

# Organized Criminal Groups and Voter Mobilization

Jessie Bullock\*

[Preliminary: not ready for external circulation]

January 20, 2021<sup>†</sup>

## Abstract

Criminal organizations' impact on elections is often attributed to their ability to threaten voters or politicians with violence. While some criminal groups target voters, others target politicians, and few do both. This paper proposes a theory explaining why we see variation in types of criminal involvement in elections. I focus on one essential criminal capability to explain whether or not they are successful in influencing elections through voters: the provision of protection. I argue that criminal groups that protect have already built the necessary organizational infrastructure to influence voters, and the cost of diversifying from protection into voter mobilization is low. I test this theory in the context of Rio de Janeiro, Brazil, where multiple criminal organizations are present, some of which provide protection and others which do not. I construct a new measure of criminal presence at the polling station level by scraping criminal organization-related blogs and social media from 2015 to present. My main result is, paradoxically, that turnout is higher—and electoral competition lower—in areas where criminal organizations that protect are present, compared to both non-criminal areas and criminal areas that do not engage in protection. This evidence is in line with the interpretation that criminal groups that protect have both higher incentives and greater ability to mobilize voters for their preferred candidate.

---

\*PhD Candidate, Department of Government, Harvard University, [jessiebullock.com](http://jessiebullock.com).

<sup>†</sup>I am greatly indebted to my advisors Steven Levitsky, Fran Hagopian, and Robert Bates. This paper has also benefited from comments from Pia Raffler, Alisha Holland, Paul Lagunes, and members of Harvard Political Economy of Development Working Group, Political Economy Workshop, and Comparative Politics Workshop. I also thank Swathi Srinivasan for impeccable research assistance and members of my writing group, Kaitlyn Chriswell, Alyssa Huberts, and Julie Weaver for reading countless drafts of this paper. Thanks to the Brazil Cities Initiative, the David Rockefeller Center for Latin American Studies, the Weatherhead Center for International Affairs, and the Institute for Quantitative Social Science for providing funding for this research. Field interviews references were approved under Harvard IRB18-1305 and IRB17-1103.

# 1 Introduction

The number of voters living under criminal governance is increasing. Possibly hundreds of millions of people in the world today live under criminal governance, and understanding the relationship between criminal governance and voting is critical since many of these criminally governed territories are in democracies. But there is significant variation in types of criminal organizations, how they are structured, and their modes of operation in the economic and political worlds. It would be overly simplistic to assume that this all groups operate in the same way.

This paper asks the question, how does the presence of organized crime affect elections? I posit that not all criminal groups are equal in one specific arena of electoral engagement: influencing voters. To answer this question, I discuss the role of criminal comparative advantage in elections, focusing on criminal groups that sell protection. I first argue that criminal organizations have different capabilities that vary with the illicit (or licit) industries they operate in. Groups that sell protection, the focus of this paper, develop two primary capabilities: collection capacity and protection capacity. Second, when considering diversifying, criminal groups will have a comparative advantage diversifying to an industry related to their current one. Groups that sell protection will have efficiency advantages diversifying into industries that monitor or coerce individuals, for example. Lastly, I argue that voter mobilization *is* one of the related industries to the protection industry. Criminal groups that sell protection will face lower costs of mobilizing voters compared to groups that do not have comparable collection and protection capacity.

I present evidence of higher levels of two different types of voter mobilization in areas where criminal groups sell protection: higher turnout, and restricted competition. Using the case of Rio de Janeiro where multiple criminal groups with different capabilities are present and engage in politics in different ways, I create matched pairs and compare variation in electoral outcomes between voters that live under criminal groups that sell protection and voters that live under criminal groups that instead sell drugs. Comparing these two groups of voters during the same election, the city council election of 2016, allows me to hold other covariates constant in an attempt to isolate the effect of living under a criminal regime that sells protection. I find that turnout rates are higher by 1.9% where criminal groups that sell protection are present, an amount that could be decisive in 16% of legislative seats in the city council race. I also find that electoral competition is lower and more monopolistic: 6.2 fewer candidates receive at least one vote in polling stations dominated by a group that sells protection, and top vote earners in these same polling stations capture 2.7% more of the vote share, an amount that could be decisive in 27% of city council seats.

I use coarsened exact matching to estimate the relationship between criminal dominance type and electoral outcomes (Iacus, King, and Porro 2009). I match on often-cited variables in the literature and compare the estimates from the matched sample to other estimates from weighted least squares regressions and standard OLS calculations. I measure criminal dominance by building a novel dataset to closely analyze the connections between organized crime and electoral politics in municipal Rio de Janeiro, where nearly a third of the city's residents live in urban slums, *favelas*. The

majority of these favelas are governed by one of four criminal organizations: one of them primarily sells protection, the other three sell drugs. I scrape blogs reporting on organized criminal presence from 2015 - present, and geocode all favelas according to the group that dominates their territory. I then classify polling stations by criminal regime if they fall within a 250 meter buffer of a dominated favela.

This project makes three important contributions. The first is to articulate a theory of how criminal groups' day-to-day capabilities in their illicit businesses map onto their involvement in electoral politics. Thus far, the literature has shown many examples of how criminal organizations can engage in elections: political assassinations, bribing or blackmailing candidates, putting hits on opposition candidates or their staffers, voter intimidation, etc. Using the same case of Rio de Janeiro, Albarracín (2018) and Barnes (2017) have created particularly useful typologies that lay out different types of criminal groups and the industries they engage in, making the observation that these groups will engage with electoral politics in different ways. I explain why.

The second is a contribution to the more specific literature on how criminal organizations interact with voters before and during elections. I argue that criminal groups more likely to engage voters do so through two mechanisms: their capacity to "collect" from voters and their capacity to "protect" voters. These suggested mechanisms fill a gap not yet studied in existing works about how criminal organizations are able to coerce voters to the polls around the world (Tajima 2018; Gambetta 1993; Acemoglu, Robinson, and Santos 2013).

The third contribution both raises and solves an empirical puzzle about turnout and electoral competition. Decades of research on closeness of competition and turnout points to a positive relationship between the two: that more competitive elections lead to higher turnout (Cox, Fiva, and Smith 2020; Smith 2018; Geys 2006). Yet in this paper, I find that in communities dominated by criminal groups that sell protection, competition is lower (both in terms of number of candidates that receive votes and total vote share the top candidates receive) but turnout is conspicuously higher. I explain this paradox by highlighting how criminal groups that sell protection have power to influence election outcomes in areas they control. In my setting, groups that sell protection can both intimidate voters to go to the polls (and possibly even vote a certain way) at abnormally high rates, as well as create barriers to entry for outside candidates that they do not endorse, which has a downward effect on competition.

The next section explains the context and subject of this paper. Section 3 reviews the literature on how criminal organizations engage in electoral politics. Section 4 introduces my theory of criminal diversification into elections, and Section 5 lays out my empirical strategy. Section 6 explains the data, Section 7 the results, and Section 8 the proposed mechanisms. There is a concluding section.

## 2 Context: Rio de Janeiro

Rio de Janeiro is an interesting and useful case for examining variation in electoral effects of criminal governance because there are four main criminal organizations present in Rio de Janeiro. These groups use different strategies, have different origins, and different sources of financing.

Three of these are drug trafficking organizations. The *Comando Vermelho* (Red Command, CV), the oldest of these, originated during the military dictatorship in Brazilian prisons where intellectual prisoners taught common criminals how to organize. When the common criminals left jail, they returned to their favelas and carried on their criminal activities at higher levels than before – the hierarchical structure and organizational discipline allowed them to pull off larger bank heists, robberies, and, when cocaine started flowing into Brazil in the 1990s, drug trafficking. The two other drug trafficking organizations, *Terceiro Comando Puro* (Third Pure Command, TCP) and *Amigos dos Amigos* (Friends of Friends, ADA) originated as drug trafficking organizations as a result of leadership fractures within the CV or as a rival response to the CV, respectively. The original structure of these groups was hierarchical, where youth that entered worked their way up from errand boys or lookout to more and more central roles in the heists or criminal operations. Even before drugs became the main source of revenue for the CV, they organized in this way. There is evidence that TCP and ADA are structured in this way as well.

The fourth criminal organization in Rio de Janeiro is a collection of vigilante, paramilitary-style *milicias* (militias). There are several decentralized, extremely localized militia groups, but their organizational structure, guiding tenets, and origin is similar across these decentralized groups. The militias are the protection rackets that form the basis of this paper’s theory. They grew quickly in the 1990s as a reaction to the growing power and accompanying violence caused by the aforementioned drug trafficking organizations – composed of current or former police, firefighters, or military officials, the militias used extralegal violence during their “off duty” hours to combat the drug traffickers and protect their communities. Today, they make most of their money by charging local business owners in their community protection taxes, creating illegal connections to utilities (gas, electricity, cable TV) and selling them to residents at a high price.

The geography of Rio de Janeiro and the one-to-many mapping of favelas to criminal groups<sup>1</sup> means that the argument and case itself can be generalized to cases where groups are not in such close quarters with each other. Voting, civic and business life, etc in each favela is like an island where the citizens only interact with the relevant criminal group in their community – not the neighboring gangs. In this sense, we can expect the criminal-voter interactions to be generalizable to cities or countries where there is only one monopoly criminal group in the entire area. The geographic closeness of the criminal groups, thus, is incredibly useful: they are near enough to each other to be able to control for other variables in cross-group comparisons, but well-defined enough to be able to isolate the effects of the dominant group on voter behavior.

### 3 Literature Review

Recent literature on the study of organized crime and politics notes that organized criminal groups are, first and foremost, profit-motivated, and may lack an ideological

---

<sup>1</sup>Almost all individual favelas have only one group present; one notable exception is Maré, which I am able to differentiate at the sub-favela level.

profile, especially when compared to other armed groups who have an explicit political agenda (Kalyvas 2015; Grillo 2012; Matanock and Staniland 2018). This should not be confused with disinterest or disengagement in politics. Rather, their incentives to engage with politics and the strategies they deploy will be linked to their profit-making goals.

