# Does electoral behavior change after a protest cycle? Evidence from Chile and Bolivia

February 2, 2023

**Abstract**

Can protests prompt changes in electoral behavior? In this paper, we examine variations in voter turnout and electoral preferences at the local level after a protest cycle. Using data on protest occurrence during the 2019 social mobilizations in Chile and Bolivia, we assess the impact that street demonstrations had on voting behavior in the elections that took place in the following year. Through a difference-in-differences design, we found that protests both increased turnout and changed electoral preferences. We argue that the rise in turnout is explained by the surge in political efficacy that emerged from the protests. Additionally, the protests generated a signaling effect, causing municipalities that had protests to vote for the incumbent party to a lesser extent. Our results reinforce the importance of protests on electoral behavior, not only because they mobilize people to vote, but also because they could potentially trigger electoral punishment towards the ruling party.

*Keywords*: protests, turnout, electoral outcomes, voting behavior, mobilization

# Introduction

Following the resurgence of social movements since the Arab Spring, recent scholarship has aimed to examine the political consequences of protests and street mobilization in shaping public discourse and decision-making. Given that social movements are often seen as an alternative to generating changes that have not been achieved through institutional channels, it is not surprising that a great deal of research has been dedicated to assessing the policy impacts of social movements, particularly through their institutionalization into political parties (Bosi, Giugni, and Uba, 2016; Lobera and Parejo, 2019). But social movements are also able to modify public opinion (Andrews, Beyerlein, and Farnum, 2016; Mazumder, 2018) and even generate cultural change (King, Cornwall, and Dahlin, 2005). Previous research has regarded protests as a form of political participation that could potentially make individuals feel more included in the democratic process (Shineman, 2020). Additionally, participation in electoral processes can increase when individuals are more proximate to other forms of political participation (Rolfe, 2012). Protests have brought issues of social justice, human rights, and political reform to the forefront of public consciousness. But can protests also have a direct impact on electoral behavior?

Due to the lack of convergence between social movement studies and electoral studies, the focus of previous research has been mostly on how social movements can engage in proactive electoral mobilization in the context of an electoral campaign, and in reactive electoral mobilization in the wake of an election (McAdam and Tarrow, 2010a). It remains to be explored whether protests are capable of generating electoral mobilization when they occur before an election. But protests could not only have the capacity to promote voting, but also to modify electoral preferences. Recent research has explored how repeated exposure to protests and the information they convey can cause an alignment of voters' positions to those of the protests. This is one of the reasons behind the increase of the Green Party vote in areas that developed Fridays For Future protests in Germany (Valentim, 2022), or why Euromaidan protest participants in Ukraine were more likely than non-participants to embrace positions in line with the

main message of the protests (Pop-Eleches, Robertson, and Rosenfeld, 2022). However, it is still unclear if this can also occur in the case of protests that are not single-issue, and whether exposure to protests can also inflict an attitudinal change in subsequent elections, not only for people engaged in the demonstrations but also for bystanders.

This paper addresses the relationship between protests and elections through the examination of the protest cycle that unfolded during 2019 in Chile and Bolivia, taking advantage of the elections that took place in both countries the year following the protests. These electoral processes exhibited remarkable institutional governance despite the climate of uncertainty, where political elites were able to defuse a crisis through legitimate electoral means. Using data on the occurrence of protest events within each municipality during 2019 and difference-in-differences models, we explore whether the protests had an impact on two different outcomes: turnout and electoral preferences. We use Chile to test if voter turnout changed in those municipalities that experienced protests. To assess changes in electoral preferences, we examine Bolivia, leveraging its electoral system that establishes mandatory voting. This allows us, under certain conditions that will be addressed later, to isolate the effect of protests on electoral preferences from changes in turnout.

We find that those municipalities that experienced protest events showed an increase in voter turnout in the electoral process that followed the protest cycle. We argue that the positive effect of protests on turnout is related to an increase in political efficacy: after the protest cycle, voters feel more confident regarding their capabilities of affecting the political setting. In this sense, protests serve as a mobilizer, causing individuals to develop stronger levels of political efficacy, which may contribute to more people turning out to vote. We test the political efficacy mechanism at the individual level using longitudinal data for the case of Chile. We use indicators such as the importance of one's own vote and perceptions of the efficacy of the actions of social movements. This individual-level analysis corroborated the results: people who live in those municipalities where protests were held present higher levels of political efficacy, which translated into a higher turnout. We also find that, in Bolivia, protests affected electoral preferences,

lowering the incumbent vote. This points to a signaling effect of protests, i.e., their ability to make grievances salient and to attribute those grievances to the political elite.

Until now, research on the role of protest activity preceding electoral processes has been concentrated mostly in authoritarian settings (see Kadivar, 2017). We add to the scholarship regarding the effects of social movements and protests on electoral processes within democratic contexts, questioning the conventional assumption of the backlash effect that contentious activities can have on institutionalized political participation. With this, we aim to contribute to the literature on the effects of social movements and how institutionalized politics are affected by their occurrence. Also, by developing a theoretical framework about *which* types of protests are most likely to affect subsequent electoral behavior, we open the possibility of studying other cases in light of these characteristics. An examination of the electoral experiences of Bolivia and Chile can serve as a guideline for future studies of social movements in the Global South, considering that other countries in the region, such as Peru and Ecuador, have also experienced critical periods of social unrest in recent years, but with different results. Exploring the experiences of Chile and Bolivia may help us make sense of this diversity, and to assess when and how social movements can generate voter mobilization.

# The Effect of Protests on Electoral Behavior

McAdam and Tarrow (2010b) point out that, historically, social movement studies and electoral studies have had only limited convergence, causing a lack of systematic research on how movements affect elections and vice versa. Although there is key research linking protests to the subsequent propensity to engage in politics (e.g., Opp, 1998), it is still unclear whether this engagement in politics is manifested during elections. Recent studies have aimed to build bridges between these two areas in an attempt to explore how social movements and protest occurrences affect voting behavior. We identify two main aspects within this literature: the first one linking protests and political engagement through political efficacy, and the second one connecting protests with changes in electoral preferences through the capacity that protests have of signaling latent grievances to the general population.

## Protests and Political Efficacy

Political efficacy can be understood as the feeling that individual political actions could have an impact on the political process (Campbell, Gurin, and Miller, 1971). The literature has identified two different forms of political efficacy: internal efficacy, which refers to the feeling of political effectiveness, i.e., the perception that the self is capable of influencing government and politics (Craig and Maggiotto, 1982), and external efficacy, which relates to the perception of responsiveness of political elites to attempted influence (Craig, 1979). According to Craig and Maggiotto (1982), mobilization of people is more likely to occur when there is high perceived personal competence (internal political efficacy) and low perceived system responsiveness (external political efficacy) since people feel personally competent to engage in political activity and they perceive the system as unresponsive to their personal interests (Yeich and Levine, 1994). Ultimately, people who feel a sense of (internal) efficacy are more likely to participate in politics (Wallace, Zepeda-Millán, and Jones-Correa, 2014).

Despite mobilization emerging from the combination of high internal and low

external efficacy, it could potentially continue to promote internal efficacy by itself if we take into account that challenging groups seek the mobilization of unmobilized constituencies (Gamson, 1975). This could ultimately affect external efficacy if the government makes concessions as a response to this mobilization. In that line, recent research has explored the relationship between proximity to protests and the increase in political efficacy (Disi Pavlic, 2021). Some authors have linked this sense of efficacy with a sense of empowerment, linking it to the moment when groups no longer accept their "socialization to subordinate positions in the social structure" (Foss and Larkin, 1986). It appears that proximity to protests, through an increase in the perceptions of political efficacy, brings an empowering cognitive effect, which arguably is one of the intentions of activists when staging public demonstrations (Wallace, Zepeda-Millán, and Jones-Correa, 2014). This could lead to an increase in overall political participation in different instances, such as elections, since protests can make individuals feel that their voice matters more than they previously thought (Valentim, 2019). This framework allows us to explain why there are times when protests have been effective in enhancing the empowerment of underrepresented and marginalized groups in the public sphere (Larreboure and González, 2021).

There are several recent studies linking protest events and changes in subsequent political behavior. In a study about the Hong Kong protests, Zhang (2016) found that witnessing protests affected the intensity of civic engagement, increasing discussion of social and political issues on social media sites, but only when the proximate population was physically exposed. The local effect of protests seems key, mostly due to the importance of personal interactions. These interactions serve as a crucial channel for the transmission of novel political views, leading to increases in political activism (Madestam et al., 2013). As Gillion (2020, 134) points out, "watching the masses fill the streets [through] their television screens or outside their windows leads the silent majority to form an opinion of protest events. It is possible [...] that these perceptions are nurtured and deepened over an election cycle until they culminate into action at the polls."

## Protests and Electoral Preferences

Can protests modify electoral preferences? Lohmann (1993) developed the theoretical foundation for considering protests as information-providing activities, what she calls a *signaling* phenomenon. Even when the author's model is oriented to explain how protests act as signaling mechanisms toward political elites and leaders, contentious activities can also function as signals to the general population. Just as specific forms of interstate conflicts, such as wars, can provide voters with information about leaders' competence (Getmansky and Weiss, 2022), protest activity draws attention to political issues (Banaszak and Ondercin, 2016; Crabtree and Fraga, 2021) and can generate awareness about issues that may not feature prominently in the national media (Tertytchnaya and Lankina, 2020). In this sense, political street demonstrations, including protests and even riots, may have the capacity to affect other individuals' voting decisions. This is because they act as a signaling phenomenon, making people aware of certain issues or grievances that were previously ignored or concealed.

The signaling effect of protests occurs mostly through informative cues. For instance, in the case of economic voting, Bremer, Hutter, and Kriesi (2020) argue that protest may function as a signaling mechanism by attributing blame to decision-makers and by highlighting the political dimension of the (deteriorating) economic conditions. According to Banaszak and Ondercin (2016), when a protest occurs, it suggests to the broader public the significance of an issue, whether it is a policy, an institution, or a process. Conversely, in the absence of such protests, "citizens may know that an issue exists, but not understand that there are divisions on the issue among citizens" (p. 363). That is one reason why, when exposed to actors who voice their political discontent, citizens become more critical of the political elite's performance.

But just as proximity is important in explaining the increase in political efficacy, as was mentioned in the previous section, proximity is also key to explaining the signaling effect that protests may have. Individuals living near centers of movement activity may become more favorable toward protests because they become more sympathetic to the demands of activists (Andrews, Beyerlein, and Farnum, 2016). In this context, people

may use protest behavior as an informative cue that may shape their voting behavior (Gillion and Soule, 2018), since political protests are a form of communication that individuals can rely on to express the grievances of a community and push for change against the status quo (Gillion, 2020). This line of argumentation is also supported by other authors who claim that citizens are in tune with the social conditions of their district, being more attentive to protest behavior occurring within their own communities (Enos, Kaufman, and Sands, 2019; Madestam et al., 2013).

Several studies have pointed out the importance of the signaling mechanism in electoral preferences. Colombo et al. (2021) research about grassroots mobilization against the far-right finds that this type of mobilization can indeed decrease the appeal of those candidates. The signaling mechanism takes place through these mobilizations, triggering information cascades and resulting in a decrease in the far-right parties' appeal. Conversely, Madestam et al. (2013) find that the 2009 Tax Day Tea Party protest increased turnout in favor of the Republican Party. The authors state that the interactions produced at protests can affect citizens' social contexts, making the median voter position more conservative. For the case of the Black Lives Matter protests, Klein Teeselink and Melios (2021) evidenced a marked shift in support for the Democratic Party in the 2020 U.S. Presidential Election in counties that experienced more protesting activity. These findings are consistent with Gillion and Soule (2018), who concluded that, in the U.S., protests that express liberal issues lead to a much higher percentage of the two-party vote share for Democratic candidates, while protests that expose conservative issues offer Republican candidates a greater share of the two-party vote.

# Destabilizing Protests

Scholarship has identified key aspects of social movements in relation to electoral processes, such as their institutionalization into political parties through "electoral crystallization" (Lobera and Parejo, 2019), their influence on the balance of support received by different electoral coalitions (Heaney, 2013), and their proactive mobilization in the context of an electoral campaign (McAdam and Tarrow, 2010a). All of these areas of influence are related to the organizational aspects of the movement, rather than the characteristics of the protests themselves. This limits the study of the influence of protests, restricting it to the study of more institutionalized social movements rather than protests without a clear underlying structure. In this section, we argue that certain characteristics of the protests themselves potentially could affect electoral behavior in subsequent elections, which, taken together, define what we call *destabilizing protests*. We subsequently argue that the 2019 protests in Chile and Bolivia can be regarded as destabilizing, contributing to an overall understanding of when protests are more likely to have an impact on subsequent electoral behavior.

