Can Political Alignment Reduce Crime?
Evidence from Chile[1]

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March 1, 2022

Abstract

Research has shown that presidents tend to benefit local level copartisans when distributing resources, which can improve the provision of public goods, such as security. Considering that fear of crime is among the main concerns of citizens worldwide, we examine whether alignment affects criminality. Drawing on rich administrative data from Chile and a regression discontinuity design in close electoral races, we study the impact of alignment on a broad set of crimes against the person and property-related. We show that aligned municipalities experience a significant reduction in crimes that both affect property and occur in public. As a potential mechanism, we find that aligned municipalities receive more projects to improve urban infrastructure, thus making public spaces less vulnerable to crime.

Keywords: Political Alignment, Crime, Distributive Politics

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1. Introduction

Fear of crime is one of the main concerns of citizens in both developed and developing countries (Hale 1996; Garland 2001; Dammert, 2012). Criminality has taken center stage in political campaigns and become a highly politicized issue. In effect, the so-called "democracy-at-work" hypothesis proposes that politicians follow public opinion's changes in terms of public security and respond to crime concerns due to electoral considerations (Enns 2014; Jennings et al. 2017). As a consequence, politicians make efforts to respond to citizens' increased fear of crime through different strategies.

In particular, scholars have studied how some candidates and elected officials have responded to fear of crime by either promising or adopting "tough on crime" policies. This punitive response generally entails a change in the authorities' penal paradigm, placing punishment at the center of their anti-crime strategies (Newburn 2007). Overall, politicians have engaged in different tough on crime policies, as they fear their opponents might attack them for being too weak on security issues (Shaw 2017). One response to citizens' fear of crime is the so-called penal populism approach, which privileges incarceration and long sentences (Garland 2001; Roberts et al. 2003). This can take a more radical turn, often referred to as iron-fist measures, in which political leaders push for policies that deteriorate people's rights, such as the use of state repression or extra-legal detentions (Visconti 2020). As an illustration, prior studies have found that increased societal preferences for punitive measures have led to higher incarceration rates in the United States and the United Kingdom, as politicians believe that stronger punitive measures against crime will improve their chances of success (Enns 2014; Jennings et al. 2017). Research on Latin America has also shown that politicians respond to citizens' fear of crime by adopting a wide variety of

punitive measures, some of which reach the extreme of militarizing policing and limiting the rights of the accused (Holland 2013; Visconti 2020).

Additionally, authorities have drawn on preventive strategies to fight crime. The drawback of most of these strategies is that they tend to be less visible and take longer to affect crime. Thus, politicians seeking reelection will be less inclined to privilege these measures (Shaw 2017). Nonetheless, preventive strategies that aim to reduce the opportunities for crime through the modification of the physical space, such as the improvement of street lightings, parks, and sidewalks, are more attractive for politicians, as they have the potential to deter crime in a shorter time frame and with higher visibility. Moreover, politicians often resort to these strategies because fear of crime increases when public spaces are not well maintained, and therefore, interventions that improve urban infrastructure are especially effective at reducing it (Pain 2000; Schneider and Kitchen 2007). Indeed, crime prevention through environmental design projects has been one of the strategies local governments have most often used to curb crime (Garland 2001; Shaw 2017).

Authorities can thus draw from a variety of strategies to respond to citizens' fear of crime. Nevertheless, when politicians do not have the authority to impose punitive measures, crime prevention through the improvement of public spaces emerges as the best alternative to tackle criminality in a way that can render short-term electoral returns. This is especially the case when focusing on municipal level politicians, who often devise and implement crime prevention strategies, but who are nevertheless in need of funding in order to do so (Shaw 2017). One of the main sources of additional funds for local level politicians comes in the form of discretionary transfers from the central government. In this context, political alignment plays a crucial role, as national executives tend to benefit copartisan local governments with discretionary resources (Arulampalam et al. 2009; Brollo and Nannicini 2012). Consequently, aligned local governments

might improve the provision of several public goods, particularly those related to urban development.

Drawing on rich administrative data from Chile about the rates of diverse types of crime at the local level from 2005 to 2016, including homicides, rapes, assaults, robbery, theft, and robbery by surprise, we study whether political alignment helps us account for the variation in crimes. We also conduct an additional analysis of the effect of alignment on burglary. Using a regression discontinuity design (RDD) in close local electoral races, we find that aligned municipalities have less criminal activity than those where the president and mayor belong to a different political coalition. Specifically, political alignment translates into a significant reduction in street property crimes: that is, economically motivated crimes that occur predominately on the streets (thefts, robbery, and robbery by surprise). Conversely, we do not find evidence that political alignment can reduce the rates of crimes against the person (homicides, rapes, and assaults), or property crimes that occur in private spaces (burglary). We further show that aligned municipalities are more likely to receive discretionary funds to enhance public infrastructure that might make public spaces less vulnerable to crime. Specifically, we provide evidence that aligned municipalities have higher electricity spending on public lighting in streets, parks, and playgrounds. Interviews with municipal and national public officials show that local authorities purposefully use discretionary funds to improve urban infrastructure in order to reduce crime.

