

# Unequal Before the Law: Statebuilding, Political Incentives, and Selective Drug Enforcement\*

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## Abstract

How does the state use law enforcement to consolidate its monopoly of violence? I develop a theory of selective enforcement that explains differential enforcement patterns even against powerful non-state armed groups, shaped by political incentives. Using a difference-in-differences design, I demonstrate variation in enforcement toward aligned and opposition actors in the context of coca crop eradication by aerial fumigation in Colombia. Despite widespread increases in eradication during the 2000s, municipalities with more prior violence by paramilitary groups—actors aligned with the state—experienced disproportionately lower eradication after the election of hardline President Álvaro Uribe. Conversely, areas with more prior violence by guerrilla groups—actors opposed to the state—experienced disproportionately greater eradication. However, after the election of President Juan Manuel Santos, who undertook a more conciliatory approach, areas with more prior guerrilla violence no longer experienced disproportionately more eradication. Long-term state consolidation can thus be shaped by short-term political logics.

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“Voices are being raised asking us to put an end to illicit crops. [...] Are these crops exclusively the responsibility of the paramilitaries? Could it be that Colombia is unaware that the fumigations are carried out only in areas under the influence of the paramilitaries?”

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– Salvatore Mancuso, paramilitary leader,  
address to Colombian Congress, 2004

## 1 Introduction

If the state is, as Weber claimed, the successful holder of the monopoly of the legitimate use of violence within a given territory (Weber [1919] 2004), then state formation and consolidation must involve the progressive monopolization of coercion. The state represses armed rivals who threaten this monopoly, and in doing so, builds the institutions that allow for taxation, regulation, and further projection of authority (Tilly 1992).

Law enforcement can serve as a primary instrument of this internal consolidation. Charles Tilly influentially argued that war makes states, but also pointed out that policing and other forms of violence belong “on the same continuum” (Tilly 1985, 170). Both are forms of organized violence through which the state establishes and maintains control. In theory, law enforcement provides a framework through which the state can establish authority and subjugate challengers.

In practice, however, states often choose to share or delegate authority, tacitly accommodate, or even collaborate with actors who nominally threaten their monopoly of violence, including militias, insurgents, and criminal groups (Acemoglu, Robinson, and Santos 2013; Jentsch, Kalyvas, and Schubiger 2015; Staniland 2012; Reno 1998; Snyder and Duran-Martinez 2009; Uribe et al. 2025). They also bargain with, co-opt, or incorporate these actors (Arias 2009; Barnes 2017; Daly 2016; Walter 2002). Law enforcement thus becomes a tool for managing these relationships, rather than solely a tool for continuously monopolizing coercive force. Selective enforcement allows for strategic restraint or intensification toward these actors across space and time.

I conceptualize two broad kinds of enforcement approaches toward non-state armed groups, shaped by leaders' political projects. These strategies condition how aligned and opposition actors are treated: aligned groups are not uniformly accommodated just as opposition groups are not uniformly cracked down on. Under an integrative strategy, governments apply symbolic enforcement toward aligned groups and negotiated restraint toward opponents. Under a differentiative strategy, governments provide strong restraint for aligned groups while intensifying enforcement against opponents. Integrative approaches seek to contain violence and create space for accommodation or negotiated ends to conflicts and organized criminal group outbreaks; differentiative approaches seek to harden political and coercive boundaries and weaken adversaries.

Active conflict or widespread organized crime is often among the most salient political issues (Daly 2022b; Fondevila and Quintana-Navarrete 2015; Holland 2013; Trejo and Ley 2020). Across diverse contexts, leaders frequently make their approaches toward the topic central to their political brands, whether before or after taking office. For example, in Guatemala, President Álvaro Arzú (1996–2000) framed ending the civil war as his defining achievement, while Mozambique's Joaquim Chissano (1986–2005) made the transformation of the rebel group RENAMO into a political party a cornerstone of his presidency and political legacy. Conversely, Alberto Fujimori (1990–2000) in Peru, Benjamin Netanyahu (1996–1999, 2009–2021, 2022–present) in Israel, Rodrigo Duterte (2016–2022) in the Philippines, and Muhammadu Buhari (2015–2023) in Nigeria have built their images on hardline approaches to conflict or crime. Even within countries, approaches can shift over time: in Mexico, Felipe Calderón (2006–2012) signaled a hardline posture, “promising no truce and no quarter” as he militarized the drug war, whereas Andrés Manuel López Obrador (2018–2024) adopted a more conciliatory turn with “hugs, not bullets” (*abrazos, no balazos*). Similarly, in El Salvador, Mauricio Funes (2009–2014) emphasized prevention-oriented strategies toward gangs, while Nayib Bukele (2019–present) has implemented sweeping crackdowns under emergency powers. Variation is not confined to national executives either: Brazilian subnational governments have alternated between pacification initiatives and more punitive campaigns, illustrating how enforcement strategies can diverge even within the same country.

I argue that leaders' political brands correspond to the aforementioned underlying strategies (integrative or differentiative) that shape enforcement patterns across space and time, producing systematic variation in where, against whom, and at what intensity the law is enforced.

I use counternarcotics enforcement in Colombia as a case study of these dynamics, focusing on the late 1990s and early 21st century—a pivotal period in the history of the country for counternarcotics policies. During this time, multiple armed groups relied on drug production or trafficking but faced divergent relationships with successive governments despite their nominal roles as aligned actors (paramilitaries) and opponents (guerrillas) of the state. In 2000, the United States enacted Plan Colombia, a bilateral aid initiative that allocated billions of dollars for military training, equipment, and aerial fumigation capacity, substantially expanding Colombia's ability to enforce counternarcotics. This set the stage for the election of President Álvaro Uribe (2002–2010), whose hardline brand—consistent with a differentiative strategy—reshaped incentives to allocate eradication differentially across municipalities with varying paramilitary versus guerrilla presence. I leverage Uribe's election as a critical juncture to test whether eradication was relatively restrained toward paramilitaries and intensified toward guerrillas. The election of Uribe's successor, President Juan Manuel Santos (2010–2018), marked a strategic shift toward an integrative approach. Santos broke with his predecessor by pursuing peace negotiations with the largest guerrilla group, making this conciliatory brand central to his presidency. Opponents of the state became potential partners for negotiated peace instead, creating conditions for a corresponding attenuation of guerrilla-targeted eradication.

With monthly-municipal data on aerial eradication from 1998 to 2015 and a difference-in-differences design, I show that during Uribe's terms, less eradication relative to previous President Andrés Pastrana's term was conducted in municipalities with paramilitary presence as proxied by prior paramilitary violence. Substantively, for a given municipality, a standard deviation increase in previous paramilitary violence is associated with 10 fewer hectares of aerial eradication per month on average, about a 5.82% decrease. This translates to around 500 hectares over a 4-year term,<sup>1</sup>

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1. The average size of a coca plot during this time is approximately 1.25 hectares, and about 63% of all total hectares of coca crops detected were cultivated in plots smaller than 3 hectares.

for a yield of 2,800 metric tons of fresh coca leaves per year. Conversely, during this same period, there was increased eradication in municipalities with guerrilla presence. The standardized effect for guerrilla violence is similar in magnitude but positive: an increase in average monthly hectares fumigated of about 7%. In contrast, the Santos administration shows little change in eradication patterns in areas of guerrilla presence relative to the Pastrana baseline, suggesting that the shift toward peace negotiations neutralized some of the enforcement disparities observed under Uribe. These results hold when controlling for coca cultivation and across various measurement strategies.

These findings make three main contributions to our understanding of statebuilding and the political economy of counternarcotics and law enforcement policy. First, this paper challenges the conventional account that treats state consolidation as the progressive monopolization of violence. Selective enforcement is not necessarily a deviation from the statebuilding processes or a symptom of state weakness: I argue that it often is a deliberate strategy in response to changing political and security circumstances. This reframing highlights that enforcement gaps do not only reflect institutional weakness (Brinks, Levitsky, and Murillo 2019) or low capacity, but can emerge from purposeful decisions by state actors (Kleinfeld and Barham 2018; Holland 2017; Wilkinson 2004) and might even be a core feature of how the state attempts to govern contested areas. Importantly, these strategic choices, in turn, shape the evolution of state capacity over time (Suryanarayan 2024). Empirically, this contribution moves beyond prior research that infers selective enforcement from the persistence of non-state armed groups (Acemoglu, Robinson, and Santos 2013) by directly documenting variation in enforcement itself.

Second, I explain variation in the implementation of policies that fight organized crime and drug-trafficking organizations across time and space. While existing research has illuminated or theorized the consequences of these policies—on violence (Calderón et al. 2015; Campos-Contreras, Nieto-Matiz, and Schenoni 2025; Flores-Macías 2018; Trejo and Ley 2020) and their effectiveness (Becker, Murphy, and Grossman 2006; Daniele and Dipoppa 2023)—less attention has been paid to the causes of variation in enforcement itself. Enforcement is treated as absent (Bueno de Mesquita 2020) or exogenous to politics (Lessing 2017; Castillo and Kronick 2020). I

advance this literature by theorizing and testing how the political expediency of enforcement shapes the intensity and spatial distribution of enforcement. Building on Torreblanca (2024), who shows that forced eradication can reduce government trust and political participation, I focus instead on how electoral incentives influence when and where governments apply coercive policies. In doing so, I connect research on counternarcotics to broader debates about tough-on-crime or “mano dura” policies and electoral incentives (Holland 2013; Krause 2014; Laterzo 2024; Ventura, Ley, and Cantú 2024; Visconti 2020) and expand work on restraint by armed actors (Stanton 2016) to law enforcement. Counternarcotics policies may sometimes be ineffective at their stated goals, but these apparent inefficiencies can reflect strategic governance aims: enforcement patterns that appear suboptimal for drug reduction may be effective at managing relationships between the state and non-state armed groups.

Third, this paper advances research on the political influence of organized crime and other non-state armed actors (Barnes 2017; Ch et al. 2018; Daniele and Dipoppa 2017; Matanock and Staniland 2018; Siddiqui 2022; Trejo and Ley 2020; Trudeau 2024) by identifying conditions under which the state strategically leverages or sidelines these actors through law enforcement, not just military action. I show that legal enforcement strategies—such as counternarcotics campaigns—can function as instruments for managing relationships with these groups and blur the lines between crime-fighting and military operations. By conceptualizing these actions in redistributive terms, I extend the political economy framework of law enforcement and redistribution (Dewey, Woll, and Ronconi 2021; Dixit and Londregan 1998; Holland 2017) to cases where the state is not the only actor who can control violence.

## **2 Patterns of selective enforcement**

While enforcement patterns are traditionally thought of as varying due to geographic conditions (Fearon and Laitin 2003; Herbst 2000; Scott 2009) or constraints on state capacity (Soifer 2008; Yashar 2018), they can also reflect deliberate political choices (Holland 2017). I conceptualize the de

facto implementation of law enforcement as a resource that can be strategically allocated. Selective enforcement is systematic variation in enforcement intensity across actors, space, and/or time that arises from strategic calculus rather than administrative incapacity or institutional weakness.

I first discuss restraint and intensification of enforcement, which reflect the aforementioned variation in enforcement intensity: restraint can be used as a reward or to avoid damaging certain groups, while enforcement is intensified as a weapon to weaken its targets. Whether law enforcement will be restrained or intensified depends on two dimensions: (1) the non-state actor's political alignment with the government, and (2) the leader's approach to conflict and/or crime—whether they pursue an integrative strategy emphasizing accommodation and negotiation, or a differentiative strategy emphasizing confrontation and clear boundaries between allies and enemies.

I distinguish between two types of actors: those who are aligned with the government and those who are in opposition to the government. The former might be militias or paramilitary groups that are traditionally conceived of as potential partners to the state, or other groups that are otherwise ideologically aligned with the state. The latter include insurgent groups or rebel movements that actively challenge incumbent authority, or other groups that are otherwise ideologically opposed to the government ([Staniland 2015a](#)). These two categories do not imply that militias are always aligned while insurgent groups are always opposed. For example, Staniland ([2015b](#)) shows that the political roles of militias in the Philippines and Pakistani Punjab's provincial government shifted over time. Covert collusion between the state and insurgent groups can also shift alignment dynamics. Further, I argue that the differences between armed groups in conflict settings and organized criminal groups are not as stark as they may seem when it comes to their relationships with state authority, nor is it obvious that criminal groups would always act as apolitical or opposed actors. Criminal organizations can have analogous relationships with the state, dynamically serving as aligned or opposition actors depending on shifting political and strategic circumstances ([Barnes 2017](#); [Magaloni, Franco-Vivanco, and Melo 2020](#)).

At first glance, one might imagine that actor alignment determines selective enforcement: aligned groups will receive protection or forbearance, while opposition groups should bear the brunt

Table 1: A typology of selective enforcement against non-state armed groups and/or organized crime.

<i>Actor type</i>	<i>Government enforcement approach</i>	
	Integrative	Differentiative
Aligned with government	<b>Symbolic enforcement:</b> Enforcement is sporadic and performative. Groups receive de facto tolerance but enforcement can occur opportunistically or when politically expedient.	<b>Strong restraint:</b> Systematic forbearance shields politically valuable groups. Limited enforcement preserves relationships and avoids unacceptable political or security costs.
Opposed to government	<b>Negotiated restraint:</b> Enforcement is decreased to avoid escalation. Rivals are contained rather than consistently targeted by enforcement or effort in enforcement is reduced.	<b>Intensified enforcement:</b> Concentrated coercive pressure on groups prioritized as core threats. Enforcement is weaponized to harm adversary capacity and support.

of coercion. Yet enforcement patterns vary in ways that alignment alone cannot capture. Aligned groups are not uniformly accommodated, nor are opposition groups uniformly repressed, and the same actor may experience starkly different treatment over time despite unchanged alignment. This heterogeneity can be partially explained by leaders’ strategies: whether a government pursues an integrative or differentiative approach shapes when restraint or intensification is deployed, generating systematic variation beyond what alignment on its own would predict.

Integrative strategies prioritize conflict containment, accommodation, and the creation of political space for negotiated settlements. Leaders pursuing integrative strategies seek to de-escalate confrontation with opposition actors while maintaining symbolic enforcement against aligned groups to preserve legitimacy and avoid the appearance of impunity. Differentiative strategies prioritize clear political and coercive boundaries between allies and adversaries. Leaders pursuing differentiative strategies seek to weaken opposition actors through intensified enforcement while providing strong protection to aligned groups, hardening the distinction between friend and enemy. Each type will approach aligned and opposition groups differently, as summarized in Table 1.

