# The Political Consequences of Law Enforcement: Evidence from Forced Coca Eradication in Colombia*

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**Abstract**

How does law enforcement affect political behavior? The essential function of the state is to enforce its legal order via punishing offenders of its formal rules. Citizens' interactions with law enforcement, particularly in cases of intensified enforcement, should shape their opinions toward the state and its agents. I argue that forced eradication of drug crops via aerial fumigation, a policy with indiscriminate characteristics targeting the least lucrative parts of the drug supply chain, activates feelings of group threat among rural populations affected by eradication. These communities interpret eradication as a signal that the government views them as expendable. Using the case of Colombia, I leverage variation in eradication timing across municipalities relative to election dates and over time to show that forced eradication engenders patterns of electoral accountability.

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# 1 Introduction

A state defines social order through its laws. But laws alone are insufficient to create social order. Enforcement—the threat of coercion or the possibility of punishment for violations (Weber [1919] 2004)—are necessary to uphold the written rules that make up the law. Without enforcement, laws are merely superficial. Although equal protection under the law is a foundational principle of most legal systems, de facto patterns of enforcement rarely reflect this ideal of equality. Instead, enforcement is often applied unevenly (Dewey, Woll, and Ronconi 2021; Gerez 2025; Holland 2015; Wilkinson 2004), creating distinct experiences of the state across different communities.

These experiences with law enforcement are likely to shape how citizens perceive and respond to the state. According to Hobbesian social contract theory, citizens submit to the state to gain the benefits of social order (Hobbes [1651] 1994), therefore, citizens' opinions of the state and its agents are likely to reflect its laws and especially their enforcement. Actual enforcement practices are some of the most tangible and consequential aspects of state power, shaping everyday lived realities within the state (Lipsky 2010; Soifer 2015). In consequence, interactions with law enforcement can fundamentally alter views of the state, and by extension, how citizens evaluate government performance. How does law enforcement—an inherently coercive act—shape political behavior?

Law enforcement that disproportionately affects particular groups defined by race, class, geography, or their intersection (González 2017; Soss and Weaver 2017) can activate feelings of group threat, enforcement actions are perceived as a form of state repression. In response, targeted communities, whose social cleavages are reinforced by state enforcement, engage in collective backlash against politicians or parties associated with intensified enforcement (Walker 2020).

Using forced coca eradication by way of aerial fumigation in Colombia as a case of law enforcement that is largely indiscriminate, I test whether eradication leads to voting against candidates in favor of tough-on-drugs policies and in favor of opposition parties that espouse alternative approaches to drugs. Colombia is a unitary state, meaning that subnational governments have limited autonomy over security policies. Responsibility attribution for eradication may be clearer than in federal systems, where citizens must navigate overlapping authorities (Carlin, Love, and Martinez-Gallardo 2015). If citizens understand that local governments have little control over security, then we should expect national-level politicians—rather than local ones—to bear the electoral costs of controversial enforcement policies. Indeed, I find that forced eradication before elections decreased the vote share of the militaristic president Álvaro Uribe, suggesting electoral accountability for counternarcotics strategies at the national level. By contrast, aerial fumigation is not associated with differences in voting results in local mayoral elections. Similarly, manual eradication of coca, which is much more discriminate, does not have meaningful electoral effects.

In the long term, I use a municipality-election panel to document increases in vote share for left-wing presidential candidates as a result of the implementation of eradication over time. This finding raises important questions about whether this shift reflects ideological realignment or is instead driven by opposition to specific enforcement policies. Conventional wisdom suggests that left-wing voters prefer preventative approaches to crime while right-wing voters favor punitive measures. However, recent research challenges this dichotomy, showing that ideology is a weaker predictor of law enforcement preferences than previously thought (Albarracín and Tiscornia 2024; Laterzo 2024; Laterzo-Tingley and Christiani 2024). My findings contribute to this debate by showing how localized experiences with a specific form of enforcement—coca eradication—can shape political alignments. Opposition to aerial fumigation has led to increased support for leftist candidates, not necessarily because of a broad ideological shift, but because left-wing parties are more likely to oppose eradication policies. This suggests that enforcement policies can generate distinct voting blocs based on policy-specific grievances when these are highly salient. Generally, the left in Colombia supports non-repressive actions for counternarcotics such as voluntary substitution programs as opposed to forced eradication. Taken together, these analyses suggest that citizens successfully attribute blame for repressive enforcement to the national government and shift their voting patterns accordingly.

Existing research has examined the relationship between crime and electoral behavior. Looking at the individual level, in Latin America, Bateson (2012) and Visconti (2020) find that crime victimization leads to greater electoral participation and support for strong-arm measures to reduce crime, respectively. These findings concord with research on other forms of direct victimization such as in the context of civil wars around the world (Bauer et al. 2016; Bellows and Miguel 2009; 2009). Turning to aggregated experiences of crime, the available evidence suggests that excessively high crime can have demobilizing effects (Ley 2018; Trelles and Carreras 2012). However, this relationship may be conditional on the timing of violence. Marshall (2024) finds that municipal homicides before elections in Mexico lead to electoral sanctioning. Citizens are particularly likely to consume news closer to elections and update their beliefs about politicians' capacity to mitigate crime based on reporting of homicides that happen during these news consumption cycles. This paper instead studies state responses to criminal behavior and their consequences on electoral mobilization and outcomes. Relatedly, this paper builds on research studying electoral behavior in response to violence in Colombia and beyond (Arjona, Chacón, and García-Montoya 2025; Daly 2022; Gallego 2018; Vargas et al. 2024; Weintraub, Vargas, and Flores 2015) with this paper instead focusing on law enforcement.

A burgeoning literature shows that organized criminal actors and non-state armed groups influence electoral behavior in a wide variety of contexts (e.g., Acemoglu, Robinson, and Santos 2013; Barnes 2017; Daniele and Dipoppa 2017; Durán-Martínez 2018; Gallego 2018; Trejo and Ley 2020; Trudeau 2024). By contrast, this paper studies the relationship between the state's actions of enforcement and citizen rather than armed group political behavior, contributing to a broader understanding of the interactions between government policy, law enforcement actions, criminal actors, and the citizens they affect.

Focusing more directly on the question of the relationship between policing and citizens, this paper also contributes to a related literature focused on the relationship between policing and state-building, which finds mixed results on the effects of policing—specifically community policing—on trust in state institutions (Blair, Karim, and Morse 2019; Blair et al. 2021). Evidence from Colombia specifically also reports mixed findings that vary by context, intervention, and outcome (Abril et al. 2023; Blair et al. 2022). Many of these studies focus on community-based policing initiatives and police reform, not necessarily variation in the implementation of policing. Instead, another strand of recent research has investigated "status-quo"-type interactions between citizens and law enforcement. For example, in the United States, Ben-Menachem and Morris (2023) suggest that low-level enforcement activities such as police stops can depress mobilization. By contrast, high-salience events like police killings can increase mobilization (Morris and Shoub 2024).[1] Forced crop eradication is highly salient for those affected. Further evidence from the United States finds that policing practices can create mobilization when those affected and those proximal to those affected attribute enforcement patterns to a system that targets people like them (Walker 2020). Extending this logic and González (2017)'s argument about policing, which holds that law enforcement's exercise of the state's coercive authority is likely to reflect politicized state power and unequal distribution along pre-existing cleavages such as race and ethnicity, class, and geography, I posit that because aerial fumigation disproportionately targets people based on their group affiliation—rural, agricultural *campesino* (peasant farmer) communities—expect eradication to lead to similar mobilizing effects.

In doing so, this study extends the literature on mobilization in response to repression (Carey 2009; Di Lonardo, Sun, and Tyson 2025; Lichbach 1987; Loveman 1998; Lupu and Peisakhin 2017), which has mostly focused on autocracies. The coercive nature of autocracies has created the assumption that there are unassailable differences between the logic of electoral accountability across regimes (Davenport 2007). However, repressive law enforcement can function as a form of legitimized "repression" in democracies—indeed, in the case of counternarcotics, one that is even encouraged by the international community through the global drug prohibition regime—though not without potential electoral consequences. Curtice and Behlendorf (2021) highlight the inherent tension between the dual roles of law enforcement: to protect public safety, but also as an instrument of state repression. This tension fuels the relationship between police and civilians, in turn, shaping civilian opinions of police and the state more broadly. Similarly, González (2020) points out that security policy reflects contestation in the distribution of protection and repression. This

1. This research and other research on policing is typically concentrated in urban areas, leaving understudied the question of state enforcement in rural peripheries where the state is ex ante weaker and less present.

paper highlights the potential electoral consequences that harsh security implementation create, while recognizing that those affected may nevertheless not enjoy enough political power to change this distribution, at least in the short term. Studying counternarcotics as a specific form of law enforcement situates this paper in a literature that studies the consequences of counternarcotics policies (Calderón et al. 2015; Dell 2015; Durán-Martínez 2018; Gelvez 2025; Lessing 2017; Torreblanca 2024).

## 2 Political responses to law enforcement

Social contract theory contends that individuals implicitly or explicitly consent to give up some of their freedom to gain the benefits of political order created by the state. Security is one of the foundational aspects of this contract. As a result, one of the most important functions of the state is to maintain security and enforce its laws (Levi 1988). A state which fails to provide security for its citizens will likely be seen as ineffective. This dynamic is so salient that in post-conflict elections, victimized citizens are willing to vote for the winning side—even one that previously committed mass atrocities—because they can most credibly maintain peace and security (Daly 2022). Therefore, citizens should update their beliefs about the state and its representatives, for example, incumbent governments, the armed forces, and the police, based on their experiences of security and with law enforcement designed to maintain security. These individual and collective experiences can drive attitudes toward law and policymaking because law enforcement is a visible and tangible manifestation of the state. In the case of rural coca-growing municipalities with low state presence, it is sometimes citizens' only interaction with the state.

Notably, there is often a gap between security and perceptions of security. Stories of crime and violence, for example, generate disproportionate attention by the media. These patterns can create asymmetric perceptions of security, where people's beliefs about the amount of crime in their neighborhood or city are greater than the actual amount of crime (Ardanaz et al. 2013; Krause 2014; Velásquez et al. 2020), though it should be noted that completely "objective" measurement of crime statistics is extremely difficult if not impossible. Even if perceptions of security were perfectly aligned with security outcomes, citizens can hold heterogeneous beliefs about what security outcomes are acceptable. Further still, it is arguably even more difficult to attribute the precise relationship between government policy decisions or law enforcement practices to security outcomes. Policy initiatives, especially those that are not directly related to security, may take a long time to bear fruit or security may shift due to factors outside of the control of politicians. As a result, politicians have incentives to claim credit for reductions in violence or other violations of social norms or abdicate responsibility for their increases (Pocasangre 2022).

At their core, counternarcotics interventions are intended to crack down on the drug supply chain with the intention of disrupting the production and transport of illicit narcotics. The presumption is that as a result, criminal groups and other violent non-state armed groups will see their revenue channels disrupted, weakening these groups and lessening their threat to the state. However, existing research shows that counternarcotics interventions are ineffective at their stated goal, or at least very cost-ineffective (Mejia and Restrepo 2016; Mejía, Restrepo, and Rozo 2017). These interventions thus persist as a combination of international pressure resulting from the drug prohibition regime, from strategic enforcement on criminal actors (Gerez 2025), or as a signal to unaffected populations that the government is "doing something" on the issue.

This paper instead focuses on the political responses to enforcement from communities most directly affected by enforcement interventions. These communities are caught in a dilemma: while they theoretically benefit most from law enforcement efforts, they also suffer the most from the associated consequences.

Drawing from fieldwork conducted in four coca-growing municipalities, I conceptualize forced crop eradication as a case of intense law enforcement that is likely to create negative feelings about the state and its agents among those affected given that its consequences on these communities outweigh potential benefits.

First, while forced eradication is intended to hamper the operations of organized criminal actors, its implementation at the lowest part of the illicit drug supply chain—value is added at each point in the supply chain via costs and risks associated with refinement and transport (Bergman 2018)—makes it less cost effective than seizures of refined products (Mejia and Restrepo 2016), making it such that communities where eradication occurs are unlikely to reap significant security benefits from forced eradication.[2] Quite the contrary, the available evidence suggests that eradication may even create further violence by causing conflict within and between organized criminal actors (Campos, Nieto-Matiz, and Schenoni 2025).

Second, the same dynamic of eradication targeting the lowest part of the supply chain makes regular citizens bear the brunt of the burden from eradication compared to other counternarcotics interventions, since citizens themselves grow coca leaves which is then sold to or taxed by criminal groups who will process and transport the drug. Forced crop eradication creates ecological (Rincón-Ruiz et al. 2016) consequences in the form of pesticide runoff or deforestation, public health consequences with dermatological and respiratory illnesses and increased miscarriages resulting from the use of the chemicals designed to destroy the crops (Camacho and Mejía 2017), as well as human capital consequences in the form of reduced schooling and increases in poverty rates resulting from the destruction of an economic alternative (Rozo 2014).

Third, forced eradication, especially when implemented through aerial fumigation, is fairly indiscriminate, often affecting legal crops and entire communities rather than selectively targeting illicit cultivation. This indiscriminate nature can heighten perceptions of unfairness and further alienate communities from the state.

One outcome of oppressive enforcement creating these negative perceptions of the state and its agents is a withdrawal from formal participation in state channels, as reflected by lower turnout. Another possibility is that of a backlash effect. Oppressive enforcement may motivate individuals and groups to increase their political engagement such that discontent becomes constructive political action. If change in the letter or enforcement of the law is viable, then it is possible for those affected by enforcement to attempt to shift or pressure the state into de facto or de jure changes

2. Coca harvesters known as scrapers (*raspachines*) are paid up to US$0.84 for harvesting 25 pounds of unprocessed coca leaves (Ramírez 2011, 67–70), which can produce around a dozen grams of pure cocaine sold in consumer markets at values of several hundreds of U.S. dollars.

in enforcement, though efforts are unlikely to be successful unless aggregate public opinion reflects the opinion of those directly affected by eradication. Given that these rural communities are marginalized and have low de facto political power, this is unlikely to be the case.

I argue that affected communities attribute eradication behavior as a signal that the government disproportionately targets a particular demographic group which helps to resolve a collective action problem by fostering a shared sense of grievance and identity. This shared experience creates a basis for solidarity and coordinated action, as individuals recognize that they are not alone in being targeted, thereby lowering the barriers to collective mobilization (Ramírez 2011), at least through voting. The collective experience of forced eradication activates group threat, where communities targeted by eradication perceive the state as an adversarial force rather than a protector. This perception can undermine the social contract, as citizens no longer view the state as fulfilling its obligation to provide security and economic stability. Instead, the state is seen as exacerbating insecurity and economic hardship. Such perceptions are likely to lead to political mobilization against incumbents, particularly in the long term and in contexts where alternative political actors offer a platform that opposes repressive counternarcotics policies and supports voluntary crop substitution or other non-coercive approaches.

This theoretical framework helps explain why forced coca eradication, particularly through aerial fumigation, leads to electoral backlash against national incumbents who are perceived as responsible for these policies. To understand why responsibility is attributed to national-level politicians, I draw from Fearon (1999), who writes in Przeworski, Stokes, and Manin (1999) that key requirements for electoral accountability broadly are as follows: voters must be able to observe the behavior of their politicians, correctly attribute responsibility for that behavior, and have the ability to punish—or reward in a positive case—behavior accordingly. Each of these elements play an important role in creating the opportunity for electoral punishment for oppressive enforcement. Crop eradication in Colombia meets each of these requirements. It is highly observable, easily attributable to the central government, and there are several avenues for electoral backlash, as Section 3 will show. Therefore, one should expect citizen responses to eradication to result in changes in electoral behavior. This discussion suggests the following empirical implications, beginning with the relationship between eradication and electoral accountability at the presidential level:

**Hypothesis 1** (H1)**.** *Forced crop eradication will provoke presidential-level electoral backlash.*

The backlash is less pronounced at the local level, as voters attribute the policy to national actors rather than local politicians.

**Hypothesis 2** (H2)**.** *Forced crop eradication will not provoke electoral backlash to local-level politicians.*

Over time, repeated exposure to such repressive state actions may contribute to a broader shift in political preferences, favoring parties that advocate for less repressive and more community-oriented approaches to counternarcotics. This dynamic could help explain the rise of left-wing political movements in Colombia, culminating in the election of Gustavo Petro, who has explicitly criticized forced eradication and promoted alternative approaches.

**Hypothesis 3** (H3)**.** *In the long run, forced crop eradication will be associated with increases in left-wing vote share for presidential candidates.*

Since manual eradication is a less indiscriminate form of forced eradication, its effects should be muted compared to aerial fumigation:

**Hypothesis 4** (H4)**.** *The relationship between eradication and political outcomes will be attenuated for manual eradication relative to aerial fumigation.*

# 3 Forced coca eradication in Colombia

Colombia serves as a paradigmatic case for understanding the political dynamics surrounding eradication: it is one of the largest producers of coca in the world, and crop eradication has been part of the government's counternarcotics toolkit since before the coca boom, when marijuana was the primary illicit export of the country (Britto 2020).

To justify the expectation from Section 2 that the experience of coca eradication in Colombia will result in formal backlash, one must first determine that those who experience eradication will perceive it to be a form of oppressive enforcement that activates group threat.

For coca growers and communities that rely on coca cultivation, the crop represents a rare opportunity for a stable income and a strong local economy. The municipalities where coca is grown in Colombia are often ones with weak state presence, both in terms of personnel and infrastructure. Table 1 shows that the municipalities where coca was detected in at any point between the years 1999 and 2019 are, on average, further away from their department capitals, further away from Bogotá, and further away from the nearest primary wholesale food market. The populations of these municipalities are more rural, and the municipalities themselves spend less per capita, have greater inequality, are poorer across a variety of metrics, have higher levels of infant mortality and lower levels of coverage for essential services. Further, they experienced greater levels of historical armed group violence.

