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

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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 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, milicias 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 provide evidence of how milícias used political power to weaken state efforts to curtail their activities.

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1 Introduction

In the early 2000s, after two decades of militarized state repression failed to roll back the territorial dominion of Rio de Janeiro’s drug syndicates, a new strategic actor entered the fray. Police-linked paramilitary groups known as milícias rapidly expanded from a few isolated favelas (slums) to dominate dozens and eventually hundreds of communities throughout the city, frequently expelling drug traffickers in the process. The extent of milícias’ expansion began to come to light in 2006, particularly after a number of milícia leaders and allied candidates won office in state legislative elections. While a positive public perception of milícias aided their electoral performance, the concentration of their votes in areas under their armed dominion raised concern. One prominent example was civil police inspector and milícia leader Natalino José Guimarães. Over 60% of Natalino’s votes came from milícia-dominated areas, and in the polling station closest to his center of power, he took almost 30% of valid votes, a very high percentage in Brazil’s single-district legislative elections (Bottari and Ramalho 2007b). Equally troubling were Natalino’s political actions once elected: he quickly proposed bills that would have effectively legalized milícia groups, prevented the use of evidence drawn from anonymous hotlines in cases against police, and prevented the firing of police under prosecution until all appeals had been exhausted. Other milícia-allied legislators then helped shepherd these bills through the legislative process.

State weakness can be self-reinforcing through multiple channels. A prominent, patent example is civil conflict: low state capacity creates incentives for insurgency (Fearon and Laitin 2003), producing frontal conflicts that can further weaken the state. The case of Rio’s milícias exemplifies a more nuanced vector of self-reinforcing state weakness: paramilitaries, which we conceive of as non-state armed groups that present themselves as ‘the lesser evil’, protecting society from an oppositional foe that the state has failed to contain or destroy.¹ Combining military capacity, local knowledge, and recourse to extra-legal violence, paramilitaries often make swift territorial advances where states cannot. States, in turn, frequently tolerate or even encourage paramilitaries, effectively outsourcing core coercive functions and “dissolving the monopoly on violence in order to preserve it.” (Kalyvas and Arjona 2005, 35).

¹Typically, this foe is a guerilla insurgency or similar existential threat to the state, but, as we document, drug cartels can also serve as a sufficiently oppositional group to permit the rise of paramilitarism. Though 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.
Research on paramilitaries has focused on this quid pro quo. Scholars have identified important benefits that paramilitaries can provide to governments, including plausible deniability (e.g. Carey et al. 2011), unprecedented traction against criminal antagonists (e.g. Morales and La Rotta 2009), and coercive electoral influence (e.g. Acemoglu et al. 2013). This focus on the demand for paramilitaries, while a critical first step in understanding a substantively important and understudied phenomenon, risks overlooking two key factors. First, supply matters: the internal dynamics of recruiting, funding, and arming paramilitary forces can outweigh states’ efforts to foster such forces (e.g. Staniland 2012). Second, demand for paramilitaries is endogenous: if certain aspects of state weakness make states more likely to tolerate paramilitaries, then paramilitaries have incentives to entrench and deepen such weakness. This article focuses on the second factor, demonstrating how paramilitaries use territorial control to gain political power, which can then be exploited to weaken the state from within.

Territorial control by any armed group necessarily represents a challenge to state power. Oppositional groups, though, are more likely to derive purely military and economic benefits from the areas they dominate, weakening the state through direct confrontation, criminal activity, and corruption of law enforcers. Paramilitaries may also derive economic rents from territorial control, but they often enjoy a comparative advantage in extracting political benefits from their coercive power over voters and the promise of creating electoral bailiwicks. Paramilitary leaders often enjoy a certain legitimacy—fruit of their cultivated image as ‘the lesser evil’ and, frequently, links to the state security sector (Dube and Naidu 2010)—that facilitates navigation of the political world, whether negotiating with politicians or directly entering the electoral arena themselves. This gives paramilitaries an edge over oppositional groups in penetrating the state via electoral politics.

Paramilitaries may not seek political power solely for state-weakening purposes: electoral influence can yield many benefits, including 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 the benefits of political office that are 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. Such weakening increases paramilitaries’ chance of survival, thus having

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2 Strictly 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
a multiplier effect on economic and other benefits of territorial control.

Two related propositions arise from our analysis. First, paramilitaries can extract electoral, and hence political, power from territorial dominion. Second, paramilitaries can extract 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: Rio’s police-linked milícias. To test the first claim, we build on earlier descriptive analyses of electoral results by analyzing vote share of police-affiliated candidates in areas taken over by milícias between the 2002 and 2006 within a differences-in-differences framework. We compare these treated areas to both the universe of non-milícias areas and an inverse-propensity-score weighted control group. We show that parallel trends held between the 1998 and 2002 elections, but that milícia takeover of communities caused police candidates’ vote share to increase dramatically.

We then present evidence of the state-weakening rents that accrue to political power. Drawing on both qualitative accounts and a quantitative analysis of legislative activity, we show that elected milícia members and their allies consistently acted to weaken state repression of milícia activity. While it is difficult to estimate the counter-factual, we argue that such state-weakening activity has contributed to the milícias territorial resilience. Some leverage comes from an abrupt shift in political winds, from widespread, if wary, approval during the 2002-2007 expansion, to public scorn after 2008 when a milícia group tortured a group of journalists, leading to 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). Indeed, since the state began its ambitious Pacification program, which has recaptured hundreds of favelas from drug traffickers, milícia territorial control has expanded. This resilience and intractability, we argue, is itself the partial product of the state-weakening rents that drove paramilitaries to enter politics 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 virtue of military dominion, and the ‘traditional’ political rents that accrue to all elected officials.
power that can in turn be used to weaken the state in ways that favors further expansion. Our study provides 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 conception 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.