Toward aligned actors, I expect an integrative approach to mean symbolic enforcement—limited actions that signal the state is upholding the law without fundamentally disrupting the

group's operations or capacity. This allows the government to maintain plausible deniability about collaboration while preserving a collaborative relationship. On the other hand, toward opposition actors, integrative types exercise negotiated restraint—limited enforcement designed to create conditions for dialogue, ceasefires, or eventual incorporation into the political system. Enforcement is modulated to avoid escalation.

Toward aligned actors, differentiative types provide strong restraint—systematic forbearance that allows these groups to operate with minimal interference. This restraint is not merely symbolic but substantive, enabling aligned actors to maintain territorial control, economic activities, or coercive capacity. Toward opposition actors, differentiative governments intensify enforcement—deploying law enforcement as a weapon to degrade, fragment, or eliminate these groups.

This framework generates testable expectations about enforcement patterns. Rather than treating enforcement as uniform, I expect systematic variation in enforcement intensity that corresponds to the political alignment of armed actors and the enforcement approach of leaders. The election of a leader with an integrative approach or circumstances that shift a differentiative government into an integrative approach (or vice versa) can change the costs and benefits of targeting groups.

**Hypothesis 1 (H1).** *Differentiative governments will be less (more) likely to enforce or reduce (intensify) counternarcotics enforcement in areas with non-state armed groups that share aligned (opposing) political preferences.*

**Hypothesis 2 (H2).** *Integrative governments will increase enforcement against aligned groups relative to differentiative governments.*

**Hypothesis 3 (H3).** *Integrative governments will decrease enforcement against opposition groups relative to differentiative governments.*

I apply this framework to counternarcotics enforcement in Colombia from 1998 to 2015, examining how successive Colombian governments strategically allocated aerial eradication operations across municipalities with varying presence of paramilitaries and guerrillas.

To be sure, not all circumstances will lead to variation in selective enforcement. First, a state with no capacity to differentially enforce cannot practice selective enforcement. Thus, a scope condition for the theory is that there is a minimum capacity to use law enforcement. Second, enforcement must be sufficiently discretionary. Highly legalistic or technocratic enforcement regimes with strong institutional constraints and oversight leave little room for strategic allocation. Third, the theory requires the presence of at least one non-state armed actor or organized criminal group whose activities fall under the jurisdiction of law enforcement. Fourth, the political benefits or costs of selective enforcement must be meaningful relative to other governance priorities. Where armed actors are politically marginal or enforcement decisions carry negligible political consequences, strategic calculations are less likely to drive enforcement patterns.

Still, this combination of conditions encompasses a wide variety of contexts. States with moderate or even high levels of overall state capacity often lack fully technocratic enforcement regimes—such as India, Nigeria, and the Philippines ([Staniland 2015b](#))—and have often experienced significant political violence involving diverse armed actors. Many Latin American states fit these conditions as well: Peru faced powerful insurgents ([Uribe 2023](#)); Mexico and Brazil contend with organized criminal organizations ([Lessing 2017](#); [Trejo and Ley 2020](#)), and many Central American states experienced both non-state armed group violence and ongoing organized criminal violence, such as El Salvador, Guatemala, and Honduras, among others ([Daly 2022b](#); [Yashar 2018](#)). Even states with stronger institutional frameworks in the Global North demonstrate selective enforcement dynamics: Italy has historically varied between accommodation and crackdown toward mafia organizations ([Dipoppa 2025](#)), while recent patterns in the U.S. include geographically targeted immigration enforcement ostensibly aimed, at least in part, at dismantling criminal groups.

### **3 Context: aerial coca crop eradication in Colombia**

Counternarcotics is particularly conducive to selective enforcement. Such policies grant authorities significant discretion over where, when, and how intensively to intervene ([Bergman 2018](#); [Cran-](#)

dall 2002).<sup>2</sup> While these policies are framed as targeting illicit drugs—providing a technocratic rationale—they can be used to directly target armed actors or their local support networks.

Focusing on crop eradication in particular, from 1998–2015, more than 1,750,000 hectares of coca crops were eradicated via aerial fumigation in Colombia, an area almost the size of the U.S. state of New Jersey or the Colombian department of Huila (each measuring approximately 1,900,000 hectares). Figure 1 shows the number of coca hectares cultivated and eradicated each year during this time.<sup>3</sup> This nationwide intensification of eradication came in large part due to the passage of Plan Colombia, the bilateral U.S. aid initiative designed to end the armed conflict in Colombia and create a robust counternarcotics strategy, with Colombia becoming the second-largest receiver of U.S. military aid after Israel during these years.

Forced crop eradication can occur in two forms: aerial or manual. Aerial eradication is undertaken by planes or helicopters spraying herbicides, most commonly glyphosate, to destroy coca crops.<sup>4</sup> Manual eradication, meanwhile, involves teams directly on the ground pulling out or fumigating the crop at the root, typically with police or military escorts.

This paper focuses on aerial eradication, which has characteristics that make the study of its variation more credible. Considering aerial eradication alone reduces any disparities in implementation between the national police and military, as it is a more indiscriminate form of enforcement than manual eradication.<sup>5</sup> Second, aerial eradication is less likely to be affected by other time-varying factors that influence variation in manual eradication, such as organized peasant resistance<sup>6</sup> and safety considerations (Ramírez 2011). Manual eradication is more limited by safety and contemporary military control. In contrast, aerial eradication is more affected by exogenous factors such as

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2. While the theory and examples use many national-level leaders, there is no reason why these dynamics would not apply at the subnational level, so long as the leader of the subnational unit can exercise sufficient pressure or discretion in law enforcement.

3. The number of hectares eradicated can be greater than the number of hectares cultivated because cultivation is measured net of eradication at the end of each year. See Section 4 for more details.

4. Aerial eradication has been halted in Colombia since September 2015 largely on the basis of health- and environment-related concerns about glyphosate use.

5. I conducted interviews with politicians and military, police, and government officials that suggest the two bodies operate similarly, but the data I use does not disaggregate between implementing actor (see Section 4 for more details).

6. I conducted interviews with social leaders that suggest that sufficiently organized coca growers can sometimes prevent manual eradication but not necessarily aerial eradication.

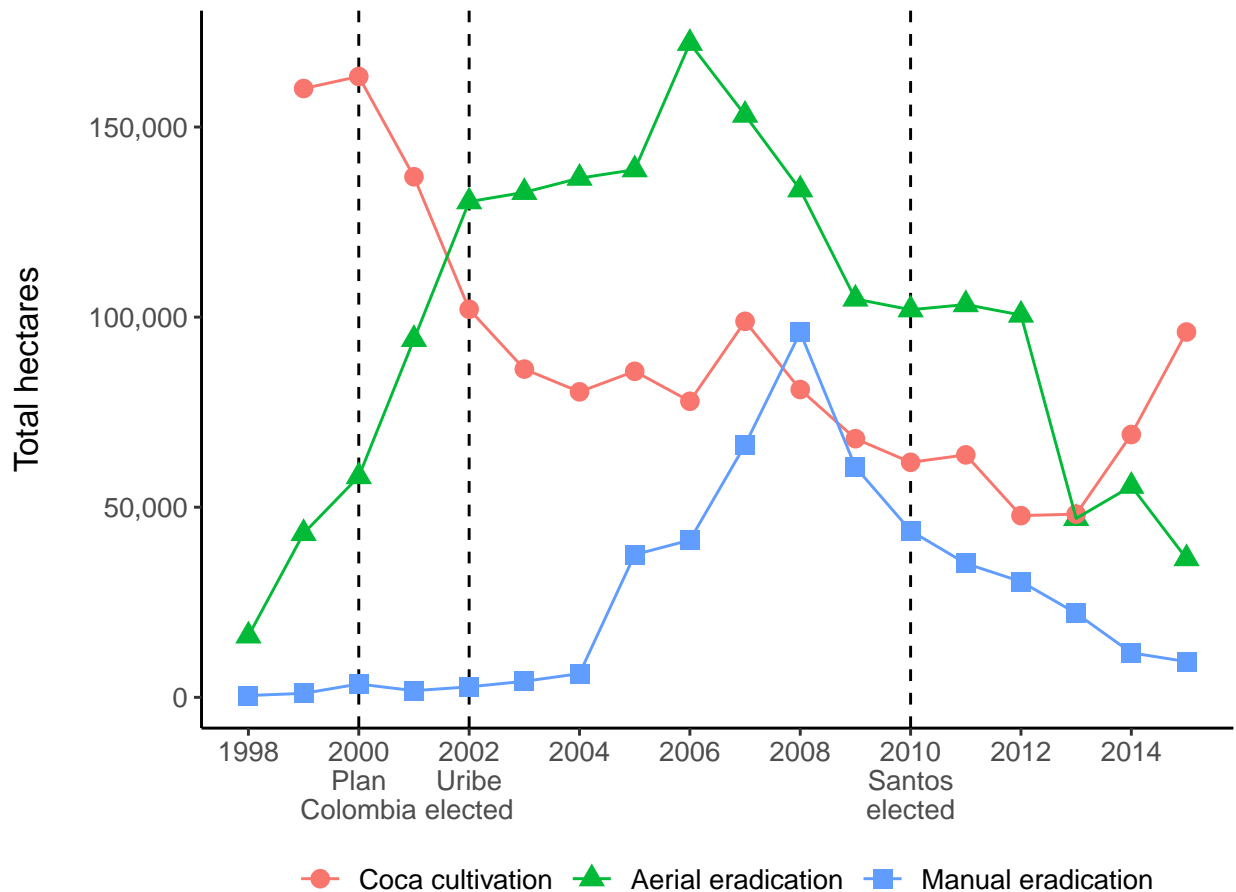


Figure 1: Number of coca hectares cultivated and eradicated, 1998–2015.

the weather (Reyes 2014), although armed actors present some danger to both forms of eradication. Figure 1 shows that eradication was an essential part of the Colombian counternarcotics strategy from 1998–2015.

Politically, in Colombia, drug-related issues are particularly salient given the long history of violence in the country and the involvement of armed groups in the drug trade. Appendix Figure A1 uses AmericasBarometer data to show that in most years from 2004–2021, a plurality of respondents considered issues that could be classified as related to drugs, crime, and security as the most crucial issue facing the country, with some exceptions like the years after the Great Financial Crisis and the COVID-19 pandemic. Therefore, the political arena in Colombia is rife with opportunities for politicians to stake their claims on security and their relationships with armed actors with differentiative or integrative approaches to counternarcotics.

The Colombian context is characterized by various non-state armed groups with varying political preferences who were involved with the drug trade. The conflict originates with the formation of several guerrilla groups in the aftermath of *La Violencia*, a civil war fought between the historically dominant Conservative and Liberal Parties. The 1958 arrangement that brought an official end to *La Violencia* did not end the violence in the countryside. In 1964, the left-wing Revolutionary Armed Forces of Colombia (*Fuerzas Armadas Revolucionarias de Colombia*, FARC) formed as a guerrilla group to contest the state. Additional left-wing insurgent groups, such as the National Liberation Army (*Ejército Nacional de Liberación*, ELN), soon followed (Arjona 2016). Paramilitary groups such as the United Self-Defense Forces of Colombia (*Autodefensas Unidas de Colombia*, AUC) emerged to combat these insurgencies (Daly 2016). During the period of the study—from the late 1990s through the 2000s—all of these different groups experienced periods of ascendancy and decline (Ch et al. 2018), and each of these groups became involved with the drug trade and influenced politics. Guerrilla groups are opposition actors in this context: they were explicitly opposed to the Colombian state and socialized populations in their areas of influence into their ideology (Hirschel-Burns 2021). Paramilitaries, by contrast, served as aligned actors whose anti-communist stance and counterinsurgency operations aligned them with state interests, despite their formally illegal status. For example, Fergusson et al. (2021) show that paramilitary violence increases in response to the election of a left-wing mayor as a function of traditional elite backlash to threats to de facto political power.

I argue that despite these differences in alignment, how the state treated each of these types of actors in terms of counternarcotics enforcement varies depending on the approach of leaders to the conflict, crime, and drugs more generally.

Uribe is a clear example of a differentiative leader. Qualitatively, Uribe's 2002 presidential campaign deeply focused on a hardline approach to security issues. The election came in the wake of failed peace negotiations with guerrillas by former president Pastrana (1998–2002), so Uribe campaigned on a robust military strategy targeting insurgent groups with heavy use of force. His campaign proved successful as Uribe won 53% of the vote in 2002, a 21-percentage point margin

over his closest challenger. On the day of his inauguration, mortar attacks on the presidential palace—which left about a dozen civilians dead and dozens wounded—helped Uribe further justify his approach. Counternarcotics played an essential role in counterinsurgency operations, given the blurred lines between these two objectives (Dube and Naidu 2015). Moreover, crop eradication was explicitly part of Uribe’s “democratic security” policy, so results in this area were necessary to keep campaign promises. In subsequent years, Uribe expanded the power of the military, and midway through his term, the legislature passed a change in the reelection law, supported by Uribe. He ran for president again in 2006 and won again in the first round: his 62% of the vote made for the largest victory for a presidential candidate in Colombian history. Uribe’s electoral successes came not despite but rather because of his intense militarized approach to the conflict and counternarcotics, which also proved to be successful in terms of lowering coca cultivation and weakening guerrilla groups. Aligned paramilitary groups were helpful toward many of these ends for Uribe. The AUC’s greatest strength coincided with the period just before the election of Uribe in 2002, and there was extensive coercion and vote rigging in this election in areas with paramilitary presence (Nieto-Matiz 2019). Similarly, the paramilitaries influenced the outcomes of legislative elections in the same year (Uribe 2025). As mentioned, once in office, Uribe pressed for a constitutional amendment overturning the long-standing prohibition on second terms which the legislature delivered. Also during his presidency, Uribe’s government negotiated a favorable paramilitary demobilization, providing amnesty to most members and limited sentences that could be served on private property, among other conditions including the ability for demobilized members to keep profits from criminal activities.<sup>7</sup> Despite this formal demobilization, paramilitary influence endured as many groups remilitarized, often using public funds ostensibly designated for their reintegration (Daly 2016). Later investigations revealed that many members of the Colombian Senate and Chamber of Representatives—including numerous supporters of the reelection reform—among other prominent politicians, had illegal ties to paramilitary groups, with dozens investigated and convicted (Acemoglu, Robinson, and Santos 2013; Daly 2022a). Years

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7. Much of these favorable conditions were later retracted by the Colombian Constitutional Court, which stayed relatively independent during this time.

later, in 2025, even Uribe himself was convicted of abuse of process and bribery of a public official in a protracted witness tampering case concerning alleged paramilitary connections, though the conviction was subsequently overturned on appeal.