All these circumstances and others not measured here make the growing and commercialization of licit crops—which are heavier and accrue less revenue per weight than coca—substantially difficult. A farmer may have to travel several hours over unpaved roads, or may even need to traverse water, to get from their land to the nearest municipal center. On the other hand, coca is bought door-to-door by armed groups or other criminal actors who eventually refine coca into cocaine and traffic the finished product. Further still, there is systematic evidence to suggest that within this group of municipalities, the strength of the coca economy leads to significant positive economic spillovers. Marín-Llanes et al. (2024) show that coca booms lead to economic and social growth.

To validate this discussion, I draw from qualitative evidence from fieldwork conducted in coca-growing municipalities in 2023 and 2024. Appendix Section A.1 discusses details on fieldwork locations, interview selection, and ethical considerations.

Interviews with former and current participants in the coca economy confirmed that growing coca or working in the coca economy is one of the only ways for them to make a viable liv-

Table 1: Differences between municipalities with and without coca cultivation from 1999-2019.

| | Coca (N=331) | | No coca (N=791) | | | |
|---|---|---|---|---|---|---|
| | Mean | Std. Dev. | Mean | Std. Dev. | Diff. | Std. Err. |
| Coca suitability index | 0.3 | 0.9 | -0.1 | 1.0 | -0.4 | 0.1 |
| Distance to department capital, km | 112.7 | 76.4 | 68.3 | 46.6 | -44.4 | 4.5 |
| Distance to Bogotá, km | 376.3 | 143.8 | 298.5 | 208.2 | -77.7 | 10.8 |
| Distance to wholesale food market, km | 174.8 | 121.9 | 111.0 | 101.0 | -63.8 | 7.6 |
| Altitude, meters above sea level | 774.6 | 779.2 | 1282.0 | 933.3 | 507.5 | 54.2 |
| Proportion rural population (2019) | 61.9 | 22.7 | 53.5 | 24.1 | -8.4 | 1.5 |
| Per capita municipal expenditures (2005) | 230.4 | 53.6 | 265.6 | 63.6 | 35.2 | 3.9 |
| Gini index (2005) | 47.9 | 3.7 | 44.5 | 2.8 | -3.4 | 0.2 |
| Poverty index (2005) | 57.0 | 9.3 | 49.1 | 10.3 | -7.9 | 0.7 |
| Multidimensional poverty index (2005) | 78.2 | 13.1 | 65.9 | 16.3 | -12.3 | 0.9 |
| Unsatisfied basic needs index (2005) | 56.9 | 22.0 | 40.6 | 18.8 | -16.3 | 1.4 |
| Gross domestic product per capita (2005) | 5.1 | 3.6 | 6.8 | 5.5 | 1.8 | 0.3 |
| Infant morality rate (2015) | 23.4 | 11.3 | 17.8 | 6.1 | -5.6 | 0.7 |
| Aqueduct coverage (2015) | 55.6 | 29.6 | 61.6 | 29.9 | 5.9 | 2.0 |
| Sanitation coverage (2015) | 47.5 | 29.4 | 46.2 | 29.8 | -1.3 | 2.0 |
| Sewerage coverage (2015) | 40.8 | 29.9 | 40.9 | 29.3 | 0.1 | 2.0 |
| Electricity coverage (2015) | 85.0 | 22.4 | 94.7 | 11.7 | 9.7 | 1.3 |
| Paramilitary attacks per 100,000 (1988-2001) | 0.5 | 0.5 | 0.4 | 0.6 | -0.1 | 0.04 |
| Guerrilla attacks per 100,000 (1988-2001) | 1.2 | 1.3 | 0.6 | 1.0 | -0.6 | 0.1 |
| Left-wing presidential vote share (1986) | 11.1 | 18.8 | 2.8 | 5.4 | -8.3 | 1.2 |
| Right-wing presidential vote share (1986) | 36.4 | 27.3 | 44.4 | 27.2 | 8.0 | 1.9 |

*Notes*: Estimated using OLS. All differences in means are statistically significant at $p < 0.01$ except for sanitation coverage ($p = 0.52$) and sewerage coverage ($p = 0.95$).

ing, despite its risks. Several participants acknowledged that without growing coca, they would have found it difficult to sustain a livelihood.[3] One former grower said that "[coca] was what we had to live on, to survive, we worked to survive."[4] Community leaders echoed these concerns, and explicitly linked eradication with a sense of threat to subsistence.[5] Similarly, local politicians and former members of armed groups who were peace signers—people with significant local influence—discussed that those in affected communities viewed their relationship with the central government as one of state abandonment. State presence, if it ever manifested itself, would

3. Author interviews.
4. Author interviews.
5. Author interviews.

manifest in the form of oppressive enforcement.[6] Another former grower said "we always fight with the state. They want to leave us with nothing. I had nothing else to live on but my *palitos* [little coca plants]. What they want to take from us is our food."[7] Interviewees also discussed the knowledge gap between the government who they viewed as elite and urban and their lifestyle as rural farmers, with several mentioning that these traditional powers do not "dignify" the life of *campesinos*.[8] Respondents also consistently emphasized that blame for eradication was to be placed on the central government, particularly the president, and that local actors like mayors were powerless to affect eadication policy.[9] Respondents also perceived eradication to be an ineffective approach to coca because it does not attack the root problem of demand for drugs. Some explicitly said they felt victimized by their state, especially because of the uneven enforcement of eradication (Gerez 2025).[10] A few former growers felt guilty about the social and health consequences of drug use but again highlighted participation in the economy as a necessity for survival. At the same time, they linked eradication with the state treating them as "delinquents" even as they were not the most salient or profit-receiving actors in the overall illicit economy.[11] In particular, those affected viewed aerial fumigation as a particularly pernicious form of state enforcement, because of its indiscriminate targeting leading to inefficiency and affecting the environment and other legal crops used for food.[12] In coca-growing municipalities, even non-coca growers are dependent on coca by virtue of the relationship between coca and the local economy as a whole (Marín-Llanes et al. 2024). Local politicians and community leaders described how when coca boomed the town centers themselves also boomed, and business was better even for whose who did not participate in the coca economy.[13]

Naturally, then, forced eradication is looked upon quite unfavorably by growers and the broader community. Coca growers have a perception that when the government implements forced eradi-

6. Author interviews.
7. Author interviews.
8. Author interviews.
9. Author interviews.
10. Author interviews.
11. Author interviews.
12. Author interviews.
13. Author interviews.

cation the are not targeting drugs at the right level. Forced eradication targets drugs at the lowest point of the supply chain, which is also the point where they are least valuable. Coca increases dramatically in value as it moves up the supply chain. The majority of coca grown in Colombia is grown by small landholders, not necessarily "industrial"-style operations run by criminal groups. Non-state armed groups prefer to buy coca cheaply from *campesinos* and process the value-added steps themselves. Figure 1 shows that from the years 2001 to 2008 when the Ministry of Defense collected the data, approximately 50-75% of the coca cultivated in Colombia was grown on plots smaller than 3 hectares.[14] Figure 2 shows that the average coca plot size was less than a hectare by 2014. Forced eradication is thus likely to activate group threat as discussed in Section 2.

Forced eradication can proceed in two forms: aerial and manual. Aerial eradication consists of planes or helicopters spraying herbicides from afar in an effort to destroy the coca crops. Manual eradication involves military or police escorted teams on the ground either spraying the crops or pulling out the crops by the roots. It is reasonable to expect that these two forms of eradication could produce heterogeneous political responses. The distant nature of aerial eradication makes it difficult for the aircraft spraying the herbicides to successfully target only coca plots. Instead, the runoff of herbicides can affect other crops and water supplies. One interviewee said that "Fumigation does not affect coca, it affects the natural environment and the food."[15] Another described how fumigation killed bees, natural pollinators.[16] This makes aerial eradication more likely to create backlash among a larger portion of the population of coca-growing municipalities. Indeed, aerial eradication has been halted in Colombia since 2015 because of evidence of its deleterious health consequences (Camacho and Mejía 2017). That said, this is not to say that manual eradication can have negative political consequences, simply that manual eradication is less likely to engender group threat. At the same time, assessing the consequences of manual eradication presents an analytical challenge because its direct nature makes it more likely to be endogenous to immediate short-term local dynamics, such as organized resistance or security concerns linked to the short-

14. Indeed, this cutoff is used by the government to separate small farmers from large coca growing operations.
15. Author interviews.
16. Author interviews.

Figure 1: Yearly hectares of coca cultivation disaggregated by plot size, 2001-2008.

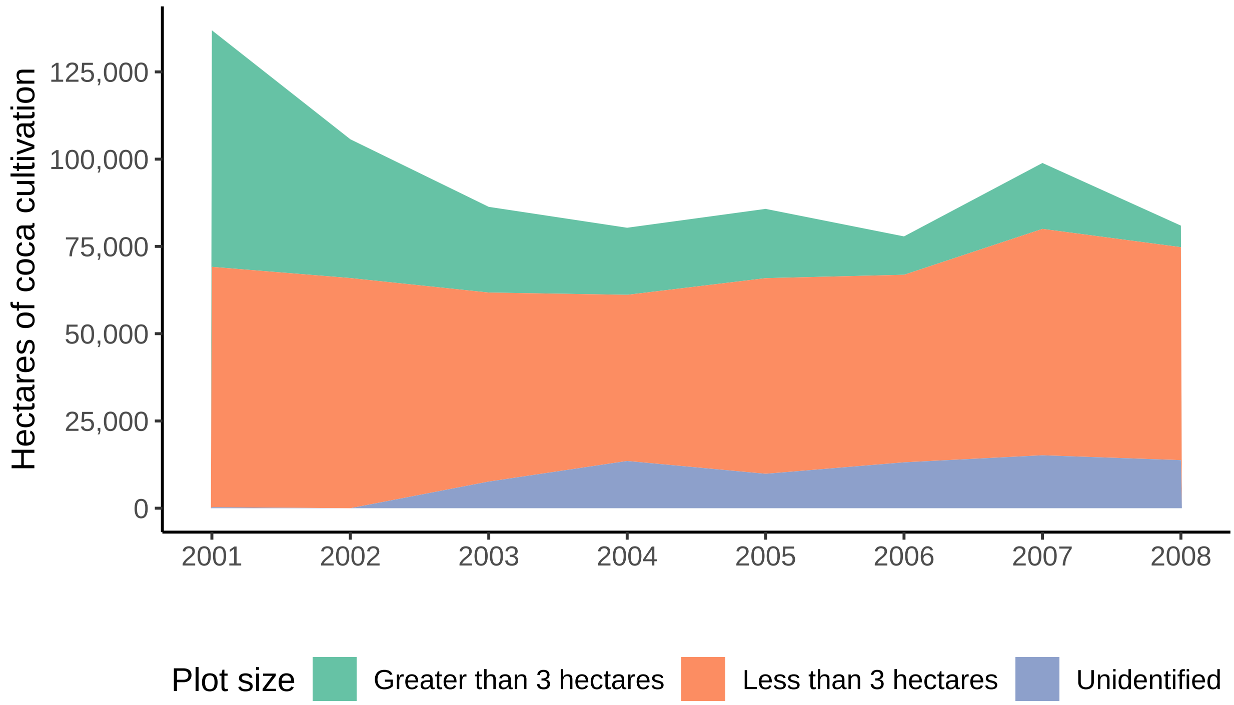
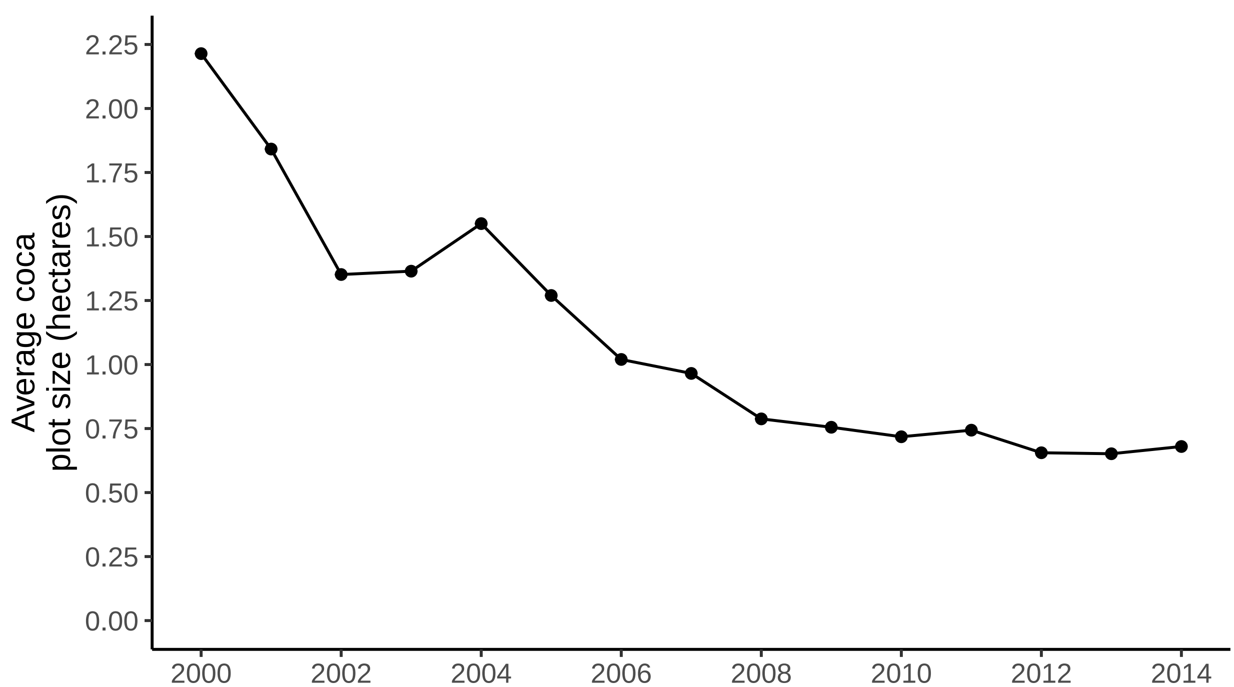



Figure 2: Total yearly hectares of coca cultivation divided by the number of plots, 2000-2014.



term presence of non-state armed groups. As a result, its implementation may be more sensitive to electoral considerations. Regardless, I present results across both forms of eradication to contrast community experiences between these two different forms of eradication.

# 4 Eradication and electoral accountability

Does this resentment translate into changes in political behavior? Do citizens in municipalities that experience eradication simply become disillusioned with the political and electoral process? Or do they try and effect change by increasing their political participation? This section leverages the timing of eradication around elections to assess the short-term electoral consequences of eradication, as well as the implementation of eradication across different municipalities over different ports in time to assess the long-term electoral consequences of eradication.

## 4.1 Temporal bandwidth around elections

To test H1, I leverage timing of eradication to compare electoral results across municipalities that experienced eradication just before an election to those that experienced eradication just after an election. To implement this strategy, I first construct a panel of elections data for all 1,122 Colombian municipalities starting from the 1986 presidential election. Electoral data is sourced from the National Civil Status Registry (*Registraduría Nacional del Estado Civil*), the official government agency of Colombia in charge of administering and recording the electoral process. Then, I acquired forced crop eradication data through an information request to the Colombian Ministry of Justice (*Ministerio de Justicia*) from the Colombian Ministry of National Defense (*Ministerio de Defensa Nacional*). These data aggregate coca crop eradication at the monthly level for each municipality, and begin in March 1994 for aerial eradication, and January 1998 for manual eradication. Figure 3 shows the distribution of the electoral calendar in Colombia since the 1994 regional/local elections, the point at which complete eradication data is available.[17] Regional/local elections are

17. Note, however, that only limited aerial eradication data is available from before the 1994 national elections, and no aerial eradication data is available for the 2018 election, which is after aerial eradication was stopped by the

Figure 3: Timeline of election years in Colombia for national and local elections.

| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| National | ✓ | | | | ✓ | | | | ✓ | | | | ✓ | | | | ✓ | | | | ✓ |
| Local | | | | ✓ | | | ✓ | | | ✓ | | | | ✓ | | | | ✓ | | | |

*Notes*: Legislative elections are held in March of national election years. Presidential elections are held in May of national election years, with a second round in June if necessary since the passing of the 1991 Constitution. Regional/local elections are held in October of respective election years.

held to elect governors of departments, departmental assemblies, municipal mayors, and municipal councils. The first regional/local elections in Colombia were held in 1988, elected officials served a 6-year term. From 1994 onward they served 3-year terms, with elections in 1997, 2000, and 2003, at which point local and regional officials were elected for 4-year terms like national-level politicians. National elections occur every four years.[18]

I aggregate the amount of eradication in each municipality in the months before and after an election for a given bandwidth in months, inclusive of the month of the election. Then I compare the election outcomes of the municipalities that experienced eradication before but not after the election to municipalities that experienced eradication after but not before the election.[19] Appendix Figures A1 and A2 show the number of municipalities that fall into each group for a given bandwidth and election type. To perform this comparison, I fit the following specification:

$$Y_{i,t} = \beta \text{Pre-election eradication} + \mathbf{X}_i^\top \zeta + \gamma_t + \varepsilon_{i,t}, \tag{1}$$

where $Y_{i,t}$ refers to an electoral outcome in municipality $i$ for election date $t$. The main coefficient of interest is $\beta$, which captures the relationship between a measure of eradication experienced prior to the election, and the outcome. The model includes $\gamma_t$, election-date fixed effects, and a

Constitutional Court. No manual eradication data is available for the 1994 national or 1997 local elections.

18. Legislative elections precede presidential elections by approximately two months, the former are held in March of election years while the latter are held in May of election years, with a second round in June if necessary.

19. I exclude municipality-election date pairs that did not experience eradication at any point before or after the given bandwidth in months and the municipality-election date pairs that experienced eradication before *and* after an election.

vector of time-invariant municipality covariates $\mathbf{X}_i$. Robust standard errors are clustered by municipality. Specifically, the covariates included are coca suitability, distance of the municipality to Bogotá, distance of the municipality to the department capital, distance of the municipality to the nearest main wholesale food market, average department altitude, historical paramilitary violence, historical guerrilla violence, and vote share for the left and right wing presidential candidates in the 1986 presidential election.