2 Theory

Definitions of paramilitaries abound. Much recent work focuses on paramilitaries’ alliance with the state or government, rather than the party-specific militias associated with 20th century fascist and communist parties. Carey et al. (2011) define ‘pro-government militias’ as organized armed groups apart from the regular security forces but sponsored by a national or sub-national government, and catalog over 300 cases over the last 30 years. Kalyvas and Arjona (2005) define paramilitaries as “armed groups directly or indirectly allied with the state and its local agents”, developing a typology running from local vigilantes through death squads to full-blown paramilitary armies. Acemoglu et al. (2013), working from the Colombian case, focus on groups with territorial control whose interests align with those of the ruling party.

We build on these important conceptual foundations, arguing that the focus on aligned interests, while correct and essential, leaves something unsaid. Paramilitaries interests are not just aligned, but more aligned than some other armed group, one that presents a serious threat to the state and or society. In our conception, an essential characteristic of (successful) paramilitary groups is their (successful) claim to be the ‘lesser evil’. Establishing this status requires differentiating themselves from an oppositional group—a greater evil—along some salient dimension. This dimension, it turns out, is case-specific; the behavior that makes paramilitaries the lesser evil changes from context to context.

In prominent cases like Colombia, the oppositional groups are revolutionary insurgents; paramilitaries distinguish themselves by not trying to topple the state. Lack of revolutionary aspirations is sufficient to constitute a lesser evil, and consequently paramilitaries have engaged openly in drug trafficking with few political consequences (Saab and Taylor 2009). Rio’s *milícias*, like the Mex-
ican autodefensas that have recently arisen in Michoacán, arose to counter drug cartels that pose no existential threat to the state; thus for these groups, simply lacking revolutionary aspirations is insufficient to make them a lesser evil. Instead, paramilitaries in Rio and Mexico publicly and vehemently eschew drug trafficking.

We also broaden previous scholarship’s focus on states’ decisions to “outsource” coercive functions and fail to claim a monopoly on the use of force. The fact that, in contexts as varied as Iraq, Colombia, Indonesia, Ireland and Sudan (Carey et al. 2011), governments tolerate or even support armed groups has understandably led researchers to identify important benefits they provide to states: a critical firewall against insurgency (Dasgupta 2009), tactical flexibility, and local knowledge Carey et al. (2011). Several authors specifically emphasize paramilitary groups’ usefulness in managing electoral competition and delivering votes (?). Understanding the reasons why states might take the Faustian bargain of cooperation with paramilitaries is an important avenue of research. But an exclusive focus on these benefits as an explanation for paramilitaries’ existence risks falling into functionalism: paramilitaries exist because they perform a useful function for states.

A key danger of such a functionalist view is spuriously inferring states’ strategies and preferences: just because paramilitary groups survive or thrive does not mean that this is somehow the state’s preferred outcome, or that all is going according to plan. Besides critical supply-side issues related to recruitment, armament, and financial support necessary to paramilitary formation and survival, the functionalist view ignores the weakening effects that paramilitaries can have over time on states’ ability to eliminate them. Even if a state knowingly tolerate paramilitaries initially, it may do so myopically, underestimating these state-weakening effects. Conversely, the potential to weaken the state’s future capacity for anti-paramilitary action itself contributes directly to ‘supply’, fomenting the formation and consolidation of paramilitary groups.

This paper focuses on an important set of such state-weakening effects: those flowing from electoral power, which, we show, paramilitary leaders derive from territorial control. We conceptualize state-weakening rents as distinct from other, more typical ‘political benefits’ that electoral power provides such as prestige and distributable clientelistic benefits.3 Paramilitary-linked

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3Since we are interested in the motives for political / electoral participation on the part of armed groups, we exclude from our concept of political benefits those that accrue from violently seizing political power, as in a coup or revolution. Still, our definition casts a wider net than Mazucca’s (2009) definition of political rents as politically protected transfers of wealth.
politicians extract these rents by, for example, introducing legislation to make repression more difficult; blocking investigatory efforts; and influencing security-related appointments, budgets, and directives to ensure more lax enforcement. Of course, paramilitaries’ primary motivation for territorial expansion may not be political at 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. Nonetheless, state-weakening political rents are complementary to both economic and clientelistic political 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.

To sketch this in more formal terms, let $E_i$ be the expected economic rents that group $i$ can extract from territorial control conditional on surviving state repression, which occurs with probability $p_t$. Say that by entering politics, $i$ gets a ‘standard’ bundle of expected political benefits—salary, prestige, privileged legal status, and clientelistic benefits $C_i$. On the other hand, becoming overt political actors exposes paramilitaries to shifts in public and official opinion, which can turn negative quickly (Bruce 1992). Elected paramilitary leaders and their allies can make easy targets. That said, the risk from political overexposure is probably distinct from and narrower than the risk of territorial displacement by the state—at least it has proven so in Colombia and Brazil, where investigation and occasional incarceration of paramilitary-linked politicians has rarely translated directly into territorial loss for paramilitary organizations. Therefore, define $R_i$ as the expected sanction resulting from the risk of political overexposure apart from any effect on the probability of surviving (territorial) state repression.

A naive accounting would separate out economic and political benefits, thus: $E_i + (C_i - R_i)$, and view the decision to enter politics as depending on whether the expression in parentheses is positive. This expression, however, does not exhaust the benefits to political office. We conceptualize an important additional set of benefits 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 weaken state repression of their own illegal activities.