This paper makes two main contributions. First, we extend prior research on alignment and crime, which has proposed a series of mechanisms that mostly apply to a few countries severely affected by organized crime (e.g., Ríos 2015; Trejo and Ley 2016). Moving beyond organized crime not only helps us understand the different ways in which politics and criminal activities entwine, but also to study a broader set of cases. Second, while we know a great deal about why

aligned governments receive more funds from central governments, much less has been written about the consequences of the partisan allocation of resources (Golden and Min 2013). Thus, by identifying that the uneven reduction of crime results from politicians' distributional strategies, our findings contribute to fill this gap in the distributive politics literature.

2. Aligned Against Crime: Urban Infrastructure and Local Criminality

We argue that political alignment explains variation in crime rates at the local level, as it determines the allocation of central government funds to improve public spaces thus altering the environments in which crime occurs. Indeed, extant research finds that national leaders use their power to distribute benefits to favor aligned local governments (Golden and Min 2013). They do so because, by allocating funds to political allies, aligned local incumbents deliver electoral support in executive elections and enhance their own electoral position (Arulampalam et al. 2009; Brollo and Nannicini 2012).

We posit that by obtaining more resources to improve public infrastructure, aligned local governments are capable of modifying the physical environment that shapes offenders' assessment of the potential risks and rewards of criminal actions, and hence of the opportunities for crime. Indeed, existing research in environmental criminology shows that certain improvements in public infrastructure are likely to increase visibility and street usage, and enhance the perception of state presence, all of which serve as deterrents to potential offenders seeking to commit a crime in any public space (Welsh and Farrington 2009; Lab 2014). Particularly, measures designed to increase visibility and street usage, such as the installation of lighting and the restoration of public parks, are likely to reduce the spaces that can serve as refuge for criminals and increase the number of witnesses on the streets, consequently increasing criminals' perception of risk (Lab 2014).

Similarly, urban interventions that improve the "image" of a space (Newman 1972) by replacing vacant lots with public parks, repairing damaged sidewalks, and improving public lighting, among others, help to create an area that does not appear vulnerable to crime and indicate heightened state presence and natural surveillance. This, in turn, increases the costs of committing a crime and prevent that criminals use poorly maintained public spaces as a hiding place.

Drawing on these insights, we expect that the improvement of urban infrastructure is more likely to reduce property crimes that occur predominantly in public spaces. This is for two reasons: namely, location and motivation. First, the positive effects associated with improved public infrastructure described above are more likely to affect crimes that occur in public spaces. Conversely, these effects should have a limited impact on crimes that do not always take place in public spaces, as the environment in private settings remains unchanged and, hence, the costs of committing a crime are not altered. Second, understanding the motivations behind crime is important given that the decision-making processes and the information involved in a criminal act vary considerably across offenses (Clarke 1995). Property crime is used for self-enrichment and thus is economically motivated and largely opportunistic (Gould et al. 2002; Arvanites and Defina 2006). Hence, increasing the cost of committing a crime through environmental design is likely to affect criminals' assessment of the risks involved and the potential economic returns of a criminal act. By contrast, crimes against the person are largely motivated by nonpecuniary and personal reasons (Gould et al. 2002) and, therefore, do not respond directly to changes in the publicly shared areas where individuals interact. Additionally, location and motivation reinforce each other, as most property crimes tend to be largely committed by strangers in public spaces (Gould et al. 2002; Vito and Maahs 2011), amplifying the effect of public infrastructure.

Consequently, we propose the following hypotheses:

1. Aligned mayors will receive more central government grants to develop and improve local urban infrastructure.

2. Aligned municipalities will exhibit lower rates of property crimes that occur in public spaces.

3. Research Design

Chile has a low prevalence of crimes against the person. According to the United Nations Office on Drugs and Crime (UNODC), it ranks second lowest in the Americas, below Canada, with regards to homicide rates. Conversely, the country has a relatively high frequency of property crimes, as almost 80% of all crimes committed are property-related (Mertz 2013). Although Chile has overall lower crime rates than Latin American countries, especially regarding homicides, research has shown that fear of crime is not necessarily related to the actual occurrence of crime (Hale 1996; Garland 2001; Roberts et al. 2003). In effect, fear of crime in Chile is prevalent and largely related to property crimes (Dammert 2012). The widespread media coverage it receives and the results of numerous surveys have turned fear of crime into a highly salient political issue. For instance, national public opinion polls show that citizens have systematically ranked crime as their top concern and the main issue national executives should address, even before health, unemployment, and education (Dammert 2012). The politicization of fear of crime has permeated the entire political system, from the national to the local level. As survey results recurrently show, citizens list crime as the second most important issue mayors should address (Centro de Estudios Públicos 2016). Consequently, fear of crime has had a strong impact on politicians' programmatic platforms and responses, affecting both the central government and local administrations' political decision-making processes (Dammert 2012).

Additionally, studying a case like Chile can yield important lessons for a broad set of countries. Indeed, the distribution of crimes in Chile is very similar to the pattern exhibited in most countries worldwide, in which the great majority of crimes are property offenses (Burrell and Tonkin 2020). For instance, Chile and the rest of OECD countries (with the exception of Colombia and Mexico) are not affected by systemic organized crime, and exhibit low rates of homicides, whereas the most prevalent type of crime is property-related (Cowen 2010). Moreover, fear of crime is also relevant in these countries and, as in Chile, it results primarily from property offenses. To provide more comparative information, the rate of theft in our eligible sample (see Table 1 below), the most prevalent crime in Chile, is relatively similar to that of Southern and Eastern European countries. For instance, according to UNODC data for the period under study (2005-2016), Southern Europe has an average rate of theft of 781 whereas Eastern Europe's is 685. Specific countries in these regions register similar figures, such as Greece with a rate of 826 thefts and Russia with 793.