The identifying assumption is that whether eradication happens before or after the election is independent of time-invariant confounders—conditional on the vector of covariates included—and time-varying confounders. The inclusion of historical armed group violence as a covariate helps account for differential targeting based on guerrilla or paramilitary activity (Gerez 2025). The results of a balance test using a modified version of Equation 1 which $\mathbf{X}_i^\top \zeta$, and compares municipalities that experienced eradication before elections to those who experienced eradication after—in some cases interacted with a measure of the amount of pre and post-election eradication—to predict these time-invariant characteristics are reported in appendix Tables A1-A2, and suggest imbalances, though crucially there are few differences based on historical armed group violence at least with this short term analysis. However, while the inclusion of municipality fixed effects would absorb all differences in these and unobserved time-invariant confounders, Appendix Table A3 shows that their inclusion limits the effective sample size for smaller bandwidth sizes. Because of this, and because using a 1-month bandwidth covers the period between legislative and presidential elections, as described in the notes of Figure 3, I use the narrow bandwidth with municipal controls as my preferred specification, though I relax this preference and probe the robustness of results to alternative specifications in the appendix.

To assess electoral responses to eradication, I use various metrics. First, I estimate the relationship between eradication prior to elections and turnout, which is a proxy for engagement with the electoral process broadly. To measure turnout, I use the total number of votes divided by the total population of each municipality that is of voting age (greater than or equal to 18 years of age) as a proxy, since official turnout data at the municipal level is not available for elections before

2006.[20] I also measure vote share for the incumbent president, the incumbent president's party, or the closest candidate.[21] Finally, I estimate effects for presidents Uribe and Santos, who each won re-election and served two terms separately. All outcomes are measured during the first round of the presidential elections, which is the most relevant level of government for blame attribution, and the two-round system means the results from the first round are likely to reflect honest preferences instead of strategic voting.[22]

Table 2 reports results for presidential elections for various measures of pre-election aerial eradication. Each panel uses a different measure, with Panel A using raw hectares, Panel B using raw hectares transformed by the natural log,[23] Panel C using hectares as a percentage of municipality area, and Panel D performing a simple comparison between municipalities that experienced any eradication before the election to those that experienced eradication after. Each column reports a different outcome. Column 1 reports the relationship between pre-election aerial eradication and turnout. Then, Columns 2-3 use as outcomes the electoral results for the incumbent president or the incumbent president's party; Columns 4-5 use as outcomes the electoral results for Uribe and Columns 6-7 use as outcomes the electoral results for Santos. Across these six columns, even column use the relevant candidates' votes divided by the number of valid votes, while odd columns use relevant candidates' votes by eligible votes.

20. This procedure is common in the literature on Colombian electoral politics (Arjona, Chacón, and García-Montoya 2025). Appendix Figure A3 shows the relationship between our turnout proxy and official turnout data from the 2006, 2010, 2014, and 2018 Congressional election. The correlation coefficient between our proxy for turnout and official turnout data across all these elections is 0.79.

21. Prior to the presidency of Álvaro Uribe and a constitutional change which he instituted while in office, Colombian presidents were restricted to one presidential term. Uribe and his successor, Juan Manuel Santos, both served two presidential terms. For the 1998 election, after the presidency of Ernesto Samper—a member of the Colombian Liberal Party—I use Horacio Serpa's—also a Liberal—vote share to measure electoral accountability. For the 2002 election, after the presidency of Andrés Pastrana, I use Uribe's vote share. While Uribe ran as an independent member of the Colombia First party, the Conservative Party clearly backed him and did not run a candidate in this election. Uribe ran a staunchly militaristic campaign in terms of the "War on Drugs" (Gerez 2025). For the 2006 election, I use Uribe's re-election vote share. For the 2010 election I use Santos's vote share. Santos' was Uribe's defense minister and chosen successor, though he departed from Uribe's approach later in his term. For the 2014 election I use Santos' vote share.

22. Starting from the 1994 presidential election, Colombia uses a two-round electoral system for electing the president. If no candidate wins a majority of the popular vote in the first round, the top two vote-getters proceed to the second round which necessarily determines a winner. Note that the 2002 and 2006 elections, won by Uribe, were decided in the first round. Other than those two elections, each election since 1994 required two rounds of voting.

23. To account for the large number of zeroes in the data, 1 is added to the outcome transformed using the natural log in Panel B.

Table 2: Relationship between pre-election aerial eradication and presidential voting behavior.

| *Outcomes:* | Turnout | Accountability | | Uribe (2002, 2006) | | Santos (2010, 2014) | |
|---|---|---|---|---|---|---|---|
| | | Vote share | Turnout share | Vote share | Turnout share | Vote share | Turnout share |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| **Panel A: Aerial eradication (hectares), 1-month pre/post-election bandwidth** | | | | | | | |
| Eradication | -0.004 | -0.008 | -0.003 | -0.012** | -0.004 | 0.032* | 0.004 |
| | (0.003) | (0.008) | (0.003) | (0.006) | (0.004) | (0.019) | (0.006) |
| $R^2$ | 0.47 | 0.36 | 0.47 | 0.76 | 0.64 | 0.34 | 0.28 |
| Eradication range | [0-1,825] | [0-1,825] | [0-1,825] | [0-1,825] | [0-1,825] | [0-924] | [0-924] |
| Eradication mean | 55.60 | 56.05 | 55.60 | 103.27 | 100.81 | 35.07 | 35.07 |
| Eradication std. dev. | 215.63 | 216.44 | 215.63 | 333.37 | 329.67 | 125.06 | 125.06 |
| **Panel B: Aerial eradication (ln + 1), 1-month pre/post-election bandwidth** | | | | | | | |
| Eradication | -1.232*** | 2.165* | 0.249 | -2.763** | -1.713* | 5.115*** | 1.189** |
| | (0.418) | (1.175) | (0.437) | (1.227) | (0.958) | (1.205) | (0.531) |
| $R^2$ | 0.49 | 0.39 | 0.47 | 0.77 | 0.67 | 0.48 | 0.34 |
| Eradication range | [0-7.51] | [0-7.51] | [0-7.51] | [0-7.51] | [0-7.51] | [0-6.83] | [0-6.83] |
| Eradication mean | 0.93 | 0.94 | 0.93 | 1.20 | 1.17 | 0.83 | 0.83 |
| Eradication std. dev. | 2.01 | 2.01 | 2.01 | 2.36 | 2.34 | 1.86 | 1.86 |
| **Panel C: Aerial eradication (% area), 1-month pre/post-election bandwidth** | | | | | | | |
| Eradication | -0.847 | -9.828 | -2.567 | -14.467* | -7.785 | 19.066 | 6.910* |
| | (2.516) | (16.217) | (6.051) | (7.989) | (5.735) | (14.149) | (3.515) |
| $R^2$ | 0.47 | 0.36 | 0.47 | 0.75 | 0.65 | 0.33 | 0.30 |
| Eradication range | [0-1.44] | [0-1.44] | [0-1.44] | [0-1.44] | [0-1.44] | [0-1.29] | [0-1.29] |
| Eradication mean | 0.03 | 0.03 | 0.03 | 0.05 | 0.05 | 0.03 | 0.03 |
| Eradication std. dev. | 0.18 | 0.18 | 0.18 | 0.23 | 0.22 | 0.15 | 0.15 |
| **Panel D: Aerial eradication (> 0), 1-month pre/post-election bandwidth** | | | | | | | |
| Eradication | -5.734** | 14.606*** | 2.478 | -15.439* | -11.495* | 25.817*** | 6.879** |
| | (2.236) | (5.348) | (2.407) | (8.401) | (6.004) | (5.473) | (2.639) |
| $R^2$ | 0.49 | 0.41 | 0.47 | 0.77 | 0.68 | 0.51 | 0.37 |
| Eradication range | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} |
| Eradication mean | 0.19 | 0.19 | 0.19 | 0.22 | 0.21 | 0.18 | 0.18 |
| Eradication std. dev. | 0.40 | 0.40 | 0.40 | 0.42 | 0.42 | 0.39 | 0.39 |
| Observations | 125 | 124 | 125 | 41 | 42 | 76 | 76 |
| Municipalities | 94 | 94 | 94 | 40 | 41 | 66 | 66 |
| Outcome range | [0-78.26] | [0-87.97] | [0-60.4] | [6.15-87.97] | [0-60.4] | [3.38-86.22] | [1.94-44.25] |
| Outcome mean | 33.97 | 42.28 | 14.79 | 49.83 | 18.34 | 40.36 | 14.00 |
| Outcome std. dev. | 13.98 | 22.82 | 11.25 | 24.54 | 14.85 | 20.66 | 8.09 |

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

Relative to municipalities that experienced eradication just after presidential elections, municipalities that experienced eradication just before presidential elections exhibited lower turnout, although the coefficients vary based on the operationalization of eradication. Similarly, there is little evidence of any relationship between the accountability vote, that is, aggregating over all of the elections, including presidential candidates who could not run for re-election. However, these overall mixed findings are underlying variation by presidential administration. When considering the elections of Uribe and Santos, there is a negative relationship between pre-election eradication and vote share for Uribe, whereas there is a positive relationship between pre-election eradication and vote share for Santos. Municipalities that experienced pre-election eradication in 2002 and 2006 when Uribe was on the ballot exhibited lower vote share for Uribe in that election by approximately 0.012 percentage points for each hectare of pre-election eradication. While this seems small, consider that the mean hectares eradicated for municipalities in the "eradication before election" group—for the 1-month bandwidth—experiences 100 hectares of eradication. This translates to a 1.2 p.p. decrease in vote share, while a standard deviation increase in pre-election eradication is associated with a 4.0 p.p. decrease in vote share. By constrast, municipalities that experienced eradication before the election during Santos's elections voted *more* for Santos, by a larger margin. Though Santos ran as Uribe's successor, having previously served as Uribe's Minister of National Defence, Santos quickly broke with Uribe's hardline approach to drugs and the Colombian armed conflict. Under Santos' presidency, the government implemented the largest voluntary crop substitution program, and Santos' negotiated a peace agreement between the FARC, the longest running guerrilla group of the conflict, and the central government.

These initial results are suggestive of a conditional electoral backlash to Uribe only but not disengagement. To tease out these patterns, I engage in several exercises. First, as described above, I redefine the non-turnout outcomes in Columns 3, 5, and 7 of Table 2. Instead of using the total number of votes for a particular candidate or set of candidates divided by the total number of valid votes for each election, I divide by the total number of eligible voters for each election. This metric attempts to capture compositional changes in the electorate to guard against the possibility that pre-election eradication leads people to move municipalities—even though this is unlikely especially when only comparing to municipalities that experienced post-election eradication and in a narrow bandwidth. These results are similar in direction to the main results but are not estimated as precisely, and are uniformly smaller than the main results.

Next, I turn to local election results instead, arguing that these results can serve as a falsification test. If eradication uniformly discourages citizens from engaging with the political process or alternatively has a mechanical effect that reduces turnout, then the relationship between pre-election eradication and electoral results should not vary by type of election. On the other hand, if there is no relationship between pre-election eradication and electoral accountability, then this suggests that voters attribute blame for enforcement to the executive only. Using the same estimating Equation 1, these results are presented in Table 3.

Given the differences between local and presidential elections in Colombia, the outcomes are different from those used in Table 2 with the exception of turnout. Mayors cannot be re-elected in Colombia, so a measure analogous to the "acountability" measure from Table 2 is not necessarily appropriate. Instead, I report results for the relationship between pre-election eradication and vote share and turnout share for right-wing and left-wing mayors. Because the election years covered are 1997, 2000, 2003, 2007, and 2011 under the presidencies of Pastrana, Pastrana, Uribe, Uribe, and Santos respectively—all conservative presidents, though see the above discussion of Santos—detecting decreases in right-wing mayoral electoral results and conversely increase in left-wing mayoral electoral results are reasonable proxies for blame attribution to mayors closest to the president's party.

In support of H2, the differences between municipalities that experienced eradication just after local elections to municipalities that experienced eradication just before these elections are small and not precisely estimated. This provides suggestive evidence that voters attribute blame for eradication to national politicians, not local politicians, even if they experience eradication in close proximity to a local election—which is off-cycle from national elections, and under the purview of national-level politicians.

Table 3: Relationship between pre-election eradication and local voting behavior.

| *Outcomes:* | Turnout | Right-wing candidates | | Left-wing candidates | |
|---|---|---|---|---|---|
| | | Vote share | Turnout share | Vote share | Turnout share |
| | (1) | (2) | (3) | (4) | (5) |
| **Panel A: Aerial eradication (hectares), 1-month pre/post-election bandwidth** | | | | | |
| Eradication | -0.002 | -0.003 | -0.004 | -0.002 | -0.006 |
| | (0.006) | (0.005) | (0.007) | (0.001) | (0.004) |
| $R^2$ | 0.57 | 0.44 | 0.42 | 0.11 | 0.13 |
| Eradication range | [0-2,410] | [0-2,410] | [0-2,410] | [0-2,410] | [0-2,410] |
| Eradication mean | 141.76 | 141.76 | 141.76 | 141.76 | 141.76 |
| Eradication std. dev. | 346.77 | 346.77 | 346.77 | 346.77 | 346.77 |
| **Panel B: Aerial eradication (ln + 1), 1-month pre/post-election bandwidth** | | | | | |
| Eradication | -0.026 | -0.432 | -0.558 | -0.051 | -0.133 |
| | (0.832) | (0.646) | (0.996) | (0.263) | (0.684) |
| $R^2$ | 0.57 | 0.44 | 0.42 | 0.10 | 0.12 |
| Eradication range | [0-7.79] | [0-7.79] | [0-7.79] | [0-7.79] | [0-7.79] |
| Eradication mean | 2.13 | 2.13 | 2.13 | 2.13 | 2.13 |
| Eradication std. dev. | 2.64 | 2.64 | 2.64 | 2.64 | 2.64 |
| **Panel C: Aerial eradication (% area), 1-month pre/post-election bandwidth** | | | | | |
| Eradication | 7.873 | -2.910 | -7.063 | -2.607 | -7.379 |
| | (11.995) | (7.580) | (11.485) | (2.015) | (5.519) |
| $R^2$ | 0.57 | 0.44 | 0.42 | 0.10 | 0.13 |
| Eradication range | [0-0.93] | [0-0.93] | [0-0.93] | [0-0.93] | [0-0.93] |
| Eradication mean | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 |
| Eradication std. dev. | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| **Panel D: Aerial eradication (> 0), 1-month pre/post-election bandwidth** | | | | | |
| Eradication | -0.615 | -3.774 | -5.171 | 0.555 | 1.331 |
| | (4.164) | (3.250) | (5.353) | (1.647) | (4.010) |
| $R^2$ | 0.57 | 0.45 | 0.42 | 0.10 | 0.12 |
| Eradication range | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} |
| Eradication mean | 0.42 | 0.42 | 0.42 | 0.42 | 0.42 |
| Eradication std. dev. | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Observations | 104 | 104 | 104 | 104 | 104 |
| Municipalities | 73 | 73 | 73 | 73 | 73 |
| Outcome range | [1.3-100] | [0-86.73] | [0-97.99] | [0-23] | [0-66.61] |
| Outcome mean | 56.02 | 20.94 | 34.39 | 2.45 | 5.75 |
| Outcome std. dev. | 20.25 | 18.94 | 27.90 | 5.68 | 13.89 |

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

Appendix Tables A4 and A5 report results analogous to those in Tables 2 and 3 but for manual eradication. The evidence for H4 is mixed. For presidential elections, the coefficients on pre-election manual eradication are not precisely estimated and not statistically different from zero, though not necessarily distinguishable from the coefficients on pre-election aerial eradication. For mayoral elections, while some of the coefficients for the relationship between manual eradication and electoral behavior are larger than those associated with aerial eradication, some are also smaller and in general, the differences are not statistically distinguishable.

To probe the sensitivity of the results to the selection of a particular bandwidth or the inclusion of particular covariates or fixed effects, Appendix Figures A4-A7 summarize results for varying bandwidths and model specifications.

## 4.2 Staggered implementation of eradication

The previous subsection provided evidence that eradication just before an election engenders a conditional electoral backlash. In this subsection, I go beyond assessing a local effect and instead aggregate the number of hectares of coca eradicated in each municipality starting from June of the year of the previous presidential election through May of the year of the current presidential election, which is when presidential elections are held. In other words, an outcome measured for the May 1998 presidential election is linked with aggregate crop eradication from June 1994-May 1998. The aggregate crop eradication measure is divided by the number of months in the interval, so the main predictor should be interpreted as the average monthly number of hectares forcibly eradicated over that term.

The outcomes used are the same as the outcomes in the previous subsection, expect the "accountability" vote is replaced by electoral results for left-wing presidential candidates. A relationship between eradication and votes for left-wing candidates for president would suggest that voters update their candidate choices in response to eradication, and therefore, eradication engenders electoral backlash. In Colombia, left-wing candidates are against militaristic responses to coca cultivation and favor alternative development strategies such as voluntary substitution. Appendix

Table A6 lists the presidential candidates I classify as left-wing along with their first round vote share. Also, this is a relatively stable metric of support backlash to eradication in terms of estimating longer term effects. Finally, the weakness of left-wing parties in Colombia during the period of study makes using left-wing presidential vote share as an outcome a harder test of the theory. I use the following two-way fixed effects estimator to predict each voting outcome:

$$Y_{i,t} = \beta Eradication_{i,t-1} + \gamma_i + \delta_t + \varepsilon_{i,t}, \tag{2}$$

where $Y_{i,t}$ is an electoral outcome measure in municipality $i$ and election $t$. $Eradication_{i,t-1}$ refers to a measure of cumulative eradication undertaken over the course of the 48 months prior to election $t$, and its associated coefficient $\beta$ is the main coefficient of interest. Municipality fixed effects $\gamma_i$ guard against any time-invariant confounding municipality characteristics, while election fixed effects $\delta_t$ account for national level shocks in vote share. Standard errors are clustered at the municipality level.