Santos represents an integrative leader. Despite serving as Uribe's Minister of Defense from 2006 to 2009, Santos pivoted dramatically upon winning the presidency in 2010. Rather than continuing Uribe's differentiative strategy, Santos pursued peace negotiations with the FARC, Colombia's largest guerrilla group, beginning formal talks in 2012 that culminated in a 2016 peace accord. Instead of tying his success on military victory over opponents, Santos sought to treat guerrillas as potential negotiating partners who could be reintegrated into democratic politics—a goal that had eluded previous administrations. Santos was awarded with the 2016 Nobel Peace Prize in recognition for these efforts. This shift had direct implications for counternarcotics enforcement: as the government pursued peace with the FARC, the political incentives to weaponize eradication against guerrilla-controlled areas weakened. Where Uribe had used aerial fumigation as part of a broader counterinsurgency strategy that targeted opposition armed actors, Santos's approach created space for negotiated restraint. Santos exemplifies how enforcement approaches can shift even when the same armed actors remain present, changing the strategic calculus of where and how intensively to apply coercive policies like crop eradication.

Hypothesis 1 predicts that aerial eradication should be systematically lower in areas with prior paramilitary presence during Uribe's administration, while being systematically higher in areas with prior guerrilla presence. However, this pattern should shift during Santos's presidency (2010–2018), when the government pursued peace negotiations with the FARC beginning in 2012, ultimately resulting in a peace accord in 2016. Hypothesis 2 predicts that this overall integrative approach should lead to reduced restraint in enforcement, leading to increased or less differentiated eradication patterns in paramilitary areas in later years. Conversely, the shift toward negotiated settlement and incorporation strategies, enforcement patterns should moderate in guerrilla-influenced areas, consistent with Hypothesis 3.

## 4 Data

To test Hypotheses 1, 2, and 3, I construct a monthly panel from August 1998 to July 2015, covering the Pastrana and Uribe administrations, the entirety of Santos's first term as well as part of the first year of his second term. This period includes Plan Colombia's incidence and the rapid expansion of aerial fumigation through its suspension.

### **Outcome variable: crop eradication**

I sourced data on the outcome measure of interest, crop eradication, via an information request to the Colombian Ministry of Justice (*Ministerio de Justicia*) from the Colombian Ministry of National Defense (*Ministerio de Defensa Nacional*). Their reports of aerial eradication aggregate the monthly number of hectares fumigated in each municipality. The starting point of data collection, March 1994, is before the beginning of the period of study, which corresponds to the inauguration of Pastrana in August 1998. I choose to use metrics of eradication that are reported by the Colombian government not only because it is standard in the literature (Mejia and Restrepo 2016; Prem, Vargas, and Mejía 2023; Campos-Contreras, Nieto-Matiz, and Schenoni 2025) but also because any reporting biases that favor a lack of a relationship between political factors and eradication will drive the estimates downward.

### **Predictor variables: previous armed group violence**

The key predictor variables of interest are measures of guerrilla and paramilitary presence across municipalities as proxied by aggregating violence over time, which follows the empirical literature on the Colombian conflict (Acemoglu, Robinson, and Santos 2013; Ch et al. 2018). Aggregating violence over many years ensures idiosyncratic year-to-year fluctuations in the conflict do not drive the results and that the results are not entirely a function of the mechanical or contemporary effects of armed group presence on eradication based on safety considerations. While violence-based measures may not necessarily capture territorial control by armed groups in general (Arjona and Otálora 2011; Kalyvas 2006), research on Colombia finds by contrast that areas controlled by a sole

armed actor—as measured qualitatively—experience high levels of violence (Aponte González, Hirschel-Burns, and Uribe 2024). The primary source of the violence data comes from Restrepo, Spagat, and Vargas (2003), a database which counts paramilitary and guerrilla violence from the Center for Research and Popular Education or *Centro de Investigación y Educación Popular* (CINEP)’s *Noche y Niebla* records. CINEP is a Colombian NGO that uses validated media reports, victim testimony, and other sources to construct detailed violence records. Each record is manually classified based on the perpetrating armed group. The raw number of violent events in each municipality over several years is summed together, divided by the total number of months of the time window used, which is then divided by the average of the municipality’s population from the National Administrative Department of Statistics of Colombia throughout the time period, and multiplied by 100,000 to create the variable used in the regression models. Thus, the attacks refer to the average number of monthly violent events by each type of armed group in each municipality per 100,000 inhabitants. Appendix Figure A2 maps the variation in violence by plotting the logged values for each armed group.<sup>8</sup> Separately, I include data from Aponte González, Hirschel-Burns, and Uribe (2024), who qualitatively measure armed group control or contestation in a smaller subset of municipalities, as an alternative measure.

I group prior violence conducted by paramilitary organizations, primarily the AUC, into a single category of paramilitary violence. Similarly, I group prior violence by different guerrilla groups, such as the FARC or ELN, into a single measure of guerrilla violence. Municipalities in the sample vary cross-sectionally along these two dimensions. Prior violence by one group of armed actors is not exclusive to prior violence by another. On the contrary, many paramilitaries formed primarily to contest the gains of guerrilla groups in the earlier days of the conflict. That said, there are also municipalities where only a single group of armed actors committed violence in the period I used to generate the predictors. Further, a paramilitary group may have dominated one area of a municipality, while a guerrilla group may have dominated another. To account for potential threats to inference generated by this dynamic, in each model, I include measures of the intensity

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8. I use the logged values in the map to facilitate visual interpretation and the raw values per 100,000 population in the main specifications to facilitate written interpretation, but the results are robust to the use of either.

of prior violence by each type of group, assuming that both can affect eradication behavior instead of estimating each relationship separately. In the appendix, I probe the robustness of the results to various other measurement strategies. Section 5 details these additional specifications.

### **Additional variables**

In certain specifications, I control for the yearly net hectares cultivated of coca crops in a particular municipality. The source of these data is the Integrated Monitoring System of Illicit Crops (*Sistema Integrado de Monitoreo de Cultivos Ilícitos*, SIMCI) of the United Nations Office on Drugs and Crime (UNODC). On an annual basis since 1999, SIMCI detects areas of coca cultivation using satellite imagery. Helicopter flights take high-definition photographs to confirm the detection. Usefully, since these data come from the UNODC, they are generally independent of the Colombian political system. Appendix Section A.2 describes these data in further detail. The coca cultivation and eradication data are combined to construct the sample of municipalities used in the study. I use as an estimation sample the 353 (out of 1,122) municipalities in Colombia with *any* aerial eradication or cultivation from 1998–2015. Appendix Figure A3 uses a map to highlight the variation in cultivation and aerial eradication: any municipalities with positive values for either of these variables are included in the sample, covering a wide swath of the Colombian territory.

## **5 Forbearance and intensification of eradication**

### **5.1 Empirical strategy**

I adopt a difference-in-differences design that leverages cross-sectional variation in prior armed group presence alongside temporal variation in the incentives for the government to forbear or intensify enforcement against certain armed groups over others. The design relies on the changing incentives of consecutive governments to use eradication against one group of armed actors over the others. The baseline category is eradication behavior during Pastrana’s term (1998–2002). I opt for Pastrana’s term as the baseline since Plan Colombia was enacted within this period,

substantially enhancing the Colombian government’s eradication capabilities. Simultaneously, the passing of Plan Colombia coincided with Pastrana’s constitutional ineligibility for seeking reelection. After his presidency, Pastrana did not hold any further political office except for a brief tenure as Ambassador to the U.S. in 2005. Therefore, Pastrana’s government would have been less incentivized to strategically allocate eradication to manage relationships with armed actors.<sup>9</sup>

After the election of Uribe, however, these incentives were much more potent, as described in Section 3. I expect aerial eradication patterns during Uribe’s presidency to reflect strong restraint toward paramilitary groups and intensified enforcement against guerrilla groups. The election of Santos in 2010 introduced another shift in enforcement incentives. His administration’s strategic shift toward an integrative approach substantially reduced the value of intensified enforcement against guerrilla groups and forbearance against paramilitary groups, as targeting through eradication could undermine fragile peace negotiations and provide hardliners within the FARC with justification to abandon talks. This logic extended beyond the FARC: aggressive eradication in ELN or other guerrilla territories could signal government hostility that might complicate future negotiations or create perceptions of unequal treatment.

For estimation, I use the following specification to predict the intensity and incidence of aerial coca eradication across Colombian municipalities where coca could plausibly be grown and aerially eradicated:

$$Y_{i,t} = \beta_1 P_i \times \mathbb{1}[\text{Uribe}] + \beta_2 G_i \times \mathbb{1}[\text{Uribe}] + \beta_3 P_i \times \mathbb{1}[\text{Santos}] + \beta_4 G_i \times \mathbb{1}[\text{Santos}] + \gamma_i + \delta_t + \epsilon_{i,t}, \quad (1)$$

where  $Y_{i,t}$  is a measure of eradication in municipality  $i$  in year-month  $t$ .  $P_i$  is a time-invariant metric of paramilitary violence in municipality  $i$ , with  $G_i$  being the analogous metric for guerrilla attacks. These two variables are interacted with indicators for the months of Uribe’s two presidential

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9. While Pastrana also pursued peace negotiations with the FARC, these talks collapsed before Plan Colombia’s eradication capacity fully came into fruition, and his lame-duck status meant he lacked incentives to strategically deploy this new enforcement tool.

terms (2002–2010) and Santos’s presidency until the suspension of aerial eradication (2010–2015), such that Pastrana’s term (1998–2002) is the omitted category.<sup>10</sup> Municipality fixed effects  $\gamma_i$  account for any time-invariant confounding municipality characteristics—notably, agroclimatic suitability for the cultivation of coca crops and the size of each municipality—while year-month  $\delta_t$  fixed effects guard against long-term and seasonal national-level trends. I report robust standard errors clustered at the municipality level.

The key coefficients of interest are the interaction between measures of different armed groups’ prior violence and presidential term indicators. They represent differential growth or decline in eradication behavior across municipalities with variation in guerrilla and paramilitary presence relative to baseline—Pastrana’s term. Based on H1, I expect  $\beta_1$  to be negative, representing less eradication in areas of prior paramilitary violence during Uribe’s two terms relative to Pastrana. Conversely, I expect  $\beta_2$  to be positive, representing more eradication in areas of prior guerrilla violence during Uribe’s two terms relative to Pastrana. I then expect no differential growth in eradication in either paramilitary,  $\beta_3$ , or guerrilla areas,  $\beta_4$ , for Santos.<sup>11</sup>

## 5.2 Results

The results from estimating Equation 1 using continuous measures of prior armed group violence are reported in Table 2. Within the table, I use three different outcome measures across columns to show that the results are not sensitive to the distribution of the raw outcome variable, which is particularly right-skewed. Column 1 uses hectares of coca crops eradicated. Next, Column 2 takes the natural log of crop eradication, adding a value of 1 to account for the municipalities with no eradication.<sup>12</sup> Finally, Column 3 evaluates the extensive margin, as the outcome is a binary measure of crop eradication in a municipality. Panel A of each table reports results from the baseline

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10. Presidential terms begin in August and end in July.

11. The constituent terms of the interactions are not present in Equation 1 because the municipality fixed effects absorb the time-invariant variables for paramilitary and guerrilla violence; the year-month fixed effects absorb the indicators for presidential terms.

12. Interpret the results from this column as percentage effects with caution, since Chen and Roth (2024) show how these transformations depend arbitrarily on the units of the outcome when the treatment affects the extensive margin.

Table 2: Differential effects of prior paramilitary and guerrilla violence (1988–2001) on aerial eradication during Uribe and Santos administrations relative to Pastrana baseline.

<i>Outcome:</i>	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
<b>Panel A: Aerial eradication</b>			
Paramilitary violence × Uribe	-19.379*** (6.275)	-0.132*** (0.045)	-0.022*** (0.008)
Guerrilla violence × Uribe	3.104 (2.961)	0.051*** (0.018)	0.009*** (0.003)
Paramilitary violence × Santos	-7.785 (6.216)	-0.149*** (0.043)	-0.029*** (0.008)
Guerrilla violence × Santos	-5.079** (2.437)	-0.015 (0.014)	-0.002 (0.003)
R <sup>2</sup>	0.11	0.22	0.20
<b>Panel B: Aerial eradication, controlling for baseline coca cultivation</b>			
Paramilitary violence × Uribe	-18.102*** (6.866)	-0.117*** (0.044)	-0.020*** (0.007)
Guerrilla violence × Uribe	2.443 (2.769)	0.043** (0.018)	0.008*** (0.003)
Paramilitary violence × Santos	-13.681** (6.493)	-0.140*** (0.043)	-0.026*** (0.008)
Guerrilla violence × Santos	-2.029 (1.494)	-0.020 (0.014)	-0.003 (0.003)
R <sup>2</sup>	0.12	0.22	0.20
Observations	72,718	72,718	72,718
Municipalities	353	353	353
Outcome range	[0-17,101]	[0-9.75]	{0,1}
Outcome mean	24.18	0.28	0.05
Outcome std. dev.	215.19	1.22	0.22
Paramilitary violence range	[0-2.95]	[0-2.95]	[0-2.95]
Paramilitary violence mean	0.49	0.49	0.49
Paramilitary violence std. dev.	0.54	0.54	0.54
Guerrilla violence range	[0-8.39]	[0-8.39]	[0-8.39]
Guerrilla violence mean	1.11	1.11	1.11
Guerrilla violence std. dev.	1.33	1.33	1.33

*Notes:* All specifications are estimated using OLS and include municipality and year × month fixed effects. Baseline category is Pastrana’s term from 1998–2002. Robust standard errors clustered by municipality are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

specification described in Equation 1. In contrast, Panel B reports results from a specification that also controls for the sum of coca hectares detected during Pastrana's term (1999–2001) interacted with the indicators for the other two presidential administrations. This approach exploits variation across municipalities with similar levels of fixed baseline cultivation.

Supporting Hypothesis 1, the results show that, relative to Pastrana's term, municipalities with higher levels of prior paramilitary activity experienced a decrease in aerial eradication, whereas municipalities with higher levels of prior guerrilla activity experienced an increase during Uribe's presidential terms, even after controlling for time-invariant factors that may affect eradication. For a given municipality, a one standard deviation increase in prior paramilitary attacks per 100,000 population is associated with about 10 fewer hectares of aerial eradication per month, translating to roughly 500 fewer hectares fumigated over a four-year term, and about a 7% decrease in the  $\ln + 1$  transformed outcome (Column 2). On the extensive margin, the same standard deviation increase is associated with a 1.2 percentage point decrease in the probability of any aerial eradication.

