment (Tepe & Vanhuyse 2009), foreign aid (Faye & Niehaus 2012), electricity provision (Min & Golden 2014), school resource allocation (Fagerås & Pelkonen 2014), international co-operation (Kleine & Minaudier 2019), public procurement (Havlik et al. 2021), climate policy (Schulze 2021), natural disaster relief (Cooperman 2022), and UN peacekeeping contributions (Enlund, forthcoming). Being it economic or other policy type, it seems that incumbents tend to perceive well-timed policy outputs as an available tool for winning votes.

4. Applying the framework

Extraordinary events, like pandemics, provide interesting circumstances to test conventional theories of political behaviour (Healy & Malhotra 2013; Cooperman 2022). In the following section, I develop an argument for why we ought to expect approaching elections to affect containment policy choice, and how.

4.1 Electoral incentives in extraordinary times

Firstly, can we expect electoral and partisan incentives to shape government actions also in extraordinary times? A good deal of research suggest so. An early account comes from Besley & Case (1995) who show that re-election concerns influence US governors' tax-and-spend behaviour in natural crisis times. This pattern also exhibits partisan differences with republican governors being more prone to raise taxes and spending following a disaster. Reeves's (2011) study on presidential disaster aid demonstrates how close-race states in the US tend to receive twice as many disaster declarations from presidents compared to electorally safe states. Not only are disaster declarations influenced by such concerns, but they are also rewarded by the receiving constituency (*ibid*). Similarly, Garrett & Sobel's (2003) paper on presidential disaster declarations suggests that "nearly half of all FEMA disaster relief is explained by political influence rather than actual need" (*ibid*:508), and that disaster declarations were on average higher in election years. Downton & Pielke (2001) and Salkowe & Chakraborty (2009) replicate similar findings, with Sylves & Búzas (2007) also adding that Democratic presidents have tended to accept more aid requests than Republican presidents, regardless of the governor's partisanship. Gasper & Reeves (2010) add to the picture, reporting that election concerns tend to also decrease governors' propensity to ask for aid during a presidential election year.

To the author's knowledge, only one study has explicitly applied the Electoral Cycles framework to emergency response. Studying Brazil, Cooperman (2022) shows that drought declarations tend to be more likely in mayoral election years. Furthermore, Cooperman also reports party patterns of drought declaration. This does not, however, necessarily reflect a difference in ideological positions as Brazil has a relatively weak party system with low ideological commitments (*ibid*).

All in all, there is a large number of empirical studies supporting the notion that electoral and partisan factors affect policy decisions also in extraordinary times.

4.2 Electoral cycles and containment policy choices

So far it has been shown that electioneering incumbents tend to shape policy to improve their chances of re-election and that these incentives seem to remain in times of crisis or emergencies. Can we expect the same for the COVID-19 pandemic and if so, what would it look like? Electorally motivated stringency decisions can be expected to go in both ways: incumbents may want to demonstrate competence, or opt for a less stringent approach instead favouring economic and social values. Coercive policies like containment measures are relatively understudied, but one can draw on insights from already existing literature to guide expectations. The following section seeks to untangle in what manner regulations in general may have changed for electoral reasons.

The types of containment measures that governments have enacted include for example mandatory face coverings, quarantines, lockdowns, work and school closures, as well as social distancing in private and public spheres (Hale et al. 2021). These were put in place to prevent escalating infection numbers and deaths (Pradhan et al. 2020; Pleninger et al. 2022).

There is reason to believe that approaching elections would lead to increased restrictions. Studies of early COVID-19 response observed significant “rally around the flag” effects, where citizen support and trust for e.g. the executive, political institutions and the public sector at large increased early on (see Baekgaard et al. 2020; Esaiasson et al. 2020; Bol et al. 2021). In this light, an elected leader may want to prove themselves capable towards their electorate, showing that they take the pandemic and the safety of their citizens seriously, as also argued by Ferraresi et al. (2020a).

However, most theoretical and empirical insights suggest that approaching elections would lead to less stringent containment policies. It is reasonable to expect that for example mask mandates and lockdowns are not preferred had it not been out of necessity due to the pandemic. From a purely socio-economic perspective, containment measures bring with them significant economic (Brodeur et al. 2021; Güneri 2021) and social (Ammar et al. 2020; Bachmann et al. 2021) consequences, both for individual citizens, as well as the community and country. Furthermore, stringent regulations like lockdowns, quarantines or mask mandates are major infringements on ordinary civil rights that citizens would usually enjoy. Policy acceptance literature, for instance, highlights freedom as one of the fundamental criteria of policy support, where “perceiving that a policy is constraining individual choice is generally related to the lower acceptability for a wide range of policies” (Ejelöv & Nilsson 2020:6). As such, stringent containment policies are at large something that is *endured* rather than preferred

by its target population. This seemed to be the case as the pandemic kept on, where the early rally-around-the-flag effects of closures and lockdowns, declined over time (Petherick et al. 2021), especially when vaccines started to be distributed (Jia et al. 2022).

Furthermore, it is a well-known fact that economic conditions have major effects on election outcomes (Lewis-Beck & Stegmaier 2000) which elected leaders are aware of and normally have tendencies to bolster leading up to an election (Franzese 2002). Thus, suppressing the aforementioned economic costs associated with containment measures provides an additional tool and incentive for re-election minded incumbents.

In sum, the theoretical and empirical insights thus suggest that electorally motivated stringency decisions would lead to an overall decrease in containment measures. The observable implication of this expectation is summarized in the following hypothesis:

H1 (“Electoral cycles hypothesis”): The closer a government is to election day, the more they will relax containment policies.

4.3 Partisanship and containment policy choices

The previous section argued that approaching elections should lead to a general decrease in restrictions. But that all governments would have acted the same way leading up to an election has been shown incorrect in normal times, and unlikely in COVID-times. While the associated costs of containment policies may have carried with it substantial costs for all citizens and governments, I here argue that the propensity to relax regulations has varied by partisanship as some incumbents have had further incentives to relax regulations.

The Partisan Electoral Cycles framework does not require or specify a certain conceptualization of partisanship but rather points out that election-timed policy shifts should vary by the distinguished political platforms that representatives are elected on. The political landscape in the US and Canada are characterized by distinct liberal-conservative partisan platforms (Kevins & Soroka 2017) where citizens and elites cluster to these respective political camps (ibid). These partisan platforms are thus what incumbents will adhere to when adjusting policy approaching an election³.

³ See Tufte 1978, Krause 2004, and Kneebone & McKenzie (2001)

Have these partisanship persisted during the COVID-19 pandemic? Empirical research and real-world events suggest so. For example, survey evidence suggests that “partisanship seems to drive political assessments of the federal government's response to COVID-19 in both Canada and the US” (Pickup et al. 2020:361-2) and that “[p]olitical conservatives in the U.S. and Canada appear to be taking COVID-19 less seriously, but the same pattern is not evident in the U.K.” (Pennycook et al. 2020:4-5). Citizen attitudes towards the pandemic thus seem to have been structured by pre-existing partisanship patterns.

However, what ultimately matters for election-motivated policy shifts is whether incumbents can pick up on such signals. This seems to have been the case.

In the US, these partisan differences emerged quite early on and were at large fuelled by political elites. Although former president Trump declared a state of emergency in March 2020 (Gadarian et al. 2021), he and many right-wing conservative public profiles expressed scepticism towards the pandemic and its severity (Blake & Rieger 2020). These attitudes were also echoed on right-wing conservative national broadcasting networks such as FOX News (Simonov et al. 2020; Hart et al. 2020). Consequently, this partisan divide has been present in both community and government response, where conservative constituents have exerted considerably less compliance to containment measures in place (Engle et al. 2020; Barrios & Hochberg, 2020; Akovali & Yilmaz 2020), and conservative states have opted for more relaxed levels of containment measures throughout the pandemic compared to liberal states (Akovali & Yilmaz 2020; Gusmano et al. 2020; Hallas et al. 2021).

In Canada, political elites did not seem to express the same level of polarization⁴, but demand for less regulation was expressed in the many citizen protests that took place throughout the pandemic. These protests began already in April of 2020 in provinces like Alberta (Bruch & Franklin 2020), British Columbia (Denis 2020), and Ontario (Herhalt 2020). These early events only attracted a couple of hundred supporters, but participant numbers considerably grew as the pandemic and the protest kept on well into 2022 (see Rocca 2021, Olson 2021, Cryderman 2021). The perhaps most notable organized demonstration was the so-called *Freedom Convoy*, a one-month long protest initiated by truckers, protesting the social restrictions and vaccination mandates (Vieira 2022). The convoy harboured no explicit partisan affiliation, but the protest was directly targeting the liberal federal government under Prime Minister Trudeau, and citizen support overwhelmingly came from those of conservative

⁴ Not much political science research has been done on provincial response but Merkely et al.'s (2020) study suggest there were cross-partisan consensus in social media in the first months of the pandemic.

partisanship (Ipsos 2022; Angus Reid Institute 2022). These protests were also endorsed (Aiello 2022; Tasker 2022), and even at times joined by Conservative politicians (Griwkowsky 2020; National Post 2022).

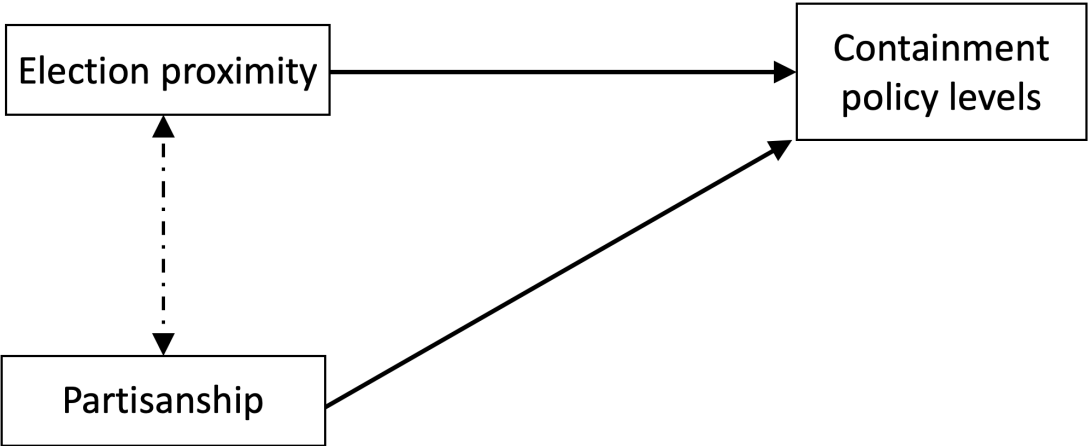
Thus, demand for reducing containment regulations has had a clear partisan affiliation that political elites not only have been made aware of but also at times interacted and engaged with. Whether conservative incumbents have regarded these demands and incentives strong enough to act on in order to win votes remains to be investigated in the coming sections. But as noted in past research, partisanship dynamics tend to follow electoral cycles and intensify closer to election day (Michelitch & Utych 2018, Sood & Iyengar 2016; Sheffer 2020).

As citizen and elite tolerance for containment policies seem to vary by partisanship, this has likely conditioned the effect of electoral cycles hypothesized in the previous section. The observable implication is summarized in the second hypothesis:

H2 (“Partisan electoral cycles hypothesis”): The effect of approaching elections on containment policy levels will be greater for conservative governments than for liberal governments

Figure 1 below summarises the theoretical model.

Figure 1. Basic theoretical model



Note: I here use the dash-dotted line to emphasize that election proximity and partisanship are not a cause of each other, but that they interact to affect stringency.

5. Empirical strategy

5.1 Case selection

The analysis will be carried out on subnational elections in the US and Canada. Almost all studies so far on government COVID-19 response have been conducted on country level. Cross-country studies are sensitive to problems of endogeneity and incomparability as they compare big systems that differ in many important regards. This is something I aim to overcome in this thesis. This study will instead focus on how elections have shaped subnational government response in the US and Canada. The reasons are manifold.

First of all, taking the analysis down to a subnational level circumvents many potential issues of omitted variables (Cunningham 2021) because restricting the sample like done here leaves a set of similar units. Canada and the US are more alike each other in terms of for example societal values and political culture than to other advanced industrial democracies (Quirk 2019), and the two are not uncommon to compare and analyze together (see for example Béland et al. 2020). Likewise, (subnational) elections in both Canada and the US are of majoritarian systems. It should be noted, however, that these two systems do differ a bit. For example, US gubernatorial elections are much more candidate-centred (Blais et al. 2019) and elected governors enjoy much executive power (Simeon & Radin 2019). Canadian provincial elections are more centred around party competition and government is formed based on seat shares in the parliament (Blais et al. 219). These differences could condition the effect of interest somewhat since for example shared policy control condition electoral cycles (Franzese 2002). But as shown below, containment policies were in the hands of subnational governments. It could also structure incentives differently since policy outputs may be more clearly attributable to a governor than a provincial government. All in all, the state and provincial governments analysed here make up a fairly similar sample of units which should improve the ability to draw valid conclusions, compared to cross-country studies.

Secondly, since the interest lies in exploring electoral cycles, a subnational focus can be more favourable than looking at cross-national variation. As Mouriuen (1989) findings suggest, local election cycles may be stronger than national ones, especially so in majoritarian election systems, like the US and Canada. Thus, if re-election concerns played a role in pandemic response, these effects should be more observable on a subnational level. Moreover, the Electoral Cycles literature was originally developed on the US case and its logic has repeatedly been shown to apply in both US and Canadian politics (for examples mentioned earlier, see Tufte 1978, Krause 2004, Petry et al. 1999 and Kneebone & McKenzie 2001).

Furthermore, in both Canada and the US, containment policy decisions are taken and implemented on provincial (Cameron-Blake et al. 2021) and state level (Hallas et al. 2021) rather than national level. Basit Adeel et al. (2020) show that governors accounted for 90% of all containment policies in the US, and 61% by provincial governments, where provincial agencies accounted for 38%. Such state and province-levelled decision-making have persisted throughout the pandemic (Cameron-Blake et al. 2021; Hallas et al. 2021). In this case, policy control, or at least responsibility, seem to have been somewhat shared within provinces, something which can weaken political influence. However, as pointed out by Franzese, “all policy makers and policies ultimately must survive electoral evaluation (directly for elected policy makers, indirectly for appointed, bureaucratic, and other nongovernmental policy makers)” (2002:373). And as executive power at the end of the day resides with the government, potential political incentives would in the long run have made an impact. In sum, both Tufte’s (1978) “opportunity” and “weapon” have been in the hands of subnational policymakers rather than national leaders.

