## Democracy in Tumultuous Times: Protests, Pandemic and Plebiscite in Chile

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#### ABSTRACT

In 2020, Chile held a historic plebiscite that decided, by a broad margin, to hold a constitution-making process. The vote took place in a tumultuous context, marked by the 2019 social outburst and the COVID-19 pandemic. This article explains how these circumstances were associated with turnout, which increased slightly compared to previous elections. District-level regression analyses of Chile's 345 municipalities suggest that different impacts of the pandemic were both positively and negatively associated with turnout. Additionally, exposure to both nonviolent and violent protests during the social outburst depressed turnout, particularly in more right-wing districts.

Keywords: plebiscite, COVID-19, turnout, Chile, protests.

#### La democracia en tiempos tumultuosos: protestas, pandemia y plebiscito en Chile

#### RESUMEN

En 2020, Chile llevó a cabo un plebiscito histórico que decidió por amplio margen comenzar un proceso constituyente. La votación ocurrió en un contexto tumultuoso, marcado por el estallido social de 2019 y la pandemia de COVID-19. Este artículo explica cómo estas circunstancias estuvieron asociadas a la participación electoral, que experimentó una leve alza respecto a elecciones anteriores. Regresiones a nivel municipal de las 345 comunas de Chile sugieren que diferentes impactos de la pandemia se asociaron tanto positiva como negativamente con la participación. Adicionalmente, la exposición a protestas violentas y no violentas deprimió la participación electoral, particularmente en comunas más de derecha.

PALABRAS CLAVES: plebiscito, COVID-19, participación electoral, Chile, protestas.

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### 1. Introduction

On 25 October 2020, Chileans voted in the first national plebiscite since 1988. The referendum was set to become the most important political event in Chile since the return to democracy because "what is at stake after 32 years is bringing closure to an incomplete democracy, built on institutions imposed after the 1973 coup d'état" (Heiss 2020: 1). While it was not the first attempt to replace the Constitution (Tsebelis 2018), the 2020 national plebiscite was the political system's main answer to the demands expressed by millions of demonstrators in the so-called "estallido social" (social outburst) of 2019 (Somma et al. 2021: 495). At the polls, 78% of voters supported the Approve option in favor of starting the constitution-making process, beating the Reject option (to keep the current constitution) by 56.5 percentage points. Meanwhile, the Constitutional Convention option (to have an elected body draft the new constitution) beat the Mixed Convention one (electing half the entity, with the other half being members of Congress) with 79% of the vote. Despite the importance of the outcome, only 51% of the electorate participated, exceeding the turnout in the 2017 presidential election by just two percentage points (Fuentes 2020).

This article focuses on the contextual factors associated with turnout in the Chilean national plebiscite of 2020, in particular variables related to the COVID-19 pandemic and the 2019 social outburst that may have been correlated with turnout. Analyzing turnout in Chile's 345 municipalities (comunas), we find that the pandemic was both positively and negatively correlated with participation, while the correlation with protests taking place during the social outburst interacted with preexisting local attitudes.

This work improves our understanding of turnout in at least three ways. First, since the COVID-19 pandemic is an ongoing emergency, this work sheds light, together with other recent works (Frank, Stadelmann and Torgler 2020, James 2020, James and Alihodzic 2020, Morales 2021, Santana, Rama and Bértoa 2020), on the ways the coronavirus has affected elections. Second, given that explanations for turnout in plebiscites are rare and tend to differ from those in which representatives are elected (Leduc 2002: 712) —with context playing a key role (Boas 2015, Bowler and Donovan 2002)— we contribute to the study of

turnout in these direct democracy mechanisms. Lastly, despite the rise in protests worldwide and in Chile (Donoso and Von Bülow 2017: 3-4), we do not know of any publication analyzing the effect of the social outburst on electoral behavior in the country. The study of contextual variables for turnout is particularly important when electorates around the world are becoming increasingly distanced from parties, ideologies and social cleavages (Bargsted and De la Cerda 2019, De la Cerda 2022, Goldberg 2020), making them more susceptible to the situation where voting takes place.

This article has five sections. The second section draws on the literature to theorize about the effect of the pandemic and protests on turnout, after which we introduce the data and variables used. The fourth part presents the results of four lineal regression models of turnout in 2020 and the difference in turnout between 2020 and 2017. The last section summarizes and presents our conclusions.

## 2. Theorizing about turnout under tumultuous circumstances

The literature has developed the determinants of voter turnout through three canonical models (Montecinos 2007: 10). The first is the so-called Columbia model, or sociological school (Campbell *et al.* 1980). In this model, the explanatory variables reside in the social characteristics of individuals. Social class, ethnicity, and residence in urban or rural areas, among other socially determined variables, explain turnout. Contextual politics plays a marginal role in the Columbia model.

By contrast, the so-called Michigan school or psychosocial approach to turnout vindicates the role of political attitudes and attachments. In this model, political communication is a core element defining turnout (Montecinos 2007: 11). In this sense, contextual factors such as political messages and campaigns interact with and reinforce latent predispositions and shape the decision to vote (and for whom).

For its part, the economic or rational choice model sees elections as a marketplace, where voters' individual preferences are based on the utility of turnout (Ferejohn and Fiorina 1974). Thus, voting occurs when the benefits exceed the costs and when participation has the possibility of bringing about the benefit (Downs 1957). Context may factor into all

these variables. Though the rational choice model has been criticized for failing to explain turnout when individual behavior does not affect the results of elections (Green and Shapiro 1996), Riker and Ordeshook (1968, 1973) argue that the act of voting could be an end in and of itself, incorporating psychological gratification into the model.

Meanwhile, more recent literature on turnout highlights the role that context plays in participation. Factors like the economy (Beltrán 2015, Powell and Whitten 1993), weather (Artés Caselles 2013, Gómez, Hansford and Krause 2007), natural disasters (Baccini and Leemann 2020, Lasala-Blanco, Shapiro and Rivera-Burgos 2017), and pandemics (Blickle 2020) shape turnout significantly. In the case of plebiscites, the effects of campaigns are also relevant. In this work, we focus on two types of contextual factors that could be correlated with turnout in the Chilean national plebiscite of 2020: the COVID-19 pandemic and the wave of protests that ushered in the constitution-making process.

## 2.1 The COVID-19 pandemic

Holding elections during shocks and crises like the current global COVID-19 pandemic poses serious challenges for democracies and the agencies organizing them (James 2020, James and Alihodzic 2020, Landman and Splendore 2020). For instance, there are objections related to the legitimacy of holding elections when there is a risk of COVID-19 contagion (International IDEA 2020, Landman and Splendore 2020). Though several governments decided to postpone elections, by October of 2020 more than 65 elections had been held worldwide (Laboratorio Constitucional UDP 2020)<sup>1</sup>. Authorities have deployed a series of public health measures to prevent infections, aiming to build enough trust for citizens to vote.

Turnout has declined globally during the pandemic (International IDEA 2020) but it has not plummeted, falling by just 2.2% (Laboratorio Constitucional UDP 2020). Nevertheless, in some cases like South Korea turnout has actually increased, reaching unprecedented levels (International IDEA 2020). Thus, the Chilean national plebiscite is one of several cases where turnout increased during the pandemic.

<sup>&</sup>lt;sup>1</sup> The plebiscite was originally scheduled to be held on 26 April 2020 but was postponed until 25 October due to the pandemic.

What goes into de decision to vote during a pandemic? The first studies on the effect of the COVID-19 pandemic paid attention to variables such as the type of voting (in person or postal), and the official measures to decrease the risk of infection (Frank *et al.* 2020, Laboratorio Constitucional UDP 2020, Morris and Miller 2020). Meanwhile, Santana *et al.* (2020) argue that the pandemic does not have a homogeneous effect on turnout: people in areas that have been more affected in terms of infections and deaths may experience low turnout. As the local toll of the pandemic increases, so do the risks associated with voting. The pandemic may have a demobilizing effect by increasing the individual costs of participating, which is a key element in the calculus of voting (Downs 1957, Riker and Ordeshook 1968). In sum, the pandemic's health effects would increase the costs of going to the polls on election day (Blais 2000: 83-91, Santana and Aguilar 2019: 3).

Though turnout was predicted to be relatively high (Artaza 2020), fear of COVID-19 may have depressed turnout in Chile. On the date of the plebiscite, about 15,000 voters had active cases of COVID-19; these people, in addition to their quarantined close contacts and hospitalized patients, amounted to less than 0.5% of the electoral roll (Danneman 2020). In August, 59% of Chileans reported being worried about voting because of the coronavirus and 47% believed infections would increase due to the plebiscite (IPSOS-Espacio Público 2020). We therefore hypothesize:

HI. At the municipal level, greater health effects from the pandemic are associated with lower turnout

A more recent and counterintuitive explanation (Frank *et al.* 2020, Santana *et al.* 2020) presents a different relationship between the pandemic and turnout. Moving beyond the personal costs associated with the risk of infection, it claims that the pandemic may actually increase turnout. Indeed, several rational choice models also include a non-instrumental, motivational component, which some studies associate with concepts like expressive voting (Schuessler 2000) and civic commitment (Blais, Young and Lapp 2000). As Blais and Achen (2019: 477) explain,

Sense of duty has been recognized from the very beginning of survey research as an important and widespread motivation for voting. Rational choice theorists have also felt obliged to recognize it to make sense of the fact that many people vote even though their vote will not be decisive.

