Legacies of Violence

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May 12, 2025

Abstract

I test whether municipalities that had local elections abolished in the Brazilian military dictatorship have more violence during the subsequent democratic period. My results suggest that yes, municipalities with no elections during the 1970s and 1980s experience an average of 5 violent deaths per thousand inhabitants increase in the late 1990s and 2000s. The work contributes to a burgeoning literature that roots democratic outcomes in the legacies given by the dictatorial regimes that precede them. While past studies highlight the legacy of military regimes for police and institutional violence, this study suggests another complementary mechanism may also be at play: the absence of elections led to more economic inequality, thus exacerbating grievance in the population

Keywords: Dictatorship legacy, violence.
Word count without bibliography: 8781.

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1 Introduction

At least two puzzles motivate studies on Latin American violence rates. Why does this region lead the statistics of violent crimes even if we account for social-economic variables and compare its countries to similar world regions? Relatedly, are these patterns a consequence of weak democratic institutions, late democratization, or the legacy of the types of dictatorial regimes that spread in Latin America in the previous period?

The present paper seeks to shed light on these questions by contributing to a burgeoning literature that connects the patterns of violence in Latin America to the historical roots of the military regimes in the region. I take advantage of a particular policy of the Brazilian dictatorship to theorize that municipalities where the regime ruled with an iron hand, experienced higher rates of intentional violent deaths in the subsequent democratic period. When the Brazilian military junta took control of the government in 1964, they abolished elections at the federal and state levels but allowed them at the municipal level to keep the legitimacy of the regime. However, in 1968 the high command passed a series of laws and decrees that defined a few municipalities to be National Security Areas (NSAs). These localities would no longer have local elections. I have theoretical reasons to argue that these municipalities are representative of the most extreme way that the regime governed throughout the dictatorship. This could explain at least some of the variation in the trends of violence in Brasil, and potentially pave an explanation for what happens in Latin America.

The evidence that I present suggests that National Security Areas underperform in terms of violence statistics. Figure 1 shows the rising trends in my chosen measure of violence for two groups of Brazilian municipalities. In red, the graph represents the NSAs' trend, and in blue the trend of a matched sample of similar municipalities (the control group). Clearly, from 1996 to 2015 the treated units, those municipalities that were strategic to the military regime experienced a worsening in the outcome of the violent deaths. I use geographical sampling approach combined with a matching technique to show that the impact of NSAs is politive and statistically significant. In particular, my emprirical results show that becoming an NSA municipality represents an increase of roughly five more deaths per 100 thousand inhabitants each year. This is a substantial number considering that the average score for my preferred sample is 21 yearly deaths per 100 thousand inhabitants in a municipality.

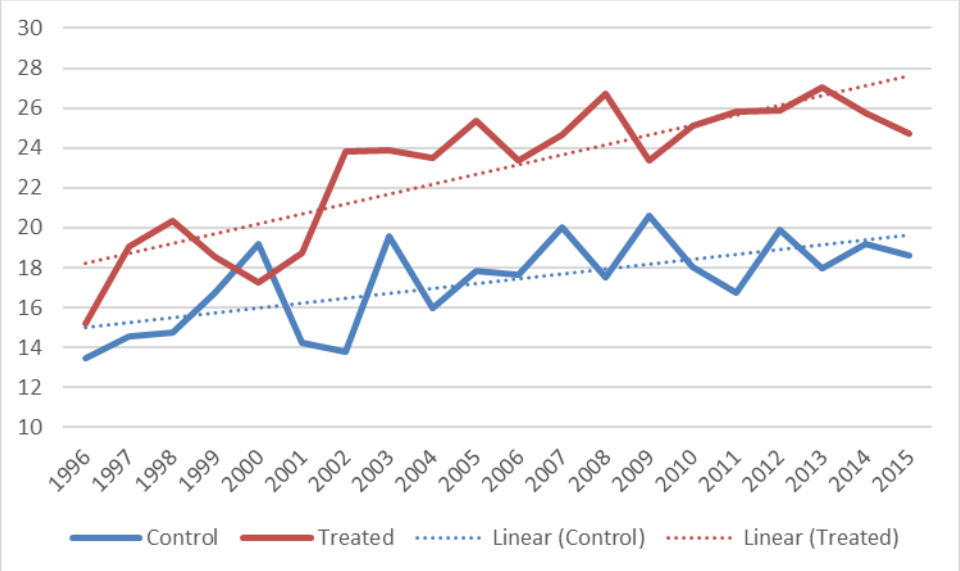
In addition to the main finding, I also explore potential mechanisms that could explain these patterns. I first find that in places where the military regime abolished elections, the levels of inequality went up thirty to forty years later. This mechanism is consistent with the "conflict perspective" literature, which states that market

economies (usually associated with democracies) generate inequality that in turn induces violence (Karstedt, 2003; Pinheiro et al., 1999). My results are robust to different measures of inequality and hold either in the short run or in the long run.

I also test two other mechanisms but they are less consistent. I investigate whether the abolishment of mayoral elections disrupts local elites' political networks, leading to higher electoral competition in the re-democratization period but with greater fractionalization (i.e. many political groups competing without being sufficiently embedded in society). My findings for this mechanism are a bit ambiguous but may complement recent work by Ferraz et al. (2020) that show an interesting pattern of disruption of traditional families' hold on power in Brazil.

Finally, my third mechanism tests whether it is the legacy of the military repressive apparatus that explains the increase in violence. Mayors in Brazil may choose to create local police guards. This policy started to be popular in the late 1990s, but may reflect a trend of extensive use of police force to fight crime that roots back to the dictatorial period. As a recent literature suggests, Latin America may be distinct to other regions because of the way state institutions promote violence. In particular, the types of dictatorships in the region (mostly military regimes) would explain the rise in violence (Chu and Tusalem, 2013; Cruz, 2011, 2016; Frantz, 2019). Yet, the empirical test of my mechanism is ambiguous and my measurement is not ideal.

Figure 1: Trends in Intentional Violent Deaths among NSAs and a comparable group



This graph shows the different trends for the control group and the treatment group of Intentional Violent Deaths during the recent democratic period in Brazil (1996-2015). In the y-axis, the average number of violent deaths per a thousand inhabitants. I used the Matching sample for this figure.

In broader terms, this paper also contributes to other two influential branches of literature. Modernization theories argue that new democracies first experience a rise in violence, but after democracy consolidates crime tends to decline (LaFree and Tseloni, 2006; LaFree et al., 2015). I do not directly test this theory, but my work dialogues with it because I focus on a period of democratic consolidation in an prominent emerging country, Brazil. I hope derive lessons for other contexts by looking at this country. Also, I speak to a broad literature that investigates the legacies of autocratic regimes (Acemoglu et al., 2010; Persson and Zhuravskaya, 2011), a feature that the field of political science is naturally interested.

2 Theory

After covering the historical process of the creation of NSA municipalities, this section seeks to develop a theory for why and how such authoritarian intervention could lead to higher rates of civil violence after the dictatorship period was long gone. I start by building from Ferraz et al. (2020)'s work, which suggests a dictatorship's positive legacy of electoral competition that produces better democratic outcomes in the long run. I provide a complementary theorization by explaining the other side of the coin. In places where the military regime had incentives to rule with an iron hand, the legacy may be actually detrimental.

Ferraz et al. (2020) find that localities where the military successfully broke local elites' hold on power experienced higher electoral competition in the subsequent democratic period. As partly explained in the last section, the mechanism was that the two-party system accommodated part of the local elites in the ARENA party (pro-regime). This allowed the military to circumvent the threat of losing the local election but at the same time introduced new competitors that were not members of the traditional families that have always dictated the goings of local politics. The argument follows that higher competition led to better governance in the subsequent democratic period. The logical result would be better policies and the provision of public goods. But could there be an ideal point of competition? Furthermore, could it also matter for democratic outcomes the type of competition and how rooted in society the new political groups were? These are open questions that deserve attention.