## Characteristics of Destabilizing Protests

Why, and when, should we expect an effect of protests on electoral behavior? What types of protests are most likely to generate the efficacy and signaling effects that were previously mentioned? When exploring the influence of social movements in the political arena, scholars have focused mostly on two aspects: the organizational features of the movements, and the particularities of the political setting where these movements develop. Aspects such as movement infrastructure and its influence on political outcomes (Andrews, 2004), or how political institutions and actors define the political opportunity structure (McCammon et al., 2001), have been at the center of the explanation. But the specific characteristics of protests on their own, and how they can help us understand the potential outcomes of contentious mobilization, is an aspect that has been widely overlooked. We argue that there is a specific type of protest that

is most likely to have an impact on electoral behavior: destabilizing protests. Destabilizing protests are the type of street collective action most likely to generate both political efficacy and signaling, affecting subsequent electoral behavior.

The term "destabilizing protests" began to resonate within social movements research in the context of the Arab Spring and the wave of protests that followed, such as the Hong Kong protests and the Movimiento 15-M in Spain (Korotayev, Meshcherina, and Shishkina, 2018). Among their characteristics is the use of disruptive methods. Previous scholarship (McAdam and Su, 2002) has considered disruption as a type of protest rather than a set of practices, identifying features such as the use of violent tactics by demonstrators, the use of violence by enforcement personnel, and property damage and injuries resulting from the protest. In this regard, the effectiveness of social movements relates to their ability to achieve bargaining leverage through disruption (or the threat of disruption) of public order. More recent research has regarded disruption as a group of tactics that significantly interrupt everyday social life or the routine activity of some target (Wang and Piazza, 2016). Cornell and Grimes (2015) state that, in contrast to more peaceful demonstrations, disruptive actions are generally viewed as outside the bounds of democratically legitimate modes of expression. Other authors have identified blockades, sit-ins, and unauthorized occupations as disruptive tactics –all tactics that intentionally break laws and risk the arrest of participants (Cress and Snow, 2016). Disruption is identified as a necessary condition to exert pressure on opponents, bystanders, and authorities (Seferiades and Johnston, 2012).

Secondly, destabilizing protests are non-exclusive and non-parochial, in the sense that they are capable of mobilizing large numbers of people, not just specific segments of the population. Exclusion, in the context of mobilization, is related to the idea that only a group can play an influential role in collective action –for instance, when college students have excluded workers, peasants, and other social groups based on exclusionary elitism (Chen, 2017). On the contrary, a call for protests that emerges as a response to widespread public uncertainty, or unsettling trigger events, "may resonate

broadly with the mass public, and thereby attract large numbers of people without much prior, deliberate preparatory work" (Rucht, 2017, 1686). This type of protest aims at combining veteran protesters with new protesters (Rüdig and Karyotis, 2013). Therefore, when a protest represents a widespread view in society, it is most likely to be successful (Boulding, 1967).

Thirdly, destabilizing protests are geographically widespread and temporally protracted. The literature linking spatiality and the transformative effect of protests is scant, with some notable exceptions. For instance, Daphi (2017) explores the link between the transformative effect of protests and their spatial dimension, arguing that the physical setting and the building of infrastructure of streets and places of convention are key to understanding their effects. These characteristics imply that destabilizing protests have two short-term effects: they are impossible to be ignored by both the population and the government, and they challenge the normal development of affairs within the country (Tufekci, 2017). Both aspects have been characteristic of recent protest movements, such as the Water Revolution in Hong Kong (Ting, 2020) or the Black Lives Matter protests (Skoy, 2021). Therefore, this type of protest can have the potential to increase political efficacy and act as a signaling phenomenon, which can ultimately affect subsequent electoral behavior. In this line, we hypothesize that localities that experienced protests showed an increase in electoral participation, compared to those that did not experience contentious events (due to the political efficacy mechanism). Conversely, those localities where protests were held experienced a decrease in incumbent vote share, compared to those that did not experience contentious events (due to the signaling mechanism).

## Protests in Chile and Bolivia during 2019

The protests that unfolded in Bolivia and Chile had different origins and motivations. In Bolivia, the protest cycle of October 2019 started after the general election. The opposition candidate, Carlos Mesa, raised doubts about the process and proclaimed a second presidential round, whereas acting president Evo Morales proclaimed himself the

winner in the first round. A series of perceived irregularities, such as the finding of marked votes in favor of Morales' party (Los Tiempos, 2019b), made certain segments of the population suspicious about the entire process. Groups proclaiming electoral fraud engaged in multiple activities to show their rejection of the results (El Potosí, 2019), resulting in confrontations with MAS supporters (Los Tiempos, 2019a). In the weeks ahead, confrontations and riots continued, culminating in a call for new elections on November 10, and Morales' resignation as president. Along with Morales, the Vice president and the presidents of both the congress and the senate also resigned, leaving Bolivia devoid of succession leaders.[1] This caused religious conservative senator Jeanine Áñez to assume the Bolivian Presidency, in a move that has been labeled as a coup d'état by some academics (Farthing and Becker, 2021).

In Chile, the so-called *Estallido Social* began in October 2019 originally as local protests against an increase in the subway ticket price, rapidly expanding to become a nationwide social movement that demanded profound changes in the country's neoliberal system. Amidst social and political instability, the government and right- and left-wing parties negotiated a political exit which resulted in a plebiscite to approve a constituent assembly for making a new constitution. The agreement generated divided opinions among the population. Nevertheless, the electoral process ran smoothly. The option of drafting a new constitution won with 78% of the votes, and the constituent assembly started working a few months after the election in October 2020, just one year after the protests started.

We argue that Bolivia and Chile are representative cases of destabilizing protests. Even when neither of these protests can be categorized as violent in the sense that they do not involve the "bearing of arms" by contentious actors (Edwards and Arnon, 2021) nor campaigns carried out by armed persons involving the regular and deliberate use of violence (Chenoweth and Lewis, 2013), the protest cycle that developed in Bolivia and

[1]This was not the first time that a president had resigned after waves of protests in Bolivia. It has been argued that the turning point seems to come when most social actors decide they want a change in leadership because they think the president is no longer a trustworthy negotiator, and when other groups seize the opportunity to press for their demands (Buitrago, 2010).

Chile can be categorized as destabilizing because, in both countries, the protests comprised methods that disrupted public order (from simple concentrations of demonstrators blocking the streets, to barricades and confrontations), causing a government response that mostly consisted of repression. Additionally, while the original motivations for the protests were different, both protest cycles were open and non-exclusive, relying less on the support of specific groups than on the appeal of the general population. Finally, protests in both countries were widespread in terms of locations, and also over time.

# Research Design

In the previous section, we argued that both Chile and Bolivia developed what we call "destabilizing protests". These countries offer advantages in identifying the effect of protests on electoral outcomes. On the one side, we use Chile to identify the relationship between protests and changes in voter turnout.[2] Since 2012, voting registration has been automatic in Chile when individuals turn 18 years old, but voting became voluntary[3], which allows us to assess changes in turnout trends. Regarding the protest cycle, it lasted from October 18, 2019, to March 31, 2020, when restrictions on social gatherings started to be enacted in the context of the COVID-19 pandemic. Around one year after the protests started, the election to vote on the idea of rewriting a new constitution took place. Table 1 summarizes the protest period and elections under consideration for each country. Having municipalities as the unit of analysis is useful because they are large enough to capture the geographical range in which protests and violence might have local effects, but not so large as to contain voters who would likely not be "treated" by these events (García-Montoya, Arjona, and Lacombe, 2021).

Table 1: Summary of electoral processes and protests

| | **Bolivia** | **Chile** |
|---|---|---|
| Protest period | 21 October to 24 November 2019 | 18 October 2019 to 31 March 2020 |
| Start protest period | After the publication of the 2019 electoral results | State of exception enactment |
| End protest period | Congress approval for new elections | COVID-19 outbreak and prohibition for crowd gatherings |
| Election date | 18 October 2020 | 25 October 2020 |
| Election type | Re-do of presidential election | Referendum for new constitution |
| Pre-treatment elections | First-round presidential elections (2009, 2014, 2019) | First-round presidential elections (2013, 2017) |

[2]We decide to use only Chile and not Bolivia when assessing the impact of protests on voter turnout because, as was explained previously, voting in Bolivia has been mandatory since 2009. Authors such as Boulding (2010) have also explored the link between protest occurrence and turnout, but using data from 1999 and 2004 municipal elections, before the 2009 change in the electoral roll that included a significant proportion of formerly disenfranchised citizens.

[3]Figure A.1 of Appendix A shows this change, which is one reason why we include only elections after 2012 in the case of Chile.

Regarding the relationship between protests and electoral preferences, we leverage the mandatory vote in the Bolivian electoral system. One of the problems of studying electoral preferences is that they are endogenous from turnout, making it difficult to isolate the relationship between preferences and other phenomena (Hansford and Gomez, 2010; Martins and Veiga, 2014). We aim to overcome this by exploiting the fact that Bolivia has mandatory voting[4], which makes it less likely for the relationship between electoral preferences and protests to be affected by unobserved confounders. Even when we cannot assure random assignment of the protests, through this assumption, added to the fact that the distribution of key variables among treated and untreated municipalities is similar, as shown in Figure A.5, we believe that the comparison between Bolivian municipalities can produce robust results.

## Variables and Measurement

We are interested in how exposure to protests before an electoral event affects two dependent variables: (1) change in voter turnout as a percentage of the voting-age population, and (2) electoral preferences, measured through the change in the incumbent party's vote share. To assess this, we use the electoral results of general elections at the municipal level for both Bolivia and Chile presented in Table 1, gathered from the official electoral services of both countries.[5]

For each municipality, we construct a binary variable to account for the treatment of protests that indicates if a municipality held protests during 2019 or not. That binary variable was constructed from the number of protests developed within each locality, from October-November 2019 in Bolivia, and October 2019-March 2020 in Chile, by combining multiple data sources. Firstly, we used ACLED data on media reports of

[4]Bolivia had a change in the electoral registration in 2009 when they implemented the so-called "padrón biométrico" (biometric register), which caused the inclusion of over 5 million people in the voter registration. Something similar happened in Chile with the change in the registry law in 2012, where registration was made automatic for everyone over 18 years old but voting became voluntary. These changes drastically altered the electoral dynamics in both countries. Therefore, we only include elections from 2009 in the case of Bolivia, and after 2012 in the case of Chile.

[5]Servicio Electoral (SERVEL) for the case of Chile, and Tribunal Supremo Electoral for the case of Bolivia.

protests and riots. This is a source that has been proven to work very well for Chile (Steinert-Threlkeld and Joo, 2022), but unknowingly for the Bolivian case. Therefore, we complemented the information on protests with official police reports on marches for the case of Chile, which were requested via Transparency Law.[6] For protest data in Bolivia, we use reports from Fundación Unir, an NGO dedicated to the systematic monitoring of social conflict in Bolivia through news published in regional media (*departamentos*). Using regionally produced data helps prevent any under-reporting problems that ACLED data may have. We ended up producing a comprehensive database for each Bolivian and Chilean municipality regarding their monthly protest activity. Appendix A includes additional information on the data sources and the collection.