Consequently, we might expect that local politicians' responses to fear of crime in cases with patterns of crime similar to those of Chile will partly resemble the strategies of municipal authorities in the country, considering that the responsibility for urban infrastructure usually relies on local governments, and that political alignment can provide the additional resources to improve public spaces that help deter crime. Moreover, we expect that the improvement of urban infrastructure in these cases will have similar consequences on crime reduction to those we observe in Chile.

We take advantage of rich crime data in Chile to construct a dataset containing the annual crime rates at the municipality level from 2005 to 2016 for a variety of crimes. We combine crime and local electoral data to study the effects of political alignment on crime. However, it is hard to

make causal claims about the consequences of alignment between presidents and mayors because of the presence of hidden biases. Aligned and non-aligned mayors can systematically differ on key unmeasured characteristics that might explain differences in outcomes. We use an RDD based on close elections to study whether alignment impacts crime. In the absence of a randomized treatment assignment, an RDD provides one of the most credible non-experimental approaches for drawing causal inferences (Cattaneo, Idrobo, and Titiunik 2020). We use electoral data for municipal elections in 2004, 2008, and 2012 to compute the score, cutoff, and treatment for the regression discontinuity.[5]

In our application, all units receive a score, which is the difference between the aligned and non-aligned candidate in the mayoral election.[6] A positive value means that the aligned candidate is the winner and the non-aligned candidate is the runner up (treatment group). Meanwhile, negative values mean that the non-aligned candidate is the winner and aligned candidate is the runner up (control group). Resultingly, we restrict our sample to local elections where these two circumstances hold: 1) an aligned and a non-aligned mayoral candidate were the most voted for candidates, and 2) candidates have a party affiliation. In our study, the unit of analysis is the municipality-year, and as a consequence, we cluster the standard errors at the mayor-term level (four years).

We use data on crimes known to the police: that is, official records of crimes reported to police agencies and the arrests made by police officers as a result of a flagrant crime. This data is published by the *Centro de Análisis de Prevención del Delito* from the Minister of Interior and

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[5] Chile is comprised of 345 municipalities. Mayors are elected every four years under plurality rule. Local and national elections are not concurrent, with the former taking place during the third year of the presidential term. Regional executives are appointed by the president.
[6] We use alignment at the coalitional level, which is how Chilean politics have been structured since the transition to democracy in 1990 (Calvo and Murillo 2019).

Public Security. Our data accounts for homicides, rapes, assaults, thefts, robberies, and robbery by surprise. A potential caveat of working with this data is that part of it (i.e., crime reports) can suffer from underreporting, as many victims are reluctant to report crime (Gingerich and Oliveros 2016). However, this should not affect our results since underreporting occurs both in treated and control municipalities. Therefore, in an RDD framework, underreporting should have a smooth transition at the cutoff, and therefore should not bias our local estimates. Additionally, although we acknowledge that crime concentrates in particular areas of a municipality, we are interested in unpacking the effect alignment has on crime, and this treatment is assigned at the municipality level.

For estimation, we use the *rdrobust* package in R (Calonico, Cattaneo and Titiunik 2015). Following standard practices, we rely on the optimal bandwidth that minimizes the mean-squared-error (MSE). By default, the software uses a triangular kernel to weigh observations as a function of the distance from the cutoff. We report the point estimates, p-values, and 95% confidence intervals.[7] In appendix A, we show that pretreatment covariates and placebo outcomes do not change around the cutoff (Cattaneo and Escanciano 2017), which is a key validity check for the RDD.

Lastly, we complement our findings with information gathered from interviews with key informants. Specifically, following a purposive sampling strategy that focuses on the selection of individuals with relevant characteristics for the research (Lynch 2013), we interviewed aligned and non-aligned mayors, a former Under-secretary of Interior and Public Security, and municipal security managers. See appendix B for a list of our interviewees.

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[7] These results are generated by an automatic data-driven alternative and are valid even for large bandwidths such as the one selected using MSE-optimal choice (Cattaneo, Idrobo, and Titiunik 2020).

4. Results

In Table 1 we provide the summary statistics for the six crimes studied in this paper. The table shows the mean and the standard deviation of the total number of crimes per 100,000 people at the municipality-year level for all municipalities eligible for the RDD. These results, thus, correspond to all the eligible units before the implementation of an RDD focusing on specific bandwidths. In appendix C, we provide the descriptive statistics for 18 pretreatment and placebo covariates across all the optimal bandwidths to illustrate that they look similar when compared to the sample of eligible units and to all the units.

Street property crimes (theft, robbery, and robbery by surprise) comprise the majority of criminal offenses committed in this sample, representing 68% of all crimes, whereas crimes against the person (homicide, rape, and assault) account for 32%. Two crimes present high levels of occurrence: theft (50%) and assault (31%). We test our argument, grouping these crimes into these two categories.