Indeed higher competition could lead to better democratic and economic outcomes. However, I propose a different and perhaps complementing story. Unlike the majority of municipalities, in the NSAs there were no mayoral elections, so local elites were completely ripped from any influence in politics for almost two decades. When elections were finally on the table for NSAs, political ties between elites and society were long broken. Moreover, the two-party system was never relevant in local mayoral elections,

meaning that the "soft" mechanism of introducing competition while allying with landlords could never be in place. Instead, the logic was more of a top-down chain of command and control through the military bureaucracy than "politics as usual", with its norms of compromise, negotiations, and partisanship. In the short run, the result is an government accountability process that is autocratic and that preserves the main goals of the regime. For the subsequent democratic period, the consequence was political fragmentation instead of simply more electoral competition, as Ferraz et al. (2020) argued. The difference between competition and fragmentation may be subtle (and empirically hard to capture), but the implications can be quite opposing in terms of democratic performance.

In places where mayors were directly appointed by the regime, government accountability mechanisms are completely different. For the ruling mayors of the authoritarian period, incentives are to answer the chain of command and control of the upper tiers of government than to answer the demands of the local population. Therefore, the mayor-bureaucrats of NSAs, state capitals, and arguably WRAs, would be the ones more inclined to follow the immediate goals of the military regime - what we can call the short-term effects. As historians suggest, among other goals, two can be highlighted: (i) preservation of national security; (ii) modernization of the agricultural sector, and industrialization[1].

Associated with the first goal, I argue that these are places where we should expect a stronger apparatus of authoritarian repression because NSAs were localities of primary national security concerns. As repression was in great part led by local police forces, in terms of legacies of violence, these municipalities should lag behind when it comes to investing in police forces trained in protecting civilians from crime than trained in war combat (Frantz, 2019). Associated with the second goal, the pursuit of fast economic growth without mechanisms of democratic accountability would lead to increasing levels of inequality in these municipalities. As an extensive body of literature suggests, more inequality leads to higher conflict and civil violence (Soares and Naritomi, 2010; Karstedt, 2003; Neckerman and Torche, 2007; Pinheiro et al., 1999).

In the longer run, I argue that when local elections were finally back and free during the early 90s, we should expect two electoral forces that shape government accountability in NSAs. Competition and political fractionalization should be higher at the local level. The presence of both of them is a consequence of the way the military dismantled the traditional elite's political networks in the NSAs, a process that was different than in other localities. Unlike municipalities that had mayoral elections, the rural elites from NSAs were completely excluded from power for twenty years. In places that had elections, we should expect higher competition in the democratic

[1]See Houtzager (1998)

period but not so too much fractionalization because elites could preserve at least part of their networks. Moreover, the new players that were introduced by the military in the political arena might also have had enough time to build their reputation, establish their networks, and create bonds with their electorate. However, NSAs had a more abrupt transition to democracy, making their electoral environments not only more competitive but also more fragmented in terms of societal representation.

Crucial to my argument is this combination of higher competition and higher fractionalization. As previous scholars have argued, political competition per se does not necessarily lead to better policy outcomes[2]. Coupled with fractionalization, I argue that in fact, competition should lead to less re-distributive policies because politicians are less attached to the electorate, and once elected they should have higher incentives to extract rent. If this is the case, then the consequence should again be worse inequality rates and the underlying impacts on crimes and violence. Overall, we have reasons to suspect that political groups that are not rooted in society would not be capable of providing public goods adequately [3].

2.1 Theorized mechanisms

From the discussion above, I theorize three channels through which NSAs could lead to higher violence rates three to four decades later. Here, I briefly state why these are potential mechanisms and derive testable hypotheses.

Inequality

Higher levels of income inequality arguably increase violence rates. The conflict perspective literature contends that market economies, which are usually associated with democracies, tend to produce increasing levels of income inequality[4]. When inequality is high, criminal activities are more attractive to a larger fraction of the population, because those at the bottom of the income distribution have few job opportunities and the expected spoils of crime increase proportionally to how wealth concentrates in the hands of a few potential criminal targets (Bourguignon, 2000; Fajnzylber et al., 1998).

In the case of NSAs, there are two ways through which we could expect increased inequalities leading to higher violence. First, we need to consider that the Brazilian military dictatorship was broadly a right-wing coalition. Therefore, natural reasoning would be to expect less emphasis on redistribution policies and overall less care about equality. In fact, the period was marked by high economic growth but increasing inequality (Souza, 2016). Because NSAs were places where the military could more

[2]See Arvate (2013) for a discussion about Brazil in a comparative perspective.
[3]See for example Putnam et al. (1994).
[4]See Soares and Naritomi (2010) for a discussion about Latin America.

easily implement their policies, we should expect above-average increases in inequality in the short run.

Second, from the previous section discussion, we should also expect that after the military left the power, the legacy of electoral competition and fractionalization should promote long-run effects on inequality. Even after the military period was over, we should still verify impacts on average inequality rates when we compare NSAs with other municipalities.

Therefore, I derive my first testable mechanism hypothesis:

MH1: NSAs should have rising levels of inequality both in the short run and in the long run

Competition plus Fractionalization

Although higher competition coupled with what I have been calling fractionalization of political representation could increase inequality, we can also think of direct impacts on policy provision and poor governance in general. The logic is that NSAs' democratic accountability should be poorer because the transition from an autocratic regime was more abrupt due to the lack of elections and the under-formation of representative groups in society. I argue that the type of electoral competition in NSAs is different from what Ferraz et al. (2020) have found. In municipalities that preserved elections during the dictatorship old and new elites could maintain and even further develop their electoral bases. But I argue that this was not the case with NSAs.

I thus derive my second testable hypothesis:

MH2: NSAs should have higher competition and fractionalization in the subsequent democratic elections, leading to weak democratic accountability and worse policies aimed at reducing violence.

Repressive apparatus

One last mechanism that could associate NSAs with worse violence outcomes is the extent to which the military government implemented a repression apparatus specifically in these municipalities. As some scholars have argued, one of the distinguishable reasons why Latin American trends of violence are higher than in similar regions is due to the long presence of military regimes (Chu and Tusalem, 2013; Cruz, 2011, 2016; Frantz, 2019). The reasoning is that police forces derived from these types of autocracies are better trained for war and conflict than to protect citizens. When dictatorships were over in Latin America, the militarized police forces maintained their norms and institutions that had a logic of repression and confrontation, instead of

investing in training for civil security. Accordingly, in places where the military had higher incentives to rule with an iron hand the chances of institutional and norms persistence in terms of repression should also be higher. This would lead to worse security outcomes in a later period.

The third testable hypothesis is:

MH3: NSAs should have higher persistence of norms from the repression apparatus, leading to police forces being worse trained in civilian security

3 Background

3.1 Political regimes, the military, and a brief history of local politics in Brazil

Local politics has been at the center of the Brazilian republic since at least its foundation in 1889 when branches of the military forces allied with local oligarchs to depose Dom Pedro II, Brazil's last monarch. Among other reasons, historians credit the fall of the empire to the rising discontent with the regime by the military, whose families were never compensated for the immense life losses in the Paraguayan war (1864-1870), and to the abolishment of slavery that jeopardized local oligarchs' economic activities (Bethell, 1989). The "Old Republic", a period between 1889 and 1930, saw the rise of the "Coffee and Milk politics", a term that refers to the apparent relay in power between rural elites from the state of Sao Paulo (coffee) and Minas Gerais (milk). The Brazilian federation was marked by disputes between the local elites, from these two and other prominent states, the military, and the central executive power (Viscardi, 2001). These disputes led to three civil wars and many other riots, most of them caused by oligarchs' conflicts of interest, the discontent of the military (and coup attempts), and starling social inequalities (Fausto and Fausto, 1994).