The results are presented in Table 4. As with the bandwidth results, in this table, panels specify alternative measures of the predictors—cumulative eradication is measured in raw hectares in Panel A, log-transformed in Panel B, average monthly eradication as a percentage of municipality area in panel C and a dummy measure is used in Panel D. Columns specify each of the separate outcomes, with even columns using vote share as a denomintor, while odd columns use eligible voters as a denominator. This estimation strategy leverages cross-sectional and temporal variation in eradication to estimate the relationship between eradication and electoral outcomes. Appendix Figure A8 shows the number of municipalities in each presidential term which first experienced recorded eradication. The sample of municipalities are those that ever experienced aerial eradication. The 1994 election is excluded—though municipalities that experienced aerial eradication before the 1994 election are included in the sample as "always treated" municipalities, due to data limitation issues.

The results show no strong evidence of a decrease in turnout resulting from the experience of aerial fumigation. Turning to vote choice, I find positive coefficients that are precisely estimated

Table 4: Relationship between aerial eradication and presidential election voting behavior.

| *Outcomes:* | Turnout | Left-wing candidates | | Uribe (2002, 2006) | | Santos (2010, 2014) | |
|---|---|---|---|---|---|---|---|
| | | Vote share | Turnout share | Vote share | Turnout share | Vote share | Turnout share |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| **Panel A: Aerial eradication (hectares)** | | | | | | | |
| Eradication | -0.0004 | 0.017*** | 0.005* | -0.025*** | -0.008*** | -0.068** | -0.032*** |
| | (0.003) | (0.006) | (0.002) | (0.008) | (0.002) | (0.031) | (0.012) |
| $R^2$ | 0.77 | 0.77 | 0.79 | 0.84 | 0.89 | 0.36 | 0.52 |
| Eradication range | [0-1,518] | [0-1,518] | [0-1,518] | [0-1,518] | [0-1,518] | [0-698] | [0-698] |
| Eradication mean | 30.25 | 29.93 | 30.25 | 36.64 | 37.53 | 38.11 | 38.11 |
| Eradication std. dev. | 93.01 | 92.39 | 93.01 | 118.79 | 119.91 | 90.95 | 90.95 |
| **Panel B: Aerial eradication (ln + 1)** | | | | | | | |
| Eradication | -0.289 | 1.711*** | 0.400*** | -2.172*** | -0.851*** | 0.945 | 0.464 |
| | (0.206) | (0.284) | (0.117) | (0.753) | (0.282) | (1.613) | (0.682) |
| $R^2$ | 0.77 | 0.78 | 0.79 | 0.84 | 0.89 | 0.35 | 0.51 |
| Eradication range | [0-7.33] | [0-7.33] | [0-7.33] | [0-7.33] | [0-7.33] | [0-6.55] | [0-6.55] |
| Eradication mean | 1.34 | 1.34 | 1.34 | 1.32 | 1.33 | 1.77 | 1.77 |
| Eradication std. dev. | 1.85 | 1.84 | 1.85 | 1.90 | 1.92 | 1.94 | 1.94 |
| **Panel C: Aerial eradication (% area)** | | | | | | | |
| Eradication | 5.788 | 31.591*** | 11.735** | -23.810 | -12.837** | -181.854*** | -72.864*** |
| | (4.724) | (10.195) | (4.698) | (23.348) | (6.449) | (33.480) | (14.748) |
| $R^2$ | 0.77 | 0.77 | 0.79 | 0.84 | 0.89 | 0.39 | 0.54 |
| Eradication range | [0-0.7] | [0-0.7] | [0-0.7] | [0-0.7] | [0-0.7] | [0-0.53] | [0-0.53] |
| Eradication mean | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Eradication std. dev. | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.05 | 0.05 |
| **Panel D: Aerial eradication (> 0)** | | | | | | | |
| Eradication | -0.723 | 2.902*** | 0.666** | -2.112 | -1.603 | 7.686** | 4.607*** |
| | (0.614) | (0.636) | (0.268) | (2.257) | (1.069) | (3.227) | (1.523) |
| $R^2$ | 0.77 | 0.77 | 0.79 | 0.84 | 0.88 | 0.36 | 0.52 |
| Eradication range | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} |
| Eradication mean | 0.46 | 0.46 | 0.46 | 0.43 | 0.43 | 0.62 | 0.62 |
| Eradication std. dev. | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.48 | 0.48 |
| Observations | 1,384 | 1,379 | 1,384 | 458 | 463 | 469 | 469 |
| Municipalities | 235 | 235 | 235 | 233 | 233 | 235 | 235 |
| Outcome range | [0-100] | [0-91.78] | [0-56.46] | [3.62-89.9] | [0-63.33] | [3.38-91.99] | [1.25-61.28] |
| Outcome mean | 37.02 | 19.16 | 7.39 | 45.07 | 15.53 | 45.41 | 17.61 |
| Outcome std. dev. | 14.77 | 20.43 | 8.77 | 21.80 | 11.96 | 20.63 | 10.83 |

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

the models that use left-wing vote share as an outcome. This suggests that voters also adjust their voting patterns accordingly to reflect their discontent with law enforcement experiences. A one standard deviation increase in average monthly eradication over the course of the previous term is associated with a 1.57 p.p. increase in vote share for left-wing presidential candidates. The results for left-wing presidential votes as a percentage of eligible voters are smaller in magnitude.

The results for Columns 4-5 which use electoral results for Uribe as outcomes reflect the idea that the incidence or intensity of eradication is associated with a reduction in vote share for Uribe, since using Uribe's vote share as an outcome measures blame for eradication to the central government during his term. A one standard deviation increase in average monthly eradication is associated with a 2.97 p.p. decrease in vote share for Uribe. Separating out Uribe and Santos reveals that "Uribista" candidates should not be treated homogenously, as the results for Santos are mixed. While not uniformly positive as in the estimation strategy using a temporal bandwidth around elections, the estimated coefficients for the relationship between eradication and Santos' vote share oscillate between signs. Potentially this is a result of Santos's turn away from a militaristic approach to enforcement resulting from his peace negotiations with the left-wing Revolutionary Armed Forces of Colombia (*Fuerzas Armadas Revolucionarias de Colombia*, FARC).

As before, I next report results from a separate set of specifications related to local elections. Here, I link presidential-term eradication behavior to the outcomes of the following mayoral election in each municipality. Presidential elections are held every four years in Colombia, in the case of our data, from 1994. Elected presidents take office in August of their election year. Regional and local elections, where municipality mayors are elected, were held every three years from 1997 and every four years since 2003. Figure 3 shows the timeline of elections over the time period of eradication data availability. Taking former president Ernesto Samper as an example, Samper was elected in 1994 and assumed office in August of that year. The nearest local elections were held in October of 1997, so if local politicians were to be held accountable for the eradication behavior of Samper's administration, one would expect it to be reflected in these 1997 elections. Therefore, I construct a panel that uses the average amount of eradication in hectares each month corresponding to these terms (August 1994-October 1997, August 1998-October 2000, August 2002-October 2003, August 2006-October 2007, August 2010-October 2011, August 2014-October 2015, and August 2018-October 2019 for manual eradication after the aerial fumigation ban) to account for different term lengths.[24]

Using the same outcomes from the mayoral election results from the previous subsection, I assess the relationship between eradication and turnout, as well as votes for left-wing and right-wing mayoral candidates in local elections. The results are reported in Table 5. Curiously, these results show some evidence of a positive relationship between eradication and turnout in local elections, though the estimates vary in precision based on measurement of aerial eradication. There is similarly limited evidence of a negative relationship between eradication and the vote share of right-wing mayoral candidates, and no evidence of any relationship between eradication and voting for left-wing mayoral candidates.

Concerning manual eradication, I report analogous results in appendix Tables A7-A8. Again, I do not find much support for H4. The coefficients for manual eradication are fairly similar to those for aerial eradication using this estimation strategy. However, it is worth noting that manual eradication is more likely to be susceptible to time-varying endogenous characteristics such as collective resistance to eradication or the emergence of non-state armed group threats to eradication, as discussed at the end of Section 3.

This design relies on the parallel trends assumption so that treated units are appropriate counterfactuals for control units. To test this assumption and to account for the use of continuous treatments and possibility of treatment effect heterogeneity over time, I fit a dynamic specification based on De Chaisemartin and d'Haultfoeuille (2024). The results are presented in appendix Figure A9 for both presidential and mayoral elections. To link elections between Uribe and Santos to a longer time series, combine their vote share together (Gelvez 2025). The placebo tests from the dynamic specification suggests that parallel trends generally hold, with the exception of a decrease prior to the relative first implementation of aerial eradication for left-wing vote share in

24. The last reported aerial fumigations ocurred in September 2015, so the August 2014-October 2015 period is truncated to end in September 2015 for aerial fumigation

Table 5: Relationship between eradication and local voting behavior.

| *Outcomes:* | Turnout | Right-wing candidates | | Left-wing candidates | |
|---|---|---|---|---|---|
| | | Vote share | Turnout share | Vote share | Turnout share |
| | (1) | (2) | (3) | (4) | (5) |
| **Panel A: Aerial eradication (hectares)** | | | | | |
| Eradication | 0.010*** | -0.008 | -0.009 | 0.0004 | 0.00005 |
| | (0.003) | (0.005) | (0.008) | (0.002) | (0.005) |
| $R^2$ | 0.78 | 0.63 | 0.55 | 0.36 | 0.40 |
| Eradication range | [0-1,376] | [0-1,376] | [0-1,376] | [0-1,376] | [0-1,376] |
| Eradication mean | 28.69 | 28.69 | 28.73 | 28.69 | 28.73 |
| Eradication std. dev. | 95.79 | 95.79 | 95.86 | 95.79 | 95.86 |
| **Panel B: Aerial eradication (ln + 1)** | | | | | |
| Eradication | 0.538* | -1.037** | -1.062 | 0.012 | -0.351 |
| | (0.323) | (0.420) | (0.662) | (0.202) | (0.390) |
| $R^2$ | 0.78 | 0.63 | 0.55 | 0.36 | 0.40 |
| Eradication range | [0-7.23] | [0-7.23] | [0-7.23] | [0-7.23] | [0-7.23] |
| Eradication mean | 1.12 | 1.12 | 1.12 | 1.12 | 1.12 |
| Eradication std. dev. | 1.82 | 1.82 | 1.82 | 1.82 | 1.82 |
| **Panel C: Aerial eradication (% area)** | | | | | |
| Eradication | 16.073*** | -11.374 | -17.425 | -0.356 | -5.466 |
| | (2.463) | (8.015) | (12.736) | (2.178) | (6.183) |
| $R^2$ | 0.78 | 0.63 | 0.55 | 0.36 | 0.40 |
| Eradication range | [0-1.58] | [0-1.58] | [0-1.58] | [0-1.58] | [0-1.58] |
| Eradication mean | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Eradication std. dev. | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| **Panel D: Aerial eradication (> 0)** | | | | | |
| Eradication | 0.394 | -3.030* | -3.016 | -0.128 | -0.852 |
| | (1.080) | (1.590) | (2.201) | (0.640) | (1.092) |
| $R^2$ | 0.78 | 0.63 | 0.55 | 0.36 | 0.40 |
| Eradication range | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} |
| Eradication mean | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 |
| Eradication std. dev. | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 |
| Observations | 1,228 | 1,228 | 1,226 | 1,228 | 1,226 |
| Municipalities | 235 | 235 | 235 | 235 | 235 |
| Outcome range | [0-100] | [0-112.39] | [0-99.02] | [0-64.4] | [0-97.82] |
| Outcome mean | 59.23 | 24.69 | 38.32 | 2.74 | 5.01 |
| Outcome std. dev. | 19.89 | 23.58 | 32.00 | 7.78 | 13.51 |

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

presidential elections, possibly suggestive of differential targeting. The dynamic specification also suggests that both results for left-wing presidential vote share results—potential parallel trends violation notwithstanding—last at least a few election cycles before dissipating, while the turnout results are not consistent with the main results, at least for presidential elections, pointing to the differences between Uribe and Santos. I also plot parallel trends descriptively for each outcome in appendix Figures A10-A11. Taken together, the results in this section support the idea that voters successfully attribute eradication to the central government.

# 5 Conclusion

This paper studies the political consequences of law enforcement through the lens of electoral accountability. Are those who face the costs of enforcement able to attribute blame to politicians who implement such policies or do voters disengage from the electoral system entirely? Building on a literature that studies the relationship between crime and politics—whether through the behavior of criminal actors themselves (Daniele and Dipoppa 2017; Trejo and Ley 2020; Trudeau 2024) or through voters' reactions to criminal behavior (Marshall 2024; Ley 2018)—I instead focus on state responses to crime. Using the case of forced eradication in Colombia, I argue that voters are likely to perceive state enforcement behavior as part of a broader pattern targeting a particular demographic profile—poor, rural communities. Overall, I show that voters do attribute blame to politicians who implement eradication by virtue of changes in their voting behavior for executive elections and not local elections. At the same time, there is limited, if any, evidence that forced eradication seems to have a depressive effect of turnout. Forced eradication leads voters to be less likely to vote for right-wing presidential candidates and more likely to vote for left-wing presidential candidates but does not change turnout, although the endogenous targeting of eradication cannot be completely ruled out as an explanation for these patterns (Gerez 2025).

By contrast, Torreblanca (2024) finds that forced eradication in Mexico decreases turnout and lowers trust in law enforcement, but does not document resulting electoral consequences. This work is in line with additional research that suggests that citizens often struggle to assign political responsibility for security outcomes—rather than policy—particularly in multi-level governance structures (Carlin, Love, and Martinez-Gallardo 2015). Given this, it is not necessarily expected that voters in Colombia would attribute responsibility for aerial fumigation to national politicians. Yet, as I show, they do—suggesting that in contexts where enforcement is highly salient and clearly associated with central government policy, responsibility attribution may be more straightforward. Speculatively, I posit that clarity of responsibility plays an important role in explaining why enforcement may lead to disengagement with the state in Mexico but an electoral backlash in Colombia. The disparate set of law enforcement organizations in Mexico at different levels of government make formal backlash difficult. By contrast, Colombian forced eradication policy is highly centralized, and interviews of residents of coca-growing municipalities reveal that citizens successfully understand that forced eradication is a policy of the national government, creating a path for blame attribution.

While this paper demonstrates an electoral backlash to law enforcement via a study of forced crop eradication in Colombia, oppressive enforcement and its political consequences may vary by type of enforcement and regime type. For example, secret police in autocracies, who conduct covert operations to suppress dissent or target specific groups deemed as threats to the regime. While others may learn about forced disappearances, the nature of enforcement makes it less obvious than cases of indiscriminate repression (Blaydes 2018). Though it may be easy to attribute blame to the central authority, the lack of transparency in these types of systems may obscure blame, and the capacity for backlash is limited by nature: citizens face severe consequences for any type of opposition, any elections are likely to be tightly controlled or manipulated. Movements for accountability for this kind of enforcement are likely to come only after the regime has been toppled in the context of transitional justice (Gonzalez-Ocantos 2020).

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# Appendix

**Supplementary material for *The Political Consequences of Law Enforcement: Evidence from Forced Coca Eradication in Colombia***

## Contents

## A.1 Fieldwork implementation and ethics

Fieldwork for this project took place in Antioquia, Colombia, in July 2023 and July and August 2024. The researcher leveraged relationships with local academics and government officials, particularly those engaged with the PNIS (National Substitution Program), a major voluntary coca eradication initiative.

Field sites were selected in collaboration with local academics, focusing on municipalities with histories of coca cultivation and eradication, as well as variations in these patterns due to the historical presence of non-state armed groups. Safety for the researcher and interviewees was prioritized. The region was chosen for its research feasibility, given the researcher's familiarity with the local context. Open-ended interviews were conducted with coca growers, substitution program participants, former leaders of armed groups, and individuals who signed the peace agreement. The researcher also attended meetings of local collective organizations, such as agricultural cooperatives, political campaigns, and other community gatherings. To protect participants' identities, all identifying details of municipalities and individuals are anonymized. Given the close-knit nature of these communities, disclosing respondents' municipalities could risk compromising their anonymity.

To maintain safety for both the researcher and informants, direct questions about organized crime or non-state armed groups were avoided. Instead, the researcher followed participants' cues regarding their comfort level with such topics. When interviewees voluntarily addressed organized crime in their community, the researcher pursued follow-up questions without initiating these discussions.

Initial contact with interview participants in each municipality was facilitated through local researchers and government officials. Further interviews were arranged with local authorities, while non-elite interviewees were referred by initial contacts, local authorities, or through networks of local researchers with deep ties to the community.

Participants were not compensated for their interviews. In line with local customs, the researcher often contributed to a shared meal during the interview.

## A.2 Variation in eradication timing

Figure A1: Number of municipalities that experienced different patterns of aerial eradication around elections.