More broadly, voters may "derive utility from the very act of expressing their political preferences or their solidarity with a peer group or from performing their civic duty" (Ashworth, Geys and Heyndels 2006: 383). Thus, expressive motivation, if strong enough, may overcome the effect of the cost of voting and lead people to participate.

The pandemic may have increased this type of electoral motivation among Chileans. Natural disasters and crises are associated with a sense of belonging in citizens and may encourage behaviors like expressive voting (Frank et al. 2020, Santana et al. 2020). This behavior is to a great extent explained by the emotions that these extraordinary situations elicit, because "as citizens feel increasingly threatened in their environment (e.g. racially, socially, or economically), they become more inclined to take part in the political process in order to ensure that their voices are heard" (Robbins, Hunter and Murray 2013: 498). This emotional attitude may be reinforced by the authorities, whose popularity can increase in complex contexts due to a rally-around-theflag effect (Mueller 1970: 20) and the COVID-19 pandemic would not be an exception (Small and Eisinger 2020). Some early works also suggest that the measures taken to contain the pandemic worked a positive change on political engagement (Bol et al. 2020, Merkley et al. 2020), which may promote participation.

There are indications that turnout in Santiago's municipalities followed this pattern, for example. Though the pandemic has hit the city's poorest municipalities the hardest (Mena et al. 2021), turnout has also increased significantly in these working class areas (Rivas 2020a). As Morales (2021: 12) says, the evidence suggests that turnout in districts that were hit the hardest by the pandemic increased relative to 2017. In the district of La Pintana, for example, turnout in 2020 (51.2%) increased by almost 15 percentage points compared to 2017. After the plebiscite, its mayor declared "with a pandemic but without fear, we went out to vote with a pen and a facemask in La Pintana and defeated the stigma of low turnout" (Rivas 2020a). Similarly, in Renca, another low-income

municipality in Santiago, the mayor confided the day before the election that the pandemic had strengthened community organization:

The crisis unleashed on 18 October 2019 left five dead in our municipality and a very deep social crisis. Then came this pandemic that started in the city's high-income sectors, but which claimed its first victim [in the country] in Renca. So, we have focused the municipality's actions on healthcare and social welfare. At one point we had more than one hundred soup kitchens. Our community management has consisted in enhancing grassroots organizations. (Pérez 2020)

The next day, turnout in Renca increased from 43.9 in 2017 to 55.7% in 2020. Our second hypothesis, therefore, is as follows:

H2. At the municipal level, greater health effects from the pandemic are associated with higher turnout.

### 2.2 The Social Outburst

In recent years, Chilean politics have been marked by an atmosphere of discontent and autonomous mobilization, organized outside political parties (Somma and Bargsted 2015). According Miranda Leibe, Palanza and Sánchez Staniak (2022), waves of protest have coincided with a gradual but relentless decrease in turnout since the return to democracy in 1990. Thus, low turnout contrasts with an increasingly mobilized citizenry, beginning with student protests in 2006 and 2011 (Disi Pavlic 2018).

In this context, the discredit of institutional politics in Chile reached its peak during social outburst of October 2019, when millions of Chileans took to the streets in demonstrations that lasted for weeks. Contentious actions during the social outburst were both contained and highly transgressive. The wide repertoire ranged from symbolic (Martin and Shaw 2021) to disruptive and violent tactics, including attacks on public and private property and unprecedented levels of looting (Somma et al. 2021: 497-498).

Mobilization was met with different government responses. Initially, the Piñera administration considered the possibility that criminal organizations and foreign governments were behind the social outburst (Dammert and Sazo 2020). The government declared it was "at war,"

sparking further unrest (Somma *et al.* 2021: 497-498). The country experienced record-breaking levels of repression, with the opposition, civil society and international actors accusing state agents of committing serious human rights violations (González and Le Foulon 2020: 230). The President then offered a package of measures addressing some of the demonstrators' grievances, but protests continued.

Demonstrators demanded sweeping changes and, among other things, protested against the 1980 Constitution, inherited from the Pinochet dictatorship (González and Le Foulon 2020: 3). After a month of mobilizations, Congress managed to negotiate the Peace and New Constitution Agreement on 15 November 2019. In it, a broad spectrum of political parties proposed holding a process to draft a new constitution, which would be ratified in a national plebiscite. The social outburst, therefore, is key to understanding the Chilean constitution-making process, including turnout in the 2020 plebiscite. As Alenda (2020: 203) explains, the political agreement that began the process "decompressed the conflict by giving an answer to citizen's demands for a new social covenant."

In recent years, there has been an increase in the number of works studying the effects of protests on political behavior in general (Disi Pavlic 2021, Ketchley and El-Rayyes 2020, Wallace, Zepeda-Millán and Jones-Correa 2014) and voter turnout in particular (Gillion and Soule 2018, Mazumder 2018, Wasow 2020). Participation in social movements, for instance, can socialize attitudes that promote turnout thereafter (Galais 2014). More indirectly, proximity to protests can expose citizens to activists' collective frames of action (Benford and Snow 2000) and the information derived from protests can, in turn, be used to form new opinions (Ketchley and El-Rayyes 2020). Mobilizations can also increase activists' credibility because they can act as a costly signal due to the risk of repression (Stephan and Chenoweth 2008). Evidence from the United States, for example, suggests that protests with liberal and conservative demands increase support for the Democratic and Republican parties, respectively (Gillion and Soule 2018).

However, not all protests can convince those who witnesses them. Their attitudinal effects depend to a great extent on the tactics used and particularly whether they are violent or not. Although violent

demonstrations can be noteworthy, they can also cast social movements in an unfavorable light in public opinion. Experimental evidence, for example, suggests that violent tactics diminish social identification, emotional connections, and popular support for social movements' demands (Feinberg, Willer and Kovacheff 2020). At the same time, the use of violent tactics increases the probability of episodic media coverage, which omits social movements' demands (Smith et al. 2001). Citizens' rejection of violence can eventually transform the public debate on protests into a discussion about public order. As Wasow (2020: 644) claims, "[m]edia agenda setting raises protest activity into the public sphere and issue framing contributes to more 'rights'-focused or more 'maintenance of order'-focused shifts among moderates in relevant outcomes like public opinion, elite discourse, and voting". This differential effect by the type of protest strategy can be observed, for example, in the U.S. civil rights movement. County-level electoral support for the Democratic Party increased and decreased in presidential elections between 1960 and 1972 depending on the presence of nonviolent and violent protests, respectively (Wasow 2020: 647-648).

Critically, the effect of protests also depends on citizens' preexisting attitudes. Indeed, people have strong and weak attitudes (Krosnick and Petty 1995), which vary in terms of how malleable they are to external stimuli. A relatively weak attitude like an opinion about a certain candidate or electoral ticket, for example, may be context-sensitive and at the same guided by stronger attitudes like ideology or party identification, which operate as cognitive heuristics (Lupia and McCubbins 1998). Thus, Simpson *et al.* (2018: 6) find that the negative effect of violence on support for social movements is mediated by identification with and perception of the movements' reasonableness. Regarding this interaction between preexisting attitudes and exposure to protests, Muñoz and Anduiza (2019: 4) observe,

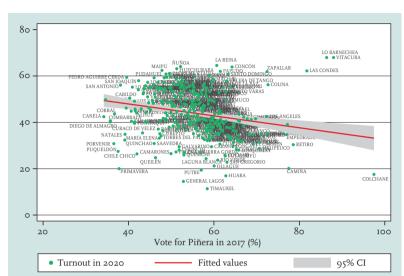
[T]he average effect [of violence] will obscure analytically and politically relevant heterogeneities. Different citizens will react differently to violent protests. When there are protests and associated violence, we often see competing frames of interpretation of the events, with opposing views on who is ultimately responsible for the violent outbreak (police or protesters), the severity of the violence employed by one camp or the other and, explicitly or not, also on the legiti-

macy of the use of violence. The social movement and its supporters will tend to claim that their actions were a legitimate response to the authorities, while the status quo advocates will delegitimize the movement by focusing on its violent tactics and frame the response by police forces as necessary, proportional, and appropriate.

Their analysis of bystanders' reactions to a riot in the district of Gràcia in Barcelona in May 2016 support this argument. While proximity to violent events had negative effects on perceptions of the 15-M movement in most of the sample, this effect was small and statistically insignificant among Podemos and CUP voters —the movement's main supporters (Muñoz and Anduiza 2019: 10).