In 1930, Getulio Vargas led a revolution driven by a large coalition of low-ranking military officers and the urban middle class against the landowners who ruled the country for forty years. Vargas remained in power from 1930 to 1945 and, in many aspects, shaped Brazil's transition to modernity. Economically, his government produced the first big wave of industrialization. Politically, during his first democratic mandate, he established the Electoral Judicial System, which made it more difficult for the "colonels" (landlord elites) to manipulate elections through clientelism and corruption. Yet, with the emergence of WWII, in 1937 Getulio, supported by the army, promoted a self-coup d'etat and ruled as a dictator until 1945. Thus, despite his attempts to overthrow the power of local oligarchies, he only succeeded in the short term

by limiting traditional clientelistic practices. In the long run, "colonels" remained to dictate state-citizens relations (Hagopian, 1996).

Between 1945 and 1964, Brazil experienced the first truly democratic period, one with relatively free and fair elections, secret ballots, and the emergence of popular national parties in the major urban centers. However, large portions of the country were still agrarian, and at the local level landowners still hired most of the workforce in their crop plantations where they could sustain their clientelistic networks (Fausto and Fausto, 1994). Through politics, local elites controlled the distribution of resources and, in many instances, undermined political parties, which were decentralized and undisciplined (Hagopian, 1996). Therefore, political cleavages were more the result of local rivalries than ideological or programmatic differences. As Ferraz et al. 2020 point out, these disputes would occur frequently at the family level.

The takeaway of this brief historical digression is that in nearly eighty years of Brazil's history, from the proclamation of the republic in 1889 to the last military dictatorship of 1964, Brazilian politics was marked by constant disputes and alliances between local oligarchies and the military. In certain periods both types of players would unite, but in others, they would literally engage in wars[5]. In the next section, I detail the political motivations of the military dictators from 1964 and their relationship with local elites.

3.2 Dismantling local elites or securing the nation?

As had happened many times in the past, political civil elites and the military allied to seize power one more time in 1964. After the democratically elected president Janio Quadros renounced power, Vice-president Joao Goulart assumed office. In this period, elections for president and vice-president were separate, which led to an odd result in terms of ideological coalitions. While Janio Quadros was a representative of the right, Joao Goulart was a center-leftist. After a series of populist and redistributive policies, Goulart was deposed by a coalition of elites and the military.

If on the one hand, the local elites wanted to resume their former power, on the other hand, the military allegedly wanted to prevent a communist revolution. Initially, the expectation of civil elites was that the coup would only work as a way of removing the leftist from power and rapidly re-establish democracy. However, the dictatorship lasted until 1985. Some historians argue that the military viewed the oligarchs as detrimental to a national state project (Soares, 1982). A decentralized power in the hands of agrarian and corrupt "colonels" was holding back the development of the Brazilian nation, which should be industrial, growth-oriented, and politically stable.

[5] A good example is the Constitutionalist Revolution of 1932, in which Sao Paulo state oligarchies sponsored a war against Getulio Vargas former new regime.

Additionally, the long-term clientelistic networks could potentially represent a threat in terms of a communist revolution, if the leftists were to ally with small farmers and rural labor unions (Houtzager, 1998).

Therefore, the military was to some extent facing a dilemma. To maintain the legitimacy and endurance of the regime, the dictators believed that they needed the local oligarchies' embeddedness with the electorate. Yet, development and growth were still the primary goals of their national project. The solution was to centralize power at the national and state level while permitting local elections in the Brazilian federation. Hence, part of the regime transformation was to ban the former democratic parties and replace them with a two-party system. Politicians had to decide between the pro-government party (ARENA) or the opposition party (MDB). While state governors were directly appointed by the president, most municipalities were free to elect their mayors. This strategy would at the same time ensure power centrality and keep the regime's legitimacy through elections (Hagopian, 1996).

To at least partly dismantle local elites' power structures, the dictators of the period created the *sublegenda* voting system. Because traditional elites could easily win local contests, the solution was to attract them to the ARENA party. The *sublegenda* system could accommodate both the loyalist politicians and the traditional elites under the same party (Ferraz et al., 2020). The institution was simple: each party could nominate up to three candidates running for the mayor and senate elections. The candidate with the most votes from the party that also gained more votes was elected. As a result, the regime successfully introduced new players and increased competition in municipalities that were once almost completely dominated by local landlords (Hagopian, 1996; Ferraz et al., 2020).

3.3 The creation of National Security Areas

Although the military wanted to either maintain local elections for purposes of legitimacy or to keep control of the overall political environment, another fundamental goal of the regime was to ensure national security. Whether it was a legitimate concern about the threat of a communist revolution or another excuse to hold on to power and repress dissidents is certainly debatable. What matters here is that the leaders of the regime had a clear motivation to in some circumstances abdicate the "soft" influence over the country's polity and intervene with an iron hand. It was the case for the National Security Areas.

The Institutional Acts Numbers 2 and 3 defined that presidents and state governors would be indirectly elected by the National Congress and state legislative chambers, re-

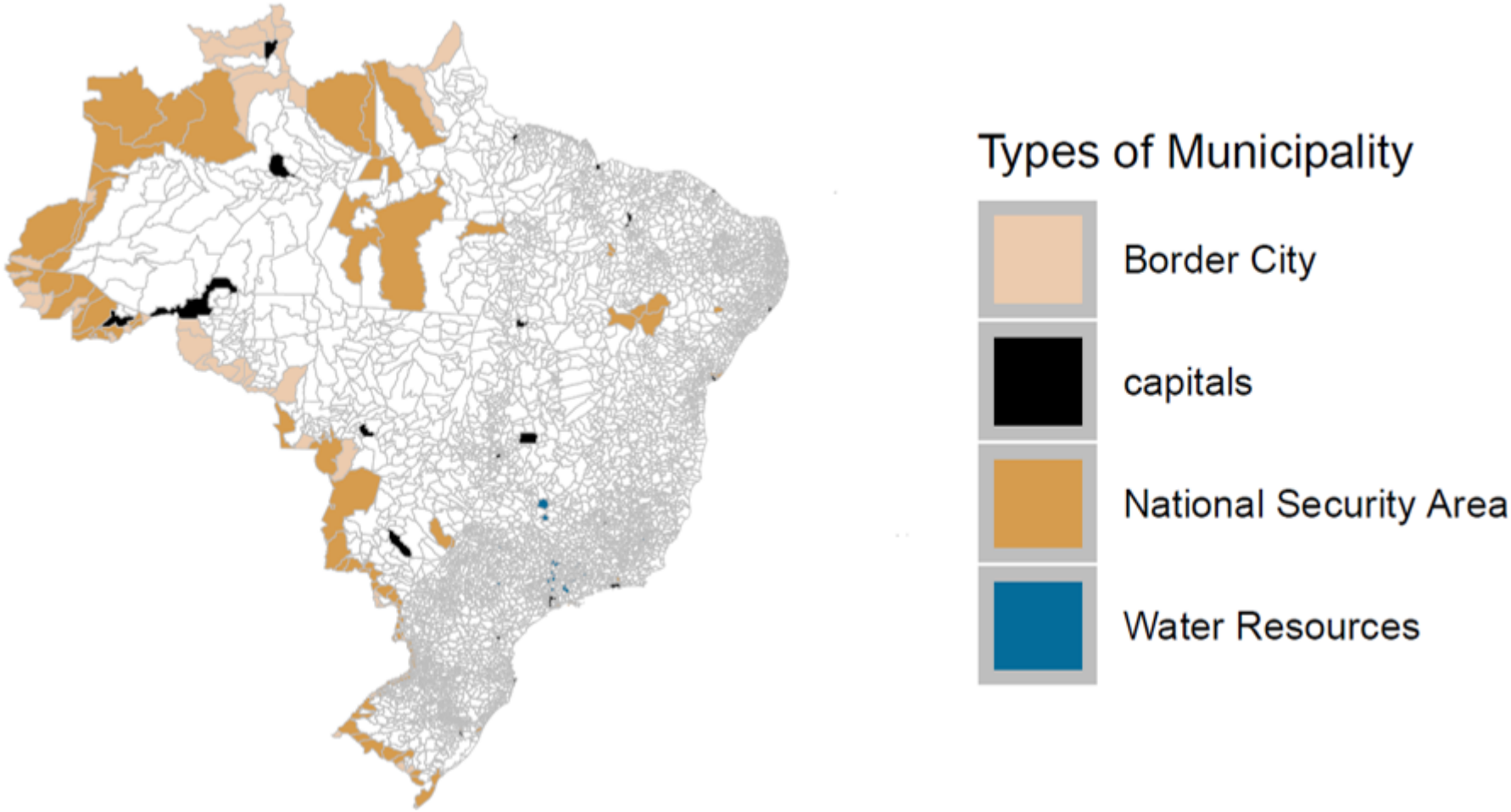
spectively [6]. In practice, even with congressional elections, the regime could maintain full control over political decisions. At the local level, the great majority of municipalities were free to directly choose their representatives, as previously stated. However, in 1966, by the Institutional Act Nr. 3 state capitals were the first municipalities where mayor elections were banned. In 1968, Federal Law Nr. 5449 established the National Security Area municipalities, which were also considered regions of "security interest" for the nation, and thus could not directly elect mayors[7]. Most of these municipalities were in the border of Brazil with other Latin American countries. Key to my argument is that in these places local elites had no voice because mayors were appointed by state governors and had to be approved by the president. As Houtzager (1998) points out, it was frequent that appointed mayors had no previous political experience and were in large extent bureaucrats following orders. In subsequent years, the regime increased the list of NSA municipalities (still preserving the strategic goals of securing borders).