Criminal groups' political strategies are varied, ranging from bribing to assassinating to running for office themselves. To simplify the literature thus far on this topic, I classify these strategies in Table 1 according to the other actor they are trying to persuade or intimidate: political elites or voters<sup>2</sup>. In this article, I argue that only some criminal groups, those that produce protection, are uniquely positioned to succeed in political acts that involve *voters* when compared to other types of criminal organizations. I begin by describing the literature that this argument rests on: how criminal groups engage with political elites in Section 3.1, and with voters in Section 3.2.

### 3.1 Organized criminal groups and political elites

Most of the literature on this topics tells us that criminal groups engage in electoral activity directly with political elites: politicians, their staffers, and high level public officials. These types of elite-criminal interactions include threats or bribes directed towards the elites, collusive partnerships with a politician or a party, assassinations of rival politicians, and other electoral strategies that do not just focus on the ballot box. Studies on organized criminal groups and elites emphasize targeted violence towards candidates or other high-level officials and capture of key politicians in cases in Colombia, Mexico, India, and Brazil. Describing the Sicilian mafia, Alesina, Piccolo, and Pinotti (2017) describe a possible explanation of how influencing elites accomplishes organized criminal groups' political goals:

Violent acts signal the strength of the criminal organization and its willingness to use violence. This signal scares the candidates of the non-captured party and their campaign workers, and influences the behaviour of elected politicians.

Criminal organizations who engage with elites rely primarily on their access to violence and willingness to use it to influence elites. Literature on criminal organizations in Mexico shows how drug cartels rely on their ability to use violence to threaten local officials or bureaucrats. These groups ordinarily save their military firepower for fighting rivals or protecting trafficking routes, but may use violence politically when they see political vulnerabilities as opportunities to expand their control (Trejo and Ley 2019) or as a warning to sanction parties that have traditionally opposed them (Dell 2015). Other criminal groups that engage with elites use this same threat of violence in public fora. As E. Dal Bo, P. Dal Bo, and Di Tella (2006) explain, the FARC in Colombia made a public request for the resignation of 463 out of 1,098 city mayors in a region of the country. Two assassinations later, nearly half of the targeted ones had

---

<sup>2</sup>These are not necessarily mutually exclusive - a criminal organization getting involved in elections may use both strategies.

Table 1: Criminal Group’s Intended audience

Name, Country	Sell protection?	Engage Voters?	Engage Political elites?	Citation
Maras, El Salvador	✓	✓	✓	Córdova (2019), Wolf (2010), and Arias and Barnes (2017)
Street gangs, Haiti	✓	✓	✓	Schuberth (2015)
Street gangs, Kenya	✓	✓	✓	LeBas (2013)
Militias, Brazil	✓	✓	✓	Hidalgo and Lessing (2015)
Cosa Nostra, 1950-92, Sicily, Italy	✓	✓	✓	Paoli (2008), Alesina, Piccolo, and Pinotti (2017), and Daniele and Dipoppa (2017)
’Ndrangheta, Italy (1970s-90s)	✓	✓	✓	Daniele and Dipoppa (2017), Alesina, Piccolo, and Pinotti (2017), and Paoli (2008)
Paramilitaries and AUC, Colombia	✓	✓	✓	Acemoglu, Robinson, and Santos (2013), Eaton (2006), and Leeds (1996)
Paku Banten, Indonesia	✓	✓	✓	Tajima (2018)
Georgian mafia	✓	✓	✓	Varese (2010) and Slade (2012)
Yakuza, Japan			✓	Hill (2004)
Street gangs, Jamaica		✓	✓	Arias and Barnes (2017)
FARC, Colombia			✓	Acemoglu, Robinson, and Santos (2013), E. Dal Bo, P. Dal Bo, and Di Tella (2006), Dal Bó and DiTella (2003), and García-Sánchez (2010)
DTOs, Mexico			✓	Dell (2015) and Rios and Shirk (2012)
PCC, Brazil			✓	Lessing (2017), Barnes (2017), and Denyer Willis and Mota Prado (2014)
Other DTOs, Brazil			✓	Albarracín (2018), Magaloni, Franco, and Vanessa Melo (2015), and Arias and Barnes (2017)

In a review of XXXXX cases on how criminal organizations engage with politics, XXXX described organized criminal groups in politics in terms of interacting voters (both negative and positive inducements) and XXXXX described organized criminal groups in politics in terms of interacting with elites. In the second column, “Do they protect?”, I measure whether or not a criminal organization’s origins are in protection.

resigned, and many were aware that the FARC intended to make good on their threat to “replace” the targeted mayors.

### 3.2 Organized criminal groups and voters

Fewer criminal organizations engage in electoral activity directly through voters. In a study on organized crime and politics in the suburbs of Rio de Janeiro, Albarracín (2018) notes that the clientelism literature rarely studies how clientelism can be paired with voter intimidation or other forms of violence. Though the definition of clientelism has never been widely agreed upon, Hicken and Nathan (2020) note that across the literature it “represents a transaction” (Kitschelt and Wilkinson 2007) between political patrons and voters, and, importantly, a politician can earn a vote in exchange for a positive (bribe) or negative (threat) inducement (Mares and Young 2016). The studies on organized criminal groups and voters emphasize the use of these negative inducements in cases in Colombia, Brazil, Nigeria, Kenya, El Salvador, and Italy. Describing the paradigmatic case of the Sicilian mafia, De Feo and De Luca (2017) state:

[Organized crime’s] control of territory, resulting from weak local institutions and the regular use of violence, enables extensive control of voters that can be used to obtain any sort of favors from politicians.

Scholars highlight a few capabilities that criminal organizations who engage with voters rely on. De Feo and De Luca (*ibid.*) note them both: the ability to control territory in a specific area, as well as connections to and relationships with the community members in these areas. Criminal organizations that govern in certain areas control what happens in these territories (Arias and Barnes 2017; Lessing 2020; Arjona 2016). Businesses and public sector organizations that operate in the territory do so only with the criminal organization’s de facto approval. These criminal organizations leverage their knowledge of the community to target their threats or bribes: Acemoglu, Robinson, and Santos (2013) provide evidence of the AUC and other paramilitary groups threatening to kill community members at random if their preferred candidate didn’t win in the community. Sicilian mafia members used to stand outside of schools and distribute gasoline coupons, food, theater subscriptions, or even money to parents in exchange for a promise to vote for their chosen candidate (Gambetta 1996, p.184).

But what determines whether or not a criminal group will, in fact, engage with voters? In the following section, I will argue that the criminal groups that sell protection are more likely to engage with voters (and succeed) because of how their existing capabilities map onto those required for mobilizing voters.

## 4 A theory of criminal diversification into politics

The central argument is that criminal organizations that operate in the protection industry will have lower barriers to entry to engage with voters than criminal organi-

zations that do not protect. Criminal organizations who have built out organizational infrastructure in territories they control can make minimal adjustments to their organizational structure and begin mobilizing voters during an electoral cycle. On the other hand, criminal organizations that have not built out protection infrastructure may have to disrupt their business model if they want to mobilize voters during elections, and may find it more cost-effective to engage in elections through other channels (such as elite violence). I argue that we should expect the costs of voter mobilization to be smaller for the former type of criminal group than the latter. What follows is a three-step argument explaining my theory of criminal diversification into politics. In Section 4.1, I argue that criminal groups develop underlying capabilities depending on the goods and services they produce in order to sustain their business. I focus specifically on the goods and services that criminal groups that protect produce. I then explain how these capabilities influence criminal group diversification in new industries in Section 4.2. In Section 4.3, I argue that voter mobilization is one of the industries that groups that protect are more likely to diversify into.

## 4.1 Criminal Capabilities

The different kinds of goods or services that criminal organizations produce will lead criminal organizations to develop different capabilities over time. Criminal organizations that originated in the sale of illicit drugs will develop capabilities related to farming or synthetic manufacturing of said drugs and the mass transportation of illicit drugs across borders (Grillo 2012). Criminal organizations that primarily deal with cybercrime will become very skilled at hacking secure government or private sector systems, sending mass fraudulent emails (phishing), and sending targeted fraudulent emails (spearphishing) (Glenny 2009). Criminal organizations that produce the commodity of protection will develop capabilities related to the selective use of violence (or the threat of it), monitoring, and collecting from the business owners or individuals they protect.

A criminal organization that charges protection, best defined by Gambetta (1996) in his characterization of the Sicilian mafia, “produces, promotes, and sells private protection” as a commodity. Gambetta (*ibid.*) shows that protection as a commodity can come in many forms: it can be a genuine service that people purchase from mafia-like groups when operating in uncertain or low-trust situation; on the other extreme, it can be extortive, where the only purpose of the payment is to avoid costs and threats from the “protectors” themselves. This article uses an inclusive definition of criminal groups that provide protection, from groups that provide genuine protection to groups that just provide protection from themselves<sup>3</sup>. The criminal groups that provide protection, in all its varied forms, are typically depicted as hierarchical groups

---

<sup>3</sup>In addition to Gambetta (1996), Tilly in “War Making and State Making as Organized Crime” also alludes to the provision of protection as a continuum, stating, “The word protection sounds two contrasting tones. One is comforting, the other ominous. With one tone ‘protection’ calls up images of the shelter against danger provided by a powerful friend, a large insurance policy, or a sturdy roof. With the other, it evokes the racket in which a local strong man forces merchants to pay tribute in order to avoid damage—damage the strong man himself threatens to deliver” (Tilly 1985).

with well-defined internal norms that exist for the purpose of economic gain (Gambetta 1996; De Feo and De Luca 2017; Finckenauer 2005).

The production of protection, unlike the production of any of the other types of criminal commodities, *requires* control over a group of people in order to produce the commodity. There can be no production of protection without some well-defined group of people that the criminal organization has identified as the ones to extort, monitor, and “protect.” Let’s take the militias in Rio de Janeiro again as an example. In an interview during my fieldwork, a militia member said that his organization only had two divisions: security and “collection”<sup>4</sup>. Those in the security division are the soldiers: they are group members responsible for fortifying the border of their community from rival criminal groups, invading rival territories when they wanted to expand and take over new communities, and performing the occasional assassination or extrajudicial killing. Those in the collection division dealt mainly with the residents in the community: making the rounds, usually on a weekly basis, to homes and businesses, collecting protection fees and fees for utilities, and dealing with local dispute resolution or politics at the neighborhood level. Informed directly from my fieldwork, I posit that groups that protect develop two main capabilities that are the mechanisms through which they influence elections:

1. **Capability 1: Individual collection:** criminal groups that protect keep records of debts, make routine collections to individuals or local small businesses when they extort, know community members by name and know personal details about them, and have even been discovered to keep “credit scores” of who has paid up or not.
2. **Capability 2: Group-level protection:** criminal groups that protect have territorial control and can engage in gatekeeping, to ensure that competitors outside their community don’t enter and/or prey on the residents under their control.