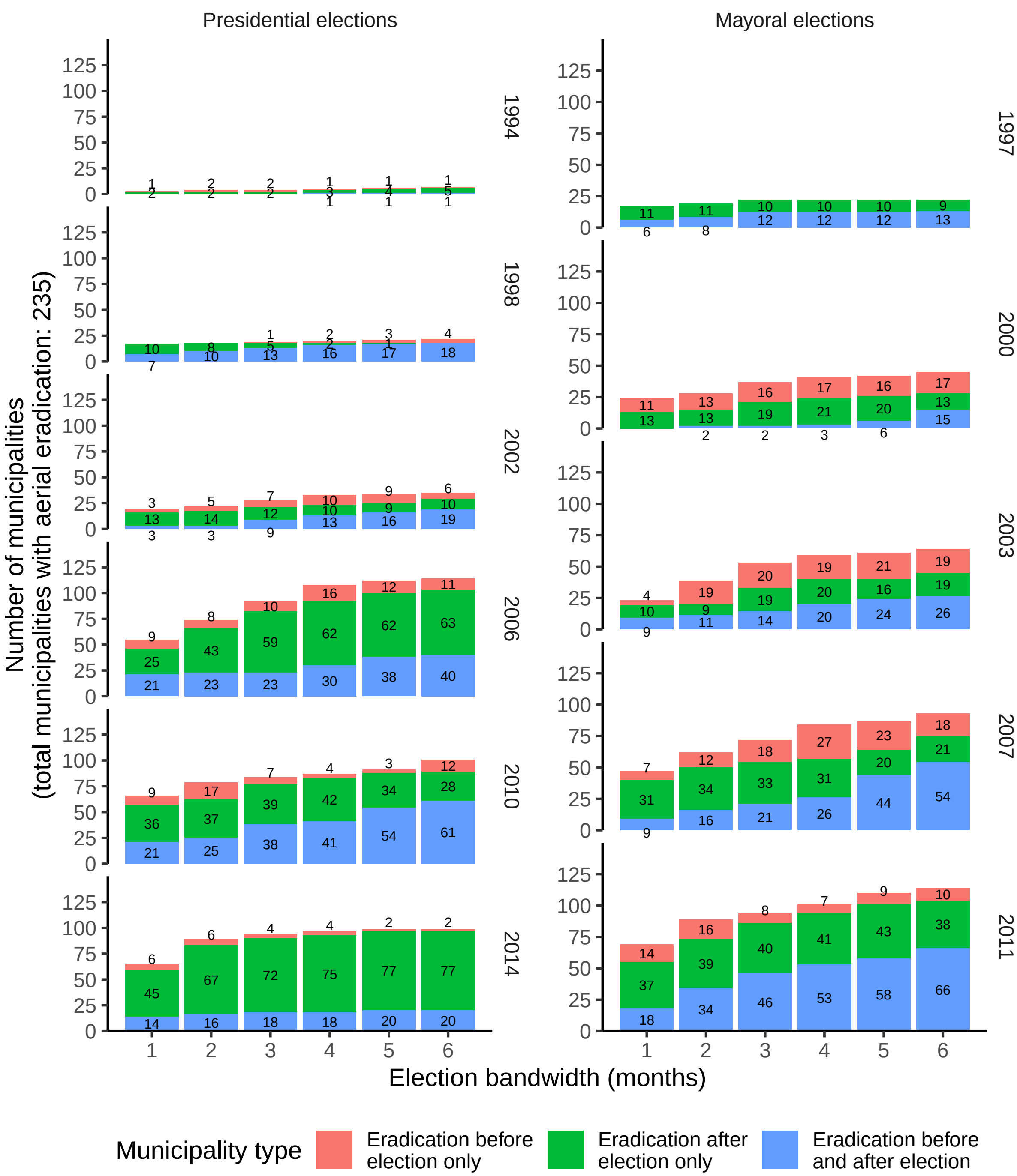
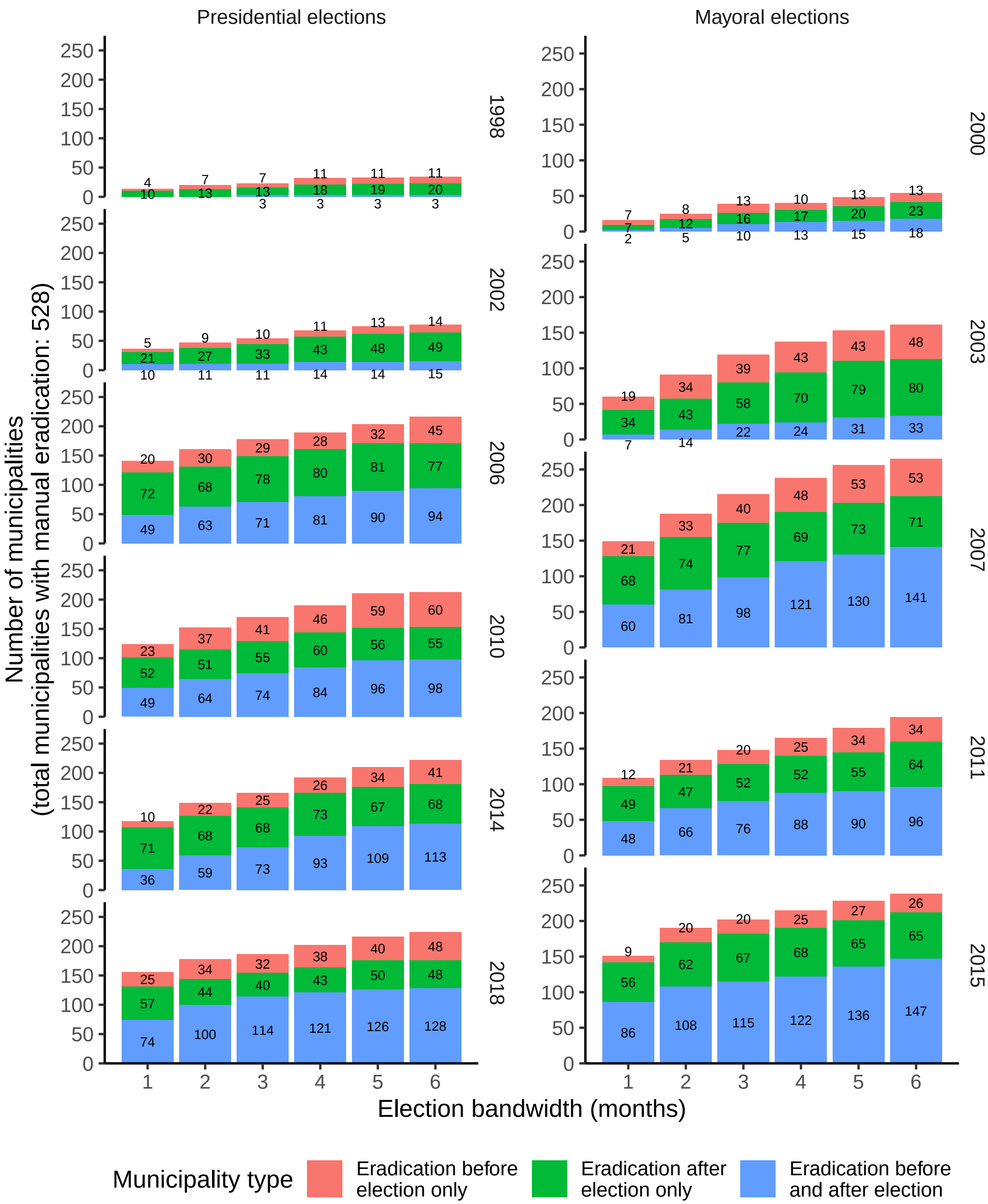


Figure A2: Number of municipalities that experienced different patterns of manual eradication around elections.



## A.3 Bandwidth balance tests

Table A1: Relationship between aerial eradication and municipality characteristics.

| *Outcomes:* | Coca suitability (1) | Distance: Local capital (2) | Distance: Bogotá (3) | Distance: market (4) | Average altitude (5) | Paramilitary violence (6) | Guerrilla violence (7) | Left-wing vote (1986) (8) | Right-wing vote (1986) (9) |
|---|---|---|---|---|---|---|---|---|---|
| **Panel A: Pre-election aerial eradication, 1-month pre/post-election bandwidth** | | | | | | | | | |
| Eradication (> 0) | -0.196** | -4.327 | 53.791*** | 37.620*** | -53.500 | -0.124* | -0.344** | -0.763 | -5.013 |
| | (0.086) | (9.382) | (15.204) | (8.788) | (67.112) | (0.071) | (0.157) | (3.699) | (3.074) |
| $R^2$ | 0.04 | 0.07 | 0.16 | 0.14 | 0.08 | 0.04 | 0.08 | 0.11 | 0.06 |
| Eradication (> 0) range | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} |
| Eradication (> 0) mean | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 |
| Eradication (> 0) std. dev. | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 |
| **Panel B: Pre-election aerial eradication × aerial eradication hectares eradicated before or after election, 1-month pre/post-election bandwidth** | | | | | | | | | |
| Eradication (> 0) | -0.099 | -14.448 | 45.581*** | 31.300*** | 0.138 | -0.054 | -0.194 | -0.517 | -3.192 |
| | (0.098) | (10.308) | (16.422) | (10.821) | (87.695) | (0.095) | (0.183) | (3.410) | (3.696) |
| Hectares eradicated | 0.000* | -0.003 | 0.024*** | -0.002 | -0.111** | 0.000 | 0.000 | -0.001 | -0.001 |
| | (0.000) | (0.004) | (0.008) | (0.008) | (0.044) | (0.000) | (0.000) | (0.002) | (0.002) |
| Eradication (> 0) × hectares eradicated | 0.000** | 0.031*** | 0.037 | 0.020 | -0.224** | 0.000* | 0.000* | -0.001 | -0.006 |
| | (0.000) | (0.011) | (0.024) | (0.016) | (0.110) | (0.000) | (0.000) | (0.007) | (0.005) |
| $R^2$ | 0.05 | 0.07 | 0.19 | 0.14 | 0.11 | 0.05 | 0.08 | 0.12 | 0.06 |
| Hectares eradicated range | [2-9,186] | [1-9,186] | [1-9,186] | [1-9,186] | [1-9,186] | [1-9,186] | [1-9,186] | [2-9,186] | [2-9,186] |
| Hectares eradicated mean | 380.15 | 372.33 | 372.33 | 372.33 | 372.33 | 372.33 | 372.33 | 371.16 | 371.16 |
| Hectares eradicated std. dev. | 678.67 | 661.84 | 661.84 | 661.84 | 661.84 | 661.84 | 661.84 | 701.97 | 701.97 |
| **Panel C: Pre-election aerial eradication × aerial eradication hectares (ln + 1) eradicated before or after election, 1-month pre/post-election bandwidth** | | | | | | | | | |
| Eradication (> 0) | 0.315 | -41.678 | 41.512 | 36.047 | -51.979 | -0.129 | -0.124 | 1.381 | -7.414 |
| | (0.323) | (26.588) | (45.288) | (34.303) | (259.036) | (0.311) | (0.450) | (10.749) | (12.444) |
| Hectares eradicated (ln + 1) | -0.062 | 1.060 | 16.151*** | 8.455** | -69.954** | -0.077** | -0.017 | -0.691 | -2.001 |
| | (0.044) | (3.328) | (4.977) | (3.816) | (27.168) | (0.030) | (0.058) | (0.998) | (1.500) |
| Eradication (> 0) × hectares eradicated (ln + 1) | -0.101* | 7.382 | 2.569 | 0.387 | -0.930 | 0.000 | -0.043 | -0.415 | 0.496 |
| | (0.060) | (4.914) | (8.636) | (6.445) | (45.656) | (0.052) | (0.085) | (2.104) | (2.252) |
| $R^2$ | 0.06 | 0.07 | 0.21 | 0.16 | 0.11 | 0.08 | 0.08 | 0.12 | 0.07 |
| Hectares eradicated (ln + 1) range | [1.25-9.13] | [0.89-9.13] | [0.89-9.13] | [0.89-9.13] | [0.89-9.13] | [0.89-9.13] | [0.89-9.13] | [1.25-9.13] | [1.25-9.13] |
| Hectares eradicated (ln + 1) mean | 5.05 | 5.02 | 5.02 | 5.02 | 5.02 | 5.02 | 5.02 | 4.98 | 4.98 |
| Hectares eradicated (ln + 1) std. dev. | 1.42 | 1.43 | 1.43 | 1.43 | 1.43 | 1.43 | 1.43 | 1.44 | 1.44 |
| **Panel D: Pre-election aerial eradication × aerial eradication % area eradicated before or after election** | | | | | | | | | |
| Eradication (> 0) | -0.003 | -10.645 | 41.602** | 36.608*** | -65.197 | -0.040 | -0.091 | 2.593 | -4.666 |
| | (0.098) | (10.995) | (16.491) | (11.353) | (86.176) | (0.095) | (0.185) | (4.282) | (3.868) |
| Pct. area eradicated | 0.059 | -8.321 | 22.178* | -8.717 | -49.278 | -0.002 | 0.062 | -9.674** | 2.978 |
| | (0.109) | (5.972) | (11.731) | (10.385) | (50.651) | (0.068) | (0.153) | (4.132) | (3.024) |
| Eradication (> 0) × % area eradicated | -0.884*** | 25.832 | 68.918 | 0.457 | 30.922 | -0.399** | -1.167*** | -19.953*** | -0.662 |
| | (0.208) | (24.800) | (43.553) | (30.125) | (308.678) | (0.163) | (0.316) | (7.572) | (11.274) |
| $R^2$ | 0.06 | 0.07 | 0.19 | 0.14 | 0.09 | 0.05 | 0.09 | 0.16 | 0.06 |
| Pct. area eradicated range | [0-4.57] | [0-4.57] | [0-4.57] | [0-4.57] | [0-4.57] | [0-4.57] | [0-4.57] | [0-3.47] | [0-3.47] |
| Pct. area eradicated mean | 0.26 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.24 | 0.24 |
| Pct. area eradicated std. dev. | 0.48 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.44 | 0.44 |
| Observations | 409 | 455 | 455 | 455 | 455 | 455 | 455 | 347 | 347 |
| Municipalities | 139 | 155 | 155 | 155 | 155 | 155 | 155 | 122 | 122 |
| Outcome range | [-1.55-2.79] | [0-376] | [137-593] | [27-519] | [1-2,897] | [0-2.51] | [0-8.39] | [0-87.54] | [0.55-98.26] |
| Outcome mean | 0.32 | 121.54 | 370.55 | 188.92 | 419.49 | 0.44 | 1.19 | 18.87 | 27.96 |
| Outcome std. dev. | 0.75 | 72.64 | 104.18 | 77.87 | 580.88 | 0.48 | 1.22 | 24.06 | 24.27 |

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

Table A2: Relationship between manual eradication and municipality characteristics.

| *Outcomes:* | Coca suitability (1) | Distance: Local capital (2) | Distance: Bogotá (3) | Distance: market (4) | Average altitude (5) | Paramilitary violence (6) | Guerrilla violence (7) | Left-wing vote (1986) (8) | Right-wing vote (1986) (9) |
|---|---|---|---|---|---|---|---|---|---|
| **Panel A: Pre-election manual eradication, 1-month pre/post-election bandwidth** | | | | | | | | | |
| Eradication (> 0) | -0.051 | 1.770 | -4.197 | -3.013 | -118.903* | -0.004 | 0.023 | 1.721 | -2.520 |
| | (0.083) | (4.976) | (12.449) | (10.127) | (61.170) | (0.045) | (0.097) | (2.079) | (2.652) |
| $R^2$ | 0.03 | 0.02 | 0.03 | 0.02 | 0.03 | 0.01 | 0.02 | 0.03 | 0.02 |
| Eradication range | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} |
| Eradication (> 0) mean | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.25 | 0.25 |
| Eradication (> 0) std. dev. | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| **Panel B: Pre-election manual eradication × manual eradication hectares eradicated before or after election, 1-month pre/post-election bandwidth** | | | | | | | | | |
| Eradication (> 0) | -0.039 | 1.790 | -1.234 | -0.455 | -128.249** | -0.011 | 0.040 | 1.178 | -2.268 |
| | (0.084) | (4.965) | (12.669) | (10.243) | (63.553) | (0.047) | (0.101) | (1.861) | (2.660) |
| Hectares eradicated | 0.000 | 0.047 | 0.217*** | 0.228*** | -1.054* | 0.000 | 0.001 | 0.017 | -0.015 |
| | (0.001) | (0.040) | (0.076) | (0.078) | (0.554) | (0.000) | (0.001) | (0.016) | (0.017) |
| Eradication (> 0) × hectares eradicated | -0.001 | 0.026 | -0.067 | -0.034 | -0.005 | 0.000 | 0.000 | 0.041 | -0.022 |
| | (0.001) | (0.064) | (0.102) | (0.102) | (0.663) | (0.000) | (0.001) | (0.029) | (0.022) |
| $R^2$ | 0.03 | 0.02 | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 | 0.04 | 0.03 |
| Hectares eradicated range | [0.08-870] | [0.08-870] | [0.08-870] | [0.08-870] | [0.08-870] | [0.08-870] | [0.08-870] | [0.08-870] | [0.08-870] |
| Hectares eradicated mean | 22.04 | 21.29 | 21.29 | 21.29 | 21.29 | 21.28 | 21.28 | 21.09 | 21.09 |
| Hectares eradicated std. dev. | 63.55 | 61.53 | 61.53 | 61.53 | 61.53 | 61.49 | 61.49 | 64.72 | 64.72 |
| **Panel C: Pre-election manual eradication × manual eradication hectares (ln + 1) eradicated before or after election, 1-month pre/post-election bandwidth** | | | | | | | | | |
| Eradication (> 0) | 0.085 | 5.256 | -9.070 | 2.105 | -9.062 | 0.011 | -0.031 | -3.026 | 1.613 |
| | (0.136) | (8.044) | (20.780) | (13.555) | (109.912) | (0.076) | (0.178) | (2.754) | (4.392) |
| Hectares eradicated (ln + 1) | 0.019 | 4.502** | 13.121** | 16.361*** | -95.413*** | -0.016 | 0.057 | 1.308 | -0.853 |
| | (0.033) | (2.037) | (5.408) | (4.323) | (27.208) | (0.021) | (0.064) | (0.850) | (1.068) |
| Eradication (> 0) × hectares eradicated (ln + 1) | -0.075 | -0.826 | 6.447 | 1.445 | -90.710** | -0.013 | 0.047 | 3.191* | -2.704 |
| | (0.054) | (4.152) | (9.563) | (7.634) | (45.587) | (0.029) | (0.073) | (1.784) | (1.949) |
| $R^2$ | 0.03 | 0.03 | 0.04 | 0.05 | 0.06 | 0.02 | 0.02 | 0.05 | 0.03 |
| Hectares eradicated (ln + 1) range | [0.08-6.77] | [0.08-6.77] | [0.08-6.77] | [0.08-6.77] | [0.08-6.77] | [0.08-6.77] | [0.08-6.77] | [0.08-6.77] | [0.08-6.77] |
| Hectares eradicated (ln + 1) mean | 2.03 | 2.02 | 2.02 | 2.02 | 2.02 | 2.02 | 2.02 | 1.97 | 1.97 |
| Hectares eradicated (ln + 1) std. dev. | 1.26 | 1.24 | 1.24 | 1.24 | 1.24 | 1.24 | 1.24 | 1.25 | 1.25 |
| **Panel D: Pre-election manual eradication × manual eradication % area eradicated before or after election** | | | | | | | | | |
| Eradication (> 0) | -0.045 | 2.878 | -6.662 | -1.406 | -104.996 | 0.001 | 0.033 | 2.004 | -2.751 |
| | (0.085) | (5.218) | (13.423) | (10.883) | (64.409) | (0.047) | (0.102) | (2.132) | (2.741) |
| Pct. area eradicated | 0.062 | -15.009* | 25.120 | 13.252 | 389.373*** | -0.240*** | -0.383** | -6.782** | 8.823 |
| | (0.154) | (8.142) | (19.486) | (13.412) | (125.545) | (0.044) | (0.167) | (2.623) | (5.683) |
| Eradication (> 0) × pct. area eradicated | -0.255 | -106.243* | 218.491 | -78.478 | -86.514 | -0.891* | -1.494 | -36.865*** | 37.510 |
| | (1.263) | (64.273) | (342.514) | (134.671) | (1451.268) | (0.461) | (1.179) | (13.280) | (51.761) |
| $R^2$ | 0.03 | 0.02 | 0.03 | 0.02 | 0.04 | 0.02 | 0.02 | 0.03 | 0.03 |
| Pct. area eradicated range | [0-3.64] | [0-3.64] | [0-3.64] | [0-3.64] | [0-3.64] | [0-3.64] | [0-3.64] | [0-3.64] | [0-3.64] |
| Pct. area eradicated mean | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| Pct. area eradicated std. dev. | 0.19 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.16 | 0.16 |
| Observations | 813 | 879 | 879 | 879 | 879 | 880 | 880 | 743 | 743 |
| Municipalities | 311 | 336 | 336 | 336 | 336 | 337 | 337 | 287 | 287 |
| Outcome range | [-1.57-3.01] | [0-493.08] | [62.79-997.99] | [0-926.47] | [1-3087] | [0-2.99] | [0-8.39] | [0-94.73] | [0.2-98.26] |
| Outcome mean | 0.38 | 100.46 | 362.97 | 157.69 | 814.87 | 0.54 | 1.17 | 11.68 | 37.40 |
| Outcome std. dev. | 0.91 | 62.26 | 151.52 | 107.88 | 747.86 | 0.56 | 1.31 | 19.02 | 27.78 |