In parallel to the NSAs, the Constitutional Amendment Number 1, from October 1969, established the Water Resorts Areas, which were municipalities with strategic water resources. The WRAs were also places where mayors were appointed by state governors. However, the motivation for creating the WRAs were probably different from the NSAs. Water resources were not strategic in terms of national security, but were in terms of exploitation of natural resources and development goals. According to Nicolau (2012), NSAs were in most cases border municipalities aimed at securing the country's sovereignty. Figure 2 presents the map of Brazil with each type of municipality in the regime.

[6]See AI-2 at: http://www.planalto.gov.br/ccivil_03/ait/ait-02-65.htm. See AI-3 at: http://www.planalto.gov.br/ccivil_03/ait/ait-03-66.htm

[7]See Law Number 5449:https://www2.camara.leg.br/legin/fed/lei/1960-1969/lei-5449-4-junho-1968-359221-publicacaooriginal-1-pl.html

Figure 2: Brazil map - Types of municipalities



The different approaches and institutional innovations that the military adopted in the period make it clear that the leaders of the regime wanted to balance a variety of goals at the same time. Thus, it is paramount that we try to pin down each motivation and its consequences. For instance, the *sublegenda* ballot system aimed at allowing the entrance of new political agents that were loyal to the regime, but at the same time accommodate the demands of the traditional landlords. The logic was to reduce the risk of losing local elections and at the same time mitigate the influence of the "Colonels" (Ferraz et al., 2020). However, the NSAs have a different story. Brazil has a vast frontier and shares its borders with almost all South American countries. The context of the period was the Cold War and many other countries in the region were also going through processes of military intervention. Hence, the establishment of the NSAs was a way of controlling the movements of regime opponents (either from within or from outside the country).

A series of Brazilian historiographical case studies support the thesis that NSAs were largely thought of as institutional means of repressing opponents who escaped the country through South American countries, and that in the eyes of Brazilian dictators were constant threats (Assumpção, 2011; Bauer, 2006; Fernandes, 2009; Mitchell, 2007). When the coup was established in 1964, many leftist leaders self-exiled to Argentina and Uruguay (on the southern border of Brazil)[8]. For instance, the deposed president Joao Goulart and the labor leader Leonel Brizola[9] both went to Uruguay before this country also suffered a military coup.

A good example of how the repression operated in the border cities that were NSAs was the creation of a police apparatus that had command in the state capitals and lower-tier operational bases in strategic municipalities. The DOPS[10] were the Departments of Political and Social Order. They are commonly known as the main apparatus of the Political Police widely used in the military dictatorship. Bellow the DOPS, the regime created the SOPS (Sections of Political and Social Order), which were located in police stations in minor municipalities and would follow orders from the DOPS. According to Assumpção (2011):

> "The SOPSs would either provide important information about their regions to the DOPS or receive orders and instructions from them. From the exchange and collaboration between these bodies, it was possible to extend the scope of repression to different areas of the state (Rio Grande do Sul), including the border region, which was a critical space for the defense of National Security."

Additionally, Bauer (2006) points out the following:

[8] Other countries were also destinations

[9] Leonel Brizola was the former governor of the state of Rio Grande do Sul. When the threat of the 1964 coup was about to happen, he engaged in attempts of military resistance.

[10] In Portugues: Departamento de Ordem Politica e Social

> "The DOPS carried out a series of studies on the people who made contact with exiles, the routes into and out of the country and the support infrastructure in the border area."

Although it is hard to pin down from the official documents what were the exact motivations behind the creation of NSAs, these case studies provide cues to the interpretation that the military was indeed concerned with issues of national security and armed threats to the regime. It is reasonable to assume that in such localities the stakes were higher for the military. Therefore, the political strategy of making bets on electoral legitimacy and cooptating local elites was not on the table. Instead, the plan was to intensify the repression apparatus and nominate loyal bureaucrats as mayors. As I make clear in the following theoretical section, NSAs had long-term implications for the local rates of violence and contrast with previous findings in other similar municipalities that had frequent elections in the period.

4 Research design

4.1 Data

Dependent Variable - Intentional Violent Death

I operationalize the concept of "civil violence" with a measure of clinical assessment of the cause of death. Every person that dies in Brazil needs to have their cause of death determined by a qualified physician. Of course, causes of death can vary widely, but the Ministry of Health has a myriad of rubrics that help doctors categorize each incident. I retrieved the rubric "Intentional Violent Death" from the Ministry of Health's Mortality Information System (SIM). Although this category refers to people that have been murdered, it is important to emphasize that this is not a legal classification, such as homicide. Instead, this is a clinical definition.

I chose this data because it is an unambiguous measure of the level of violence in a given municipality [11]. Concretely, data on homicides is subjected to all sorts of biases that can be generated from legal processes with interested parties who can manipulate the typology of the crime. For my purposes, what would be most concerning is that police officer could manipulate homicide registrations because they may have incentives to mask the statistics in the districts where they operate. The advantage of using "Violent Deaths" is that this classification has no legal implications and is somewhat neutral in terms of crime typologies.

[11] Although the Ministry of Health does have information at the individual level, I use the aggregate number of violent deaths per municipality.

Because I am mostly interested in the overall effect of National Security Area municipalities on violent deaths during the democratized period, I average the incidents from 1996 to 2015 for each municipality in my dataset. The mayoral elections of 1996 are the first ones that were held when Brazil consolidated its democracy, and 2015 is the last available on violent deaths that I could have access to. Conventionally, measures of violence need to consider population size, so I divide the number of incidents by the population of each city. Thus, the metric is the number of violent deaths per 100,000 individuals.

Independent Variable - National Security Areas

Data on which cities were considered National Security Areas in Brazil's military dictatorship is not readily available. As previously mentioned in the historical section, the military promulgated a series of decrees and laws to include municipalities in the roll of NSAs. There is not a straightforward way to determine waves of inclusions, but it is worth mentioning that out of the 103 municipalities that eventually became NSAs, 69 were declared NSAs in 1968 when the first law was promulgated (roughly two-thirds of my sample). The remaining 34 were included in the group year by year from 1969 to 1976.