Groups that protect build these capabilities by exercising day-to-day control over a group of people. It is worth noting that control over a group of people is related, but distinct from control over a territory. Control over territory is necessary but not sufficient to have control over a group of people. Many criminal organizations control territory – they are the dominant authority in an area (subsuming the role of the state) – but do not control the people that live in the territory. While they have established that they use the territory to further the goals of their criminal enterprise (e.g. to grow or transport drugs, for drug trafficking organizations), they maintain a hands-off approach with residents in the area. They may retaliate if a resident calls the cops, say, and they even may know who the residents are if they are from the area, but largely let them go about their business unharmed. This is not the case for protection rackets where *controlling people is an essential part of their criminal business*. For protection rackets, controlling people is the end goal of controlling territory, whereas territorial control is simply the means to a different end for criminal groups that do not profit from extorting people or small businesses.

---

<sup>4</sup>Translated, *segurança e cobrança*.

## 4.2 Criminal group diversification

Over time, we can imagine that a criminal group hones their criminal capabilities to a fine point. Successful ones, as in the licit business world, will want to expand. The IO literature tells us that firms that diversify are more likely to do so in related industries. The costs of diversification are lower in related industries, companies that diversify into related industries are more likely to succeed, there is a lower bar for training workers, etc. I expect diversification in criminal firms to follow the same pattern<sup>5</sup>.

A criminal group that protects will have efficiency advantages expanding into new industries that also collect at the individual level and provide security at the group level. The Fulton Fish Market in New York City is a well-known example of this: though the wholesale buying of selling of fish in the market was legal and technically open to anyone, all fishermen paid an under the table "parking fee" to dock and unload their product to the Genovese crime family – if left unpaid, the mob would leave their fish far away from customers, out to rot (Bonanno 2003). In exchange for their parking fee, the vendors that colluded with the mob faced lower competition and shared the profits. This dual exercise of fee collection and protection of those who paid (or, "protection" of those who did not pay) was exported to other industries the mob was involved in in New York City – flower markets, vegetable markets, etc.

Contrast this with the the options for diversification for criminal organizations that do not specialize in protection. The Mexican drug cartels originated selling and growing poppy (heroin) in the Sierra Madre mountain range, protection was never a part of the original business. Though they were local organizations at the time, they eventually faced the choice to diversify into the sale of marijuana, cocaine, synthetic drugs, and chose to diversify into these industries rather than something else farther afield. In another field interview in Rio de Janeiro, this time with a member of a drug trafficking organization, I asked about the organizational leadership<sup>6</sup>. A drug trafficker drew a chart for me, pointing to the four main entities within the organization: the security, the "chemist"<sup>7</sup>, the cocaine sales, and the marijuana sales. The security division's job was similar to the security division in the militia-dominated favela, but the chemist and two drug-based divisions were more oriented towards producing and selling a physical commodity than extracting from people in their territory.

When any kind of criminal group considers diversifying, options that will have efficiency advantages will leverage their existing personnel, training, and resources. For groups that protect, this is their collection and protection infrastructure. They already have a group of employees that regularly monitor who enters and exits their community, know how to threaten people, how much to ask for, and how to process and organize payments to keep the organization functioning.

---

<sup>5</sup>This crossover between resources/capabilities and recruitment/actions has been noted in the literature on rebel groups before. Weinstein (2006) shows how group resources map onto actions in civil wars and Zuckerman-Daly shows how organizational networks predict post-war violence. Others also show the importance of resources in criminal organization formation (Petersen 2013; Staniland 2012; Lujala 2009).

<sup>6</sup>Field interview, Rio de Janeiro, Brazil, August 2016.

<sup>7</sup>This is the branch that is in charge of buying product from out-of-state and cutting it.

### 4.3 Voter mobilization is more likely to be profitable for groups that protect

Conventional wisdom tells us that criminal groups will "diversify" into politics when they have longer term policy/political interests. Historically, this is how scholars have explained the puzzle of why some criminal groups engage with voters and others do not. I offer an alternative explanation – that all, theoretically, *do* have incentives to engage with voters – but the price to do so is only right for some groups. It is likely that the criminal groups that will profit from engaging in voter mobilization are those that have already built out the relevant structures that can be used for mobilizing voters – groups that sell protection. I argue that we should be more likely to see electoral patterns associated with high degrees of voter mobilization in areas dominated by criminal groups that protect vis-a-vis areas dominated by criminal groups that traffick in some other good or service, all else held equal.

Voter mobilization is more likely to be profitable for these types of groups. Voter mobilization includes all efforts, observable or unobservable, to get voters to go the polls—including those that come from groups the politician or party subcontracts (Cox 2015). These groups that protect have high levels of what Cox calls "mobilizational capital" – the resources needed to get voters to turn out for a particular candidate or party on election day. Engaging in voter mobilization could thus use many of their existing technologies and capabilities without detracting attention from their existing revenue streams.

To influence voters, groups that protect simply need to do more of their day-to-day activities: individual collection and group protection. First, social pressure and coercion, long known to be influential in voter mobilization, map nicely onto the collection capacity. Criminal groups that protect need to be aware of the composition and size of the group they collect from (mobilize), and need to know information related to income, industry, and even daily habits of the group. This is very similar to the databases and lists that vote mobilizers put together. Second, protecting campaign turf or marking territory maps onto the protection capability. Groups that protect have practice in restricting entry, and monitoring the influence of outsiders on their own group of voters they extract from. This is readily transferable to protecting their territory from rival candidates and making it more difficult for other candidates (opponents) to campaign in their area.

On the other hand, criminal groups whose primary commodities are not protection, such as the sales of illicit goods, will likely have fewer overlapping competencies as vote mobilizers. The costs will be higher for them to diversify into voter mobilization. For example, members of drug trafficking organizations that work outside of their communities are often street-level dealers that are trying to make a sale, which is also a different skillset than "protecting" residents. For these types of criminal groups, effective voter mobilization would entail high opportunity costs if they had to retrain and divert current workers for short-time vote mobilization within their community. This could entail higher costs (e.g. training) and opportunity costs (e.g. lost revenue from drug sales) than for groups that already sell protection.

What electoral patterns, then, do I expect to see associated with criminal groups

that protect? I first look at the most basic metric of voter mobilization, voter turnout. I hypothesize that:

**H1:** Turnout will be higher in areas dominated by criminal groups that protect than in areas dominated by other criminal groups, all else equal.

Evidence supporting this hypothesis will be particularly revealing in the case analyzed in this paper, Rio de Janeiro. The electoral rules *ex ante* show that we should expect very little variance: both compulsory voting and the electoral system (proportional representation in a multimember district) have been associated with low variance in turnout levels.

My second hypothesis related to what happens *inside* the voting booth, and if criminal vote mobilizers have a meaningful impact on the candidate that a voter actually votes for. I hypothesize that:

**H2:** Electoral competition will be lower in areas dominated by criminal groups that protect than in areas dominated by other criminal groups, all else equal.

I cast a wide net in this measure of electoral competition in order to make inferences about how voting patterns look different in territories dominated by groups that protect versus other types of criminal groups. There are three distinct ways I measure electoral competition. First, the number of candidates that receive at least one vote at the ballot box, which more strongly reflects how the protection capability can be used to restrict entry. Second, the share of the total ballots cast for the top few candidates, which indicates how much of the vote share the precinct's winning candidates, and third, the effective number of parties (ENP), used as a more robust estimate of competitiveness between parties (or in this case, candidates) in a district (Laakso and Taagepera 1979). These last two measures are related to both the collection and protection mechanisms: criminal groups that protect could be persuasive (perhaps even coercive) in encouraging voters to vote for their preferred candidate, while also making information about other candidates more difficult to find by limiting which candidates can access the resident population.

Evidence supporting this hypothesis in Rio de Janeiro will again clear a very high bar: elections are competitive in Rio, especially for downballot races. The probability that any one criminal group or any one favela may be decisive in a downballot race is high, meaning that vote-buying and monitoring in criminally dominant favelas can be election-winning for the candidates.

## 5 Empirical Strategy

My goal is to estimate a causal effect of militia dominance on turnout and on electoral competition, with attention to possible omitted variables and differential effects present at the polling station level. In addition, I aim to show that a plausible mechanism driving this effect is criminal diversification into related industries. I begin the analysis using three statistical models to test for a relationship between militia dominance and outcomes of interest, turnout and electoral competition. First, to address heterogeneity of units, I use various matching and weighing techniques to approximate treated and

control groups that are similar on all observed covariates (though they may differ for unobserved covariates). Second, using candidate-level data, I use a regression discontinuity design to see if candidates that do well in militia-dominated polling stations do in fact get a bump in the polls and are more likely to win. Lastly, to assess whether these effect sizes were meaningful in the 2016 election, I run a simulation of the election and the number of candidates pushed over/below the line by militia presence.

An important question central to my empirical strategy is whether or not the criminal groups' location is endogenous to political outcomes. For this measurement strategy to be valid, criminal groups' location decisions should be exogenous to political outcomes, or, should not be a function of electoral politics itself. Briefly, tracing the original location decisions back to these groups when they were in their early stages, I find that militias were more likely to settle in communities they could isolate and extort from vis-a-vis the rest of the city, and drug traffickers more likely to settle in communities that they had a personal connection to where they would be shielded by friends/family from the police. These original location decisions were predicated on business, not politics.

## 6 Data

To assess these questions about the effects of criminal dominance on the 2016 municipal elections in Rio de Janeiro, I constructed a dataset based on publicly available data from the Superior Electoral Tribunal (TSE), Brazilian Institute of Geography and Statistics (IBGE), Public Safety Institute (ISP), Disque Denuncia (DD), an anonymous tips line, and from crime blogs that report on the presence of factions across the city.