The magnitude of the effects is comparable but positive for guerrilla violence, though not for the untransformed hectares outcome in Column 1. Specifically, for a given month of Uribe's first or second term, a one standard deviation increase in prior guerrilla attacks per 100,000 population is associated with about a 6.9% increase in the  $\ln + 1$  transformed outcome (Column 2) and a 1.2 percentage point increase in the probability of any aerial eradication (Column 3), further corroborating Hypothesis 1.

I also find support for Hypothesis 3, but limited support for Hypothesis 2. Contrasting eradication under Santos relative to Pastrana, I find few differences in eradication behavior by Santos in areas with higher levels of prior guerrilla violence. However, patterns of forbearance in eradication toward areas with higher levels of prior paramilitary violence persisted during the first part of Santos's presidency, perhaps reflecting that the political viability of paramilitaries did not wane after their demobilization (Daly 2016; Daly 2022a; Nieto-Matiz 2023). The coefficients remain broadly similar when controlling for baseline cultivation, indicating that differences in cultivation levels cannot fully explain the observed patterns in eradication.

To examine patterns of restraint and intensification in eradication with greater granularity, I fit event study regressions of the following form:

$$Y_{i,t} = \sum_{j \neq 2002} \beta_j P_i \times \mathbb{1}[y = j] + \sum_{j \neq 2002} \zeta_j G_i \times \mathbb{1}[y = j] + \gamma_i + \delta_t + \epsilon_{i,t}, \quad (2)$$

where  $Y_{i,t}$  represents eradication in municipality  $i$  in year-month  $t$ , and  $P_i$  and  $G_i$  are variables for prior paramilitary and guerrilla violence. I interact the variables for prior paramilitary and guerrilla violence  $P_i$  and  $G_i$  with indicators for each year  $y \in 1998, 1999, \dots, 2015$  except for 2002, which is the reference category and corresponds to the end of Pastrana's term and Uribe's election. I also include municipality fixed effects  $\gamma_i$  and year  $\times$  month fixed effects  $\delta_t$ . Figure 2 presents the results of these regressions separately for aerial eradication outcomes measured in hectares,  $\ln + 1$  hectares, and as a binary indicator, plotting estimates of  $\beta_j$  and  $\zeta_j$  and 95% confidence intervals. I expect  $\beta_j$ —the coefficients associated with the interaction of the year indicators and prior paramilitary violence—to be negative after 2002 but gradually wane over time, reflecting forbearance in eradication, and  $\zeta_j$ —the coefficients associated with the interaction of the year indicators and prior guerrilla violence—to be positive after 2002, while waning after the election of Santos and the beginning of peace negotiations with the FARC.

The event study results largely corroborate the main findings. While the estimates for the untransformed aerial eradication measure are more equivocal, the  $\ln + 1$  and binary aerial eradication outcomes are consistent with the results in Table 2. In line with Hypothesis 1, during Uribe's term there was lesser eradication in areas with greater paramilitary presence and greater eradication in areas with greater guerrilla presence, relative to the Pastrana baseline. During Santos's presidency, eradication in areas with greater guerrilla presence returned to being comparable to—and eventually even lower than—those observed under Pastrana, supporting Hypothesis 3. However, I find no evidence supporting Hypothesis 2: forbearance toward areas with greater paramilitary presence persisted throughout Santos's term, suggesting that the political influence of paramilitaries endured. Encouragingly, none of the coefficients for Pastrana's years in office are significantly different from zero, indicating no evidence of differential pre-treatment trends.

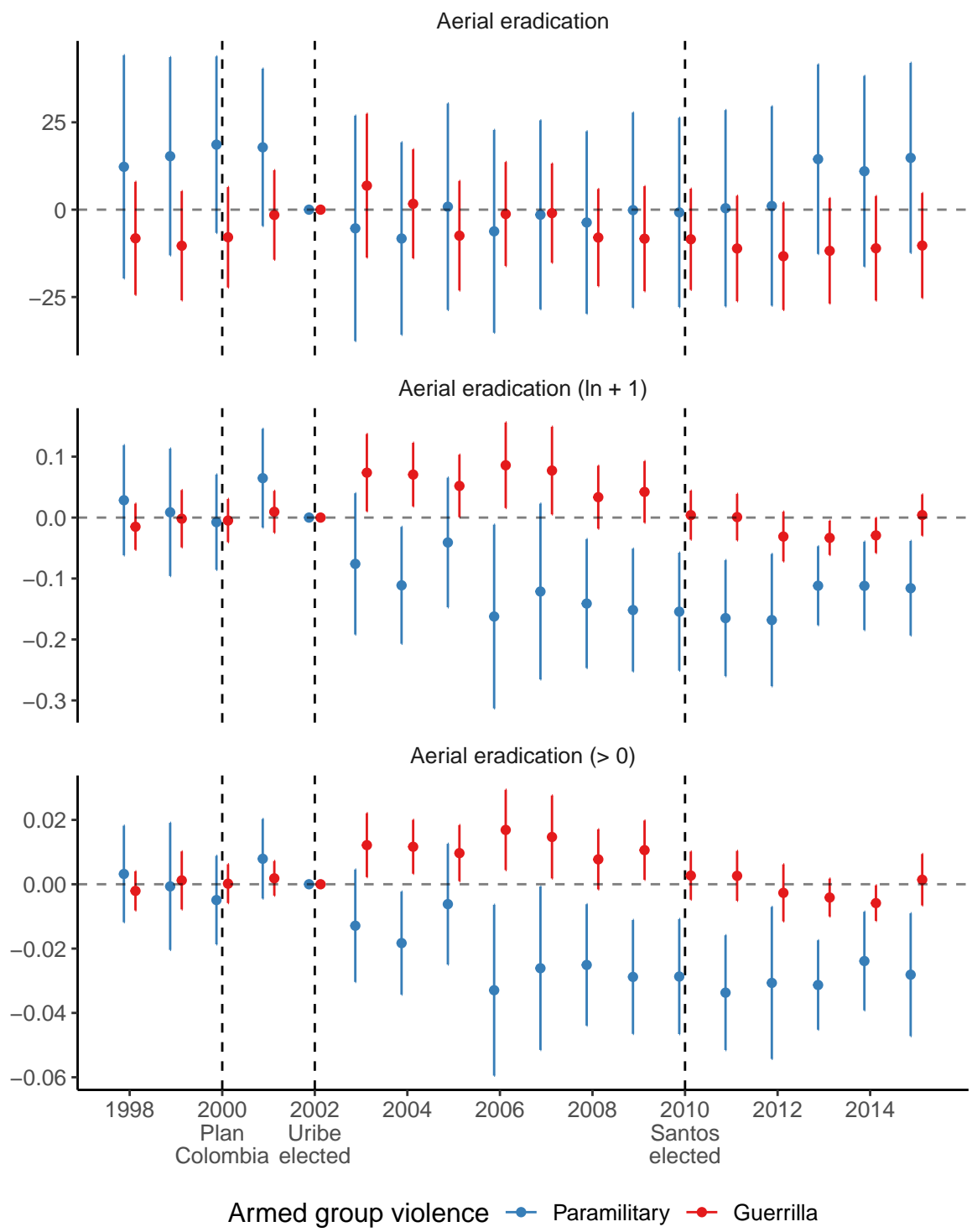


Figure 2: Event study estimates of the differential effects of prior paramilitary and guerrilla violence (1988–2001) on aerial eradication from 1998–2015 relative to 2002 baseline. Vertical lines indicate 95% confidence intervals.

### 5.3 Validation tests and robustness checks

The validity of the difference-in-differences design rests on whether the untreated units of each group are appropriate counterfactuals for treated units, which could be threatened as a result of divergence from parallel trends, or the presence of unobserved time-varying confounders.<sup>13</sup>

To assess the plausibility of the parallel trends assumption, I supplement the pre-Uribe estimates from the event-study models in Figure 2 by restricting the sample to the Pastrana administration and leading the treatment variable by one and two years. This probes whether differences in eradication behavior begin not with Uribe's administration but rather an earlier event—the implementation of Plan Colombia. The results, presented in Appendix Table A1, show that during Pastrana's term, there are few differences in eradication behavior across areas of prior high paramilitary and guerrilla violence after July 2000 or July 2001: the coefficients are imprecisely estimated and substantively small, providing support for the identifying assumptions of the design and Hypothesis 1. While all of these strategies leverage *changes* in eradication behavior across presidential terms, I also assess the cross-sectional relationship between previous armed group violence and eradication across separate presidential terms in Appendix Table A2. Panel A of Table A2 reports results from Pastrana's term, and I find limited to no evidence of a relationship between violence and eradication during his administration, providing further support for the assumption of non-divergent pre-trends. Considering results from Uribe and Santos administrations in Panels B and C of Table A2, I show that absolute levels of eradication from 2002–2010 also show patterns of forbearance and intensification in enforcement based on armed group violence, with the intensification subsiding from 2010–2015 under Santos.

Given concerns of potential time-varying unmeasured confounding, I also supplement the main estimates by fitting a model that flexibly interacts the year-month fixed effects with department fixed effects, municipality area, coca suitability, altitude, and distance to Bogotá, as well as measures of the pre-violence right/left lean of the municipality as proxied by the 1986 vote share of Álvaro

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13. Since all units are treated simultaneously, there is no threat to inference from heterogeneous treatment effects over time (Callaway and Sant'Anna 2021; De Chaisemartin and d'Haultfoeuille 2020; Goodman-Bacon 2021; Sun and Abraham 2021).

Gómez Hurtado—a conservative presidential candidate later assassinated by the FARC in 1995—and Jaime Pardo Leal—the candidate of the unofficial political wing of the FARC in this election in Appendix Table A3.<sup>14</sup> Though the inclusion of the latter vote share variables reduces the sample size, the results are similar to the main results.

One possible alternative explanation for the results is that municipalities that experienced differential armed group violence by paramilitaries or guerrillas have different coca cultivation habits, and variation in coca cultivation explains variation in eradication. However, the results are robust to conditioning on differential coca cultivation across municipalities that vary in their experiences of previous armed group violence. While Panel B of Table 2 does control for baseline coca cultivation interacted by the presidential term indicators, I also estimate two additional specifications that account for coca cultivation in different ways. Instead of controlling for baseline levels of coca cultivation, I control for yearly lags of coca cultivation in Appendix Table A4. The results here are larger than the main results, though they should be treated with caution since levels of cultivation each year are endogenous to eradication. In Appendix Table A5, I define the outcome as the proportion of coca hectares cultivated in year  $t - 1$  that were eradicated in year  $t$ . In this case, construct a yearly panel instead of year-month panel. These results are again similar to the main results. Taken together, these robustness checks bolster confidence that the main results are not necessarily driven by differential coca cultivation patterns across different areas of armed group presence.

Alternatively, forbearance and intensification of aerial eradication may result from the alignment or misalignment of local politicians with the executive (Bonilla-Mejía and Higuera-Mendieta 2017). To assess whether the observed variation in eradication reflects direct responses to armed group presence rather than local political alignment per se, I conduct a test using the regression discontinuity design from Fergusson et al. (2021). This approach compares eradication outcomes across municipalities where left- or right-wing mayoral candidates narrowly won or lost elections.<sup>15</sup>

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14. The cross-sectional models from Appendix Table A2 utilize these same covariates.

15. By contrast, Fergusson et al. (2021) use this design to examine the effect of narrowly elected left-wing mayors on future violence, finding that such victories increase paramilitary violence.

I find no significant differences in eradication intensity following close victories by either partisan alignment, as reported in Appendix Table A6. These results suggest that the central government does not systematically adjust eradication policy solely in response to the partisan identity of local mayors in close elections, supporting the interpretation that enforcement decisions are shaped by the strategic importance of armed groups themselves rather than by the partisanship of local officials.

An important challenge for my research design is the difficulty of accurately measuring armed group violence. To address this, I demonstrate that the results are consistent across various measurement strategies. Violence may be related to influence in complex, non-linear ways. First, I assess the sensitivity of the results to the use of cutoffs of top quantiles with prior armed group violence rather than a continuous measure of armed group violence. Figure A4 shows the results using the top tercile, quartiles, and quintile as indicators, which are broadly consistent. Second, to ensure the results are not driven by the imposition of a linear functional form when using continuous predictors, I also fit models that transform these predictor variables by  $\ln + 1$ . Appendix Table A7 accounts for the right skewness of the violence data (Ch et al. 2018) by applying this natural log transformation. This set of results is comparable to the main results. Similarly, squaring the continuous violence measures suggests the relationship is reasonably monotonic, as Appendix Table A8 shows. Appendix Table A9 interacts the two violence measures. Though the triple differences are noisily estimated, the estimates of the constituent terms are consistent with the theory.

Turning now to potential conceptual concerns with the measurement, I also generate the predictor variables based on aggregated attacks from the 1988–1997 period instead of the 1988–2001 period. I use the 1988–2001 period in the baseline specification because this range of years includes both eras of paramilitary and guerrilla ascendancy. In particular, the 1998–2001 years include the lead-up to the Santa Fe de Ralito pact, where the paramilitary umbrella organization, the AUC, met with nearly 1,000 politicians to strategize a concerted effort to support Uribe’s candidacy for presidency in 2002 (Ch et al. 2018). However, while this 1988–2001 range is still measured before the point where Uribe enters office, it is also measured during Pastrana’s term. Neverthe-

less, the results, in Appendix Table A10, are robust to these changes. Finally, I use a completely different measure of armed group presence by leveraging data on armed group territorial control from Aponte González, Hirschel-Burns, and Uribe (2024). Rather than proxying for armed group presence using previous violence, this measure is generated qualitatively by Aponte González, Hirschel-Burns, and Uribe (2024) and encompasses differing armed groups' territorial control across a sample of municipalities in Colombia. I recode their data to better encompass presence by grouping together municipality-years where any guerrilla group is present (even if the municipality is contested between guerrilla groups), if any paramilitary group is present (even if the municipality is contested between paramilitary groups) versus areas of active contestation across groups. The results, presented in Appendix Table A11, show that the main results are robust to the use of an alternative measure of armed group presence. Despite the smaller number of municipalities included, during Uribe's administration more eradication was undertaken in areas of guerrilla presence relative to paramilitary presence, while there are no significant differences between groups during the administration of Santos.