Table 1: Descriptive statistics

Crimes	Mean	St.Dev.	N
Homicide	4	11	2,099
Rape	18	16	2,099
Assault	460	216	2,099
Theft	742	674	2,099
Robbery	198	287	2,099
Robbery by surprise	76	124	2,087

Since it is hard to compare the rate of, for example, thefts and rapes since they have very different frequencies, we present the results in terms of standard deviation units to improve comparability. We report point estimates, p-values, confidence intervals, overall sample size, effective sample size, and bandwidth in all tables below.

10

Figure 1 and Table 2 show the effects of alignment (at the cutoff) on crimes against the person.[8] Note that, in the plots, the units that are above the cutoff are municipalities with aligned mayors, whereas the units below the cutoff are municipalities with opposition mayors. Bins are constructed using the default data-driven methods in the *rdrobust* package.

1.a. Homicides

1.b. Rapes

1.c. Assault

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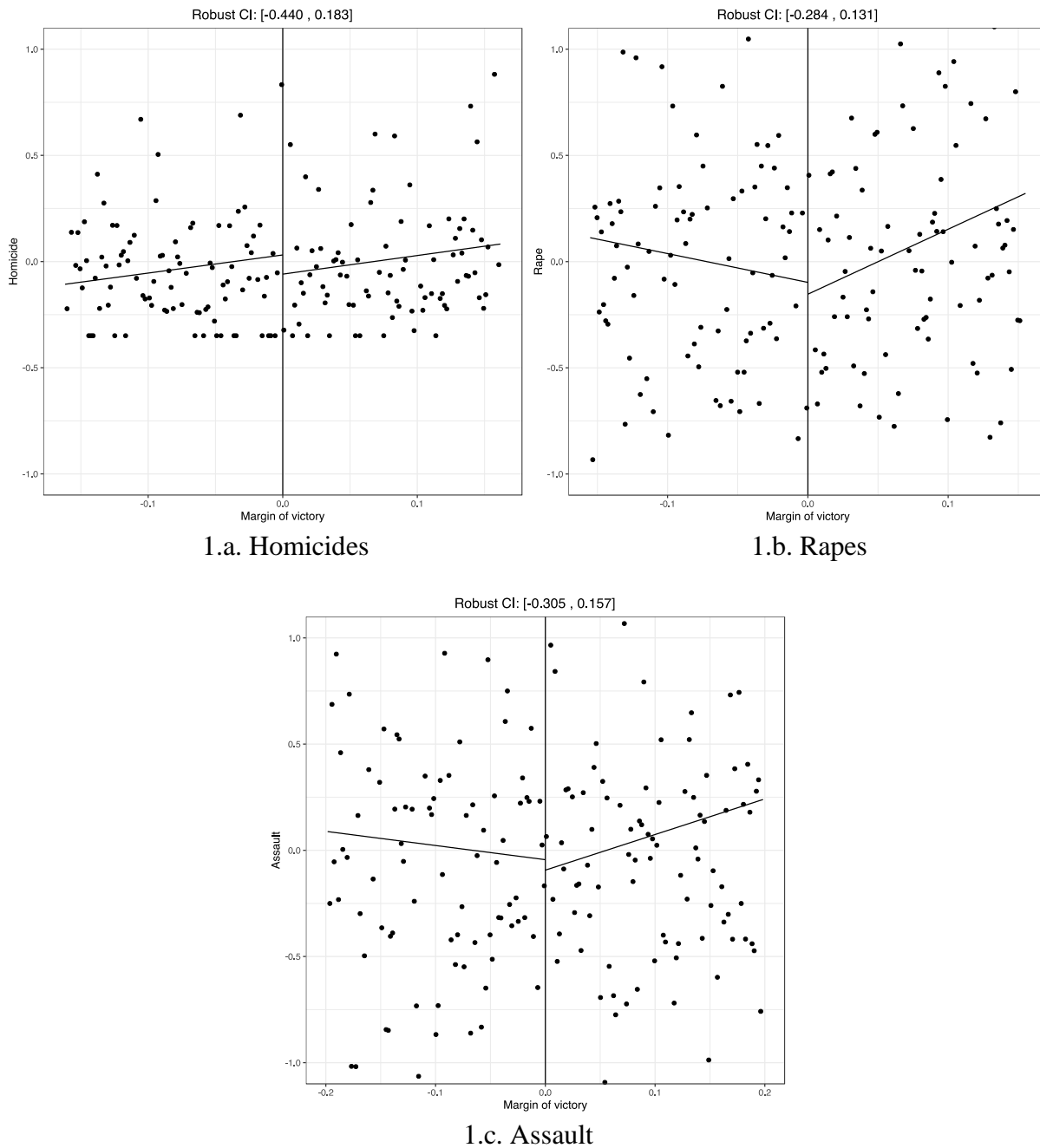
[8] We provide conventional point estimates and robust p-values and 95% confidence intervals.
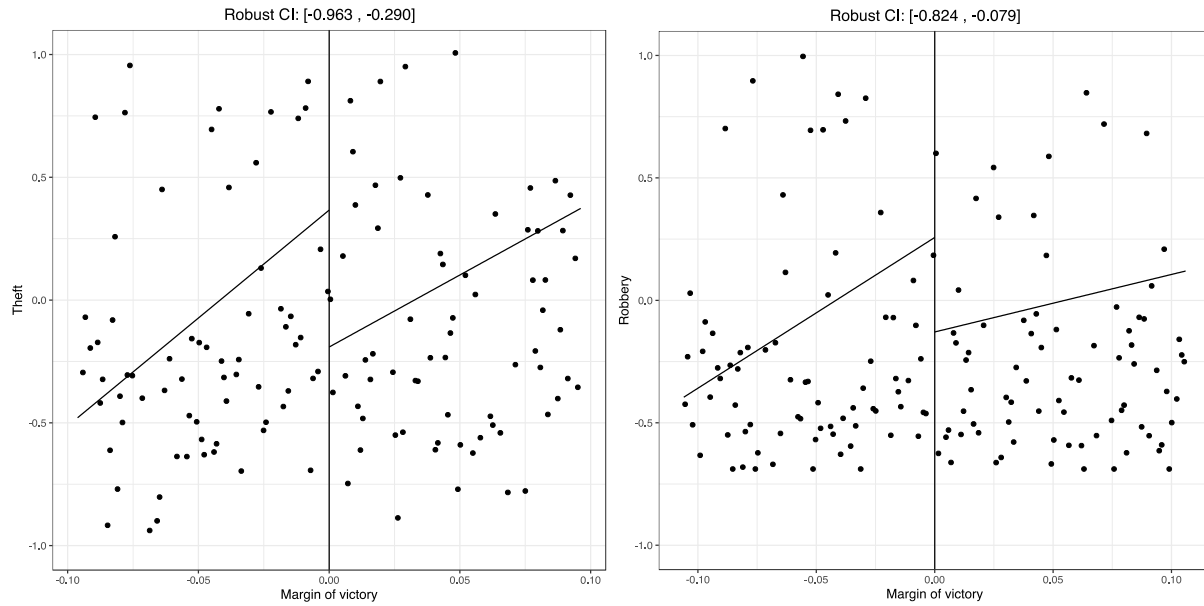
Figure 1: Effect of political alignment on crimes against the person