## Identification Strategy

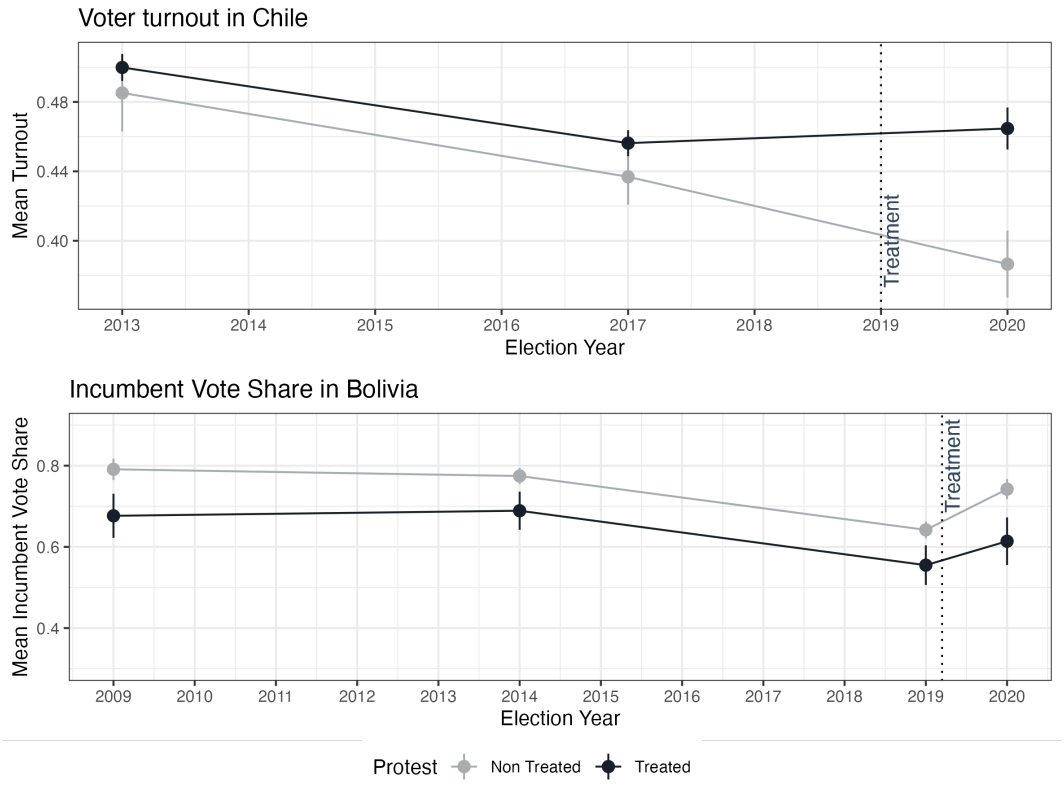
For estimating the changes in electoral behavior of the municipalities that experienced protests, we follow Angrist and Pischke (2008) canonical difference-in-differences approach, which presents an additive structure for potential outcomes in the no-treatment group (for our case, the municipalities that did not have contentious events). For this case, following Wing, Simon, and Bello-Gomez (2018) notation about two-group two-period DID design, we have two groups ($g = 1, 2$) observed in two time periods ($t = 1, 2$). The treated units that received treatment in the second period are municipalities that experienced protests, and the comparison group is composed of municipalities that never faced protests.

As noted by Roth et al. (2022), the key identification assumption is that the average outcome among the treated units and the comparison units would have followed parallel trends in the absence of treatment. The assumption of parallel trends is fulfilled for both electoral turnout and incumbent vote share, as shown in Figure 1. With this, we can assume that no time-variant unobservables are affecting our outcomes of interest. A

[6] Bias has been found in police reports regarding the number of attendees, but not about the number of protests. Since we only use the latter, we can assume confidently that the number of registered protest events is accurate.

second assumption is that the treatment has no causal effect before its implementation, i.e. there is no anticipation. According to Roth et al. (2022), if this assumption is not fulfilled, the changes in the outcome for the treated group between period 1 and 2 could reflect not just the causal effect in period $t = 2$, but also the anticipatory effect in period $t = 1$. As shown in Table A.4 and A.5, we see that there are minimal pre-treatment differences in outcomes between the treatment and the control group, providing subsequent evidence that the untreated units are a suitable counterfactual for the treated units.

Figure 1: Trends in turnout and incumbent vote share




Note: Numbers in proportions.

Through two-way fixed effects (TWFE) models, fixing for both electoral year and municipality, we account for unobserved invariant characteristics, such as geography, culture, or formal institutions. For this case, since we are working with a treatment that occurred in the same year (2019), without taking into account the specific days or months of protest, a TWFE will provide a robust estimation without carrying out some

inconsistencies mentioned in the literature when the treatment timing varies (see Goodman-Bacon, 2018).

We estimated the following models, for each dependent variable:

$$turnout_{m,t} = \gamma_m + \lambda_t + \delta(Treated_m * After\ 2019_t) + \beta_1 \mathbf{X}_{i,t} + \beta_2 \mathbf{W}_{i,t} + \epsilon_{m,t} \quad (1)$$

where $turnout_{m,t}$ is the proportion of electoral participation[7] for the case of Chile. For the second dependent variable, we estimated the following equation:

$$incumbent\ vote\ share_{m,t} = \gamma_m + \lambda_t + \delta(Treated_m * After\ 2019_t) + \beta_1 \mathbf{X}_{i,t} + \beta_2 \mathbf{W}_{i,t} + \epsilon_{m,t} \quad (2)$$

where $incumbent\ vote\ share_{m,t}$ is the vote share of the incumbent government party or coalition in the Bolivian general elections. For both Equation (1) and Equation (2), $\gamma_m$ and $\lambda_t$ represent the fixed effects by municipality and electoral year, respectively. The vector $\mathbf{X}_{i,t}$ denotes time-varying municipal characteristics, such as population (log). The vector $\mathbf{W}_{i,t}$ denotes variables of previous electoral processes, such as previous turnout, and $\epsilon_{i,t}$ is the error term. $\delta$ is the DID effect that captures the interaction of being treated and the treatment period (in other words, $ATT_t = E[Y_t^{(1)} - Y_t^{(0)}|D = 1]$).

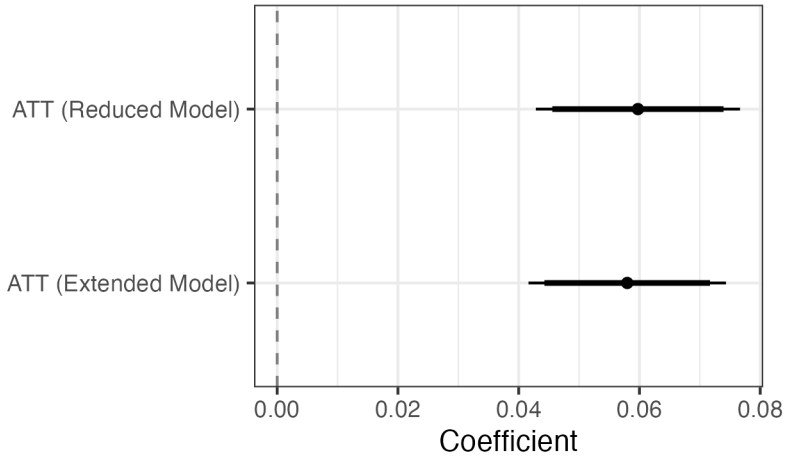
[7]Percentage of valid votes from the total electoral roll for each municipality.

# Results

## Political efficacy and turnout: The Chilean *Estallido*

Do municipalities that experienced protests show different results in subsequent elections compared to those that did not? For the case of Chile, Figure 2 shows that the effect of protests increases voter turnout, compared to those municipalities that did not experience these contentious activities.

Figure 2: Effect of contentious activities on voter turnout




Note: The dependent variable is voter turnout as the proportion of total votes on the electoral roll (for Chile), including valid, white, and null votes. Thick bars show 90% C.I.s and thin bars show 95% C.I.s. Standard errors are clustered at the municipal level. Fixed effects for municipality and election year. Extended model controls for turnout in the previous general election and population (log). Full models (Models 3 and 4) are available in Table B.1 of Appendix B.

There is a positive and statistically significant effect of protests in municipalities that had contentious events. Voter turnout was 0.058 percentage points (pp) higher in those municipalities that experienced protest events according to the extended model that controls for previous turnout and the population of the municipality. This translates to a 12.6% increase over the sample mean, a result that points to a mobilizing effect of protest on electoral turnout. Therefore, one of our initial hypotheses, which postulated that the localities where protests were held experienced an increase in voter turnout, is confirmed. We previously mentioned that one of the ways that protests can increase

electoral turnout was through the surge of political efficacy: protests make people feel more empowered, and such empowerment could culminate in actions at the voting polls. Therefore, the next step is to elucidate whether this is the mechanism explaining the increase in voting in the municipalities that developed protests.

**Mechanism: Political Efficacy**

We test the mechanism with individual-level longitudinal data for the case of Chile using the ELSOC survey, an instrument elaborated by the Centre for Social Conflict and Cohesion Studies (2021).[8] This survey is, to our knowledge, the only longitudinal survey that addresses societal issues and ideological positions in the country. With yearly applications starting in 2016, this survey makes it possible to identify trends and isolate the effects of specific variables thanks to its panel structure. We selected three variables to measure the political efficacy mechanism: the degree of agreement that the actions of the social movement most supported by respondents are capable of generating social change, the perceived influence of one's own vote in deciding the outcome of an election, and the self-reported level of political information through the media.[9]

From the results shown in Figure 3, we see an effect of protests in increasing political efficacy measured as "a sense of confidence from and in the protests" (Drury and Reicher, 1999).[10] Respondents living in municipalities where protests were held show greater confidence in the actions of the movement[11] to generate social change. Additionally, respondents show much higher levels of internal political efficacy, since they feel their vote matters more than those respondents living in municipalities that did not hold protests.

[8] Appendix D contains further information about the instrument and the questions that were used.

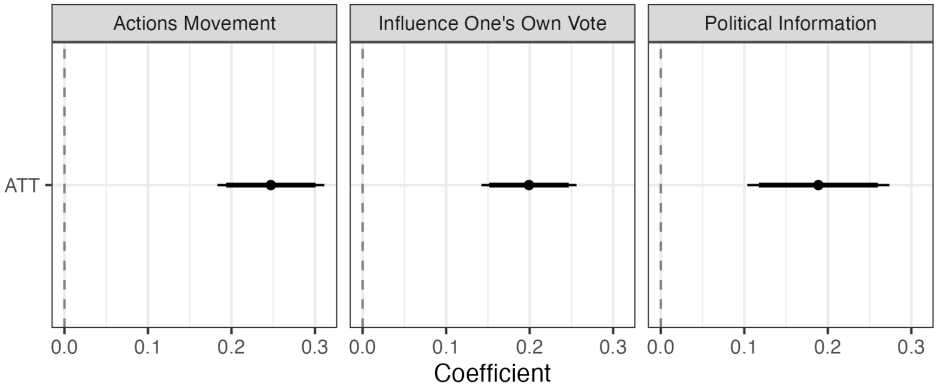
[9] From Figure D.1 in Appendix D we see that the actions of the movement, the opinion regarding the influence of one's own vote, and the level of political information all point to the same underlying component. Additionally, we see that questions regarding government trust and satisfaction with democracy, which would point to the signaling mechanism, form a separate factor.

[10] Previous research (e.g. Selvanathan and Lickel, 2019) has measured empowerment reactions as the perceived effectiveness of protests, the perceived legitimacy of protests, and positive emotions regarding the demonstrations. We believe that "actions of the movement" point in this direction, whereas the rest of the questions are more related to internal political efficacy.

[11] This includes any social movement mentioned as the most valuable for the respondent. Among the options of movements are the student movement, labor movement, LGBTQ movement, indigenous movement, pro-choice movement, anti-crime movement, the feminist movement, pension reform movement, and the social outburst movement. The question also offers an option of "Other movement".

Finally, these respondents report higher levels of political information acquisition.

Figure 3: Effect of treatment on political efficacy (individual level)




Note: The dependent variables for each panel are the level of agreement with the statement "the actions of the movement generate social change" (left panel), level of agreement with the statement "my vote influences the outcome of the election" (middle panel), and self-report of how often the respondent gets informed about politics in the media (right panel). The scale of the dependent variable in the left and middle panel goes from 1 = strongly disagree to 5 = strongly agree, whereas the scale for the right panel is 1 = never to 5 = very frequently. Thick bars show 90% C.I.s and thin bars show 95% C.I.s. Full models are available in Table D.2 of Appendix D.