I thank Mariana Carvalho and Tiago Ventura for assembling this data and agreeing on sharing it with me[12]. They compiled and hand-coded all the laws and decrees that mention which cities became NSAs during the dictatorship period. To guarantee consistency, I compared the assembled data to the tables and graphs from (Meloni, 2015). Although Meloni's doctoral dissertation also addresses similar impacts of NSAs, I could not find publicly available data from his work. Nevertheless, from what I could compare, the data that I have at hand is very similar to his coding of NSAs.

To simplify my empirical analyses, I considered a given municipality to be treated if it ever became an NSA in the dictatorial period. Hence, my independent variable is simply an indicator that assumes a value of one when the municipality was "ever treated" and zero otherwise.

Other Outcome Variables

In order to test my three mechanisms hypotheses, I compiled data from local electoral results, Censuses, and city-level creation of police forces in the democratic period. I now describe each one of them.

For the first mechanism, I operationalize inequality with the Gini and Theil indexes for each municipality in the censuses of 1991, 2000, and 2010. Both measures consider

[12]Mariana Carvalho is a Ph.D. candidate in Politica Science from UCSD and Tiago Ventura is a post-doctoral fellow at the Center for Social Media and Politics at NYU

family income to construct the dispersion of inequality within municipalities in a given year. To preserve methodological consistency, I extracted this data from the portal "Atlas Brasil" [13], which gathers and cleans official information from publicly available government data. Although the Gini and Theil indexes are not perfect measures because they disregard wealth that comes from capital investment, for my purposes they represent a lower-bound measure of inequality. In the worst-case scenario of measurement error, inequality should be underestimated. Moreover, I see no reasons to think that these errors should be systematically different between treated and control units.

For the second mechanism, I use different measures of electoral outcomes in the 1996 mayoral elections. Data from these elections are trustworthy and represent a period of relative political stability and democratic consolidation[14]. All the information comes from the repository of the Superior Electoral Court in Brazil[15]. I use the Herfindahl-Hirschman Index to address the level of political competition/fractionalization. This index is the sum of each candidate's squared share of votes. If only one candidate is running for the election, then the index is equal to one - the highest level of concentration (conversely, minimal level of competition). Because only one candidate competing is rarely the case, the index varies between $1/N$ and 1, where N is the number of candidates. The formula of the index is the following:

$$HHI_m = \sum_{i=1}^{N} S_i^2 \tag{1}$$

Where m is a subscript for municipalities, i is a subscript for candidates running for the mayoral election in municipality m, S is the vote share of candidate i, and N is the total number of candidates in a given municipality.

To complement my analysis, I also look at two other electoral measures. First, I created a variable that indicates whether the winning candidate belongs to a party that derived from ARENA, the pro-government party during the dictatorship years. The parties that are unambiguously derived from ARENA according to historians are the following: "Partido da Frente Liberal" (henceforth, PFL) and "Partido Progressista Brasileiro" (henceforth, PPB). This variable seeks to measure to what extent local political elites that attached themselves to the military regime remain influential in the targeted municipalities. Second, I use another measure of political competition that complements the HHI index. I computed the margin of victory from the winning

[13] See http://www.atlasbrasil.org.br/

[14] The hyperinflation from the initial years of the 90s was controlled and by 1996 the electoral courts were solid institutions. Moreover, electoral data from previous elections are not readily available and are less trustworthy.

[15] Available at https://dadosabertos.tse.jus.br/

candidate to the candidates positioned in the second place. This variable gives us a sense better sense of how competitive each election was. If the margin of victory is high, then competition is low, because the winner guarantees an easy win and the challengers are not strong enough. The margins variable is the difference in vote shares. Although I cannot perfectly pin down fractionalization from competition, these three variables potentially give us a sense of my theoretical formulations.

I operationalize the third mechanism by looking at the adoption of municipal police forces between 2004 and 2014 (also called municipal guard). Police forces in Brazil are linked to the three levels of government in the federation - municipalities, states, and the national level. All the states must have two types of police forces, the civil police, and the military police. The former is in charge of criminal investigations, while the latter is in charge of law enforcement [16]. The military police force is clearly a legacy of the dictatorial period, but because all states must have it, also all municipalities are subjected to its influence, leaving no room for comparisons across them. However, the municipal guard is not a mandatory institution. It is up to each municipality to decide on the creation of this police force. This allows me to test to what extent NSA municipalities adopted this type of institution in the democratic period (when the guards were regularized). The theoretical assumption here is that the repressive apparatus of the dictatorship should create incentives for NSAs to invest more in security institutions that are under their direct jurisdiction, such as the municipal guard. The problem with this measure is that it is highly endogenous. For instance, it could be the case that NSAs create municipal guards in response to high levels of civil violence, not the other way around. Ideally, a better test would be to look into patterns of adoption of the SOPS (Sections of Political and Social Order) at the municipal level during the dictatorship. But as far as my knowledge goes, this type of information is not publicly available. The data that indicates whether a municipality has a guard is compiled by the "Munic survey", which is conducted every year by Brazil's national statistics office (IBGE)[17].

Control Variables

In addition to the outcome variables, I compiled municipal-level information from the Census of 1970 to function as control variables in my empirical models. These variables serve the purpose of mitigating problems of endogeneity in my independent variable. There are potentially many endogenous factors that could be associated with the decision of creating the NSAs. If any of these factors are also associated with

[16] At the national level, the federal police can either investigate or enforce the law.

[17] Available at: https://www.ibge.gov.br/estatisticas/sociais/saude/10586-pesquisa-de-informacoes-basicas-municipais.html.

violent deaths then my estimates can be biased. I use the Census of 1970 because this is the closest information that I have for municipal pre-treatment information. Although NSAs were initially created in 1968, it is reasonable to suppose that the Census of 1970, which was conducted in 1969, is not substantially influenced by the treatment.

Table 1 shows descriptive statistics for all the control variables used in my analyses. I divide the information into five types of municipalities. "National Security Areas" are the treated municipalities, "Border cities" are municipalities that are on the Brazilian frontier with other South American countries, "Water Resources" are cities defined by the military dictatorship as WRAs, "Capital" are cities that are state capitals, and "Other Municipalities" is the group of municipalities that do not belong to the previous categories. From Table 1 we can clearly see that the most similar category to NSAs is the "Border cities" group followed by "Other municipalities". This simple investigation highlights the geographical criteria for NSAs selection. Therefore, any empirical model that seeks to establish causal relations must take into consideration this form of selection. In the next section, I describe how I undertake this issue.

Table 1: Comparative Descriptive Statistics of Control Variables

Covariates	National Security Area		Border cities		Water Resources		Capital		Other municipalities	
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.
% Urban	0.35	0.25	0.33	0.18	0.63	0.23	0.88	0.18	0.33	0.20
% Water Main Network	0.15	0.21	0.10	0.10	0.47	0.20	0.50	0.22	0.14	0.18
% Sewage Main Network	0.04	0.11	0.01	0.04	0.27	0.21	0.17	0.18	0.04	0.10
% Sewage Tank	0.43	0.24	0.49	0.19	0.34	0.19	0.58	0.15	0.33	0.25
% Electricity	0.24	0.22	0.22	0.13	0.59	0.21	0.68	0.22	0.23	0.22
% Sanitary	0.52	0.26	0.56	0.19	0.68	0.20	0.79	0.15	0.42	0.29
% Radio Coverage	0.53	0.22	0.56	0.19	0.69	0.12	0.69	0.12	0.46	0.22
% TV Coverage	0.06	0.13	0.02	0.03	0.25	0.14	0.33	0.21	0.06	0.10
% Catholic	0.90	0.09	0.89	0.12	0.93	0.04	0.91	0.04	0.94	0.07
% Born in Municipality	0.68	0.24	0.65	0.22	0.69	0.15	0.64	0.15	0.74	0.19
% Literacy	0.49	0.16	0.51	0.15	0.61	0.08	0.62	0.11	0.44	0.16
Years of Education	1.79	0.85	1.92	0.69	2.45	0.65	3.28	0.86	1.46	0.81
Per capita Income ($)	223.39	73.25	252.50	59.43	261.16	95.73	365.29	99.98	166.69	72.64
Total Population	47,354	65,286	52,729	39,652	20,820	27,677	826,321	1,399,530	35,961	64,288

4.2 Methods

I employ two empirical methods to address the question of whether the creation of NSAs during the Brazilian dictatorship increased civil violence in the subsequent democratic period. The challenge here is to establish a causal relation between NSAs and my measure of violence. Because NSAs were not randomly selected, I can only partially accomplish this goal and any of my findings need to be carefully interpreted. My approach is to select a group of comparable municipalities that is as close as possible to a random selection of control units. In other terms, I want to construct a control group that works as if it was a counterfatual to my treatment group, the NSAs.

