

Endogenous State Weakness: Paramilitaries and Electoral Politics in Rio de Janeiro

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April 21, 2014

Abstract

State weakness can be self-reinforcing, encouraging rebel or criminal groups to directly challenge state power, generating frontal conflicts that can further weaken the state. With paramilitaries—non-revolutionary, pro-government groups, often with informal ties to state forces—state-weakening occurs less through outright conflict than through more oblique channels, including electoral politics. We show this through an analysis of Rio de Janeiro’s police-linked *milícia* groups. Once unique to a handful of *favelas* (slums), where they kept out the city’s powerful drug syndicates, *milícias* rapidly proliferated between 2003 and 2007 to control some 170 communities. The election of *milícia* leaders and sympathetic police-related candidates in 2006 led to speculation that armed coercion by *milícias* had effectively transformed dominated communities into electoral bailiwicks. We test this hypothesis through a difference-in-difference analysis of election results from 1998, 2002, and 2006, exploiting the timing of *milícia* expansion to estimate the impact of domination on voting behavior. Controlling for potential confounders with a neighborhood-level panel data set, we find that *milícia* rule causes the vote shares of police-affiliated candidates to increase dramatically. We then examine case-study evidence of how this political power helped *milícias* weaken state efforts to contain and roll back their power. Throughout, we address issues of identification, discuss the implications of our results, and avenues for further research.

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1 Introduction

In 2007, newly elected President Felipe Calderón sharply escalated Mexico's drug war by deploying army troops to Michoacán state, where cartels' battle for hegemony had led to chaos and the collapse of state-level security provision. Six years later, Calderón's successor Enrique Peña Nieto broke his own campaign promise to de-escalate the drug war when Michoacán slid once more into chaos. This time, however, the problem was not inter-cartel turf war, but the rise of paramilitaries. These *autodefensas* (self-defence groups) accomplished in a year what the Mexican government was not able to in six—oust the Familia Michoacana / Knights Templar drug cartel from its strongholds in rural Michoacán. To many, this represented a legitimate advance over cartel domination, which had grown increasingly violent and exploitative. Yet the *autodefensas* remain unaccountable, illegal armed groups, sparking fierce debate over how the state should relate to them: secretly collaborate? Integrate them into official forces? Arrest them en masse? If the state was too weak to destroy the cartels, it seems unlikely that it could eradicate and replace the *autodefensas*. By the same token, however, would it be able to monitor the *autodefensas*, dissuade them from extortion and other criminal activity, and contain their power over time? Part of the problem is political: with their semi-legitimate status and fine-grained knowledge about local residents, *autodefensas* could plausibly transform their territorial control into political power through electoral coercion. Winning elected office, in turn, would permit *autodefensa* leaders or their allies direct influence over policy, likely producing a further weakening in the state's capacity to repress or eliminate *autodefensas*.

The case highlights the unique dilemmas that states face once paramilitary groups arise—in particular, the subtle ways in which they exacerbate and entrench state weakness. State weakness can be self-reinforcing through multiple channels; a prominent, patent example is civil conflict. Where states fail to monopolize violence, rebel or criminal groups have incentives to directly challenge state power and/or seize territory (Fearon and Laitin 2003), generating frontal conflicts that can further weaken the state. A more nuanced channel of self-reinforcing state weakness involves paramilitaries: armed groups with links (often indirect) to state forces, without revolutionary or secessionist intent. Paramilitaries usually present themselves as protecting society from an oppositional foe that the state has failed to contain or destroy. Typically, this foe is a guerilla insurgency or similar existential threat to the state, but, as we document, drug cartels can also serve as a suf-

ficiently oppositional group to permit the rise of paramilitarism.¹ Combining military capacity, local knowledge, and recourse to extra-legal violence, paramilitaries often make swift territorial advances where states cannot. In turn, states frequently tolerate or even encourage paramilitaries, effectively outsourcing states' core coercive function and "dissolving the monopoly on violence in order to preserve it." (Kalyvas and Arjona 2005, 35). This mutual usefulness helps explain paramilitaries' proliferation: 300 cases have been recorded in the last 30 years (Carey et al. 2011), in contexts as varied as Iraq, Colombia, Indonesia, and Sudan.

Paramilitaries' relationship to the state is, by design, ambiguous, and so too is their relationship to state weakness. They can offer besieged governments a critical firewall against revolutionary insurgency, or provide unprecedented traction against criminal antagonists (e.g. Morales and La Rotta 2009). On the other hand, paramilitaries have a "ratcheting" quality: once states tolerate or even actively support them, it can be very difficult to roll back their presence and influence, even after the original threat that gave rise to them has waned. In part, this is because states may stand to gain little by directly confronting paramilitaries, especially if ruling parties directly benefit from their territorial control (Acemoglu et al. 2013). Yet paramilitaries need not remain passive with respect to the state: their continued existence depends on an ineffective and poorly disciplined formal security sector, giving them incentives to entrench and extend such weakness.

How do paramilitaries weaken the state? Territorial control by *any* armed group necessarily represents a challenge to state authority. Oppositional groups, though, are more likely to derive purely military and economic advantages from the areas they dominate, weakening the state through direct confrontation, criminal activity, and corruption of law enforcers. Paramilitaries, by contrast, often have a comparative advantage in extracting the political rents that flow from coercive power over voters and the promise of creating electoral bailiwicks. Numerous factors—including ties to the propertied classes and a cultivated image as a spontaneous popular response to a virulent armed threat and hence 'the lesser of two evils'—can combine to foster a certain legitimacy that facilitates paramilitary leaders' navigation of the political world, whether negotiating with politicians or directly entering the electoral arena themselves. Compared to oppositional groups, paramilitaries are better able to penetrate the state, and hence weaken it from within.

¹Though rarely conceived of as a paramilitary group, the Sicilian mafia was tolerated by Rome and even the US in the post-war years because it was seen as a bulwark against an increasingly popular Communist party (Stille 1996), demonstrating that neither criminality nor armed violence is necessary to make a group sufficiently oppositional.

Paramilitaries may not seek political power solely for state-weakening purposes. Like any interest group, paramilitaries get into politics because they get something out of politics, including conventional political rents like salary, prestige, and control over distributable benefits that can be exchanged for favors or loyalty. However, paramilitaries' illegal nature makes state-weakening an end in itself. We conceptualize *state-weakening rents* as a distinct subset of political rents especially important to illegal armed groups: the use of political power to reduce the state's capacity to detain or destroy them, or otherwise interfere with their illegal activities.² Some examples include introducing legislation to make repression more difficult; blocking investigatory efforts; and influencing security-related appointments, budgets, and directives to ensure more lax enforcement. State-weakening rents also include measures that reduce the efficacy of punishment, such as red tape that makes it difficult to obtain a formal conviction against illegal actors, or measures that make or keep the prison system inefficient and porous, so that jailed leaders can continue to run their operations.

Two related propositions arise from our analysis. First, paramilitaries are particularly good at extracting electoral, and hence political, power from territorial dominion. Second, paramilitaries are particularly good at extracting state-weakening rents from political power. We provide a 'proof of concept' of these propositions through a novel empirical analysis of an under-studied case: the rise of police-linked paramilitaries, called *milícias*, in Rio de Janeiro, Brazil. Such groups have a long history in Rio, but rapidly expanded their area of armed dominion, from a handful of *favelas* (slum communities) to more than 100, between the 1998 and 2006 state legislative elections. The latter saw multiple *milícia* members and vocal supporters win office, leading to speculation that *milícias* used armed control to create electoral bailiwicks. We test this claim using a difference-in-difference approach; we find that *milícia* takeover of communities caused the vote share of police-affiliated candidates within those communities to increase dramatically. We then turn to case-study evidence of the state-weakening rents that accrue to political power, tracing elected *milícia* members' and allies' efforts to block state investigation and repression of *milícia* activity. For a time, the efficacy of 'armed clientelism' and the promise of such state-weakening rents combined to spur the formation of new paramilitary groups from the ranks of state forces

²Strictly and inelegantly speaking, we conceptualize the "state-weakening rents of political office". The point is to contrast these rents from both the far more obvious state-weakening rents that accrue to all armed groups purely by virtue of military dominion, and the 'traditional' political rents that accrue to all elected officials.

and their territorial expansion, further reinforcing state weakness. Political winds shifted in 2008 after a *milícia* tortured a group of journalists, leading to public scorn and the first serious anti-*milícia* efforts by the state. While these efforts led to the arrest of hundreds of *milícia* members, including numerous elected officials, the *milícia* phenomenon has largely withstood, adapted to, and in some cases thrived in spite of such repression (Cano and Duarte 2012). This resilience and intractability, we argue, is itself the product of the state-weakening rents that drove paramilitaries to enter politics in the first place.

2 State-Weakening Rents

In this paper, we think of ‘political rents’ broadly as those benefits that result from acquisition of political power through established mechanisms, normally elections. Since we are interested in the motives for political / electoral participation on the part of armed groups, we exclude from our concept of political rents the benefits of violently seizing political power, as in a coup or revolution.³ Political rents thus include the direct benefits to holding office—salary, prestige, and privileged legal status—as well as clientelistic benefits which a local broker can extract in exchange for the votes he controls.

We conceptualize an important subset of political rents of particular importance to groups whose electoral strength is based on illegal armed occupation: *state-weakening political rents*. These rents accrue when armed groups use political power to change public policy and reduce state repression of their own illegal activities. Central to our conceptualization is the idea of weakening the state from within; we mean to distinguish these rents from more ‘direct’ examples, such as the benefits an insurgency derives from frontally defeating an army battalion, or those that a drug cartel derives from corrupting a police commander. Since the continued existence of any illegal group is constantly threatened by the prospect of repressive state action, even marginal influence over security policy can be extremely valuable. Moreover, if electing officials to office today can yield a more permissive posture toward paramilitaries tomorrow, the entire stream of expected future benefits to paramilitary takeover grows, making further expansion more attractive.