Table 2: Effect of political alignment on crimes against the person

|	Point Estimate	Robust P-value	Robust 95% Confidence Interval	Overall sample size	Effective sample size	MSE bandwidth
Homicide	-0.090	0.419	[-0.440, 0.183]	2099	1146	0.162
Rape	-0.056	0.470	[-0.284, 0.131]	2099	1114	0.155
Assault	-0.049	0.531	[-0.305, 0.157]	2099	1362	0.198

Note: We cluster the standard errors at the municipality-term level (4 years). All outcomes are standardized.

As shown in Figure 1 and Table 2, there is not enough evidence to claim that alignment can reduce crimes against the person. Though we can observe a decrease in crime rates in the treatment group, that effect is small and non-significant. Consistent with our argument, crimes against the person are not expected to be strongly affected by improvements in public spaces, as these do not necessarily occur in public and are not usually motivated by material gains (Gould et al. 2002). Figure 2 and Table 3 provide the same analysis, but for street property crimes.

2.a. Theft   2.b. Robbery
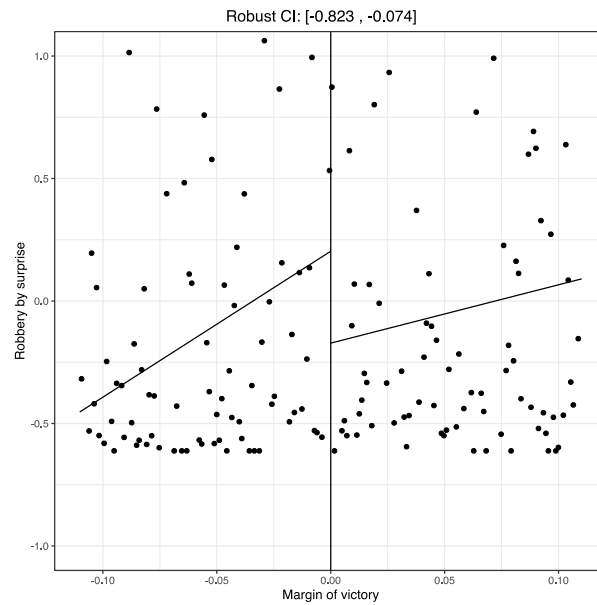
2.c. Robbery by surprise

Figure 2: Effect of political alignment on street property crime

As expected, the effects of political alignment are substantive in magnitude and statistically significant, reducing street property crimes. Table 3 shows that having a mayor and a president that belong to the same coalition reduces theft by 0.558 standard deviation units, robbery by 0.386,

and robbery by surprise by 0.375. Thus, since these three types of crime are both motivated by seizing property and occur predominantly in public, the impact of improvements in public infrastructure is expected to affect a (potential) offender's decision to commit a crime. In appendix D, we also we report the results without clustering the standard errors, without standardizing the outcomes, and simultaneously without clustering the standard errors and standardizing the outcomes. Our results are robust to all three specifications.

Table 3: Effects of political alignment on street property crime.

	Point Estimate	Robust P-value	Robust 95% Confidence Interval	Overall sample size	Effective sample size	MSE bandwidth
Theft	-0.558	0.000	[-0.963, -0.290]	2099	695	0.096
Robbery	-0.386	0.017	[-0.824, -0.079]	2099	779	0.106
Robbery by surprise	-0.375	0.019	[-0.823, -0.074]	2087	799	0.110

Note: We cluster the standard errors at the municipality-term level (4 years). All outcomes are standardized.