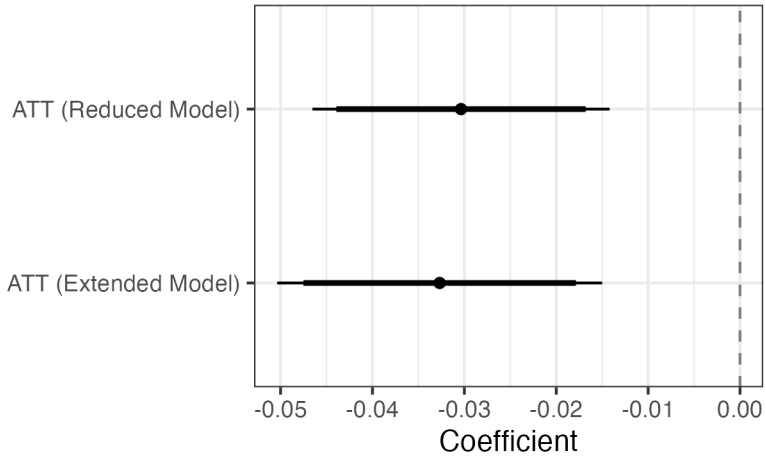
## Electoral preferences and signaling: Incumbent vote in Bolivia

Regarding the effect of contentious activities on the incumbent's vote share, we tested this relationship using local-level data for Bolivia. As mentioned previously, voting has been compulsory for decades in the country, although it is necessary to take into account that in 2009 a relevant reform was carried out with respect to electoral registration.[12] The existence of mandatory voting allows us to overcome the endogeneity between turnout and electoral preferences since we can assume that turnout will not be greatly affected by external events, such as protest cycles. As was shown in Figure 1, there are no significant changes in turnout before and after the treatment, and the distribution of key variables is very similar among treated and control groups, as shown in Table A.3. That allows us to determine the effect that protests had on the incumbent vote. Figure 3 shows

[12]The Electoral Law Nº 1246 published in July 1991 established, in its third article, that voting was mandatory. Nevertheless, it is worth mentioning that even when voting is compulsory, there is no sanction for not voting. Even though there are no sanctions, since 2009, the turnout has maintained over 80%, similar to other countries of the region with mandatory voting and sanctions, such as Brazil.

that those municipalities that experienced protests have a lower incumbent vote share compared to those that did not.

Figure 4: Effect of contentious activities on incumbent vote share




Note: The dependent variable is voter turnout as the proportion of total votes on the electoral roll (for Chile), including valid, white, and null votes. Thick bars show 90% C.I.s and thin bars show 95% C.I.s. Standard errors are clustered at the municipal level. Fixed effects for municipality and election year. Extended model controls turnout in the previous general election and population (log). Full models (Models 3 and 4) are available in Table B.2 of Appendix B.

Scholarship on mandatory voting has stated that votes in compulsory systems are a poor reflection of individuals' preferences since individuals in these systems make choices that are less likely to align with their ideologies and their feelings toward the competing parties (Dassonneville, Hooghe, and Miller, 2017; Singh, 2016). However, recent experimental research has suggested there is no evidence pointing to differences in candidate selection between compelled and voluntary voters (Singh, 2022). To rule out the possibility that other forms of protest vote, such as white or null votes, might have changed after the protest cycle, we estimated additional models using the proportion of white and null votes from the total electoral roll. Table B.3 from Appendix B shows that protest does not have a significant effect on the proportion of white and null votes. Given these results, we can say that there is evidence that municipalities that experienced protests voted to a lesser degree for the incumbent party. However, this was not translated into an increase in protest votes.

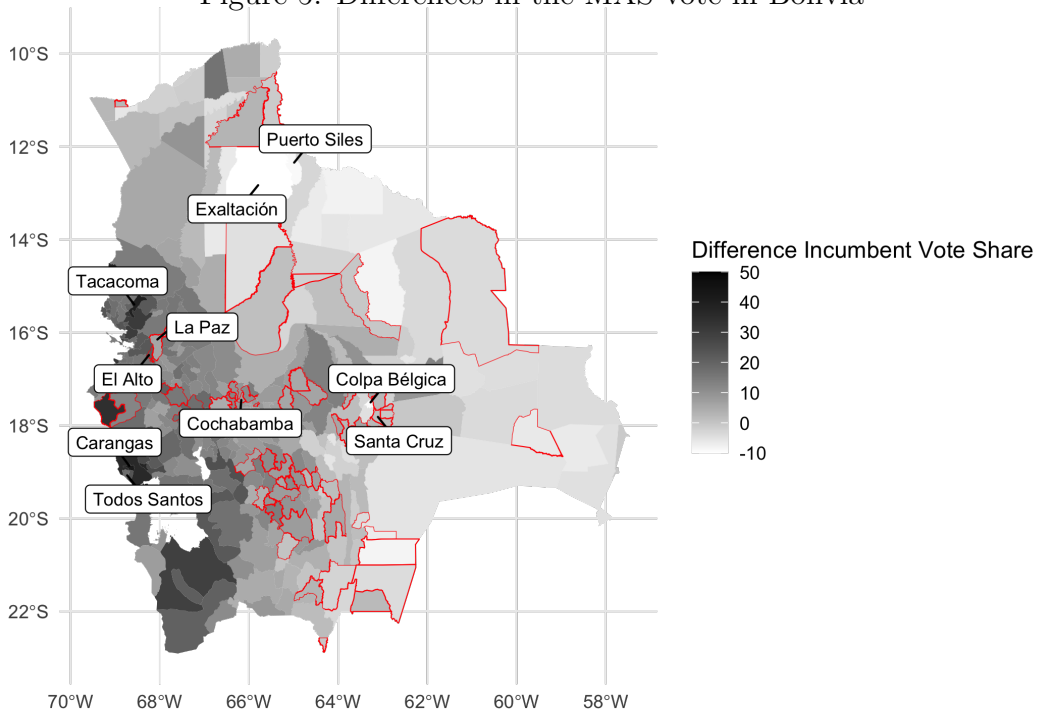
**Mechanism: Signaling**

Why did protest proximity decrease incumbent vote share? As shown in Figure 1, even when treated and untreated municipalities increased their vote for the MAS candidate, treated municipalities did so to a lesser degree, which is supported by the ATT effect shown in Figure 4. To answer why this is the case, we have to keep in mind that protests in Bolivia did not occur in a vacuum. Accusations of electoral fraud made against the ruling party, *Movimiento al Socialismo* (MAS), prompted protests both against MAS, accusing the party of fraud, and protests in favor of MAS, seeking to ensure that the results were respected and accusing the opposition of raising unfounded doubts about the electoral process. Therefore, it could be possible that protests are not what is driving a lower incumbent vote. Rather, accusations of electoral fraud were made against the incumbent government, which sparked the protests in the first place. Figure 5 shows how much the incumbent vote share changed across the country, comparing the 2019 (pre-protests) with the 2020 (post-protests) elections. We see that the Andean region, specifically the departments of Beni and Santa Cruz, is the only one that decreased their vote for the MAS party in 2020 compared with the previous years. In many other municipalities, the vote for MAS increased by 50% or more. However, the municipalities where the MAS vote increased the most do not appear to be treated, except El Alto, a municipality located in the department of La Paz –the department with the most amount of protests supporting the MAS.

To take into account the fact that some municipalities experienced protests in support of the MAS and to enforce compliance with the results of the elections. In contrast, others protested due to accusations of fraud, demanding the resignation of Morales. We need to rule out whether the decline in incumbent vote share in those municipalities that experienced protests is only driven by the municipalities that had anti-MAS demonstrations. To assess whether the vote for the incumbent party was driven by accusations of electoral fraud, we estimated additional models to capture the type of protests that were developed at the municipal level. These models classified the protests according to their motive, as to whether they were supporting the claims of

electoral fraud, or if they were rejecting them. Table A.6 shows the distribution of protests according to their motives by department (the biggest administrative level). The department of Cochabamba was the one with the most amount of anti-MAS protests supporting the allegations of fraud attempts, whereas La Paz had more protests in favor of the MAS party. In Table C.4, we see that the negative effect of protests on incumbent vote share is maintained through different specifications of the models in relation to the type of protests that were held. Therefore, it is not the case that the negative impact of protests on incumbent vote share is directly linked to those areas where anti-government protests have developed.

Figure 5: Differences in the MAS vote in Bolivia




Note: Data by department level comparing 2020 to 2019 presidential first round. For the 2019 election, the incumbent vote share is the proportion of votes received by Evo Morales (MAS), while by 2020, is the proportion of votes received by the current Bolivian president, Luis Arce (MAS). Treated municipalities have red borders.

Still, the question of why the municipalities that experienced protests recorded lower levels of incumbent votes remains. If it is not related to the type of protest itself, we can theorize that the signaling effect of protest took place, regardless of whether these protests were pro- or anti-government, given that protests dampened subsequent electoral support toward the government.

## Alternative Explanations

To add robustness to our results regarding the positive effect of protests on turnout, and the negative effect on the incumbent vote, we conducted additional analyses and ruled out some alternative explanations. Firstly, we wanted to assess the existence of spillover effects at the province level, which is the second administrative level (with regions being the largest administrative unit). We estimated spillover effects at the provincial level, taking as a treatment those municipalities that presented contentious activities only at the provincial level (without experiencing contentious events within the municipality itself). With this, we can discern whether the previously positive effect of contention over electoral turnout is explained by the municipality or province effect. Given that the treatment effect at the province level was statistically non-significant (Table C.1 and C.2 in Appendix C), we have no evidence pointing to a spillover effect from the province to the municipality. It is the protests at the municipal level that matter when it comes to explaining the turnout.

We also tested some alternative explanations for each specific case. For the case of Chile, a final alternative explanation that we need to rule out is based on the type of election that is under analysis. In Chile, the election that occurred after the protest cycle was not an election for public elected officials, but a referendum for a new constitution. Arguably, it could be the case that this extraordinary election motivated more people to participate not because they felt an increase in political efficacy due to their protest experience, but because the election itself was novel, and the outcome was arguably more meaningful. Given that the costs of abstention are a positive function of the importance of outcomes, the more important the outcome seems to a person, the more willing they will be to vote (Aytaç and Stokes, 2019).

To examine if this is the case, we analyze the treatment effect of being affected by contentious activities in a more regular election: the general election of November 2021, which included the first round of the presidential election, parliamentary elections, and regional council elections. We have to keep in mind that this election occurred 13 months later (i.e., almost two years after the protests started) than the referendum that

was previously analyzed as the post-treatment election. Table C.3 shows the treatment effect of the protest cycle on this election. We see that the effect is smaller (0.018 pp), as it is expected, but still statistically significant. With this, we can dismiss the possibility that the increase in turnout was only because the October 2020 election was a referendum and not a regular election. The effect of the 2019 protest cycle on increasing turnout is still sustained even for an election that occurred two years after the protest cycle.

Finally, we ruled out if the effect of protests is altered if we take a different specification of the treatment variable, such as a continuous treatment. We estimated additional models, with two different specifications of the variable protests: one continuous, and the other one as a binary variable that captures whether the number of protests in the municipality is above the national mean, using the two sources of data separately.[13] The results of these models can be found in Table C.5 for the case of voter turnout, and Table C.6 for the case of incumbent vote share. We see that the effect is positive and statistically significant for voter turnout, although, as expected, it is smaller. Conversely, the effect of protests is negative on incumbent vote share, although the continuous specification using the nationally produced data is statistically non-significant.

[13]ACLED, on the one side, and the data provided by the Chilean police, on the other.

# Discussion and conclusion

In this paper, we investigated the effect that contentious cycles have on subsequent electoral processes. Particularly, we examined if localities that were affected by such events showed changes in their voter turnout and voting behavior. Using Bolivia and Chile as cases of study, with their 2019 protests and their subsequent 2020 elections, we found that those municipalities that experienced contentious activities presented an increase in their 2020 voter turnout, compared to previous elections. Additionally, leveraging on mandatory voting of the Bolivian electoral system, we find changes in electoral preferences measured through the incumbent vote share: the municipalities that experienced protests voted in a lesser degree for the incumbent party in the election that followed the protest cycle.

We argue that the reason why protests and riots seem to mobilize people to vote is that they increase the sense of political efficacy: contentious activities, such as protests or street demonstrations, empower individuals, making them feel that their voice matters more than they previously thought. We corroborated these two mechanisms using longitudinal individual-level data for the case of Chile. Respondents from the municipalities that had protests perceive that their electoral participation is more meaningful compared to residents of the municipalities that did not have protests. They also show higher regard for the political efficacy of the social movement they support the most.

The changes in incumbent vote share in the Bolivian case are more puzzling. The literature states that protests can point out grievances that otherwise could be concealed from the general population. What sparked the protests were not complaints against the government per se, but rather claims of electoral fraud, where different sides (the pro-Morales side claiming that the election result was legitimate, versus the opposing side accusing electoral fraud) clashed over the legitimacy of the election. It might be the case that the protests in Bolivia were so disruptive that the signaling mechanism acted regardless of the claims of the protests themselves. For future research, additional consideration should be given to the roots of the destabilizing protest cycle in order to

assess in which cases these cycles can cause changes in electoral preferences.