### 6.1 Dependent variable: TSE electoral data

The TSE publishes precinct-level electoral returns data for the 2016 election. Each electoral precinct corresponds to one electronic voting machine, where an average of 419 voters are assigned. There are often multiple precincts in the same polling station, which may be schools, community centers, or large government buildings. There were 11,717 precincts in the 2016 election across 1491 polling stations.

Brazilian municipal legislative elections follow a proportional open-list system where the entire city is a multi-member district. Seats are allocated to the legislative body based on the D'Hondt method (also called the Jefferson method), where each candidate is assigned a "competitive index" equal to the party's total vote count divided by the candidate's rank within the party. The candidate's within-party rank is determined by the number of votes they receive. For the legislative assembly in the city of Rio de Janeiro, which has 51 seats, the 51 candidates with the highest competitive indices will win the election. Voting is compulsory in Brazil, but voters can spoil their ballot, vote for individual candidates, or vote for the party, if they have no preferred candidate but want to support the party as a whole. This can lead to a couple of complications in determining electoral competition.

Firstly, these electoral rules means that there is both within and across party competition. The more votes a party gets, the more candidates from their party list they

will be able to elect. However, within-party competition means that candidates, especially those near the margin, are competing directly with their co-partisans for a higher place on the party list.

Secondly, this competition with co-partisans and with candidates from other parties means that candidates near the margin are sensitive to changes in vote shares in unintuitive ways. There could be cases of candidates with the exact same number of votes but, because of their rank in the party list or the total number of votes their party receives, one could be elected and the other not. We could also imagine how changes in lower-ranked co-partisans' votes could be the difference between getting elected or not getting elected, holding any one candidate's votes constant.

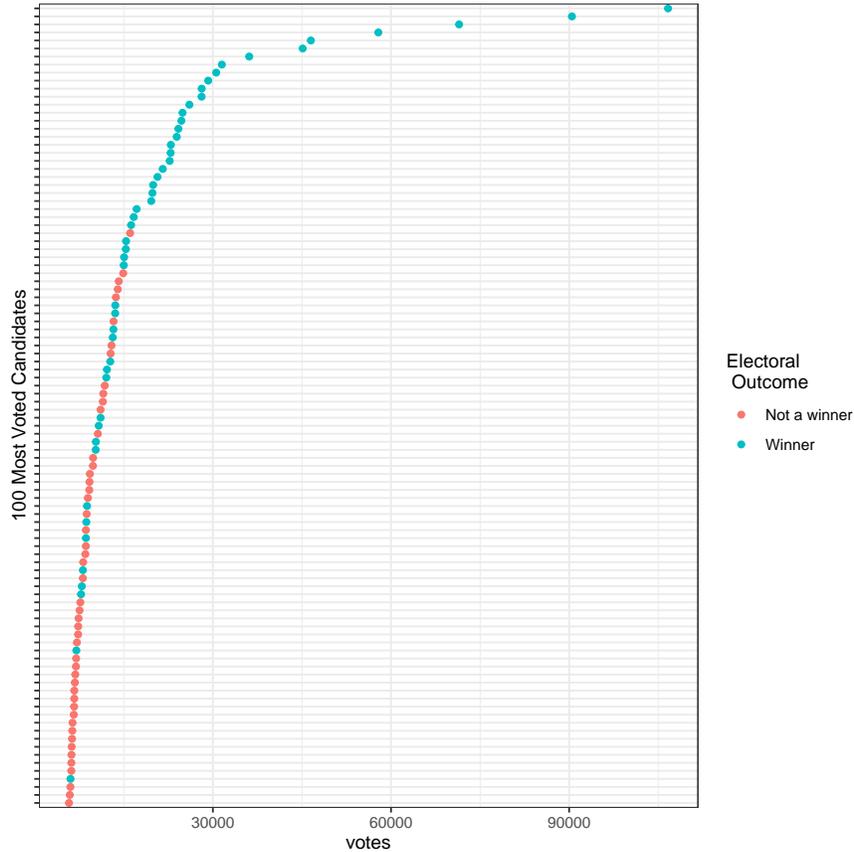
Thirdly, party system fragmentation in Brazil and the proliferation of political parties means that a competitive index good enough to be elected is quite low. In the 2016 municipal election in Rio de Janeiro, 19 different parties fielded a total of 1654 candidates for the 51 seats in city council. This high number of political parties and subsequent candidates in Brazil has dispersed votes so widely that candidates can get elected with relatively few votes. For example, in the 2016 Rio de Janeiro municipal election, a city with approximately 4 million voters, 19 of the 51 elected candidates (37%) won by less than 3000 votes personally, but were buoyed to victory because of the total number of votes their party won or the top vote-earners in their party won. Figure 1 shows the distribution of the top 100 vote earners in the 2016 election, including the 51 city councillors that were actually elected. This is not a phenomenon in the city alone, indeed, has been documented across the country (Ames 2009).

I leverage the unusual closeness of these races and the mandatory voting requirement to shed light on the relationship between criminal dominance and voting. For Hypothesis 1, I predict that turnout in militia dominated precincts will be higher than in state- or trafficker-controlled communities, indicating efforts of voter mobilization in the militia dominated communities. The TSE reports the number of voters registered at each precinct, and I link their voting returns to the voter lists to calculate turnout for each precinct. For Hypothesis 2, I predict that electoral competition will be lower in militia dominated precincts because of efforts to pressure voters and keep rival candidates out. I calculate three different measures to analyze the different dimensions of electoral competition. First, I measure the number of candidates that get at least 1 vote in the polling station. Second, I measure the vote concentration for the five most voted candidates, which is the simple proportion of the vote share for the five most voted city councillors in a precinct to the total ballots cast in the precinct<sup>8</sup>. The variable is a proportion between 0 and 1, where 1 indicates that the five top candidate won 100% of the votes for that office in the precinct. Third, I use the effective number of parties (ENP) competition index. Originally derived from the Herfindahl-Hirschorn firm monopoly competition index, the ENP is used to measure party competition (Laakso and Taagepera 1979). For this paper, it takes on a value of 1 if one candidate gets all the votes in a precinct. It's maximum is if all candidates receive the same number of votes in a precinct (Alfano and Baraldi 2015; Kvålseth 2018). The distributions of these variables, by criminal group, are shown in Figure 2

---

<sup>8</sup>The intuition behind this measure is to detect if a criminal group endorses a slate of candidates that they allow to enter and campaign in a neighborhood instead of one and only one candidate.

Figure 1: Top voted candidates in the 2016 Municipal election



This shows the total votes each of the top 100 vote earners for city council received in the 2016 municipal election in Rio de Janeiro. More than 30 candidates at the margin won or lost by less than 8000 votes.

below.

## 6.2 Independent variable: Criminal Faction

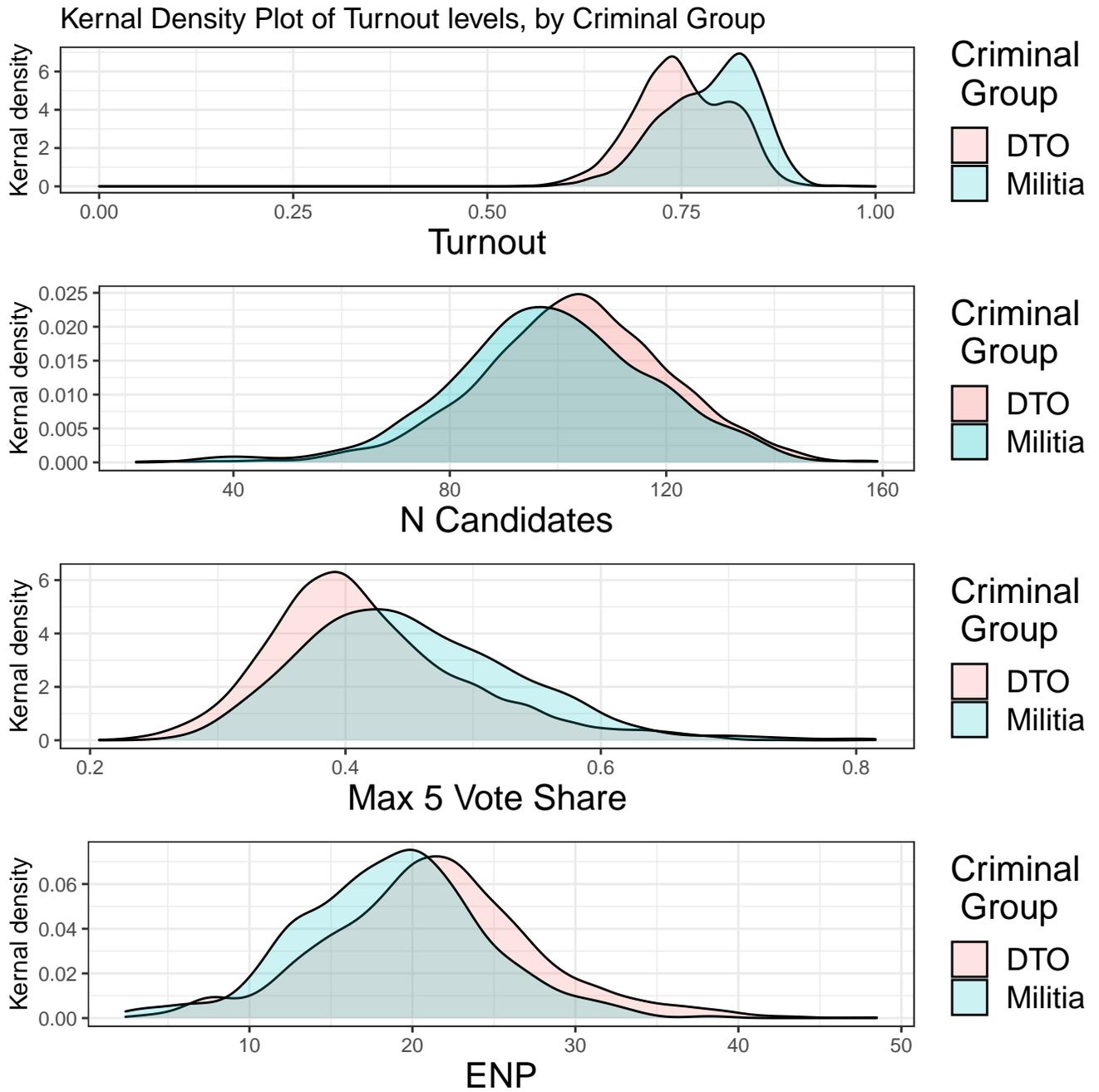
To examine the effect of criminal presence on voting, I constructed a new dataset on the presence of organized crime in Rio de Janeiro's 1018 favelas from January 2015 - present. The geography of Rio is such that boundaries between a favela (on a hill) and middle-class neighborhoods is very clear. Criminal groups are usually the de-facto leaders in favelas, while the state is on flat land. Empirically, this allows me to leverage two things: first, I can make cross-favela comparisons between militia-dominated and trafficker dominated communities, holding relevant political, socioeconomic, and candidate-level variables constant. Second, since the favelas are operated by one group only, it is almost like a monopoly.