Lastly, the differential timing in subnational elections in Canada and the US allows for a design where governments closer to election date can be compared to governments further away from their election.

In sum, subnational governments in Canada and the US constitute a set of similar and likely cases whose electoral and federal systems allow us to test how well the (Partisan) Electoral Cycles theory explains containment policy choices.

5.1.1 Sampling and considerations

The timeframe of this analysis will cover 4th of May 2020 to 2nd of January 2022⁵. I restrict the scope like this since the focus here is on elections. The peak in containment policies took place in April (see figure 6 below) and the first election took place in September. Setting the starting date at 4th of May leaves plenty of time before the actual election day, while also excluding the initial “rush” (illustrated in figure 6). This also means that the time frame for this study differs and departs from that of most other studies on government response which have focused on the first months of the pandemic. This is also an advantage since it provides more systematic and rigorous testing of whether elections influenced stringency decisions throughout the pandemic.

⁵ The time unit in the models are weeks, Monday to Sunday, hence the odd dates.

Figure 2. Overview of provincial elections in Canada

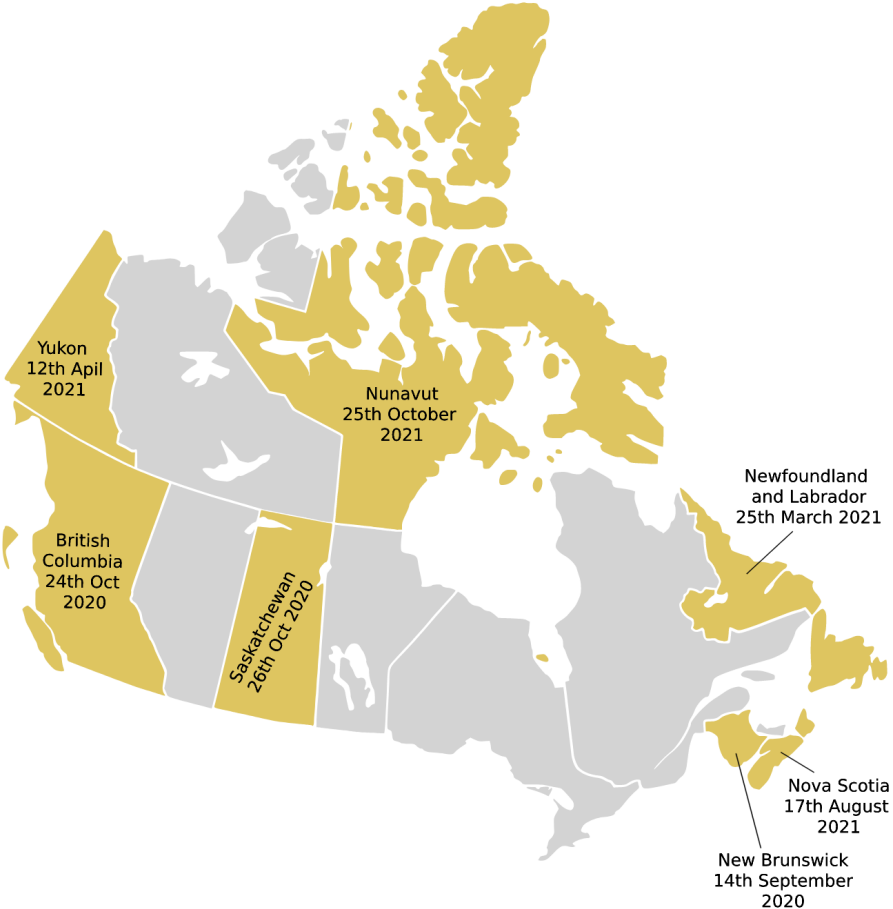
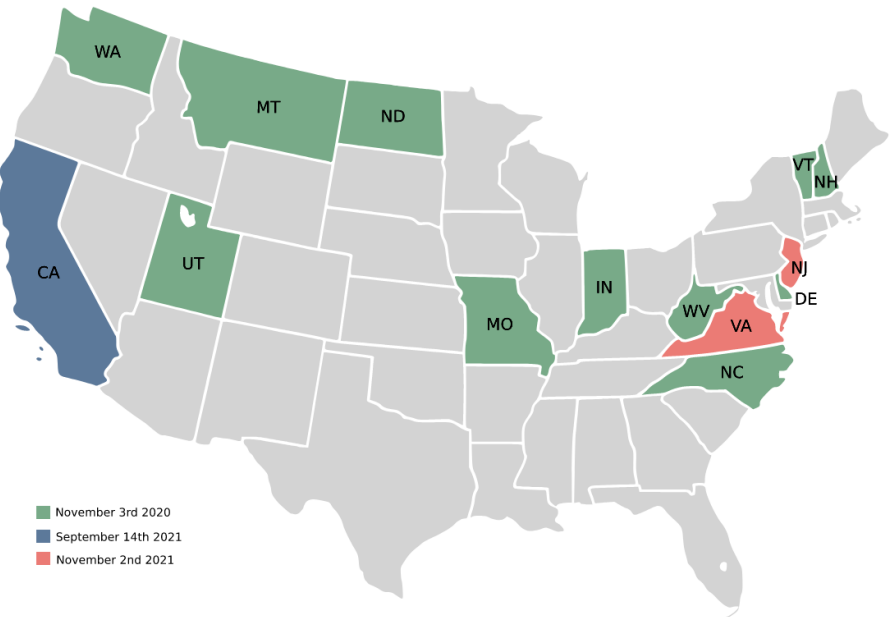


Figure 3. Overview of gubernatorial elections in the US



Figures 2 and 3 show the election dates for all 21 states and provinces within the timeframe. Together with the 42 states and provinces that did not hold subnational elections, the entire sample is made up of 64 governments.

However, some adjustments have been made to the sample. First, neither in Nunavut nor Northwest Territories do candidates run under party labels, but rather as independent candidates. Additionally, Washington DC does not have a governor and thus no gubernatorial election. I therefore excluded these regions from the sample as I deem them to be too different from the rest to function as suitable references. I also exclude the American territories of American Samoa, Guam, the Northern Mariana Islands, Puerto Rico and the U.S. Virgin Islands as data is missing for these regions in the dataset employed here.

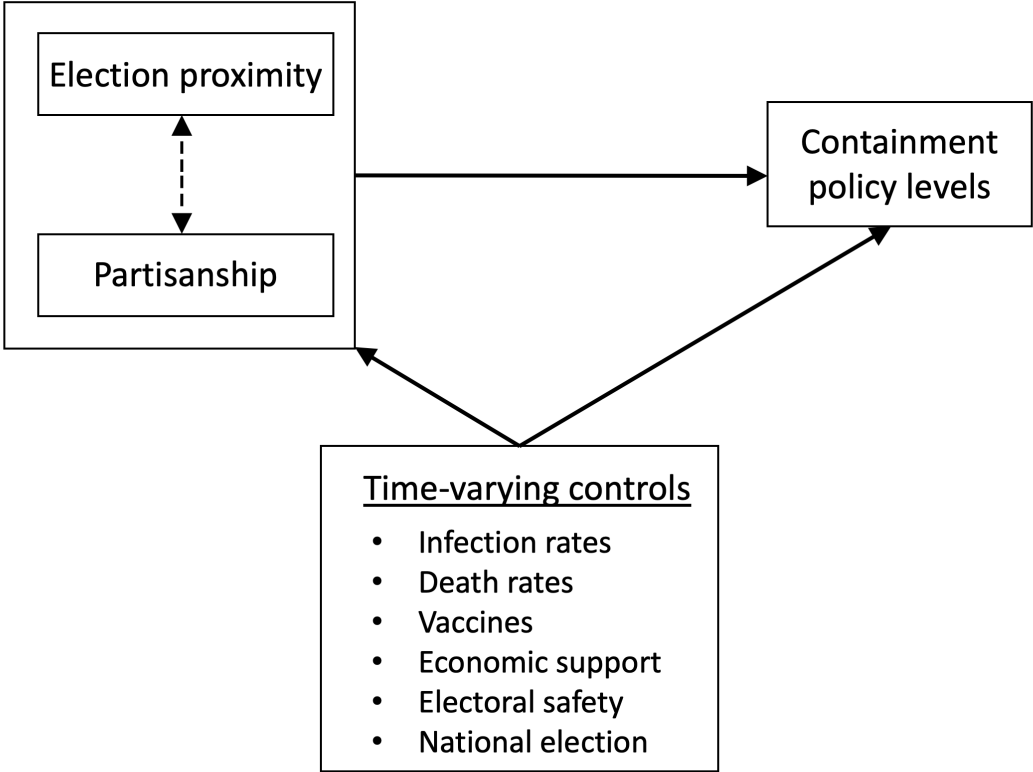
Secondly, snap elections were called earlier than scheduled in New Brunswick (Poitras 2020), and British Columbia (McElroy 2020). In both provinces, the election was held almost one month within their announcement. Similarly, the California election was a recall election of whether to remove their governor, issued one and a half months before the actual election date (Weber 2021). These three cases cannot be expected to have followed a “normal” election cycle where the short period between the announcement and the day of the election gave incumbents little time to adjust policy. Including these in the analyses can potentially bias the estimations. I will deal with this by running separate analyses where these regions are excluded.

In sum, including the three cases of early election, the sample consists of 61 states and provinces, ranging over 609 days. To allow for easier analysis, the data is aggregated to week level. This helps me to account for trends while still allowing for more sudden decision-making processes. The unit of analysis is thus state/province-week where I look at weekly policy activity in the 61 states and provinces over 87 time periods, resulting in 5307 data points.

5.2 Variables and operationalizations

The phenomenon studied here is essentially elected leaders’ policy decisions. Thus, the selected variable and their relationships are considered in terms of how they might affect an incumbent’s choices regarding stringency choices. Figure 4 extends figure 1 above but with the relevant time-varying control variables added.

Figure 4. Theoretical model with relevant control variables included.



5.2.1 Dependent variable

The outcome of interest in this study is the level of containment policies in place due to the COVID-19 pandemic. The most comprehensive and often-used dataset for this is the Oxford COVID-19 Government Response Tracker (OxCGRT)⁶, a database tracking day-to-day policy changes of over 200 national and subnational governments (Hale et al. 2021). The OxCGRT database provides a *stringency index* which consist of 9 different containment policies that limit individual freedom, access to public services, or information about the necessities to comply with measures in place. A detailed list is provided in the appendix. The index range from 0 to 100, where 100 represents the harshest possible measures in every policy-type included in the index.

A policy is coded according to its type and severity. For example, school closures are coded as *no measure* (0), *recommendation* (1), *some schools required to close* (2), and *all*

⁶ Two other similar databases are CoronaNet and Protective Policy Index, but these are not as comprehensive and as utilized as the OxCGRT dataset.

schools required to close (3). This also means that the policy categories have their own (ordinal) scales (Hale et al. 2021).

Each category is calculated as a sub-index according to:

$$I_{j,t} = 100 \frac{v_{j,t} - 0,5(F_j - f_{j,t})}{N_j}$$

where $v_{j,t}$ is a given policy's severity and N_j is the maximum value on the ordinal scale. F_j indicates whether a policy can have a condition (e.g. targeted at a specific group or location) and $f_{j,t}$ indicates if the given policy has such a condition. The output ($I_{j,t}$) thus normalizes the different ordinal scales where each step on the ordinal scale is equally spaced in $I_{j,t}$. As the condition-function ($0,5(F_j - f_{j,t})$) equals either 0 or 0,5, this signifies a half step between the ordinal values. (Hale et al. 2021). The final stringency index is an average of each sub-index (k) included, according to:

$$index = \frac{1}{k} \sum_{j=1}^k I_j$$

which provides averaged day-to-day levels of the policy types included. I aggregate this variable into a weekly mean for every state and province.

One drawback with using an index like this is how to interpret any estimates; does +3 mean complete school closure or a bit harsher restrictions across several categories? While using this index does not provide such specific insights, it offers a continuous and unified scale that allows for comparability between different governments' overall responses, something that is desirable in a comparative study like this.

The figures below describe the illustrate the dependent variable. As figure 5 shows, the distribution of the dependent variable is slightly skewed, where more relaxed levels are more common than harsher ones in our sample frame. As figure 6 illustrates, there was a general trend of decreasing stringency throughout the sample timeframe. We can here also see that 2020 and 2021 differ in their general levels, which would be expected since vaccines came to be distributed late 2020 (Hale et al. 2021). Table 1 also provides some more information on variation in the data. The greatest and lowest stringency observations are both in the US. Moreover, the US and Canada are fairly similar in their greatest and lowest observed differences within a week.