These results point to the importance of protests and social movements in democratic contexts, and how they can influence electoral mobilization. It is worth noting that protests in Chile were part of a larger social demand, directed toward a change in the "system" –not party or single-issue protests. This broad character of the social demands could influence the results we obtained. In addition, the most recent political events in Chile confirm that there is still citizen support for the causes that were defended during the protests. Many demands made by protesters were included in the constitutional proposal to be voted on in September 2022. These demands included universal access to health care and an improved pension system. Additionally, these results reinforce Gerber, Green, and Larimer (2008) findings regarding the role of individuals' social networks and peer pressure on the high incidence of voter turnout. Not only direct protest participation but also contact with individuals who participated can increase the pressure for subsequent political engagement. This can be manifested in the form of attendance at polling stations. For future research, it would be worthwhile to examine how social networks and social cohesion contribute to the relationship between protests and electoral behavior.

Authors such as Somma et al. (2021) have claimed that the so-called Chilean Spring not only revealed high levels of social discontent with the socioeconomic model but also implied significant challenges for the political system, threatening the political parties to a great extent. Future lines of research should probe whether the discontent that became evident in the streets is related to the surprisingly favorable electoral result obtained by the *Partido de la Gente* (People's Party), a newly formed political party characterized by its populist, anti-elite rhetoric.

This paper contributes to the literature on the impact of social movements on protests by presenting a novel approach regarding how these social processes can influence electoral mobilization and outcomes. This question departs from previous research that explores the opposite relationship, namely, how electoral results cause subsequent protest activity through an impact on the political minority of their

willingness to engage in political protest (Anderson and Mendes, 2006; Norris, Frank, and Martínez i Coma, 2015). In this sense, we agree with the role of protests and how they can become part of the collective learning process and act as an avenue of social communication (Gillion and Soule, 2018). The link between protest and elections is relevant because societies can extend their institutionalized repertoires and participation not only through parties and voting but also through social movements and political protest (Goldstone, 2004). Our results support this line of research.

So far, we have studied macro-level trends and attempted to incorporate individual-level analyses, but only in the case of Chile. Future research should address key issues regarding individual cognitive processes about why protest cycles have a differentiated effect depending on individual characteristics, using a comparative approach. For instance, age and gender could be decisive factors in specific contexts, with the capacity to mediate the relationship between contentious events and electoral behavior. Younger cohorts are likely more prone to being politically mobilized by the proximity of these events, while older individuals could feel more alienated. One reason for this could be their use of social media, which has proven to facilitate political engagement by providing political information and stimulating discussions (Skoric et al., 2016).

Political mobilization can be manifested in different forms, not necessarily in votes. But, with this research, we have presented compelling evidence that political mobilization can have electoral consequences, particularly in terms of who turns out to vote, and for whom. Additionally, we theorized which types of protest are most likely to generate these results. We hope that these results encourage further explorations of the link between contentious activities and electoral behavior in Latin America and other nations under relevant processes of political turmoil.

# References


Anderson, Christopher J., and Silvia M. Mendes. 2006. "Learning to lose: Election outcomes, democratic experience and political protest potential." *British Journal of Political Science* 36 (1): 91–111.

Andrews, Kenneth T. 2004. *Freedom Is a Constant Struggle: The Mississippi Civil Rights Movement and Its Legacy.* University of Chicago Press.

Andrews, Kenneth T., Kraig Beyerlein, and Tuneka Tucker Farnum. 2016. "The legitimacy of protest: Explaining white southerners' attitudes toward the civil rights movement." *Social Forces* 94 (3): 1021–1044.

Angrist, Joshua D., and Jöhr-Steffen Pischke. 2008. *Mostly Harmless Econometrics: An Empiricist's Companion.* Princeton University Press.

Aytaç, S. Erdem, and Susan Carol Stokes. 2019. *Why bother? Rethinking participation in elections and protests.* Cambridge University Press.

Banaszak, Lee Ann, and Heather L. Ondercin. 2016. "Public opinion as a movement outcome: The case of the U.S. Women's movement." *Mobilization* 21 (3): 361–378.

Bosi, Lorenzo, Marco Giugni, and Katrin Uba. 2016. *The Consequences of Social Movements,* 1–410. September 2012.

Boulding, Carew E. 2010. "NGOs and political participation in weak democracies: Subnational evidence on protest and voter turnout from Bolivia." *Journal of Politics* 72 (2): 456–468.

Boulding, Kenneth E. 1967. "Towards a Theory of Protest." *ETC: A Review of General Semantics* 24 (1): 49–58.

Bremer, Björn, Swen Hutter, and Hanspeter Kriesi. 2020. "Dynamics of protest and electoral politics in the Great Recession." *European Journal of Political Research* 59 (4): 842–866.

Buitrago, Miguel A. 2010. "Civil Society, Social Protest, and Presidential Breakdowns in Bolivia." In *Presidential Breakdowns in Latin America. Causes and Outcomes of Executive Instability in Developing Democracies,* 1st Edition, edited by Mariana Llanos and Leiv Marsteintredet, 91–110. New York: Palgrave Macmillan.

Campbell, A., G. Gurin, and W.E. Miller. 1971. *The Voter Decides.* Greenwood Press.

Centre for Social Conflict and Cohesion Studies. 2021. *Chilean Longitudinal Social Survey, Combined Panel Version 2016-2019.* Santiago.

Chen, Xi. 2017. "Elitism and Exclusion in Mass Protest: Privatization, Resistance, and State Domination in China." *Comparative Political Studies* 50 (7): 908–934.

Chenoweth, Erica, and Orion A. Lewis. 2013. "Unpacking nonviolent campaigns: Introducing the NAVCO 2.0 dataset." *Journal of Peace Research* 50 (3): 415–423.

Colombo, Francesco, Alessandro Ferrara, Foteini-Maria Vassou, Fabrizio Bernardi, and Elias Dinas. 2021. "From the Streets to the Voting Booth: the Electoral Effect of Grassroots Mobilization Against the Far-Right." *SSRN Electronic Journal* 3933.

Cornell, Agnes, and Marcia Grimes. 2015. "Institutions as incentives for civic action: Bureaucratic structures, civil society, and disruptive protests." *Journal of Politics* 77 (3): 664–678.

Crabtree, Kiela, and Bernard L. Fraga. 2021. "Protests, Pandemics, and Political Participation: Voter Turnout in Georgia in the 2020 Elections Introduction and Background."

Craig, Stephen C. 1979. "Efficacy, Trust, and Political Behavior: An Attempt to Resolve a Lingering Conceptual Dilemma." *American Politics Quarterly* 7 (2): 225–239.

Craig, Stephen C., and Michael A. Maggiotto. 1982. "Measuring Political Efficacy." *Political Methodology* 8 (3): 85–109.

Cress, Daniel M., and David A. Snow. 2016. "The Outcomes of Homeless Mobilization: The Influence of Organization, Disruption, Political Mediation, and Framing." *American Journal of Sociology* 105 (4): 1063–1104.

Daphi, Priska. 2017. "'Imagine the streets': The spatial dimension of protests' transformative effects and its role in building movement identity." *Political Geography* 56:34–43.

Dassonneville, Ruth, Marc Hooghe, and Peter Miller. 2017. "The impact of compulsory voting on inequality and the quality of the vote." *West European Politics* 40 (3): 621–644.

Disi Pavlic, Rodolfo. 2021. "The Nearness of Youth: Spatial and Temporal Effects of Protests on Political Attitudes in Chile." *Latin American Politics and Society* 63 (1): 72–94.

Drury, John, and Steve Reicher. 1999. "The intergroup dynamics of collective empowerment: Substantiating the social identity model of crowd behavior." *Group Processes and Intergroup Relations* 2 (4): 381–402.

Edwards, Pearce, and Daniel Arnon. 2021. "Violence on Many Sides: Framing Effects on Protest and Support for Repression." *British Journal of Political Science* 51 (2): 488–506.

El Potosí. 2019. *Incendian el edificio del tribunal electoral de Potosí.*

Enos, Ryan D., Aaron R. Kaufman, and Melissa L. Sands. 2019. "Can Violent Protest Change Local Policy Support? Evidence from the Aftermath of the 1992 Los Angeles Riot." *American Political Science Review* 113 (4): 1012–1028.

Farthing, Linda, and Thomas Becker. 2021. *Coup. A story of violence and resistance in Bolivia.* Haymarket Books.

Foss, Daniel A., and Ralph W. Larkin. 1986. *Beyond Revolution: A New Theory of Social Movements.* Critical perspectives in social theory. Bergin & Garvey.

Gamson, W.A. 1975. *The Strategy of Social Protest.* Dorsey series in sociology. Dorsey Press.

García-Montoya, Laura, Ana Arjona, and Matthew Lacombe. 2021. "Violence and Voting in the United States: How School Shootings Affect Elections." *American Political Science Review,* 1–20.

Gerber, Alan S., Donald P. Green, and Christopher W. Larimer. 2008. "Social pressure and voter turnout: Evidence from a large-scale field experiment." *American Political Science Review* 102 (1): 33–48.

Getmansky, Anna, and Chagai M Weiss. 2022. "Interstate Conflict Can Reduce Support for Incumbents: Evidence from the Israeli Electorate and the Yom Kippur War." *Journal of Conflict Resolution,* 1–23.

Gillion, Daniel Q. 2020. *The Loud Minority. Why protests matter in American democracy.* New Jersey: Princeton University Press.

Gillion, Daniel Q., and Sarah A. Soule. 2018. "The Impact of Protest on Elections in the United States." *Social Science Quarterly* 99 (5): 1649–1664.

Goldstone, Jack A. 2004. "More social movements or fewer? Beyond political opportunity structures to relational fields." *Theory and Society* 33 (3/4): 333–365.

Goodman-Bacon, Andrew. 2018. *Difference-in-Differences with Variation in Treatment Timing.* NBER Working Papers 25018. National Bureau of Economic Research, Inc, September.

Hansford, Thomas G, and Brad T. Gomez. 2010. "Estimating the electoral effects of voter turnout." *American Political Science Review* 104 (2): 268–288.

Heaney, Michael T. 2013. "Elections and Social Movements." In *The Wiley Blackwell Encyclopedia of Social and Political Movements,* edited by Donatella della Porta, Bert Klandermans, and Doug McAdam. Blackwell Publishing Ltd.

Kadivar, Mohammad Ali. 2017. "Preelection mobilization and electoral outcome in authoritarian regimes." *Mobilization* 22 (3): 293–310.

King, Brayden G., Marie Cornwall, and Eric C. Dahlin. 2005. "Winning woman suffrage one step at a time: Social movements and the logic of the legislative process." *Social Forces* 83 (3): 1211–1234.

Klein Teeselink, Bouke, and Georgios Melios. 2021. "Weather to Protest: The Effect of Black Lives Matter Protests on the 2020 Presidential Election." *SSRN Electronic Journal,* 1–28.

Korotayev, Andrey, Kira Meshcherina, and Alisa Shishkina. 2018. "A wave of global sociopolitical destabilization of the 2010s: A quantitative analysis." *Democracy and Security* 14 (4): 331–357.

Larreboure, Magdalena, and Felipe González. 2021. "The Impact of the Women's March on the U.S. House Election."

Lobera, Josep, and Diego Parejo. 2019. "Streets and institutions? The electoral extension of social movements and its tensions." In *Routledge Handbook of Radical Politics,* 314–325. Taylor / Francis.

Lohmann, Susanne. 1993. "A Signaling Model of Informative and Manipulative Political Action." *American Political Science Review* 87 (2): 319–333.

Los Tiempos. 2019a. *Afines al MAS desalojaron a opositores de la plaza 14 de Septiembre en Cochabamba.*

———. 2019b. *Encuentran papeletas marcadas a favor del MAS en La Paz.*

Madestam, Andreas, Daniel Shoag, Stan Veuger, and David Yanagizawa-Drott. 2013. "Do Political Protests Matter? Evidence from the Tea Party Movement." *The Quarterly Journal of Economics* 128 (4): 1633–1685.

Martins, Rodrigo, and Francisco José Veiga. 2014. "Does voter turnout affect the votes for the incumbent government?" *European Journal of Political Economy* 36:274–286.

Mazumder, Soumyajit. 2018. "The Persistent Effect of U.S. Civil Rights Protests on Political Attitudes." *American Journal of Political Science* 62 (4): 922–935.