Of course, paramilitaries’ primary motivation for territorial expansion may not be political at

³Still, our definition casts a wider net than Mazucca’s (2009) definition of political rents as politically protected transfers of wealth.

all: there are important economic rents to dominion that can include direct appropriation of land and assets, taxation of residents, and control over illicit markets. Territorial expansion can also bring military benefits, if it provides additional physical protection from state forces. Nonetheless, state-weakening political rents are complementary to these economic and military rents: improving the chances that an armed group will continue to be able to operate over time raises the expected return to all other rent-extracting activities, producing a multiplier effect on the overall appeal of illegal armed dominion. At the same time, state-weakening rents can reduce the downside risk of illegal activity by making the punishment associated with capture or repression less painful.

None of the foregoing is exclusively true of paramilitaries: all illegal armed groups can benefit from state-weakening political rents. However, these rents play a far more central role in the expansion of paramilitaries than oppositional groups, for two related reasons. First, paramilitaries are more likely to obtain political power through elections than insurgencies or criminal organizations. Second, paramilitaries are more likely to successfully employ political power, once achieved, to weaken the state's repression of their activities. Concretely, a typical paramilitary leader is more likely to be someone a politician could publicly meet with, or even someone who could feasibly win office him or herself, than an insurgent or a trafficker. Similarly, promoting policies that reduce state repression of crypto-paramilitary categories like 'private security' and 'self-defense groups' is far more politically viable than pushing for negotiations with rebels or traffickers. If the supply of state-weakening political rents is greater for paramilitaries than oppositional groups, so too is paramilitaries' demand for them: since the relative legitimacy of paramilitaries depends on a perception of non-opposition to and even cooperation with the state, their efforts to weaken the state are best kept occulted.

The use of armed clientelism to obtain political power and extract state-weakening rents has been noted in many settings, particularly in the wake of civil conflict. In Colombia, for example, the United Self-Defense Groups of Colombia, or AUC,⁴ with widely documented links to the police and the army (Human Rights Watch 1996), are widely thought to have used their territorial control over voters to elect local politicians (Eaton 2006, 556-59) and national legislators. In support of this claim, researchers in Colombia (Romero and Valencia 2007) noted that in areas with

⁴Autodefensas Unidas de Colombia.

paramilitary activity, indicators of political competition decreased sharply and candidates from the right enjoyed dramatic gains.⁵ Similarly, in Iraq, politically influential Shiite paramilitaries linked to the army and the police, known as the “Badr Corps” (formerly known as the “Badr Brigades”), were reported to have been active in the 2005 elections. News reports attribute the ISIC’s success in those elections partly to widespread intimidation in neighborhoods under Badr Corps control (Steele 2005).

In both Iraq and Colombia, the political success of the security-forces linked group paid off in policy dividends. In Colombia, according to human rights organizations, the demobilization of paramilitaries occurred on highly favorable terms to the armed groups. The enacting legislation was passed with support from legislators whose vote derived from paramilitary dominated areas, suggesting that the AUC’s investment in political power was effective. The later discovery of documents describing a formal political alliance between the AUC and many of the congressmen backing a more lenient demobilization did not lead to changes in the demobilization process. In Iraq, the Badr Corp’s payoff for embracing electoral politics was more transparent. A member of the Badr Organization, Bayan Jabr, was given the key portfolio of the Interior Ministry, which controls the police. From this powerful perch, the interior minister made the Badr Corp an official part of the state security apparatus, giving them the official status of “public order brigades” (Wong 2006). Despite many accusations of illegal killings and participation in illicit economic activities, Jabr shielded the brigades from investigation.

3 *Milícias* in Rio de Janeiro

The history of the *favelas* of Rio de Janeiro, some of the best-studied slums in the world, exemplifies the idea of self-reinforcing state weakness. Since their inception, favelas have been informal, self-organizing communities with limited state penetration (Perlman 1976). This made them attractive bases of operation for the prison-based criminal syndicates, like the Comando Vermelho (CV) and its rivals, that began to expand beyond the prison walls in the early 1980s (Lima 1991). By the

⁵Evidence of influence by armed left-wing groups such as the FARC on electoral processes has been scarcer. While the guerrilla groups have had some success in penetrating municipal governments, Eaton (2006) notes that “[i]n many municipalities, traditional political elites have been loathe to cooperate with the FARC and have steadfastly defended their ancestral claims to authority over the municipality” (552). The FARC’s lack of political influence, however, could itself be a strategic choice in response to a comparative disadvantage; the decimation of the FARC’s political wing, the Unión Patriótica, in the 1980s may have contributed to such a choice.

end of the decade, the CV had become a pure drug-trafficking organization and held territorial control over the majority of the city's favelas (Amorim 1993). Traffickers established a form of 'parallel power', providing public goods and public security while enforcing codes of silence and cooperation, all further eroding state power and legitimacy (Leeds 1996).⁶ Naturally, the state took measures to increase its capacity. By the early 2000s, police repression of the drug trade was highly militarized, and the army had been called in on numerous occasions to occupy key favela territories (Soares and Sento-Sé 2000). Nonetheless, despite killing over 1000 alleged criminals a year for close to a decade, state forces failed to make a permanent dent the territorial dominion of the drug syndicates.

The *milícia* phenomenon dates back at least to the 1980s, when a group of police officers from the Rio das Pedras favela in the then sparsely populated Zona Oeste (Western Zone) of Rio de Janeiro, apparently at the behest of local businessmen, banded together to expel drug dealers from the community. For most of the next two decades, Rio das Pedras and its rule by so-called *polícia mineira*⁷, was seen as a rare exception to the drug syndicates' dominance of Rio's favelas (Burgos 2002). Since at least the early 1990s, Campo Grande, another region in the Zona Oeste, has been under the control of similar, police-linked groups (Ribeiro et al. 2010, 7). In the late 1990s and early 2000s, paramilitary leaders from these regions began to seek electoral and political power, running for municipal and state office, and organizing voter registration drives (Zaluar and Conceição 2007, 94). Yet the phenomenon was largely restricted to the Zona Oeste, and drew very little attention from the media or officials.

The period 2002-2006, especially after 2004, saw a rapid expansion of *milícias* not only within the Zona Oeste but into areas of the city and the greater metropolitan region with no tradition of such groups. The revelation in 2006 that as many as 92 favelas in Rio had been taken over by *milícias* (O Globo 2006) represented the most significant reconfiguration of power in these communities since the rise of the drug syndicates. *milícia* leaders replicated the 'legitimizing discourse' of early *mineira* groups, to create a positive public image: a "Comando Azul" (Blue Command, as opposed to the CV, or Red Command), composed of active duty, reserve, and retired police offi-

⁶In fact, Rio's *facções criminosas* illustrate the "power hates a vacuum" idea twice over: they originally arose as prison gangs in the state's brutal and poorly-run penitentiary system, where they quickly came to dominate day-to-day prison life (Coelho 2005).

⁷The term refers to the police of Minas Gerais state, said to be highly corrupt. The term '*milícias*' was not widely used until later. Zaluar and Conceição (2007) discuss changes over time in the style of rule of *mineiras* in the period prior to widespread *milícia* expansion.

cers, firemen⁸, and sometimes military officers, that ‘liberated’ communities from tyrannical drug traffickers and provided order within the areas under their control (Cano and Duarte 2012). In classic paramilitary fashion, *milícias* thus presented themselves as righteous vigilantes, protecting vulnerable (and thankful) citizens; indeed, Rio’s then mayor César Maia publicly termed them “ADCs”, or Community Auto-Defense forces (Bottari and Ramalho 2006), reminiscent of Colombia’s AUC. For supporters, the state’s apparent inability to permanently re-take favela territory from the drug trade made *milícias*—with their strong links to the state and their respect for law and order—a viable second-best solution, or as Mayor Maia put it, “a much smaller problem” (Bottari and Ramalho 2006).⁹

In practice, however, many *milícias* appear to be extortionate and violent. Qualitative evidence from interviews with residents (Cano and Iooty 2008), as well as the finding by the Rio State Legislative Assembly’s Investigatory Commission (CPI)¹⁰ that most *milícia*-dominated areas were not previously under the control of drug syndicates (Freixo 2008), indicated that *milícias* are primarily motivated by illicit rent extraction. Many of these rents are purely monetary: taxes on Rio’s enormous informal transportation networks and pirated cable TV seem to be particularly lucrative. Once *milícias* have consolidated territorial control, they enforce strict rules against drug use and sales, impose a “security” tax on residents, excise taxes on cooking gas, pirated cable TV and other goods, charge protection fees to local businesses, especially providers of ‘alternative transportation’, i.e. unlicensed mini-busses (Table 1). While some excise taxing has been reported in favelas under drug syndicate control, this is usually seen as a supplement to drug profits in times of low sales. *Milícias* rely on taxation as their primary source of revenue, and the expected rents seem to play a decisive role in determining *milícia* actions. As one *milícia* leader explained “it’s [while planning an invasion] that it’s decided who will exploit what. One group gets the tax on transportation, another gets the tax on gas, pirated cable, and so on” (Ramalho 2007). In some cases, *milícias* have abandoned favelas after finding the extractable profits insufficient (Ramalho and Bottari 2006).

Important as these economic returns to territorial control may be, the results of the 2006 elec-

⁸In Brazil, *bombeiros* (firefighters, or civil defense corps) have the status of military personnel, which gives them special rights and privileges, including access to military-grade firearms.