To capture these rents, say that political involvement increases the probability of survival by some increment $\Delta_{SW_i}$. \footnote{$\Delta_{SW_i}$ can be thought of as net of any decrease in the possibility of survival due to risks of political overexposure.} Two related points emerge. First, the net benefits of entering politics can
be decomposed into ‘baseline’ political benefits and state-weakening rents:

\[
(p_t + \Delta_{SW_i})(E_i + C_i - R_i) - [p_tE_i] = \begin{align*}
&\quad (p_t)(C_i - R_i) + \\
&\quad \Delta_{SW_i}(E_i + C_i - R_i)
\end{align*}
\]

This formulation makes it clear that state-weakening has a multiplier effect on other rents, especially economic ones. Second, this multiplier effect can be decisive. To see this, note that, as above, politics is trivially worthwhile if the net ‘baseline’ benefits are positive \((R_i < C_i)\). Here, however, even if the risks of exposure are serious enough to outweigh the clientelistic benefits of office (but not economic rents as well), they may be worth bearing if the state-weakening effects of electoral power are large enough. Formally, if \(C_i < R_i < E_i + C_i\) then entering politics is worth it as long as:

\[
\Delta_{SW_i} \geq p_t \frac{R_i - C_i}{E_i + C_i - R_i}
\]

Thus the expectation of state-weakening rents could be decisive in the decision to enter politics.

None of the foregoing is exclusively true of paramilitaries: all illegal armed groups can benefit from state-weakening political rents. However, we conjecture that these rents play a larger role in the expansion of paramilitaries \((i = P)\) than oppositional groups \((i = O)\), for several related reasons. First, paramilitaries are more likely to obtain political power through elections than insurgencies or criminal organizations, so we would expect \(C_P > C_D\).\(^5\) Second, paramilitaries are more likely to successfully employ political power, once achieved, to weaken the state’s repression of their activities, so we expect \(\Delta_{SW_P} > \Delta_{SW_O}\). Concretely, a typical paramilitary leader is more likely to be someone a politician could publicly meet with, or even win office him or herself, than an insurgent or a drug lord. 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. Finally, in places like Mexico and Brazil where the key to ‘lesser evil’ status involves eschewing the drug trade, economic rents are likely to be significantly larger for oppositional groups \((D)\) than paramilitaries \((P)\), so that \(E_D > E_P\).

The use of armed clientelism to obtain political power and extract state-weakening rents has

\(^5\)The overexposure risks \((R_i)\) could go either way: association with paramilitary groups is usually more likely to be detected, but association with oppositional groups more harshly sanctioned.
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, 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 paramilitary activity, indicators of political competition decreased sharply and candidates from the right enjoyed dramatic gains. 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.

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6 Autodefensas Unidas de Colombia.

7 Evidence 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 Patriotica, in the 1980s may have contributed to such a choice.
3 *Milícias* in Rio de Janeiro

The evolution of Rio’s *milícias* is intertwined with the larger history of the city’s *favelas* (slums) and the drug syndicates that came to dominate them, a history that exemplifies self-reinforcing state weakness. Since their inception, favelas have been informal, self-organizing communities with limited state penetration (*Perlman 1976*). This made them attractive to Rio’s prison-based criminal syndicates, principally the Comando Vermelho (CV), which began to expand beyond the prison walls in the early 1980s (*Lima 1991*). By 1990, the CV held territorial control over the majority of the city’s favelas and the retail drug trade that operated out of them (*Amorim 1993*). Traffickers established a form of ‘parallel power’, providing public goods and security while enforcing codes of silence and cooperation, further eroding state power and legitimacy (*Leeds 1996*). Naturally, the state took measures to increase its capacity, militarizing police repression of the drug trade and occasionally calling in the army to occupy key favela territories (*Soares and Sento-Sé 2000*). Between 2002 and 2008, state forces killed an average of 1,091 criminals in armed confrontation per year; nonetheless, the territorial dominion of the drug syndicates remained virtually unchanged. This is the context in which *milícias*’ rapid expansion occurred.

The roots of the *milícia* phenomenon, however, go back at least to the 1980s, when a group of police officers from the Rio das Pedras favela in the then sparsely populated West Zone (*Zona Oeste*) of Rio de Janeiro, apparently at the behest of local businessmen, banded together to expel drug dealers from the community. For the next twenty years, this rule by so-called *polícia mineira*\(^8\) was seen as a rare and largely positive 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 restricted to the Zona Oeste, and drew very little attention from the media or officials.

The period 2003-2006, 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

\(^8\)The 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.
such groups. The revelation in 2006 that some 92 favelas in Rio had been taken over by milícias (O Globo 2006) laid bare the most significant reconfiguration of power in these communities since the rise of the CV. Milícia leaders replicated the legitimizing discourse of early polícia mineira groups, crafting a positive public image of a “Comando Azul” to oppose the Comando Vermelho (Blue and Red Command, respectively). Composed of active duty, reserve, and retired police officers, firemen⁹, and sometimes military officers, milícias supposedly ‘liberated’ and protected communities from tyrannical drug traffickers and other criminals (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 milícia 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).¹⁰

This wave of expansion and largely positive perception began to change in 2007, when Governor Sérgio Cabral took office and began to take a harder line on milícia activity. However, legislative attempts to investigate the milícias were systematically blocked by supporters. A more significant retrenchment began in May 2008, after milícias tortured a group of journalists, leading to a major shift in public opinion about milícias toward skepticism and alarm. One important result

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⁹In 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.

¹⁰To 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. His analysis, our findings show, turns out to have been correct.
Table 1: Characteristics of milícia-dominated communities. Data drawn from 2008 report by the Rio de Janeiro State Legislative Assembly (Freixo 2008).

was the convocation of a state-congressional Investigatory Commission (CPI),\textsuperscript{11} which provided the first systematic assessment of milícia activity and territorial control.