In the case of the Chilean constitutional plebiscite, we theorize that the correlation between turnout and the protests of the social outburst is moderated by previous electoral preferences, namely support for Center-Right candidate Sebastián Piñera, the winner of the 2017 presidential election. This is because in the Chilean plebiscite, as in other referenda, "the voting choice may be driven by partisan or ideological cues" (Leduc 2002: 711).

This attitude is relevant for turnout because right-wing voters were more prone to abstain. According to a survey fielded weeks before the plebiscite, 53% of people identifying with the Right said they would definitely vote in the plebiscite, compared with 80, 54 and 63% of people identifying with the Left, Center, and those without ideological identification, respectively (Criteria 2020: 21). Figure 1 plots the levels of turnout by municipality in the 2017 runoff election and in the 2020 plebiscite, showing a negative relationship between support for Piñera in 2017 and voting in 2020. Right-wing voters were also more likely to support the losing Reject option, as 59% of people identifying with the Right said they would vote Reject, while this preference was declared by 12, 13 and 2% of people identifying with no ideology, the Center, and the Left, respectively (Criteria 2020: 23). This reflects long-standing attitudes, as the Reject option in 2020 was more successful in districts where the "Yes" option (in favor extending the Pinochet dictatorship) had more support in 1988 (Fernández, Guzmán and Andrade 2020: 13). Paraphrasing Scully et al. (2004: 527), abstention in the 2020 referendum could have indicated not just general political disaffection but, more importantly, hostility towards the constitution-making process.



#### • FIGURE 1. VOTE FOR SEBASTIÁN PIÑERA IN 2017 AND TURNOUT IN 2020

In the case of nonviolent protests, higher exposure could have reverted the negative association between rightist ideology and turnout in the plebiscite. Proximity to peaceful demonstrations could have softened perceptions about the plebiscite in places that were more critical of the constitution-making process and unwilling to replace the 1980 Constitution. We, therefore, hypothesize,

H3. At the municipal level, support for the Right in 2017 and exposure to nonviolent protests interact in such a way that the association between higher support for the Right in 2017 and turnout in the 2020 plebiscite is positive when exposed to more nonviolent events.

By contrast, in more right-wing areas, proximity to violent protests could have reinforced preexisting critical attitudes towards the process. Indeed, defenders the 1980 Constitution linked the constitution-making process to street violence during the social outburst. As Heiss (2020: 5), observes,

Violence associated with mobilizations and peaceful demonstrations since October 2019 has been an important element of the social outburst. In addition to direct clashes between the police and the so-called "front-line" groups, some subway stations, buildings, churches

and stores have been looted and burned down. These episodes have led conservative sectors to argue that the constitution-making process is not legitimate, given that a political process cannot move forward under conditions of blackmail by coercion.

Violence by itself could decrease turnout (Ley 2018) but it could also have a "backfire effect," where exposure to new information reinforces deeply-rooted beliefs (Nyhan and Reifler 2010). Exposure to violence would, therefore, harden opinions against the plebiscite, reducing turnout even further. Our last hypothesis is as follows:

H4. At the municipal level, support for the Right in 2017 and exposure to violent protests interact in such a way that the association between higher support for the Right in 2017 and turnout in the 2020 plebiscite is negative when exposed to more violent events.

In sum, we theorize that two key contextual factors —the COVID-19 pandemic and the 2019 social outburst— were correlated with turnout at the district level in the 2020 Chilean constitutional plebiscite. First, we expect the COVID-19 pandemic to be negatively associated with turnout, based on the risks it poses, which increase the cost of voting. By contrast, our second hypothesis, based on the notion of expressive voting, expects the local effects of the pandemic to be positively correlated with turnout. Thus, our pandemic-related hypotheses are mutually exclusive for each of the variables used to assess them. Lastly, we expect the direction of the correlation between protests and turnout to depend on preexisting local levels of support for the Right, with more rightist municipalities showing higher turnout when exposed to nonviolent protests, while exposure to violent protests could make them even more recalcitrant towards the constitution-making process.

## 3. Data and variables

We analyze the influence of context on turnout in Chile's 345 municipalities<sup>2</sup> using two outcome variables<sup>3</sup>. The first one is municipal-level turnout in the 2020 plebiscite, which varied from 11.3% in Timaukel to 68% in Vitacura. The second dependent variable is the difference in turnout between the 2020 plebiscite and the 2017 presidential runoff election. The largest increase was in La Pintana (almost 15 percentage points higher), while the largest reduction occurred in Chanco (down approximately 26 percentage points). The source of both is the Chilean Electoral Service (SERVEL 2020).

There are seven explanatory variables: the municipal-level cumulative number of COVID-19 cases per 1,000 inhabitants on October 24, 2020, and the district-level total number of deaths caused by COVID-19 per 1,000 inhabitants as of that date<sup>4</sup>. These numbers range from zero in several municipalities to 87 cumulative cases per 1,000 inhabitants (General Lagos), 21.2 new weekly infections per 1,000 inhabitants (Timaukel), and 2.2 deaths per 1,000 inhabitants (Pedro Aguirre Cerda). Figure 2 plots the distribution of the COVID-19 cumulative variables for the two outcomes.

Two other pandemic-related covariates assess the short-term impacts of COVID-19 on turnout: the municipal-level rate of new infections per 1,000 inhabitants in epidemiological week 43 (October 18 to 24); and the phases of the *Plan Paso a Paso* (Step-by-Step Plan) on the day of the plebiscite (Gobierno de Chile 2020). The Plan has five phases with varying levels of restrictions imposed on individuals to prevent the spread of COVID-19: (1) Quarantine (8.7% of municipalities on the day of the plebiscite); (2) Transition (21.2%); (3) Preparation (60.3%); (4) Initial Opening (9.9%); and (5) Advanced Opening (0%). Phases in the Plan are associated with epidemiological indicators but are also

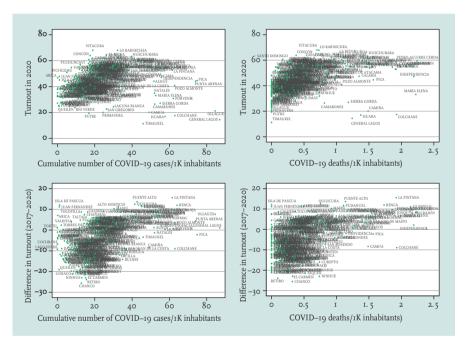
<sup>&</sup>lt;sup>2</sup> Analyzing voting (a phenomenon based on individual behavior) using an aggregate measure may be an example of the ecological fallacy (Robinson 2009). However, in our case, it is conceptually more useful to consider that we analyze turnout, which is a collective phenomenon. As Franklin (2004: 16) explains, turnout "is a feature of an electorate not a voter. And, while it is true that electorates are made up of aggregates of voters, the process of aggregation is not simply one of adding up relevant features of the individuals who form part of it."

<sup>&</sup>lt;sup>3</sup> The data and replication code is available on the Harvard Dataverse (Disi Pavlic, Sáez-Vergara and Godoy 2022).

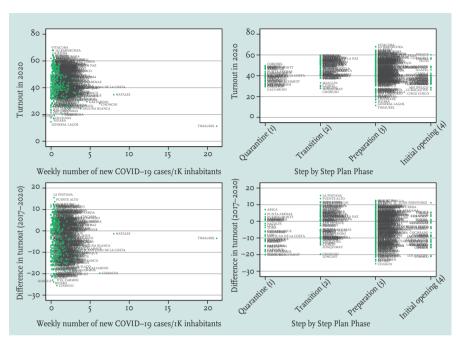
<sup>&</sup>lt;sup>4</sup> Epidemiological data comes from the Ministry of Science, Technology, and Innovation (MinCiencia 2020).

based on other criteria (like local levels of contact tracing and hospital capacity), so they are not perfectly correlated<sup>5</sup>. Importantly for this study, phases in the Step-by-Step Plan varied by municipality. Figure 3 shows the distribution of these two variables. Hypotheses 1 and 2 are tested using the first four variables, which could thus have positive or negative associations with the outcomes.

#### ● FIGURE 2. DISTRIBUTION OF CUMULATIVE COVID-19 CASES AND DEATHS PER 1,000 INHABITANTS



<sup>&</sup>lt;sup>5</sup> Public Health experts sometimes raised concerns about the lack of correlation between changes in phases and the districts' epidemiological situation, while public officials have also stated that they have relaxed measures when lockdowns are too long (Andrade 2021).