⁹To his credit, Maia predicted that *milícias* would be more effective than traffickers at using their territorial control to elect friendly candidates, and warned that this could cause long-term problems. This analysis, our findings show, turns out to have been correct.

¹⁰Comissão Parlamentar de Inquérito.

<i>Milícia</i> Characteristic	% of Communities ($n=119$)
Charges Tax on Households	90% (Average Tax 14.3 BRL)
Charges Tax on Businesses	85%
Forced Monopoly on Butane Gas	76%
Forced Monopoly on Illegal Cable	76%
Involves Military Police	86%
Involves Civil Police	52%
Involves Military Firemen	25%

Table 1: Characteristics of *milícia*-dominated communities. Data drawn from 2008 report by the Rio de Janeiro State Legislative Assembly (Freixo 2008).

tions strongly suggested that an important set of rents is political: some *milícia* leaders appear to have turned their territories into electoral bailiwicks (*currais eleitorais*) and gotten themselves or friendly candidates elected. The analyses of voting results by intrepid journalists Elaine Bottari and Sérgio Ramalho (2007) and, later, congressional investigators (Freixo 2008) were both path-breaking and strongly suggestive, but did not rely on a strong research design.

In this paper, we use panel techniques to overcome potential confounders and estimate the causal effect of *milícia* takeover on voting behavior. Employing a panel of polling-station level electoral results and two distinct comprehensive lists of favelas under *milícia* domination, we show that *milícia* domination does indeed cause a large vote swing to candidates connected to state security forces. We then document how, once elected, these officials seek to ensure impunity for the *milícia* leaders and prevent the state from interrupting the economic rents accruing from territorial domination.

The political and electoral aspects of *milícia* dominance have importance beyond their multiplier effect on economic rents: they also affect the conditions that permit *milícias* to form and operate in the first place. Elected office confers on *milícia*-sympathetic candidates and, in a surprising number of cases, *milícia* leaders themselves, not only a wealth of distributable clientelistic benefits, but leverage over the very processes through which the state exerts (or fails to exert) internal control. This raises the spectre of contamination and positive feedback: *milícia* expansion may yield political power that can in turn be used to weaken the state in ways that favors further expansion. Our study provides strong empirical evidence that two crucial links in this causal chain hold: takeover yields electoral influence, and electoral influence yields attempts to weaken the state's efforts to rein in the *milícias*. This points to the need for a more fine-grained con-

ception of state capacity/weakness: the *milícias* draw on both the strength of the state's coercive apparatus—in the form of the military training and equipment available to police officers—and the state's lack of control over that very apparatus. We conclude with a discussion of this point.

4 Estimating the Effect of *Milícia* Domination

In this section, we test our hypothesis that *milícias* use their territorial dominion, most likely in a coercive way, to increase the political power of police-backed candidates. The main theoretical objection to our hypothesis—often made by *milícia*-backed candidates themselves—is that these politicians were elected due not to any coercion on the part of *milícias*, but to changes in voters' preferences. Voters, according to this view, begin to care more about security, and then choose police-linked politicians whose background in law enforcement makes their security-related campaign promises more credible.¹¹ Furthermore, security-conscious voters are more likely to tolerate—perhaps even support—the armed presence of *milícias* who expel or exterminate drug gangs. Under this narrative, *milícia* takeover has no causal effect on electoral outcomes; rather, correlations between the two arise because certain preferences among residents simultaneously favor the election of police-linked candidates and the presence of *milícias* in their neighborhoods.

The changing-preferences hypothesis and our coercive-mobilization hypothesis have very different implications for the analytical and normative import of the role of these police-backed candidates in politics. Under the changing preferences story, electoral institutions are functioning as they were designed: politicians more responsive to a particular need of the electorate win more votes. Because of the permissive nature of the open-list proportional system in Brazil, politicians who can take advantage of increased demand for law and order will quickly win office. Our hypothesis, however, posits that preferences do not change, at least not before *milícia* takeover. Instead, *milícia* takeover causes voters to shift their support to police-backed (and hence *milícia*-friendly) candidates, at least partially through voter intimidation and restricting unfriendly candidates from campaigning in dominated areas. Under this theory, politicians are accountable to the *milícias*, not to the voters.¹²

¹¹This argument is also compatible with predictions from a citizen-candidate model where campaign promises are not credible, so voters rely on candidate traits such as occupation to infer politicians' policy preferences (?).

¹²As we discuss below, a third, non-coercive causal channel exists: takeover may cause vote share to increase because

Unfortunately, these two hypotheses are difficult to distinguish empirically. Any cross-sectional comparison of *milícia*- and non-*milícia* controlled neighborhoods cannot differentiate between them because of the political preferences confounder. To conduct a more appropriate test, we create a panel dataset of voting results at the polling-station (*locais de votação*) level that allow us to account for pre-domination political preferences within a difference-in-differences framework. Specifically, we compare the over-time changes in voting patterns between polling stations in areas that were “conquered” by the police-backed groups between 2002 and 2006 to polling stations that, while similar in 2002, remained outside of these groups’ direct influence. If the changing-preferences story were true, we would expect that any observed changes in vote shares from 2002 to 2006 would be similar for ‘treated’ (i.e. *milícia*-dominated) and ‘control’ areas. On the contrary, we find that police-linked candidate vote shares grew substantially more in neighborhoods that fell under *milícia* control than in similar neighborhoods that did not, supporting our coercive-mobilization hypothesis.

Additional support for our hypothesis comes from the fact that the differential growth in vote shares occurred only *after* 2002, during the *milícias*’ expansion phase. The main threat to causal inference under this research design is differential trends across *milícia* and non-*milícia* controlled neighborhoods. If, in the absence of treatment, preferences shift towards or against law-and-order candidates in one group of neighborhoods and not the other, then our inferences about the causal effect of *milícia* domination would be biased. We provide indirect evidence against this possibility via a ‘placebo test’: we look for differential changes in voting patterns between ‘treatment’ and ‘control’ groups over a period (1998-2002) in which *neither* received treatment. We find no differential change in vote shares, bolstering our principal claim.

4.1 Data

We rely on data from the 1998, 2002, and 2006 state legislative assembly elections.¹³ To construct our dataset, we linked polling-station electoral data and information on *milícia* zones of control. Voting table (*seção eleitoral*) level results were provided by the Brazilian election authorities (*Tri-*

voters retroactively reward *milícia* candidates for what they see as a job well done. While we do not discard this possibility, we have reason to believe that it can account for at most only a portion of the effect detected.

¹³The state legislature is comprised of 70 state deputies that are elected via open-list proportional representation electoral rules. The district is the entire state, thus candidates can receive votes from any part of the state. We only use polling stations in the municipality of Rio de Janeiro.

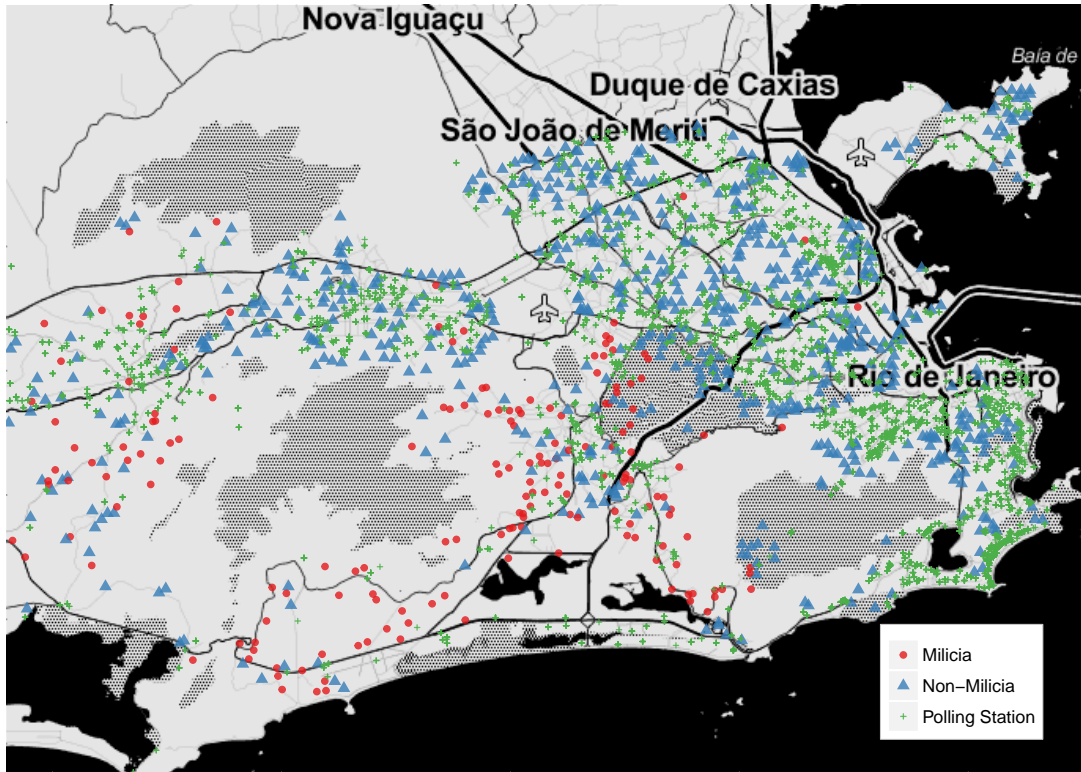


Figure 1: Map of the municipality of Rio de Janeiro. *Milícia* dominated communities are red dots. Other favelas are blue triangles. Locations of polling stations are denoted by green crosses.

bunal Superior Eleitoral or TSE) and the data linking voting tables to polling station addresses was provided by Professor Argelina Figueiredo. The longitude and latitude for these polling stations were obtained from two main sources: the Pereira Passos Institute for polling stations located in schools and via the Google Maps Geocoding API for non-school locations.¹⁴ The geographic locations of polling stations are displayed visually in Figure 1.