The CPI, together with qualitative evidence from interviews with residents (Cano and Iooty 2008), show that in practice many milícias are extortionate and violent. Most areas taken over by milícias were not previously under the control of drug syndicates (Freixo 2008), suggesting that milícias primary motivation is not expelling traffickers, but rather extracting illicit rents. 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 elections indicate that an important set of rents is political: some milícia leaders appear to have turned their territories into electoral bailiwicks (currais eletorais) and gotten themselves or friendly candi-

\begin{tabular}{|l|c|}
\hline
\textit{Milícia} Characteristic & \% of Communities (\textit{n}=119) \\
\hline
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\% \\
\hline
\end{tabular}

\textsuperscript{11}Comissão Parlamentar de Inquérito.
dates elected. Wiretaps (Bottari and Ramalho 2007a) revealing formalized “contracts” with politicians suggested that milícia groups could act as brokers, delivering votes in exchange for policy favors and access to confidential information. Quantitative analyses of voting results by intrepid journalists Elaine Bottari and Sérgio Ramalho (2007b) and congressional CPI investigators (Freixo 2008) were both path-breaking and suggestive, but lacked a strong research design. In the following section, we use panel techniques to overcome potential confounders and estimate the causal effect of milícia takeover on voting behavior.

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. 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.

12This argument is also compatible with predictions from a citizen-candidate model where campaign promises are not credible, so voters rely on on candidate traits such as occupation to infer politicians’ policy preferences (?).
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.\(^\text{13}\)

A naive cross-sectional comparison of *milícia*- and non-*milícia* controlled neighborhoods cannot differentiate between these two hypotheses, 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 taken over by the police-backed groups between 2002 and 2006 (‘treated’) to polling stations that remained outside of these groups’ dominion (‘control’). For transparency, we report results for both an unweighted control group of all non-treated polling stations, and a preferred specification that uses inverse propensity score weighting to improve covariate balance between treatment and control. If the changing-preferences story were true, we would expect that any observed changes in vote shares from 2002 to 2006 would be similar across treatment and control groups. 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.

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\(^{13}\) As we discuss below, a third, non-coercive causal channel exists: takeover may cause vote share to increase because 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.
Figure 2: 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.

4.1 Data

We rely on data from the 1998, 2002, and 2006 state legislative assembly elections.\(^\text{14}\) To construct our dataset, we linked polling-station electoral data and information on milícia zones of control. Voting table (secção eleitoral) level results were provided by the Brazilian election authorities (Tribunal 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.\(^\text{15}\) The geographic locations of polling stations are displayed visually in Figure 2.

To determine which polling stations were most likely to be influenced by milícias, we relied

\(^{14}\)The 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.

\(^{15}\)In addition, a small percentage of polling stations were manually geocoded.
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 dominance over each of 965 favelas officially recognized by the government funded Pereira Passos Institute (IPP). 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 or about 19% of all favelas were controlled by milícias. Figure 2 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. The advantages of this dependent variable are several. First, many of the known milícia-linked candidates self-identified as members of the security apparatus suggesting that the variable is a reasonable proxy for their vote.\(^{16}\) Second, we observe the variable over multiple elections, allowing for a difference-in-differences design. Third, only using the votes of identified milícia candidates would bias our DV towards electorally successful candidates as losing milícia candidates received less press attention and were less likely to be explicitly linked to the armed groups. Despite the advantages of this version of the dependent variable, we also examine the vote shares of known milícia candidates and find similar results (see robustness section). We classify a candidate as

\(^{16}\)These candidates include Álvaro Lins, Girão Matias, and Jairo Souza Santos.
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

As we explain formally below, the main assumption underpinning our research design is that the political trajectory of polling stations under the influence of milícias would have been identical to comparison polling stations in the absence of milícia domination. This assumption would be violated if the armed groups purposely expanded to communities that were becoming more favorable to milícia-backed or police candidates on their own. While we cannot rule this scenario out completely, the available evidence on the logic of milícia expansion suggests that this was not the case. The qualitative accounts of milícia expansion overwhelmingly emphasise economic, geographic, and opportunistic factors in the armed groups’ decision-making. Given that the groups originated in the West Zone, milícias tended to expand eastward from their homebase. As they consolidated territory in the West, the milícias would target communities closer to the city center but still mostly in the Western half of the Rio. Particularly susceptible to occupation were communities near police stations with sympathetic officers and those without strong drug traffickers (Soares 2013). In sum, the existing evidence suggest that the political rewards of territorial domination was an ancillary benefit and not the primary motivation behind the groups’ expansion. As we show below, indirect evidence of this is the fact that voting patterns in areas eventually
dominated by *milícias* evolved in an almost identical fashion between 1998 and 2002, before *milícia* expansion. Furthermore, in the extensive interviews with residents of *milícia* dominated communities reported by Cano and Iooty (2008) and Cano and Duarte (2012), none of the interviewees mentioned political factors in explaining why their community came to be dominated.

To clarify the research design using formal notation, 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 *milícia* 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 *milícia* dominated community (treatment). The polling stations are observed in a “pre-treatment” period $t = 0$ (before the emergence of the *milícias*) and in a post-treatment period $t = 1$. Our target estimand is the average treatment effect on the treated (ATT):

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

where $D(i, 1)$ is an indicator variable for whether or not the community is dominated by a *milícia* at $t = 1$. This treatment effect then represents the causal effect of *milícia* 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 *milícia* 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 *milícias* and those that remained outside of their control would have followed parallel paths over time in absence of *milícia* activity. While $X$ is included in the expression, in practice we present covariate unadjusted and adjusted results. If this assumption holds, then the effect of *milícia* domination can be expressed as:

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

---

17 $t = 0$ represents 2002 and $t = 1$ represents 2006 in our data.
18 In addition, we must assume common support, i.e. $0 < \Pr(D(i, 1)|X(i)) < 1$ for all $i$.  

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. For specifications involving covariate adjustment, we follow Abadie (2005) by weighting control units by the inverse of an estimated propensity score. This procedure down-weights control polling stations whose covariates take on values that 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. While covariate adjustment can be important because of the substantial heterogeneity in a city like Rio de Janeiro, below we show estimates of the ATT with and without covariate adjustment and results are substantively similar across the alternative specifications.