McAdam, Doug, and Yang Su. 2002. "The war at home: Antiwar protests and congressional voting, 1965 to 1973." *American Sociological Review* 67 (5): 696–721.

McAdam, Doug, and Sidney Tarrow. 2010a. "Ballots and barricades: On the reciprocal relationship between elections and social movements." *Perspectives on Politics* 8 (2): 529–542.

———. 2010b. "Ballots and barricades: On the reciprocal relationship between elections and social movements." *Perspectives on Politics* 8 (2): 529–542.

McCammon, H. J., E. M. Granberg, K. E. Campbell, and C. Mowery. 2001. "How movements win: Gendered opportunity structures and U.S. women's suffrage movements, 1866 to 1919." *American Sociological Review* 66 (1): 49–70.

Norris, Pippa, Richard W. Frank, and Ferran M. Martínez i Coma. 2015. *Contentious elections: From ballots to barricades,* 1–176.

Opp, Karl Dieter. 1998. "Does antiregime action under communist rule affect political protest after the fall? Results of a panel study in East Germany." *Sociological Quarterly* 39 (2): 189–213.

Pop-Eleches, Grigore, Graeme Robertson, and Bryn Rosenfeld. 2022. "Protest Participation and Attitude Change: Evidence from Ukraine's Euromaidan Revolution." *Journal of Politics.*

Rolfe, Meredith. 2012. *Voter Turnout: A Social Theory of Political Participation.* 1–227. Cambridge University Press.

Roth, Jonathan, Pedro H. C. Sant'Anna, Alyssa Bilinski, and John Poe. 2022. "What's Trending in Difference-in-Differences? A Synthesis of the Recent Econometrics Literature."

Rucht, Dieter. 2017. "Exploring the Backstage: Preparation and Implementation of Mass Protests in Germany." *American Behavioral Scientist* 61 (13): 1678–1702.

Rüdig, Wolfgang, and Georgios Karyotis. 2013. "Beyond the usual suspects? New participants in anti-austerity protests in Greece." *Mobilization* 18 (3): 313–330.

Seferiades, Seraphim, and Hank Johnston. 2012. "The Dynamics of Violent Protest: Emotions, Repression and Disruptive Deficit." In *Violent Protest, Contentious Politics, and the Neoliberal State,* edited by Seraphim Seferiades and Hank Johnston, 3–18. Taylor / Francis Inc.

Selvanathan, Hema Preya, and Brian Lickel. 2019. "Empowerment and threat in response to mass protest shape public support for a social movement and social change: A panel study in the context of the Bersih movement in Malaysia." *European Journal of Social Psychology* 49 (2): 230–243.

Shineman, Victoria. 2020. "Restoring voting rights: evidence that reversing felony disenfranchisement increases political efficacy." *Policy Studies* 41 (2-3): 131–150.

Singh, Shane P. 2022. "Does Compulsory Voting Affect How Voters Choose? A Test Using a Combined Conjoint and Regression Discontinuity Analysis." *Comparative Political Studies* 2022 (0): 1–25.

———. 2016. "Elections as poorer reflections of preferences under compulsory voting." *Electoral Studies* 44:56–65.

Skoric, Marko M., Qinfeng Zhu, Debbie Goh, and Natalie Pang. 2016. "Social media and citizen engagement: A meta-analytic review." *New Media and Society* 18 (9): 1817–1839.

Skoy, Evelyn. 2021. "Black Lives Matter protests, fatal police interactions, and crime." *Contemporary Economic Policy* 39 (2): 280–291.

Somma, Nicolás M., Matías Bargsted, Rodolfo Disi Pavlic, and Rodrigo M. Medel. 2021. "No water in the oasis: the Chilean Spring of 2019–2020." *Social Movement Studies* 20 (4): 495–502.

Steinert-Threlkeld, Zachary, and Jungseock Joo. 2022. "MMCHIVED: Multimodal Chile and Venezuela Protest Event Data." *Proceedings of the International AAAI Conference on Web and Social Media* 16 (1): 1332–1341.

Tertytchnaya, Katerina, and Tomila Lankina. 2020. "Electoral protests and political attitudes under electoral authoritarianism." *Journal of Politics* 82 (1): 285–299.

Ting, Tin-Yuet. 2020. "From 'be water' to 'be fire': nascent smart mob and networked protests in Hong Kong." *Social Movement Studies* 19 (3): 362–368.

Tufekci, Zeynep. 2017. *Twitter and Tear Gas: The Power and Fragility of Networked Protests.* 326. Yale University Press.

Valentim, António. 2022. "Turning Green: The behavioural consequences of environmental protests." *Working Paper.*

Valentim, Vicente. 2019. "Creating Critical Citizens? The Effect of Protests on Public Opinion." *SSRN Electronic Journal.*

Wallace, Sophia J., Chris Zepeda-Millán, and Michael Jones-Correa. 2014. "Spatial and Temporal Proximity: Examining the Effects of Protests on Political Attitudes." *American Journal of Political Science* 58 (2): 433–448.

Wang, D. J., and Alessandro Piazza. 2016. "The use of disruptive tactics in protest as a trade-off: The role of social movement claims." *Social Forces* 94 (4): 1675–1710.

Wing, Coady, Kosali Simon, and Ricardo A. Bello-Gomez. 2018. "Designing Difference in Difference Studies: Best Practices for Public Health Policy Research." *Annual Review of Public Health* 39:453–469.

Yeich, Susan, and Ralph Levine. 1994. "Political efficacy: Enhancing the construct and its relationship to mobilization of people." *Journal of Community Psychology* 22 (3): 259–271.

Zhang, Han. 2016. "Physical Exposures to Political Protests Impact Civic Engagement: Evidence from 13 Quasi-Experiments with Chinese Social Media." *SSRN Electronic Journal.*

Online Appendix

# Does electoral behavior change after a protest cycle? Evidence from Chile and Bolivia

January 2022

## Contents

# A Variables and Measurement

## Sources of Data

### Chile

Protest data for Chile was obtained through two sources. The first source consisted of data provided by the Chilean police *Carabineros*. Through a request via transparency law, *Carabineros* provided a register of all nationwide demonstrations from 18 October 2019, to 30 March 2020. This data is reliable for two reasons. Firstly, since it is data that is not publicly available but on request, there is unlikely to be ulterior motives regarding showing fewer demonstrators in order to make the social movement appear weak. Secondly, and the most compelling reason, is that these registers are part of the administrative records used by the Department of Police Operations, meaning that the street operations are based on these registers.

Additionally, we compared the reports provided with *Carabineros* with the ACLED data, being particularly interested if there are municipalities that did not have protests in the data provided by the police but had protests reported by ACLED, which would change their treatment status. Table A.1 shows that *Carabineros* reports a higher number of demonstrations than ACLED. In total, the police registered 4,305 events throughout the country, whereas ACLED registered 2,507. There is a tendency in the ACLED data to under-represent smaller regions, such as Maule or O'Higgins, where the difference between treated municipalities is greater. In any case, since we are interested in the treatment status and not in the total number of protests that were developed, we decide to consider the treated status of the municipalities considering both sources of data, which gives us a total of 231 treated municipalities when we combine both data sources.

Table A.1: Distribution of protests by Chilean region across police data and ACLED

| | Carabineros | | ACLED | |
|---|---|---|---|---|
| Region | Protests | Treated Municipalities | Protests | Treated Municipalities |
| Arica y Parinacota | 102 | 1 | 54 | 1 |
| Tarapacá | 236 | 5 | 84 | 4 |
| Antofagasta | 219 | 6 | 167 | 9 |
| Atacama | 231 | 8 | 97 | 8 |
| Coquimbo | 317 | 12 | 133 | 8 |
| Valparaíso | 510 | 22 | 373 | 24 |
| Metropolitana | 797 | 46 | 615 | 41 |
| O´Higgins | 248 | 18 | 34 | 6 |
| Maule | 348 | 14 | 95 | 6 |
| Ñuble | 111 | 4 | 11 | 5 |
| Bío-Bío | 328 | 20 | 313 | 23 |
| La Araucanía | 234 | 21 | 152 | 21 |
| Los Ríos | 250 | 10 | 137 | 11 |
| Los Lagos | 311 | 20 | 213 | 19 |
| Aysén | 40 | 7 | 7 | 2 |
| Magallanes | 23 | 3 | 22 | 2 |
| Total | 4305 | 217 | 2507 | 190 |

**Bolivia**

Fundación UNIR Bolivia is a private, independent, and non-profit organization. It works in the areas of research, analysis and constructive conflict transformation, the right to information and communication, and capacity building in peace education. Fundación Unir, through its Department of Conflict Analysis, develops a systematic monitoring of social conflicts in Bolivia through news published in the media. Specifically, it uses 11 newspapers from eight cities that are Department capitals (available in Table A.2), and El Alto, a radio network of national coverage. They publish monthly bulletins with information about conflicts, their typology, origin, and violence.

Table A.2: Newspaper analyzed in each Bolivian department

| Department | Newspapers |
|---|---|
| Chuquisaca | Correo del Sur |
| La Paz | La Razón, Página Siete, El Alteño |
| Cochabamba | Opinión, Los Tiempos |
| Oruro | La Patria |
| Potosi | El Potosí |
| Tarija | El País |
| Santa Cruz | El Deber |
| Beni | La Palabra del Beni |
| Pando | – |

Note: The department of Pando does not have a regional media outlet; therefore, Fundación Unir does not collect data directly from that department.

Complementary, we also collected protest data from ACLED. Table A.3 shows the difference between the protest reported at the regional level for every source of data and the municipalities that are considered as treated by each. We see how the departments where the two biggest cities are, such as the department of La Paz, which concentrates the capital Nuestra Señora de La Paz, and El Alto), or the department of Cochabamba, are overly represented by Unir data. The distribution of the protests and the great differences among data sources lead us to manually code all news reports that were considered in each data source, not only to establish whether the protests that unfolded were pro-MAS, anti-fraud, or both (as shown in Table A.6), but also to take into account duplicated events. In the end, we end up with 64 treated municipalities by combining the two sources of data.

Table A.3: Distribution of protests by Bolivian department across Fundacion Unir data and ACLED

| | Fundación Unir | | ACLED | |
|---|---|---|---|---|
| Department | Protests | Treated Municipalities | Protests | Treated Municipalities |
| Chuquisaca | 1 | 1 | 47 | 11 |
| La Paz | 83 | 2 | 58 | 7 |
| Cochabamba | 139 | 3 | 55 | 12 |
| Oruro | 2 | 1 | 16 | 3 |
| Potosi | 3 | 3 | 24 | 5 |
| Tarija | 4 | 3 | 11 | 4 |
| Santa Cruz | 3 | 3 | 29 | 12 |
| Beni | 1 | 1 | 13 | 4 |
| Pando | - | - | 4 | 1 |
| Total | 236 | 17 | 257 | 59 |

## Descriptive Statistics

Table A.4: Descriptive Statistics - Chilean Municipalities

| **Statistic** | **N** | **Mean** | **St. Dev.** | **Min.** | **Max** |
|---|---|---|---|---|---|
| *All* | | | | | |
| Turnout | 346 | 0.46 | 0.09 | 0.11 | 0.69 |
| Electoral Roll | 346 | 40,991 | 60,348 | 269 | 398,965 |
| Valid Votes | 346 | 0.98 | 0.01 | 0.98 | 1.00 |
| Incumbent Vote Share | 346 | 0.24 | 0.08 | 0.05 | 0.74 |
| Population | 346 | 52,713 | 82,339 | 137 | 645,909 |
| Number of protests | 346 | 12 | 30 | 0 | 205 |
| ACLED | 346 | 3.36 | 9.13 | 0 | 76 |
| *Treated* | | | | | |
| Turnout | 231 | 0.47 | 0.07 | 0.17 | 0.69 |
| Electoral Roll | 231 | 56,888 | 68,359 | 1,455 | 398,965 |
| Valid Votes | 231 | 0.985 | 0.008 | 0.955 | 0.997 |
| Incumbent Vote Share | 231 | 0.24 | 0.08 | 0.05 | 0.74 |
| Population | 231 | 73,716 | 93,711 | 1,583 | 645,909 |
| *Untreated* | | | | | |
| Turnout | 115 | 0.44 | 0.11 | 0.10 | 0.68 |
| Electoral Roll | 115 | 8,967 | 5,766 | 269 | 30,271 |
| Valid Votes | 115 | 0.981 | 0.01 | 0.91 | 1.00 |
| Incumbent Vote Share | 115 | 0.25 | 0.07 | 0.10 | 0.68 |
| Population | 115 | 10,403 | 8,591 | 137 | 60,000 |

Note: The number of protest uses the national source to account for protest occurrence, in this case, the national police *Carabineros*.