To determine which polling stations were most likely to be influenced by *milícias*, we relied on two separate datasets. Our primary source, graciously provided by Alba Zaluar of the Núcleo de Pesquisa das Violências (NUPEVI), identifies which non-state actor, if any, held territorial dominion over each of 965 favelas officially recognized by the Pereira Passos Institute (IPP).¹⁵ To build this dataset, NUPEVI researchers with field experience visited all 965 favelas and, in structured interviews, asked residents and key informants what drug gangs or *milícias* controlled the neighborhood in each year between 2005 and 2010. Their data shows that in 2005 and 2006, 187

¹⁴In addition, a small percentage of polling stations were manually geocoded.

¹⁵The IPP is funded by the Rio de Janeiro municipal government.

or about 19% of all favelas were controlled by *milícias*. Figure 1 shows the geographic location of *milícia* and non-*milícia* communities according to the NUPEVI dataset. For robustness checks, we built a secondary dataset on *milícia* dominion based on the exhaustive Investigatory Commission report (CPI) of the Rio de Janeiro State Legislative Assembly (ALERJ). The CPI report draws on police intelligence and citizen complaints to produce a detailed list of all known *milícia*-dominated neighborhoods (Freixo 2008), which we manually geocoded.

To link polling stations to favelas, we computed the pairwise distance between each polling station and favela. Under the assumption that most voters are assigned to a polling station closest to their place of residence, we classify polling station i as dominated if it is within D kilometers from a *milícia*-controlled favela. For our main specifications we set D to 1 kilometer, but in Section 4.4 we test the robustness of our results to alternative choices of D . With $D = 1$ km, 244 polling stations are considered to be under the influence of the police-backed groups, while 1012 are not. We also computed the distance of each polling station to the closest police station (*delegacia*) for use as a covariate.

Our main dependent variable is votes received by security forces-linked candidates. For our main specifications, we classify a candidate as security-forces or police-linked if their self-declared occupation is “civil police”, “military police”, “fireman”, or “general military”. The reason that we include “general military” candidates is that because the military police and firemen are technically considered part of the military under the Brazilian system, many police and fireman candidates self-reported as “general military”. Of course, some “general military” candidates are associated with other parts of the military, which will result in a certain degree of measurement error in our outcome variable. In Section 4.4, we test the robustness of our results to the exclusion of these candidates.

We supplement our dataset with census data compiled by the Pereira Passos Institute to characterize the socio-economic status of residents of the closest favela. We also include indicators from the 2000 census, identifying tracts that encompassing polling locations and calculating the average years of education of the head of households and the average monthly income of the head of households. Given that there is not a one-to-one mapping of census tracts to polling stations, these variables are only an imprecise measure of voter socio-economic characteristics.

4.2 Research Design

Let $V^0(i, t)$ be the vote share of a type of candidate from polling station i at time t that is free from *milicia* control (the control condition). Similarly, $V^1(i, t)$ represents the vote share of the candidate in precinct i at time t that is linked to a *milicia* dominated community (treatment). The polling stations are observed in a “pre-treatment” period $t = 0$ (before the emergence of the *milicias*) and in a post-treatment period $t = 1$.¹⁶ Our target estimand is the average treatment effect on the treated (ATT): $E[V^1(i, 1) - V^0(i, 1)|D(i, 1) = 1]$, where $D(i, 1)$ is an indicator variable for whether or not the community is dominated by a *milicia* at $t = 1$. This treatment effect then represents the causal effect of *milicia* domination on those communities that were eventually dominated. Thus, the effect we identify does not represent the average effect of domination on all communities, but only on those communities that experienced *milicia* control.

Our main identifying assumption is the following:

$$E[V^0(i, 1) - V^0(i, 0)|X(i), D(i, 1) = 1] = E[V^0(i, 1) - V^0(i, 0)|X(i), D(i, 1) = 0]$$

Expectations are taken over the distribution of $X(i)$ amongst the treated units. This assumption states that conditional on baseline covariates, the average outcomes for polling stations eventually dominated by *milicias* and those that remained outside of their control would have followed parallel paths over time in absence of *milicia* activity.¹⁷ If this assumption holds, then the effect of *milicia* domination can be expressed as:

$$\begin{aligned} E[V^1(i, 1) - V^0(i, 0)|X(i), D(i, 1) = 1] &= \{E[V(i, 1)|X(i), D(i, 1) = 1] - E[V(i, 1)|X(i), D(i, 1) = 0]\} \\ &\quad - \{E[V(i, 0)|X(i), D(i, 1) = 1] - E[V(i, 0)|X(i), D(i, 1) = 0]\} \end{aligned}$$

In principle, we could estimate the above quantity for each unique value of X and average over the distribution of X amongst the treated units, but as the number of covariates increases, that approach becomes infeasible due to the curse of dimensionality. Instead, we follow [Abadie \(2005\)](#) by adopting a weighting approach and weight control units by the inverse of an estimated propensity score. This procedure down-weights control polling stations whose covariates take on values that

¹⁶ $t = 0$ represents 2002 and $t = 1$ represents 2006 in our data.

¹⁷In addition, we must assume common support, i.e. $0 < \Pr(D(i, 1)|X(i)) < 1$ for all i .

are different from those polling stations under *milícia* influence and similarly upweights control units that are more similar to treatment units. After reweighting control units with the inverse of the propensity score, the difference-in-differences estimator is applied to the reweighted data.

To estimate the propensity score, we adopt a non-parametric algorithm commonly used in the statistical learning literature known as “random forests” (Breiman 2001). The random forest method is a tree-based algorithm that creates an ensemble of classifiers for prediction of a given outcome and averages across individual classifier predictions to compute unit-specific predictions. The chief virtue of the random forest model in the context of propensity score estimation is that it flexibly models the relationship between the treatment variable and confounders without having to commit to any particular functional form (Lee et al. 2009). Thus, rather than having to pre-specify non-linearities and covariate interactions in a logit or probit model, the random forest model learns from the data whether or not such interactions or higher order terms (or even the main effects) are useful for predicting the outcome.¹⁸ In our context, we model the relationship between *milícia* domination as a function of 1998 electoral variables, geographic variables, and polling-station and *favela* socio-demographic variables.¹⁹

In our application, propensity score weighting substantially improves baseline covariate balance and consequently makes the parallel paths assumption more credible.²⁰ Pre-weighting and post-weighting covariate balance is displayed in Figure 2a. The black triangles represent the normalized mean differences²¹ between the types of polling stations in the full data, while the black dots show imbalance after propensity score reweighting. Before weighting, socio-demographic characteristics, geographic variables, and gubernatorial voting patterns were substantially differ-

¹⁸For other applications of statistical learning methods in causal inference, see van der Laan and Rose (2011) and Hill and Su (2013).

¹⁹Specifically, we include the following variables: 1998 vote share of police-linked candidates, vote share of the PDT gubernatorial candidate in the second round of the gubernatorial elections, log of household head mean income in census tract of the polling station, household head average years of education in census tract of the polling station, distance of the polling station from the closest *favela*, whether or not the polling station is in the Western Zone of Rio de Janeiro, distance of the polling station to the nearest police station, and social development index of the nearest *favela* to the polling station. The social development index is a composite variable computed by the Pereira Passos Institute that incorporates information on income, public service provision, and education of *favela* residents.

²⁰Because propensity score weighting is known to be sensitive to extreme weights when overlap is poor (Crump et al. 2009), we trim 8 polling stations from the treatment group that have propensity scores higher than the maximum propensity score amongst the control group. After trimming, our maximum inverse propensity score weight is 2.6. This procedure slightly changes the target estimand, but makes our estimation procedure less sensitive to unusual treatment units.

²¹We follow Imbens (2014) in calculating the standardized differences by dividing mean differences by the average of the treated units’ standard deviation and the control units’ standard deviation.