For the specifications employing covariate adjustment, we estimate the propensity score using a non-parametric “random forests” algorithm common in the statistical learning literature (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.\

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. In the appendix, we show that our results are robust to other propensity score estimation techniques and alternative forms of covariate adjustment like genetic matching.

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

20 Specifically, 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 West 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.
(a) Covariate Balance

(b) Pre-Treatment Outcome

Figure 3: 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 left most boxplot in the right panel shows the distribution of vote shares received by police-linked candidates in 1998 in milícia areas. The center and right boxplots show distribution of vote shares in non-milícia areas without and with inverse propensity score weighting.

In our application, propensity score weighting substantially improves baseline covariate balance and consequently makes the parallel paths assumption more credible.\textsuperscript{21} Pre-weighting and post-weighting covariate balance is displayed in Figure 3a. The black triangles represent the normalized mean differences\textsuperscript{22} between the types of polling stations in the full data, while the black dots show imbalance after propensity score reweighting. Before weighting, socio-demographic

\textsuperscript{21}Because propensity score weighting is known to be sensitive to extreme weights when overlap is poor (Crump et al. 2009), we trim 6 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 1.3. This procedure slightly changes the target estimand, but makes our estimation procedure less sensitive to unusual treatment units.

\textsuperscript{22}We 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.
characteristics, geographic variables, and gubernatorial voting patterns were substantially different 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 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 3a. Most importantly, the distribution of pre-treatment values of the outcome variable are very similar across the two groups after reweighting. Figure 3b uses box plots to show how similar vote shares received by police-linked candidates were in the two types of polling stations after inverse propensity score weighting.

4.3 Results

For our main empirical results, we focus on the effects of milícia expansion outside of Rio de Janeiro’s West Zone. There is substantial qualitative evidence that milícias dominion in the West Zone occurred prior to 2002, which means that many polling stations were already potentially influenced in our baseline year. Furthermore, the precise timing of milícia expansion in the West Zone is unclear. Milícias’ origins in the Rio das Pedras favela is well-documented Burgos (2002), but the history of other groups in this region remains murky, and sources disagree about origin dates. Zaluar and Conceição (2007, 93), for example, suggests that milícias were active in the communities of Gardênia Azul and Tijuquinha in early 1990s, while (Freixo 2008) points to 1998-2002 as the key period of expansion, particularly in Campo Grande area of the West Zone. For the rest of city, however, sources generally agree that the expansion of these groups occurred after 2002. Our main results thus report changes in outcomes between the 2002 and 2006 elections, with West-Zone sections excluded. In the appendix, we report results for the West Zone, with the caveat that our main treatment variable may be imprecisely measured for this sample.

Our results are summarized in Figure 4a. We present both unweighted and inverse propensity score weighted estimates. The unweighted estimates are more transparent, but the weighted estimates reflect a control group with characteristics much more similar to those of milícia-controlled
Figure 4: The effect of *milícia* domination on 2006 vote share of police candidates for the Rio de Janeiro state legislature. The left plot shows the evolution of police-linked candidates in *milícia* and non-*milícia* (inverse propensity score weighted and unweighted) polling stations. The right plot shows difference-in-differences point estimates and 95% confidence intervals for propensity score weighted (circles) and unweighted data (triangles). Sample excludes polling stations inside the city’s West Zone. Standard errors are clustered at the polling station-level.

communities. Starting with the pre-treatment elections, we can see that in 2002, the vote share for police 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 quite similar, and the observed baseline difference in both the weighted (.45 percentage points) and unweighted case (.9 percentage points) is fairly small. More importantly, the change between 1998 and 2002, before the expansion of the armed groups, is essentially identical across the groups with or without covariate adjustment. 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, treatment and control 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 3 percent growth in dominated communities versus about 0.7 percent in non-dominated communities (after inverse propensity score weighting). The increase in milícia-dominated communities was about four times higher, a substantively important difference. For unweighted estimates, the differential increase is smaller but still roughly equivalent. If the weighted control communities are indeed adequate counterfactuals for the treatment communities, then the effect of milícia domination is roughly $3 - 0.7 = 2.3$ percentage points ($2.2 - 0.9 = 1.3$ in the unweighted case). These difference-in-differences of the average effect of milícia control are positive and statistically significant with or without covariate adjustment (Figure 4b). Moreover, there is no evidence of differential trends during the 'placebo' period prior to treatment (1998-2002). In fact, the point estimate on the “effect” of milícia domination during the ‘placebo’ period is essentially zero.

This estimated effect is substantively large. The median vote share of security forces candidates in 2002 was about 3.5%. Our weighted estimates corresponds to about a 60% increase in the number of votes received by security force candidates in a dominated community. Furthermore, the median vote share of a winning candidate to the state legislature was 0.56%; the treatment effects we identify, on the order of 2.3%, are roughly 4 times as large. 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 is an important electoral asset for police 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 elec-

\footnote{Standard errors are derived from a block bootstrap where clusters are the polling stations. The bootstrap algorithm includes the propensity score estimation step, thus these standard errors reflect the uncertainty generated from estimating the inverse propensity score weights. Number of bootstraps is 1000.}
toral 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.\textsuperscript{24} 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” (\textit{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, candidates 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

\textsuperscript{24}In 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.
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 milícias 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.

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 4b. 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.

<table>
<thead>
<tr>
<th></th>
<th>Benchmark</th>
<th>No IPW</th>
<th>Police Only</th>
<th>Firemen Only</th>
<th>CPI Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milícia x 2006</td>
<td>2.3***</td>
<td>1.3***</td>
<td>0.9***</td>
<td>1.6***</td>
<td>1.2***</td>
</tr>
<tr>
<td></td>
<td>(0.6)</td>
<td>(0.5)</td>
<td>(0.1)</td>
<td>(0.4)</td>
<td>(0.4)</td>
</tr>
<tr>
<td>Milícia</td>
<td>2.1*</td>
<td>2.6**</td>
<td>1.9</td>
<td>-0.2</td>
<td>3.2**</td>
</tr>
<tr>
<td></td>
<td>(1.2)</td>
<td>(1.0)</td>
<td>(171.1)</td>
<td>(0.4)</td>
<td>(1.4)</td>
</tr>
</tbody>
</table>

Num. obs. 1820 1992 1818 1840 1906

*** p < 0.01, ** p < 0.05, * p < 0.1. Standard errors are clustered on polling station.
4.4 Robustness Checks and Alternative Outcome Variables

Table 2 reports results of various robustness tests. In the first and second columns, we report our benchmark estimates (reported in Figure 4b) to facilitate comparisons. 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.