# ● FIGURE 3. DISTRIBUTION OF NEW CASES OF COVID-19 PER 1,000 INHABITANTS AND STEP-BY-STEP PHASES

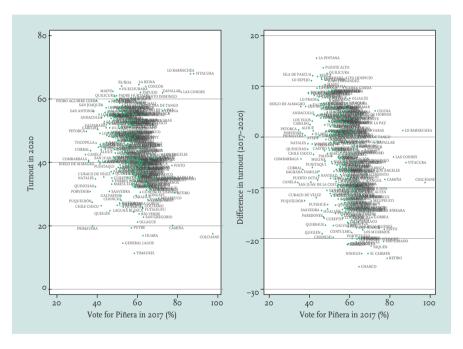
The fifth variable is the municipal-level percentage of support for President Piñera in the 2017 presidential runoff election (SERVEL 2020). As Figure 4 illustrates, its values range from to 34.2% (Canela) to 97.5% (Colchane). This variable is used to gauge the association between preexisting attitudes and participation, specifically attitudes that are critical of the plebiscite itself.

The last two variables evaluate the impact of the social outburst. Data comes from the Observatory of Social Conflict of the Centre for Social Conflict and Cohesion Studies (COES 2020). A total of 1,449 contentious actions between 18 October 18 and 31 December 2019<sup>6</sup> were individually geocoded and used to calculate the number of violent and nonviolent protests in each municipality and within a buffer of 10 kilometers. As Figure 5 shows, most municipalities experienced no protests near or within their limits but some in the Santiago Metropolitan Region

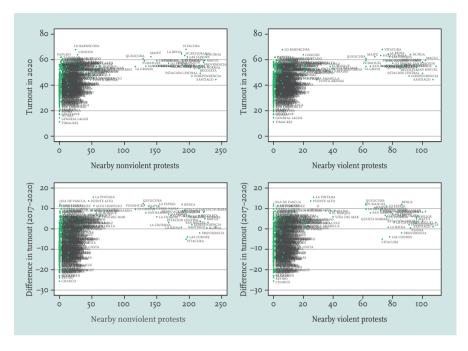
<sup>&</sup>lt;sup>6</sup> Data is not available for 2020, but protests decreased after the first months of 2020 (during the Southern Hemisphere summer) and the beginning of the pandemic.

register as many as 241 nonviolent (Santiago Centro) and 109 violent (San Miguel) events. These two types of protests are analyzed separately because they can have opposite effects on electoral behavior. Since the effect of exposure to protests is moderated by political attitudes, we use interaction terms between support for Piñera in 2017 and the number of nonviolent and violent events in the models presented below. These interactions evaluate Hypotheses 3 and 4.

#### FIGURE 4. DISTRIBUTION OF SHARE OF VOTE FOR PIÑERA IN 2017







We incorporate six control variables. These are important because, according to the literature, they are correlated with turnout and could also influence the independent variables. Information for three of these variables comes from the Undersecretariat for Regional Development (SUBDERE 2020). First, we take the natural logarithm<sup>7</sup> of the 2019 population size estimated by the National Statistics Institute (SUBDERE 2020). Several sources find that turnout in Chile is lower in more populated areas (Brieba and Bunker 2019, Contreras and Morales 2014). The second variable is the share of the population living in rural areas based on the 2017 census, which is expected to be positively correlated with turnout (Brieba and Bunker 2019, Corvalán and Cox 2013). Third, we use the percentage of the municipality's population living in poverty because socioeconomic level is correlated with participation, both at the individual (Altman 2004, Disi Pavlic and Mardones 2019) and

We use the logarithm because municipal populations vary significantly in size, ranging from 213 inhabitants in Río Verde to 629,743 in Puente Alto, which could result in heteroscedasticity issues.

aggregate (Brieba and Bunker 2019, Corvalán and Cox 2013) levels. A fourth variable is the mean district age in the 2017 census (INE 2018). The literature indicates that there is an age bias in turnout, with older people voting more (Bargsted, Somma and Muñoz-Rojas 2019, Corvalán and Cox 2013), although it is apparent that turnout among older citizens was lower in the plebiscite due to the pandemic (Rivas 2020b). Education, measured as the mean district years of formal schooling in the 2017 census (INE 2018), is used for two reasons: first, to control for the positive effect education has on turnout (Contreras, Joignant and Morales 2016, Haime 2017, Sondheimer and Green 2010) and second, because the ideological interpretation of and sensitivity to events such as protests may not be independent of education (Stubager 2008). The last control variable is turnout in the 2017 presidential runoff election (SERVEL 2020), which is added because the inertial nature of turnout (Franklin 2004) can explain participation in subsequent elections (Contreras and Morales 2014: 609). This variable is only used in the models regressing turnout in the 2020 plebiscite. Table I summarizes the descriptive statistics of all the variables used in this work.

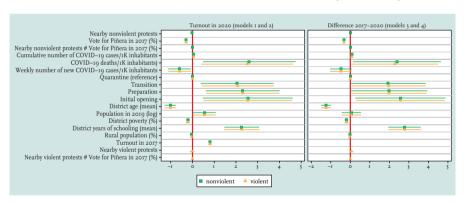
TABLE 1. DESCRIPTIVE STATISTICS

VARIABLE	TYPE	SOURCE	z	MEAN	STANDARD DEVIATION	MINIMUM VALUE	25%	MEDIAN	75%	MAXIMUM VALUE
Turnout in 2020 Plebiscite (%)	Dependent	SERVEL	345	43.98	10.33	11.34	36.77	43.49	52.7	67.98
Difference in turnout (2020 and 2017)	Dependent	SERVEL	345	-4.08	8.69	-25.56	-10.94	-3.69	3.02	15.54
Vote for Piñera in 2017	Independent	SERVEL	345	55.39	8.79	34.21	49.94	55.59	60.3	97.46
Noviolent Protests	Independent	COES	345	21.26	52.1	0	0	н	II	241
Violent Protests	Independent	COES	345	9.74	23.45	0	0	0	4	601
Cumulative cases of COVID-19/1,000 inhabitants	Independent	MinCiencia	345	21.06	15.08	0	11.46	17.46	26.18	96.98
COVID-19 deaths/1,000 inhabitants	Independent	MinCiencia	345	0.45	0.49	0	0.1	0.3	0.63	2.24
Weekly number of new COVID-19 cases/1,000 inhabitants	Independent	MinCiencia	345	62:0	1.41	0	0.22	0.43	0.94	21.2
Step-by-Step phase	Independent	Gobierno de Chile	345	2.71	0.76	н	73	8	8	4
District age (mean)	Control	INE	345	36.97	2.28	28.79	35.6	36.78	38.28	43.34
Population in 2019 (log)	Control	SUBDERE	345	IO	1.44	5:36	61.6	68.6	10.93	13.35
District poverty (%)	Control	SUBDERE	345	12.71	7.53	0.13	7.27	11.42	16.66	41.6
Rural population (%)	Control	SUBDERE	345	36.13	28.83	0	10.81	33	56	100
District years of schooling (mean)	Control	INE	354	8.51	1.13	5.93	7:7	8.28	9.05	13.59
Turnout in 2017 (%)	Control	SERVEL	345	48.06	8.33	13.47	45.12	49.73	52.83	73.01

## 4. Results

The data is analyzed using linear regressions with robust standard errors on Stata 15 (StataCorp 2017)<sup>8</sup>. Figure 6 plots the coefficients of the results of our four main regression models: models 1 and 2 regress turnout in 2020 using two versions of the protest variable (nonviolent and violent events); models three and four regress the difference in turnout between the 2020 plebiscite the 2017 presidential runoff election using the two versions of the protest variable<sup>9</sup>. It is important to note that, based on Wald tests, the interaction terms between the vote for Piñera in 2017 and the protest variables are statistically significant in three out of four models (the exception being the interaction with violent protests on the difference in turnout).

## • FIGURE 6. REGRESSIONS OF TURNOUT IN THE 2020 PLEBISCITE AND THE DIFFERENCE IN TURNOUT WITH THE 2017 PRESIDENTIAL ELECTION, WITH 95% CONFIDENCE INTERVALS (MAIN MODELS)



Different pandemic-related variables support Hypotheses I and 2. Each additional point increase in the weekly new infections rate decreases turnout in 2020 by about 0.6 percentage points, and the difference with 2017 by 0.5 percentage points (p<0.1), supporting the argument that the risks associated with the pandemic reduce turnout. Similarly, the effect of more restrictive phases of the Step-by-Step Plan is negative across models. For example, being in phase 4 of the Plan (compared

<sup>8</sup> Huber/White/sandwich estimators are used to address potential modelling misspecifications.

<sup>9</sup> The results of these models are also available in Table A1 of the Appendix.

with phase I) is associated with approximately 2.5 additional percentage points in turnout in 2020 and about 2.6 additional percentage points compared with 2017, respectively. However, other coronavirus-related variables also support Hypothesis 2. In models I and 2, each additional point increase in the death rate increases turnout in 2020 by about 2.6 and 2.5 percentage points, respectively; in models 3 and 4, each additional point increase in the cumulative number of COVID-19 cases is associated with an additional difference of almost 0.1 percentage points compared to 2017.