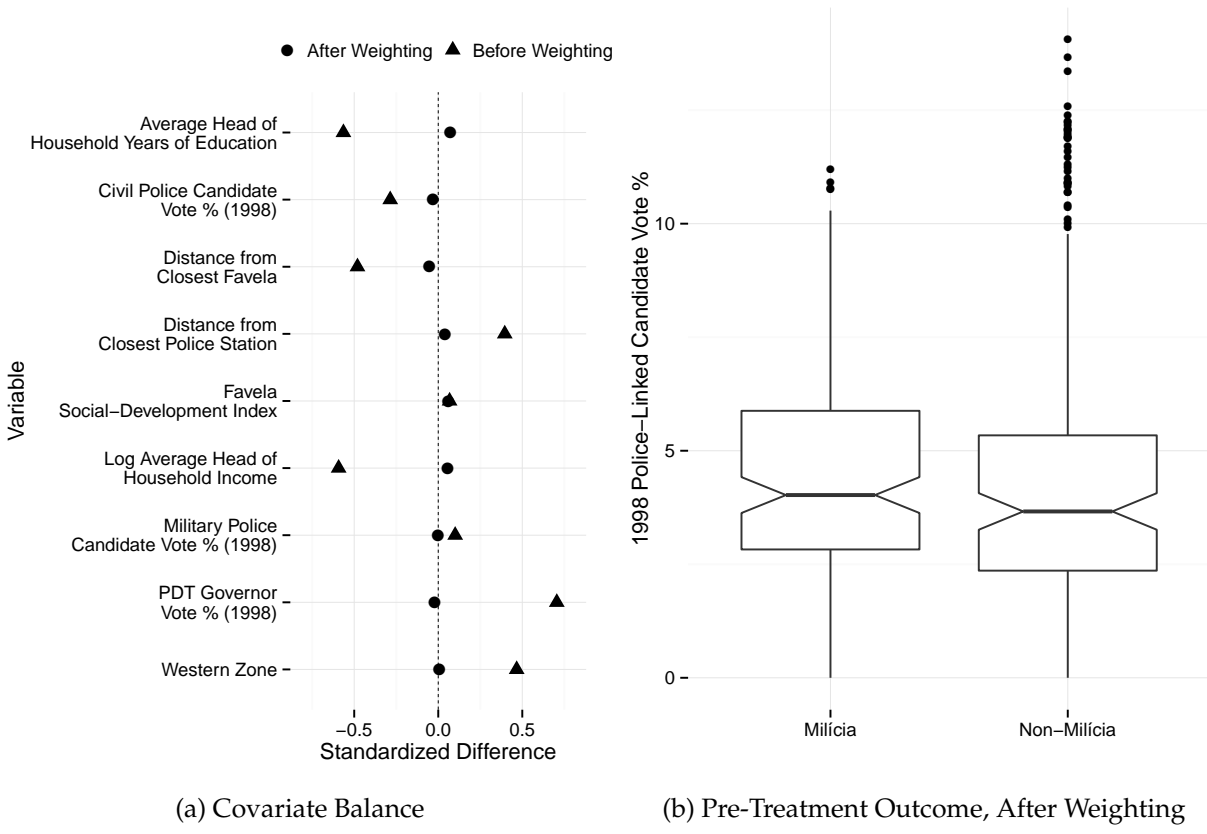
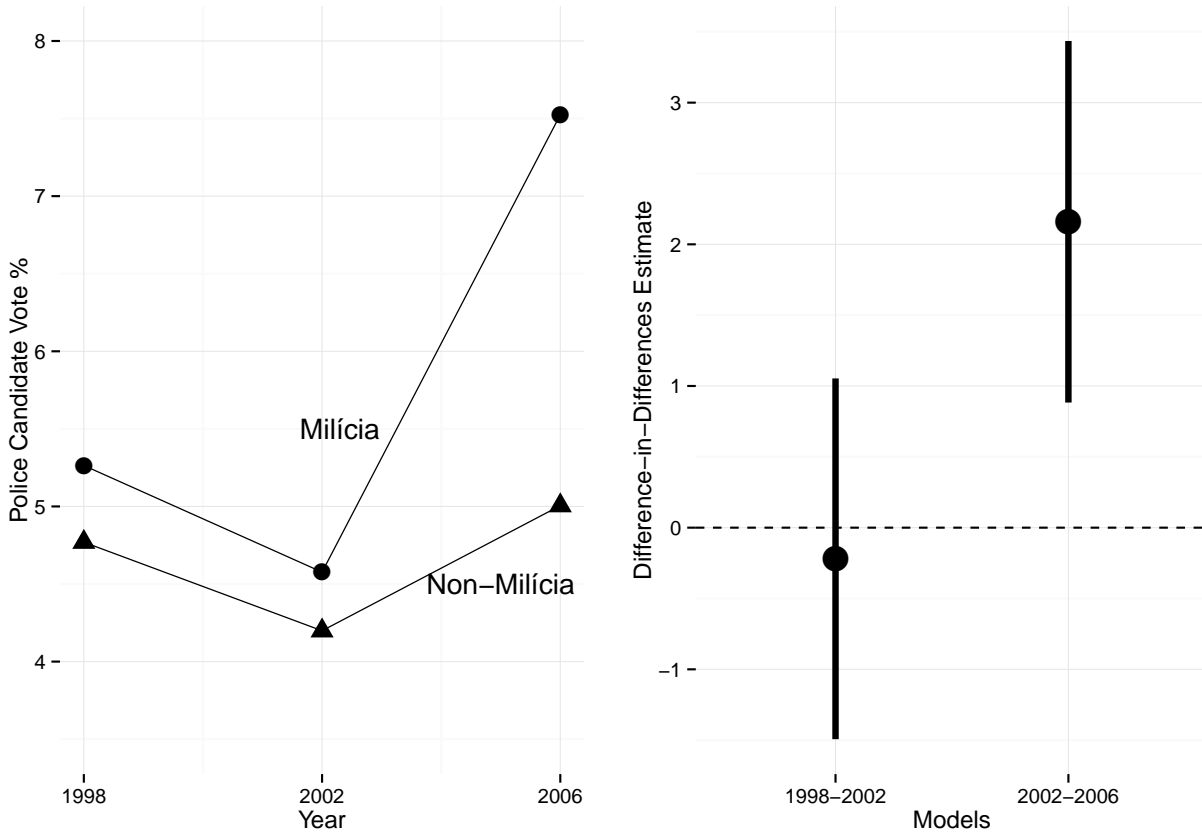


Figure 2: The left panel plots standardized differences on pre-treatment covariates before and after propensity score weighting. Standardized differences are mean differences normalized by the standard deviation. The right panel shows the distribution of vote shares received by police-linked candidates in 1998 in *milícia* and non-*milícia* areas.

ent in *milícia*-influenced areas as compared to non-dominated areas. These imbalances are not surprising given that the *milícias* were more common in the poorer Western half of the city. In contrast to the socio-demographic variables, 1998 vote shares for police-linked candidates were very similar across the two types of units, suggesting that prior support for police candidates was not determinative of which areas were subsequently dominated by the *milícias*. In fact, civil police candidates received a *lower* proportion of votes in treatment communities in 1998. After weighting, covariate imbalance diminishes on all variables, as evidenced by the black points in Figure 2a. Most importantly, the distribution of pre-treatment values of the outcome variable are very similar across the two groups after reweighting. Figure 2b uses box plots to show how similar vote shares received by police-linked candidates were in the two types of polling stations.



(a) Evolution of Police-Linked Candidate Vote Shares (b) Difference-in-Differences Point Estimates

Figure 3: The effect of *milícia* domination on 2006 vote share of police-linked candidates for the Rio de Janeiro state legislature. The left plot shows the evolution of police-linked candidates in *milícia* and non-*milícia* polling stations. Non-*milícia* units have been reweighted using inverse propensity score weights. The right plot shows difference-in-differences point estimates and 95% confidence intervals. Sample excludes polling stations inside the city’s Western Zone. Standard errors are clustered at the polling station-level.

4.3 Results

For our main empirical results, we focus on the effects of *milícia* expansion outside of Rio de Janeiro’s Western Zone. The reason we do so is that there is substantial qualitative evidence that the armed groups had been active in this area of Rio de Janeiro prior to 2002, which means that many polling stations were already potentially influenced in our baseline year. Furthermore, the precise timing of the expansion of these groups in this region is unclear. While paramilitary groups have a long history in the Rio das Pedras favela as documented by [Burgos \(2002\)](#), the origins and histories of other groups in the area are less well documented. Some sources such as [Zaluar](#)

and Conceição (2007, 93), for example, suggest that *milícias* were active in the communities of Gardênia Azul and Tijuquinha in early 1990s. Other investigations, however, have pointed to the years between 1998 and 2002 as the key period of expansion, particularly in the neighborhood of Campo Grande (Freixo 2008). For the rest of city, however, sources generally agree that the expansion of these groups occurred after 2002. Given that the timing of expansion is substantially clearer for areas outside of the Western Zone, our main analysis omits data from this area. In a supplementary analysis, however, we examine the Western Zone with the caveats that our main treatment variable may be imprecisely measured for this sample.

The results of our analysis are summarized in Figure 3a. In 2002, the vote share for police-linked candidates (the sum of the vote shares of civil police, military police, and firemen candidates) in the communities that would remain unaffected by *milícias* and those that would be occupied in the years after 2002 were very similar and the observed difference is not statistically significant. Furthermore, the *change* between 1998 and 2002, before the expansion of the armed groups, is essentially identical across the groups. This placebo test provides considerable support to our assumption that 2002 to 2006 changes would have been identical in the absence of *milícia* control.

In 2006, however, the two types of communities diverged considerably. While there was a general increase in the vote share of police candidates in both types of neighborhoods, the vote-share growth in the communities occupied by *milícias* before 2006 was much higher: about .8 percentage points growth in non-dominated communities versus about 3 percentage points in dominated communities. The increase in *milícia*-dominated communities was about four times higher, a substantively important difference. If the control communities are indeed adequate counterfactuals for the treatment communities, then the effect of *milícia* domination is roughly $3 - .8 = 2.2$ percentage points. Difference-in-differences point estimates and associated confidence intervals (derived from standard errors clustered on polling stations) are presented in Figure 3b. As was evident from the plots of the levels, there is no evidence of differential trends prior to 2002. In fact, the point estimate on the “effect” of *milícia* domination prior to 2006 is essentially 0. After 2002, the point estimate of the average effect of *milícia* control is positive and statistically significant.

This estimated effect is substantively large. The median vote share of security forces candidates in 2002 was about 3.5%. Our estimates correspond to about a 60% increase in the number

of votes received by security force candidates in a dominated community. Furthermore, winning candidates to the state legislature won a median of 0.56% of the vote. Thus, treatment effects on the order of 2.2% represents roughly 4 times the median vote share of a winning candidate. These estimates indicate that *milícia* backing is a highly advantageous political asset in state legislative elections, and support the claim that *milícia*-dominated areas constitute electoral bailiwicks capable of increasing legislative candidates' chances of winning office.