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

## A.4 Two-way fixed effects limits effective sample in bandwidth estimation

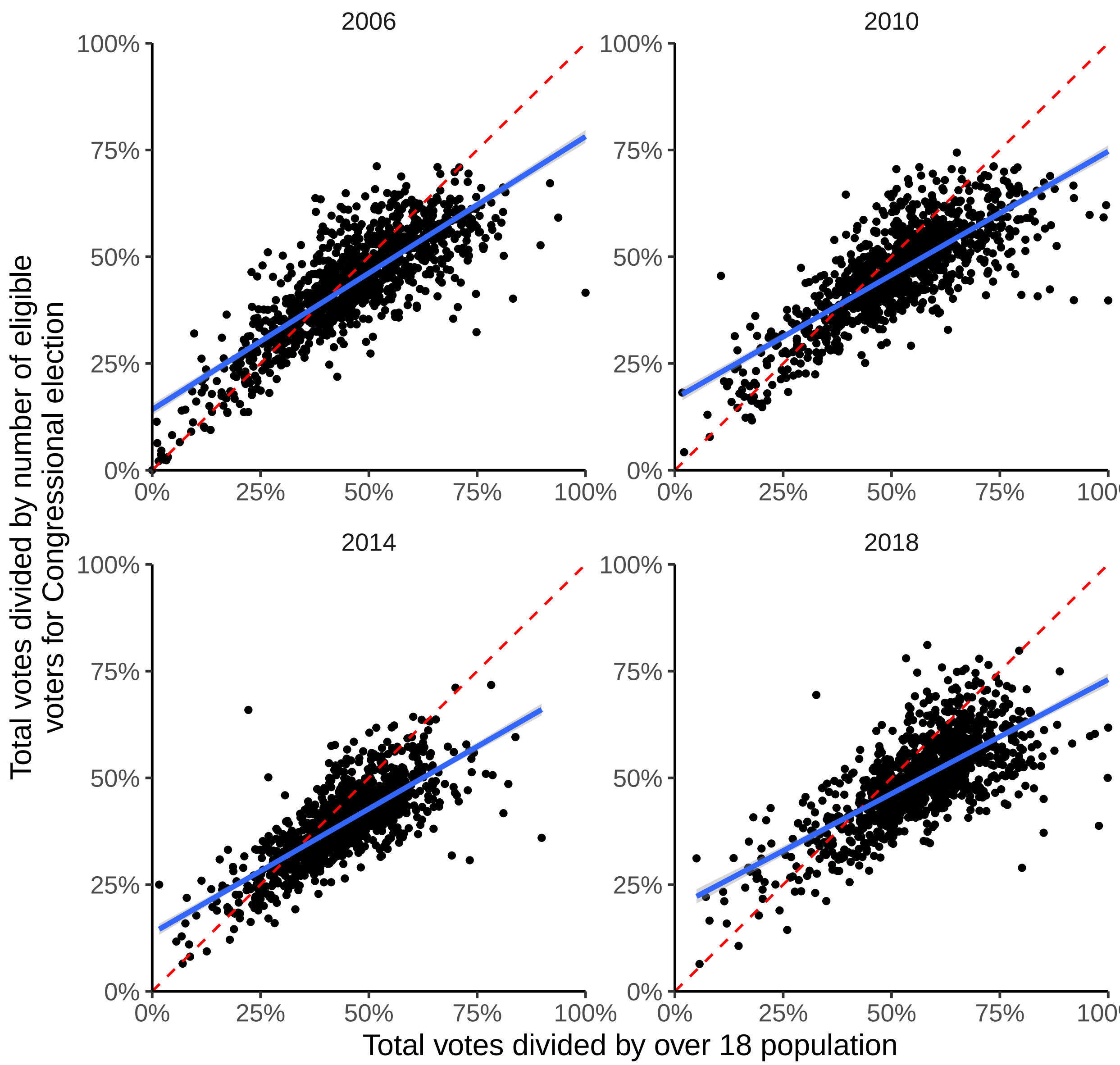
Table A3: Effective observations for different bandwidths when using muncipality and election date fixed effects.

| Eradication type | Bandwidth (months) | Number of effective observations | | | |
|---|---|---|---|---|---|
| | | *Presidential elections* | | | *Mayoral elections* |
| | | All (1994-2018) | Uribe (2002, 2006) | Santos (2010, 2014) | All (1997-2015) |
| Aerial eradication | 1 | 16 | 0 | 9 | 18 |
| | 2 | 21 | 0 | 9 | 27 |
| | 3 | 13 | 2 | 4 | 36 |
| | 4 | 17 | 4 | 4 | 37 |
| | 5 | 17 | 5 | 1 | 39 |
| | 6 | 18 | 4 | 1 | 43 |
| Manual eradication | 1 | 32 | 3 | 5 | 23 |
| | 2 | 52 | 2 | 11 | 34 |
| | 3 | 56 | 2 | 7 | 41 |
| | 4 | 67 | 1 | 14 | 47 |
| | 5 | 80 | 3 | 13 | 55 |
| | 6 | 91 | 5 | 14 | 57 |

*Notes*: All presidential elections refers to 1994, 1998, 2002, 2006, 2010, and 2014 for aerial eradication but 1998, 2002, 2006, 2010, 2014, and 2018 for manual eradication. All mayoral elections refers to 1997, 2000, 2003, 2007, and 2011 for aerial eradication and 2000, 2003, 2007, 2011, and 2015 for manual eradication.

## A.5 Validating turnout proxy

Figure A3: Turnout proxy. Red dashed line indicates $y = x$, blue line is OLS line.



## A.6 Manual eradication results, bandwidth

Table A4: Relationship between pre-election manual eradication and presidential voting behavior.

| *Outcomes:* | Turnout | Accountability | | Uribe (2002, 2006) | | Santos (2010, 2014) | |
|---|---|---|---|---|---|---|---|
| | | Vote share | Turnout share | Vote share | Turnout share | Vote share | Turnout share |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| **Panel A: Manual eradication (hectares), 1-month pre/post-election bandwidth** | | | | | | | |
| Eradication | -0.018** | -0.022* | -0.004 | -0.103 | -0.029 | -0.053 | -0.061 |
| | (0.009) | (0.012) | (0.006) | (0.064) | (0.048) | (0.090) | (0.046) |
| $R^2$ | 0.43 | 0.22 | 0.37 | 0.40 | 0.49 | 0.21 | 0.33 |
| Eradication range | [0-870] | [0-870] | [0-870] | [0-97] | [0-97] | [0-111.53] | [0-111.53] |
| Eradication mean | 5.55 | 6.36 | 6.36 | 2.40 | 2.40 | 1.99 | 1.99 |
| Eradication std. dev. | 51.75 | 57.73 | 57.73 | 11.21 | 11.21 | 10.16 | 10.16 |
| **Panel B: Manual eradication (ln + 1), 1-month pre/post-election bandwidth** | | | | | | | |
| Eradication | -1.054* | -0.158 | -0.086 | -1.350 | -0.547 | 0.920 | 0.075 |
| | (0.609) | (1.204) | (0.682) | (1.810) | (1.161) | (2.054) | (1.252) |
| $R^2$ | 0.43 | 0.21 | 0.37 | 0.40 | 0.49 | 0.21 | 0.33 |
| Eradication range | [0-6.77] | [0-6.77] | [0-6.77] | [0-4.58] | [0-4.58] | [0-4.72] | [0-4.72] |
| Eradication mean | 0.43 | 0.43 | 0.43 | 0.39 | 0.39 | 0.38 | 0.38 |
| Eradication std. dev. | 0.96 | 0.98 | 0.98 | 0.86 | 0.86 | 0.82 | 0.82 |
| **Panel C: Manual eradication (% area), 1-month pre/post-election bandwidth** | | | | | | | |
| Eradication | -62.632 | 1.657 | 26.307 | -63.383 | 30.343 | 230.693 | 105.684 |
| | (54.174) | (91.444) | (59.631) | (108.178) | (65.475) | (354.230) | (223.053) |
| $R^2$ | 0.43 | 0.21 | 0.37 | 0.40 | 0.49 | 0.21 | 0.33 |
| Eradication range | [0-0.1] | [0-0.08] | [0-0.08] | [0-0.08] | [0-0.08] | [0-0.06] | [0-0.06] |
| Eradication mean | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Eradication std. dev. | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| **Panel D: Manual eradication (> 0), 1-month pre/post-election bandwidth** | | | | | | | |
| Eradication | -1.102 | 1.510 | 0.449 | 0.178 | -0.867 | 2.999 | 0.973 |
| | (1.463) | (3.166) | (1.761) | (4.597) | (2.457) | (4.251) | (2.615) |
| $R^2$ | 0.43 | 0.21 | 0.37 | 0.40 | 0.49 | 0.21 | 0.33 |
| Eradication range | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} |
| Eradication mean | 0.24 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| Eradication std. dev. | 0.43 | 0.42 | 0.42 | 0.42 | 0.42 | 0.42 | 0.42 |
| Observations | 300 | 240 | 240 | 96 | 96 | 132 | 132 |
| Municipalities | 220 | 189 | 189 | 93 | 93 | 119 | 119 |
| Outcome range | [1.87-79.33] | [4.07-88.39] | [0.8-62.41] | [6.62-88.39] | [1.53-59.68] | [10.49-86.93] | [3.45-62.41] |
| Outcome mean | 41.48 | 48.11 | 20.05 | 51.79 | 21.47 | 46.37 | 19.83 |
| Outcome std. dev. | 13.82 | 21.41 | 13.28 | 22.98 | 14.39 | 19.67 | 12.36 |

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

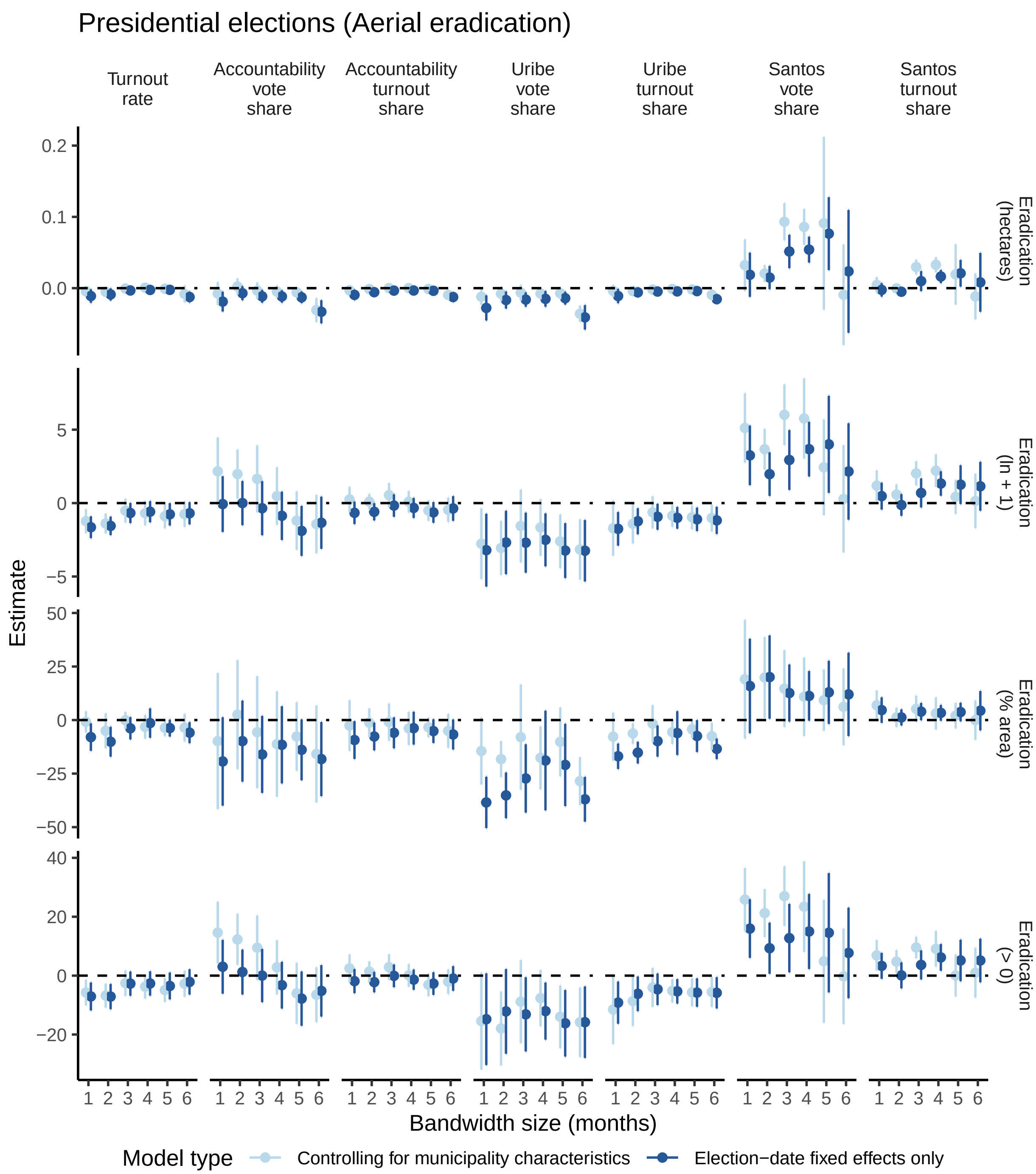
Table A5: Relationship between pre-election manual eradication and local voting behavior.

| *Outcomes:* | Turnout | Right-wing candidates | | Left-wing candidates | |
|---|---|---|---|---|---|
| | | Vote share | Turnout share | Vote share | Turnout share |
| | (1) | (2) | (3) | (4) | (5) |
| **Panel A: Manual eradication (hectares), 1-month bandwidth** | | | | | |
| Eradication | -0.290*** | -0.025 | 0.252 | -0.076*** | -0.110*** |
| | (0.082) | (0.120) | (0.189) | (0.025) | (0.039) |
| $R^2$ | 0.26 | 0.31 | 0.28 | 0.17 | 0.17 |
| Eradication range | [0-67.24] | [0-67.24] | [0-67.24] | [0-67.24] | [0-67.24] |
| Eradication mean | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 |
| Eradication std. dev. | 7.82 | 7.82 | 7.82 | 7.82 | 7.82 |
| **Panel B: Manual eradication (ln + 1), 1-month bandwidth** | | | | | |
| Eradication | -1.983** | -0.394 | 1.374 | -0.440 | -0.662 |
| | (0.945) | (1.235) | (1.925) | (0.275) | (0.468) |
| $R^2$ | 0.26 | 0.31 | 0.27 | 0.17 | 0.17 |
| Eradication range | [0-4.22] | [0-4.22] | [0-4.22] | [0-4.22] | [0-4.22] |
| Eradication mean | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 |
| Eradication std. dev. | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| **Panel C: Manual eradication (% area), 1-month bandwidth** | | | | | |
| Eradication | -59.016 | 27.336 | 154.147*** | -16.897** | -29.686** |
| | (35.764) | (41.960) | (49.799) | (7.556) | (12.374) |
| $R^2$ | 0.25 | 0.31 | 0.28 | 0.17 | 0.17 |
| Eradication range | [0-0.21] | [0-0.21] | [0-0.21] | [0-0.21] | [0-0.21] |
| Eradication mean | 0 | 0 | 0 | 0 | 0 |
| Eradication std. dev. | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| **Panel D: Manual eradication (> 0), 1-month bandwidth** | | | | | |
| Eradication | 0.038 | -0.407 | 0.214 | 0.414 | 0.205 |
| | (2.107) | (2.708) | (3.887) | (1.043) | (1.424) |
| $R^2$ | 0.24 | 0.31 | 0.27 | 0.17 | 0.17 |
| Eradication range | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} |
| Eradication mean | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 |
| Eradication std. dev. | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| Observations | 231 | 231 | 231 | 231 | 231 |
| Municipalities | 174 | 174 | 174 | 174 | 174 |
| Outcome range | [21.64-100] | [0-105.97] | [0-99.02] | [0-41.92] | [0-58.6] |
| Outcome mean | 64.13 | 30.33 | 44.99 | 2.43 | 3.84 |
| Outcome std. dev. | 15.93 | 23.63 | 29.69 | 6.96 | 10.33 |