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 0.5, 0.75, 1.25, 1.5, 1.75 and 2 kilometers. As the cutoff

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25In the appendix we also present results with different approaches to covariate adjustment. We control for a range of variables in a parametric regression by interacting year dummies with pre-treatment covariates. We also estimate the effect using a matched dataset constructed with genetic matching. Finally, we report estimates weighting by a conventional propensity score estimated using a logit model. All estimates are statistically significant and consistent with the main estimates reported in the text.
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.

<table>
<thead>
<tr>
<th></th>
<th>D=0.5km</th>
<th>D=.75km</th>
<th>D=1.25km</th>
<th>D=1.5km</th>
<th>D=1.75km</th>
<th>D=2km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milícia x 2006</td>
<td>2.2</td>
<td>2.4***</td>
<td>1.9***</td>
<td>1.6***</td>
<td>1.3***</td>
<td>0.8**</td>
</tr>
<tr>
<td></td>
<td>(1.6)</td>
<td>(0.9)</td>
<td>(0.5)</td>
<td>(0.5)</td>
<td>(0.4)</td>
<td>(0.4)</td>
</tr>
<tr>
<td>Milícia</td>
<td>2.1</td>
<td>2.0</td>
<td>3.9**</td>
<td>4.1***</td>
<td>2.6</td>
<td>−1.6</td>
</tr>
<tr>
<td></td>
<td>(1.8)</td>
<td>(1.5)</td>
<td>(1.5)</td>
<td>(1.6)</td>
<td>(1.6)</td>
<td>(2.0)</td>
</tr>
<tr>
<td>Num. obs.</td>
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<td>1776</td>
<td>1816</td>
<td>1900</td>
<td>1900</td>
<td>1898</td>
</tr>
<tr>
<td># of Treated Observations</td>
<td>72</td>
<td>164</td>
<td>324</td>
<td>386</td>
<td>456</td>
<td>538</td>
</tr>
</tbody>
</table>

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

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.

<table>
<thead>
<tr>
<th></th>
<th>No Controls</th>
<th>IPW</th>
<th>IPW, Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milícia</td>
<td>7.5***</td>
<td>7.0***</td>
<td>7.0***</td>
</tr>
<tr>
<td></td>
<td>(0.5)</td>
<td>(0.6)</td>
<td>(0.5)</td>
</tr>
<tr>
<td>Num. obs.</td>
<td>996</td>
<td>906</td>
<td>902</td>
</tr>
</tbody>
</table>

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

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 $D = .5$ km specification, but that is likely due to the small number of treated units remaining in the sample when using such a restrictive 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 seven candidates.
in 2006, as well as three additional state deputies who consistently vote in a pro-*milícia* direction on *milícia*-related roll call votes, as discussed extensively in section 5.1.1. To do so, we estimated a series of cross-sectional regressions, which are presented in table 4. Because of the timing issues discussed above, we drop polling stations from the West 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 3a. 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 between these candidates and *milícias*, it is heartening that our data shows the expected correlation between their votes and armed group presence.

5 *Milícia* Political Power and State-Weakening

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 and quantitative 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

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

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

In this section, we review the qualitative and quantitative evidence that milícia-allied legislators worked to diminish the state’s capacity to hinder their activities, as well as shield the security apparatus of the state from civilian and judicial oversight. First, we provide a broad overview and timeline of the emergence and behavior of milícia-backed politicians in Rio de Janeiro’s legislative institutions. We then examine data on legislative activity in the state assembly to identify systematic differences in the agenda of milícia-aligned legislators as compared to other legislators, as well as illustrate how the legislators worked together to further their policy agenda.

While police-backed groups have long been active in the outskirts of Rio de Janeiro, particularly in the West 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 Alvaro Lins, a former military police and future state legislator, 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

\[28\] Authors’ interview with Silvia Ramos, former security official, 8/2/2007.
Commission, Itagiba and Garotinho received police and government intelligence revealing the spread of the *milícias*, but took no action.\(^{29}\)

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* themselves—\(^{30}\) began to seek political alliances with these emerging groups (Freixo 2008). These alliances could be quite overt: the CPI investigation uncovered written “contracts” formalizing political alliances between Nadinho and groups in Campo Grande, for example. Similarly, police wiretaps uncovered conversations between members of the armed groups discussing an arrangement with Álvaro Lins to deliver votes to favored candidates in the city council elections (Bottari and Ramalho 2007a). 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. For example, three known *milícia* leaders were members of the state legislature’s Committee on Public Security and Police Matters. In the city council, Nadinho served on the committee overseeing public servants (including the police) and continued to formally serve on the committee even after imprisonment (Magalhães 2008). In addition, former Security Secretary Marcelo Itagiba, elected to federal office with support of milícias in the West Zone, took an important post on the Justice Committee in the national legislature (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).

As we document systematically below, *milícia*-aligned legislators worked actively to alter state law to favor *milícias* and the security apparatus, but it is worth noting that informal benefits and perks of office were also quite valuable to the armed groups. Particularly important 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.\(^{31}\) The importance of this prerogative was evident in recorded conversations between Jacarepaguá *milícia* leaders Fábio de Menezes Leão and Mário

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\(^{29}\)Interview, CPI members, Rio de Janeiro, July 9, 2007.