The results also show significant associations between turnout and the interaction effect of attitudes and protests —but some do not meet our theoretical expectations. The correlation with nearby protests (without support for Piñera) is not statistically significant in any model. By contrast, the association between support for Piñera in 2017 (in the absence of protests) and nonviolent protests is negative and significant in models 1 and 3, refuting Hypothesis 3. Hypothesis 4 is supported, as the correlation with support for Piñera (without protests) is significant and negative. Meanwhile, none of the interaction terms (vote for Piñera in the presence of protests) are statistically significant. This suggests that both types of protests behave similarly and that the interaction with preexisting preferences is significantly and negatively correlated with turnout, but only at lower levels of protest<sup>10</sup>.

Several control variables also had significant correlations. The association with age is by far the most noteworthy. Contrary to theoretical expectations, a higher mean age is negatively associated with turnout, with each additional year decreasing turnout in 2020 by about 1.1 percentage points and reducing it by almost 1.2 percentage points compared to 2017. When regressing turnout in 2017 with the control variables only, the correlations with age have the expected positive sign. This could also be caused by the context, given that older people are more vulnerable to the virus (Kang and Jung 2020). By contrast, the associations with education are positive (as expected), significant and substantively large across the models. The negative associations with rurality also go against expectations —turnout in 2020 in rural areas

 $<sup>^{\</sup>scriptscriptstyle{10}}$  This is discussed further using predictive values in Figures 7 and 8 of the Robustness and Postestimation section.

 $<sup>^{\</sup>text{\tiny II}}$  See Table A4 of the Appendix for the full results.

may have decreased because traditional clientelist and personalistic linkages were not activated for the plebiscite (Alcatruz, Toro and Valenzuela 2020). Lastly, the correlations with poverty resonate with previous studies.

## 4.1 Robustness and Postestimation

Although we take measures like using robust standard errors and the natural logarithm of district population, the results in Figure 6 may be sensitive to certain model specifications and the idiosyncrasies of districts. Contreras, Joignant, and Morales (2016: 531-532), for example, argue that the unequal size of Chilean municipalities may produce distorted estimates. We use several strategies to verify the robustness of our results. For both dependent variables, we follow the example of works analyzing turnout by splitting districts into demographically larger and smaller subgroups to account for this type of heterogeneity (Brieba and Bunker 2019, Contreras et al. 2016). Thus, we divide the sample and regress it in two subgroups: districts that are smaller than the population median (Puchuncaví, with 19,699 inhabitants) and districts that are equal to or larger than the median. Second, we use Leverage-Residual (L-R) plots (Chatterjee and Hadi 1988: 107) of the four models in Figure 6 to identify outlier districts with both high leverage and high residuals<sup>12</sup>. Thus, we exclude fourteen districts from the analysis for both dependent variables<sup>13</sup>. Excluded districts tend be either small and in geographically extreme areas or highly urban and located in the Santiago Metropolitan Area. Lastly, we use a generalized linear model (GLM) with a binomial family and logit link, which can be more appropriate than OLS for regressing fractional response outcomes (Papke and Wooldridge 1996), for the turnout variable (main models 1 and 2).

In the case of the turnout variable, the models used for robustness largely coincide with the main models<sup>14</sup>. The direction, magnitude, and significance of the correlations in the GLM models basically repeat the

<sup>&</sup>lt;sup>12</sup> This is done using the "lvr2plot" command on Stata, which cannot be used after robust standard errors. The plots are available on Figures A1, A2, A3 and A4 in the Appendix.

<sup>&</sup>lt;sup>15</sup> Vitacura, Timaukel, Ollagüe, Torres del Paine, Providencia, Porvenir, María Elena, Arica, Santiago, Alto Biobío, Pica, San Juan de la Costa, Chonchi, Juan Fernández, and Independencia.

<sup>&</sup>lt;sup>14</sup> The models can be found on Tables A2 and A3 of the Appendix.

results from Figure 1. At the same time, the correlation with the COVID-19 deaths variable is not statistically significant in the model analyzing districts that are demographically smaller than the median. Additionally, some categories of the Step-by-Step Plan variable are not significant in the models with smaller and larger districts or in the model without outliers. Thus, the correlations of those two pandemic-related variables are somewhat sensitive to district size and the presence of outliers. Interestingly, the interaction term between exposure to protests and vote of Piñera in 2017 is statistically significant in the models without outliers, which further disproves Hypothesis 3 but also lends additional support for Hypothesis 4.

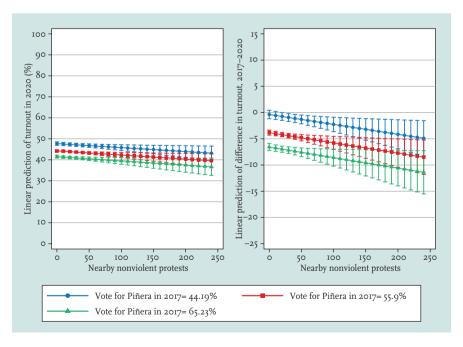
The models using the difference in turnout between 2017 and 2020 also tend to confirm the results from the main models. The rate of coronavirus infections in the week of the plebiscite is statistically significant across the models. By contrast, the cumulative rate of COVID-19 cases is not significant in the model using smaller districts. Similarly, some phases of the Step-by-Step Plan are not statistically significant (compared with Quarantine) in the models dividing the districts by population size. Lastly, the interactions between the results of the Piñera vote in 2017 and nearby protests largely repeat those of the main models, with one exception being the model without outliers using violent protests, where the three variables (vote for Piñera, nearby violent protest, and the interaction term) are all statistically significant and in the expected direction. Thus, these checks suggest that the correlations of pandemic-related variables depend to a certain extent on district size (qualifying Hypotheses 1 and 2), while showing that the associations with the social outburst variables are largely robust to different specifications (refuting Hypothesis 3 and confirming Hypothesis 4).

To illustrate the results, we also estimate adjusted predictions of the statistically significant independent variables in Figure 6 while keeping the rest of the variables at their mean values<sup>15</sup>. Figure 7 shows the predicted values of both outcome variables for selected values of the right-wing vote in 2017 and protest variables. Specifically, we estimate the predicted levels of turnout for the range of the observed values of

<sup>&</sup>lt;sup>15</sup> We exclude, therefore, the cumulative number of COVID-19 infections for turnout, and vote for Piñera, exposure to violent protests, and its interaction term for the difference with 2017.

the nonviolent protest variable (zero to 241), and the 10th percentile (44.19%), median (55.6%) and 90th percentile (65.23%) of support for Piñera in 2017. Further disproving Hypothesis 3, participation in 2020 decreases in areas with lower support for Piñera in 2017 (44.19%): turnout in 2020 decreases from 47.7% with zero protests to 43.2% with 240 nonviolent events, while the reduction in turnout relative to 2017 ranges from -0.4 to -4.9 percentage points<sup>16</sup>. With median levels of support (55.6%), exposure to nonviolent events also decreases turnout from 44.2 to 39.5%, with the difference with 2017 changing from -3.8 to -8.5 percentage points, respectively. Lastly, in places with higher support for the Right in 2017 (65.23%), participation in the plebiscite decreases with additional mobilizations and the slope of the change is slightly steeper than the one in less rightist districts: with more exposure to demonstrations, turnout ranges from 41.5 to 36.7%, and ranges from -6.6 to -11.3 percentage points compared to 2017.

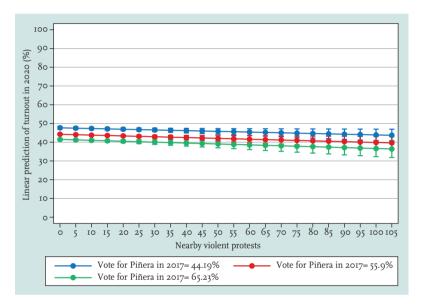
## ● FIGURE 7. ADJUSTED PREDICTIONS OF TURNOUT BY VOTE FOR PIÑERA IN 2017 AND EXPOSURE TO NONVIOLENT PROTESTS, WITH 95% CONFIDENCE INTERVALS



<sup>&</sup>lt;sup>16</sup> Perhaps places that were already more open to the constitution-making process become more politically disaffected when exposed to the disruption of demonstrations (Disi Pavlic 2021).

In Figure 8, the same values are used to predict turnout in 2020 for the range of observed violent protests (zero to 109). The results follow the same pattern as in Figure 7: increased exposure to violent events is negatively associated with turnout in the 2020 plebiscite across different levels of support for Piñera. This further supports Hypothesis 4.