I define presence as the dominant criminal faction that controls a favela. There is only one faction that controls a favela at a given time<sup>9</sup>, and my criminal presence

---

<sup>9</sup>There are some favelas, like Maré, that are famous for having multiple gangs dominate it at the same

Figure 2: Kernel Density plots of 4 main dependent variables



From top to bottom, these plots show the distribution of turnout, the number of candidates per precinct, the vote concentration for the five most voted candidates per precinct, and the ENP per precinct. All are subset by whether the precinct is under the control of a drug trafficking organization (DTO) or Militias.

variable takes on five values: one of the three drug trafficking organizations, militias, or the state, for the favelas that lack criminal presence. Using the Pereira Passos Institute’s (IPP) database of favelas in the city, I scraped the anonymous blog *Crimes News Blog* that reports on criminal warfare in the city and tagged all favelas written about in the database with the name of the criminal group present<sup>10</sup>. I was able to match 74% of favelas in the city that cover more than 90% of the favela population.

I then match polling stations to nearby favelas and the criminal groups that dominate them. Figure 3 shows all polling stations and all favelas in the city. Common polling station locations are schools, banks, or other government buildings that have high occupancy levels, comply with accessibility building codes, and can provide sufficient privacy to each precinct. Often, smaller favelas do not have a building that complies with these regulations. The combination of poor building quality in favelas and the high population density means that favela residents often need to descend the hill and vote in the closest polling station to the favela boundary. In an interview with an Electoral Judge (TRE-RJ) that works with the polling station assignment process, I was told,

Whenever we can put the station inside of the favela, we do. Often there is not a building with good enough occupancy codes inside of the favela to do so. In that case, we put it as close to the border as possible... But we do not assign people that do not live in favelas to polling stations inside favelas”<sup>11</sup>.

Several other local election officials confirmed that favela residents vote at the polling station in their favela (if available), and if not, the nearest polling station(s) at the base of their favela. Due to this ambiguity in polling station assignment, I construct a 250 meter buffer zone around each polling station, dropping all polling stations that are further away. Figure 5 shows the 1121 polling stations that remain in the sample<sup>12</sup>.

From the data I coded on criminal presence, I constructed a dummy variable that takes on three values: *State* for a polling station within 250 meters of a state-occupied favela, *Militia* for a polling station within 250 meters of a militia-occupied favela, and *DTO* for a polling station within 250 meters of a drug trafficking-occupied favela.

---

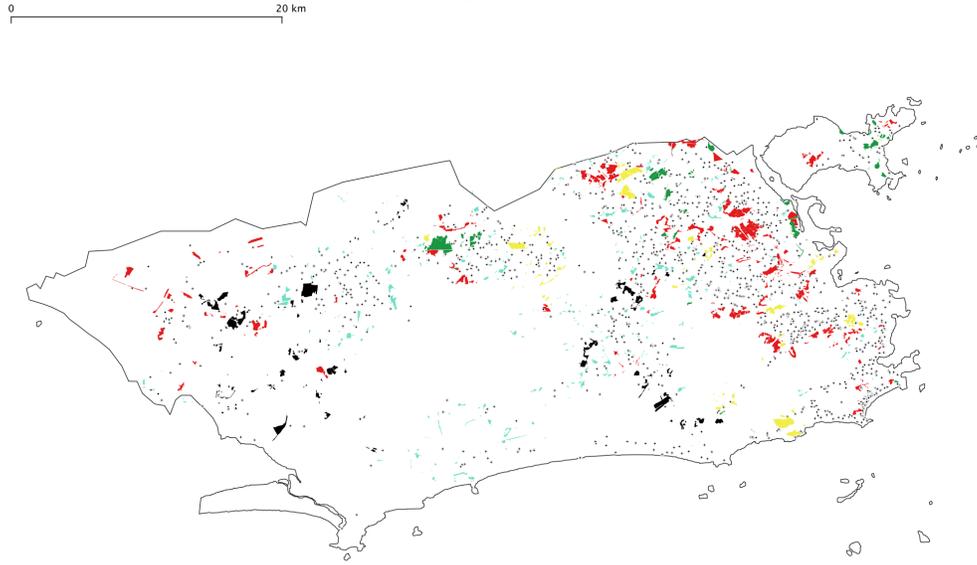
time. Maré is actually an agglomeration of multiple favelas. For Maré and lesser well-know complexes that have multiple criminal groups present, I coded them to the smallest unit of analysis possible where there is only one criminal group present. Thus, while there may be multiple criminal groups in a complex, there is only one criminal group present in a single favela.

<sup>10</sup>I am not the first person to do this in Rio de Janeiro – anthropologists (Zaluar 2007) have painstakingly collected this data at specific cross-sections, sometimes by visiting each favela in person to correctly identify which faction it belongs to. Mine is the only dataset I know of that is a time series, indicating changes in turnover when favelas are taken over by rival factions

<sup>11</sup>Interview transcript, September 12, 2018.

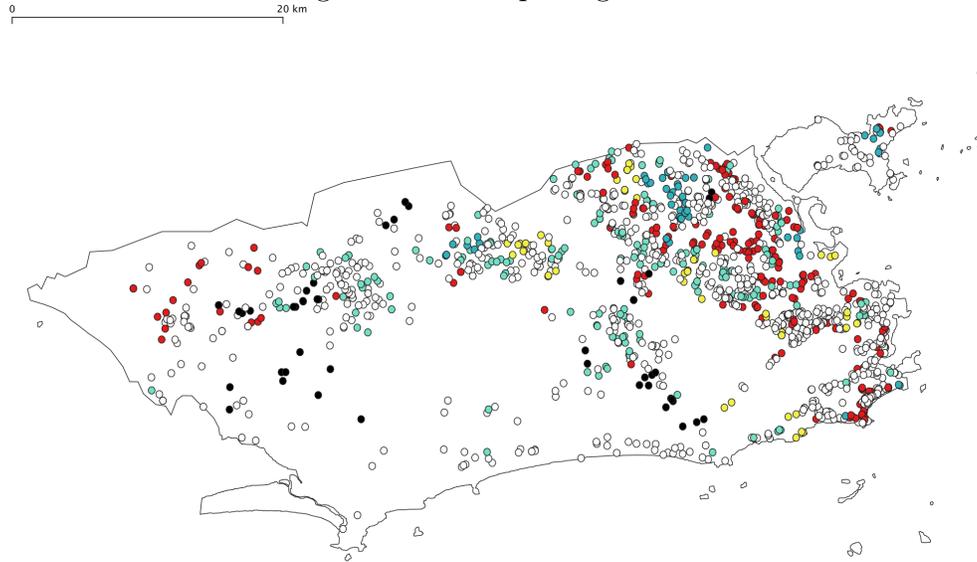
<sup>12</sup>Note: the construction of this buffer is still a work in progress. Others that have done work on favelas usually use a much less precise distance (1km, 1 mile, even), which seems too imprecise to me to map voters onto their nearest polling station. I calculated the DVs again with a 200 meter buffer and the results were similar. The sample size starts to drop dramatically with 100m and 50m buffer zones, but perhaps it is still worth doing.

Figure 3: Polling Stations near favelas



Each favela in the city of Rio is colored according to the faction that dominates it: Comando Vermelho (red), Amigos dos Amigos (yellow), Third Pure Command (green), Militias (black), and the state (blue). All polling stations are also plotted on the map as tiny black crosses.

Figure 4: Favela polling stations



These are the polling stations that fall within a 250 meter buffer of a favela boundary. They are shaded for which criminal group they are nearest to.

## 7 Results

### 7.1 How is militia presence related to voting?

My initial goal is to identify a causal effect of militia dominance on turnout and electoral competition. I estimate the following models using the standard OLS framework:

$$Turnout_i = \beta_1 Militia_i + \beta_2 X_i + \epsilon_i$$

$$Competition_i = \beta_1 Militia_i + \beta_2 X_i + \epsilon_i$$

where  $Turnout_i$  is the turnout in precinct  $i$  for the 2016 city council election,  $Competition_i$  is one of three variables related to competition mentioned in Section 6.1,  $Militia_i$  is a binary indicator of whether or not the precinct is within 250 meters of a militia-dominated favela,  $X_i$  is a matrix of covariates including neighborhood-level characteristics, and  $\epsilon_i$  is the neighborhood-clustered robust error. I recalculate this same model using weighted least squares (WLS), weighting on the estimated share of voters that live in the favela.

There is reason to be concerned about the estimated coefficients from the OLS and WLS models, particularly when trying to infer causality. One concern is that the causal effects of criminal dominance might not occur at random, and that there is some other unobserved factor both driving the selected presence of criminal groups and the electoral outcomes. To address this, I use coarsened exact matching to create treated and control groups that are more similar to each other on known factors (Iacus, King, and Porro 2009). Though matching on pre-treatment covariates can not eliminate unobserved confounders, the creation of “treatment” and “control” precincts that either have a militia group present or do not help reduce bias in estimating the difference in magnitude in turnout or competition between “treated” and “control” groups. I match on five variables, four of which were calculated at the polling station level: average income, share of the polling station living in favela, distance to major road, and average homicide rate for 2015, the year prior<sup>13</sup>. I also include one variable measured at the precinct level, the total voters registered at that precinct. Covariates are similar across the matched samples, shown in Table 2.