Table A.5: Descriptive Statistics - Bolivian Municipalities

| **Statistic** | **N** | **Mean** | **St. Dev.** | **Min.** | **Max** |
|---|---|---|---|---|---|
| *All* | | | | | |
| Turnout | 341 | 0.88 | 0.05 | 0.42 | 0.99 |
| Electoral Roll | 341 | 18,661 | 77,973 | 105 | 1,086,308 |
| Valid Votes | 341 | 0.93 | 0.03 | 0.71 | 0.99 |
| Incumbent Vote Share | 341 | 0.72 | 0.21 | 0.14 | 0.99 |
| Population | 341 | 32,257 | 124,896 | 386 | 1,831,434 |
| Number of protests | 341 | 1 | 9 | 0 | 135 |
| ACLED | 341 | 0.76 | 3.54 | 0 | 43 |
| *Treated* | | | | | |
| Turnout | 64 | 0.88 | 0.05 | 0.42 | 0.96 |
| Electoral Roll | 64 | 72,450 | 168,613 | 1,215 | 1,086,308 |
| Valid Votes | 64 | 0.93 | 0.03 | 0.80 | 0.99 |
| Incumbent Vote Share | 64 | 0.63 | 0.22 | 0.18 | 0.98 |
| Population | 64 | 118,243 | 269,947 | 2,579 | 1,831,434 |
| *Untreated* | | | | | |
| Turnout | 277 | 0.88 | 0.05 | 0.49 | 0.99 |
| Electoral Roll | 277 | 6,098 | 6,790 | 105 | 58,109 |
| Valid Votes | 277 | 0.93 | 0.03 | 0.71 | 0.99 |
| Incumbent Vote Share | 277 | 0.74 | 0.20 | 0.14 | 0.99 |
| Population | 277 | 12,173 | 11,979 | 386 | 88,978 |

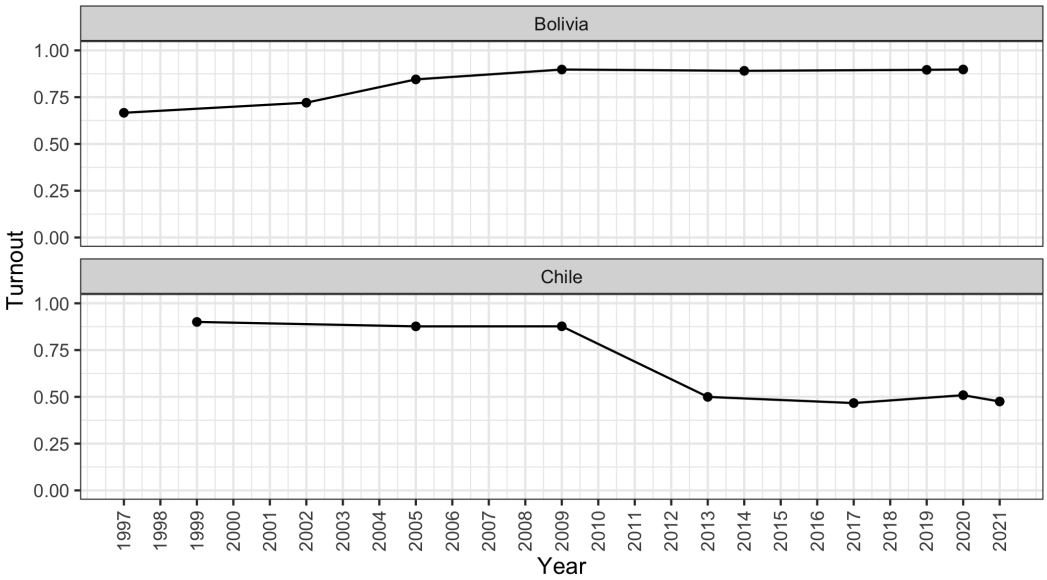
Note: The number of protest uses the national source to account for protest occurrence, in this case, Fundación Unir.

Table A.6: Distribution of protest type by Bolivian Department

| Department | Against fraud attempt | Confrontations | MAS supporters | No side but solution | Other | Total |
|---|---|---|---|---|---|---|
| Chuquisaca | 21 | 3 | 20 | 1 | 2 | 47 |
| La Paz | 17 | 10 | 104 | 1 | 8 | 140 |
| Cochabamba | 149 | 9 | 19 | 4 | 9 | 190 |
| Oruro | 12 | 3 | 1 | 0 | 1 | 17 |
| Potosi | 7 | 0 | 19 | 0 | 1 | 27 |
| Tarija | 9 | 0 | 4 | 0 | 2 | 15 |
| Santa Cruz | 12 | 10 | 9 | 0 | 0 | 31 |
| Beni | 9 | 1 | 2 | 0 | 1 | 13 |
| Pando | 4 | 0 | 0 | 0 | 0 | 4 |
| Total | 240 | 36 | 178 | 6 | 24 | 484 |

Note: Type of protest obtained through manual classifications of Fundación Unir and ACLED data, based on the individual reports of news articles.

Figure A.1: Turnout over the years




Note: Turnout calculated based on the electoral roll of each year, and the amount of total votes (including null and white votes).

# B Models

Table B.1: Effect protests on turnout (Full models for Figure 2)

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| Intercept | 0.460*** | | | |
| | (0.005) | | | |
| ATT | 0.004 | 0.078*** | 0.060*** | 0.058*** |
| | (0.007) | (0.012) | (0.009) | (0.008) |
| Previous Turnout | | | | 0.131*** |
| | | | | (0.047) |
| Population (log) | | | | 0.069** |
| | | | | (0.032) |
| Observations | 1037 | 1037 | 1037 | 1037 |
| N | 346 | 346 | 346 | 346 |
| R2 | 0.000 | 0.126 | 0.831 | 0.837 |
| R2 Adj. | −0.001 | 0.124 | 0.745 | 0.754 |
| R2 Within | | 0.059 | 0.112 | 0.144 |
| AIC | −2025.2 | −2160.8 | −3172.8 | −3207.5 |
| BIC | −2015.4 | −2141.0 | −1447.3 | −1472.2 |
| Log. Lik. | 1014.624 | 1084.376 | 1935.396 | 1954.762 |
| Std. Errors | Municipality | Municipality | Municipality | Municipality |
| FE Year | | ✓ | ✓ | ✓ |
| FE Municipality | | | ✓ | ✓ |

Note: The number of observations corresponds to the total number of municipalities considering elections of 2013, 2017, and 2020. * p < 0.1, ** p < 0.05, *** p < 0.01.

Table B.2: Effect of protests on incumbent vote share (Full models for Figure 4)

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| Intercept | 0.723*** | | | |
| | (0.010) | | | |
| ATT | −0.109*** | −0.128*** | −0.031*** | −0.034*** |
| | (0.028) | (0.032) | (0.008) | (0.009) |
| Previous Turnout | | | | −0.068 |
| | | | | (0.074) |
| Population (log) | | | | 0.043* |
| | | | | (0.025) |
| Observations | 1355 | 1355 | 1355 | 1340 |
| N | 341 | 341 | 341 | 341 |
| R2 | 0.012 | 0.087 | 0.913 | 0.912 |
| R2 Adj. | 0.011 | 0.084 | 0.883 | 0.882 |
| R2 Within | | 0.015 | 0.007 | 0.014 |
| AIC | −392.0 | −492.3 | −2993.4 | −2951.4 |
| BIC | −381.5 | −466.3 | −1195.4 | −1157.3 |
| Log. Lik. | 197.986 | 251.162 | 1841.695 | 1820.722 |
| Std. Errors | Municipality | Municipality | Municipality | Municipality |
| FE Year | | ✓ | ✓ | ✓ |
| FE Municipality | | | ✓ | ✓ |

Note: The number of observations corresponds to the total number of Bolivian municipalities considering elections of 2009, 2014, 2019, and 2020. New municipalities have been created during those years, generating missing values in the extended model since there are no data of previous turnout or population records. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table B.3: Effect of protests on white/null votes

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| Intercept | 0.065*** | | | |
| | (0.001) | | | |
| ATT | −0.007** | −0.002 | 0.000 | −0.001 |
| | (0.003) | (0.003) | (0.003) | (0.003) |
| Previous Turnout | | | | 0.029 |
| | | | | (0.023) |
| Population (log) | | | | 0.007 |
| | | | | (0.005) |
| Observations | 1355 | 1355 | 1355 | 1340 |
| N | 341 | 341 | 341 | 341 |
| R2 | 0.003 | 0.033 | 0.672 | 0.681 |
| R2 Adj. | 0.002 | 0.030 | 0.561 | 0.571 |
| R2 Within | | 0.000 | 0.000 | 0.005 |
| AIC | −5829.7 | −5864.8 | −6651.2 | −6610.7 |
| BIC | −5819.2 | −5838.8 | −4853.2 | −4816.6 |
| Log. Lik. | 2916.836 | 2937.409 | 3670.609 | 3650.371 |
| Std. Errors | Municipality | Municipality | Municipality | Municipality |
| FE Year | | ✓ | ✓ | ✓ |
| FE Municipality | | | ✓ | ✓ |

Note: The number of observations corresponds to the total number of Bolivian municipalities considering elections of 2009, 2014, 2019, and 2020. New municipalities have been created during those years, generating missing values in the extended model since there are no data of previous turnout or population records. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

# C Additional Tests

## Spillover effects

Table C.1: Spillover effect (at the province level) on turnout

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| Intercept | 0.470*** | | | |
| | (0.008) | | | |
| ATT (Provinces) | −0.027* | 0.096* | 0.050** | 0.085*** |
| | (0.014) | (0.051) | (0.023) | (0.027) |
| Previous Turnout | | | | 0.654*** |
| | | | | (0.036) |
| Population (log) | | | | 0.008*** |
| | | | | (0.001) |
| Observations | 1037 | 1037 | 1037 | 1037 |
| N | 346 | 346 | 346 | 346 |
| R2 | 0.020 | 0.086 | 0.581 | 0.739 |
| R2 Adj. | 0.019 | 0.083 | 0.556 | 0.723 |
| R2 Within | | 0.016 | 0.006 | 0.382 |
| AIC | −2045.4 | −2114.2 | −2811.8 | −3299.8 |
| BIC | −2035.5 | −2094.5 | −2520.1 | −2998.2 |
| Log. Lik. | 1024.695 | 1061.115 | 1464.907 | 1710.914 |
| Std. Errors | Province | Province | Province | Province |
| FE Year | | ✓ | ✓ | ✓ |
| FE Province | | | ✓ | ✓ |

Note: The number of observations corresponds to the total number of Chilean municipalities considering elections of 2013, 2017, and 2020. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table C.2: Spillover effect (at the province level) on incumbent vote share

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| (Intercept) | 0.722*** | | | |
| | (0.018) | | | |
| ATT (Province) | −0.039 | −0.063 | −0.022** | −0.021* |
| | (0.028) | (0.043) | (0.011) | (0.011) |
| Previous Turnout | | | | 0.087 |
| | | | | (0.134) |
| Population (log) | | | | −0.032*** |
| | | | | (0.009) |
| Observations | 1355 | 1355 | 1355 | 1340 |
| N | 341 | 341 | 341 | 341 |
| R2 | 0.003 | 0.078 | 0.765 | 0.777 |
| R2 Adj. | 0.003 | 0.075 | 0.744 | 0.756 |
| R2 Within | | 0.006 | 0.002 | 0.061 |
| AIC | −380.2 | −479.5 | −2114.5 | −2158.1 |
| BIC | −369.8 | −453.5 | −1525.6 | −1560.0 |
| Log. Lik. | 192.100 | 244.756 | 1170.269 | 1194.029 |
| Std. Errors | Province | Province | Province | Province |
| FE Year | | ✓ | ✓ | ✓ |
| FE Province | | | ✓ | ✓ |

Note: The number of observations corresponds to the total number of Bolivian municipalities considering elections of 2009, 2014, 2019, and 2020. New municipalities have been created during those years, generating missing values in the extended model since there are no data of previous turnout or population records. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

## November 2021 election

Table C.3: Effect of protests on voter turnout (November 2021 Election)