I first take advantage of the fact that the military dictators used a geographical criterion to decide which cities should be considered NSAs. As Table 1 showed, the pool of municipalities that are comparable to the NSAs is very narrow. "Border cities" could be natural candidates because most NSAs were also at the Brazilian frontiers. However, even for these "border" cases, the military must have had strategic reasons to choose some but not others. Table 2 shows a balance test between NSAs and the "Border cities". Clearly, simply comparing these two groups is not enough. Therefore, I decided to start by selecting all the municipalities that are direct neighbors to NSAs (i.e share administrative borders with NSAs). This decision is flexible enough to include in the control group some municipalities from the category "Border cities" as well as locations that are from the group "Other municipalities". With this strategy, I can include in the analysis the counterparts of NSAs that are not in the Brazilian frontiers but at the same time exclude "Border cities" that are not comparable and could never be potentially selected to be NSAs by the military. I employ a simple OLS analysis in this subsample and use the following empirical specification:

$$y_m = \beta_0 + \beta_1 NSA_m + X_m\delta + \epsilon_m \tag{2}$$

Where m is a subscript for municipalities. y is an outcome variable that can be violent deaths or my designed mechanisms. NSA is the treatment variable that assumes value equal to one if the municipality is an NSA. X is a vector of pre-treatment control variables and ϵ is the error term. The coefficient of interest is β_1, which measures the impact of the treatment.

Although the first sample selection partly mitigates the endogeneity problems, the geographic criterion per se cannot fully account for all the potential confounding factors driving the military NSAs' decision. For this reason, I combine geographical selection with a matching technique. I use the same control variables to select a second sample of control units to compare with the NSAs. The model specification is the same as equation 2 but uses a sample derived from the matching algorithm.

This approach preserves the geographic criterion because I only take matches from the first sub-sampling. The matching algorithm that I use is a logistic propensity score in which treated municipalities are each matched with their nearest neighbor. Table 3 shows the balance between treated and control municipalities after the matching. All matching variables are balanced except for "percentage of sewage tank". Figure A.1 in the appendix shows the same results graphically.

Table 2: Balance between National Security Areas and Border Cities

	Diff. in Means	Balance	M.Threshold.Un
% Urban	0.077	Balanced	≤ 0.1
% Water Main Network	0.322	Not Balanced	≥ 0.1
% Sewage Main Network	0.321	Not Balanced	≥ 0.1
% Sewage Tank	-0.284	Not Balanced	≥ 0.1
% Electricity	0.159	Not Balanced	≥ 0.1
% Sanitary	-0.156	Not Balanced	≥ 0.1
% Radio Coverage	-0.128	Not Balanced	≥ 0.1
% TV Coverage	0.474	Not Balanced	≥ 0.1
% Catholic	0.166	Not Balanced	≥ 0.1
% Born in Municipality	0.119	Not Balanced	≥ 0.1
% Literacy	-0.099	Balanced	≤ 0.1
Years of Education	-0.172	Not Balanced	≥ 0.1
Per capita Income	-0.437	Not Balanced	≥ 0.1
Total Population	-0.100	Balanced	≤ 0.1

Table 3: Balance in Matched Sample (Neighbors)

	Diff. in Means	Balance	M.Threshold.Un
Distance	0.018	Balanced	≤ 0.1
% Urban	0.030	Balanced	≤ 0.1
% Water Main Network	0.065	Balanced	≤ 0.1
% Sewage Main Network	-0.012	Balanced	≤ 0.1
% Sewage Tank	-0.113	Not Balanced	≥ 0.1
% Electricity	0.021	Balanced	≤ 0.1
% Sanitary	-0.099	Balanced	≤ 0.1
% Radio Coverage	-0.061	Balanced	≤ 0.1
% TV Coverage	0.035	Balanced	≤ 0.1
% Catholic	0.066	Balanced	≤ 0.1
% Born in Municipality	0.032	Balanced	≤ 0.1
% Literacy	-0.067	Balanced	≤ 0.1
Years of Education	-0.091	Balanced	≤ 0.1
Per capita Income	-0.069	Balanced	≤ 0.1
Total Population	-0.079	Balanced	≤ 0.1

5 Results

Cautiously assuming that the empirical models derived in the previous section are causally identified, Table 4 shows a stable positive relation between a municipality being an NSA during the dictatorship and the average rate of violent deaths from 1996 to 2015 across the different empirical specifications. The first two columns of the table show the results for the simple OLS estimation, with and without the control variables. Columns three and four present the same estimations but use a more strict sample of matched units. For all the four models the impact of NSAs is positive and statistically significant. The sizes of the coefficients are also reasonably large: being an NSA municipality represents an increase of roughly five more deaths per 100 thousand inhabitants each year. This is a substantial number considering that the average score for the matched sample is 21 yearly deaths per 100 thousand. If we were to consider the whole country, the average is 16 deaths.

The stability of the NSA coefficients gives further confidence in the empirical strategy. Although the first column presents a naive OLS model without controls, when I account for potential confounding factors in the second column, the coefficient of interest does not change substantially and remains positive and statistically significant. The matching approach also reinforces the same patterns. Columns three and four have impacts that are similar between themselves and only marginally higher than the

naive OLS without controls. As expected, the matching with controls should have very similar results to the matching without controls. The reason for this is that the same covariates were used in the propensity score, meaning that their inclusion in the model should function more as a means to increase precision than to account for endogeneity.

Substantively, the main takeaway here is that municipalities that were selected to be National Security Areas during the dictatorship perform worse in terms of civil violence in the consolidated democratic period. Yet, we still need an explanation for why this is the case. Before entering the details of the mechanism tests, I briefly describe a placebo analysis in the next section that hopefully further convinces that this main results are robust.