Figure 5. Distribution of stringency levels per state/province-week

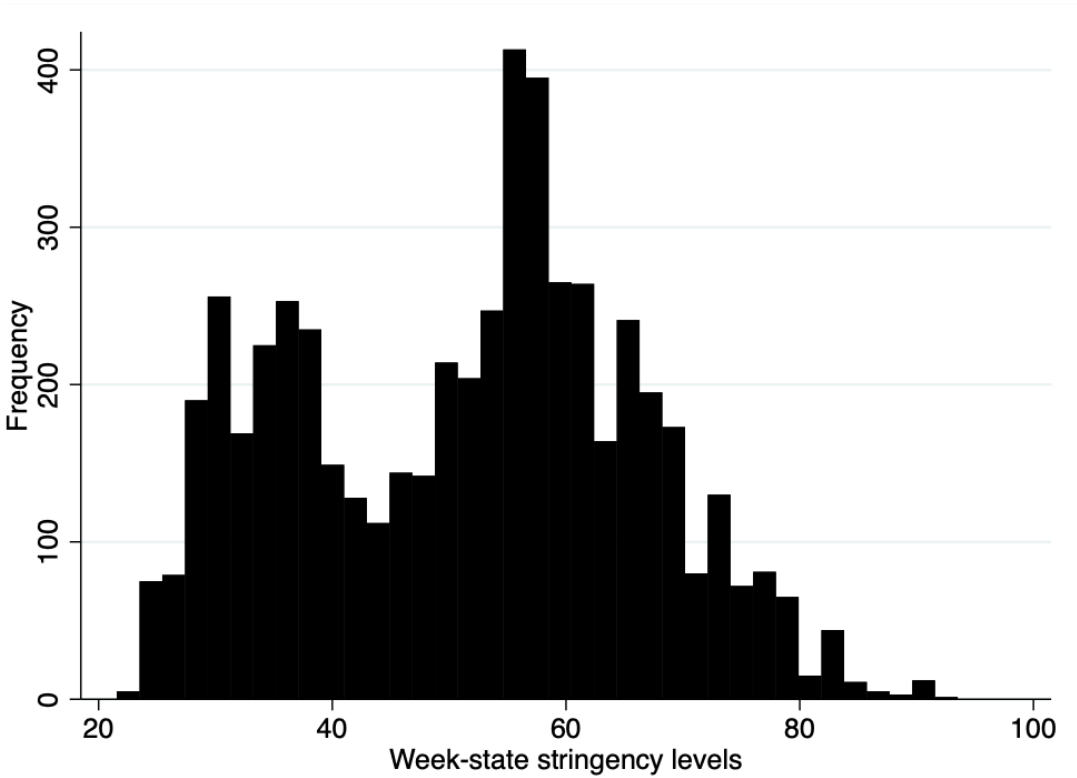
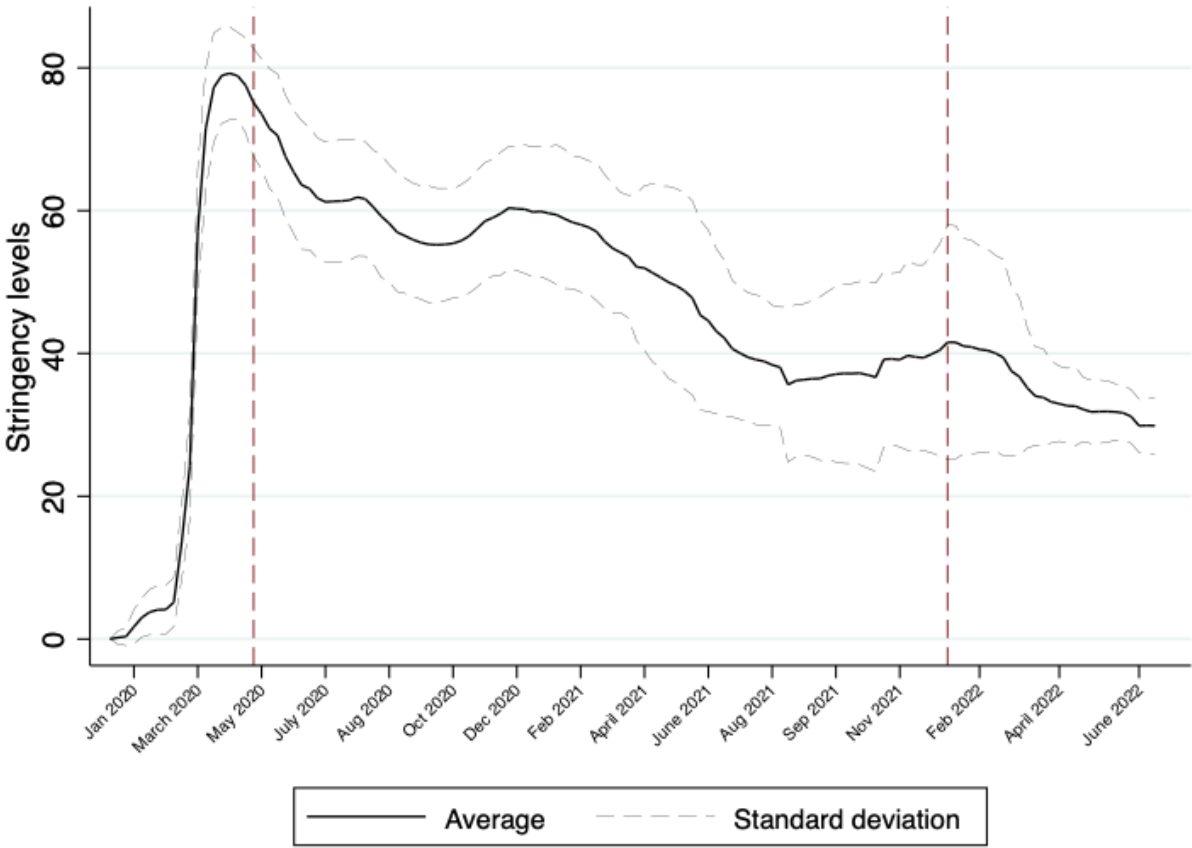


Figure 6. Average stringency trend for all regions combined over the timeframe



Note: Red dashed lines mark the timeframe's borders.

Table 1. Examples of data characteristics

Lowest week-stringency point observed:	20.4	in Wisconsin, December 2021
Greatest week-stringency point observed:	93.5	in Maryland and Kentucky, May 2020
Lowest range within a week observed in Canada:	11.11	in May 2021
Greatest range within a week observed in Canada:	46.76	in September 2021
Lowest range within a week observed in US:	18.98	in July 2021
Greatest range within a week observed in US:	46.29	in May 2021

5.2.2 Independent variables

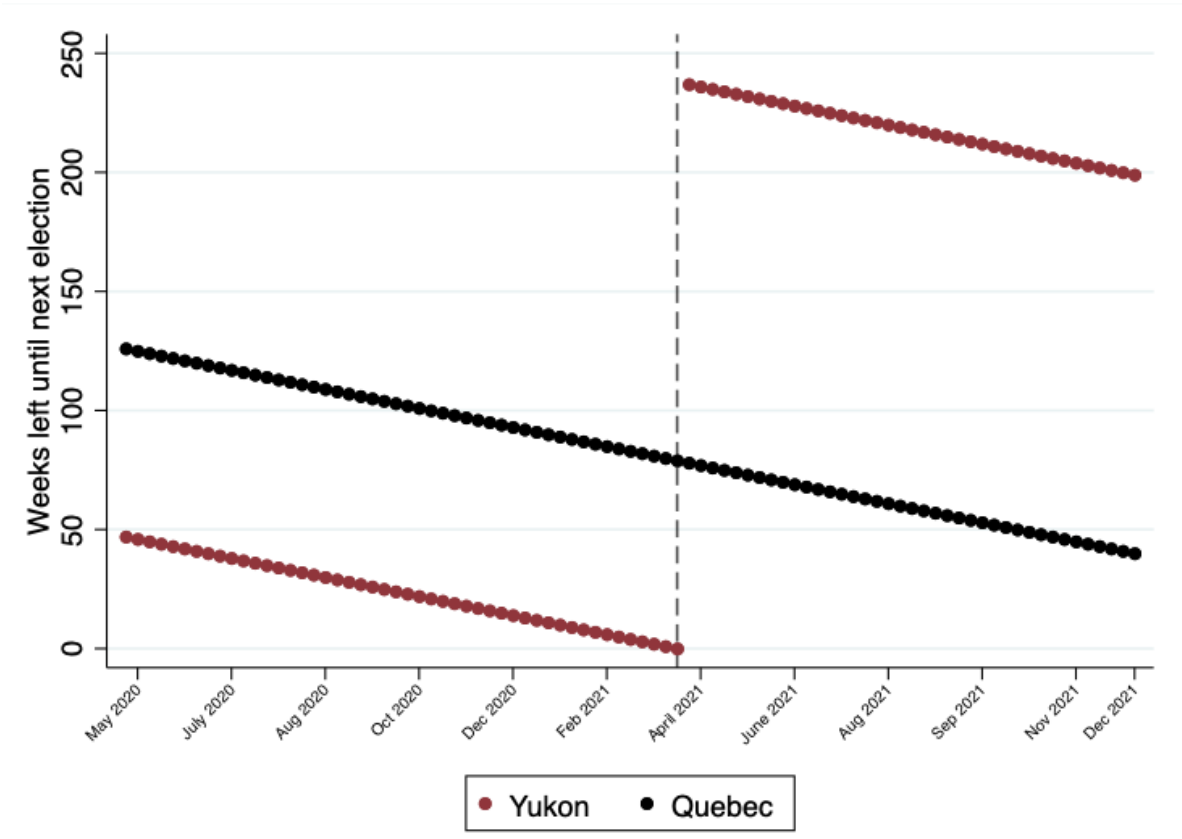
i) Election proximity

The election proximity variable is constructed to represent weeks left until next election. More specifically, each state and province have a running count of weeks until their next gubernatorial or general election. The week an election is held is coded as 0. For those states and provinces that had an election in the time frame studied here, this variable is reset after an election to now indicate time left to the subsequent election. Figure 7 below illustrates how this variable is distributed for a province with an election within the time frame, and for one province without.

This coding does mean that the variable could encompass post-election days if the election was held at the beginning of the week. This is however not much of a problem since stringency levels are unlikely to substantially change the subsequent days to the degree that it would affect the overall estimation.

A distribution graph of the election proximity for the overall sample is provided in the appendix. Information on election dates is collected using information available online and coded manually.

Figure 7. Election proximity variable for Yukon and Quebec



ii) Partisanship

The partisanship variable reflects the liberal-conservative partisanship that exist in US and Canadian politics as discussed earlier. The variable is coded as a binary variable where 1 indicates whether the incumbent represents the conservative party within their subnational party system.

The US party system is characterized by two dominant parties, the conservative Republican Party, and the liberal Democratic party. These two parties also hold every governor position in the states included in the sample.

The Canadian party system is however a bit more diverse, with provincial variants such as the Yukon Party being among the biggest parties in subnational politics. Moreover, Canada’s party system also includes major parties that are distinguishably left-leaning compared to the liberal parties. However, the characteristic of interest here is conservatism as the hypothesis expects that these parties would relax regulations. Most parties in Canada can quite easily be categorized according to this criterion. For this, I mainly draw on Simon & Tatalovich (2014) and Haddow (2021). These two studies are fairly unanimous in their classifications except for

the Saskatchewan Party. Simon & Tatlovich attribute them as being more similar to the Liberals than the Progressive Conservatives while Haddow places them in the conservative group. I here chose to place the Saskatchewan Party in the conservative group because they are usually characterized as conservative centre-right (The Canadian Press 2018), and their main political opponent is toward the liberal left of them. I do however also run analyses with the Saskatchewan Party as a liberal party in later robustness checks. All parties and their coding are shown in table 2 below.

Table 2. Parties and their coding
1 = conservative partisanship

Party	Code value		
The Democratic Party			0
The Republican Party			1
Liberal Party of Newfoundland and Labrador			0
Progressive Conservative Party of New Brunswick			1
Liberal Party of Nova Scotia			0
Progressive Conservative Association of Nova Scotia*			1
British Columbia New Democratic Party			0
Saskatchewan Party			1
United Conservative Party of Alberta			1
Progressive Conservative Party of Manitoba			1
Progressive Conservative Party of Ontario			1
Progressive Conservative Party of Prince Edward Island			1
Coalition Avenir Québec			1
Share of RC incumbency:	Overall:	In the US:	In Canada:
	53.8%	51.2%	65.5%

* Nova Scotia had a change of government after election, hence 2 parties.

A potential drawback of this binary variable is that it treats all members of a category as the same and does not provide any “ideological distance” of the governments, neither within nor between these two groups. Such data uniformly comparing subnational governments does, however, to the author’s best knowledge not exist yet.

This approach may also have implications for the generalizability of the results, as for example the conservative category here may not be seamlessly comparable with conservative parties in other countries. Additionally, such a binary variable also assumes that liberal-conservative partisanship politics have worked the same in Canada and the US during the pandemic.

However, I deem this approach appropriate since the primary moderating mechanism of interest is due to intra-state political competition rather than due to for example a universal left-right dimension on general policy positions. This binary approach also keeps the statistical models, analyses, and interpretations fairly simple.

5.2.3 Control variables

As the analysis will utilize fixed effects models where unit-fixed and time-fixed factors are automatically adjusted for, control variables will include factors that vary by time and state/province simultaneously. This means that for example demographic characteristics or government structure will not be included in the models.

There are also idiosyncratic factors that should ideally be accounted for but where available data is missing. This could potentially bias the estimates. Such variables would include for example hospital capacity, economic conditions, the role of health professionals etc. To the author's knowledge, such data does not exist in a way suitable for the models of analysis chosen here. However, variations in these variables are closely related to our other explanatory variables. For example, hospital capacity would heavily be determined by infection rates and would only deviate from this pattern due to other diseases. As suggested by for example Dang et al. (2022), hospital admissions were heavily dominated by COVID-19 related causes. I thus argue that the main time-varying heterogeneity will be due to the control variables selected here. I do however acknowledge that the time-varying covariates mentioned above are missing and thus resort to not interpreting any results as causal.