Our difference-in-differences strategy make clear that territorial control of *favelas* is an important electoral asset for police-linked candidates, but it does not show *how* this control changes the voting behavior of the residents of these communities. There are at least three potential mechanisms that could explain these observed changes: coercion, control of information flows, and persuasion. The coercion mechanism is plausible given that the power of paramilitary groups is a direct function of its capacity to engage in violence. The chief obstacle to the effectiveness of coercion as an electoral strategy is the secret ballot, which allows voters to publicly agree to vote for *milícia*-favored candidates, but privately vote for whoever they wished. This explanation, however, assumes that voters believe with full certainty that the ballot is secret.²² Even if a voter believes that the probability of *milícias* being able to observe their vote is small, the potential costs if they are wrong are very high, and as a result may lead voters to comply with the directives of the *milícia*. News accounts suggest that the armed groups do engage in coercion: one police investigation of the *milícia* operating in the *favelas* of Batan, Carobinha, and Barbante found that the group threatened to eject residents from the community if they did not support a favored candidate for city council (Mathias 2008). Another investigation of a different group found that they achieved political success via the “diffusion of terror” (*Jornal do Brasil* 2009) in their dominated neighborhoods.

A second mechanism by which territorial authority could cause changes in voting behavior is through control of information voters are exposed to during electoral campaigns. In legislative elections in Brazil, face-to-face campaigning is an important means by which candidates win support. Because television and radio time is allocated to parties via a legal formula and there are typically dozens, if not hundreds, of candidates that must share the same block of time, candi-

²²In the US, for example, belief in the secrecy of the ballot is not universal. Gerber et al. (2013) document that about 25% of US voters profess to not believing that their vote is secret, and find that experimental manipulation of these beliefs affects voting behavior.

dates often rely on rallies, canvassing, and other forms of retail politics to raise awareness of their candidacies. *Milícias* and drug traffickers (Arias 2006, 437) have been known to use their informal zones of control to prevent unaligned candidates from campaigning within their communities via threats of violence against rival candidates and their supporters, thus preventing voters from being exposed to information about politicians that have not curried favor with the locally-dominant armed group. Reports of this phenomenon were so widespread that it spurred the formation of a special task force of state and federal police forces with the specific goal of increasing the ability of candidates to enter these communities (Ramalho and Araújo 2012).

Finally, a third and perhaps more benign mechanism is persuasion. Voters may perceive *milícia* governance as increasing the provision of order relative to drug gang rule, especially when the incidence of violent armed conflict between the police and drug gangs diminishes. Under this scenario, voters will view the advent of the *milícias* as an improvement over the status quo and thus vote for their preferred candidates at increased rates. While this retrospective voting mechanism might be plausible in some communities, most *favelas* conquered by the *milícias* were never controlled by the drug traffickers. Instead, *milícias* tended to expand in peripheral *favelas* which were largely ignored by the drug gangs because of their distance from profitable middle class clientele. Thus for a majority of these communities, it is not clear how *milícia* control and the associated “security” taxes would be an improvement over the previous regime, making the retrospective voting mechanism fairly implausible.

Rigorously distinguishing between these three mechanisms is extremely challenging, not least because all three could operate simultaneously. The question is, nonetheless, somewhat tangential to our central argument. Certainly it matters a great deal from a normative perspective whether residents are being physically coerced into voting for candidates they otherwise would not support or simply rewarding politicians for a job well done. Still, *milícias* have armed dominion over civilian populations; our claim is that they transform that illegal dominion into political power through elections. The quantitative evidence clearly supports this claim, even if it does not definitively identify the mechanism by which it occurs.

	Benchmark	No IPW	Police Only	Firemen Only	CPI Report
Milícia x 2006	2.2*** (0.7)	1.2* (0.6)	0.8*** (0.3)	1.6*** (0.4)	1.3** (0.5)
Milícia	0.9 (0.6)	1.4** (0.6)	-1.3*** (0.3)	1.8*** (0.4)	1.7*** (0.4)
Num. obs.	1870	1970	1870	1870	1950

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Standard errors are clustered on polling station.

Table 2: Robustness to alternative specifications and dependent variables. Difference-in-differences estimates of *milícia* influence in 2006 is labeled “Milícia x 2006”. The “Benchmark” column shows results reported in Figure 3b. The “No IPW” specification reports results without propensity score weighting. The “Police Only” specification drops military and firemen candidate votes from the definition of the dependent variable. The “Firemen only” column shows results on firemen candidate votes only. “CPI Report” specification reports estimate using alternative coding of *milícia* influence.

4.4 Robustness Checks and Alternative Outcome Variables

Table 2 reports results of various robustness tests. In the first column, we report our benchmark estimate (reported in Figure 3b) to facilitate comparisons. In the second column labeled “No IPW”, we do not weight the control polling stations by the inverse of the propensity score, nor do we trim treated units with very high propensity scores. Without weighting, all control polling stations receive equal weight, even if they are in neighborhoods with very different socio-economic and political characteristics than those where the *milicias* operate. In fact, without weighting, we find evidence of differential trends prior to 2006 (not reported), which strongly suggests that the parallel paths assumption is not warranted when failing to account for differences in baseline characteristics. While we believe not weighting considerably weakens the credibility of our main identification assumption, it is reassuring that the point estimate, while smaller, is still positive and significant (albeit only at the 10% level).

The third and fourth column reports results with alternative dependent variables. As discussed above, there is some ambiguity about the coding of military police candidates, since many of these candidates self-declare as “military” candidates. To test the robustness of our results to dropping military and military police candidates, we focus only on civil police, where there is no ambiguity. As shown in the third column, the effect on civil police candidate vote share remains positive and statistically significant. In the fourth column, we examine the effect on firemen candidates only and similarly find a positive and significant effect.

	D=0.25km	D=0.75km	D=1.25km	D=1.75km
Milícia x 2006	1.8 (2.6)	2.4*** (0.9)	2.0*** (0.6)	1.6*** (0.6)
Milícia	2.3* (1.3)	0.5 (0.8)	1.1* (0.6)	1.4*** (0.5)
Num. obs.	1880	1862	1868	1866
# of Treated Observations	14	162	334	492

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Standard errors are clustered on polling station.

Table 3: Robustness to alternative distance cutoffs (D) used to classify a polling station as under *milícia* influence. Each column uses a different distance cutoff to classify a polling station as a treatment unit.

We also recode our main treatment variable with an entirely different source of data on *milícia* influence. We manually geocoded *favelas* and communities listed in the report as under *milícia* control in the report by the Investigatory Commission (CPI) of the Rio de Janeiro State Legislative Assembly. This information was compiled from citizen complaints to a government hotline, as well as testimony of witnesses called before the committee. In our main analysis, we use the NUPEVI data on *milícia* influence because it was gathered more systematically, but the CPI report is still likely to be broadly accurate about *milícia* presence. Again using the cutoff of $D = 1$ kilometer, we classify any polling station within a short distance of a controlled community as under *milícia* influence. Using the same estimation approach as our main analysis, we again find a positive and statistically significant effect of *milícia* influence on police candidate votes. As reported in the column labeled “CPI Report”, we obtain a difference-in-differences point estimate of 1.2 percentage points, which is smaller than our benchmark estimate but broadly consistent with *milícia* influence in elections.

Next, we probe the stability of our estimates when varying the criteria by which we consider a polling station as influenced by *milícias*. In our main analysis, we classify a polling station as “dominated” if it is located within 1 kilometer of a *milícia*-controlled *favela*. In Table 3, we report our estimates when using a cutoff (D) of 0.25, 0.75, 1.25, and 1.75 kilometers. As the cutoff increases, the effect estimates tend to diminish, as one might expect given that voters in distant polling stations are less likely to be under the influence of *milícias*. All estimates are statistically significant, with the exception of the estimate using the $D = .25$ km specification, but that is due to the small number of treated units (12) remaining in the sample when using such a restrictive

	No Controls	IPW	IPW, Controls
Milícia	1.6*** (0.3)	1.5*** (0.4)	1.5*** (0.4)
Num. obs.	978	933	933

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Standard errors are heteroskedasticity robust.

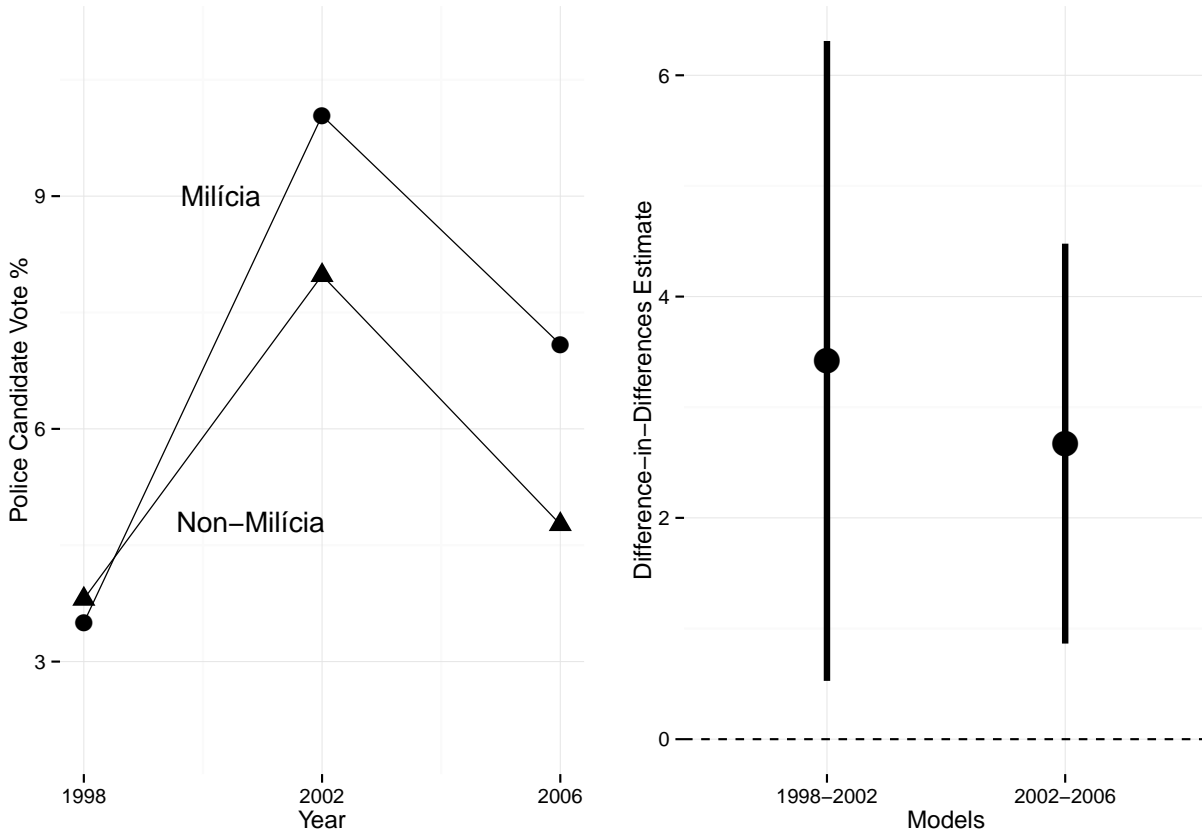
Table 4: Effect of *milícia* domination on vote share of known *milícia*-linked candidates in 2006. This table reports point estimates from three cross-sectional regressions where the outcome variable is vote share of candidates known to allied with *milícias*. The first column shows the estimate from a model with no covariate adjustment, the second column shows the estimate from a weighted regression with inverse propensity score weights, and the third column shows the estimate from a regression (again weighted by inverse propensity score weights) controlling for police vote shares in 2002 and 2006. Coefficients on control variables are omitted. Sample excludes polling stations in the western zone.