# FIGURE 8. ADJUSTED PREDICTIONS OF TURNOUT BY VOTE FOR PIÑERA IN 2017 AND EXPOSURE TO VIOLENT PROTESTS, WITH 95% CONFIDENCE INTERVALS



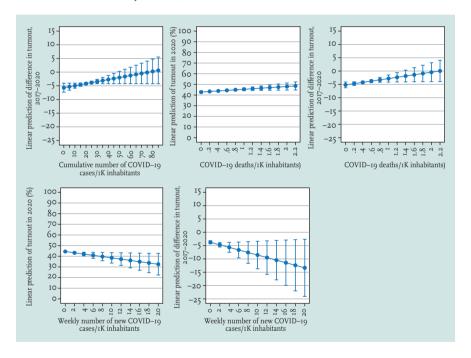
Why are the correlations between turnout and violent and nonviolent protests so similar? Events were coded as violent if at least one violent tactic was present but it may well be that people do not consider an event to be violent if only some of the tactics used are so. Alternatively, since people who identify with the Right tend to have a lower predisposition to protest (Castillo *et al.* 2015: 494, Cuevas and Villalobos 2017: 199) they may lump different types of protests together but still update their beliefs when exposed to them.

The adjusted values of turnout by selected values of the pandemicrelated variables suggest that different consequences of COVID-19 both increased and decreased participation<sup>17</sup>. As Figure 4 shows, the

 $<sup>^{7}</sup>$  To save space, the Figures showing adjusted values of the pandemic-related variables use models with the nonviolent protest variable.

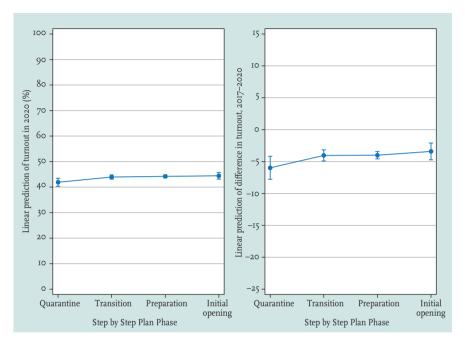
cumulative number of COVID-19 cases is positively associated with the difference in turnout between 2020 and 2017. The same occurs with the number of COVID-19 fatalities and both outcome variables. Meanwhile, as the number of weekly new cases of COVID-19 rises, the adjusted predictions of participation decrease. The results, therefore, support both Hypothesis 1 and 2 but for diverse measures of the local-level impact of the pandemic.

## FIGURE 9. ADJUSTED PREDICTIONS OF TURNOUT BY SELECTED VALUES OF EFFECTS OF THE COVID-19 PANDEMIC, WITH 95% CONFIDENCE INTERVALS



Lastly, the adjusted values of turnout by the phases of the Step-by-Step Plan also show that the pandemic affected turnout negatively. As shown in Figure 5, the lowest value of the turnout variables is found when municipalities were in phase I (Quarantine). Turnout levels are relatively similar in the rest of the Plan's phases. Thus, the main difference seems to be between Quarantine and the rest of the phases, supporting the claim that heightened risk reduced participation. This further supports Hypothesis I.





## 5. Discussion

This work analyzes the contextual factors associated with turnout in the Chilean National Plebiscite of 25 October 2020. Evaluating this type of factors gains importance in the wake of major protests and riots, and amid a global pandemic. Based on the literature on turnout in elections and plebiscites, we identify the ways the COVID-19 pandemic and the social outburst could have been correlated with turnout in this plebiscite.

Using subnational data on Chile's 345 municipalities, we evaluate four hypotheses about the effect of the social and health context on two outcomes: turnout in 2020 and the difference in participation between the 2017 presidential runoff election and the 2020 plebiscite. The results of linear regressions suggest that COVID-19 was negatively and positively correlated with turnout (Hypotheses 1 and 2). The pandemic, in other words, may have simultaneously increased the cost of voting

and the appeal of expressive voting for Chileans. The interaction terms of support for Piñera in 2017 and the number of violent and nonviolent protests after the social outburst of 2019 suggest that exposure to nonviolent demonstrations decreased turnout among supporters of the Right (refuting Hypothesis 3), as did violent protests (supporting Hypothesis 4).

The association between age and turnout, which was expected to be positive, merits discussion. There may be two complementary reasons for the surprisingly significant and negative relationship (Rivas 2020b). First, as mentioned above, the coronavirus had more serious effects on the elderly population, who may have abstained from voting regardless of the specific local epidemiological situation. Second, young people were to an significant extent the protagonists of the social outburst (González and Le Foulon 2020: 5) and their participation in protests in 2019 may have socialized them to vote (Galais 2014) in the 2020 plebiscite<sup>18</sup>. Preliminary evidence suggests that both phenomena occurred —young people voted more and older people voted less than in 2017 (Henríquez 2021). The plebiscite may ultimately have had an "epic quality that motivated the youthful segments of the population to a greater extent" (Morales 2021: 14).

Our findings have several implications. The apparently contradictory correlations of the COVID-19 variables may be explained by the fact that the negative effects are associated with short-term, temporary, and fleeting factors related to increased risk (weekly infections and the Step-by-Step Plan phases), while the positive associations correspond to longer-term, snowballing variables (cumulative COVID-19 cases and the total number of deaths) related to the emotional utility of voting. Thus, the results suggest that the risk-assessing calculus of voting responds to the current epidemiological situation, while expressive voting considers cumulative factors.

The associations between the social outburst variables and turnout suggest that protests actually decreased turnout. The particularly negative correlation with support for the Right (without protests) explains to a certain extent why, despite being a historic event, turnout barely increased compared to previous elections. There was little uncertainty

<sup>&</sup>lt;sup>18</sup> Young Chileans had shown signs of increased political engagement and organization since 2017, with a logic that did not follow the traditional cleavages of Chilean politics (Bellolio 2019).

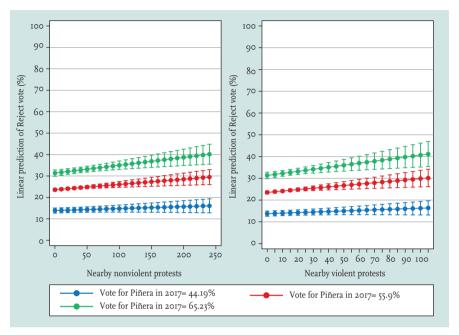
about the outcome of the plebiscite as the Approve option won by a large margin, as predicted by opinion surveys (Artaza 2020). Public opinion surveys could therefore have caused a bandwagon effect (Rothschild and Malhotra 2014), discouraging some voters who considered their vote to be irrelevant for the outcome. Thus, in line with the literature (Feddersen and Sandroni 2006, Geys 2006, Großer and Schram 2010), the overwhelming popularity of the Approve option may have paradoxically reduced the appeal of voting at the individual level.

In the case of the Reject vote, which had a right-wing base, it may well be that "low turnout is an indicator of antipathy rather than simply apathy" (Scully et al. 2004: 521). Exposure to protests in these areas, which signaled support for structural reforms, could have increased fears of constitutional change, motivating people to vote for the Reject option. Thus, their vote may have operated as backlash against demonstrators and their demands<sup>19</sup>. Using the same variables as in the main models I and 2, Figure 10 plots the predictive effects of support for Piñera in 2017 and nonviolent and violent protests on support for the Reject vote in 2020. The results of the interaction are statistically significant and indicate that, as the number of protests (both violent and nonviolent) increases, so does the share of votes against constitutional change —particularly in more conservative areas where Piñera obtained a higher share of vote in 2017<sup>20</sup>. Future research could theorize and analyze the relationship between exposure to protests and electoral preference in plebiscites in more detail.

<sup>&</sup>lt;sup>19</sup> We would like to thank two anonymous reviewers for these suggestions.

<sup>&</sup>lt;sup>20</sup> The full results can be found in Table A5 of the Appendix.





Lastly, the results of the interactions qualify the importance of both nonviolent protests (Stephan and Chenoweth 2008) and riots (Welch 1975) to achieve political goals. The negative correlations of mobilizations indicate the existence of a "backfire effect" while suggesting that people effectively change their attitudes based on new information (Wood and Porter 2019). More broadly, the findings show how exogenous stimuli relate to more structural factors and support Zaller's (1992) argument that the decision to vote in the plebiscite, for example, depended to a significant extent on the interaction between information (provided by protests) and preexisting values.

Using evidence from a national plebiscite, this work highlights the importance of the social and health context for political outcomes such of voter turnout. While the Columbia and Michigan models emphasized preexisting variables like voters' social position and preexisting attitudes, our results show that contextual factors —especially in tumultuous

times— can be particularly salient for turnout. Our results also suggest that rational choice theory should take expressive motivations seriously and include them in the calculus of voting.