Moving on to the actual control variables, these should ideally confound both our dependent and independent variables. However, predetermined election dates are exogenous events that are not influenced by other factors. Thus, fixed election dates are not per se confounded by any variables that need to be controlled for. This does not mean that we do not need any control variables at all. Time left to election does not in itself have a causal effect on policy choice; it invokes a concern and a reminder for the incumbent that they are to be held

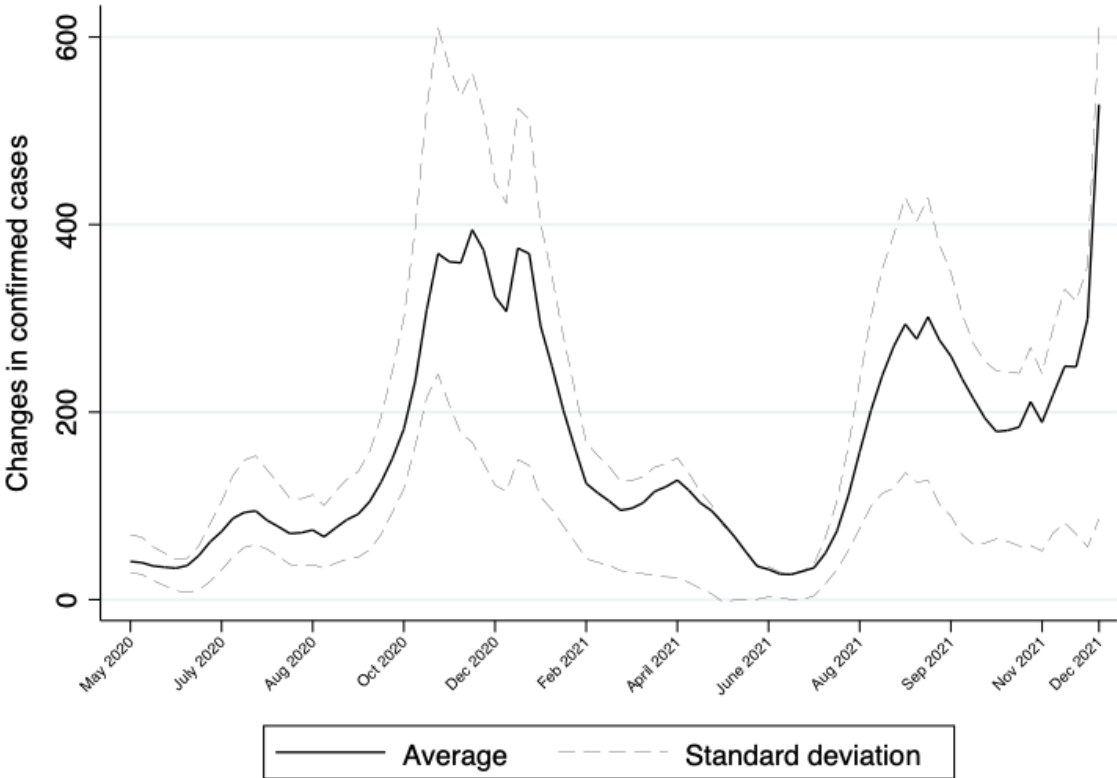
accountable soon. It is rather this phenomenon that may be confounded by other variables, and for which control variables have been selected. Figure 4 above illustrates this.

i) Infection rates

The perhaps most important determinant of containment policies is COVID-19 itself. This needs to be controlled for in order to unveil any variation that cannot be attributed to necessity. I also expect infection numbers to affect election concerns. All else equal, spiralling infection rates may signal an incompetent government and thus harm their chances for re-election (see for example Baccini et al. 2021).

Data on confirmed COVID-19 cases is only available as a cumulative count. This means that this type of data will only increase, where for example infection levels in June 2021 will contain infection levels of November 2020. This arguably does not reflect the type of information that decision-makers base their stringency choices on. Instead, a better operationalization of infection rates is its immediate fluctuations. More specifically, the infection rates variable represents the *average weekly changes* in number of confirmed COVID-19 cases by state/province. This measurement captures both increasing *and* decreasing infection trends. Figure 9 below illustrates this.

Figure 9. Overall trend of changes in infection rates across all regions.



This variable has also been transformed to express the number of changes per 100 000 inhabitants as the share of infected of a state/provinces's population matters for the severity of the situation. The population metric is the number of residents in 2020, before the pandemic started.

Finally, this variable is aggregated into weekly means for every region. I also lag this variable by one time period in the models to allow for decision-making processes; I don't expect executives to change regulations within the same week, but I also acknowledge that such decision-making been more urgent in times where infection rates accelerate.

Death rates could also have had a similar, if not even at times stronger effect. I stick to infection rates since this is what cause both death rates and stringency levels, but I will also substitute infection rates for death rates as part of the robustness checks.

The data on COVID-19 cases comes from the John Hopkins University (Dong et al. 2022). Population data for Canada comes from *Statistics Canada* and the *Census Bureau* for the US.

ii) Vaccinations

Naturally, once vaccines were introduced and started to have an effect on COVID-19 infections, governments' requirements, and citizens' tolerance (Jia et al. 2022), for containment policies diminished. Likewise, I expect vaccination rates could affect re-election concerns as it would, for example, demonstrate incumbents' capabilities; a delayed rollout or slow supply may in the public's eye reflect as an incompetent or irresponsible leader⁷. Vaccination rates have also been shown to correlate with partisanship where for example Republican constituents have demonstrated significant reluctance towards vaccination (Ye 2021).

This variable consists of number of fully vaccinated per 100,000 inhabitants. I also lag this variable by two time periods since vaccines take around two weeks to give proper protection (Tenforde et al. 2021). I also substitute this variable for number of first doses issued as part of robustness checks, since this could motivate eager decision-making rather than waiting the additional one to two months it would take to have a second dose (WHO 2021b).

The data on vaccine rates have been collected from the *Our World in Data* (Mathieu et al. 2021) vaccination dataset for the US, and the *Public Health Agency of Canada* (2022).

⁷ Although vaccines purchases were a responsibility of the federal government, the actual provision is local.

iii) Economic support

Due to workplace closures and lockdowns, businesses and households have suffered substantial economic loss (Brodeur et al. 2021), which governments have had to counteract with various types of economic support. This might affect the relationship of interest here.

Economic support has mostly come from the federal level (Cameron-Blake et al. 2021; IMF 2022), with some support provided by state governments in the US (Hale et al. 2020). Regardless, the level of economic support to citizens might considerably affect trust and approval of current political leadership, since it might be interpreted as to what extent those in office care about their citizens. Secondly, although the level of stringency in place would motivate the level of economic support needed, this could in turn influence citizens' tolerance for current levels of restrictions in place, and thus incumbents' re-election prospects.

I employ OxCGRT *Economic Support Index* which is constructed in the same way as the stringency index described above but includes policy types regarding *income support* and *debt/contract relief for households* (Hale et al. 2021). I aggregate these day-to-day observations to weekly averages for each state and province.

This variable is also lagged by two time periods. This is because of the aforementioned expectation that stringency would determine economic relief which would then in turn confound the relationship. Lagging the variable accommodates for this.

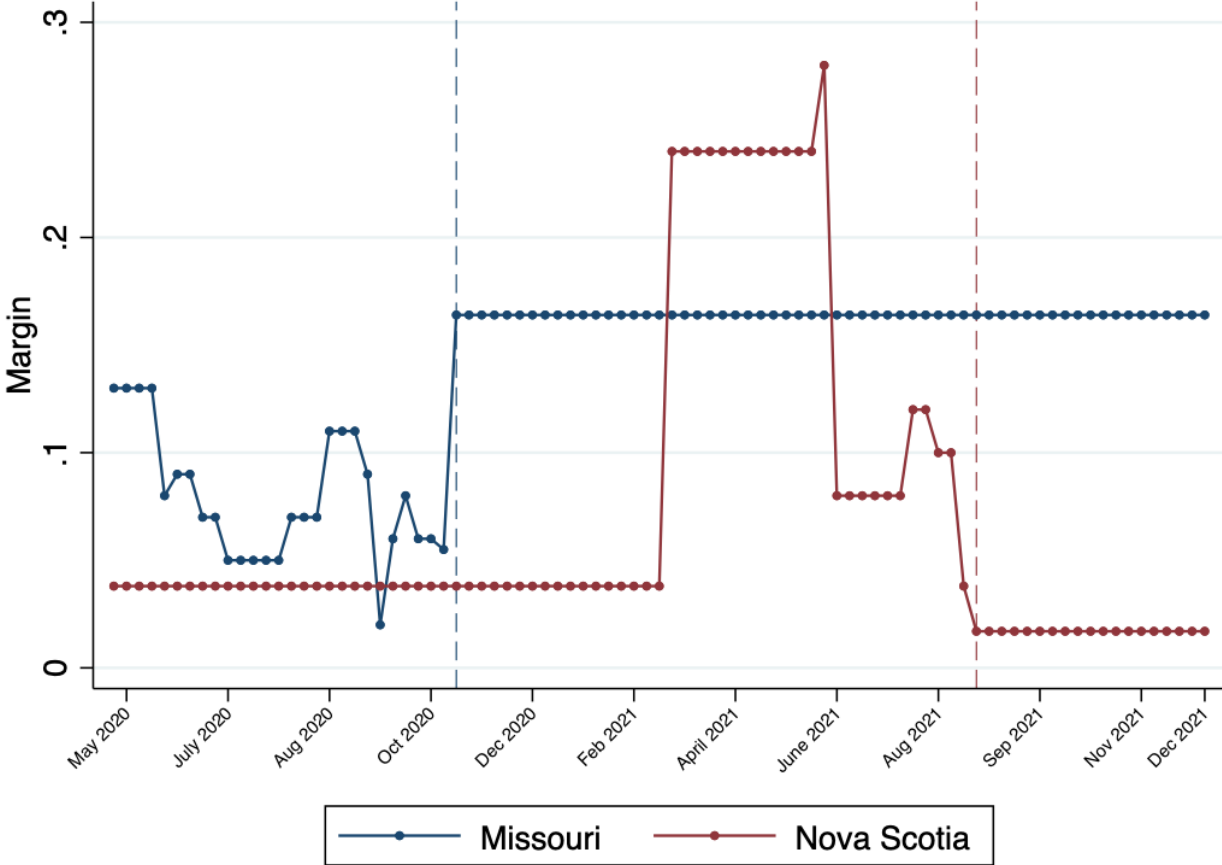
iv) Electoral safety

As noted by Schultz (1995), the incentive to opt for popular policies comes from a worry of not being re-elected; if the incumbent knows they will safely make re-election, they have more room to implement potentially unpopular policies, like containment measures. This thus needs to be controlled for.

This variable is expressed as the difference in vote-share between the winner and runner-up in the last election held. This is a common way to treat candidate chances in single-winner election systems (Stoffel & Sieberer 2018:1192). For electioneering states and provinces, I let this value change when a new poll has been released. These are polls are unfortunately not taken on a week-to-week basis for all states and provinces, but rather more sporadically by different institutes. I argue that the latest poll, although not perfect, represents the latest information on the candidate's position and re-election chances until there is a new poll out. Thus, I code the polling numbers from a poll to extend over the time until another poll is released. Once an election is over, I set the value to be the winner-to-runner up difference of

the official results. Figure 10 below illustrates this for two incumbents. Data is collected via information available online⁸.

Figure 10. Illustration of vote margins for incumbent in Missouri and Nova Scotia.



Note: Blue dashed line indicates Missouri’s election, red for Nova Scotia’s. The figure is purely for illustration purposes and distributions are not assumed to be exemplary for all cases.

v) *Presidential elections*

Both Canada and the US held presidential elections during the time frame analysed here. Since the theory tested here hypothesizes that elections would affect stringency levels, it is reasonable to believe that the same logic would apply to a national election: through for example partisan loyalty or spite, subnational governments may want to increase the election chances of their preferred presidential candidate. If this was the case, that would mean that states or provinces whose own elections were further away (i.e. higher values on the election proximity variable)

⁸ I resort to referencing like this, rather than listing all the sources, since they make up more than 20 different polls for some states. Including a complete list for all 61 states and provinces would not fit within the word limit. Each election’s Wikipedia page provides a complete list of these polls and their sources, which I’ve drawn on for this variable. For Missouri, see https://en.wikipedia.org/wiki/2020_Missouri_gubernatorial_election#Polling_2

would exhibit an electorally motivated pattern before the national election, which would bias the results.

Since I do not expect a national election in one country to affect the other country, time-fixed effects do not sufficiently accommodate for this. My main way to deal with this instead is to include national pre-election dummy variables for each country.

On August the 15th 2021, Prime Minister Trudeau called an early election which was held on September the 20th (Aiello 2021). Would any potential electioneering effect have taken place it would have been between these dates, which thus deserves its own variable.

For the US it is a bit of a different story since the November 3rd elections were scheduled and held like usually, which would give incumbents more time to adjust. In order to accommodate for this, I code a dummy variable for all US states covering the two months prior to the US presidential election. This is partly because early voting started already by October in some states (Ballotpedia 2020). This variable does only capture more short-term electioneering effects, but a longer duration would risk absorbing too much of the effect of interest.

I also run separate country analyses to account for this more robustly. Since the time-fixed effects capture common trends for all states, the remaining coefficients are based on the variation that is left. Thus, if *all* states change stringency levels, but those states with gubernatorial elections would stick out more, the model employed here would still observe this.

A complete list of all variables used, including the mentioned substitute variables, and some summary statistics is provided in in the appendix.

5.3 Design

The main analyses will utilize Two-way Fixed Effects models. Fixed Effects (FE) models are advantageous when working with time-series cross-sectional data since they control for any observed and unobserved constant variables (like political system) for every data point. Two-way fixed effects models also adjust for time-specific factors that affect all units in the sample at the same time (like new WHO recommendations). What is left is only the variation that is due to time-varying factors (like infection rates) that can be added as control variables (Cunningham 2022).

Another common choice for this type of data is random effects (RE) models. This option would also have been suitable since, apart from fixed effects models, such models do not assume the same effect across all units (Beck & Katz 2007), which could be the case here. RE

models are also more statistically efficient than FE models since fixed effect controls absorb a lot of the variation of the data (Sieberer & Ohmura 2021:5). On the other hand, RE models do not automatically account for constant (unobserved) variables as FE models do.

However, this choice should not matter too much here since FE and RE models' estimates converge when the number of time-periods increases (Beck 2001:284) which is the case in this design ranging over 85 weeks. I opt for the FE models as the main approach due to the aforementioned benefits but will also test every specification with random effects models as part of the robustness checks later on.

The base equation, on which all models are based on, is expressed as:

$$\text{Stringency}_{i,t} = \beta_0 + \beta_1 \text{Election proximity}_{i,t} + X'_{i,t} + \varepsilon_{i,t} \quad (1)$$

where $X'_{i,t}$ represents the set of control variables:

$$\begin{aligned} X'_{i,t} = & \beta_2 \Delta \text{infections}_{i,t-1} + \beta_3 \text{Fully vaccinated}_{i,t-2} + \beta_4 \text{Economic Support}_{i,t-2} \\ & + \beta_5 \text{Margin}_{i,t} + \beta_6 \text{Canada national election} + \beta_6 \text{US national election} + v_i + w_t \end{aligned}$$

v_i is the unit-fixed effect, w_t is the time-fixed effect, and $\varepsilon_{i,t}$ is the error term. I set w_t to control for monthly fixed effects to capture COVID-related trends affecting all states and provinces simultaneously, like emerging new COVID-variants, new WHO recommendations, or changing temperatures due to seasonality which is known to affect infection rates (Chen et al. 2021). Shorter, weekly fixed effects are inadequate as the time-specific factors are unlikely to affect all states and provinces within the same week, and also run the risk of absorbing too much of the variation. Longer, quarterly or yearly fixed effects may not adequately capture common effects like discussed above.