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| Intercept | 0.465*** | | | |
| | (0.004) | | | |
| ATT | −0.010** | 0.034*** | 0.016*** | 0.016*** |
| | (0.005) | (0.009) | (0.005) | (0.005) |
| Previous turnout | | | | 0.235*** |
| | | | | (0.048) |
| Population (log) | | | | 0.041** |
| | | | | (0.018) |
| Observations | 1037 | 1037 | 1037 | 1037 |
| N | 346 | 346 | 346 | 346 |
| R2 | 0.003 | 0.097 | 0.909 | 0.919 |
| R2 Adj. | 0.002 | 0.094 | 0.862 | 0.877 |
| R2 Within | | 0.015 | 0.022 | 0.129 |
| AIC | −2300.4 | −2399.0 | −4083.9 | −4200.5 |
| BIC | −2290.6 | −2379.2 | −2358.4 | −2465.1 |
| Log. Lik. | 1152.220 | 1203.481 | 2390.966 | 2451.244 |
| Std. Errors | Municipality | Municipality | Municipality | Municipality |
| FE Year | | ✓ | ✓ | ✓ |
| FE Municipality | | | ✓ | ✓ |

Note: The number of observations corresponds to the total number of Chilean municipalities considering elections of 2013, 2017, and 2021. * p < 0.1, ** p < 0.05, *** p < 0.01

## Pro- and anti-government protests in Bolivia

Table C.4: Effect of protests on incumbent vote share in Bolivia according to protest type

| | Model 1 | Model 2 | Model 3 |
|---|---|---|---|
| ATT | −0.034*** | −0.033*** | −0.034*** |
| | (0.010) | (0.009) | (0.009) |
| Previous Turnout | −0.060 | −0.024 | −0.068 |
| | (0.091) | (0.083) | (0.074) |
| Population (log) | 0.049** | 0.045 | 0.043* |
| | (0.024) | (0.031) | (0.025) |
| Observations. | 1226 | 1002 | 1340 |
| R2 | 0.913 | 0.920 | 0.912 |
| R2 Adj. | 0.883 | 0.893 | 0.882 |
| R2 Within | 0.014 | 0.015 | 0.014 |
| AIC | −2651.8 | −2254.1 | −2951.4 |
| BIC | −1036.5 | −987.4 | −1157.3 |
| Log. Lik. | 1641.877 | 1385.056 | 1820.722 |
| Std. Errors | Municipality | Municipality | Municipality |
| FE Year | ✓ | ✓ | X✓ |
| FE Municipality | ✓ | ✓ | ✓ |

Note: Model 1 excluded all the municipalities of the department of Cochabamba. Model 2 excluded all the municipalities of the department of La Paz. Model 3 is the main extended model presented in Figure 4. The number of observations corresponds to the total number of municipalities considering elections of 2009, 2014, 2019, and 2020. New municipalities have been created during those years, generating missing values in the extended model since there are no data of previous turnout or population records. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

## Different specifications of the treatment variable

Table C.5: Effect of protests (continuous and above mean specification) on voter turnout

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| ATT Number of Protests | 0.0008*** | | | |
| | (0.0001) | | | |
| ATT Number of Protests (ACLED) | | 0.003*** | | |
| | | (0.0006) | | |
| ATT Above mean protests | | | 0.069*** | |
| | | | (0.008) | |
| ATT Above mean protests (ALCED) | | | | 0.069*** |
| | | | | (0.007) |
| Previous Participation | 0.090** | 0.094** | 0.093** | 0.136*** |
| | (0.044) | (0.044) | (0.044) | (0.045) |
| Population (log) | 0.076** | 0.074** | 0.071** | 0.065** |
| | (0.031) | (0.031) | (0.031) | (0.031) |
| Observations | 1037 | 1037 | 1037 | 1037 |
| N | 345 | 345 | 345 | 345 |
| R2 | 0.833 | 0.832 | 0.839 | 0.849 |
| R2 Adj. | 0.748 | 0.746 | 0.757 | 0.772 |
| R2 Within | 0.124 | 0.118 | 0.154 | 0.206 |
| R2 Within Adj. | 0.120 | 0.114 | 0.150 | 0.203 |
| AIC | −3183.1 | −3176.4 | −3219.5 | −3285.8 |
| BIC | −1447.7 | −1441.0 | −1484.2 | −1550.4 |
| RMSE | 0.04 | 0.04 | 0.04 | 0.04 |
| Std. Errors | Municipality | Municipality | Municipality | Municipality |
| FE Year | ✓ | ✓ | ✓ | ✓ |
| FE Municipality | ✓ | ✓ | ✓ | ✓ |

Note: The number of observations corresponds to the total number of Chilean municipalities considering elections of 2013, 2017, and 2020. Model 1 and Model 3 use information provided by the national police (*Carabineros*) in order to quantify the protests, while Model 2 and 4 use ACLED information. ATT represents the interaction between the continuous treatment (Model 1 and 2) and above mean treatment (Model 3 and 4) and post-treatment period. * p $< 0.1$, ** p $< 0.05$, *** p $< 0.01$

Table C.6: Effect of protests (continuous and above mean specification) on incumbent vote share

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| ATT Number of Protests | 0.000 | | | |
| | (0.0002) | | | |
| ATT Number of Protests (ACLED) | | −0.002*** | | |
| | | (0.0007) | | |
| ATT Above mean protests | | | −0.053*** | |
| | | | (0.014) | |
| ATT Above mean protests (ACLED) | | | | −0.053*** |
| | | | | (0.014) |
| Previous Participation | −0.074 | −0.077 | −0.073 | −0.073 |
| | (0.074) | (0.074) | (0.074) | (0.074) |
| Population (log) | 0.036 | 0.039 | 0.042* | 0.042* |
| | (0.025) | (0.024) | (0.024) | (0.024) |
| Observations | 1340 | 1340 | 1340 | 1340 |
| N | 346 | 346 | 346 | 346 |
| R2 | 0.912 | 0.912 | 0.912 | 0.912 |
| R2 Adj. | 0.881 | 0.882 | 0.882 | 0.882 |
| R2 Within | 0.005 | 0.008 | 0.012 | 0.012 |
| R2 Within Adj. | 0.002 | 0.005 | 0.009 | 0.009 |
| AIC | −2940.0 | −2943.6 | −2948.7 | −2948.7 |
| BIC | −1145.9 | −1149.4 | −1154.5 | −1154.5 |
| RMSE | 0.06 | 0.06 | 0.06 | 0.06 |
| Std. Errors | Municipality | Municipality | Municipality | Municipality |
| FE Year | ✓ | ✓ | ✓ | ✓ |
| FE Municipality | ✓ | ✓ | ✓ | ✓ |

Note: The number of observations corresponds to the total number of Bolivian municipalities considering elections of 2009, 2014, 2019 and 2020. Model 1 and Model 3 use information provided by Fundación Unir in order to quantify the protests, while Model 2 and 4 use ACLED information. ATT represents the interaction between the continuous treatment (Model 1 and 2) and above mean treatment (Model 3 and 4) and post-treatment period. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

# D ELSOC Survey

The Chilean Longitudinal Social Survey (ELSOC) is a study that analyzes the evolution of conflict and cohesion in Chilean society through time. It is oriented to examine the main background, moderating and mediating factors, as well as the main consequences associated with the development of different forms of conflict and social cohesion in Chile.[1]

Being one of the few longitudinal surveys that measure social issues in Chile, through its multiple waves (2016, 2017, 2018, 2019, and 2021) we can identify patterns of change and assess the causal effect of specific events. For the models presented in Figure 2 regarding the political efficacy mechanism, three variables were used:

- Agreement with the actions of the movement, variable c21_03 – Question: *Thinking about [SOCIAL MOVEMENT THAT THE RESPONDENT MOST VALUES], how much do you agree or disagree with the following statements: I agree with the actions of this movement.* 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly agree.
- Agreement with my vote influences the outcome of the election, variable c10_02 – Question: *To what extent do you agree or disagree with each of the following statements: My vote influences the outcome of the election.* 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly agree.
- Political information, variable c14_02 – Frequency: Gets informed about politics in the media. Question: *How often do you do the following activities: You actively inform yourself about politics in media such as television, radio, newspapers or the Internet.* 1 = never, 2 = rarely, 3 = sometimes, 4 = frequently, 5 = very frequently.

Additionally, to consider time-variant confounders, we control for political position (recoded as 1 = left-center left, 2 = center, 3 = center right-right, 4 = without political position/independent).

[1] Presentation of the survey available at https://coes.cl/encuesta-panel-methodological-manual-elsoc/

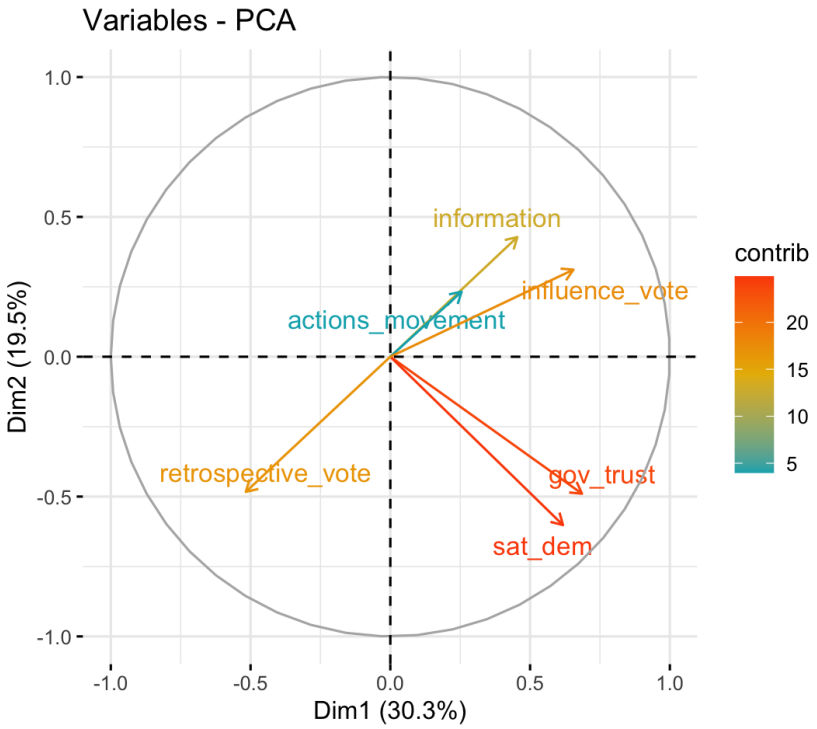
Table D.1: Sample distribution across the years

| | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** |
|---|---|---|---|---|---|---|
| T = 0 | 2927 | 2473 | 3748 | 130 | 52 | 155 |
| T = 1 | | | | 2443 | 789 | 2585 |

## Principal Components Analysis

The following graph shows the relationships between all the considered variables. We see that the variables "satisfaction with democracy" and "trust in government" are grouped together, whereas "actions of the movement", "influence of own vote" and "information" are on a different factor. Finally, "retrospective vote" (i.e., if the respondent states that they voted in the last election) represent a third and separate factor.

Figure D.1: Correlation circle between variables and a principal component




Note: Positively correlated variables are grouped together. Negative correlated variables are positioned on opposite sides.

Table D.2: Individual Level Models - Political efficacy (Full models for Figure 3)

| | Actions Movement | Influence Vote | Political Information |
|---|---|---|---|
| ATT | 0.247*** | 0.199*** | 0.189*** |
| | (0.032) | (0.029) | (0.043) |
| Political Position: Center | 0.059 | 0.012 | −0.021 |
| | (0.054) | (0.031) | (0.051) |
| Political Position: Center-Right | −0.018 | 0.071 | 0.046 |
| | (0.087) | (0.050) | (0.070) |
| Political Position: None | −0.027 | −0.140*** | −0.432*** |
| | (0.061) | (0.037) | (0.059) |
| Observations | 7901 | 14 932 | 15 024 |
| R2 | 0.565 | 0.495 | 0.546 |
| R2 Adj. | 0.157 | 0.283 | 0.356 |
| R2 Within | 0.038 | 0.023 | 0.036 |
| AIC | 19 142.2 | 40 786.5 | 48 423.6 |
| BIC | 45 813.6 | 74 512.0 | 82 206.8 |
| Log.Lik. | −5747.093 | −15 962.226 | −19 776.795 |
| Std. Errors | Municipality | Municipality | Municipality |
| FE Individual | ✓ | ✓ | ✓ |

Note: * p < 0.1, ** p < 0.05, *** p < 0.01