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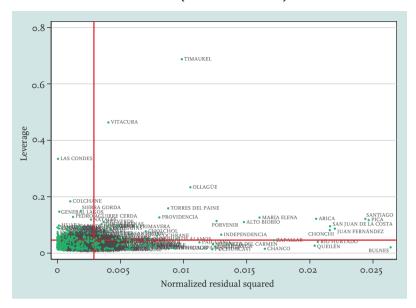
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## Appendix

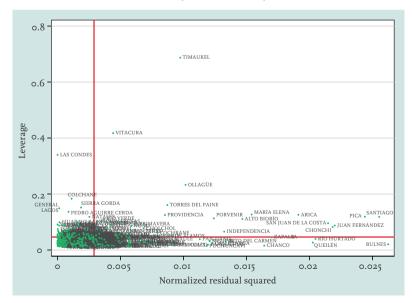
# ● TABLE A1. REGRESSIONS OF TURNOUT IN THE 2020 PLEBISCITE AND THE DIFFERENCE IN TURNOUT WITH THE 2017 PRESIDENTIAL ELECTION

	TURNO	JT 2020	DIFFERENCE	2017-2020
	NONVIOLENT (1)	VIOLENT (2)	NONVIOLENT (3)	VIOLENT (4)
Nearby protests	-0.0165	-0.0153	0.00735	0.0471
ivearby protests	(0.0222)	(0.0534)	(0.0224)	(0.0533)
Vote for Piñera in 2017 (%)	-0.295***	-0.294***	-0.326***	-0.324***
vote for Fillera III 2017 (%)	(0.0269)	(0.0269)	(0.0274)	(0.0274)
Support for Piñera* Protests	-5.40e-05	-0.000510	-0.000559	-0.00183*
support for Finera" Frotests	(0.000413)	(0.00104)	(0.000417)	(0.00104)
Cumulative number of	0.0494	0.0509	0.0744*	0.0755*
COVID-19/1,000 inhabitants	(0.0350)	(0.0347)	(0.0387)	(0.0384)
COVID 1	2.608**	2.509**	2.385**	2.274**
COVID-19 deaths/1,000 inhabitants	(1.083)	(1.073)	(1.147)	(1.138)
Weekly number of new COVID-19	-0.595**	-0.596**	-0.480*	-0.482*
cases/1,000 inhabitants	(0.267)	(0.266)	(0.283)	(0.282)
Step by Step phase (Reference: Quaran	tine (I))			
H ( )	2.055**	2.084**	1.941**	1.974**
Transition (2)	(0.853)	(0.841)	(0.982)	(0.964)
	2.309***	2.311***	1.976**	1.983**
Preparation (3)	(0.867)	(0.856)	(0.997)	(0.978)
T ::: 1 / )	2.543**	2.543**	2.569**	2.569**
Initial opening (4)	(1.053)	(1.041)	(1.173)	(1.152)
D	-I.020***	-1.017***	-I.24I***	-1.236***
District age (mean)	(0.134)	(0.135)	(0.127)	(0.128)
D 1.:	0.542**	0.541**	0.0562	0.0606
Population in 2019 (log)	(0.269)	(0.271)	(0.250)	(0.253)
F	-0.219***	-0.218***	-0.197***	-0.196***
District poverty (%)	(0.0465)	(0.0467)	(0.0488)	(0.0489)
D:	2.264***	2.270***	2.778***	2.795***
District years of schooling (mean)	(0.407)	(0.413)	(0.421)	(0.429)
D 1 1 1 1 100	-0.0387***	-0.0389***	-0.0266*	-0.0268*
Rural population (%)	(0.0143)	(0.0143)	(0.0142)	(0.0142)
	0.807***	0.808***		
Turnout in 2017 (%)	(0.0387)	(0.0386)		
_	35.36***	35.11***	35.46***	35.03***
Constant	(7.038)	(7.156)	(7.458)	(7.576)
Observations	345	345	345	345
R-squared	0.875	0.875	0.805	0.805
Robust standard errors in parentheses.				

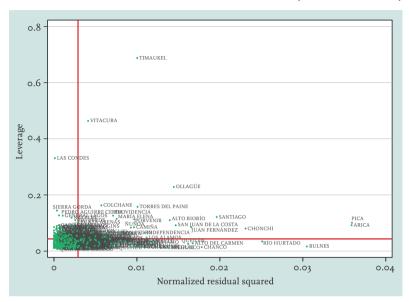
### ● FIGURE A1. L-R PLOT OF TURNOUT IN 2020 (NONVIOLENT PROTESTS)



### • FIGURE A2. L-R PLOT OF TURNOUT IN 2020 (VIOLENT PROTESTS)



### ● FIGURE A3. L-R PLOT OF DIFFERENCE IN TURNOUT BETWEEN 2017-2020 (NONVIOLENT PROTESTS)



#### ● FIGURE A4. L-R PLOT OF DIFFERENCE IN TURNOUT BETWEEN 2017-2020 (VIOLENT PROTESTS)

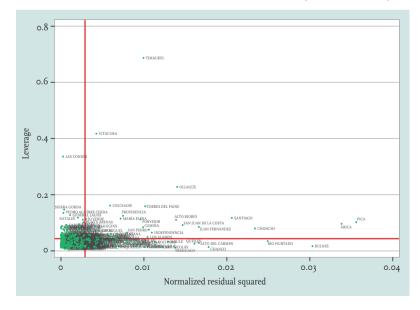


TABLE A2. ROBUSTNESS CHECKS (TURNOUT IN 2020)

	В	Σ	LESS	LESS THAN POPULATION MEDIAN	EQUAL OR MORE THAN POPULATION MEDIAN	AORE THAN IN MEDIAN	WITHOUT OUTLIERS	OUTLIERS
	NONVIOLENT	VIOLENT	NONVIOLENT	VIOLENT	NONVIOLENT	VIOLENT	NONVIOLENT	VIOLENT
Money and to the	-0.000682	-0.000504	0.653	1.067	-0.0369*	-0.0598	0.00532	0.0316
iveally profests	(0.000902)	(0.00219)	(0.523)	(I.395)	(0.0214)	(0.0525)	(0.0137)	(0.0324)
V/2+c, for Discons in a control (0/)	-0.0135***	-0.0135***	-0.268***	-0.273***	-0.326***	-0.328***	-0.301***	-0.301***
vote 101 rillera III 201/ (%)	(0.00108)	(0.00107)	(0.0372)	(0.0367)	(0.0458)	(0.0453)	(0.0241)	(0.0241)
Current for Distance December	-2.85e-06	-2.51e-o5	-0.00988	-0.0154	0.000113	-0.000207	-0.000530**	-0.00153**
Suppoit for Fineral Frotests	(1.69e-05)	(4.28e-o5)	(0.00924)	(0.0250)	(0.000401)	(0.00102)	(0.000255)	(0.000627)
Cumulative number of	0.00125	0.00131	0.0564	0.0520	0.0189	0.0272	0.0316	0.0330
COVID-19/1,000 inhabitants	(0.00138)	(0.00137)	(0.0387)	(0.0393)	(0.0487)	(0.0472)	(0.0247)	(0.0248)
COMP to death 1/2 death it and	0.107***	0.103**	1.203	L.333	3.819***	3.603***	3.322***	3.207***
	(0.0407)	(0.0404)	(1.218)	(1.245)	(I.336)	(1.303)	(0.794)	(0.794)
Weekly number of new COVID-19	-0.0409***	-0.0408***	-0.565**	-0.557**	-1.115***	-I.III***	-1.085***	-1.084***
cases/1,000 inhabitants	(0.0108)	(0.0108)	(0.227)	(0.223)	(0.293)	(0.291)	(0.254)	(0.254)
"Step by Step" phase (Reference: Quarantine (1))	rantine (I))							
Transition (2)	0.0600*	0.0612*	1.358	1.522	1.490	1.631*	1.915***	1.945***
nansindii (z)	(0.0338)	(0.0333)	(1.698)	(I.763)	(0.988)	(0.963)	(0.646)	(0.641)
Drannation (1)	0.0625*	0.0627*	2.276*	2.500*	1.975*	2.091**	2.027***	2.025***
ricparation (3)	(0.0344)	(0.0339)	(1.299)	(I.339)	(1.057)	(1.036)	(0.664)	(0.659)
Initial oneming (1)	0.0729*	0.0731*	2.211	2.404*	2.191	2.244	1.951**	1.942**
minai opennig (4)	(0.0420)	(0.0415)	(1.409)	(1.433)	(1.491)	(1.486)	(006:0)	(0.895)