To test the second hypothesis of partisan moderation I extend the base equation as follows:

$$\begin{aligned} \text{Stringency}_{i,t} = & \beta_0 + \beta_1 \text{Election proximity}_{i,t} + \beta_2 \text{Partisanship}_{i,t} \\ & + \beta_3 \text{Election proximity}_{i,t} \times \text{Partisanship}_{i,t} + X'_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (2)$$

Lastly, I do not expect outcome observations to be independently distributed within a state/province; the stringency level of a given week is likely to be within some range of a similar

level of its previous week. Thus, to account for such potential autocorrelation, the analysis will cluster standard errors by state/province.

6. Analysis and results

6.1. Descriptive statistics

Figure 11 illustrates stringency trends for states and provinces who held election within the analysed timeframe, and those who did not. All states and provinces experienced very similar overall patterns in their stringency levels, most notably the seasonal trends. As one can see, there is a distinct partisan divide already in May 2020 up until around June 2021 when the trends start to converge.

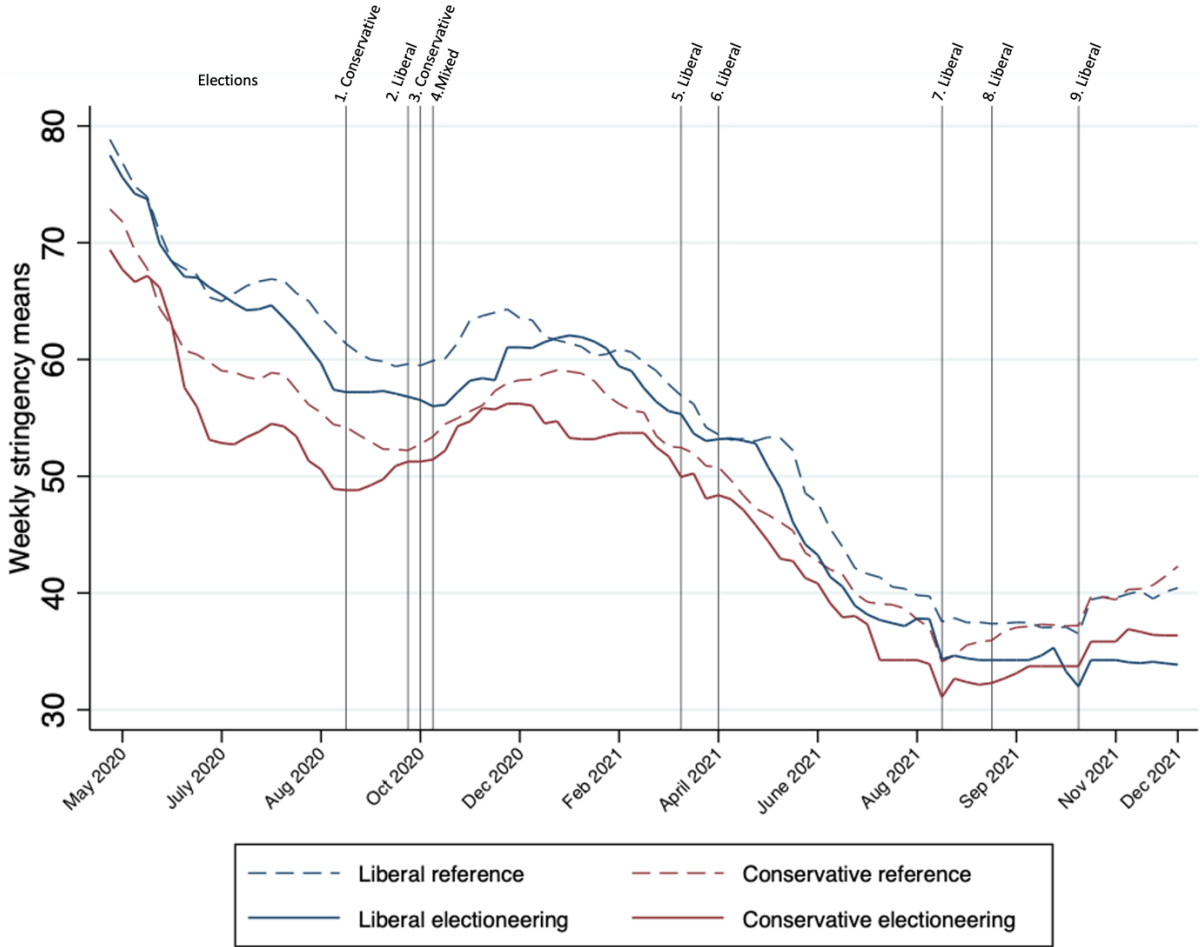
One can also see that the electioneering states and provinces seem to have lower trends throughout the timeframe compared to their respective reference group of the same partisanship. Of course, one should not take away too much from this graph as each state faced their own situation and the plotted lines do not for example consider different infection levels.

One can also see the distribution of elections by the dashed lines. Most notable is that they are not evenly spread out over the sample period. States with conservative incumbents only had elections in the first year, whereas liberal governments' elections are more spread out. This may cause trouble in an analytical sense and the conclusions that can be drawn, something that will be discussed in more detail later on.

Looking at the relationship a bit closer, table 3 shows pairwise correlations between the variables. The dependent variable stringency is significantly correlated with both independent variables. The positive and significant correlation with election proximity ($r = 0.1582$) indicates that higher values on the independent variable (i.e. weeks left to election) are associated with higher values on the stringency variable. The negative and significant correlation with partisanship ($r = 0.1369$) indicates that conservative states and provinces are on average associated with lower stringency.

The strongest correlation among the explanatory variables is negative correlation between vaccination rates and economic support ($r = 0.4431$). This makes intuitive sense as vaccinations would reduce the initial reason for economic relief, i.e. COVID-19. Most importantly though, the independent variables of interest are not highly correlated with the other predictors, something that could have biased the regression estimates.

Figure 11. Grouped stringency trends and elections over time



Note: Those states that had an election within the time frame have been divided into their own groups over the entire time period. Groupings are based on government partisanship in May 2020. Vertical lines indicate election dates: 1. New Brunswick, 2. British Columbia 3. Saskatchewan, 4. November 3rd US elections, 5. Newfoundland and Labrador. 6. Yukon, 7. Nova Scotia, 8. California, 9. New Jersey & Virginia.

Table 3. Correlation matrix.

	Stringency	Election proximity	Partisanship	Δ Infection	Vaccination	Economic support	Margin	Canada election	US election
Stringency	1.0000	–	–	–	–	–	–	–	–
Election proximity	0.1582 (0.0000)	1.0000	–	–	–	–	–	–	–
Partisanship	-0.1369 (0.0000)	0.0815 (0.0000)	1.0000	–	–	–	–	–	–
Δ Infection	-0.0643 (0.0000)	0.0195 (0.1548)	-0.0183 (0.1832)	1.0000	–	–	–	–	–
Vaccination	-0.6262 (0.0000)	-0.0793 (0.000)	0.0013 (0.9218)	0.0113 (0.4118)	1.0000	–	–	–	–
Economic support	0.4500 (0.0000)	-0.0117 (0.3951)	-0.1573 (0.0000)	-0.0774 (0.0000)	-0.4431 (0.0000)	1.0000	–	–	–
Margin	-0.0153 (0.2653)	0.0142 (0.2995)	0.2910 (0.0000)	0.0120 (0.3804)	-0.0573 (0.0000)	-0.0605 (0.0000)	1.0000	–	–
Canada election	-0.0140 (0.0000)	0.0833 (0.0000)	0.0366 (0.0076)	-0.0268 (0.0509)	0.2207 (0.0000)	-0.1049 (0.0000)	-0.0263 (0.0550)	1.0000	–
US election	0.0809 (0.0000)	-0.0475 (0.0005)	-0.0231 (0.0929)	-0.0064 (0.6426)	-0.2545 (0.0000)	-0.0221 (0.1076)	0.0159 (0.2459)	-0.0369 (0.0071)	1.0000

Note: *p*-values in parenthesis.

6.2. Main analyses

Table 4 below presents a series of models testing hypothesis 1, that an approaching election would result in less stringency. All models include unit fixed effects and standard errors are clustered by state/province. Since a large part of the variation in the dependent variable is based on time variation (see figures 6 and 11) and the main independent variable is a time-count variable, models are estimated both with and without time-fixed effects to exploit as much variation as possible while also controlling for the potential time-fixed factors discussed earlier.

Model 1 is a bivariate model including only the dependent variable *stringency* and the independent variable *election proximity*. This model indicates an estimated effect of 0.049, with a *p*-value of 0.051, just short of statistical significance. Model 2 introduces monthly time-fixed effects to the bivariate relationship. When adding time-fixed effects, the estimate loses some of its strength ($\beta = 0.022$) but reaches statistical significance. It should be noted that since the

election proximity variable is counting down towards zero, this coefficient should be interpreted reversely: each additional week away from election day is associated with an average of 0.022 higher stringency level. Therefore, lower values (closer to election day) are associated with lower levels of stringency. Figure 12 below illustrates this for easier interpretation.

The estimation in model 2 also remains robust to the inclusion of control variables. Model 3 is based on model 1 but with control variables added. The estimated coefficient indicates an effect of 0.028 of election proximity on stringency. Model 4, the most rigorous testing of hypothesis 1, includes both monthly time-fixed effects as well as control variables, and yields a statistically significant coefficient of 0.021.

In sum, models 2-4 lend support to the Electoral Cycles hypothesis. The observed effect is however relatively small. A 6-month period would amount to about an average decrease of 0.528, i.e., half a step on the stringency index. This roughly equals a reduction of stringency in one policy type, but with a condition (such as targeting only one specific group or location).

As for the control variables, that infection rate lacks statistical significance and vaccination rates only being significant without time-fixed effects is not in line with expectations. However, these variables might exert multicollinearity between each other, which reduces their respective explanatory power. This does not matter for any conclusions drawn for the independent variable of interest though.

Neither economic support nor incumbents' poll margins seem to have consistent statistically significant effects, which is against expectations. The same goes for the Canadian national election variable, but this is less unexpected as the time between the announcement and the day of the election was only one month. The US national election variable does however show significance in model 4. The positive coefficient $\beta = 6.96$ implies that *all* US states increased stringency levels leading up to November 3rd. This goes somewhat against the theoretical expectations based on the framework but makes sense considering that infection rates, and thus the need for containment measures, were on an upwards trend in the winter of 2020 (see for example figures 6 and 9 in the previous section).

The R^2 -levels within units are relatively high in models 2-4. Whereas model 3 can explain 58% of the observed variation (i.e. of individual governments' policy choices) the explanatory power of the models with time-fixed effects is around 71%. This discrepancy is expected though since time-fixed effects reduce a great amount of the variance, which captures the general trend in stringency exhibited by the states and provinces (see figure 6). The low between-values imply that the models do not explain much variation between units, or how different government decisions differed from each other.

Table 4. Regression models testing hypothesis 1

DV: Stringency	Bivariate		With controls	
	(1)	(2)	(3)	(4)
Election Proximity	0.047 (0.023)	0.022* (0.0106)	0.028* (0.011)	0.021* (0.009)
Δ Infection _{t-1}	–	–	-0.0002 (0.0014)	0.0013 (0.0011)
Vaccination full _{t-2}	–	–	-0.0003*** (0.0000)	-0.0003 (0.0000)
Economic support _{t-2}	–	–	0.074* (0.032)	-0.015 (0.0375)
Winner margin	–	–	-9.496 (11.82)	-3.616 (9.296)
Canada national election	–	–	4.067 (2.729)	2.73 (2.61)
US national election	–	–	0.086 (0.925)	6.96*** (1.1)
Intercept	48.73*** (2.31)	70.39*** (1.27)	52.86*** (3.289)	70.38*** (3.252)
Unit fixed effects	State/ province	State/ province	State/ province	State/ province
Time fixed effects	–	Month	–	Month
<i>N</i>	5307	5307	5182	5182
<i>R</i> ²	Within	0.0294	0.7157	0.5813
	Between	0.0130	0.0130	0.0101
	Overall	0.0250	0.5470	0.4290

Note: Clustered standard errors by state/province in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 12. Predictive margins with 95% confidence intervals, based on model 4

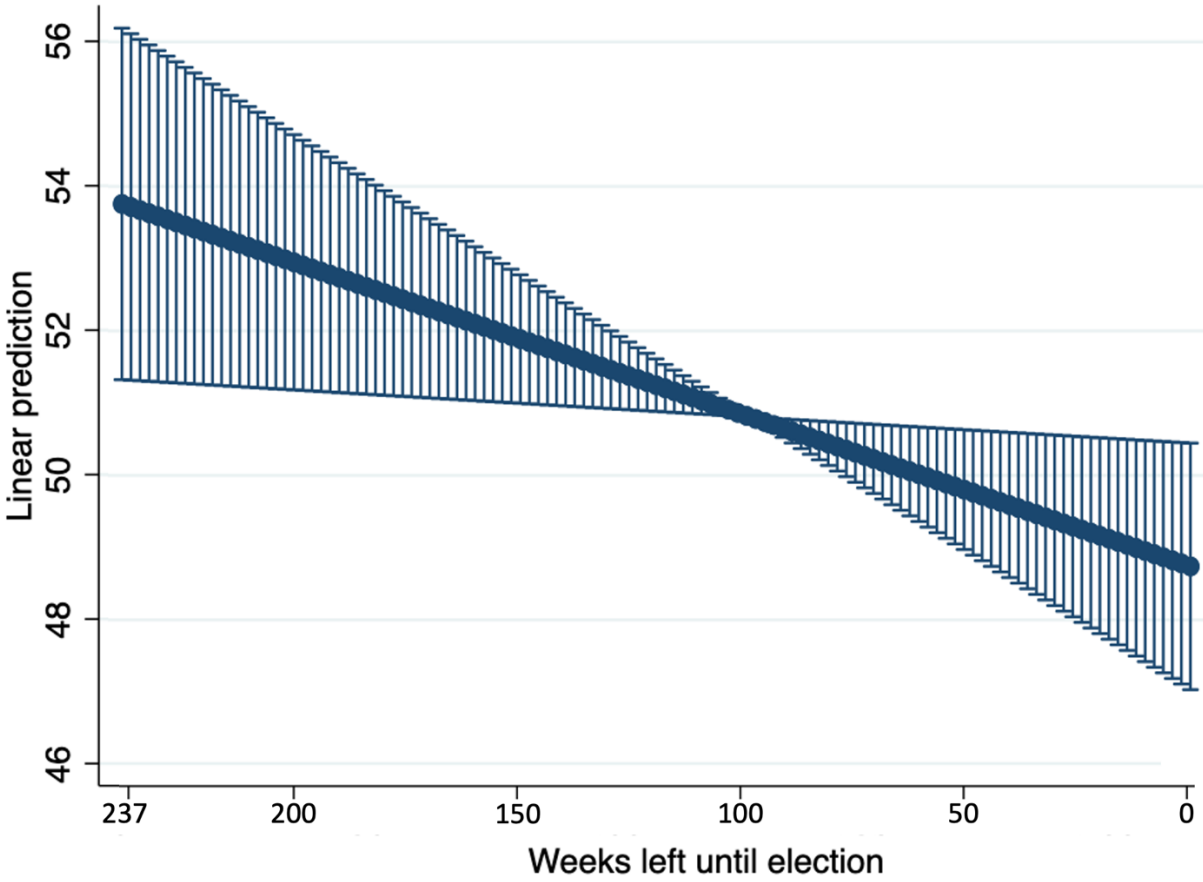


Table 5 shows the models testing hypothesis 2, i.e., that electorally motivated decreases of containment measures is driven by conservative governments. Just like in the previous table, models 5-8 follow the same structure, beginning with an analysis of only the main variables in model 5, and ending with a full set of controls in model 8.