cutoff. Still, it is reassuring that even with a distance of a quarter of a kilometer, the point estimate is very similar to the estimate from our benchmark specification.

In our main analysis, we focus on vote shares of candidates who self-declare as police or related security forces because this measurement strategy does not require us to have precise knowledge of which candidates were allied with the *milícias* and also allows for the study of over-time change. Due to the efforts of the Rio de Janeiro legislative assembly’s investigatory commission, however, considerable evidence was amassed on *milícia* links with specific candidates. As a further test, we study the effect of domination on the vote share of these specific six candidates in 2006.²³ To do so, we estimated a series of cross-sectional²⁴ regressions, which are presented in table 4. Because of the timing issues discussed above, we drop polling stations from the Western Zone. The first column presents results from a regression with no controls (equivalent to a difference-in-means) where the only variable is the *milícia* dummy. As expected, this estimate indicates that *milícia* presence is indeed strongly correlated with the vote share of these candidates. In the second column, we reweight the data using the inverse propensity score weights used in our panel analysis, which effectively controls for all the political, geographic, and socio-demographic variables listed in figure 2a. The coefficient remains basically unchanged from our most basic specification. In the third column, we explicitly control for the vote share of police candidates in 2002 and 1998 and again the coefficient remains positive and statistically significant. Given the documented links be-

²³The state deputy candidates named in the CPI report are Natalino Guimarães, Marco Aurélio França Moreira, Girão Matias, Jorge Luiz Hauat, Alexandre Cerruti, and Alvaro Lins dos Santos.

²⁴We cannot employ a difference-in-differences strategy with this outcome variable because most of the accused candidates had not run in 2002.



(a) Evolution of Police-Linked Candidate Vote Shares (b) Difference-in-Differences Point Estimates

Figure 4: The effect of *milícia* domination on 2006 vote share of police-linked candidates for the Rio de Janeiro state legislature in the Western Zone. The left plot shows the evolution of police-linked candidates in *milícia* and non-*milícia* polling stations. Non-*milícia* units have been reweighted using inverse propensity score weights. The right plot shows difference-in-differences point estimates and 95% confidence intervals. Sample excludes polling stations outside the city’s Western Zone. Standard errors are clustered at the polling station-level.

tween these candidates and *milícias*, it is heartening that our data shows the expected correlation between their votes and armed group presence

4.5 Effect of *Milícia* Expansion in Rio de Janeiro’s Western Zone

In this section, we estimate the effect of *milícia* expansion inside the Western Zone region of Rio de Janeiro, where the armed groups originated. As discussed earlier, the chief empirical issue with focusing on this region is that the timing of their expansion in these communities has not been precisely documented. It is clear that a major period of expansion occurred between 1998 and

2002, but some groups may have become active even earlier. To partially deal with this issue, we exclude polling stations near the community of Rio das Pedras, since the existence of police-linked armed groups is known to predate 1998 (Burgos 2002). One additional weakness of Western Zone analysis is that we cannot conduct a placebo test for differential trends prior to 1998, because geocoded polling station data is not available for the 1994 elections. In all other respects, we use the same methods of analysis used in previous sections.

As Figure 4 shows, the formation of *milícias* in the Western Zone had even larger effects than what was observed in the rest of the city. In 1998, as evident in Figure 4a, communities that would be dominated by *milícias* voted at *lower* rates for police-linked candidates than comparable communities. Between 1998 and 2002, however, *milícias*-influenced polling station experienced a very large increase in votes going to police candidates. While police candidate votes shares in control polling stations also grew, the increase was substantially smaller. This difference continued to persist in the 2006 election, though it diminished somewhat relative to 2002. Difference-in-differences point estimates and associated confidence intervals in Figure 4b show that the differential growth in vote shares are statistically significant in both 2002 and 2006. The magnitude of these estimates are about double of what was observed outside of the Western Zone, providing evidence that political project of *milícias* began earlier than previously recognized (e.g. Ribeiro et al. 2010) and was most successful in the more peripheral parts of the city.

5 *Milícias* and the State

The quantitative analysis in the previous section establishes that *milícias* are able to convert territorial dominion into political power. But what do they do with that power? In this section we review, in qualitative terms, the trajectory of the *milícia* phenomenon in Rio and demonstrate that 1) *milícias* initially used political power to weaken the state's capacity to repress their activities, and 2) even after political winds shifted strongly against them, halting their expansion, the *milícias* retained considerable political power and suffered almost no territorial losses, indicating the resilience of state-weakening effects.

Until 2007, a kind of positive feedback loop pertained: *milícias* exploited a relatively lax political environment to aggressively expand their territorial control and obtain key positions within the state and municipal legislative branches, as well as the state's security apparatus. This in turn

increased the incentives for new *milícia* groups to form and take territory. With the advent of a new and less supportive governor in 2007, and widespread public outcry after the brutal torture and murder of several journalists the next year, the *milícias* entered into a more antagonistic relationship with the state and public opinion in general. Still, retrenchment only went so far. *Milícia*-backed politicians were able to use their control over key political resources to block state action against their armed benefactors and protect their own political careers, at least temporarily. The 2008 municipal elections demonstrated that, while the governor and the upper echelons of the state security apparatus directly attacked their economic and political resources, *milícias* still had considerable capacity to translate their territorial control into political power. Four years later, the 2012 mayoral campaign was marked by mutual accusations of involvement with *milícias*-linked candidates (Ritto and Prado 2012), capturing both the stigma that had come to be associated with *milícias* and their continued penetration into electoral politics.

5.1 2002-2006: *Milícia* Expansion

While police-backed groups have long been active in the outskirts of Rio de Janeiro, particularly in the Western Zone neighborhoods Rio das Pedras and Campo Grande, the *milícias* only began to expand eastward to the heart of the city in the period between 2002 and 2006. An important precondition for this expansion was the permissive rule of the governor Rosinha Matheus, who appointed her husband and former governor, Anthony Garotinho, as security secretary. Under this regime, “progressives” within the state security leadership were removed and replaced with bureaucrats who came from within the police, such as Álvaro Lins, a former military police and future state legislator,²⁵ and Marcelo Itagiba, a Federal Police officer who became security secretary when Garotinho stepped down to run for president. According to members of the Investigatory Commission, Itagiba and Garotinho received police and government intelligence revealing the spread of the *milícias*, but took no action.²⁶

During this period of expansion, politicians in the state legislature and the city council with background in the security forces—and often leaders of *milícias* themselves²⁷—began to seek political alliances with these emerging groups (Freixo 2008). These alliances could be quite overt: the

²⁵ Authors’ interview with Silvia Ramos, former security official, 8/2/2007.

²⁶ Interview, CPI members, Rio de Janeiro, July 9, 2007.

²⁷ *Milícia*-linked politicians active during this period with such backgrounds include Josinaldo Francisco da Cruz (known as “Nadinho”), Jorge Babu, and Coronel Jairo Souza Santos.

CPI investigation uncovered written “contracts” formalizing political alliances between Nadinho and groups in Campo Grande, for example. In the state legislature and city council, *milícia*-backed legislators assumed positions key to the interests of the armed groups, including committees charged with overseeing the security apparatus. Examples include *milícia* leader and state representative Coronel Jairo Souza Santos’s appointment as chair of the legislature’s Security Committee, and Marcelo Itagiba’s post on the National Justice Committee, after winning election to federal office with the support of *milicianos* from the West Zone (Freixo 2008, 62). *Milícia* leader Cristiano Girão (eventually sentenced to 14 years for extortion and money laundering) was appointed Special Advisor to Governor Matheus (Freixo 2008, 62).