Figure 5 presents the results of 12 models estimating the relationship between militia presence and electoral outcomes. The plot labeled “Turnout” shows that, when compared to territories controlled by drug trafficking organizations, turnout is 1.9% higher in militia-dominated territories, at its most conservative estimate. The models estimating three measures that correspond to electoral competition show that, on average, 6.2 fewer candidates receive votes in militia dominated polling stations, the top candidates receive 2.7% more of the vote in militia dominated polling stations, and they have a lower ENP, meaning that the competition looks more monopolistic in these areas. Though these estimates don’t yet speak to causality, the consistency

---

<sup>13</sup>Note: even though it is measured before the election year, it is possible that crime could be considered pre-treatment since criminal presence and the type of crime that happens in an area are related. The matching estimator is robust to the inclusion or exclusion of this variable.

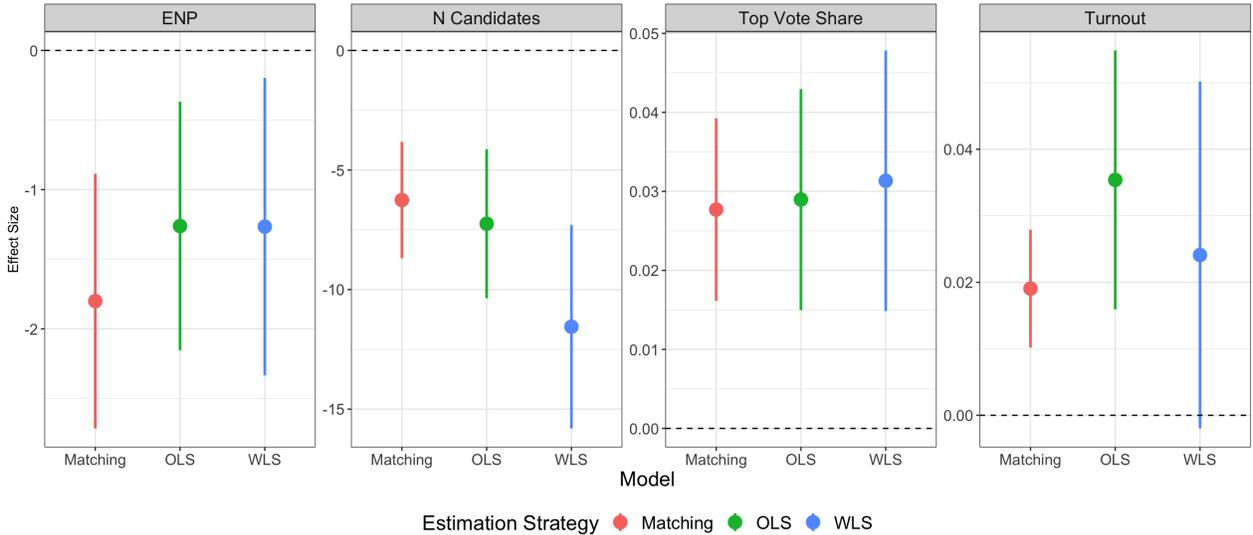
Table 2: Summary Statistics for Matched Precinct-level Data

Variable	All	Militia	DTO	Difference	p-value
Average Income	1175.88	1180.83	1171.67	9.15	0.71
	315.29	360.70	271.26	24.73	
Distance to Road	182.84	174.18	190.19	-16.02	0.40
	247.23	247.26	247.30	18.95	
Share Favela	0.52	0.53	0.52	0.00	0.76
	0.21	0.22	0.20	0.02	
Total Voters	429.33	428.50	430.03	-1.54	0.73
	58.02	63.68	52.81	4.52	
Violent Crime Rate	253.74	257.61	250.46	7.15	0.27
	83.30	88.28	78.80	6.44	
N	686	315	371		

of the point estimates across model specification suggests that the relationship is not being driven by imbalance or model specification.

Figure 5: Models of Relationship between Militia Presence and Elections

**Effect of Militia Presence on Electoral Competition in Favela Polling Stations**



All estimates are shown at the 95% significance level with neighborhood-level clustered standard errors. All models are calculated using the territories controlled by drug trafficking organizations as the control group.

## 7.2 How do candidates do at polling stations dominated by militias?

[RDD - IN PROGRESS]

### 7.3 How many seats in city council could be influenced by militia presence?

[SIMULATION - IN PROGRESS]

## 8 Potential mechanisms

Unlike previous studies, this paper highlights two proposed mechanisms related to a criminal organization’s capacities, not just their desire to extract rents. I explore these plausible mechanisms, the collection mechanism and the protection mechanism, through the case of a favela in Rio de Janeiro, Gardênia Azul.

Gardênia Azul, a favela in the West Zone of Rio de Janeiro, Brazil, is dominated by militias. The campaigns in the neighborhood had none of the liveliness that one typically associates with Latin American electoral campaigns. Despite being densely populated<sup>14</sup>, few candidates walked the streets or held events there (Araújo and Otávio 2018). The signs on businesses, streetlamps, and cars were advertisements for the same three politicians, over and over again. In parts of the city not dominated by organized crime, high-traffic public places like bus and metro stations were littered with posters or stickers for dozens of candidates.

Elections in Gardênia Azul demonstrate all the signs of a neighborhood dominated by a group that sells protection. Turnout was conspicuously higher, but fewer candidates got votes, and those that did, received a larger amount of the vote share. As evidence of the collection mechanism, an investigation by journalists uncovered the militias in the neighborhood were charging candidates R\$200 thousand (\$50 thousand USD) for exclusive campaign rights in the neighborhood, even offering add-on packages that included their own affiliates to serve as brokers for R\$1000 (\$250 USD) for each event, or in 30-day packages for R\$15 thousand (\$3750 USD) (*ibid.*). For parallel evidence of the protection mechanism, one need only look at the distribution of electoral returns for candidates like those that win in Gardênia Azul. Often, this looks like Figure 6, where the candidate “Zico” barely won in the 2012 municipal election, but garners up to 62% of the vote in certain polling stations that were geographically concentrated<sup>15</sup>. In Gardênia Azul, the protection mechanism was at work by letting candidates like Zico in and keeping the rest out.

## 9 Conclusion

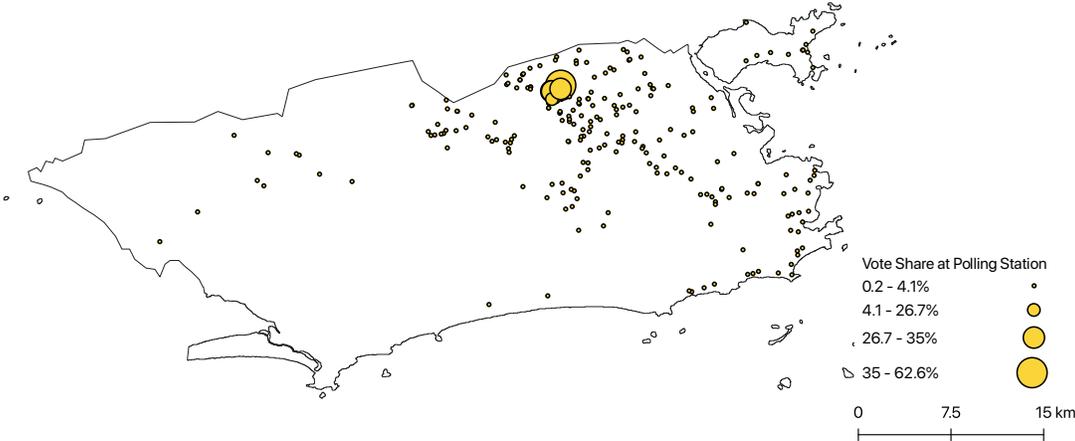
I argue that we should see criminal organizations with origins in protection engaging in electoral politics more *through voters* because they already have the organizational capabilities to collect and protect at the individual and group level. For these groups, the costs of engaging directly with voters could be an easy way to make extra profits that does not detract from their day-to-day business, and has the potential for possible

---

<sup>14</sup>The favela is part of a larger complex, Jacarepaguá, that alone has a large enough population mass to elect several representatives to Rio de Janeiro’s single district city council (and often does).

<sup>15</sup>Zico was mentioned in a Parliamentary Investigation about connections to militias in 2008.

Figure 6: Example of a candidate pooling votes in a criminally dominated area



City Council electoral returns for Candidate Zico in 2012

long-term gain and political connections. Criminal organization that do not have protection infrastructure build out, though facing the same benefits, will be less inclined to engage as much with voters due to the higher costs of diversifying.