Upon adding partisanship as a moderating variable, neither election proximity nor the interaction term show statistical significance. The results change, however, when including control variables and time-fixed effects. Looking at model 6, the election proximity variable shows a significant coefficient of 0.038, representing the expected change in stringency over a week in states and provinces with a liberal government. The interaction term coefficient -0.036 indicate that the expected change for regions with a conservative government is on average $0.038 - 0.036 = 0.002$. These estimates, again, need to be interpreted reversely. Thus, model 6 suggests that, all else equal, liberal governments decreased regulations equivalent to 0.038 points on the stringency index for every week closer to election day, whereas conservative governments on average decreased regulations equivalent to 0.002 points for each week closer

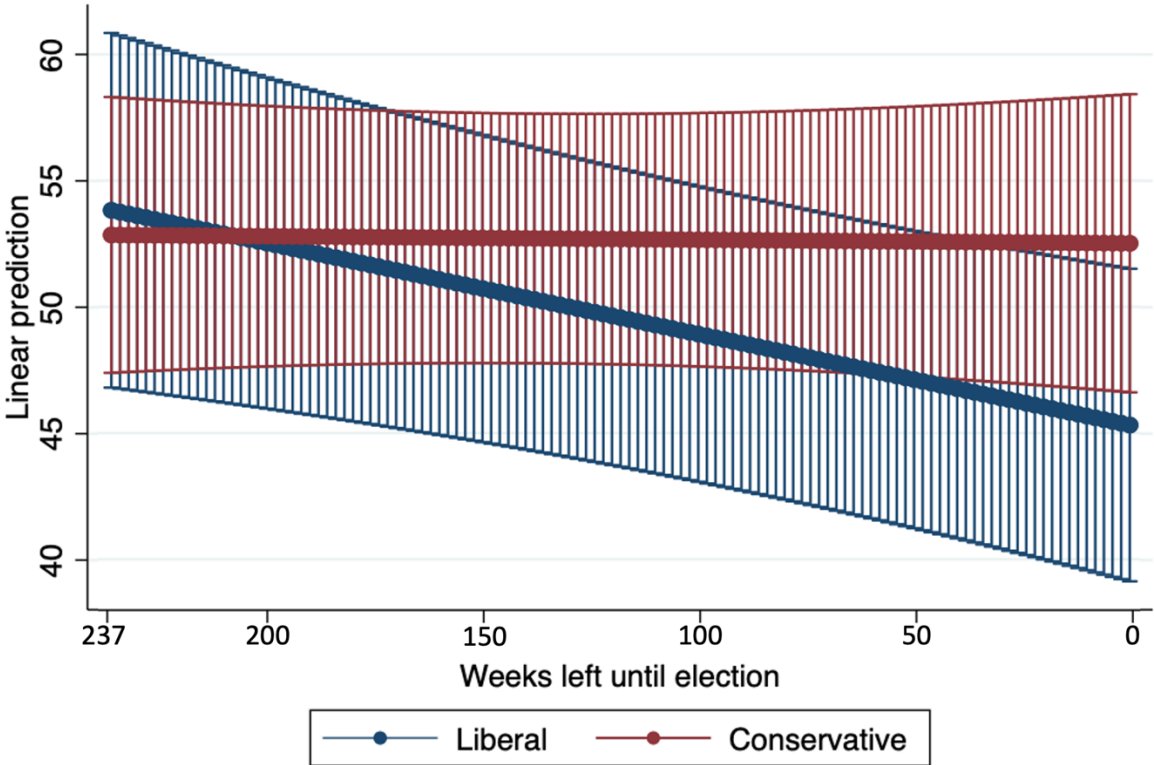
Table 5. Regression models testing hypothesis 2

DV: Stringency	Bivariate		With controls	
	(5)	(6)	(7)	(8)
Election Proximity	0.059 (0.036)	0.038** (0.014)	0.0498** (0.016)	0.036** (0.013)
Partisanship ⁹	-17.78* (8.27)	6.8 (6.07)	9.18 9.49	7.2 (5.92)
Partisanship × Election Proximity	-0.008 (0.051)	-0.036 (0.019)	-0.0499* (0.02)	-0.035* (0.017)
Δ Infection _{t-1}	–	–	-0.0002 (0.0013)	0.0013 (0.0011)
Vaccination full _{t-2}	–	–	-0.0003*** (0.0000)	-0.0003 (0.0000)
Economic support _{t-2}	–	–	0.074* (0.032)	-0.013 (0.034)
Winner margin	–	–	-4.54 (9.66)	-0.4 (9.06)
Canada national election	–	–	3.58 (2.68)	2.73 (2.61)
US national election	–	–	-0.19 (0.87)	6.55*** (1.05)
Intercept	55.59*** (3.98)	70.39*** (1.27)	47.96*** (6.06)	66.44*** (4.62)
Unit fixed effects	State/ province	State/ province	State/ province	State/ province
Time fixed effects	–	Month	–	Month
<i>N</i>	5307	5307	5182	5182
<i>R</i> ²	Within	0.0431	0.7157	0.5893
	Between	0.0785	0.0130	0.0192
	Overall	0.0332	0.5470	0.3796

Note: Clustered standard errors by state/province in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

⁹ Coefficients of this variable should not be mistaken as the average difference between the two partisan groups in the model, as in e.g. a normal cross-sectional regression. Since an FE model demeans the data, constant variables are automatically omitted. But because some elections within the sample time frame resulted in a government turnover, there is within-unit variation present in the data. The presented estimations are based on this and should not be considered as valid for inference.

Figure 13. Predictive margins with 95% confidence intervals, based on model 8.



to an election. Figure 13 illustrates these coefficients for easier interpretation. The interaction term is however not statistically significant in model 6, suggesting no observed systematic difference in regions with governments of different partisanship.

However, when adding control variables in models 7 and 8, both the election proximity variable and the interaction term show statistical significance, implying that approaching elections have in fact differed in conservative and liberal states and provinces. The more generous model 7 suggests that each week closer to an election in a liberal state/province is associated with a decrease in containment policies equivalent to 0.0498 on the stringency index, all else equal. In conservative states/provinces, each week closer to an election is instead associated with on average $0.0498 - 0.0499 = 0.0001$, all else equal. In more real terms, a 5-month period within liberal states/provinces would result in an average decrease of 0.996, or about a full step on OxCGRT stringency index. This would for example roughly equal a shift in policy from a ban on public events, to instead only recommending against it.

In the fully controlled model 8, these effects are slightly weaker, but the interaction term remains significant and similar in size to the election proximity variable. Thus, as figure 13 illustrates, the electioneering effect observed is largely driven by *liberal* governments while conservative governments’ stringency levels remain largely unchanged approach an election.

In sum, there is statistical evidence, under certain specifications, for a partisan electoral cycle effect. This observed pattern is however contrary to the expected one, where only liberal states/provinces exhibit the effect anticipated. I thus conclude there is no support for the second hypothesis.

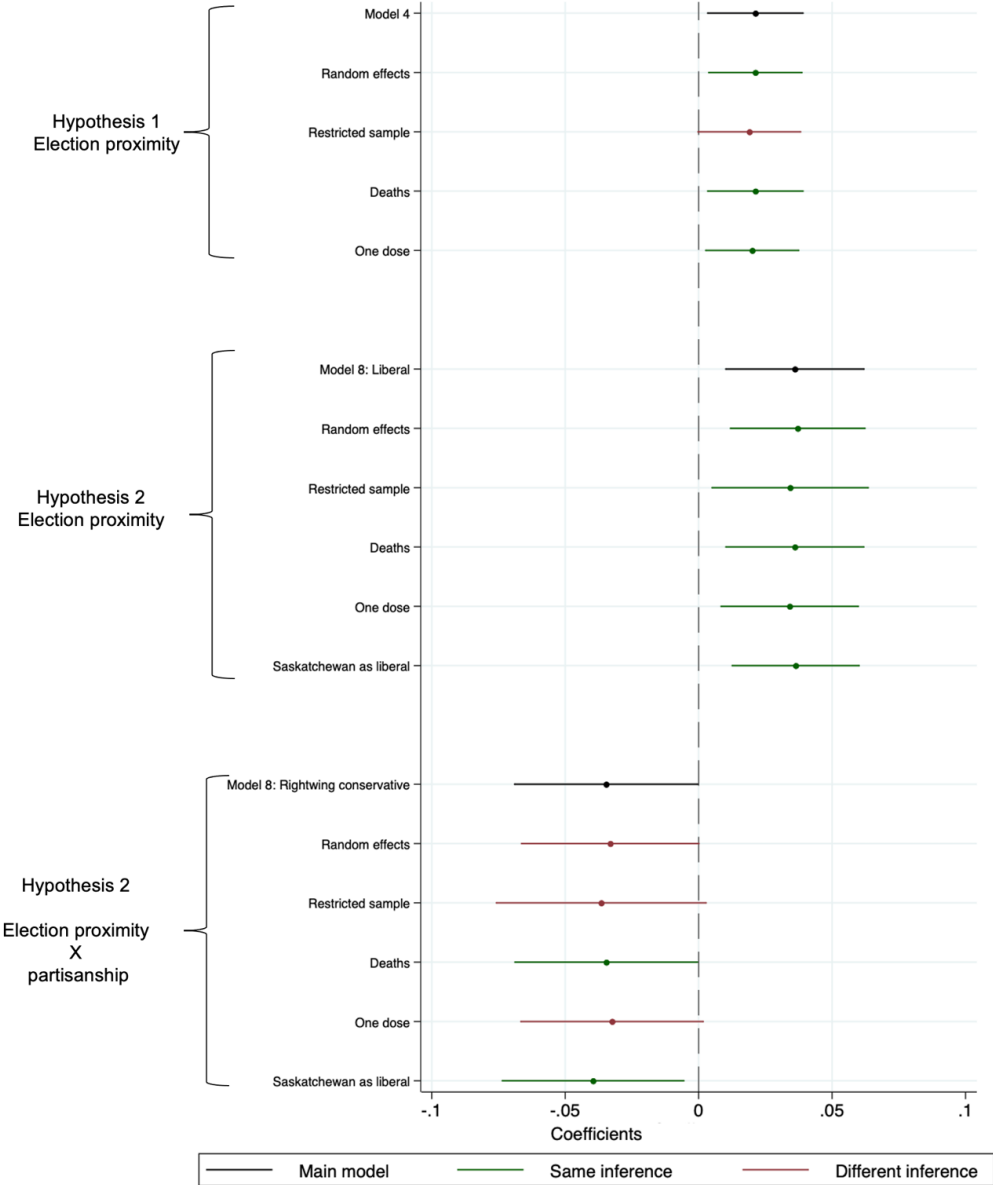
6.2.1 Robustness checks

In this section, I perform a number of robustness checks to validate the results from the previous estimations. I run these checks based on the more robust models 4 and 8

Firstly, I run the models with some modifications. More specifically, these modifications each entail a) using Random Effects instead of Fixed Effects b) running the models without the states/provinces that had early election, c) substituting change in infection rates for change in death numbers, d) substituting number of fully vaccinated to number of first doses given, e) Saskatchewan Party coded as liberal, since their partisanship affiliation is not straight forward. Figure 14 below provides an overview of the coefficients for the election proximity variable and the interaction term. These models show at large the same results as the main models, but with some of the interaction terms being just short of statistical significance. This suggests that the pattern in liberal states and provinces seems robust, whereas the estimated effect of approaching an election is less robust for conservative states and provinces. As the interaction term seeks to capture partisan differences, and lose statistical significance under some of the specifications, the overall picture lends further support to hypothesis 1, that approaching elections are associated with a fairly uniform government response.

Secondly, I run country-separate analyses. One reason is to better accommodate for the potentially biasing effects of national elections on the outcome of interest. Another advantage with this is that shows whether these effects are different in Canada and the US or remain robust. Figure 15 provides an overview of the independent variables' coefficients. These analyses, however, provide a different inference from the main models. In the Canada subsample, only the interaction term coefficient ($\beta = -0.041$) shows significance. This suggests that only conservative provinces experienced an election cycle effect. Since the interaction term is significantly lower than the non-significant election proximity variable, this implies that approaching elections in conservative provinces are associated with an *increase* of containment policies equivalent to 0.04 on the stringency index. Thus, government response does not seem to only vary by partisanship, but this partisan difference seems to play out differently within the two countries examined here.