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

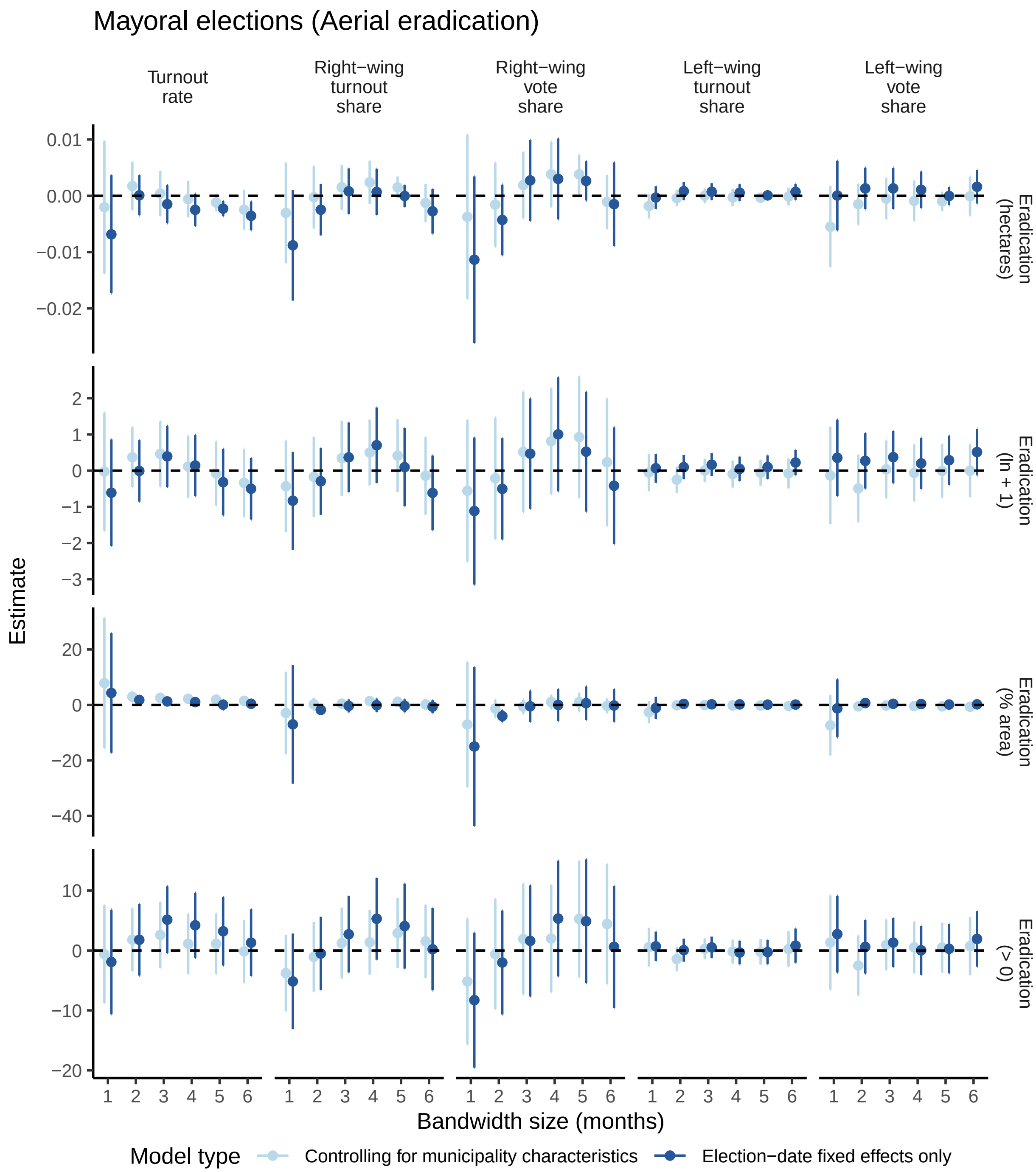
## A.7 Sensitivity of bandwidth results to varying specifications

Figure A4: Sensitivity of aerial eradication bandwidth results to varying specifications, presidential elections.



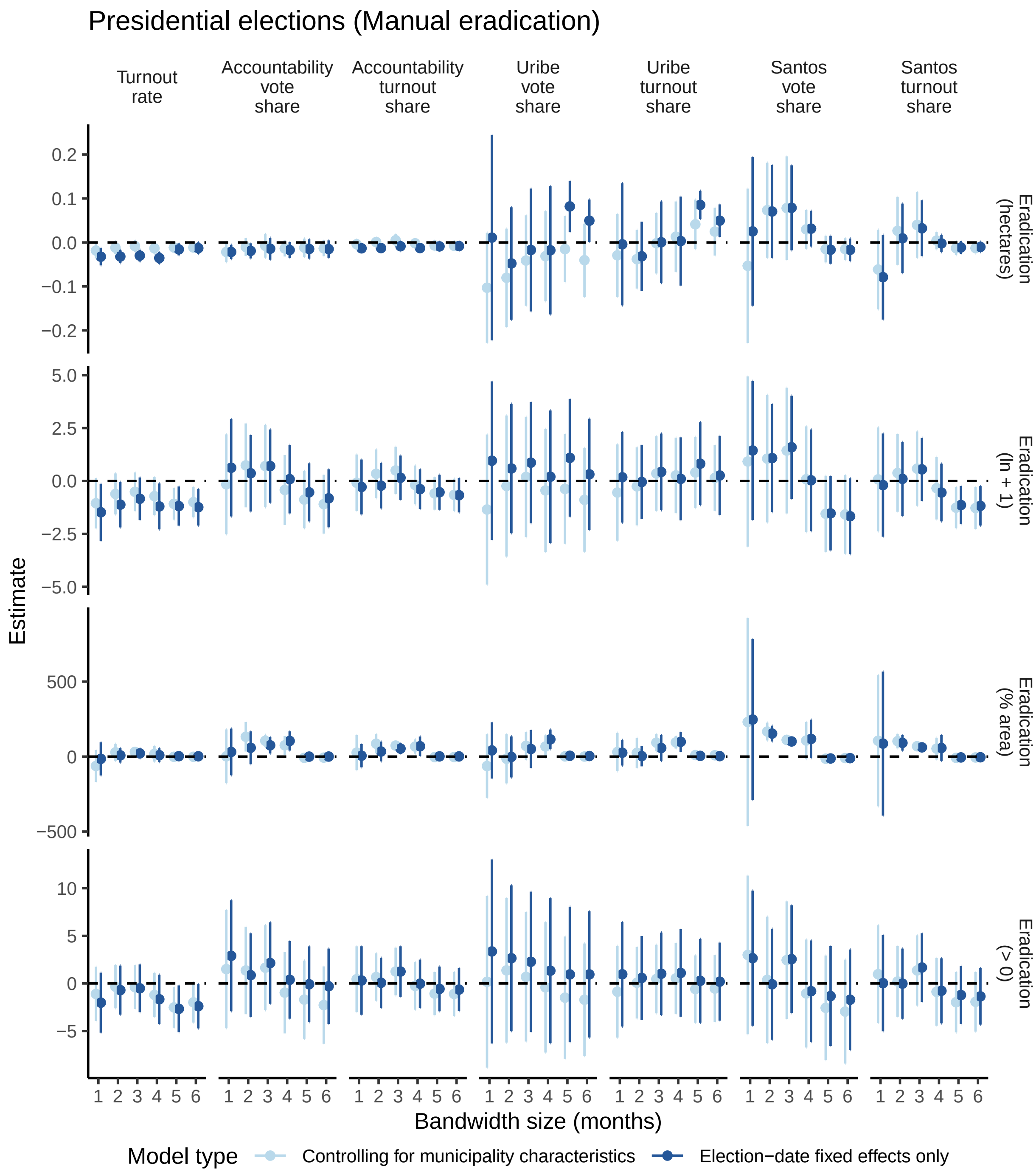

*Notes*: All specifications are estimated using OLS. Robust standard errors clustered by municipality to construct 95% confidence intervals.

Figure A5: Sensitivity of aerial eradication bandwidth results to varying specifications, presidential elections.



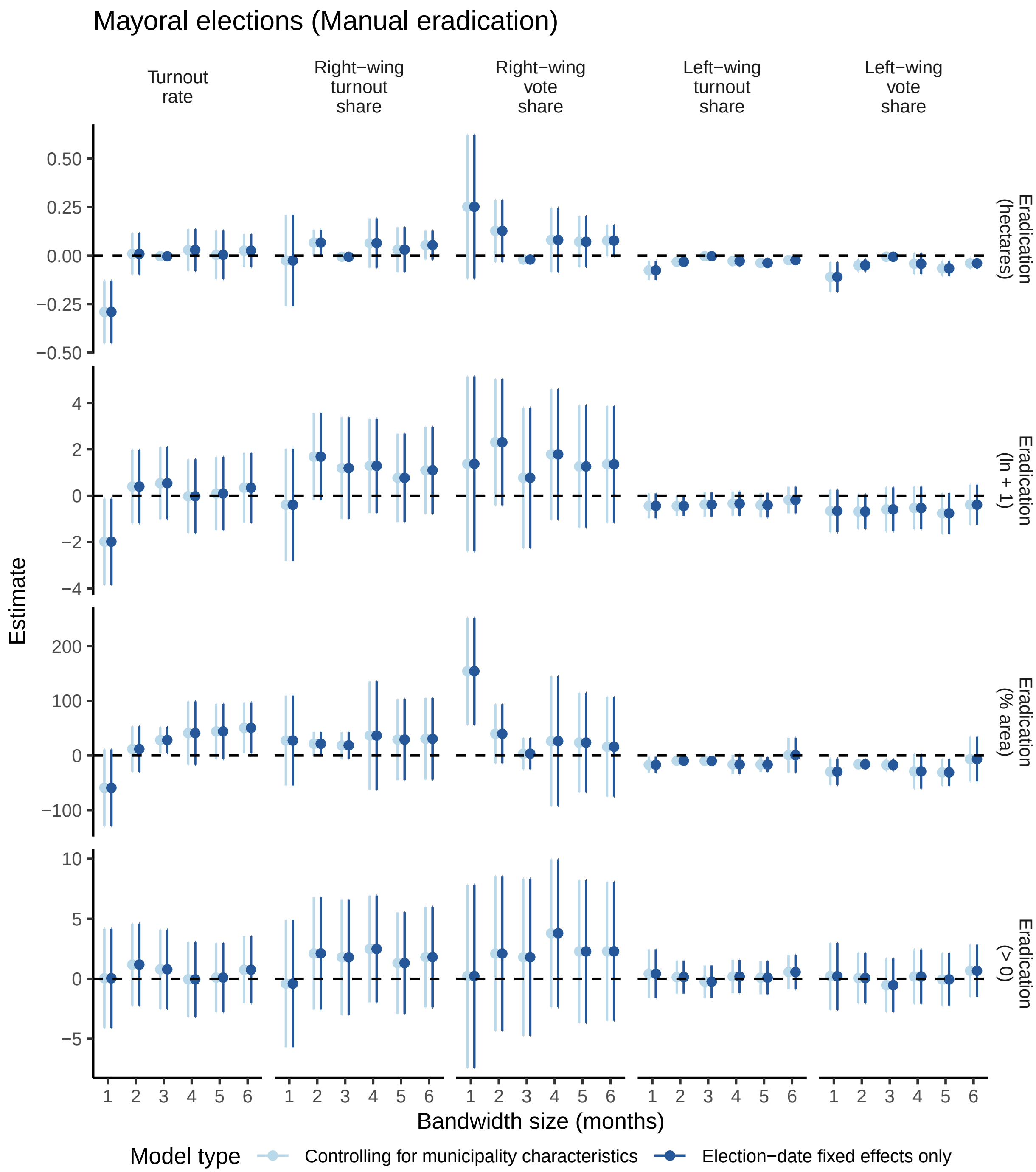

*Notes*: All specifications are estimated using OLS. Robust standard errors clustered by municipality to construct 95% confidence intervals.

Figure A6: Sensitivity of manual eradication bandwidth results to varying specifications, presidential elections.




*Notes*: All specifications are estimated using OLS. Robust standard errors clustered by municipality to construct 95% confidence intervals.

Figure A7: Sensitivity of manual eradication bandwidth results to varying specifications, presidential elections.




*Notes*: All specifications are estimated using OLS. Robust standard errors clustered by municipality to construct 95% confidence intervals.

## A.8 Presidential classifications

Table A6: Presidential candidate classifications and vote shares. Winners listed in bold.

| Election Year | Candidate Name | Vote Share | | Left |
|---|---|---|---|---|
| | | 1st Round | 2nd Round | |
| 1986 | **Virgilio Barco Vargas** | 58.36% | | 0 |
| | Álvaro Gómez Hurtado | 35.84% | | 0 |
| | Jaime Pardo Leal | 4.55% | | 1 |
| | Regina Betancur | 4.65% | | 0 |
| | Juan David Pérez Gaviria | <0.00% | | |
| 1990 | **César Gaviria*** | 48.18% | | 0 |
| | Álvaro Gómez Hurtado | 23.89% | | 1 |
| | Antonio Navarro Wolff | 12.57% | | 1 |
| | Rodrigo Lloreda | 12.25% | | 0 |
| | Regina Betancur | 0.63% | | 0 |
| | Claudia Rodríguez | 0.56% | | 0 |
| | Oscar Loaiza | 0.16% | | |
| | José Agustín Linares | 0.15% | | |
| | Luis Carlos Valencia | 0.14% | | 1 |
| | Guillermo Alemán | 0.12% | | |
| | Jesús García | 0.04% | | |
| | Jairo Rodríguez | 0.02% | | |
| 1994 | **Ernesto Samper** | 45.30% | 50.57% | 0 |
| | Andrés Pastrana | 44.97% | 48.45% | 0 |
| | Antonio Navarro Wolff | 3.79% | | 1 |
| | Regina Betancur | 1.11% | | 0 |
| | Miguel Maza | 0.95% | | |
| | Alberto Mendoza | 0.60% | | |
| | Enrique Parejo González | 0.50% | | |
| | Guillermo Alemán | 0.40% | | |
| | Gloria Gaitán | 0.30% | | |
| | José Antonio Cortes | 0.20% | | |
| | Jose Galat | 0.16% | | |
| | Miguel Zamora | 0.16% | | |
| | Doris de Castro | 0.10% | | |
| | Luis Rodríguez Orjuela | 0.10% | | |
| | Oscar Rojas Masso | 0.08% | | |
| | José Guillermo Barnosa | 0.07% | | |
| | Mario Diazgranados | 0.06% | | |

Table A6, continued from previous page.

| Election Year | Candidate Name | Vote Share | | Left |
|---|---|---|---|---|
| | | 1st Round | 2nd Round | |
| | Efraín Torres | 0.05% | | |
| 1998 | Horacio Serpa | 34.79% | 46.58% | 0 |
| | **Andrés Pastrana** | 34.37% | 50.34% | 0 |
| | Noemí Sanín | 26.78% | | 0 |
| | Harold Bedoya | 1.80% | | 0 |
| | Beatriz Cuellar | 0.29% | | 0 |
| | Germán Rojas | 0.15% | | 1 |
| | Jorge Hernán Betancur | 0.13% | | 1 |
| | Jesús Antonio Lozano | 0.11% | | 1 |
| | Jorge Pulecio | 0.11% | | 1 |
| | Guillermo Alemán | 0.09% | | 1 |
| | Efraín Díaz | 0.09% | | 0 |
| | Guillermo Nannetti | 0.08% | | 1 |
| | Francisco Córdoba | 0.06% | | 0 |
| 2002 | **Álvaro Uribe** | 53.05% | | 0 |
| | Horacio Serpa | 31.80% | | 0 |
| | Luis Eduardo Garzón | 6.16% | | 0 |
| | Noemí Sanín | 5.81% | | 0 |
| | Ingrid Betancourt | 0.49% | | 0 |
| | Harold Bedoya | 0.46% | | 0 |
| | Francisco Antonio Tovar | 0.15% | | 0 |
| | Augusto Guillermo Lora | 0.10% | | 1 |
| | Álvaro Cristancho | 0.09% | | 0 |
| | Guilleromo Antonio Cardona | 0.07% | | 0 |
| | Rodolfo Rincón | 0.06% | | 0 |
| 2006 | **Álvaro Uribe** | 62.35% | | 0 |
| | Carlos Gaviria | 22.03% | | 1 |
| | Horacio Serpa | 11.84% | | 0 |
| | Antanas Mockus | 1.24% | | 1 |
| | Enrique Parejo | 0.36% | | |
| | Álvaro Leyva | 0.15% | | |
| | Carlos Arturo Rincón | 0.13% | | |
| 2010 | **Juan Manuel Santos** | 46.68% | 69.13% | 0 |
| | Antanas Mockus | 21.51% | 27.47% | 1 |
| | Germán Vargas Lleras | 10.11% | | 0 |
| | Gustavo Petro | 9.14% | | 1 |
| | Noemí Sanín | 6.13% | | 0 |
| | Rafael Pardo | 4.38% | | 0 |
| | Róbinson Devia | 0.22% | | |