## References

- Acemoglu, Daron, James A. Robinson, and Rafael J. Santos (Jan. 2013). “THE MONOPOLY OF VIOLENCE: EVIDENCE FROM COLOMBIA”. en. In: *Journal of the European Economic Association* 11, pp. 5–44. ISSN: 15424766. DOI: [10.1111/j.1542-4774.2012.01099.x](https://doi.org/10.1111/j.1542-4774.2012.01099.x). URL: <https://academic.oup.com/jeea/article-lookup/doi/10.1111/j.1542-4774.2012.01099.x> (visited on 04/02/2020).
- Albarracín, Juan (June 2018). “Criminalized electoral politics in Brazilian urban peripheries”. en. In: *Crime, Law and Social Change* 69.4, pp. 553–575. ISSN: 0925-4994, 1573-0751. DOI: [10.1007/s10611-017-9761-8](https://doi.org/10.1007/s10611-017-9761-8). URL: <http://link.springer.com/10.1007/s10611-017-9761-8> (visited on 03/26/2020).
- Alesina, Alberto, Salvatore Piccolo, and Paolo Pinotti (2017). “Organized Crime, Violence, and Politics”. Cambridge.
- Alfano, M. Rosaria and A. Laura Baraldi (Apr. 2015). “Is there an optimal level of political competition in terms of economic growth? Evidence from Italy”. en. In: *European Journal of Law and Economics* 39.2, pp. 263–285. ISSN: 0929-1261, 1572-9990. DOI: [10.1007/s10657-012-9340-5](https://doi.org/10.1007/s10657-012-9340-5). URL: <http://link.springer.com/10.1007/s10657-012-9340-5> (visited on 07/04/2020).
- Ames, Barry (Jan. 2009). *The Deadlock of Democracy in Brazil*. en. Google-Books-ID: ShaOK5HFBHgC. University of Michigan Press. ISBN: 978-0-472-02143-7.
- Araújo, Vera and Chico Otávio (Sept. 2018). “Rio tem 300 currais eleitorais do tráfico ou milícia - Jornal O Globo”. In: *O Globo*. URL: <https://oglobo.globo.com/brasil/rio-tem-300-currais-eleitorais-do-trafico-ou-milicia-23052750> (visited on 11/26/2019).
- Arias, Enrique Desmond and Nicholas Barnes (2017). “Crime and plural orders in Rio de Janeiro, Brazil”. In: *Current Sociology* 65.3, pp. 448–465. ISSN: 0011-3921. DOI: [10.1177/0011392116667165](https://doi.org/10.1177/0011392116667165). URL: <http://journals.sagepub.com/doi/10.1177/0011392116667165>.
- Arjona, Ana (2016). *Rebelocracy: Social Order in the Colombian Civil War*. Cambridge Studies in Comparative Politics. Cambridge: Cambridge University Press. ISBN: 978-1-107-12603-9. DOI: [10.1017/97811316421925](https://doi.org/10.1017/97811316421925). URL: <https://www.cambridge.org/core/books/rebelocracy/67B0396DABAA4AE1C988A2DA3FBAC425> (visited on 08/02/2020).
- Barnes, Nicholas (Dec. 2017). “Criminal Politics: An Integrated Approach to the Study of Organized Crime, Politics, and Violence”. en. In: *Perspectives on Politics* 15.4. Publisher: Cambridge University Press, pp. 967–987. ISSN: 1537-5927, 1541-0986. DOI: [10.1017/S1537592717002110](https://doi.org/10.1017/S1537592717002110). URL: <http://www.cambridge.org/core/journals/perspectives-on-politics/article/criminal-politics-an-integrated-approach-to-the-study-of-organized-crime-politics-and-violence/B6E8E52E87FCC47B3F053BA7AF65971E> (visited on 07/21/2020).

- Bonanno, Joseph (Jan. 2003). *A Man of Honor: The Autobiography of Joseph Bonanno*. English. Reprint edition. New York: St. Martin's Paperbacks. ISBN: 978-0-312-97923-2.
- Córdova, Abby (Apr. 2019). "Living in Gang-Controlled Neighborhoods: Impacts on Electoral and Nonelectoral Participation in El Salvador". en. In: *Latin American Research Review* 54.1, p. 201. ISSN: 1542-4278, 0023-8791. DOI: [10.25222/larr.387](https://doi.org/10.25222/larr.387). URL: <https://larriasa.org/article/10.25222/larr.387/> (visited on 07/22/2020).
- Cox, Gary W. (May 2015). "Electoral Rules, Mobilization, and Turnout". en. In: *Annual Review of Political Science* 18.1, pp. 49–68. ISSN: 1094-2939, 1545-1577. DOI: [10.1146/annurev-polisci-060414-035915](https://doi.org/10.1146/annurev-polisci-060414-035915). URL: <http://www.annualreviews.org/doi/10.1146/annurev-polisci-060414-035915> (visited on 09/22/2020).
- Cox, Gary W., Jon H. Fiva, and Daniel M. Smith (Apr. 2020). "Measuring the Competitiveness of Elections". en. In: *Political Analysis* 28.2, pp. 168–185. ISSN: 1047-1987, 1476-4989. DOI: [10.1017/pan.2019.28](https://doi.org/10.1017/pan.2019.28). URL: [https://www.cambridge.org/core/product/identifier/S1047198719000287/type/journal\\_article](https://www.cambridge.org/core/product/identifier/S1047198719000287/type/journal_article) (visited on 10/02/2020).
- Dal Bo, Ernesto, Pedro Dal Bo, and Rafael Di Tella (2006). "“Plata o Plomo?”: Bribe and Punishment in a Theory of Political Influence". In: *American Political Science Review* 100.1, pp. 41–53. ISSN: 00030554 (ISSN). DOI: [10.1.1.199.969](https://doi.org/10.1.1.199.969).
- Dal Bó, Ernesto and Rafael DiTella (2003). "Capture by Threat". In: *Journal of Political Economy* 111.5, pp. 1123–1154. ISSN: 0022-3808. DOI: [10.1086/376951](https://doi.org/10.1086/376951). URL: <http://www.jstor.org/stable/10.1086/376951>.
- Daniele, Gianmarco and Gemma Dipoppa (Oct. 2017). "Mafia, elections and violence against politicians". en. In: *Journal of Public Economics* 154, pp. 10–33. ISSN: 0047-2727. DOI: [10.1016/j.jpubeco.2017.08.004](https://doi.org/10.1016/j.jpubeco.2017.08.004). URL: <http://www.sciencedirect.com/science/article/pii/S0047272717301251> (visited on 07/28/2020).
- De Feo, Giuseppe and Giacomo Davide De Luca (Aug. 2017). "Mafia in the Ballot Box". en. In: *American Economic Journal: Economic Policy* 9.3, pp. 134–167. ISSN: 1945-7731. DOI: [10.1257/pol.20150551](https://doi.org/10.1257/pol.20150551). URL: <http://www.aeaweb.org/articles?id=10.1257/pol.20150551> (visited on 07/21/2020).
- Dell, Melissa (June 2015). "Trafficking Networks and the Mexican Drug War". en. In: *American Economic Review* 105.6, pp. 1738–1779. ISSN: 0002-8282. DOI: [10.1257/aer.20121637](https://doi.org/10.1257/aer.20121637). URL: <http://pubs.aeaweb.org/doi/10.1257/aer.20121637> (visited on 01/27/2020).
- Denyer Willis, Graham and Mariana Mota Prado (2014). "Process and Pattern in Institutional Reforms: A Case Study of the Police Pacifying Units (UPPs) in Brazil". In: *World Development* 64. ISSN: 0305750X. DOI: [10.1016/j.worlddev.2014.06.006](https://doi.org/10.1016/j.worlddev.2014.06.006).

- Eaton, Kent (Oct. 2006). “The Downside of Decentralization: Armed Clientelism in Colombia”. en. In: *Security Studies* 15.4, pp. 533–562. ISSN: 0963-6412. DOI: [10.1080/09636410601188463](https://doi.org/10.1080/09636410601188463). URL: <http://www.tandfonline.com/doi/abs/10.1080/09636410601188463> (visited on 08/19/2020).
- Finckenauer, James O. (Mar. 2005). “Problems of definition: What is organized crime?” en. In: *Trends in Organized Crime* 8.3, pp. 63–83. ISSN: 1936-4830. DOI: [10.1007/s12117-005-1038-4](https://doi.org/10.1007/s12117-005-1038-4). URL: <https://doi.org/10.1007/s12117-005-1038-4> (visited on 08/01/2020).
- Gambetta, Diego (1993). *The Sicilian Mafia: the Business of Private Protection*. Cambridge: Harvard University Press.
- (1996). *The Sicilian Mafia: the business of private protection*. eng. 1. Harvard Univ. Press paperback ed. OCLC: 249904576. Cambridge, Mass.: Harvard Univ. Press. ISBN: 978-0-674-80742-6 978-0-674-80741-9.
- García-Sánchez, Miguel (Jan. 2010). “Political Violence and Electoral Democracy in Colombia. Participation and Voting Behavior in Violent Contexts”. In: Geys, Benny (Dec. 2006). “Explaining voter turnout: A review of aggregate-level research”. en. In: *Electoral Studies* 25.4, pp. 637–663. ISSN: 02613794. DOI: [10.1016/j.electstud.2005.09.002](https://doi.org/10.1016/j.electstud.2005.09.002). URL: <https://linkinghub.elsevier.com/retrieve/pii/S0261379405000910> (visited on 10/02/2020).
- Glenny, Misha (Apr. 2009). *McMafia: A Journey Through the Global Criminal Underworld*. English. Reprint edition. New York: Vintage. ISBN: 978-1-4000-9512-4.
- Grillo, Ioan (2012). *El Narco: inside Mexico’s criminal insurgency*. eng. Pbk. ed. OCLC: 772106574. New York: Bloomsbury Press. ISBN: 978-1-60819-401-8.
- Hicken, Allen and Noah L. Nathan (May 2020). “Clientelism’s Red Herrings: Dead Ends and New Directions in the Study of Nonprogrammatic Politics”. en. In: *Annual Review of Political Science* 23.1, pp. 277–294. ISSN: 1094-2939, 1545-1577. DOI: [10.1146/annurev-polisci-050718-032657](https://doi.org/10.1146/annurev-polisci-050718-032657). URL: <https://www.annualreviews.org/doi/10.1146/annurev-polisci-050718-032657> (visited on 05/30/2020).
- Hidalgo, F. Daniel and Benjamin Lessing (2015). “Endogenous State Weakness: Paramilitaries and Electoral Politics”. In: *Working Paper*, pp. 1–47.
- Hill, Peter (Feb. 2004). “The Changing Face of the Yakuza”. In: *Global Crime* 6.1. Publisher: Routledge eprint: <https://doi.org/10.1080/1744057042000297007>, pp. 97–116. ISSN: 1744-0572. DOI: [10.1080/1744057042000297007](https://doi.org/10.1080/1744057042000297007). URL: <https://doi.org/10.1080/1744057042000297007> (visited on 09/23/2020).
- Iacus, Stefano M, Gary King, and Giuseppe Porro (2009). *Journal of Statistical Software cem: Software for Coarsened Exact Matching*. Tech. rep. URL: <http://www.jstatsoft.org/>.
- Kalyvas, Stathis N. (Dec. 2015). “How Civil Wars Help Explain Organized Crime—and How They Do Not”. en. In: *Journal of Conflict Resolution* 59.8, pp. 1517–