	-0.0446***	-0.0445***	-0.980***	-0.988***	-0.853***	-0.825***	-I.076***	-I.07I***
District age (mean)	(0.00543)	(0.00546)	(0.186)	(0.182)	(0.199)	(0.200)	(0.116)	(0.116)
	0.0241**	0.0241**	0.0677	0.0634	0.578	0.605	0.429*	0.432*
ropulation in 2019 (10g)	(0.0107)	(0.0108)	(0.539)	(0.534)	(0.516)	(0.518)	(0.244)	(0.246)
Dighti of constant (0/)	-0.00942***	-0.00937***	-0.151**	-0.154**	-0.307***	-0.307***	-0.205***	-0.204***
District poverty (70)	(0.00192)	(0.00192)	(0.0605)	(0.0601)	(0.0697)	(6690.0)	(0.0413)	(0.0414)
District receive of and one line ( and one)	0.0906***	0.0913***	2.398***	2.382***	1.667**	1.670**	2.764***	2.763***
District years of schooling (mean)	(0.0160)	(0.0163)	(109.0)	(0.603)	(0.720)	(0.745)	(0.369)	(0.376)
Direct logical (92)	-0.00171***	-0.00172***	-0.0305*	-0.0311*	-0.0760***	-0.0779***	-0.0390***	-0.0392***
ivaiai population (70)	(0.000579)	(0.000581)	(0.0182)	(0.0182)	(0.0227)	(0.0229)	(0.0129)	(0.0129)
T	0.0355***	0.0356***	0.811***	0.808***	0.870***	0.874***	0.825***	0.825***
1 UIII OUI III 201/ (/0)	(0.00158)	(0.00157)	(0.0547)	(0.0537)	(0.0839)	(0.0841)	(0.0328)	(0.0331)
7,000,000	-0.478*	-0.495*	33.74***	34.57***	35.89***	34.35***	34.30***	34.10***
COINSTAILL	(0.279)	(0.284)	(10.76)	(10.59)	(9.484)	(9.549)	(6.115)	(6.197)
Observations	345	345	172	172	173	173	331	331
R-squared			0.828	0.828	0.875	0.874	868.0	968.0
Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1	s. *** p<0.01, *	* p<0.05, * p<0	ı.c					

TABLE A3. ROBUSTNESS CHECKS (DIFFERENCE WITH 2017)

	LESS THAN POPU	LESS THAN POPULATION MEDIAN	EQUAL OR MORE THAN POPULATION MEDIAN	10RE THAN IN MEDIAN	WITHOUT OUTLIERS	OUTLIERS
	NONVIOLENT	VIOLENT	NONVIOLENT	VIOLENT	NONVIOLENT	VIOLENT
Nontry motorts	0.811	1.327	-0.0337	-0.0527	0.0281	0.0903**
incatuly protests	(0.608)	(1.447)	(0.0213)	(0.0524)	(0.0171)	(0.0396)
Wate for Different in 2001	-0.290***	-0.297***	-0.362***	-0.362***	-0.330***	-0.330***
VOIC 101 I IIICIA III 201/ (/0)	(0.0387)	(0.0374)	(0.0393)	(0.0389)	(0.0255)	(0.0255)
Currence for Different Decelorer	-0.0135	-0.0219	7.00e-05	-0.000308	-0.00IOI***	-0.00277***
מעייים נווגומ נוטניסיס	(0.0108)	(0.0260)	(0.000400)	(0.00101)	(0.000327)	(0.000777)
Cumulating mumber of COVID 70/1 000 inhalunta	0.0863**	0.0813**	0.0118	0.0201	0.0582**	0.0593**
Califulative national of COVID-19/1,000 initiativalities	(0.0385)	(0.0394)	(0.0510)	(0.0494)	(0.0261)	(0.0263)
COVID to doothe / 1 000 inhabitants	1.108	1.231	3.760***	3.554***	2.994***	2.855***
COVID-19 deaths/1,000 illiabitalits	(1.182)	(1.218)	(1.323)	(I.293)	(0.877)	(0.875)
Weekly number of new COVID-19	-0.489**	-0.479**	-0.933***	-0.934***	-0.992***	-0.992***
cases/1,000 inhabitants	(0.223)	(0.220)	(0.285)	(0.281)	(0.266)	(0.265)
Step by Step phase (Reference: Quarantine (1))						
Transition (2)	1.622	1.771	1.374	1.513	1.943***	1.974***
114HSHUOH (Z)	(1.678)	(1.742)	(1.069)	(1.041)	(0.697)	(0.691)
Dranaration (2)	2.188*	2.382*	1.885*	1.999*	1.835**	1.831***
11 Cparation (3)	(1.260)	(1.287)	(1.131)	(1.106)	(0.711)	(0.704)
Initial maning (1)	2.575*	2.768*	2.314	2.360	2.106**	2.091**
minar opening (4)	(1.469)	(1.478)	(1.451)	(1.448)	(0.949)	(0.939)

Dietrict and (moun)	-1.193***	-1.204***	-0.920***	-0.891***	-1.279***	-1.273***
District age (mean)	(0.171)	(691.0)	(661.0)	(661.0)	(0.108)	(0.107)
Domilation in acts float	-0.978*	-0.997**	0.934*	0.949*	-0.00152	0.000802
ropuration in 2019 (rog)	(0.501)	(0.496)	(60:200)	(0.507)	(0.229)	(0.230)
Dictrict movesty (94)	-0.141**	-0.138**	-0.302***	-0.301***	-0.184***	-0.182***
District Powerty (70)	(0.0648)	(0.0644)	(6690.0)	(0.0700)	(0.0428)	(0.0429)
District verse of schooling (mann)	2.724***	2.732***	1.354**	1.370**	3.235***	3.244***
District feats of schooling (mean)	(0.622)	(0.625)	(0.635)	(0.661)	(0.357)	(0.364)
Rivel nomilation (%)	-0.0259	-0.0267	-0.0731***	-0.0750***	-0.0268**	-0.0269**
Nutai population (70)	(0.0184)	(0.0185)	(0.0229)	(0.0231)	(0.0130)	(0.0130)
Constant	40.01***	40.79***	32.69***	31.25***	34.26***	33.99***
COLISICALII	(11.24)	(61.11)	(10.12)	(10.16)	(6.295)	(6.326)
Observations	172	172	173	173	331	331
R-squared	0.743	0.742	0.839	0.837	0.848	0.847
Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1	.05, * p<0.1					

## • TABLE A4. REGRESSIONS OF TURNOUT IN 2017, WITH CONTROL VARIABLES ONLY

	I.404***
District age (mean)	(0.196)
Population in 2019 (log)	2.817***
Topamilon in 2019 (log)	(0.493)
District poverty (%)	-0.00325
District poverty (70)	(0.0691)
District years of schooling (moon)	-1.755**
District years of schooling (mean)	(0.688)
Rural population (%)	-0.0463**
Kurai population (%)	(0.0225)
Constant	-15.38
Constant	(11.58)
Observations	345
R-squared	0.310
Robust standard errors in parentheses. *** p<0.01, ** p<0.05,	* p<0.1

### • TABLE A5. REGRESSIONS OF SUPPORT FOR THE REJECT VOTE IN THE 2020 PLEBISCITE

	SUPPORT FOR	REJECT OPTION
	NONVIOLENT	VIOLENT
Nearby protests	-0.0487**	-0.119*
realby protests	(0.0226)	(0.0628)
Vote for Piñera in 2017 (%)	0.830***	0.834***
vote for Finera in 201/ (70)	(0.0581)	(0.0583)
Support for Piñera* Protests	0.00131***	0.00326**
Support for Finera Frotesis	(0.000460)	(0.00133)
Cumulative number of COVID-19/1,000 inhabitants	-0.0123	-0.0145
Cumulative number of COVID-19/1,000 illiabitants	(0.0439)	(0.0441)
COVID to deaths (t accombabitants	-1.503	-1.544
COVID-19 deaths/1,000 inhabitants	(1.398)	(1.385)
Wooldy number of new COVID to caged to one inhabitants	0.409*	0.410*
Weekly number of new COVID-19 cases/1,000 inhabitants	(0.219)	(0.220)
Step by Step phase (Reference: Quarantine (1))		
Tungition (a)	-4.782***	-4.861***
Transition (2)	(1.317)	(1.308)
Duamagation (a)	-5.393***	-5.439***
Preparation (3)	(1.297)	(1.285)
Tuitid an anima (a)	-2.588	-2.663
Initial opening (4)	(1.698)	(1.686)
District and (many)	0.597***	0.585***
District age (mean)	(0.156)	(0.157)
Danulation in agra day	-0.516	-0.552
Population in 2019 (log)	(0.381)	(0.383)
District assessment (O/)	0.158***	0.155**
District poverty (%)	(0.0602)	(0.0604)
Digitalist viscous of schooling (masses)	0.501	0.472
District years of schooling (mean)	(0.511)	(0.533)
Dural manufactions (9/)	-0.0280	-0.0275
Rural population (%)	(0.0185)	(0.0185)
Turnout in 2017 (9/)	-0.0326	-0.0322
Turnout in 2017 (%)	(0.0573)	(0.0578)
Comptont	-38.28***	-37-39***
Constant	(10.07)	(10.37)
Observations	345	345
R-squared	0.731	0.731
Robust standard errors in parentheses. *** p<0.01, ** p<0.05	;, * p<0.1	