To contextualize the effect sizes, the average number of thefts (per 100,000 people) in the eligible sample is 742 per year per municipality (see Table 1). Alignment annually reduces theft (at the cutoff) by 376 (non-standardized coefficient), which corresponds to 51% of total thefts in an average municipality. In the case of robberies, the annual average per municipality in the eligible sample is 198, and the treatment effect at the cutoff is 111 (non-standardized coefficient), which represents 56% of the total annual robberies in an average municipality. Finally, when analyzing robbery by surprise, the yearly average per municipality in the eligible sample is 76, and the treatment effect at the cutoff is 47 (non-standardized coefficient), which is 62% of the robberies

by surprise in an average municipality. Note that these numbers can only be read as a reference. The reduction of crime corresponds to the local average treatment effect, and the average of crime refers to the eligible sample.[9]

Lastly, we conduct an additional analysis to assess the effect of alignment on burglary, which provides a critical test for our argument. Indeed, while burglary is a property crime, the fact that it does not occur in public weakens the effect improvements in public infrastructure have on reducing it. Conversely, there are several internal factors, including alarms, cameras, and fences, to name a few, that more strongly inform the offender's decision-making process to break into private property. In line with our argument, Table 4 shows that there is not enough evidence to claim that alignment has an effect on burglary. We report the figure in appendix E.

Table 4: Effect of political alignment on burglary

	Point Estimate	Robust P-value	Robust 95% Confidence Interval	Overall sample size	Effective sample size	MSE bandwidth
Burglary	-0.112	0.447	[-0.541, 0.238]	2056	1007	0.140

Note: We cluster the standard errors at the municipality-term level (4 years). All outcomes are standardized.

5. Interpretation of Findings

Chilean municipalities have low taxation powers, which limits their ability to self-finance urban infrastructure projects and makes them dependent on a number of centrally managed transfers. In

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[9] As a reminder, the eligible sample does not include all the municipalities in Chile since we excluded places that do not fulfill the two conditions defined in the research design section. We compare the entire, the eligible sample, and all the bandwidth samples in appendix C.

particular, we focus on two competitive funds for local infrastructure, the *Programa de Mejoramiento Urbano y Equipamiento Comunal – Emergencia* (PMU) and the *Programa de Mejoramiento de Barrios* (PMB), distributed by the central government through the Under-secretariat for Regional and Administrative Development (SUBDERE).[10] These programs present a number of advantages to study the tactical distribution of funds to improve urban infrastructure.

First, these programs are highly discretionary, which facilitates their political manipulation by the central government. Second, the PMU and PMB only finance infrastructure projects that can be executed in a short timeframe, which means that their effect on crime can be visible in the short-term. Specifically, the projects funded by the PMU seek to improve street and sidewalk lighting, replace vacant lots, improve public parks, or maintain and repair local infrastructure, among others. The PMB finances infrastructure that can be directly linked to crime reduction, such as improving public lighting. Third, these funds represent on average 26 percent of the budget for municipal investment, providing mayors with the necessary resources to improve local infrastructure.

To explore this causal mechanism, we use the same RDD as previously discussed, but using the sum of PMU and PMB funds per capita as the outcome. We refer to this variable as "discretionary funds."[11] The values are expressed in 2016 constant Chilean pesos. As in the previous analysis, we standardize the outcome.

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[10] The PMU and the PMB are two discretionary funds, but there might be other partially discretionary programs that might also enhance infrastructure and thus help municipalities reduce crime. Resultingly, we interpret our findings as a conservative result.

[11] Data on PMU and PMB transfers are available from 2009 onward, and thus our measure spans from 2009 to 2016.
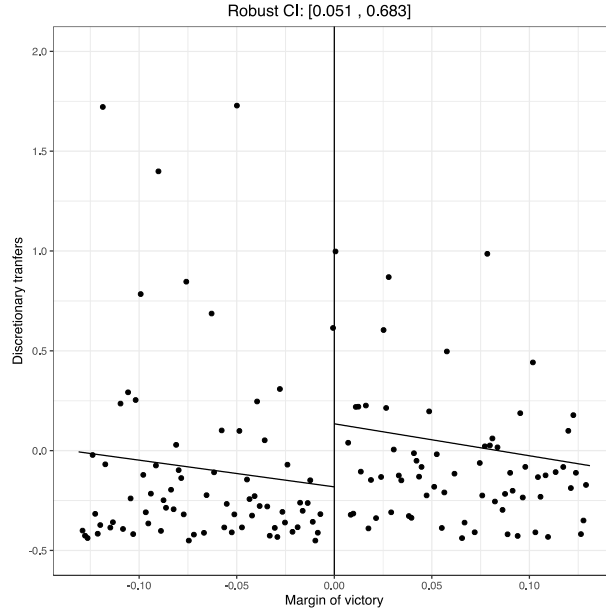
Figure 3: Effect of political alignment on discretionary funds

Table 5: Effect of political alignment on discretionary funds

	Point Estimate	Robust P-value	Robust 95% Confidence Interval	Overall sample size	Effective sample size	MSE bandwidth
Discretionary funds	0.316	0.023	[0.051, 0.683]	1263	587	0.131

Note: We cluster the standard errors at the municipality-term level (4 years). All outcomes are standardized.