\(^{30}\)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.

\(^{31}\)According to news sources, sympathetic police would provide intelligence and logistic support to *milícias* preparing to expel drug gangs from targeted favela.
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.\footnote{Interview, Civil Police Delegado Vinicius George, Rio de Janeiro, July 9, 2007.}

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.\footnote{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/.} In this less hospitable political environment, the milícia-linked legislators moved to protect the groups’ from state sanction by drafting legislation 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 of the armed groups. In October of 2007, state legislator and suspected milícia leader Natalino Guimarães introduced a bill legalizing “community police”, which extended 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. Even in the wake of the intense media pressure to oust the *milícia* leaders, these politicians retained substantial support within the state legislature. For example, on the successful vote to remove Natalino Guimarães from office, only 43 out of 70 legislators voted in the affirmative.

5.1.1 The Legislative Behavior of *Milícia*-Aligned Politicians

To supplement the narrative presented above, we also analyze the complete legislative output of the 2007-2011 state assembly to identify whether *milícia*-aligned legislators have distinct policy priorities as compared to other legislators. To identify *milícia*-aligned legislators in the state assembly, we rely on the 2008 legislative investigatory report on *milícias* and legislative activity on issues of direct interest to the *milícias*. Specifically, we created an additive index for all legislative deputies in the 2007-2011 legislature that assigned one point for each of four items:

1. Identified as *milícia*-linked by the legislative investigatory report (Freixo 2008).
2. Opposed the formation of an adhoc legislative committee to investigate the expansion of the *milícias* (Resolution 626/2008).\textsuperscript{34}
3. Voted to release *milícia*-ally Álvaro Lins from prison after his arrest on charges of money laundering and criminal conspiracy (Resolution 663/2008)\textsuperscript{35}.
4. Voted against resolution that prevented known *milícia* leader Natalino Guimarães from being released from prison (Resolution 650/2008).

Indicators 2-4 constitute high-profile public votes related to the *milícias*. To score highly on this index, a deputy had to consistently act to further the impunity of *milícia*-linked legislators and block investigations into their activities even after public opinion (and many legislators) had turned against *milícias*. We coded legislators scoring three or higher as “*milícia*-aligned”; six legislators

\textsuperscript{34}The 2007 list of legislators opposed to the formation of the committee was provided to us by XX.
\textsuperscript{35}The politicians who voted in favor of Lins were labeled the “*milícia* block” by the press.
met this criterion. Of these six, four legislators were identified as actual milícia leaders in investigations and press accounts.

To test whether milícia-aligned officials were particularly interested in passing legislation related to public security and the police, we compiled data on all proposed legislation during the 2007-2011 legislative session. Using the bill summaries provided in the bill text, we classified each proposal as public security-related or not using a set of keywords. For each legislator, we compute the percentage of all the bills proposed that are security related. In our sample, the median and mean percentage of security-related bills introduced by each legislator are 3% and 5%, respectively.

Bivariate and multivariate regressions (Table 5) reveal that milícia-alignment is indeed correlated with a propensity to propose bills related to public security. In columns 1 and 2, we regress the proportion of all bills (proposed laws and legislative suggestions) proposed by each legislator that are public security-related on a dummy variable indicating whether or not the legislator is a milícia ally. Without any covariate adjustment, milícia-ally status is associated with an additional 9.7 percentage point of bills that are focused on police or related issues. To check the robustness of the result to basic covariate adjustment, in column 2 we control for party dummies and whether or not the legislator belongs to the legislative leadership (mesa diretora). Controlling for these variables increases the coefficient to 11.5 percentage points. Substantively, these correlations indicate a milícia-ally introduced about two to three times as many public security-related bills as non-allies.

While consistent with our hypothesis, these results say little about the content of the proposed legislation. To check whether or not milícia-aligned legislators propose legislation that benefits

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36 These legislators are Natalino Guimarães, Álvaro Lins, Anabal Barbosa de Souza, Jairo de Souza Santos, Domingos Brazão, and Jorge Babu.
37 We only use bills classified as proposed laws (projetos de lei) and as legislative suggestions (“indicação legislativa”), which are requests by the legislature to the executive to enact a policy change. We do not consider other bill types such as motions (moções) as these are largely devoid of policy content and typically ceremonial in nature.
38 The keywords are “police”, “fireman”, “public security”, “police station”, and “prison”.
39 We drop legislators with fewer than 10 proposed bills, leaving a sample of 75 legislators. The number of legislators is larger than the size of the legislature because the sample includes substitutes who replaced legislators that left before finishing their mandate.
40 This classification approach undoubtedly introduces some measurement error as keywords only are a proxy for content. To check the validity of this approach, 100 randomly sampled bills were classified by an independent rater. Out of the 100 bills, 94 were correctly coded indicating that our keyword approach works well.
Table 5: Correlation between milícia-ally status and proportion of bills proposed related to public security. Columns 1 and 3 report results from bivariate OLS regressions, while Columns 2 and 4 include party fixed effects and dummy variable indicating membership in legislature leadership. Dependent variable in columns 1 and 2 encompasses all police related bills (including legislative “suggestions”), while dependent variable in columns 3 and 4 includes only proposed public security-related proposed laws.

State security forces and reduces civilian oversight, we manually coded the 28 public security-related bills proposed by these legislators into four distinct categories, and tabulated their relative frequency:

1. Proposals creating a police or fire station in given community\(^{41}\) (21%)

2. Proposals increasing the remuneration of members of the security forces\(^{42}\) (18%)

3. Bills that increase protections of members of the security forces when accused of criminal activity (14%)

4. Bills that otherwise alter policing policy and regulation\(^{43}\) (47%)

\(^{41}\)These bills are typically in the form of a request for the governor to install a police or fire station in a specific municipality or neighborhood.

\(^{42}\)For example, one bill (proposal 433/2007) would have exempted police and firemen from paying sales tax under specific circumstances.