## 6 Conclusion

This paper shows that political incentives influenced the spatial allocation of law enforcement in Colombia. In the wake of extensive foreign aid investments motivated by a desire to reduce coca cultivation, aerial eradication was implemented strategically. Using a difference-in-differences design that leverages variation in prior armed group presence across consecutive presidential administrations, I demonstrate how changing political incentives altered enforcement patterns. Uribe's government (2002–2010) represented a differentiative approach, showing forbearance toward paramilitary areas and intensified enforcement in guerrilla territories. Santos's integrative approach (2010–2018) reduced the differences across groups in these patterns, reducing eradication in guerrilla areas. The findings help shape our understanding of statebuilding, development, electoral accountability, the rule of law, and policy implementation. First, state consolidation

reflects not only capacity constraints but also willingness: governments may strategically tolerate armed challengers when electorally beneficial, revealing that enforcement gaps can emerge from purposeful political choices rather than solely institutional weakness. In the long run, the state might find itself unable to eliminate threats to its monopoly of violence once these armed groups are no longer electorally useful (Hidalgo and Lessing 2019). Second, foreign-funded enforcement programs can be captured by domestic political logic, with aid-supported tools deployed differently from program objectives. Third, armed groups can interfere in the relationship between citizens and politicians, distorting democratic norms and breaking typical citizen-politician linkages (Kitschelt 2000; Stokes, Dunning, and Nazareno 2013). Politicians influenced or captured by armed groups may spend less on public goods and social programs in favor of security (Daly 2022a; Nieto-Matiz 2023). Fourth, the agency of elected leaders matters for understanding drug enforcement: de facto enforcement can shift significantly across governments even as the letter of the law remains unchanged. Further, expanding capacity is insufficient for achieving particular policy outcomes: leaders' incentives must also be taken into consideration. Finally, aerial crop fumigation itself causes serious health, environmental, political, and economic damage, so understanding its variation is itself important.

This paper also has limitations that suggest avenues for future research. First, considering external validity, Colombia represents a particular case given its powerful armed groups with programmatic platforms and ties to national politicians. Still, the broader theory should apply across other forms of law enforcement with different armed group or criminal group social orders. Integrative and differentiative strategies can help understand enforcement patterns toward organized crime more generally, and potentially even toward conventional criminal activity where political incentives shape enforcement priorities. Second, while I demonstrate that enforcement strategies vary systematically with leaders' political brands, I do not explain the origins of these strategies themselves. Why do some leaders adopt integrative approaches while others pursue differentiative ones? Further work should investigate the antecedents of these strategic choices. Third, both the state and individual governments are made up of many different kinds of actors with competing in-

terests. This paper sets aside questions of agency loss or principal-agent problems between political leaders and those who undertake enforcement given the centralized nature of the implementation of the outcome. However, unpacking the decision-making process of eradication and other forms of law enforcement is a fruitful avenue for future scholars. Finally, I do not study demand-side approaches. I focused on supply-side approaches because these approaches have historically been dominant in producer countries in the context of the global drug prohibition regime. Demand-side approaches focus on the root causes of drug abuse and addiction in consumer countries through prevention, treatment, and education. The politics of alternative approaches—and the reasons why they have historically been eschewed—are worthy of future study to improve our holistic understanding of counternarcotics policies.

## References

- Acemoglu, Daron, James A Robinson, and Rafael J Santos. 2013. "The Monopoly of Violence: Evidence from Colombia." *Journal of the European Economic Association* 11:5–44.
- Aponte González, Andrés F, Daniel Hirschel-Burns, and Andres D Uribe. 2024. "Contestation, Governance, and the Production of Violence Against Civilians: Coercive Political Order in Rural Colombia." *Journal of Conflict Resolution* 68 (4): 616–641.
- Arias, Enrique Desmond. 2009. *Drugs and Democracy in Rio de Janeiro: Trafficking, Social Networks, and Public Security*. University of North Carolina Press.
- Arjona, Ana. 2016. *Rebelocracy*. Cambridge University Press.
- Arjona, Ana M, and Laura Otálora. 2011. "Presencia vs. Violencia: Problemas de Medición de la Presencia de Actores Armados en Colombia." *Foco Económico* 20.
- Barnes, Nicholas. 2017. "Criminal Politics: An Integrated Approach to the Study of Organized Crime, Politics, and Violence." *Perspectives on Politics* 15 (4): 967–987.
- Becker, Gary S, Kevin M Murphy, and Michael Grossman. 2006. "The Market for Illegal Goods: the Case of Drugs." *Journal of Political Economy* 114 (1): 38–60.
- Bergman, Marcelo. 2018. "Illegal Drugs, Drug Trafficking and Violence in Latin America."
- Bonilla-Mejía, Leonardo, and Iván Higuera-Mendieta. 2017. "Political Alignment in the Time of Weak Parties: Electoral Advantages and Subnational Transfers in Colombia." *Documentos de Trabajo Sobre Economía Regional y Urbana; No. 260*.
- Brinks, Daniel M, Steven Levitsky, and Maria Victoria Murillo. 2019. *Understanding Institutional Weakness: Power and Design in Latin American Institutions*. Cambridge University Press.
- Bueno de Mesquita, Ethan. 2020. "Territorial Conflict Over Endogenous Rents." *The Journal of Politics* 82 (1): 162–181.
- Calderón, Gabriela, Gustavo Robles, Alberto Díaz-Cayeros, and Beatriz Magaloni. 2015. "The Beheading of Criminal Organizations and the Dynamics of Violence in Mexico." *Journal of Conflict Resolution* 59 (8): 1455–1485.
- Callaway, Brantly, and Pedro HC Sant'Anna. 2021. "Difference-in-differences with Multiple Time Periods." *Journal of Econometrics* 225 (2): 200–230.
- Campos-Contreras, Juan Felipe, Camilo Nieto-Matiz, and Luis L Schenoni. 2025. "Spraying Conflict: Aerial Drug Eradication and Armed Violence in Colombia." *British Journal of Political Science* 55:e96.
- Castillo, Juan Camilo, and Dorothy Kronick. 2020. "The Logic of Violence in Drug War." *American Political Science Review* 114 (3): 874–887.
- Ch, Rafael, Jacob Shapiro, Abbey Steele, and Juan F Vargas. 2018. "Endogenous Taxation in Ongoing Internal Conflict: The Case of Colombia." *American Political Science Review* 112 (4): 996–1015.

- Chen, Jiafeng, and Jonathan Roth. 2024. “Logs with Zeros? Some Problems and Solutions.” *The Quarterly Journal of Economics* 139 (2): 891–936.
- Crandall, Russell. 2002. *Driven by Drugs: US Policy toward Colombia*. Lynne Rienner Publishers.
- Daly, Sarah Zukerman. 2016. *Organized Violence After Civil War: The Geography of Recruitment in Latin America*. Cambridge University Press.
- . 2022a. “How Do Violent Politicians Govern? The Case of Paramilitary-Tied Mayors in Colombia.” *British Journal of Political Science* 52 (4): 1852–1875.
- . 2022b. *Violent Victors: Why Bloodstained Parties Win Postwar Elections*. Vol. 196. Princeton University Press.
- Daniele, Gianmarco, and Gemma Dipoppa. 2017. “Mafia, Elections and Violence Against Politicians.” *Journal of Public Economics* 154:10–33.
- . 2023. “Fighting organized crime by targeting their revenue: Screening, mafias, and public funds.” *The Journal of Law, Economics, and Organization* 39 (3): 722–746.
- De Chaisemartin, Clément, and Xavier d’Haultfoeuille. 2020. “Two-way Fixed Effects Estimators with Heterogeneous Treatment Effects.” *American Economic Review* 110 (9): 2964–2996.
- Dewey, Matías, Cornelia Woll, and Lucas Ronconi. 2021. “The Political Economy of Law Enforcement.”
- Dipoppa, Gemma. 2025. “How Criminal Organizations Expand to Strong States: Local Agreements and Migrant Exploitation in Northern Italy.” *The Journal of Politics* 87 (2): 556–571.
- Dixit, Avinash, and John Londregan. 1998. “Fiscal Federalism and Redistributive Politics.” *Journal of Public Economics* 68 (2): 153–180.
- Dube, Oeindrila, and Suresh Naidu. 2015. “Bases, Bullets, and Ballots: The Effect of US Military Aid on Political Conflict in Colombia.” *The Journal of Politics* 77 (1): 249–267.
- Fearon, James D, and David D Laitin. 2003. “Ethnicity, Insurgency, and Civil War.” *American political science review* 97 (1): 75–90.
- Fergusson, Leopoldo, Pablo Querubin, Nelson A Ruiz, and Juan F Vargas. 2021. “The Real Winner’s Curse.” *American Journal of Political Science* 65 (1): 52–68.
- Flores-Macías, Gustavo. 2018. “The Consequences of Militarizing Anti-Drug Efforts for State Capacity in Latin America: Evidence from Mexico.” *Comparative Politics* 51 (1): 1–20.
- Fondevila, Gustavo, and Miguel Quintana-Navarrete. 2015. “War Hypotheses: Drug Trafficking, Sovereignty and the Armed Forces in Mexico.” *Bulletin of Latin American Research* 34 (4): 517–533.
- Goodman-Bacon, Andrew. 2021. “Difference-in-differences with Variation in Treatment Timing.” *Journal of Econometrics* 225 (2): 254–277.
- Herbst, Jeffrey. 2000. *States and Power in Africa: Comparative Lessons in Authority and Control*. Princeton University Press.

- Hidalgo, F Daniel, and Benjamin Lessing. 2019. "Endogenous State Weakness: Paramilitaries and Electoral Politics in Rio de Janeiro." Working paper.
- Hirschel-Burns, Danny. 2021. "Sowing the Seeds: Why do Some Armed Groups Socialize Civilians More than Others During Civil War?" *Civil Wars* 23 (4): 545–569.
- Holland, Alisha C. 2013. "Right on Crime?: Conservative Party Politics and *Mano Dura* Policies in El Salvador." *Latin American Research Review* 48 (1): 44–67.
- . 2017. *Forbearance as Redistribution: The Politics of Informal Welfare in Latin America*. Cambridge University Press.
- Jentzsch, Corinna, Stathis N Kalyvas, and Livia Isabella Schubiger. 2015. "Militias in civil wars." *Journal of Conflict Resolution* 59 (5): 755–769.
- Kalyvas, Stathis N. 2006. *The Logic of Violence in Civil War*. Cambridge University Press.
- Kitschelt, Herbert. 2000. "Linkages between Citizens and Politicians in Democratic Polities." *Comparative Political Studies* 33 (6-7): 845–879.
- Kleinfeld, Rachel, and Elena Barham. 2018. "Complicit States and the Governing Strategy of Privilege Violence: When Weakness is Not the Problem." *Annual Review of Political Science* 21:215–238.
- Krause, Krystin. 2014. "Supporting the Iron Fist: Crime News, Public Opinion, and Authoritarian Crime Control in Guatemala." *Latin American Politics and Society* 56 (1): 98–119.
- Laterzo, Isabel G. 2024. "Progressive Ideology and Support for Punitive Crime Policy: Evidence from Argentina and Brazil." *Comparative Political Studies* 57 (6): 999–1034.
- Lessing, Benjamin. 2017. *Making Peace in Drug Wars: Crackdowns and Cartels in Latin America*. Cambridge University Press.
- Magaloni, Beatriz, Edgar Franco-Vivanco, and Vanessa Melo. 2020. "Killing in the Slums: Social Order, Criminal Governance, and Police Violence in Rio de Janeiro." *American Political Science Review* 114 (2): 552–572.
- Matanock, Aila M, and Paul Staniland. 2018. "How and Why Armed Groups Participate in Elections." *Perspectives on Politics* 16 (3): 710–727.
- Mejia, Daniel, and Pascual Restrepo. 2016. "The Economics of the War on Illegal Drug Production and Trafficking." *Journal of Economic Behavior & Organization* 126:255–275.
- Nieto-Matiz, Camilo. 2019. "Democracy in the Countryside: The Rural Sources of Violence Against Voters in Colombia." *Journal of Peace Research* 56 (2): 264–278.
- . 2023. "When the State Becomes Complicit: Mayors, Criminal Actors, and the Deliberate Weakening of the Local State in Colombia." *Comparative Political Studies* 56 (9): 1295–1327.
- Prem, Mounu, Juan F Vargas, and Daniel Mejía. 2023. "The Rise and Persistence of Illegal Crops: Evidence from a Naive Policy Announcement." *The Review of Economics and Statistics* 105 (2): 344–358.

- Ramírez, María Clemencia. 2011. *Between the Guerrillas and the State: The Cocalero Movement, Citizenship, and Identity in the Colombian Amazon*. Duke University Press.
- Reno, William. 1998. *Warlord Politics and African States*. Lynne Rienner Publishers.
- Restrepo, Jorge A, Michael Spagat, and Juan F Vargas. 2003. “The Dynamics of the Colombian Civil Conflict: A New Data Set.” *Available at SSRN 480247*.
- Reyes, Luis Carlos. 2014. “Estimating the Causal Effect of Forced Eradication on Coca Cultivation in Colombian Municipalities.” *World Development* 61:70–84.
- Scott, James C. 2009. *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia*. Yale University Press.
- Siddiqui, Niloufer A. 2022. *Under the Gun: Political Parties and Violence in Pakistan*. Cambridge University Press.
- Snyder, Richard, and Angelica Duran-Martinez. 2009. “Does Illegality Breed Violence? Drug Trafficking and State-Sponsored Protection Rackets.” *Crime, Law and Social Change* 52:253–273.
- Soifer, Hillel. 2008. “State Infrastructural Power: Approaches to Conceptualization and Measurement.” *Studies in comparative international development* 43 (3): 231–251.
- Staniland, Paul. 2012. “States, Insurgents, and Wartime Political Orders.” *Perspectives on politics* 10 (2): 243–264.
- . 2015a. “Armed Groups and Militarized Elections.” *International Studies Quarterly* 59 (4): 694–705.
- . 2015b. “Militias, Ideology, and the State.” *Journal of Conflict Resolution* 59 (5): 770–793.
- Stanton, Jessica A. 2016. *Violence and Restraint in Civil War: Civilian Targeting in the Shadow of International Law*. Cambridge University Press.
- Stokes, Susan C, Thad Dunning, and Marcelo Nazareno. 2013. *Brokers, Voters, and Clientelism: The Puzzle of Distributive Politics*. Cambridge University Press.
- Sun, Liyang, and Sarah Abraham. 2021. “Estimating Dynamic Treatment Effects in Event Studies with Heterogeneous Treatment Effects.” *Journal of Econometrics* 225 (2): 175–199.
- Suryanarayan, Pavithra. 2024. “Endogenous State Capacity.” *Annual Review of Political Science* 27.
- Tilly, Charles. 1985. “War Making and State Making as Organized Crime.” In *Bringing the State Back In*, edited by Peter B. Evans, Dietrich Rueschemeyer, and Theda Skocpol, 169–191. Cambridge: Cambridge University Press.
- . 1992. *Coercion, Capital, and European States, AD 990-1992*. Vol. 29. Blackwell Oxford.
- Torreblanca, Carolina. 2024. “The Political Consequences of “Source Country” Operations: Evidence from Crop Eradication in Mexico.” Working paper.