Figure 3 and Table 5 show that alignment increases the amount of discretionary funds per capita distributed to municipalities by 0.316 standard deviations. In addition, interviews with key political actors, primarily mayors and municipal security managers, reinforce the importance of these funds. Since our argument hinges upon mayors' strategies to deter crime, especially considering that local authorities do not control the police,[12] we sought to collect more in-depth

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[12] In Chile, the police is centralized at the national level, and there are no local police forces. We refer to the police in appendix H.

information about mayors' use of discretionary resources to improve public infrastructure with the goal of curbing criminality. Consistent with our results, all our interviewees confirmed that aligned mayors are favored in the distribution of these funds, as they have easier access to the central government, had met several ministers and under-secretaries during campaigns, could reach them in their personal phone numbers, and even ask for additional projects via Whatsapp.[13]

More importantly, all the mayors and local officials we interviewed claimed that the improvement of urban infrastructure was a key strategy for reducing crime. In a municipal security manager's words, "the PMU and PMB are used as part of the situational crime prevention strategy, where you intervene in public spaces to improve lighting, green areas, recreational spaces, and playgrounds," and adds that "these have a direct effect on crime, as a clean and lighted area does not allow criminals to hide and encourages neighbors to use the space."[14] Moreover, according to another city's security manager, "we apply for [central government] funds that would help us with situational crime prevention strategies. That is actually my main task."[15]

Interviewees described several mechanisms through which improved public infrastructure affects crime. First, all of the mayors and security experts emphasized the importance of improved visibility as a deterrent for criminals, primarily through public lighting and, secondarily, public space renewal. As one mayor put it, "we installed about 2,500 lights and crime dropped automatically, especially those silly crimes that occur when someone is walking and gets pickpocketed."[16] They also claimed to use significant resources to "ensure that trees do not generate shade and thus allow the light to reach everywhere and prevent the area from becoming

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[13] Interview by authors, Mayor, Nueva Mayoría, December 19th, 2019.
[14] Interview by authors, Security Manager, Chile Vamos, January 3rd, 2020.
[15] Interview by authors, Security Manager, Nueva Mayoría, January 2nd, 2020.
[16] Interview by authors, Mayor, Chile Vamos, December, 23rd, 2019.

a dark spot."[17] Second, interviewees linked the revitalization of public spaces to crime reduction through the use of public space. One mayor asserted that improving urban infrastructure, especially parks and playgrounds, curbs crime by "encouraging the use of that space."[18] Lastly, our interviewees also emphasized the idea that the "image" of a space may help discourage criminal behavior, as "criminals perceive the area to be more protected and well maintained and, hence, move to other, more deteriorated areas."[19]

In the following analysis, we explore how alignment may help improve public infrastructure that can help reduce crime. Although there are no available variables that can fully capture the quality of public spaces at the municipal level, we use municipal electricity spending per capita on services provided to the community as the outcome of the RDD. This variable is a good proxy, as it measures spending in public lighting in streets, sidewalks, parks, and playgrounds, and therefore can help capture the quality of public spaces.[20] In other words, public spaces that have better lighting are expected to be well maintained and equipped more generally. As noted in our argument, improved public infrastructure is key for explaining the occurrence of property crimes in any public space given their cumulative effect on visibility, street usage, and image of a space. For instance, better parks and playgrounds can have an impact not only in the occurrence of crime in those spaces, but also will impede that criminals that have committed offenses in the surrounding areas use them as refuge, increasing the cost of committing a crime. Consequently, interventions that improve urban infrastructure have an effect on property crimes that occur in public spaces through different mechanisms.

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[17] Interview by authors, Mayor, Chile Vamos, November 4th, 2019.
[18] Interview by authors, Mayor, Nueva Mayoría, December 19th, 2019.
[19] Interview by authors, Mayor, Nueva Mayoría, January 31st, 2020.
[20] Data on electricity spending are available from 2010 onward, and thus our measure spans from 2010 to 2016.

Figure 4 and Table 6 show that alignment increases municipal electricity spending on services provided to the community in 0.123 standard deviations units. This result is statistically significant at the 0.1 level.
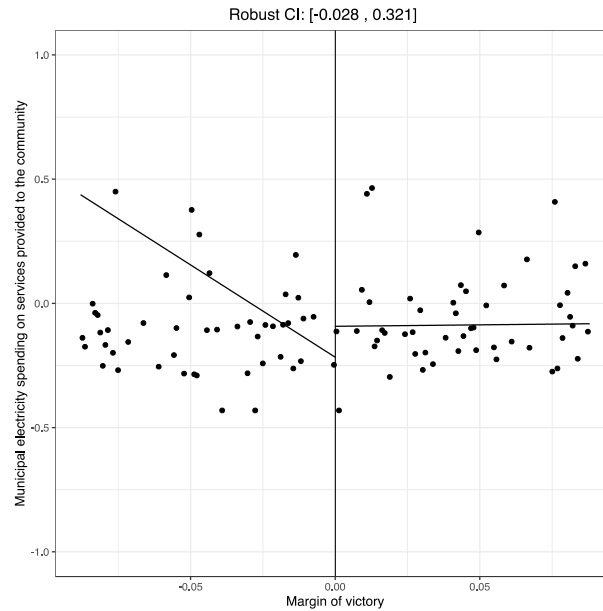

Figure 4: Effects of political alignment on municipal electricity spending on services provided to the community

Table 6: Effects of political alignment on municipal electricity spending on services provided to the community

	Point Estimate	Robust P-value	Robust 95% Confidence Interval	Overall sample size	Effective sample size	MSE bandwidth
Municipal electricity spending	0.123	0.099	[-0.028, 0.321]	1109	341	0.088

Note: We cluster the standard errors at the municipality-term level (4 years). All outcomes are standardized.