1540. ISSN: 0022-0027. DOI: [10.1177/0022002715587101](https://doi.org/10.1177/0022002715587101). URL: <https://doi.org/10.1177/0022002715587101> (visited on 01/27/2020).
- Kitschelt, Herbert and Steven I. Wilkinson, eds. (2007). *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*. Cambridge: Cambridge University Press. ISBN: 978-0-511-58586-9. DOI: [10.1017/CB09780511585869](https://doi.org/10.1017/CB09780511585869). URL: <http://ebooks.cambridge.org/ref/id/CB09780511585869> (visited on 11/26/2019).
- Kvålseth, Tarald O. (Oct. 2018). “Relationship between concentration ratio and Herfindahl-Hirschman index: A re-examination based on majorization theory”. In: *Heliyon* 4.10. ISSN: 2405-8440. DOI: [10.1016/j.heliyon.2018.e00846](https://doi.org/10.1016/j.heliyon.2018.e00846). URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6190613/> (visited on 07/04/2020).
- Laakso, Markku and Rein Taagepera (Apr. 1979). ““Effective” Number of Parties: A Measure with Application to West Europe”. en. In: *Comparative Political Studies* 12.1, pp. 3–27. ISSN: 0010-4140, 1552-3829. DOI: [10.1177/001041407901200101](https://doi.org/10.1177/001041407901200101). URL: <http://journals.sagepub.com/doi/10.1177/001041407901200101> (visited on 12/05/2019).
- LeBas, Adrienne (Sept. 2013). “Violence and Urban Order in Nairobi, Kenya and Lagos, Nigeria”. en. In: *Studies in Comparative International Development* 48.3, pp. 240–262. ISSN: 0039-3606, 1936-6167. DOI: [10.1007/s12116-013-9134-y](https://doi.org/10.1007/s12116-013-9134-y). URL: <http://link.springer.com/10.1007/s12116-013-9134-y> (visited on 12/04/2019).
- Leeds, Elizabeth (1996). “Cocaine and Parallel Polities in the Brazilian Urban Periphery: Constraints on Local-Level Democratization”. In: *Latin American Research Review* 31.3, pp. 47–83. ISSN: 0023-8791. URL: <https://www.jstor.org/stable/2503884> (visited on 02/25/2020).
- Lessing, Benjamin (2017). *Making Peace in Drug Wars*. English. OCLC: 1020033442. Cambridge: Cambridge University Press. ISBN: 978-1-108-18583-7. URL: <http://public.ebookcentral.proquest.com/choice/publicfullrecord.aspx?p=5211705> (visited on 11/26/2019).
- (2020). “Conceptualizing Criminal Governance”. en. In: *Perspectives on Politics*. Publisher: Cambridge University Press, pp. 1–20. ISSN: 1537-5927, 1541-0986. DOI: [10.1017/S1537592720001243](https://doi.org/10.1017/S1537592720001243). URL: [http://www.cambridge.org/core/journals/perspectives-on-politics/article/conceptualizing-criminal-governance/0105EC32BB9F26830179CF0B16917B02?utm\\_source=hootsuite&utm\\_medium=twitter&utm\\_term=&utm\\_content=FirstView&utm\\_campaign=PPS\\_Jul20#fndtn-information](http://www.cambridge.org/core/journals/perspectives-on-politics/article/conceptualizing-criminal-governance/0105EC32BB9F26830179CF0B16917B02?utm_source=hootsuite&utm_medium=twitter&utm_term=&utm_content=FirstView&utm_campaign=PPS_Jul20#fndtn-information) (visited on 07/21/2020).
- Lujala, Paivi (Feb. 2009). “Deadly Combat over Natural Resources: Gems, Petroleum, Drugs, and the Severity of Armed Civil Conflict”. en. In: *Journal of Conflict Resolution* 53.1, pp. 50–71. ISSN: 0022-0027, 1552-8766. DOI: [10.1177/0022002708327644](https://doi.org/10.1177/0022002708327644). URL: <http://journals.sagepub.com/doi/10.1177/0022002708327644> (visited on 07/09/2020).

- Magaloni, Beatriz, Edgar Franco, and Vanessa Melo (2015). “Killing in the Slums: an Impact Evaluation of Police Reform in Rio De Janeiro”. Stanford.
- Mares, Isabela and Lauren Young (May 2016). “Buying, Expropriating, and Stealing Votes”. en. In: *Annual Review of Political Science* 19.1, pp. 267–288. ISSN: 1094-2939, 1545-1577. DOI: [10.1146/annurev-polisci-060514-120923](https://doi.org/10.1146/annurev-polisci-060514-120923). URL: <http://www.annualreviews.org/doi/10.1146/annurev-polisci-060514-120923> (visited on 11/26/2019).
- Matanock, Aila M. and Paul Staniland (Sept. 2018). “How and Why Armed Groups Participate in Elections”. en. In: *Perspectives on Politics* 16.3, pp. 710–727. ISSN: 1537-5927, 1541-0986. DOI: [10.1017/S1537592718001019](https://doi.org/10.1017/S1537592718001019). URL: [https://www.cambridge.org/core/product/identifier/S1537592718001019/type/journal\\_article](https://www.cambridge.org/core/product/identifier/S1537592718001019/type/journal_article) (visited on 11/25/2019).
- Paoli, Letizia (June 2008). *Mafia Brotherhoods Organized Crime, Italian Style*. en. Oxford University Press. ISBN: 978-0-19-515724-6. DOI: [10.1093/acprof:oso/9780195157246.001.0001](https://doi.org/10.1093/acprof:oso/9780195157246.001.0001). URL: <http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780195157246.001.0001/acprof-9780195157246> (visited on 07/21/2020).
- Petersen, Willow (June 2013). “Is Coca Worth Killing For? Natural Resources and Civil Conflict Intensity: The Shining Path in Peru”. en. In: *Carleton Review of International Affairs* 2. ISSN: 2561-3251. DOI: [10.22215/cria.v2i0.113](https://doi.org/10.22215/cria.v2i0.113). URL: <https://ojs.library.carleton.ca/index.php/cria/article/view/113> (visited on 07/09/2020).
- Rios, Viridiana and David A. Shirk (2012). “Drug Violence in Mexico: Data and Analysis Through 2010”. In: *Trans-Border Institute*, p. 28. ISSN: 1084-4791. DOI: [10.1007/s12117-010-9096-7](https://doi.org/10.1007/s12117-010-9096-7).
- Schubert, Moritz (Mar. 2015). “A transformation from political to criminal violence? Politics, organised crime and the shifting functions of Haiti’s urban armed groups”. In: *Conflict, Security & Development* 15.2. Publisher: Routledge eprint: <https://doi.org/10.1080/14678802.2015.1030950>, pp. 169–196. ISSN: 1467-8802. DOI: [10.1080/14678802.2015.1030950](https://doi.org/10.1080/14678802.2015.1030950). URL: <https://doi.org/10.1080/14678802.2015.1030950> (visited on 07/22/2020).
- Slade, Gavin (2012). “No Country for Made Men: The Decline of the Mafia in Post-Soviet Georgia”. In: *Law & Society Review* 46.3. Publisher: [Wiley, Law and Society Association], pp. 623–649. ISSN: 0023-9216. URL: <https://www.jstor.org/stable/23252256> (visited on 07/22/2020).
- Smith, Daniel M. (Apr. 2018). “Electoral Systems and Voter Turnout”. en. In: *The Oxford Handbook of Electoral Systems*. Ed. by Erik S. Herron, Robert J. Pekkanen, and Matthew S. Shugart. Oxford University Press, pp. 192–212. ISBN: 978-0-19-025865-8. DOI: [10.1093/oxfordhb/9780190258658.013.17](https://doi.org/10.1093/oxfordhb/9780190258658.013.17). URL: <http://oxfordhandbooks.com/view/10.1093/oxfordhb/9780190258658.001.0001/oxfordhb-9780190258658-e-17> (visited on 10/02/2020).

- Staniland, Paul (2012). “Organizing Insurgency: Networks, Resources, and Rebellion in South Asia”. In: *International Security* 37.1. Publisher: The MIT Press, pp. 142–177. ISSN: 0162-2889. URL: <https://www.jstor.org/stable/23280407> (visited on 07/09/2020).
- Tajima, Yuhki (May 2018). “Political Development and the Fragmentation of Protection Markets”. In: *Journal of Conflict Resolution* 62.5, pp. 1100–1126. ISSN: 0022-0027. DOI: [10.1177/0022002716669810](https://doi.org/10.1177/0022002716669810). URL: <http://journals.sagepub.com/doi/10.1177/0022002716669810>.
- Tilly, Charles (1985). “War Making and State Making as Organized Crime”. In: *Bringing The State Back In*, pp. 169–187. ISBN: 0-521-31313-9. DOI: [10.1017/CB09780511628283](https://doi.org/10.1017/CB09780511628283).
- Trejo, Guillermo and Sandra Ley (Sept. 2019). “High-Profile Criminal Violence: Why Drug Cartels Murder Government Officials and Party Candidates in Mexico”. en. In: *British Journal of Political Science*. Publisher: Cambridge University Press, pp. 1–27. ISSN: 0007-1234, 1469-2112. DOI: [10.1017/S0007123418000637](https://doi.org/10.1017/S0007123418000637). URL: <http://www.cambridge.org/core/journals/british-journal-of-political-science/article/highprofile-criminal-violence-why-drug-cartels-murder-government-officials-and-party-candidates-in-mexico/6312D6970FEFC00ABD38940BB6F7FEDA> (visited on 05/21/2020).
- Varese, Federico (2010). *Organized Crime: Critical Concepts in Criminology*. en. Vol. 4. Google-Books-ID: w\_i4QAAACAAJ. Routledge. ISBN: 978-0-415-46078-1.
- Weinstein, Jeremy M. (Oct. 2006). *Inside Rebellion: The Politics of Insurgent Violence*. en. Cambridge University Press. ISBN: 978-1-139-45869-6.
- Wolf, Sonja (2010). “Maras transnacionales: Origins and Transformations of Central American Street Gangs”. In: *Latin American Research Review* 45.1, pp. 256–265. ISSN: 0023-8791, 0023-8791. DOI: [10.1353/lar.0.0093](https://doi.org/10.1353/lar.0.0093). URL: <http://search.proquest.com/docview/852897808?accountid=12339>.
- Zaluar, Alba (2007). “Democratização inacabada: fracasso da segurança pública”. In: *Estudos Avançados* 21.61, pp. 31–49. ISSN: 0103-4014. DOI: [10.1590/S0103-40142007000300003](https://doi.org/10.1590/S0103-40142007000300003).