- Trejo, Guillermo, and Sandra Ley. 2020. *Votes, Drugs, and Violence: The Political Logic of Criminal Wars in Mexico*. Cambridge University Press.
- Trudeau, Jessie. 2024. "How Criminal Governance Undermines Elections." Working paper.
- Uribe, Andres, Benjamin Lessing, Noah Schouela, and Elayne Stecher. 2025. "Criminal Governance in Latin America: Prevalence and Correlates." *Perspectives on Politics*, 1–19. <https://doi.org/10.1017/S1537592725101849>.
- Uribe, Andres D. 2023. "Coercion, Governance, and Political Behavior in Civil War." *Journal of Peace Research*, 00223433221147939.
- . 2025. "Party Competition and the Limits of Electoral Coercion: Evidence from Colombia." *Journal of Peace Research* 62 (5): 1531–1547.
- Ventura, Tiago, Sandra Ley, and Francisco Cantú. 2024. "Voting for Law and Order: Evidence from a Survey Experiment in Mexico." *Comparative Political Studies* 57 (4): 551–583.
- Visconti, Giancarlo. 2020. "Policy Preferences After Crime Victimization: Panel and Survey Evidence from Latin America." *British Journal of Political Science* 50 (4): 1481–1495.
- Walter, Barbara F. 2002. *Committing to Peace: The Successful Settlement of Civil Wars*. Princeton University Press.
- Weber, Max. 2004. "Politics as a Vocation." In *The Vocation Lectures*, edited by David Owen and Tracy B. Strong, translated by Rodney Livingstone, 32–94. Indianapolis: Hackett Publishing.
- Wilkinson, Steven. 2004. *Votes and Violence: Electoral Competition and Ethnic Riots in India*. Cambridge University Press.
- Yashar, Deborah J. 2018. *Homicidal Ecologies: Illicit Economies and Complicit States in Latin America*. Cambridge University Press.

# Appendix

## Supplementary material for *Unequal Before the Law: Statebuilding, Political Incentives, and Selective Drug Enforcement*

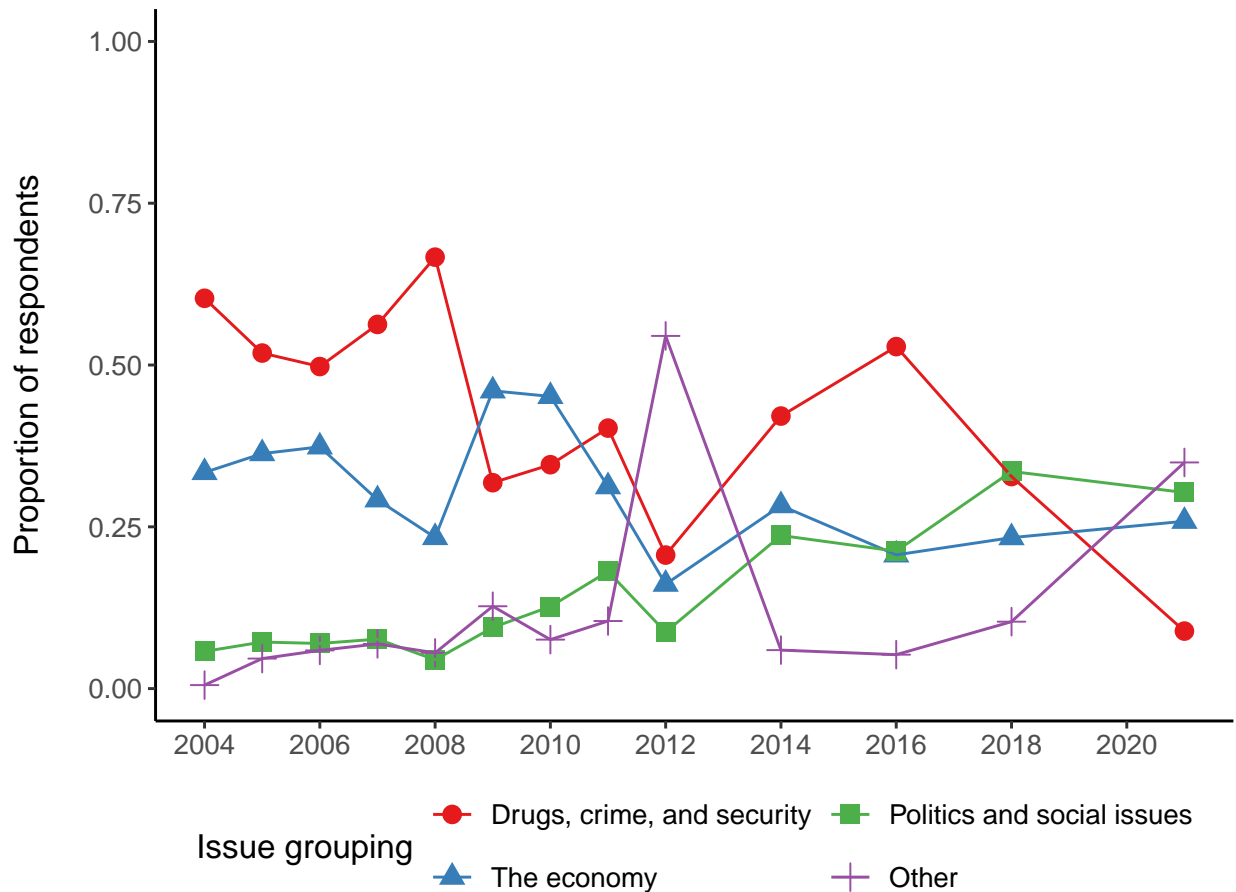
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## A.1 Public opinion toward security and drugs

The AmericasBarometer question asks respondents what they perceive to be the country's most important problem. Survey enumerators classify their open-ended responses into one of many categories. I group these issues into four categories, and Figure A1 records the proportion of respondents who listed one of the issues within these four categories as the top issue facing the country. I classify problems such as inflation, unemployment, and poverty as economic issues; protests, corruption, and problems with service provision as political issues; and issues related to drug trafficking, the armed conflict, and crime are security-related. While the armed conflict might appear to be more all-encompassing than issues of drugs themselves, it is impossible to disentangle the armed conflict from drug trafficking given the involvement of armed groups in the drug trade in Colombia.

Figure A1: Proportion of respondents who indicated an issue falling into the issue grouping as the most important problem facing the country, 2004–2021.

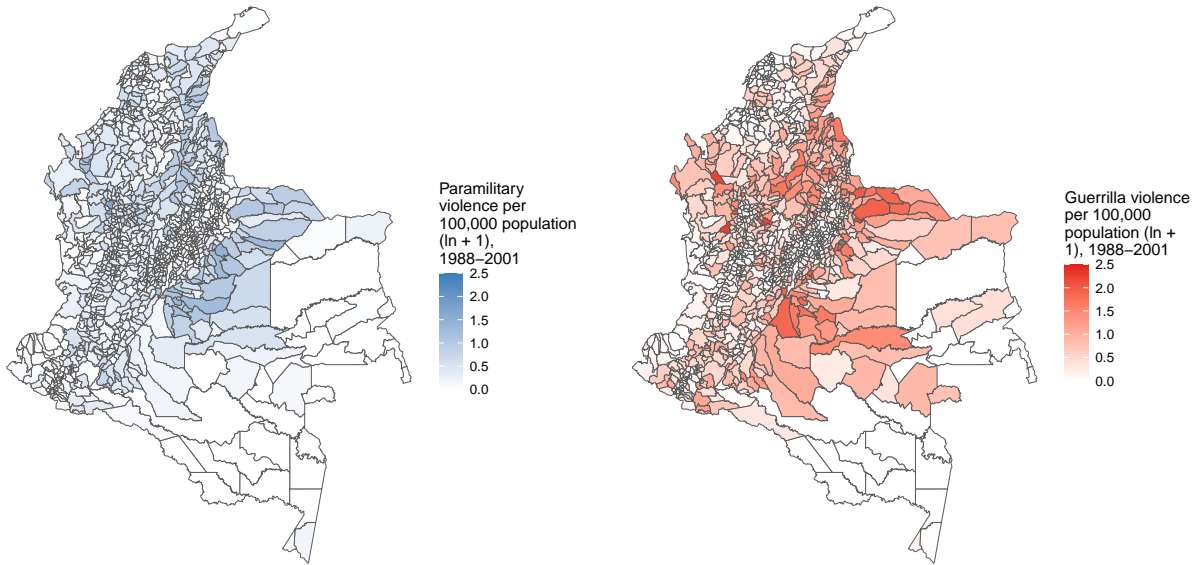


## A.2 Detailed description of coca cultivation data

SIMCI's estimations correspond to the nominal date of December 31st—however, the inputs are collected several months around this date, usually between November and February. The measures across years correspond to *net* changes in coca cultivation. Consider, for example, a report of 1,000 hectares of coca crops detected in a particular municipality in year  $t$ . In the following year,  $t + 1$ , 500 hectares could be eradicated, but another 1,000 hectares of coca may be planted. The estimated coca cultivation for that municipality in year  $t + 1$  is thus 1,500 hectares, even though there may have been as many as 2,000 hectares of crops in that municipality at one point. Similarly, it is possible for, say, 1,000 hectares to have been detected in year  $t$  and *more than* 1,000 hectares to have been eradicated during year  $t + 1$ , since new cultivation areas can appear during the year. Coca takes approximately 6 months to go from initial planting to initial harvest. Subsequent harvests can occur around every 3 months after the initial harvest. Coca is a crop resilient to eradication; even after fumigation, coca cultivation areas can regrow the crop in a time frame ranging from 6 to 12 months.

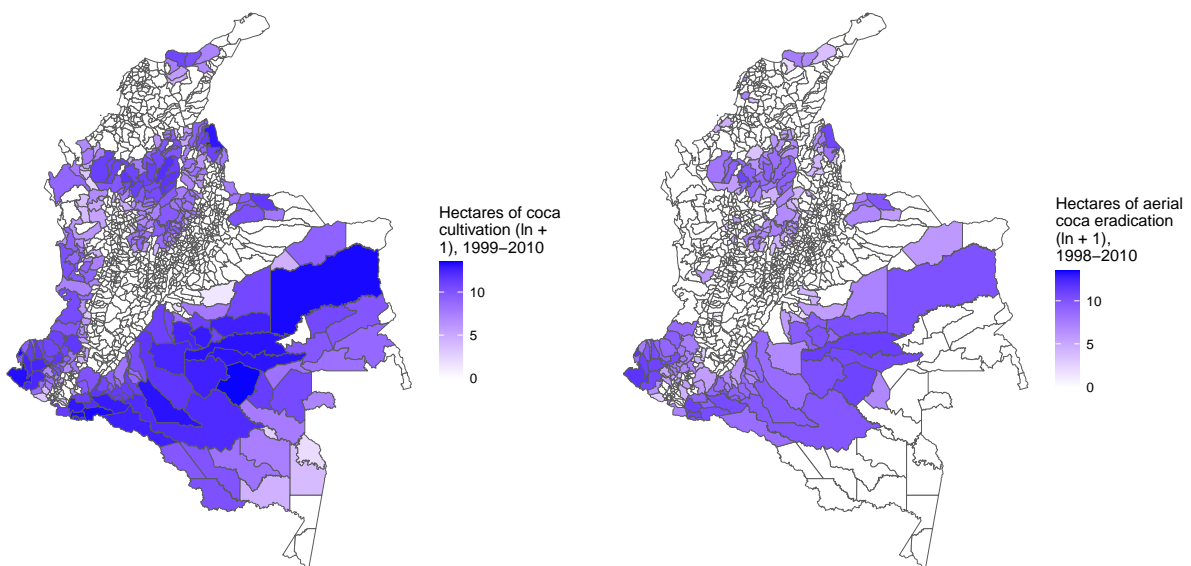
### A.3 Variation in prior armed group presence

Figure A2: Paramilitary and guerrilla violence per 100,000 population from 1988–2001.



### A.4 Variation in coca cultivation and eradication

Figure A3: Coca cultivation and eradication.



## A.5 Validation, robustness, and alternative explanations

The following set of tables present the results of the robustness tests and alternative explanations tests described in Section 5.

Table A1 tests parallel trends. I fit a model similar to the one described by Equation 1, except I replace the indicators for the administrations of Uribe and Santos with placebo “Plan Colombia” treatment indicators for July 2001-July 2002 (Panel A) and July 2000-July 2002 (Panel B) and subset the sample to the year-months of Pastrana’s term. Table A2 reports cross-sectional results.

To account for potential time-varying confounders, Table A3 flexibly interacts the year-month fixed effects with department fixed effects, municipality area, coca suitability, altitude, and distance to Bogotá, as well as measures of the latent right/left lean of the municipality.

To account for potentially differential coca cultivation characteristics, Table A4 uses coca cultivation values from  $t - 1$  as controls. Table A5 uses as an outcome the proportion of yearly coca cultivated that was aerially eradicated.

In Table A6, I use a regression discontinuity design around close mayoral elections in Colombia to predict average eradication undertaken by the central government in a particular municipality over the course of the mayor’s term depending on the close election of a left-wing or right-wing mayor. Only the 2003, 2007, and 2011 mayoral elections are included (unreported results that separate these elections by Uribe and Santos administration are comparable). This extends Fergusson et al. (2021), who compare municipalities which were barely won by a left-wing (right-wing) mayor to those where the left-wing (right-wing) mayor barely lost to understand the relationship between local elections and armed group violence in response to shifts in local power.