Table 4: Intentional Violent Death Estimates - OLS and Matching

	Ols	Ols w/ Controls	Matching	Matching w/ Controls
NSA mun.	5.017*	4.044*	5.634*	5.358*
	(2.130)	(1.876)	(2.668)	(2.193)
% Urban		26.449**		29.994*
		(8.637)		(12.140)
% Water Main Network		−1.372		−7.456
		(10.197)		(16.776)
% Sewage Main Network		−50.843**		−63.388*
		(18.221)		(28.315)
% Sewage from Tank		−10.773		−8.757
		(11.687)		(19.310)
% Electricity		21.880		23.860
		(15.524)		(25.438)
% Sanitary		−6.956		−19.451
		(10.675)		(14.177)
% Radio coverage		−23.389**		−41.892**
		(8.584)		(12.946)
% TV coverage		−5.576		1.074
		(17.870)		(26.158)
% Catholic		−8.438		−5.388
		(8.001)		(9.784)
% Bron in Municipality		−24.083***		−27.466***
		(4.005)		(6.933)
% Literacy		−1.921		3.598
		(19.963)		(36.053)
Years of Education		−1.552		3.742
		(3.845)		(6.059)
Per capita Income		0.083***		0.108**
		(0.023)		(0.036)
Total Population		0.000		0.000
		(0.000)		(0.000)
Intercept	19.611***	36.004**	17.271***	30.859
	(0.941)	(11.512)	(1.662)	(18.720)
Controls	No	Yes	No	Yes
R^2	0.018	0.376	0.025	0.411
Adj. R^2	0.015	0.348	0.019	0.357
Num. obs.	380	345	179	179

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Table 5: Placebo Results

	Ols	Ols w/ Controls	Matching	Matching w/ Controls
First degree Neighbors.	−1.404	−2.063	−2.483	−2.089
	(1.234)	(1.093)	(1.356)	(1.146)
Intercept	21.015***	34.123***	20.929***	38.106***
	(0.799)	(9.137)	(0.976)	(9.500)
Controls	No	Yes	No	Yes
R^2	0.002	0.329	0.007	0.331
Adj. R^2	0.000	0.311	0.005	0.311
Num. obs.	635	581	509	509

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

5.1 Robustness

As a placebo test to further validate my empirical approach I did the following. I considered the pool of first neighboring municipalities that share borders with NSAs. These are the potential matches from my original analysis. For them, I further selected a second degree of neighboring municipalities that I call the "Neighbors-of-Neighbors". Excluding the actual treated NSAs, I run the same regressions as before, but this time I consider first-degree neighbors as the treatment group and second-degree neighbors as the control group.

Table 5 shows the results. Unlike the NSAs, first-degree neighbors have a negative but statistically insignificant effect on violent deaths. When compared to the "Neighbors-of-Neighbors", these municipalities show no clear pattern of dictatorial legacy. Although this analysis is not perfect because there could still be spill-over effects, the evidence suggests that my main results are solid and that the effect of NSAs on violent deaths needs to be considered seriously.

5.2 Mechanism

I start this section by testing the inequality mechanism. From the derived hypotheses in the theoretical section, inequality could be a path to higher rates of violence either in the short run or in the longer run. As my theory suggests, this could be the case in the short run because the military dictatorship was a right-wing coalition, and in the long run due to the detrimental legacy of government accountability that leads to poor redistribution policies in the democratic period.

Table 6 shows the impact of NSA municipalities on the Gini index for the three Censuses of the democratic period. Again, I divide the analysis between two samples.

The first sample has the pre-matching municipalities and represents the naive OLS regressions. The second sample has the matched municipalities. Results are similar for all years and show a trend of increasing levels of inequality between control and treatment units. Because coefficients are always positive and significant, this means that NSAs continue to impact inequality not only in the short run but also in the long run. In the appendix, Table A.1 and Table A.2 show that these results hold when I use the Theil index and when I use other model specifications.

Similar to what Meloni (2015) has found, NSA municipalities have a detrimental impact on inequality levels that could account for the rising levels of violence in the democratic period. I extend Meloni's work by showing that the increase in inequality also holds for a longer window and is robust to different measures[18]. This evidence suggests that MH1 is true either in the short run or in the long run. In the short run, the military's right-wing coalition focused more on economic growth in spite of controlling increases in inequality during their years of government. In the long run, they left a legacy of poor democratic accountability institutions that led to the under-provision of re-distributive policies in the democratic transition. Either way, the constant increase in the difference in inequality levels between NSAs and the comparable group of cities reinforces my point that the dictatorship generated worse violence outcomes many years after the regime was over.

[18] Meloni (2015) only uses the Theil index and only for the 1991 Census.

Table 6: Mechanism Inequality Gini

	Gini 1991 (OLS)	Gini 1991 (Match)	Gini 2000 (OLS)	Gini 2000 (Match)	Gini 2010 (OLS)	Gini 2010 (Match)
Intercept	0.505^{***}	0.534^{***}	0.554^{***}	0.565^{***}	0.576^{***}	0.516^{***}
	(0.057)	(0.008)	(0.046)	(0.007)	(0.043)	(0.009)
NSA mun.	0.031^{***}	0.040^{***}	0.023^{***}	0.020^{*}	0.024^{***}	0.028^{*}
	(0.009)	(0.011)	(0.007)	(0.010)	(0.007)	(0.012)
Controls	Yes	No	Yes	No	Yes	No
R^2	0.131	0.076	0.345	0.022	0.506	0.031
Adj. R^2	0.092	0.070	0.315	0.017	0.484	0.025
Num. obs.	345	179	345	179	345	179

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

I now turn to hypotheses MH2 and MH3. The first three columns of Table 7 show estimates for my measures of electoral competition and fractionalization (MH2). Similar to Ferraz et al. (2020) findings, column two estimate for the HHI-index suggests that NSAs municipalities had elections that were less concentrated in 1996. However, in contrast to Ferraz et al. (2020) the margin of victory results lead us to interpret that the intensity of competition was not higher in NSAs than in other localities (although the point estimate is negative, the coefficient is not significant). Additionally, mayors that were elected in the NSAs are not on average more affiliated to parties that derived from ARENA (coefficient for column 1 is statistically null).

Together, these results paint the following picture. NSAs at least partly changed the nature of the competition in the local elections. In 1996, it should be hardly the case that traditional elites could still dominate the elections. If this was the case, then we should see an increase in the HHI index. What we see is quite the opposite. A similar argument could be made for the predominance of new elites that emerged from the military coalition in the dictatorship. If they had control over the "electoral machine", we would also see an increase in the HHI index in 1996 and possibly a positive impact on the Arena Party outcome. However, the intensity of competition measured by the margins of victory is not higher in the NSAs. This result does not rule out MH2 for two reasons. First, the HHI index could also be seen as a measure of competition - not so much about the intensity of the fight between the winner and the second place (a dimension captured by the victory margin), but about the extent to which more players enter the game with reasonable chances of winning (recall that more candidates with relevant vote shares also decrease the index). Second, a nuanced view of the results could still support the underlying mechanism of MH2. If higher fractionalization is what matters the most, then the HHI result taken as a measure of dispersion suggests that the nature of the competition changed in NSAs, despite the margins remaining similar. If this is the case, we have reasons to suspect that the groups that are competing are not cohesive and could be less attached to the electorate. The null results for the Arena Party could also party support this claim[19].

Columns four and five from Table 7 show results for my third mechanism. Here, I test the hypothesis that the dictatorial regime left a legacy of an autocratic bureaucracy that invests in crime policies through the use of police forces instead of adopting alternative approaches. Results from the two years show mixed evidence in support of MH3. Although positive, the coefficient for the adoption of the municipal guard in 2004 is statistically null. However, for adoption in 2014, the coefficient is statistically significant and also positive. There are two ways of interpreting these results. On the one hand, the null result for 2004 could lead us to think that we have a serious reverse

[19]In a separate regression I also tested left-wing parties and found null results again

causality problem here. Because the coefficient is only positive in 2014, we could interpret that investment in municipal police forces is a reaction to the rising levels of criminality in the NSAs. The mechanism test in this line of thought would fail because we would have expected an effect already in 2004 when the historical trend of rising violent deaths is at the beginning of the time series. On the other hand, we also need to consider that the adoption of local police forces was not common in the early 00s in Brazil. Additionally, this policy requires a certain level of municipal bureaucratic and fiscal capacity. Thus, the decision of adopting and further implement this institution would take time. Nevertheless, any interpretation of mechanism number three needs to be taken carefully.