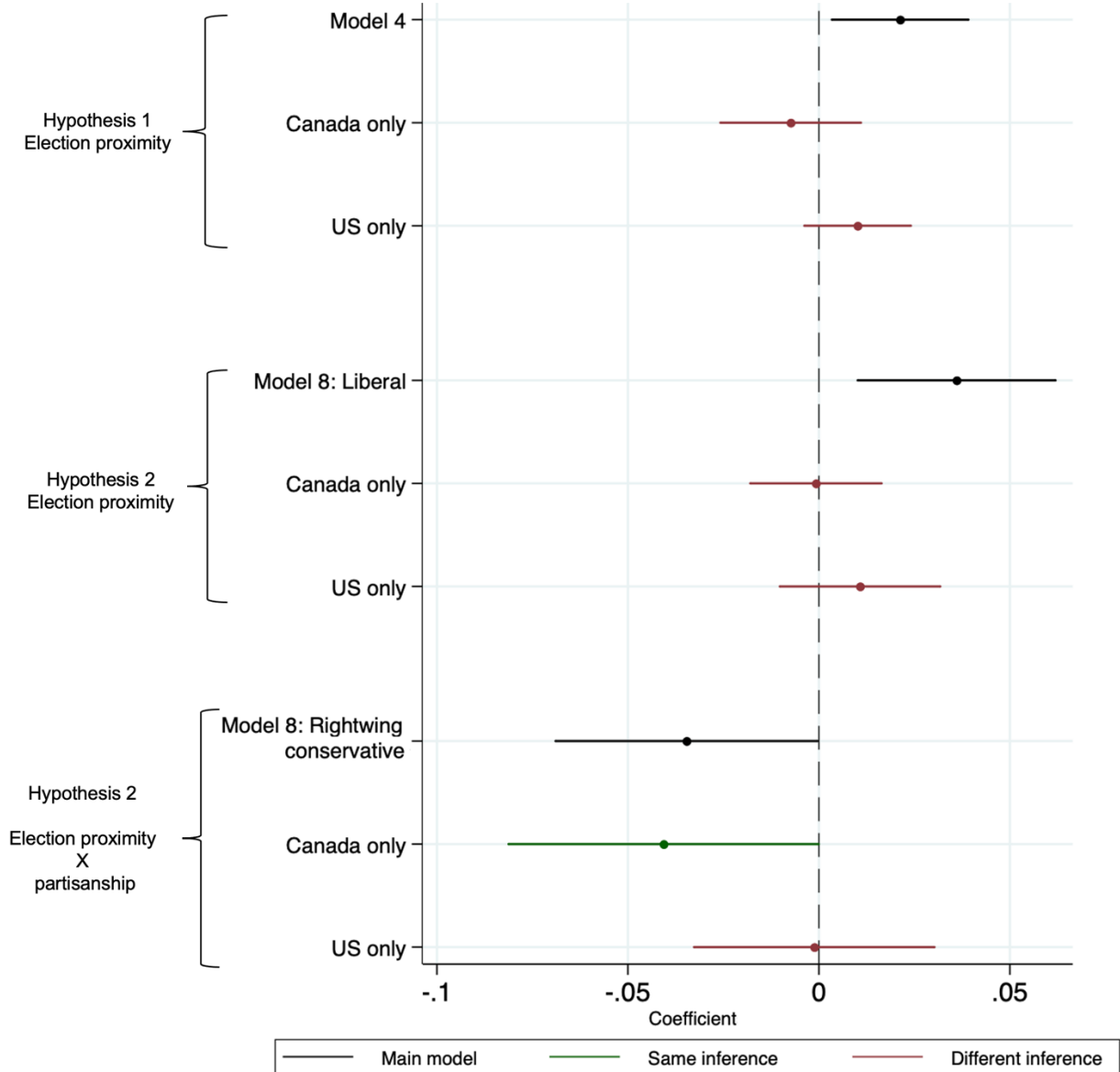
Figure 14. Robustness checks with different model specifications.



Note: Green indicates that the coefficient estimate has the same significance as those in their respective main models. All models use the same specification as the main models, but with the modification indicated in the titles on the left. All models use monthly fixed effects, standard errors clustered by state/province, and have a sample size of $n = 5182$. Full model results are provided in the appendix.

In the US subsample, none of the coefficients are statistically significant. A possible explanation for the non-significant results here might be the distribution of gubernatorial election dates within the time frame analysed. These only include those on November 3rd in 2020 and 2021, as well as California’s early recall election. If the presidential election would “water out” the subnational electoral cycle effects, and California did not experience an election cycle effect due to the early recall election, this only leaves the late 2021 elections in liberal-

Figure 15. Country-separated analyses.



Note: Green indicates that the coefficient estimate has the same significance as those in their respective main models. All models use the same specification as the main models, but with the modification indicated in the titles on the left. All models use monthly fixed effects and clustered standard errors. Sample sizes for the Canada and US models are $n = 935$ and $n = 4247$ respectively. Full model results are provided in the appendix.

led Virginia and New Jersey. As seen in figure 11 (election timing 9), stringency levels were already quite low leading up to this point and further reductions may not have been perceived as doing much of a difference.

All in all, the robustness checks challenge the validity of the main models and further cements the conclusion of no support for hypothesis 2.

7. Discussion

The previous section showed that the main analyses support the anticipation that election proximity would lead to less stringency, although with a weak effect, and that these patterns exhibit some partisan differences. These effects are however no longer present when looking at Canada and the US separately, instead only showing that conservative Canadian provinces may be associated with increasing stringency levels as election day approaches. While the analysis proved to show statistical significance under certain specifications, the observed patterns do not indicate much of a noticeable effect to speak of.

These results are however interesting in themselves, and several questions remain. Firstly, how *valid* are the conclusions drawn in this study given the empirical strategy employed here? While causality is desirable over correlation, the possibility for causal claims is always limited using observational data (Ho et al. 2007; Rudolph 2018). A conventional approach for approaching causal estimates in quantitative studies is usually to employ an experimental design. This is however not possible in the case here, as the necessary requirements (e.g., random treatment assignment) are not met. A more qualitative approach would perhaps be better able to render a causal claim but at the expense of exploring a systematic pattern, which has been the goal here.

I have tried arguing for and employing the best methodological choices I have seen fit given the circumstances, but also acknowledge that the operationalisations are not perfect, and the control variables are not exhaustive. For example, the partisanship variable is binary and treats all members of the group the same and does not provide any “distances”. For example, it is reasonable to believe that the effect of interest would be more prevalent in more “extreme” constituencies than more moderate ones. Even though the theorized mechanism here is partisan polarization, this phenomenon varies between political agents and arenas. The operationalization employed here also treats conservative governments in Canada and US the same, although I’ve attempted to overcome this by running separate analyses. Arguably though, even an ordinal variable would provide better and more detailed insights. This could be achieved through for example comparing and ranking political messages such as party programs (like the Comparative Manifesto project) or individual leaders’ political statements, but this is out of the scope of this thesis.

Another potentially limiting factor is the distribution of elections within this sample. As noted in figure 11, the only conservative elections took place between September and November of 2020, whereas liberal incumbents’ election dates were more spread out. While

these dates and party affiliations are independently distributed, this may indeed be a problem in an analytical sense for drawing conclusions as we for example do not know how conservative electioneering incumbents might have acted had they had election in 2021, which proved to be somewhat different from the first year of the pandemic. This may also explain the non-significant results in the US subsample as discussed earlier. But had election cycles had a major and noticeable impact on containment policy choice, these effects should have been more observable regardless.

Model choice may also have influenced the estimated effects here. There is a multitude of different estimation models available for statistical analyses. The observed outcome of the phenomenon studied here, i.e., policies, perhaps lend itself more towards a discrete type of data; a school is either closed or not. Estimation models developed around this type of data would perhaps capture the real-world phenomenon more adequately. For example, survival models which analyse duration until an event occurs (e.g. a school closure) have been utilized in many studies on early COVID-related outcomes. These were suitable looking at the early phases when stringency levels only increased. Such models are, however, less appropriate in the study here because they do not tell much about the “direction” (higher or lower) a change occurs, as well as the “distance” (how much higher/lower), which would potentially miss many instances of electorally motivated decision-making. Drawing on the type of data and estimation models like done in this thesis may not provide estimations that are seamlessly applicable to the real world (e.g. can we expect a school to close by 0.022 each week?). However, the benefits of this method, like information on “direction” and “distance”, as well as comparability between different governments, serves the overall purpose of this thesis in providing a general pattern to test a theory on.

While the empirical strategy employed here may not be perfect in unveiling the true effect approaching elections might have had on containment policy choices, I argue that the choices made represent the best options under the given circumstances to provide as much validity as possible.

Secondly, how *generalizable* are the conclusions drawn in this study given the empirical strategy employed here? Considering the restricted sample chosen here, we can only in a strict sense draw conclusions about subnational governments in Canada and the US. I have argued that these countries make up very likely cases, exhibiting “favourable” conditions for observing a potential electoral cycles effect on containment policies; if such effects did not occur here, under these conditions, it is not too likely to have occurred on a systematic level in other, similar parts of the world. This restricted analysis does of course not rule out that election cycles could

have had effects on containment policy choices in some countries, but it is unlikely that it had a systematic common effect in the matured democracies typically examined in the studies on government COVID-19 response.

But maybe the most interesting question is, why have we not observed more of an electioneering effect by the governments analysed here? These results by themselves would suggest that elected leaders have acted responsibly in the name of public health. However, based on e.g. figure 11, it still remains that there's been a distinct partisan divide structuring the base levels of containment policies, at least so in the US (Akovali et al. 2020). It thus seems like the extent to which political priorities influence containment policy choice is through ideological or partisan elements, and that election concerns have not been at the forefront in elected representatives' decision-making processes regarding containment measures. This of course does not rule out that election cycles could still have been present for other policy types, like economic relief.

It also seems like the effects of electoral and partisan factors have played out differently in Canada and the US. In the US, partisanship seemed to have structured government response already quite early on, but the US-only analysis here suggests that election proximity had no effect. In Canada, although no empirical studies have examined the role of partisanship on governments' *general* response, election proximity seems associated with increasing stringency in conservative provinces. Although real-world events and survey evidence suggest that lower tolerance for regulations has been associated with political conservatism in Canada, incumbents may not have perceived such discontent to be representative or strong enough to cater to, and perhaps sought to display competence to the general voting population.

8. *Conclusions*

The COVID-19 pandemic has forced governments worldwide to intervene in the lives of their citizens on a scale not seen since the second world war (Cepaluni et al. 2020). These interventions have entailed coercive containment policies such as lockdowns or mandatory face coverings, which have constituted a trade-off between public health versus social and economic values and rights.

Researchers showed quite early on that these trade-offs seemed to have made democratic countries reluctant to implement the coercive containment policies responsible for this (Bosancianu et al. 2020; Cepaluni et al. 2020; Cheibub et al. 2020; Cronert 2020; Frey et al. 2020). But democratic response was also very heterogeneous. Scholarly attention seeking to untangle the political determinants of government response has not provided unanimous answers (Toshkov et al. 2021; Plümper & Neumayer 2021).

In this thesis, I have sought to investigate whether upcoming elections have influenced elected governments' COVID-19 containment policy choices and whether this has been different depending on partisanship. I have attempted so by redirecting focus to subnational elections in Canada and the US and extending the time frame to encompass the first two years of the pandemic. Employing the (Partisan) Electoral Cycles framework, and other insights related to the outcome of interest, I have argued for two hypotheses: that stringency will be lower in regions that are closer to an election, and that this effect is driven by right-wing conservative governments. I have tested these hypotheses using the OxCGRT dataset and Two-way Fixed Effects models.

The analyses provided some indication that approaching elections are associated with lower stringency levels and that these effects have partisan patterns. However, the small partisan pattern observed is the opposite of the expected relationship, where liberal governments seemed to drive the electioneering effects observed, whereas politically conservative governments seem to exhibit no effect. Later robustness checks lend weak support to these inferences and the country-separated analyses rather indicate that conservative provinces are associated with increasing stringency leading up to election day. I, therefore, conclude the statistical evidence at hand to not speak for the tested hypotheses. While a (partisan) election effect was observed under some specifications, the significant estimates showed to be quite small; between the stricter model 4, and the more generous model 7, a real policy change would take between 5 months and up to a year. To return to the research questions

of this thesis, based in on these results, approaching elections do not seem to have discernibly affected incumbents' containment policy choices, and through no clear partisanship distinction.

This thesis adds to the academic debate on the political determinants of government COVID-19 response. More specifically, it extends the work of Ferraresi et al. (2020a) and Pulejo & Querubín (2021) by focusing on subnational elections and beyond the initial months. The results, however, cannot lend support to either side of the argument. Thus, a general conclusion that can be drawn is perhaps that approaching elections do not seem to have a systematic common effect on government containment policy choices.

Returning to one of the issues outlined in the beginning, that cross-country studies seem to produce more contradicting than consistent results, the results here further implies that political factors may vary more between countries rather than exerting a common effect on COVID-related outcomes. This suggests that country-specific features may have conditioned how, or even if, political factors have influenced containment policy choices. For example, most studies have argued, and some have also shown (Toshkov et al. 2021), that right-wing conservative governments would enact less stringent measures because of ideological elements. On the other hand, Plümper & Neumayer (2021) explain their opposite findings by pointing out that conservative voters tend to be older and richer, thus not being hit as hard by the economic consequences of containment policies, while also favouring more protection due to being more vulnerable to the disease itself. Likewise, Kavakli (2020) find that right-wing incumbency is associated with slower response in richer countries, but faster response in poorer countries. Thus, the effect of political factors on government response, such as ideology, seem to have varied in different countries. This is perhaps a potent way forward for future research to further understand and study the political determinants of government pandemic response.

This thesis also adds to the Electoral Cycles literature and its recent extension into crisis response (see Cooperman 2022). Since the analyses suggest little to no effect of elections on containment policies, this implies that the vote-seeking logic of the original framework may not be applicable to all sorts of policies. Most studies within the Electoral Cycles literature focus on, and have shown evidence of election-timed economic policies. This tool is perhaps perceived by incumbents as more a more appropriate and controllable instrument since for example post-election consequences can be adjusted through other tried and tested economic policy instruments. While the logic of the framework has been applied and proven on other types of policies, containment measures may have been perceived as being less controllable or less morally unjustifiable since it risks spiralling infection rates and ultimately higher death rates. While the Electoral Cycles framework highlight for example policy control or

manoeuvring room as conditioning the ability of incumbents electioneering strategies (Franzese 2002), this study would perhaps imply that policy type, or rather its (perceived) consequences pose an additional condition. However, these results should not discourage future research to keep studying the (potential) effects of Electoral Cycles on government response to pandemics or other types of crises as politically opportunistic incentives and tendencies will most likely always be around.