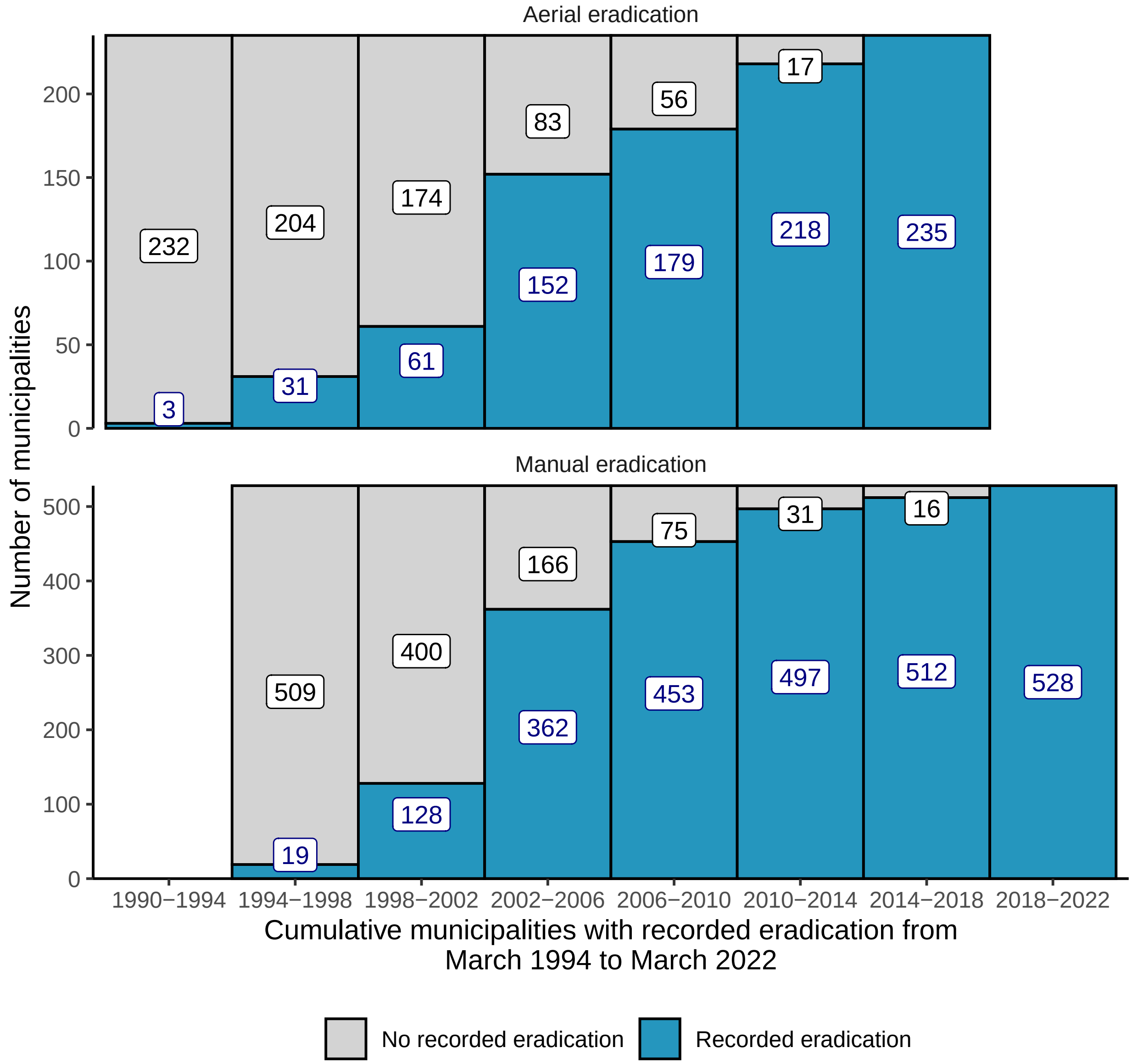
Table A6, continued from previous page.

| Election Year | Candidate Name | Vote Share | | Left |
|---|---|---|---|---|
| | | 1st Round | 2nd Round | |
| | Jairo Calderón | 0.20% | | |
| | Jaime Araújo | 0.10% | | 1 |
| 2014 | **Juan Manuel Santos** | 29.28% | 50.99% | 0 |
| | Óscar Zuluaga | 25.72% | 44.99% | 0 |
| | Martha Lucía Ramírez | 15.52% | | 0 |
| | Clara López Obregón | 15.22% | | 1 |
| | Enrique Peñalosa | 8.27% | | 0 |
| 2018 | **Iván Duque** | 39.36% | 54.03% | 0 |
| | Gustavo Petro | 25.08% | 41.77% | 1 |
| | Sergio Fajardo | 23.78% | | 1 |
| | Germán Vargas Lleras | 7.30% | | 0 |
| | Humberto De La Calle | 2.05% | | 1 |
| | Jorge Trujillo | 0.34% | | 0 |
| | Viviane Morales | 0.19% | | 0 |

*Notes*: Colombia implemented a two-round presidential system in its 1991 Constitution, so César Gaviria was elected president with a plurality of votes in 1990.

## A.9 Visualizing variation in eradication

Figure A8: Cumulative number of municipalities that experienced eradication from March 1994 to March 2022.



## A.10 Manual eradication results, staggered implementation

Table A7: Relationship between manual eradication and presidential election voting behavior.

| *Outcomes:* | Turnout | Left-wing candidates | | Uribe (2002, 2006) | | Santos (2010, 2014) | |
|---|---|---|---|---|---|---|---|
| | | Vote share | Turnout share | Vote share | Turnout share | Vote share | Turnout share |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| **Panel A: Manual eradication (hectares)** | | | | | | | |
| Eradication | 0.015 | 0.045** | 0.014 | -0.228*** | -0.132*** | -0.227*** | -0.107*** |
| | (0.009) | (0.020) | (0.009) | (0.074) | (0.042) | (0.054) | (0.021) |
| $R^2$ | 0.81 | 0.77 | 0.79 | 0.85 | 0.89 | 0.43 | 0.58 |
| Eradication range | [0-644] | [0-644] | [0-644] | [0-160] | [0-160] | [0-644] | [0-644] |
| Eradication mean | 3.79 | 3.80 | 3.79 | 1.34 | 1.33 | 7.72 | 7.72 |
| Eradication std. dev. | 24.09 | 24.12 | 24.09 | 7.19 | 7.17 | 37.03 | 37.03 |
| **Panel B: Manual eradication (ln + 1)** | | | | | | | |
| Eradication | 1.004*** | 1.761*** | 0.399*** | -3.619*** | -2.082*** | -3.293* | -1.679* |
| | (0.279) | (0.329) | (0.152) | (0.912) | (0.461) | (1.909) | (0.869) |
| $R^2$ | 0.81 | 0.77 | 0.79 | 0.85 | 0.89 | 0.41 | 0.57 |
| Eradication range | [0-6.47] | [0-6.47] | [0-6.47] | [0-5.08] | [0-5.08] | [0-6.47] | [0-6.47] |
| Eradication mean | 0.47 | 0.47 | 0.47 | 0.30 | 0.30 | 0.77 | 0.77 |
| Eradication std. dev. | 0.96 | 0.96 | 0.96 | 0.69 | 0.68 | 1.22 | 1.22 |
| **Panel C: Manual eradication (% area)** | | | | | | | |
| Eradication | 23.799*** | 47.211*** | 21.879*** | -146.350*** | -71.329*** | -158.463*** | -62.939*** |
| | (6.597) | (10.100) | (4.716) | (39.692) | (23.392) | (43.592) | (21.141) |
| $R^2$ | 0.81 | 0.77 | 0.79 | 0.85 | 0.89 | 0.43 | 0.58 |
| Eradication range | [0-0.7] | [0-0.7] | [0-0.7] | [0-0.25] | [0-0.25] | [0-0.7] | [0-0.7] |
| Eradication mean | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 |
| Eradication std. dev. | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.04 | 0.04 |
| **Panel D: Manual eradication (> 0)** | | | | | | | |
| Eradication | 1.326*** | 1.158** | 0.310 | 0.333 | 0.642 | 3.612 | 1.688 |
| | (0.393) | (0.469) | (0.216) | (1.367) | (0.713) | (2.705) | (1.465) |
| $R^2$ | 0.81 | 0.77 | 0.79 | 0.84 | 0.88 | 0.41 | 0.57 |
| Eradication range | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} |
| Eradication mean | 0.48 | 0.48 | 0.48 | 0.45 | 0.45 | 0.64 | 0.64 |
| Eradication std. dev. | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.48 | 0.48 |
| Observations | 3,136 | 3,127 | 3,136 | 1,040 | 1,047 | 1,055 | 1,055 |
| Municipalities | 528 | 528 | 528 | 525 | 525 | 528 | 528 |
| Outcome range | [0-100] | [0-91.78] | [0-56.46] | [3.4-92.74] | [0-63.33] | [3.13-91.99] | [1.25-69.07] |
| Outcome mean | 42.60 | 17.42 | 7.48 | 49.87 | 20.16 | 44.14 | 19.49 |
| Outcome std. dev. | 15.41 | 18.86 | 8.69 | 22.09 | 13.89 | 21.80 | 12.96 |

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

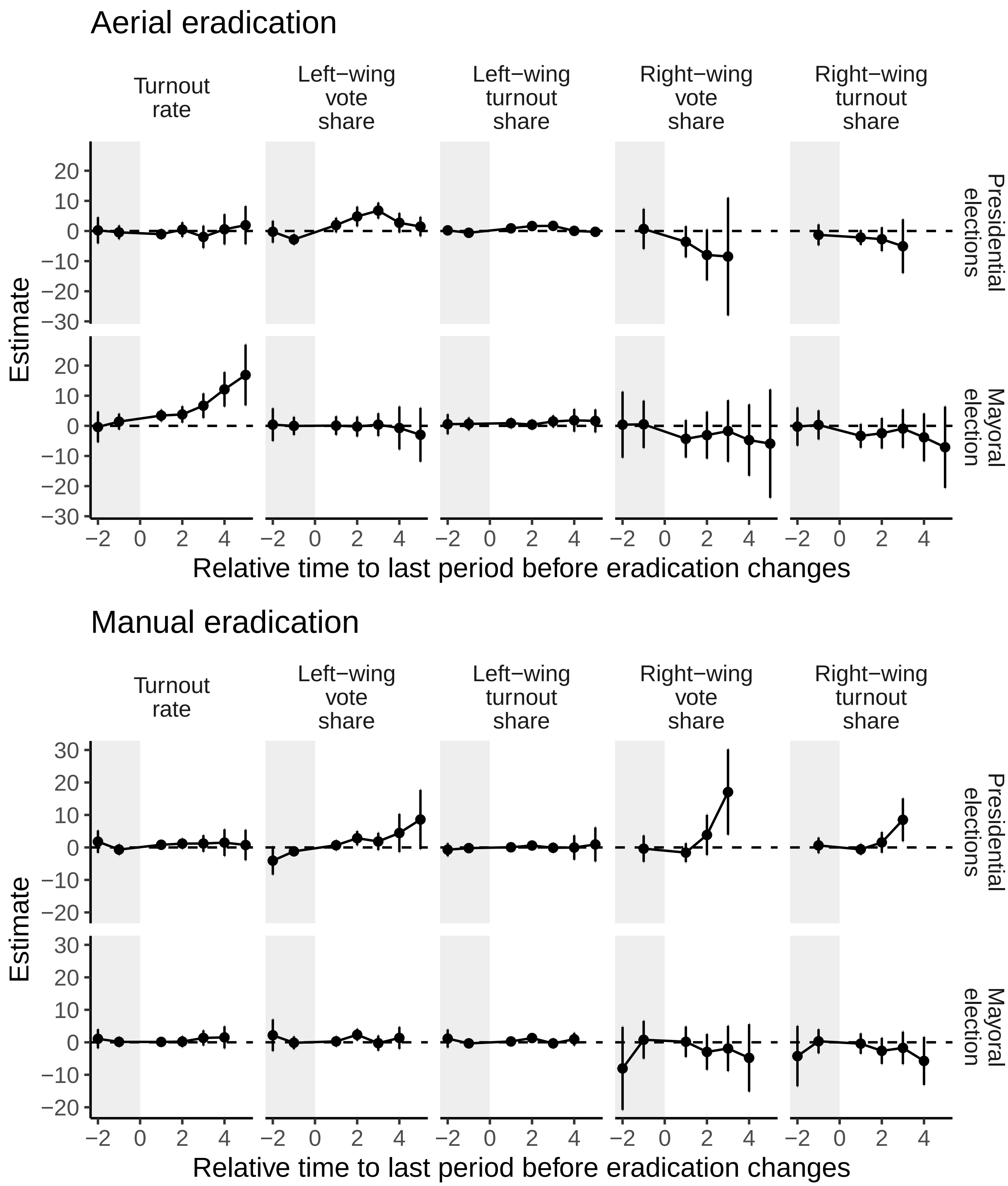
Table A8: Relationship between manual eradication and local voting behavior.

| *Outcomes:* | Turnout | Right-wing candidates | | Left-wing candidates | |
|---|---|---|---|---|---|
| | | Vote share | Turnout share | Vote share | Turnout share |
| | (1) | (2) | (3) | (4) | (5) |
| **Panel A: Manual eradication (hectares)** | | | | | |
| Eradication | 0.009 | -0.019*** | -0.037*** | 0.002 | 0.003 |
| | (0.007) | (0.005) | (0.006) | (0.002) | (0.003) |
| $R^2$ | 0.85 | 0.63 | 0.55 | 0.45 | 0.46 |
| Eradication range | [0-1,277] | [0-1,277] | [0-1,277] | [0-1,277] | [0-1,277] |
| Eradication mean | 3.95 | 3.95 | 3.95 | 3.95 | 3.95 |
| Eradication std. dev. | 36.24 | 36.24 | 36.24 | 36.24 | 36.24 |
| **Panel B: Manual eradication (ln + 1)** | | | | | |
| radication | 0.939*** | -0.232 | -0.672 | 0.423** | 0.519 |
| | (0.278) | (0.544) | (0.801) | (0.214) | (0.328) |
| $R^2$ | 0.85 | 0.63 | 0.55 | 0.46 | 0.47 |
| Eradication range | [0-7.15] | [0-7.15] | [0-7.15] | [0-7.15] | [0-7.15] |
| Eradication mean | 0.42 | 0.42 | 0.42 | 0.42 | 0.42 |
| Eradication std. dev. | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| **Panel C: Manual eradication (% area)** | | | | | |
| Eradication | 11.493*** | -12.510 | -26.282* | 6.038** | 8.072** |
| | (2.213) | (10.312) | (13.419) | (2.573) | (3.770) |
| $R^2$ | 0.85 | 0.63 | 0.55 | 0.45 | 0.47 |
| Eradication range | [0-1.3] | [0-1.3] | [0-1.3] | [0-1.3] | [0-1.3] |
| Eradication mean | 0 | 0 | 0 | 0 | 0 |
| Eradication std. dev. | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| **Panel D: Aerial eradication (> 0)** | | | | | |
| Eradication | 1.294*** | 2.211** | 2.244 | 0.191 | -0.069 |
| | (0.469) | (1.085) | (1.540) | (0.411) | (0.617) |
| $R^2$ | 0.85 | 0.63 | 0.55 | 0.45 | 0.46 |
| Eradication range | {0,1} | {0,1} | {0,1} | {0,1} | {0,1} |
| Eradication mean | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 |
| Eradication std. dev. | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 |
| Observations | 2,396 | 2,396 | 2,396 | 2,396 | 2,396 |
| Municipalities | 519 | 519 | 519 | 519 | 519 |
| Outcome range | [7.83-100] | [0-151.11] | [0-99.11] | [0-64.4] | [0-97.82] |
| Outcome mean | 66.40 | 31.82 | 45.36 | 2.16 | 3.52 |
| Outcome std. dev. | 16.30 | 25.61 | 32.29 | 6.78 | 10.73 |

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

## A.11 Parallel trends

Figure A9: Dynamic relationship between eradication and voting behavior.




*Notes*: All specifications are estimated using OLS and include municipality and election-year fixed effects from De Chaisemartin and d'Haultfoeuille (2024). Robust standard errors clustered by municipality to construct 95% confidence intervals. "Right-wing" vote share for presidential elections refers to Uribe and Santos.

Figure A10: Presidential outcome patterns by when municipalities first experienced aerial eradication relative to time to eradication.

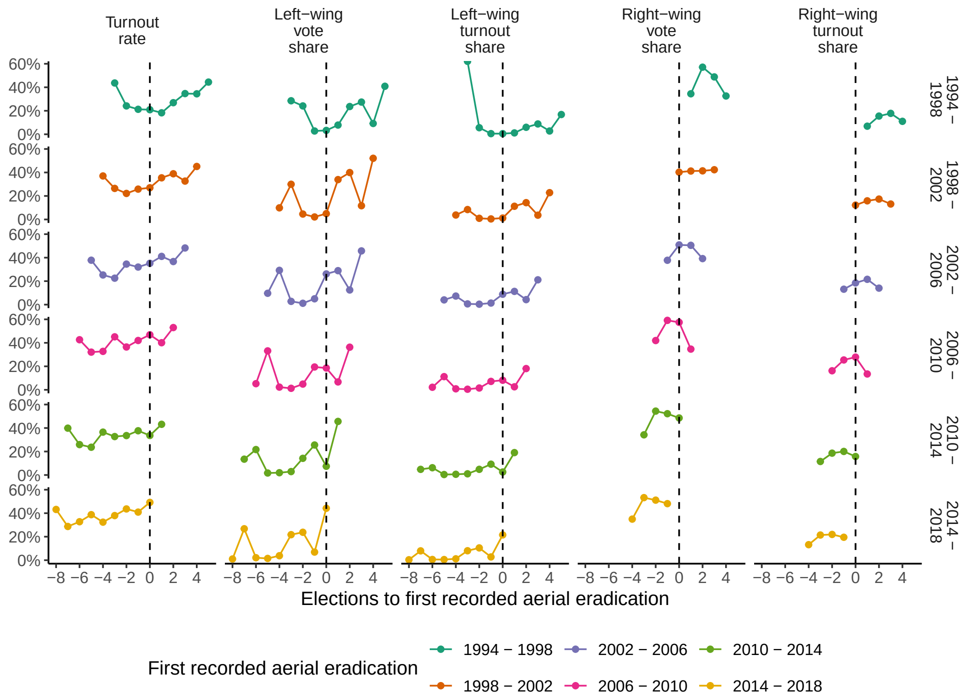



Figure A11: Presidential outcome patterns by when municipalities first experienced manual eradication relative to time to eradication.