Table 7: Other Mechanisms

	Arena Party (96)	HHI Concentration (96)	Margin Victory (96)	Mun. Police (04)	Mun. Police (14)
NSA mun.	0.029	-0.037^{*}	-0.038	0.078	0.144^{*}
	(0.075)	(0.019)	(0.029)	(0.056)	(0.060)
Intercept	0.325^{***}	0.479^{***}	0.180^{***}	0.133^{***}	0.133^{***}
	(0.053)	(0.014)	(0.023)	(0.036)	(0.036)
Controls	No	No	No	No	No
R^2	0.001	0.024	0.011	0.011	0.032
Adj. R^2	-0.005	0.018	0.005	0.005	0.027
Num. obs.	162	162	162	180	180

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

6 Discussion and Conclusion

Emerging democracies in Latin America have been seeing a stark rise in violence rates since the 90s. The region's patterns contrast other developing countries despite having similar levels of growth, wealth, and in some cases other social-economic variables. In the present paper, I make a point that part of the explanation for this puzzle needs to consider the historical roots of the democratic emergence in the region. In particular, scholars should focus on the legacies of the types of dictatorial regimes that governed Latin America from the 60s to the 80s, and what influence they had in the transition to and consolidation of democracies.

I contribute to the literature by studying the legacy of a particular policy from the Brazilian military dictatorship: the creation of National Security Areas (NSAs). After the 1964 coup, the military junta sustained the stability of the regime by allowing local elections in some municipalities and forbidding them in others. On the one hand, local elections were a way for the rulers to legitimize the regime (despite abolishing elections at the state and federal levels). On the other hand, some municipalities were strategic for the regime's ability to repress dissidents. This was the case not only for state capitals but also for the NSAs. I take advantage of this particular feature of the Brazilian dictatorship to derive hypotheses that link the NSAs to long-term detrimental effects on violent death rates. Arguably, NSA municipalities should be more representative of the military regime's intrinsic goals, which provides a test of the legacies of this type of dictatorship.

My results show consistent evidence that NSAs increase the number of violent deaths per a thousand inhabitants when compared to similar municipalities. Importantly, the impact on violence was found in a period of democratic consolidation, when Brazil emerged as a leading democracy from the global south. The rising patterns of criminality throughout the country create a general concern that the free regime has deficiencies that limit good governance. However, my evidence suggests that what may be partially causing these violent outcomes is more linked to the detrimental legacies of the previous dictatorship than the pitfalls of the emerging democracy. At least at the local level, and for a specific sample of municipalities, violence patterns are even worse in places where the military regime ruled with an iron hand.

I contribute by exploring three potential mechanisms that could explain these patterns. The three mechanisms are the following: 1) increasing violence led by rising inequality; 2) disruption of local elites' networks and the consequent patterns of electoral competition and political fractionalization; 3) legacies of repression apparatus that lead to investment in extensive police forces at the local level. I find strong evidence in support of the first mechanism. For the other two, evidence is suggestive but

not conclusive.

Finally, my work also leaves some questions open for future research. Although my main finding is robust to different specifications and a placebo robustness check, there is still room for empirical improvement. Because the military dictatorship deliberately chose which municipalities would be NSAs, endogeneity concerns will always be hard to pin down due to the self-selection nature of the treatment. Nevertheless, this type of historical empirical evidence is still scarce in the literature. In terms of mechanisms, future research could try to find better data that would allow a better operationalization of the causal links that I theorized. Especially for mechanisms two and three, we lack data refinement. For instance, only looking at electoral competition outcomes is not enough to test the second mechanism. Ideally, we should use fine-grained information about the traditional families that formed the rural elites that competed with the military bureaucracy during the dictatorship. Ferraz and coauthors use this type of data but in a completely different group of municipalities. Another example, for mechanism three, it would be profitable to use data from the SOSPs - the local repression offices that were used by the military police to investigate and punish dissidents. Did NSAs tend to have more of these offices? These are questions that still remain unanswered and would certainly improve our knowledge on the topic.

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Appendix to
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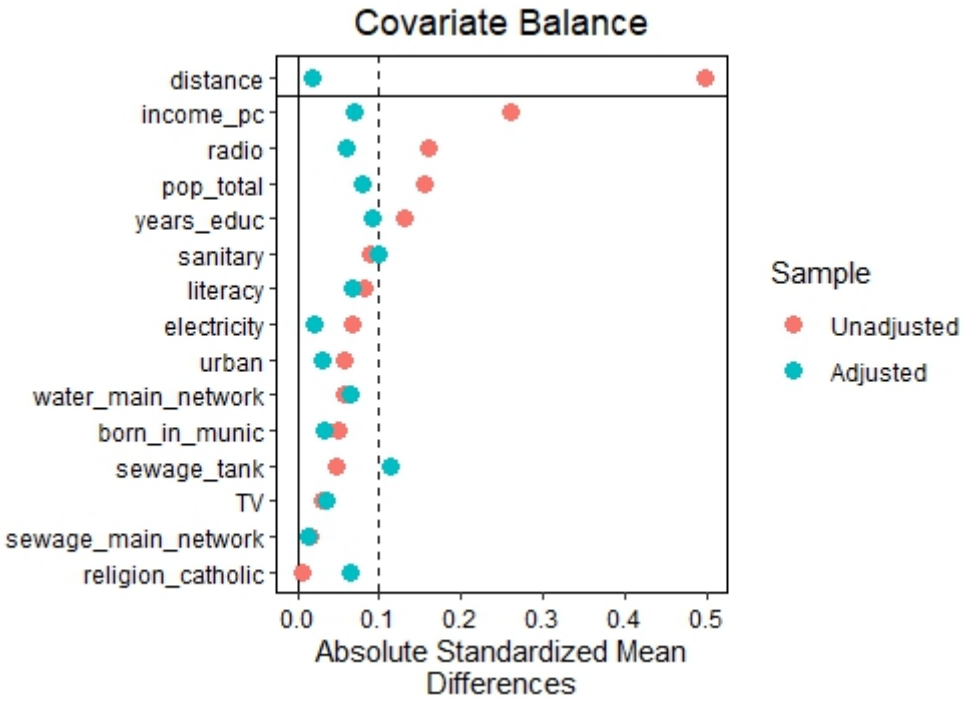
May 12, 2025

A Extra Tables and Figures

Figure A.1: Balance Plot - Matching Sample from Neighbor municipalities



This graph shows the covariates used for the matching sample. Red dots represent pre-matching mean differences between treated municipalities and all their neighboring municipalities. In blue, the dots show post matching difference in means. Improvement in balance is achieve after matching.

Table A.1: Mechanism Inequality Theil Index

	Theil 1991 (OLS)	Theil 1991 (Match)	Theil 2000 (OLS)	Theil 2000 (Match)	Theil 2010 (OLS)	Theil 2010 (Match)
Intercept	0.442***	0.499***	0.459***	0.540***	0.592***	0.493***
	(0.127)	(0.015)	(0.107)	(0.013)	(0.084)	(0.018)
NSA mun.	0.062***	0.081***	0.042*	0.039	0.037**	0.044
	(0.017)	(0.021)	(0.017)	(0.020)	(0.014)	(0.023)
Controls	Yes	No	Yes	No	Yes	No
R^2	0.124	0.077	0.092	0.021	0.447	0.021
Adj. R^2	0.084	0.071	0.050	0.016	0.422	0.015
Num. obs.	345	179	345	179	345	179

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Table A.2: Mechanism Inequality Gini and Theil - Matching w/ controls

	Gini 1991 (Match)	Theil 1991 (Match)	Gini 2000 (Match)	Theil 2000 (Match)	Gini 2010 (Match)	Theil 2010 (Match)
Intercept	0.596^{***}	0.628^{***}	0.600^{***}	0.546^{***}	0.554^{***}	0.524^{***}
	(0.088)	(0.186)	(0.058)	(0.125)	(0.065)	(0.127)
NSA mun.	0.043^{***}	0.086^{***}	0.017^{*}	0.039^{*}	0.025^{**}	0.038^{*}
	(0.010)	(0.020)	(0.008)	(0.019)	(0.009)	(0.018)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.179	0.221	0.319	0.066	0.529	0.462
Adj. R^2	0.104	0.149	0.257	−0.020	0.486	0.412
Num. obs.	179	179	179	179	179	179

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$