Another critical political benefit was the informal norm of allowing city councilors and state legislators to influence personnel decisions within the police force. According to police officials, politicians were given the prerogative of suggesting police commanders for posts in their electoral bailiwick, allowing these officials to select personnel supportive of *milícia* expansion.²⁸ The importance of this prerogative was evident in recorded conversations between Jacarepaguá *milícia* leaders Fábio de Menezes Leão and Mário Franklin Leite Mustrange de Carvalho, where the armed group leaders stated that controlling the appointment of commanders of the police stations near their zones of control was a “priority” for when they achieved power via elections. In some cases, police operations “softened up” or expelled incumbent drug trafficking firms, facilitating *milícia* takeover once police withdrew.²⁹

5.2 2007-2009: Confrontation with the State

The state government’s policy of benign neglect towards the *milícias* was partially reversed in 2007 when Sérgio Cabral assumed the governorship of Rio de Janeiro. Cabral appointed José Mariano Beltrame to be state secretary of security, a career federal police officer with no ties to the *milícias*. Beltrame promised to address the armed groups’ rapid expansion (Leitão 2007) and acted quickly to reassign police commanders linked to *milícias*.³⁰ In this less hospitable political environment, the *milícia*-linked legislators moved to protect the groups’ from state sanction by drafting legis-

²⁸ According to news sources, sympathetic police would provide intelligence and logistic support to *milícias* preparing to expel drug gangs from targeted favela.

²⁹ Interview, Civil Police *Delegado* Vinicius George, Rio de Janeiro, July 9, 2007.

³⁰ While Cabral’s governorship certainly brought an increase in anti-*milícia* repression, he was not immune to their political reach. Between 2006 and 2007 he campaigned with and publicly praised elected legislators Jerominho and Natalino, both later convicted of *milícia* activity; video available at <http://www.consciencia.net/um-ciclo-que-se-fecha/>.

lation legalizing the *milícias* and blocking investigations of the phenomenon. Attempts to install an investigatory committee with subpoena powers by progressive legislators, for example, were repeatedly blocked by *milícia* sympathizers. A committee designed to investigate police-related issues, including the *milícias*, that was successfully created was headed by legislator who was a known sympathizer. In October of 2007, state legislator and suspected *milícia* leader Natalino Guimarães introduced a bill legalizing “community police” , which extend legal protections enjoyed by the police to informal groups composed of retired and off-duty police officers. The bill, which passed with overwhelming support, was vetoed by Governor Cabral. In a similar move in the national legislature in December of 2007, Marcelo Itagiba introduced a bill that would eliminate federal prosecutors’ legal authority to prosecute police (Madueño 2007).

In 2008, the Security Secretary Beltrame increased the pressure on the *milícias* by arresting and jailing state deputy Álvaro Lins, a former chief of the civil police suspected of having allied with the *milícias*, on charges of money laundering and criminal conspiracy, among others (Loureiro 2008). The political power of the *milícia*-affiliated candidates quickly became apparent as the state legislature voted within days of the arrest to release Lins from prison and allow him to continue to operate as a state legislator. Out of 70 deputies, 40 voted in favor of Lins’s release with all known *milícia*-linked candidates voting in the affirmative. Attempts by high level security officials to limit the political power of the *milícia* appeared to have failed. Soon after Lins’s arrest however, the newspaper *O Dia* revealed that a team of their reporters had been captured and tortured by members of a *milícias* linked to Coronel Jairo, a state deputy (Barrionuevo 2008). The horrific details of the torture and the outraged reaction of the press spurred an intense political reaction. The state legislature authorized an investigatory commission (CPI) led by *milícia* critic and State Deputy Marcelo Freixo, and several *milícia* leaders (as well as Lins) in the city council and state legislature were arrested and removed from office.

The efforts of the governor and the decrease in their formal political power appears to have stopped, or at least slowed, the expansion of the *milícias*. Concern over the electoral potency of these groups in fact led state election officials to deploy armed troops to occupied favelas during the 2008 elections. Despite these efforts, however, some *milícia* backed candidates succeeded in winning office once more in 2008 despite restrictions on their ability to campaign and coordinate with the armed groups. The best example was candidate for city council Carmen Guimarães,

known as Carminha ‘Batgirl’, and daughter of arrested *milícia* leader and city councilor Jerônimo ‘Jerominho’ Guimarães. Carminha was arrested and jailed during the campaign season for suspected participation in a *milícia*; nonetheless, she won handily in the 2008 municipal elections (Brito 2008).

More broadly, *milícias* continue to benefit from their “lesser of two evils” status. In 2008, Cabral and Beltrame began the rollout of a new public security policy known as Pacification, in which state forces would re-take areas occupied by armed groups and establish permanent ‘proximity policing’ units known as UPPs. By 2011, some of the largest and most violent favelas of Rio had been ‘pacified’, often without firing a shot. Armed violence has fallen dramatically and the program is widely seen as successful and even transformative. However, out of 257 favela areas retaken, only one was *milícia*-dominated prior to pacification.³¹ In April 2014, when the Maré complex of favelas was occupied by police and army troops, including two areas dominated by *milícias*;³² commanders deliberately avoided deploying forces to the *milícia*-dominated areas (Gomes 2014).

While the government position has been that both trafficker and *milícias* territories will be pacified (de Aquino 2011), officials also say they have consciously focused on trafficker-held territories because “the goal of pacification is to reduce armed confrontations. *Milícias* don’t confront the police.”³³ Thus *milícias*’ close ties and non-oppositional relationship to state forces has allowed them to remain essentially untouched by one of the most important expansions of state capacity and territorial control in Rio’s history.

6 Conclusion

The principal results presented here make an empirical case for what was long suspected by observers and activists: Rio’s *milícias* have used their territorial control to coerce residents into voting for their selected candidates. In the process of laying out our theory of the causal mechanism at work and the strategic considerations that lead *milícias* to engage in coercive clientelism, we have

³¹The exception proves the rule: Jardim Batam was the favela where the torture of the *O Dia* journalists occurred, which provoked an impromptu militarized state occupation. The occupation was then transformed into a UPP, but had never been planned as such.

³²The operation is considered only a pre-cursor to an eventual (and yet to be planned) pacification.

³³Authors’ interview, former Sub-Secretary of Public Security, Rio de Janeiro, March 16, 2014. See also Gomes (2014).

also introduced the notion of ‘state-weakening rents’, i.e. the benefits that accrue to *milícias* by virtue of sympathetic elected officials’ ability to prevent the state from effectively cracking down on *milícias* themselves. In this final section, we consider some of the broader implications of the *milícia* phenomenon for our understanding of state capacity and weakness in general.

Scholars of state weakness and incomplete rule of law have, whether explicitly or not, tended to follow O’Donnell (1993) in thinking in terms of areas where the state cannot or does not reach, and where other actors enjoy territorial control, sometimes as rough allies of the state (e.g. colonial Brazil’s *coroneis*), sometimes as clear adversaries (e.g. insurgent groups). State consolidation requires, at a minimum, replacing the dominion of local actors with a Weberian monopoly on the use of force. On the other hand, state weakening and eventually, collapse, can be framed—using O’Donnell’s terminology— as the expansion or proliferation of such “brown” (i.e. not state-controlled) areas. One way or another, state weakness consists in precisely the lack of capacity or will to establish the presence of the state throughout the national territory; to prevent opportunistic non-state actors from dominating areas of weak state penetration; and to retake control of areas that have already become “brown”. Underlying this conception is the idea that when a state fails to establish thoroughgoing physical control, some outside force will arise and rush in to fill the vacuum.

The argument that *milícias* are a lesser evil than drug syndicates, made both by their own leaders and sympathetic politicians, fit well with the state-weakness narrative that undergirds public debate about Rio’s favelas. Opponents of the *milícias* have countered by arguing that they were no substitute for the state, and that their dominion, with its exploitative taxation of low-income residents’ consumption goods, is ultimately no better than that of the drug dealers. For both sides, though, the question seems to have been which set of non-state actors would or should rule certain traditionally “brown” areas of the city.

But the findings of the state legislature’s investigatory commission suggest that this question is not entirely to the point. The CPI report found that the majority of *milícia*-held areas were not previously dominated by the drug trade; on the contrary, prior to their takeover by *milícias*, they were “regular” if far-flung neighborhoods. It is the *milícias* themselves, it seems, who are actively transforming swathes of the city into full-blown stateless areas dominated by non-state armed actors. *Milícias* are overwhelmingly composed of police officers, the majority of them from

the Military Police, the ostensive face of the state's coercive apparatus. These agents of the state independently took up arms to turn "blue" areas "brown". In doing so, they relied crucially on the very resources which constitute state capacity in the classic sense: military training and weaponry, intelligence-gathering networks, and the capacity to deploy force across distance. Indeed, it is the unique access which police have to these resources that gives them comparative advantage as *milícia* leaders.

In using public resources (arms, training, intelligence) for private ends, what *milícia*-linked police officers are doing can be seen as a form of corruption. But it is an extreme form, whose rent-extraction mechanism is based on co-opting—from within—the state's ability to control territory. This points to the need for a more fine-grained conceptualization of 'state capacity'. It is not enough to have adequate police and military forces with the equipment and training to take and hold territory; the state must also be able to constrain those very soldiers from using those resources in ways that leave the state weaker. In Rio, the state is not 'weak' in the classic sense, but it lacks control over its own coercive apparatus. This dimension of weakness becomes increasingly important as classical state capacity grows: if Rio's police had not been transformed by decades of fighting the drug syndicates into a highly militarized, seasoned fighting force, corruption among the ranks would not have led to such extreme outcomes.

These considerations suggest that future work on Rio's *milícias*, as well as comparative studies of armed groups in different national contexts, should focus on the linkages these groups have to social and political loci of power. These linkages, often weaker or absent in insurgent and/or criminal groups, have an overwhelming impact on the resources available to and incentives faced by all armed groups, and may go a long way in explaining the dynamics of their expansion, retrenchment and sometimes collapse. In this sense, the success that *milícias* have had in the electoral arena in Rio, and the corresponding failure of the drug syndicates to make electoral inroads, may be just one manifestation among many of the differential social linkages that armed actors enjoy.

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