\(^{43}\)This last category is predictably heterogenous. Some of these bills address minor issues such as the use of advertisement on police cars (proposal 1072/2007) and the installation of bathrooms for police posted at toll booths (proposal...
As a comparison, we randomly sampled 6 other state legislators and similarly coded the content of their public security-related bills. This group proposed a total of only 8 relevant bills; of these, six proposed the installation of police stations in specific locations and two were minor alterations to policing laws. As compared to this random sample of legislators, milícia-linked politicians were substantially more likely to propose legislation that provided benefits to the security forces by shielding them from civilian oversight or increasing their pay.

A closer inspection of the trajectory of these bills shows how the presence of a group of like-minded legislators could further the aims of the milícias by influencing the policy-making process at various stages. Most notable in this respect was the bill discussed above (bill 18/2007) which would legalize “community police” by extending legal protections enjoyed by the police to informal groups composed of retired and off-duty police officers. The bill, which was introduced by milícia leader Natalino Guimarães, was analyzed by the Committee on Legislative Projects and the legislator delegated to write a report on the merits of the bill was Jorge Babu, a milícia-linked politician. Babu issued a favorable recommendation and the bill was given a vote on the floor of the legislature. Other relevant milícia-backed bills included those prohibiting the arrests of police officers based on evidence collected via anonymous hotlines (bill 365/2007), as well as a bill that prevented the firing of police officers or firemen on the basis of criminal convictions unless all appeals had been exhausted (bill 120/2007). In both cases, the bills were authored by a milícia-aligned legislator and were issued favorable recommendations in committee by other milícia-linked politicians.

5.2 The Limits of Milícia Political Power

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 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 Guimarães (bill 1259/2008). Others are more significant, such as bill 700/2009 which would alter the number of positions in each echelon of the police forces.
'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, although many individual milícia members and leaders have been arrested, milícias' territorial dominion has not been significantly reduced. In fact, NUPEVI data records an increase in the population of residents living under milícia dominion from 2008-2010 (Barcellos et al. N.d.). This is particularly striking given that Cabral and Beltrame’s tenure has brought one of the most important expansions of state capacity and territorial control in Rio’s history. In 2008, the adminsitration began the rollout of a new policy knows as Pacification, in which state forces would re-take areas occupied by armed groups and establish permanent ‘proximity policing’ units knows as UPPs. By 2012, 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. In April 2014, when the Maré complex of favelas was occupied by police and army troops, including two areas dominated by milícias, commanders deliberately avoided deploying forces to the milícia-dominated areas (Gomes 2014). It is difficult to know how much of this territorial resilience is due to state weakening. After all, it could be that the state could eliminate the milícias, but chooses not to for the kind of demand-side reasons that other scholars have suggest. The government claims that both trafficker and milícia territories will eventually be pacified (de Aquino 2011), but 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.” If nothing else, this illustrates the value of ‘lesser evil’ status.

State-weakening, nonetheless, probably plays a role in the state’s policy choices. Important as the benefits that paramilitaries provide states may be, they must be balanced against the costs of eradicating paramilitaries, even in demand-side models like Acemoglu et al.’s (2013). And as Beltrame himself admitted in 2012, “None of [Rio’s] police forces has acquired the expertise

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44 The 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.

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

46 Authors’ interview, former Sub-Secretary of Public Security, Rio de Janeiro, March 16, 2014. See also Gomes (2014).
needed to combat [the milícias]” (O Dia 2012). Moreover, the non-confrontational nature of the milícias is itself endogenous to the state’s choice to prioritize other groups: one reason milícias don’t confront police is because police don’t try to territorially oust milícias. And one plausible reason they do not is because so many milícias are themselves current and former police officers, and use their political power to, among other things, improve the lot of police. It is simply implausible that erosion of the police’s milícia-fighting capacity from within did not influence leaders’ decisions to focus territorial repression on trafficking groups.

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 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 lead 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.
References


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Table 6: Robustness to alternative methods of covariate adjustment. Difference-in-differences estimates of milícia influence on police candidate vote percent in 2006 is labeled “Milícia x 2006”. The “Covar, Year Interactions” column shows results including year dummy and covariate interactions. The “Genetic Matching” specification reports results after using Genetic 1-to-1 covariate matching. “Logit Pscore Weighting” specification weights data using inverse of a propensity score estimated via logit model. Standard errors are boostrapped.

<table>
<thead>
<tr>
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<th>Covar, Year Interactions</th>
<th>Genetic Matching</th>
<th>Logit Pscore Weighting</th>
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<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Milícia x 2006</td>
<td>1.754***</td>
<td>2.948**</td>
<td>1.976***</td>
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<tr>
<td></td>
<td>(0.456)</td>
<td>(1.360)</td>
<td>(0.485)</td>
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<tr>
<td>Milícia</td>
<td>−7.253</td>
<td>0.214</td>
<td>0.598**</td>
</tr>
<tr>
<td></td>
<td>(38.520)</td>
<td>(1.824)</td>
<td>(0.294)</td>
</tr>
<tr>
<td>Observations</td>
<td>1,992</td>
<td>382</td>
<td>2,039</td>
</tr>
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Note: *p < 0.1; **p < 0.05; ***p < 0.01
Figure 5: The effect of milícia domination on 2006 vote share of police-linked candidates for the Rio de Janeiro state legislature in the West Zone. The left plot shows the evolution of police 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 West Zone. Standard errors are clustered at the polling station-level.

weights are derived from a standard logit model.

Effect of Milícia Expansion in Rio de Janeiro’s West Zone

In this section, we estimate the effect of milícia expansion inside the West Zone region of Rio de Janeiro, where the armed groups originated. As discussed in the text, 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 West 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 5 shows, the formation of milícias in the West Zone had even larger effects than what was observed in the rest of the city. In 1998, as evident in Figure 5a, 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 5b 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 West 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.