Concerning the linearity assumption, Figure A4 probes the sensitivity of the main binary results based on the cutoff for municipalities with high levels of prior paramilitary or guerrilla violence. Table A7 uses the natural log of attacks to account for the right-skewness of this variable’s distribution, adding a value of one such that violence values in municipalities that did not experience violence are well-defined. Table A8 squares the violence results to further assess sensitivity to linearity. Table A9 interacts each group’s violence measures with each other.

Considering alternative measures of armed group presence, Table A10 uses violence data that is always prior to the beginning of Pastrana’s term even though it excludes the crucial 1997–2001 period of paramilitary ascendancy (Ch et al. 2018). Table A11 uses patterns of armed group contestation from Aponte González, Hirschel-Burns, and Uribe (2024). Rather than proxying for armed group presence using previous violence, this measure is generated qualitatively and encompasses differing armed group territorial control. I recode their data to better encompass presence by grouping together municipality-years where any guerrilla group is present (even if the municipality is contested between guerrilla groups), if any paramilitary group is present (even if the municipality is contested between guerrilla groups) versus areas of active contestation across groups. The results are similar to the main results.

### A.5.1 Testing parallel trends

Table A1: Differential effects of prior paramilitary and guerrilla violence (1988–2001) on aerial eradication after “Plan Colombia” placebos during Pastrana administration.

<i>Outcome:</i>	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
<b>Panel A: Aerial eradication, July 2001 placebo</b>			
Paramilitary violence × 2001–2002	-6.955 (5.639)	-0.009 (0.034)	0.001 (0.006)
Guerrilla violence × 2001–2002	3.100 (2.445)	0.006 (0.013)	0.000 (0.002)
R <sup>2</sup>	0.10	0.28	0.29
<b>Panel B: Aerial eradication, July 2000 placebo</b>			
Paramilitary violence × 2000–2002	-4.836 (6.804)	0.015 (0.036)	0.004 (0.007)
Guerrilla violence × 2000–2002	6.026* (3.460)	0.012 (0.017)	0.001 (0.003)
R <sup>2</sup>	0.10	0.28	0.29
Observations	16,944	16,944	16,944
Municipalities	353	353	353
Outcome range	[0-9,650]	[0-9.17]	{0,1}
Outcome mean	16.13	0.14	0.03
Outcome std. dev.	204.56	0.91	0.16
Paramilitary violence range	[0-2.95]	[0-2.95]	[0-2.95]
Paramilitary violence mean	0.49	0.49	0.49
Paramilitary violence std. dev.	0.54	0.54	0.54
Guerrilla violence range	[0-8.39]	[0-8.39]	[0-8.39]
Guerrilla violence mean	1.11	1.11	1.11
Guerrilla violence std. dev.	1.33	1.33	1.33

*Notes:* All specifications are estimated using OLS and include municipality and year × month fixed effects. Robust standard errors clustered by municipality are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## A.5.2 Cross-sectional results

Table A2: Cross-sectional relationship between prior paramilitary and guerrilla violence (1988–2001) and aerial eradication during Pastrana, Uribe, and Santos administrations.

<i>Outcome:</i>	Not controlling for baseline coca cultivation			Controlling for baseline coca cultivation		
	Hectares (1)	Hectares (ln + 1) (2)	Hectares (> 0) (3)	Hectares (4)	Hectares (ln + 1) (5)	Hectares (> 0) (6)
<b>Panel A: Pastrana (1998–2002)</b>						
Paramilitary violence	2.389 (8.632)	-0.048 (0.039)	-0.010 (0.007)	6.331 (7.380)	-0.036 (0.036)	-0.008 (0.007)
Guerrilla violence	2.742 (2.817)	0.005 (0.012)	0.000 (0.002)	2.731 (1.904)	0.005 (0.011)	0.000 (0.002)
R <sup>2</sup>	0.04	0.15	0.16	0.06	0.16	0.17
Observations	13,776	13,776	13,776	13,776	13,776	13,776
Outcome range	[0-9,584]	[0-9.17]	{0,1}	[0-9,584]	[0-9.17]	{0,1}
Outcome mean	12.11	0.11	0.02	12.11	0.11	0.02
Outcome std. dev.	182.21	0.78	0.14	182.21	0.78	0.14
<b>Panel B: Uribe (2002–2010)</b>						
Paramilitary violence	-27.302*** (9.390)	-0.272*** (0.071)	-0.047*** (0.012)	-23.022*** (8.722)	-0.254*** (0.068)	-0.045*** (0.012)
Guerrilla violence	5.702* (3.370)	0.058** (0.028)	0.010** (0.005)	5.690** (2.880)	0.058** (0.025)	0.010** (0.004)
R <sup>2</sup>	0.06	0.13	0.12	0.07	0.14	0.13
Observations	27,552	27,552	27,552	27,552	27,552	27,552
Outcome range	[0-17,101]	[0-9.75]	{0,1}	[0-17,101]	[0-9.75]	{0,1}
Outcome mean	31.00	0.29	0.05	31.00	0.29	0.05
Outcome std. dev.	266.95	1.28	0.22	266.95	1.28	0.22
<b>Panel C: Santos (2010–2015)</b>						
Paramilitary violence	-17.876*** (4.028)	-0.279*** (0.054)	-0.053*** (0.011)	-16.204*** (4.274)	-0.259*** (0.056)	-0.049*** (0.011)
Guerrilla violence	0.118 (1.245)	0.007 (0.019)	0.002 (0.004)	0.113 (1.138)	0.007 (0.017)	0.002 (0.003)
R <sup>2</sup>	0.10	0.16	0.15	0.11	0.17	0.16
Observations	17,794	17,794	17,794	17,794	17,794	17,794
Outcome range	[0-3,151]	[0-8.06]	{0,1}	[0-3,151]	[0-8.06]	{0,1}
Outcome mean	16.87	0.30	0.06	16.87	0.30	0.06
Outcome std. dev.	117.96	1.21	0.24	117.96	1.21	0.24
Municipalities	287	287	287	287	287	287
Paramilitary violence range	[0-2.95]	[0-2.95]	[0-2.95]	[0-2.95]	[0-2.95]	[0-2.95]
Paramilitary violence mean	0.56	0.56	0.56	0.56	0.56	0.56
Paramilitary violence std. dev.	0.56	0.56	0.56	0.56	0.56	0.56
Guerrilla violence range	[0-8.39]	[0-8.39]	[0-8.39]	[0-8.39]	[0-8.39]	[0-8.39]
Guerrilla violence mean	1.21	1.21	1.21	1.21	1.21	1.21
Guerrilla violence std. dev.	1.32	1.32	1.32	1.32	1.32	1.32

*Notes:* All specifications are estimated using OLS and include department and year  $\times$  month fixed effects as well as latent right and left-wing municipality electoral preferences, municipality area, altitude, coca suitability, and distance from Bogotá. Robust standard errors clustered by municipality are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

### A.5.3 Flexibly interacting time-invariant characteristics with time

Table A3: Differential effects of prior paramilitary and guerrilla violence (1988–2001) on aerial eradication during Uribe and Santos administrations relative to Pastrana baseline, including additional covariates interacted with time.

<i>Outcome:</i>	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
<b>Panel A: Aerial eradication</b>			
Paramilitary violence × Uribe	-29.691*** (9.147)	-0.223*** (0.056)	-0.038*** (0.010)
Guerrilla violence × Uribe	2.960 (2.931)	0.053** (0.024)	0.010** (0.004)
Paramilitary violence × Santos	-20.264** (9.624)	-0.230*** (0.057)	-0.043*** (0.011)
Guerrilla violence × Santos	-2.624 (2.882)	0.002 (0.017)	0.002 (0.004)
R <sup>2</sup>	0.29	0.45	0.44
<b>Panel B: Aerial eradication, controlling for baseline coca cultivation</b>			
Paramilitary violence × Uribe	-29.352*** (10.302)	-0.218*** (0.057)	-0.037*** (0.010)
Guerrilla violence × Uribe	2.959 (2.953)	0.053** (0.023)	0.010** (0.004)
Paramilitary violence × Santos	-22.535** (9.847)	-0.224*** (0.060)	-0.042*** (0.011)
Guerrilla violence × Santos	-2.618 (2.432)	0.002 (0.017)	0.002 (0.003)
R <sup>2</sup>	0.29	0.45	0.44
Observations	59,122	59,122	59,122
Municipalities	287	287	287
Outcome range	[0-17,101]	[0-9.75]	{0,1}
Outcome mean	22.35	0.25	0.05
Outcome std. dev.	212.60	1.16	0.21
Paramilitary violence range	[0-2.95]	[0-2.95]	[0-2.95]
Paramilitary violence mean	0.56	0.56	0.56
Paramilitary violence std. dev.	0.56	0.56	0.56
Guerrilla violence range	[0-8.39]	[0-8.39]	[0-8.39]
Guerrilla violence mean	1.21	1.21	1.21
Guerrilla violence std. dev.	1.32	1.32	1.32

*Notes:* All specifications are estimated using OLS and include municipality fixed effects and year × month fixed effects interacted with department fixed effects, latent right and left-wing municipality electoral preferences, municipality area, altitude, coca suitability, and distance from Bogotá. Baseline category is Pastrana’s term from 1998–2002. Robust standard errors clustered by municipality are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

#### A.5.4 Accounting for lagged coca cultivation

Table A4: Differential effects of prior paramilitary and guerrilla violence (1988–2001) on aerial eradication during Uribe and Santos administrations relative to Pastrana baseline, controlling for lagged coca cultivation.

<i>Outcome:</i>	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
<b>Aerial eradication</b>			
Paramilitary violence × Uribe	-28.965*** (7.538)	-0.160*** (0.044)	-0.026*** (0.007)
Guerrilla violence × Uribe	6.885** (3.338)	0.064*** (0.020)	0.011*** (0.003)
Paramilitary violence × Santos	-20.885*** (7.856)	-0.186*** (0.042)	-0.034*** (0.008)
Guerrilla violence × Santos	0.901 (2.246)	0.004 (0.014)	0.001 (0.003)
R <sup>2</sup>	0.13	0.23	0.21
Observations	66,717	66,717	66,717
Municipalities	353	353	353
Outcome range	[0-17,101]	[0-9.75]	{0,1}
Outcome mean	25.47	0.29	0.06
Outcome std. dev.	222.43	1.24	0.23
Paramilitary violence range	[0-2.95]	[0-2.95]	[0-2.95]
Paramilitary violence mean	0.49	0.49	0.49
Paramilitary violence std. dev.	0.54	0.54	0.54
Guerrilla violence range	[0-8.39]	[0-8.39]	[0-8.39]
Guerrilla violence mean	1.11	1.11	1.11
Guerrilla violence std. dev.	1.33	1.33	1.33

*Notes:* All specifications are estimated using OLS and include municipality and year × month fixed effects, and control for coca cultivation in the previous year. Baseline category is Pastrana’s term from 1998–2002. Robust standard errors clustered by municipality are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

### A.5.5 Accounting for proportion of detected coca eradicated

Table A5: Differential effects of prior paramilitary and guerrilla violence (1988–2001) on the proportion of yearly hectares aerially eradicated during Uribe and Santos administrations relative to Pastrana baseline.

<i>Outcome:</i>	Proportion eradicated	
	(1)	(2)
<b>Aerial eradication</b>		
Paramilitary violence × Uribe (2003–2010)	-0.067*** (0.023)	
Guerrilla violence × Uribe (2003–2010)	0.039*** (0.012)	
Paramilitary violence × Santos (2011–2015)	-0.069** (0.028)	
Guerrilla violence × Santos (2011–2015)	-0.005 (0.011)	
Paramilitary violence × Uribe (2002–2009)		-0.066*** (0.023)
Guerrilla violence × Uribe (2002–2009)		0.039*** (0.012)
Paramilitary violence × Santos (2010–2014)		-0.080*** (0.027)
Guerrilla violence × Santos (2010–2014)		0.0004 (0.011)
R <sup>2</sup>	0.54	0.54
Observations	5,648	5,295
Municipalities	353	353
Outcome range	{0,1}	{0,1}
Outcome mean	0.19	0.19
Outcome std. dev.	0.37	0.37
Paramilitary violence range	[0-2.95]	[0-2.95]
Paramilitary violence mean	0.49	0.49
Paramilitary violence std. dev.	0.54	0.54
Guerrilla violence range	[0-8.39]	[0-8.39]
Guerrilla violence mean	1.11	1.11
Guerrilla violence std. dev.	1.33	1.33

*Notes:* All specifications are estimated using OLS and include municipality and year fixed effects. Baseline category is Pastrana's term from 1998–2002. Robust standard errors clustered by municipality are in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

### A.5.6 Fergusson et al. (2021) extension with eradication as outcome

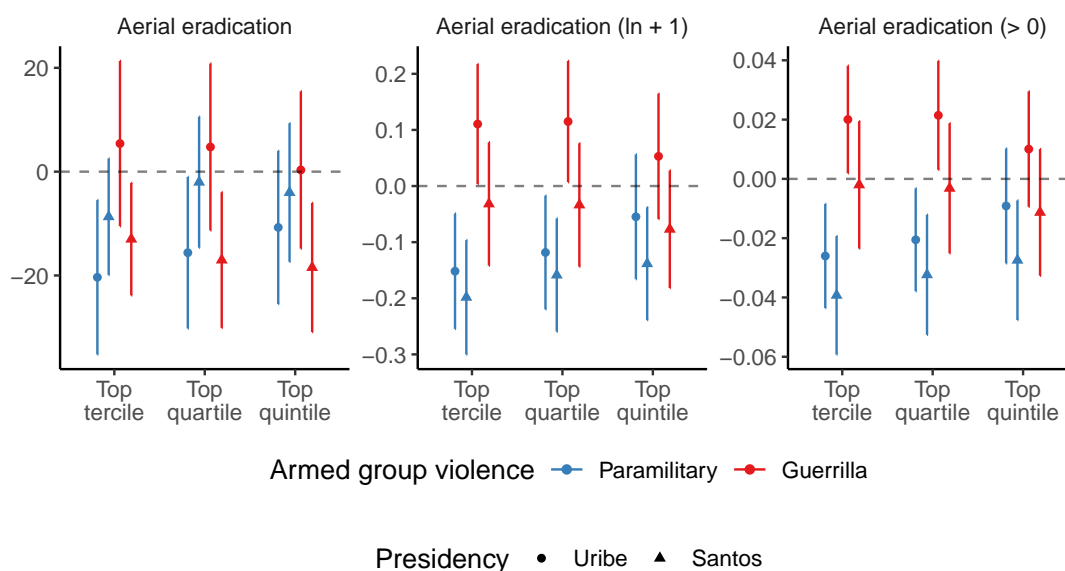
Table A6: Regression discontinuity design: the effect of election of right-wing and left-wing mayors on eradication.