It is important to note that the positive effect of alignment on the spending on lighting in streets, parks, and playgrounds, and its effect on crime, must be interpreted with caution. First, our proxy to explore a potential mechanism is a partial measure of the quality of public infrastructure. Since discretionary funds used to improve public infrastructure can take multiple forms, and electricity spending on services provided to the community is only one of them, we would expect that a more comprehensive measure would show a stronger effect of the quality of public infrastructure on crime. Second, given that our data is not disaggregated by the time in which crimes occur, we should also be careful about drawing strong conclusions regarding the effect of lighting on crime.

Given the limitations regarding our data, we drew on a report elaborated by the police, based on national-level data, which shows that the majority of robberies takes place at night (Instituto Nacional de Estadísticas 2019). Based on this, we could presume that, given that this is a property crime that is most prevalent at night, it should be particularly affected by public lighting. Hence, although we need to be careful when interpreting our findings, the fact that robbery decreases in aligned municipalities might serve as an indication that lighting in streets and other public spaces contributes to explaining its occurrence. Additionally, our findings point in the same direction as research on the effect of daylight saving time (DST) policies on crime in Chile, which finds that robbery decreases when there is more ambient light (Domínguez and Asahi 2019).

Moreover, although our results are not conclusive, they go in line with the general literature on lighting and crime. Indeed, Welsh and Farrington's (2008) meta-analysis of several studies on this issue concludes that improvements in public lighting lead to crime reduction. Relatedly, studies on ambient light in the United States have reached similar conclusions, as they show that daylight saving time reduces crime, primarily robbery (Doleac and Sanders 2015). By the same

token, Chalfin et al. (2021), provide the first experimental evidence on public lighting and crime, using the random assignment of lampposts in the city of New York as a treatment. The authors' results support the argument that streetlighting reduces crime. In effect, they find that a higher provision of public lighting is associated with a reduction in 36% of the crimes that occurred in public spaces at nighttime hours.

In appendix F, we explore the possibility of displacement between municipalities. In appendix G, we evaluate the timing of the distribution of infrastructure funds. In appendix H, we check for alternative causal mechanisms. As robustness checks, in appendix I we show the results for the CER-optimal, MSE-sum, MSE-two selectors bandwidths. We find that our results are consistent across all these bandwidths. In appendix J, we use artificial cutoffs. We find that there is no evidence to reject the null hypothesis when using one standard deviation below and above the original cutoff as the new cut point. In appendix K, we implement a global polynomial fit, whereas in appendix L we use local-quadratic and local-cubic polynomials. In both appendices, we show the results in table format and provide figures in order to illustrate the RD design. We find the same results, that is, there is no impact of alignment on crimes against the person but there are effects on street property crime. In appendix M we use fewer bins to generate the RD plots. Finally, we summarize all the variables (outcomes and covariates) used in the paper in appendix N.

6. Conclusion

This article studies a wide variety of crimes and finds that alignment between presidents and mayors contributes to reducing the rates of certain types of crime. Specifically, our RDD shows

that alignment translates into a reduction of street property crimes. Conversely, we find no effect of alignment on crimes against the person or property crimes that do not occur in public (burglary). As a potential mechanism, we show that the central government's allocation of resources is positively biased towards aligned mayors, who receive more funds to improve urban infrastructure. Furthermore, we find evidence that suggests that alignment improves public infrastructure, as aligned municipalities have higher electricity spending on public lighting in streets, parks, and playgrounds. This, in turn, can result in a decline in theft, robbery, and robbery by surprise, which are likely to be affected by improvements in public infrastructure.

Our findings contribute to the existing literature on alignment and criminality by moving beyond a singular focus on organized crime, which allows exploring how politics and crime entwine through the tactical distribution of funds to improve urban infrastructure. Furthermore, studying a wide variety of crimes that occur in all societies on a regular basis is relevant, as fear of crime, especially resulting from property offenses, is a widespread phenomenon in both developed and developing countries, and is therefore a primary concern for citizens and politicians.

Lastly, our results help shed light on the consequences of distributive politics. Considering that existing literature has focused substantial attention to explaining why rulers distribute resources on political grounds, and less on the consequences of distributive politics, our results unveil an unexpected pattern of crime reduction associated to distributive politics. Our finding that mayors purposefully use the funds obtained from aligned presidents to improve public infrastructure in order to reduce crime shows that the tactical distribution of resources can have important effects on outcomes, such as crime, that have been hitherto unexplored. Consequently, more research is needed on the welfare consequences of distributive politics, especially on the provision of key public goods.

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