Meagre results like the ones observed in this thesis can be interesting in themselves. When as exceptional and impactful events as the COVID-19 pandemic enter political arenas, relatively stable patterns of institutionalized politics and the scientific theories thereof seem to lose explanatory power. But this is perhaps also what makes these events interesting and worth studying.

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10. Appendix

Table A1. Summary statistics over variables used

Variable	Mean	Std. dev.	Min	Max
Stringency	51.34	14.58	21.56	93.52
Election proximity	97.41	52.05	0	237
Partisanship (1 = conservative)	0.54	0.5	0	1
Δ Infection	163.75	198.75	-7.23	1920.09
Vaccination full	21389.54	25586.75	0	85565.28
Economic support	46.75	22.72	0	100
Winner's margin	0.14	0.11	-0.07	0.57
Canada national election	0.01	0.12	0	1
US national election	0.08	0.28	0	1
Δ Deaths	0.33	1.31	-6.04	26.22
One dose vaccine	26738.43	29190.95	0	92871.59
Partisanship w/ Saskatchewan as liberal	.52	0.5	0	1

Note: All numbers rounded to the second decimal

Table A2. Policy types included in the OxCGRT Stringency Index

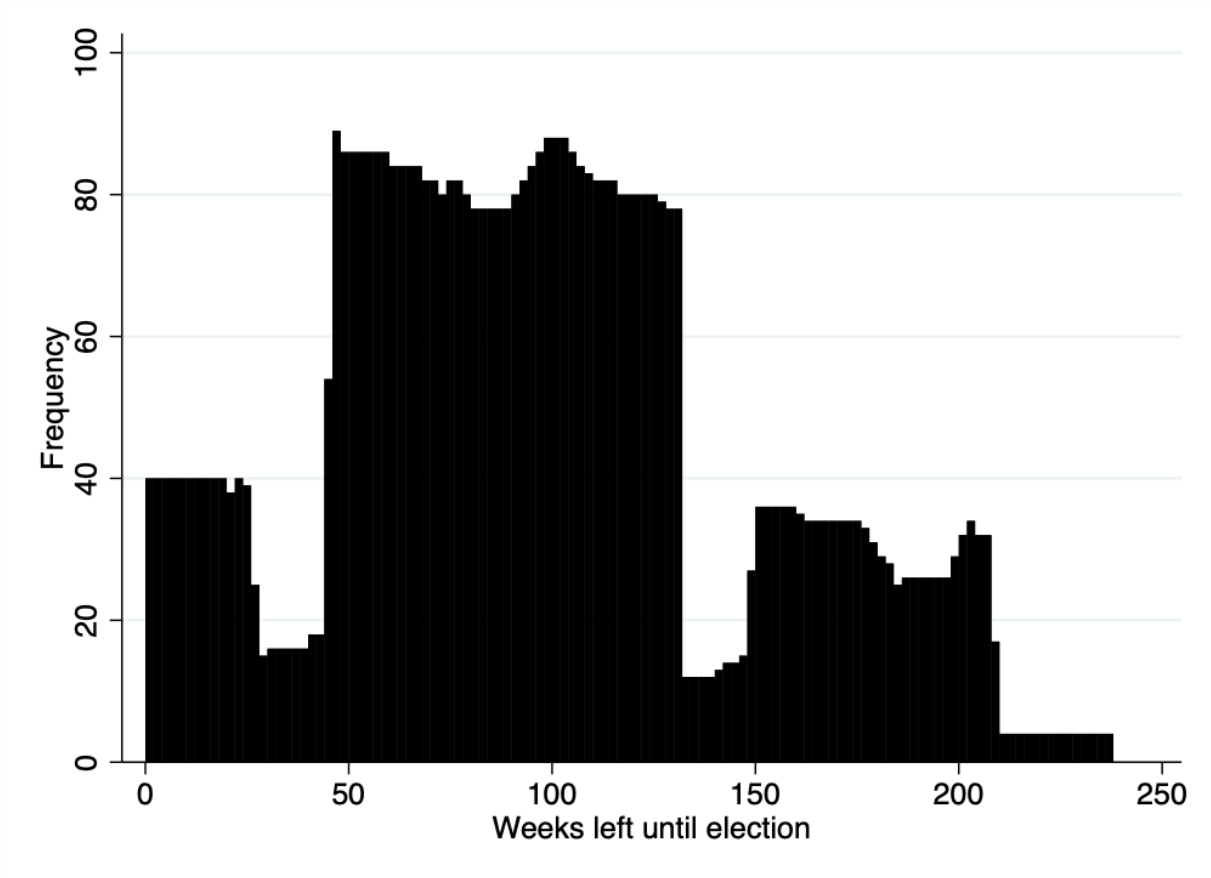
Policy type	Coding	Flag condition
Closings of schools and universities	0 - no measures 1 - recommend closing or all schools open with alterations resulting in significant differences compared to non-Covid-19 operations 2 - require closing (only some levels or categories, eg just	0 - targeted 1- general Blank - no data

	<p>high school, or just public schools)</p> <p>3 - require closing all levels</p> <p>Blank - no data</p>	
Closings of workplaces	<p>0 - no measures</p> <p>1 - recommend closing (or recommend work from home) or all businesses open with alterations resulting in significant differences compared to non-Covid-19 operation</p> <p>2 - require closing (or work from home) for some sectors or categories of workers</p> <p>3 - require closing (or work from home) for all-but-essential workplaces (eg grocery stores, doctors)</p> <p>Blank - no data</p>	<p>0 - targeted</p> <p>1- general</p> <p>Blank - no data</p>
Cancelling public events	<p>0 - no measures</p> <p>1 - recommend cancelling</p> <p>2 - require cancelling</p> <p>Blank - no data</p>	<p>0 - targeted</p> <p>1- general</p> <p>Blank - no data</p>
Limits on gatherings	<p>0 - no restrictions</p> <p>1 - restrictions on very large gatherings (the limit is above 1000 people)</p> <p>2 - restrictions on gatherings between 101-1000 people</p> <p>3 - restrictions on gatherings between 11-100 people</p> <p>4 - restrictions on gatherings of 10 people or less</p> <p>Blank - no data</p>	<p>0 - targeted</p> <p>1- general</p> <p>Blank - no data</p>

Closing of public transport	0 - no measures 1 - recommend closing (or significantly reduce volume/route/means of transport available) 2 - require closing (or prohibit most citizens from using it) Blank - no data	0 - targeted 1- general Blank - no data
Orders to "shelter-in-place" and otherwise confine to the home	0 - no measures 1 - recommend not leaving house 2 - require not leaving house with exceptions for daily exercise, grocery shopping, and 'essential' trips 3 - require not leaving house with minimal exceptions (eg allowed to leave once a week, or only one person can leave at a time, etc) Blank - no data	0 - targeted 1- general Blank - no data
Restrictions on internal movement between cities/regions	0 - no measures 1 - recommend not to travel between regions/cities 2 - internal movement restrictions in place Blank - no data	0 - targeted 1- general Blank - no data
Record restrictions on international travel <i>Note: this records policy for foreign travellers, not citizens</i>	0 - no restrictions 1 - screening arrivals 2 - quarantine arrivals from some or all regions 3 - ban arrivals from some regions 4 - ban on all regions or total	—

	border closure Blank - no data	
Presence of public info campaigns	0 - no Covid-19 public information campaign 1 - public officials urging caution about Covid-19 2- coordinated public information campaign (eg across traditional and social media) Blank - no data	0 - targeted 1- general Blank - no data

Figure A1. Distribution of election proximity variable



Note: The range between 45-127 have the highest frequencies of observations since these values are mostly occupied by the non-electioneering states and provinces; as figure 7 above illustrates, electioneering states/provinces have more “extreme” values on the election proximity variable. It should also be noted that the drop-off right before the 50-130 range is due to the sample restriction; since the time frame starts 22 weeks before November 3rd, which is the biggest election group, these units do not have values in the range between 23.44. This timing is also responsible for the drop-off between 128-148.

Table A3. All sub-national elections held between 2020-21 in US and Canada

State/Province	Date
New Brunswick*	14 th September 2020
British Columbia*	24 th October 2020
Saskatchewan	26 th October 2020
Delaware, Indiana, Missouri, Montana, New Hampshire, North Carolina, North Dakota, Utah, Vermont, Washington, West Virginia	3 rd November 2020
Newfoundland and Labrador	25 th March 2021
Yukon	12 th April 2021
Nova Scotia*	17 th August 2021
California***	14 th September 2021
Nunavut**	25 th October 2021
New Jersey, Virginia	2 nd November 2021

**New Brunswick, British Columbia and Nova Scotia are all provinces where incumbent premier called snap elections, rather than elections being held at fixed dates. This violates the exogeneity assumption of elections, potentially making the treatment assignment endogenous to our dependent variable, stringency. This will be addressed in the analysis.*

***Nunavut does not have a party system (Legislative Assembly of Nunavut, 2008), thus Nunavut will be excluded from the analysis as I deem them to be incomparable to the rest of the sample.*

****In California, a recall election was issued in February 2020. Although no explicit mention of COVID-19 management, the petition references among others, quality of life (Rescue California 2021). Thus, California will be dropped in the analysis as it potentially constitutes a case of endogenous treatment assignment.*

Table A4. Regression analyses for models in figure 14

	(RE H1)	(RE H2)	(Restricted H1)	(Restricted H2)	(Deaths H1)	(Deaths H2)	(One Dose H1)	(One Dose H1)	(Partisanship2)
	stringency	stringency	stringency	stringency	stringency	stringency	stringency	stringency	stringency
elecoun	0.0213* (2.38)	0.0371** (2.88)	0.0190 (1.98)	0.0343* (2.34)	0.0213* (2.38)	0.0360** (2.79)	0.0201* (2.30)	0.0341* (2.65)	0.0364** (3.05)
L.d_cases10	0.00119 (1.08)	0.00110 (0.98)	0.00138 (1.23)	0.00130 (1.15)			0.00166 (1.43)	0.00158 (1.36)	0.00125 (1.12)
L2.vaxx1dose_avg	-0.0000284 (-0.69)	-0.0000319 (-0.78)	-0.0000535 (-1.22)	-0.0000613 (-1.39)	-0.0000291 (-0.69)	-0.0000356 (-0.84)			-0.0000346 (-0.83)
L2.economicsupp	-0.0116 (-0.34)	-0.00857 (-0.25)	-0.00432 (-0.12)	-0.00358 (-0.10)	-0.0141 (-0.41)	-0.0127 (-0.38)	-0.0130 (-0.38)	-0.0118 (-0.35)	-0.00889 (-0.27)
margin	-3.287 (-0.40)	-0.196 (-0.03)	-6.882 (-0.75)	-1.898 (-0.19)	-3.643 (-0.39)	-0.433 (-0.05)	-1.831 (-0.19)	1.194 (0.13)	0.255 (0.03)
0.can_elec	0 (.)						0 (.)		
1.can_elec	3.016 (1.16)						1.586 (0.64)		
can_elec		2.729 (1.08)	4.464 (1.95)	3.957 (1.80)	2.712 (1.04)	2.328 (0.93)		1.218 (0.51)	2.247 (0.89)
0.us_elec	0 (.)						0 (.)		
1.us_elec	6.780*** (6.20)						6.779*** (6.44)		
us_elec		6.359*** (5.87)	7.231*** (5.94)	6.875*** (6.06)	6.958*** (6.32)	6.555*** (6.24)		6.423*** (6.29)	6.341*** (5.97)
0.partisanship		0 (.)		0 (.)		0 (.)		0 (.)	0 (.)
1.partisanship		3.067 (0.99)		8.285 (1.33)		7.186 (1.21)		6.439 (1.21)	8.093 (1.34)
0.partisanship#c.elecoun		0 (.)		0 (.)		0 (.)		0 (.)	0 (.)
1.partisanship#c.elecoun		-0.0331 (-1.95)		-0.0365 (-1.86)		-0.0346* (-2.02)		-0.0324 (-1.90)	-0.0396* (-2.32)
L.d_death_avg					0.0729 (0.93)	0.0569 (0.75)			
L.vaxx1dose_avg							0.0000519 (1.39)	0.0000450 (1.24)	
_cons	70.15*** (21.16)	68.08*** (20.06)	70.26*** (21.37)	65.57*** (13.43)	70.36*** (21.45)	66.43*** (14.34)	70.18*** (21.59)	66.63*** (15.19)	65.95*** (14.36)
N	5182	5182	4927	4927	5182	5182	5182	5182	5182
r2_w	0.708	0.711	0.719	0.723	0.708	0.712	0.709	0.712	0.713

t statistics in parentheses
* p < 0.05, ** p < 0.01, *** p < 0.001

Table A5. Regression analysis for models in figure 15

	(Canada H1) stringency	(Canada H2) stringency	(US H1) stringency	(US H2) stringency
elecoun	-0.00739 (-0.89)	-0.000786 (-0.10)	0.0101 (1.46)	0.0108 (1.03)
L.d_cases10	0.0299** (3.95)	0.0274** (3.69)	0.000633 (0.59)	0.000632 (0.59)
L2.vaxxfull_a vg	-0.0000134 (-0.19)	-0.0000363 (-0.56)	-0.0000821* (-2.13)	-0.0000822* (-2.13)
L2.economics upp	-0.0228 (-0.32)	-0.0143 (-0.21)	0.0630* (2.53)	0.0631* (2.53)
margin	3.973 (0.39)	3.909 (0.38)	-7.884 (-0.85)	-7.707 (-0.80)
0.partisanship 2		0 (.)		0 (.)
1.partisanship 2		13.31* (2.69)		0.113 (0.05)
0.partisanship 2#c.elecoun		0 (.)		0 (.)
1.partisanship 2#c.elecoun		-0.0407* (-2.23)		-0.00122 (-0.08)
_cons	74.86*** (14.06)	69.19*** (14.04)	65.80*** (25.73)	65.71*** (26.84)
<i>N</i>	935	935	4247	4247
<i>r</i> ² _w	0.433	0.447	0.829	0.829

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$