<i>Outcome:</i>	Avg. yearly aerial eradication hectares (1)	Avg. yearly aerial eradication hectares (ln + 1) (2)	Avg. yearly aerial eradication hectares (> 0) (3)
<b>Panel A: Right-wing mayor</b>			
Mayor elected	13.723 (22.008)	0.033 (0.250)	-0.015 (0.054)
Observations	412, 418	412, 418	412, 418
Effective Observations	293, 297	291, 296	235, 239
Bandwidth	0.118, 0.118	0.117, 0.117	0.088, 0.088
<b>Panel B: Left-wing mayor</b>			
Mayor elected	207.064 (234.603)	-0.166 (0.660)	0.014 (0.163)
Observations	62, 72	62, 72	62, 72
Effective Observations	25, 35	26, 35	26, 37
Bandwidth	0.059, 0.059	0.059, 0.059	0.063, 0.063

Notes: Standard errors are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

### A.5.7 Using alternative cutoffs for binary measures of historical violence

Figure A4: Sensitivity of the main results to binary cutoffs for high prior paramilitary and guerrilla violence.



### A.5.8 Log-transformed violence data

Table A7: Differential effects of ln +1 prior paramilitary and guerrilla violence (1988–2001) on aerial eradication during Uribe and Santos administrations relative to Pastrana baseline.

<i>Outcome:</i>	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
<b>Panel A: Aerial eradication</b>			
Paramilitary violence × Uribe	-35.581*** (11.529)	-0.275*** (0.087)	-0.047*** (0.015)
Guerrilla violence × Uribe	9.035 (8.188)	0.164*** (0.053)	0.030*** (0.009)
Paramilitary violence × Santos	-9.721 (11.017)	-0.276*** (0.086)	-0.056*** (0.017)
Guerrilla violence × Santos	-16.503*** (6.222)	-0.039 (0.050)	-0.003 (0.010)
R <sup>2</sup>	0.11	0.22	0.20
<b>Panel B: Aerial eradication, controlling for baseline coca cultivation</b>			
Paramilitary violence × Uribe	-32.547** (12.825)	-0.240*** (0.085)	-0.042*** (0.015)
Guerrilla violence × Uribe	6.625 (7.735)	0.136** (0.053)	0.026*** (0.009)
Paramilitary violence × Santos	-23.873* (12.206)	-0.253*** (0.086)	-0.049*** (0.017)
Guerrilla violence × Santos	-5.263 (4.210)	-0.056 (0.049)	-0.008 (0.010)
R <sup>2</sup>	0.12	0.22	0.20
Observations	72,718	72,718	72,718
Municipalities	353	353	353
Outcome range	[0-17,101]	[0-9.75]	{0,1}
Outcome mean	24.18	0.28	0.05
Outcome std. dev.	215.19	1.22	0.22
Paramilitary violence range	[0-1.37]	[0-1.37]	[0-1.37]
Paramilitary violence mean	0.34	0.34	0.34
Paramilitary violence std. dev.	0.31	0.31	0.31
Guerrilla violence range	[0-2.24]	[0-2.24]	[0-2.24]
Guerrilla violence mean	0.60	0.60	0.60
Guerrilla violence std. dev.	0.51	0.51	0.51

*Notes:* All specifications are estimated using OLS and include municipality and year × month fixed effects. Violence measures are transformed by ln +1. Baseline category is Pastrana’s term from 1998–2002. Robust standard errors clustered by municipality are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## A.5.9 Squaring violence measures

Table A8: Differential effects of prior paramilitary and guerrilla violence (1988–2001) and violence squared on aerial eradication during Uribe and Santos administrations relative to Pastrana baseline.

<i>Outcome:</i>	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
<b>Panel A: Aerial eradication</b>			
Paramilitary violence × Uribe	-31.504** (14.593)	-0.268** (0.124)	-0.046** (0.021)
Paramilitary violence <sup>2</sup> × Uribe	5.711 (5.822)	0.057 (0.047)	0.010 (0.008)
Paramilitary violence × Santos	-8.087 (11.694)	-0.340*** (0.129)	-0.072*** (0.025)
Paramilitary violence <sup>2</sup> × Santos	1.501 (5.336)	0.097** (0.047)	0.022** (0.009)
Guerrilla violence × Uribe	5.728 (6.118)	0.119*** (0.043)	0.022*** (0.007)
Guerrilla violence <sup>2</sup> × Uribe	-0.395 (0.801)	-0.012** (0.006)	-0.002** (0.001)
Guerrilla violence × Santos	-13.371*** (4.909)	-0.015 (0.041)	0.001 (0.008)
Guerrilla violence <sup>2</sup> × Santos	1.520*** (0.570)	0.001 (0.005)	0.000 (0.001)
R <sup>2</sup>	0.11	0.22	0.20
<b>Panel B: Aerial eradication, controlling for baseline coca cultivation</b>			
Paramilitary violence × Uribe	-28.557* (14.613)	-0.234* (0.123)	-0.041* (0.021)
Paramilitary violence <sup>2</sup> × Uribe	5.082 (5.706)	0.050 (0.046)	0.009 (0.008)
Paramilitary violence × Santos	-21.888* (11.769)	-0.318** (0.129)	-0.066*** (0.024)
Paramilitary violence <sup>2</sup> × Santos	4.450 (4.567)	0.092* (0.047)	0.020** (0.009)
Guerrilla violence × Uribe	3.674 (5.729)	0.096** (0.043)	0.019** (0.007)
Guerrilla violence <sup>2</sup> × Uribe	-0.150 (0.787)	-0.009 (0.006)	-0.002* (0.001)
Guerrilla violence × Santos	-3.752 (3.443)	-0.030 (0.040)	-0.003 (0.008)
Guerrilla violence <sup>2</sup> × Santos	0.370 (0.479)	0.003 (0.005)	0.000 (0.001)
R <sup>2</sup>	0.12	0.22	0.20
Observations	72,718	72,718	72,718
Municipalities	353	353	353
Outcome range	[0-17,101]	[0-9.75]	{0,1}
Outcome mean	24.18	0.28	0.05
Outcome std. dev.	215.19	1.22	0.22
Paramilitary violence range	[0-2.95]	[0-2.95]	[0-2.95]
Paramilitary violence mean	0.49	0.49	0.49
Paramilitary violence std. dev.	0.54	0.54	0.54
Guerrilla violence range	[0-8.39]	[0-8.39]	[0-8.39]
Guerrilla violence mean	1.11	1.11	1.11
Guerrilla violence std. dev.	1.33	1.33	1.33

*Notes:* All specifications are estimated using OLS and include municipality and year × month fixed effects. Baseline category is Pastrana's term from 1998–2002. Robust standard errors clustered by municipality are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

### A.5.10 Interacting violence measures

Table A9: Differential effects of prior paramilitary and guerrilla violence (1988–2001) and violence interacted with each other on aerial eradication during Uribe and Santos administrations relative to Pastrana baseline.

<i>Outcome:</i>	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
<b>Panel A: Aerial eradication</b>			
Paramilitary violence × Uribe	-19.123** (8.316)	-0.141** (0.064)	-0.023** (0.011)
Paramilitary violence × Santos	-9.270 (6.512)	-0.212*** (0.066)	-0.042*** (0.012)
Guerrilla violence × Uribe	3.247 (5.215)	0.046 (0.034)	0.009 (0.006)
Guerrilla violence × Santos	-5.913 (3.761)	-0.051* (0.030)	-0.009 (0.006)
Paramilitary violence × guerrilla violence × Uribe	-0.164 (4.448)	0.006 (0.027)	0.001 (0.005)
Paramilitary violence × guerrilla violence × Santos	0.954 (5.085)	0.041* (0.024)	0.009* (0.005)
R <sup>2</sup>	0.11	0.22	0.20
<b>Panel B: Aerial eradication, controlling for baseline coca cultivation</b>			
Paramilitary violence × Uribe	-18.293** (8.137)	-0.131** (0.063)	-0.022** (0.011)
Paramilitary violence × Santos	-13.100** (6.025)	-0.206*** (0.066)	-0.040*** (0.012)
Guerrilla violence × Uribe	2.334 (5.451)	0.035 (0.034)	0.007 (0.006)
Guerrilla violence × Santos	-1.698 (3.739)	-0.057* (0.030)	-0.011* (0.006)
Paramilitary violence × guerrilla violence × Uribe	0.124 (4.708)	0.009 (0.026)	0.001 (0.005)
Paramilitary violence × guerrilla violence × Santos	-0.376 (4.458)	0.043* (0.024)	0.009* (0.005)
R <sup>2</sup>	0.12	0.22	0.20
Observations	72,718	72,718	72,718
Municipalities	353	353	353
Outcome range	[0-17,101]	[0-9.75]	{0,1}
Outcome mean	24.18	0.28	0.05
Outcome std. dev.	215.19	1.22	0.22
Paramilitary violence range	[0-2.95]	[0-2.95]	[0-2.95]
Paramilitary violence mean	0.49	0.49	0.49
Paramilitary violence std. dev.	0.54	0.54	0.54
Guerrilla violence range	[0-8.39]	[0-8.39]	[0-8.39]
Guerrilla violence mean	1.11	1.11	1.11
Guerrilla violence std. dev.	1.33	1.33	1.33

*Notes:* All specifications are estimated using OLS and include municipality and year × month fixed effects. Baseline category is Pastrana's term from 1998–2002. Robust standard errors clustered by municipality are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

### A.5.11 Pre-baseline violence data (1988–1997)

Table A10: Differential effects of prior paramilitary and guerrilla violence (1988–1997) on aerial eradication during Uribe and Santos administrations relative to Pastrana baseline.

<i>Outcome:</i>	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
<b>Panel A: Aerial eradication</b>			
Paramilitary violence × Uribe	-10.588** (4.844)	-0.108** (0.044)	-0.019** (0.008)
Guerrilla violence × Uribe	1.422 (3.221)	0.038* (0.019)	0.007** (0.003)
Paramilitary violence × Santos	-0.646 (4.874)	-0.109** (0.044)	-0.021*** (0.008)
Guerrilla violence × Santos	-4.804 (3.141)	-0.019 (0.015)	-0.003 (0.003)
R <sup>2</sup>	0.11	0.22	0.20
<b>Panel B: Aerial eradication, controlling for baseline coca cultivation</b>			
Paramilitary violence × Uribe	-9.376** (4.655)	-0.094** (0.045)	-0.017** (0.008)
Guerrilla violence × Uribe	0.890 (3.005)	0.031 (0.019)	0.006* (0.003)
Paramilitary violence × Santos	-6.027 (4.385)	-0.101** (0.045)	-0.019** (0.008)
Guerrilla violence × Santos	-2.441 (2.201)	-0.022 (0.016)	-0.004 (0.003)
R <sup>2</sup>	0.12	0.22	0.20
Observations	72,718	72,718	72,718
Municipalities	353	353	353
Outcome range	[0-17,101]	[0-9.75]	{0,1}
Outcome mean	24.18	0.28	0.05
Outcome std. dev.	215.19	1.22	0.22
Paramilitary violence range	[0-3.41]	[0-3.41]	[0-3.41]
Paramilitary violence mean	0.43	0.43	0.43
Paramilitary violence std. dev.	0.59	0.59	0.59
Guerrilla violence range	[0-7.60]	[0-7.60]	[0-7.60]
Guerrilla violence mean	1.01	1.01	1.01
Guerrilla violence std. dev.	1.35	1.35	1.35

*Notes:* All specifications are estimated using OLS and include municipality and year × month fixed effects. Violence measures from 1988–1997. Baseline category is Pastrana’s term from 1998–2002. Robust standard errors clustered by municipality are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

### A.5.12 Alternative presence measure from Aponte González, Hirschel-Burns, and Uribe (2024) accounting for contestation

Table A11: Relationship between contemporaneous paramilitary and guerrilla presence on aerial eradication during Uribe and Santos administrations.

<i>Outcome:</i>	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
<b>Panel A: Uribe (2002–2010)</b>			
Guerrilla presence	21.637** (10.881)	0.249** (0.118)	0.040* (0.021)
Intergroup contested presence	-7.969 (13.540)	-0.119 (0.137)	-0.018 (0.024)
R <sup>2</sup>	0.17	0.28	0.27
Observations	9,180	9,180	9,180
Municipalities	99	99	99
Outcome range	[0-13,890]	[0-9.54]	{0,1}
Outcome mean	83.50	0.66	0.11
Outcome std. dev.	417.27	1.91	0.32
Paramilitary presence range	{0,1}	{0,1}	{0,1}
Paramilitary presence mean	0.34	0.34	0.34
Paramilitary presence std. dev.	0.47	0.47	0.47
Guerrilla presence range	{0,1}	{0,1}	{0,1}
Guerrilla presence mean	0.39	0.39	0.39
Guerrilla presence std. dev.	0.49	0.49	0.49
Intergroup contested presence range	{0,1}	{0,1}	{0,1}
Intergroup contested presence mean	0.27	0.27	0.27
Intergroup contested presence std. dev.	0.44	0.44	0.44
<b>Panel B: Santos (2010–2015)</b>			
Guerrilla presence	-89.111 (57.857)	-0.392 (0.241)	-0.054 (0.036)
Intergroup contested presence	50.746 (39.784)	0.229 (0.169)	0.052 (0.033)
R <sup>2</sup>	0.18	0.26	0.23
Observations	6,831	6,831	6,831
Municipalities	99	99	99
Outcome range	[0-3,147]	[0-8.05]	{0,1}
Outcome mean	41.58	0.62	0.12
Outcome std. dev.	194.09	1.72	0.33
Paramilitary presence range	{0,1}	{0,1}	{0,1}
Paramilitary presence mean	0.24	0.24	0.24
Paramilitary presence std. dev.	0.43	0.43	0.43
Guerrilla presence range	{0,1}	{0,1}	{0,1}
Guerrilla presence mean	0.67	0.67	0.67
Guerrilla presence std. dev.	0.47	0.47	0.47
Intergroup contested presence range	{0,1}	{0,1}	{0,1}
Intergroup contested presence mean	0.08	0.08	0.08
Intergroup contested presence std. dev.	0.28	0.28	0.28

*Notes:* All specifications are estimated using OLS and include municipality fixed effects. Robust standard errors clustered by municipality are in parentheses. Robust standard errors clustered by municipality are in parentheses.  
\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .