Political Forbearance and Intensification of Counternarcotics Enforcement

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Introduction

- Violence undermines economic growth, social development, public goods, and democracy

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Source: El Tiempo

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- Contemporary violence in Latin America linked to drug trade and non-state armed groups
- Latin America holds the highest levels of criminal violence globally (Arjona, 2021)

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Research question

- Extensive efforts to combat illicit drugs on the supply side
  - U.S. has spent $20 billion on foreign counternarcotics enforcement since 2000
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Test using the case of the aerial eradication of coca crops in Colombia

Motivation

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    $\rightarrow$ and influence electoral behavior (Acemoglu, Robinson and Santos, 2013; Trudeau, 2022)
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- Enforcement gaps propagate institutional weakness (Brinks, Levitsky and Murillo, 2019)

Motivation

Forced crop eradication an important outcome itself

Source: Associated Press

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Forced crop eradication an important outcome itself

- Health consequences (Camacho and Mejía, 2017)
- Environmental damage (Rincón-Ruiz et al., 2016)
- Loss of trust in government (Torreblanca, 2023)

Source: Associated Press

Puzzle

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  - State capacity? Both contain airstrips and military bases

Ituango and Tarazá

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- Enforcement gaps not only reflect a lack of state capacity but also complicity (Yashar, 2018)

Road Map

Asymmetric benefits and costs to counternarcotics

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Source: Washington Post

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- National actors control and accrue benefits from enforcement
  - International politics, U.S. bilateral aid
  - Domestic electoral benefits from unaffected voters
- The burden of enforcement is local
  - Direct costs are geographically concentrated

Source: Washington Post

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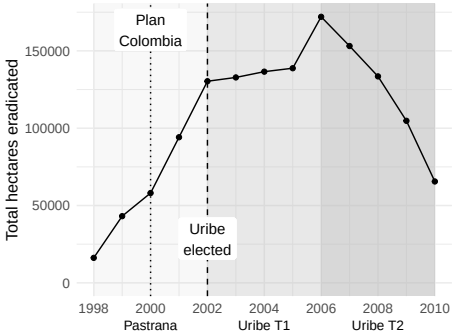
H1. Governments will **reduce** enforcement of drug laws in areas influenced by non-state armed groups with which they have **aligned** political preferences

H2. Governments will **intensify** enforcement of drug laws in areas under the influence of non-state armed groups with which they have **opposing** political preferences

Strategic incentives for aerial crop eradication 1998-2010



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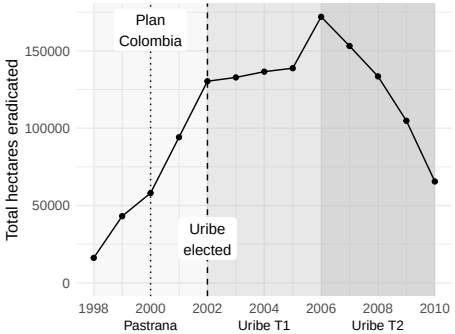

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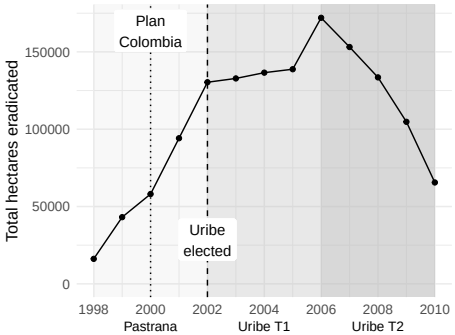

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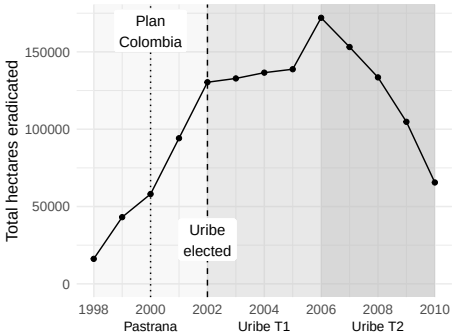

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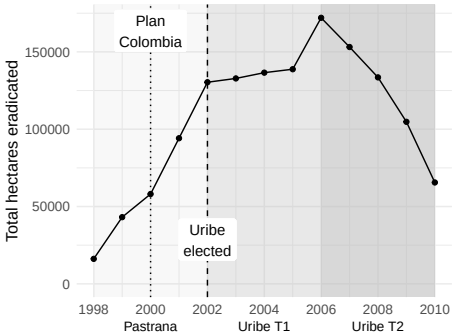

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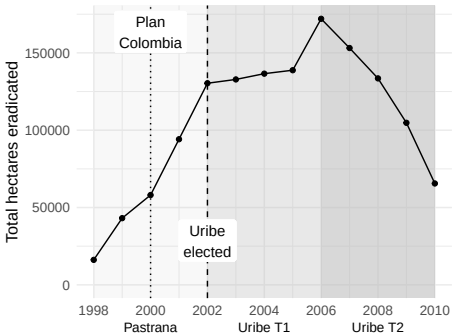

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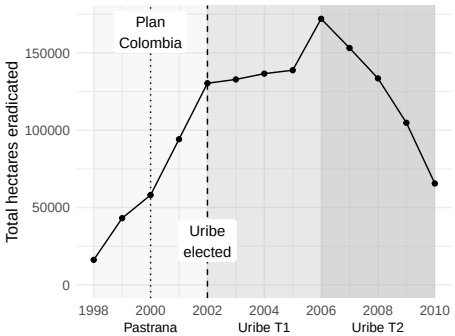

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  → incumbent government uses eradication to reward and punish armed groups, who function as electoral brokers (Acemoglu, Robinson and Santos, 2013)

Non-state armed groups and electoral influence

Significant armed group presence surrounding illicit markets

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- Paramilitary groups such as the AUC explicitly favored Uribe
  - Extensive coercion and vote-rigging in paramilitary areas (Nieto-Matiz, 2019)
  - Politicians who supported term limit removal arrested for ties to paramilitaries (Daly, 2016)

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Expectations for eradication

Forbearance toward paramilitary areas, **intensification** toward guerrilla areas

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- Estimation sample: 318 of 1,122 municipalities Sample map

Road Map

Main estimating equation

$$\begin{aligned} Eradication_{i,t} = \beta_1 P_i \times \mathbb{1}[\text{2002-2006}] + \beta_2 G_i \times \mathbb{1}[\text{2002-2006}] + \\ \beta_3 P_i \times \mathbb{1}[\text{2006-2010}] + \beta_4 G_i \times \mathbb{1}[\text{2006-2010}] + \\ \gamma_i + \delta_t + \epsilon_{i,t}, \end{aligned} \tag{1}$$

- $Eradication_{i,t}$: measure of eradication in municipality i in year-month t
- P_i: time-invariant measure of paramilitary attacks in each municipality
- G_i: time-invariant measure of guerrilla attacks in each municipality
- $\mathbb{1}$[2002-2006]: indicator for months belonging to Uribe's first presidential term
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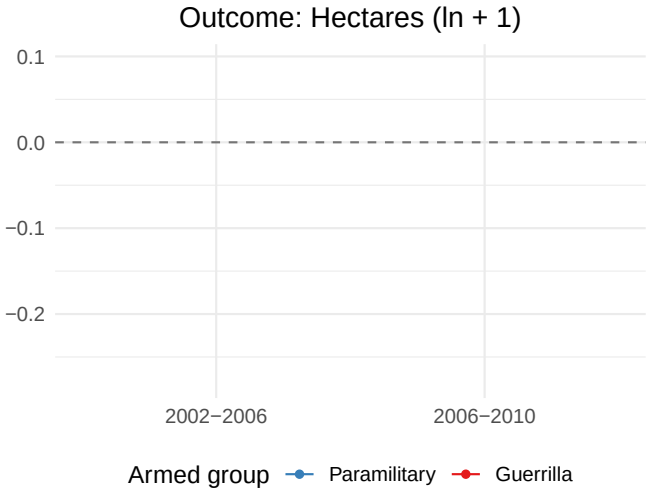
Test differential growth or reduction in eradication to areas of armed group influence

Less eradication in paramilitary areas, more in guerrilla areas



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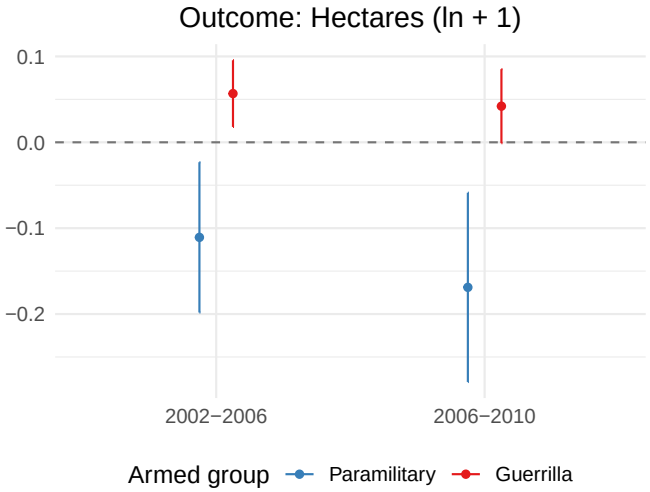

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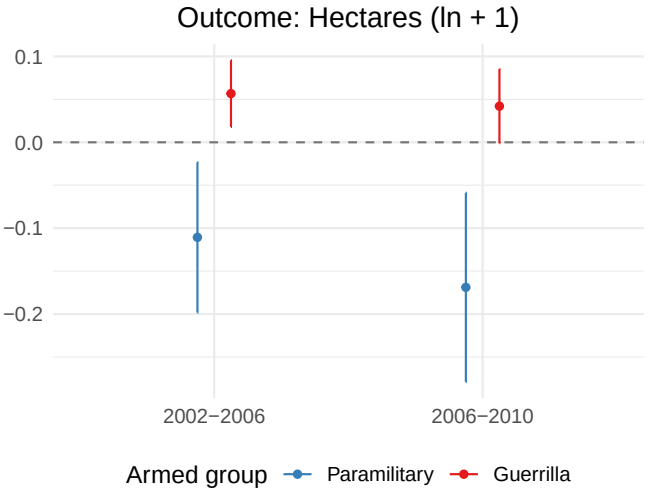

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  - About 500 hectares over a 4-year term

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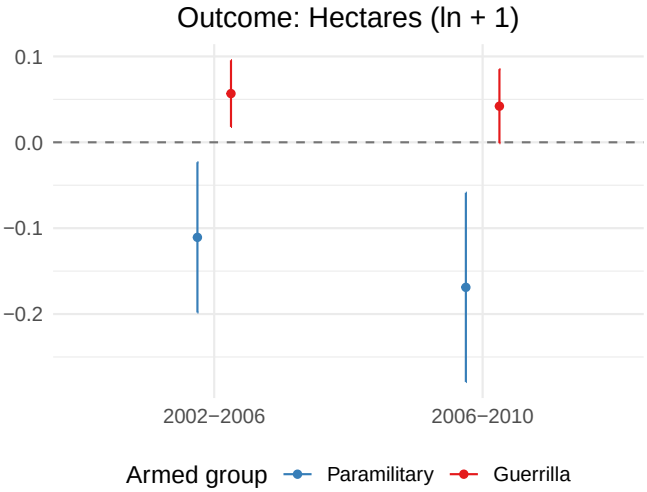

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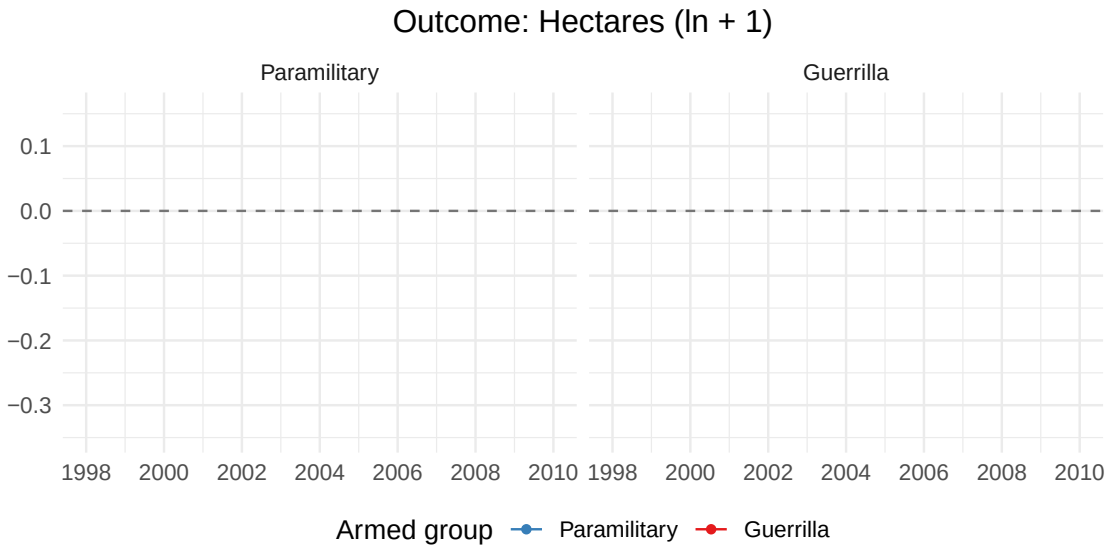
- Standardized effect is similar in magnitude but positive for guerrilla violence

  (1 std. dev $\rightarrow \approx 7.03\%$ *increase*)

Year-by-year results

Estimating equation



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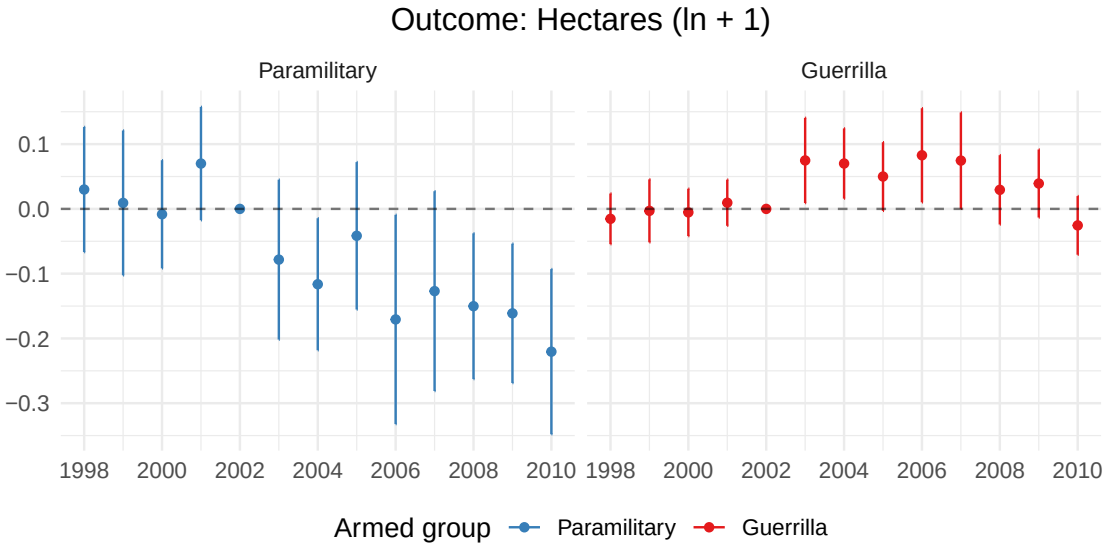

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Next, test electoral influence more directly, focusing on Uribe's term (2002-2010)

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Mechanism: electoral overperformance

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- Measuring electoral overperformance
  - Define Δ_i^{2002} as Uribe 2002 vote share minus Pastrana 1998 vote share in municipality i
  - Define Δ_i^{2006} as Uribe 2006 vote share minus Uribe 2002 vote share in municipality i

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  - Because aligned armed groups help in elections
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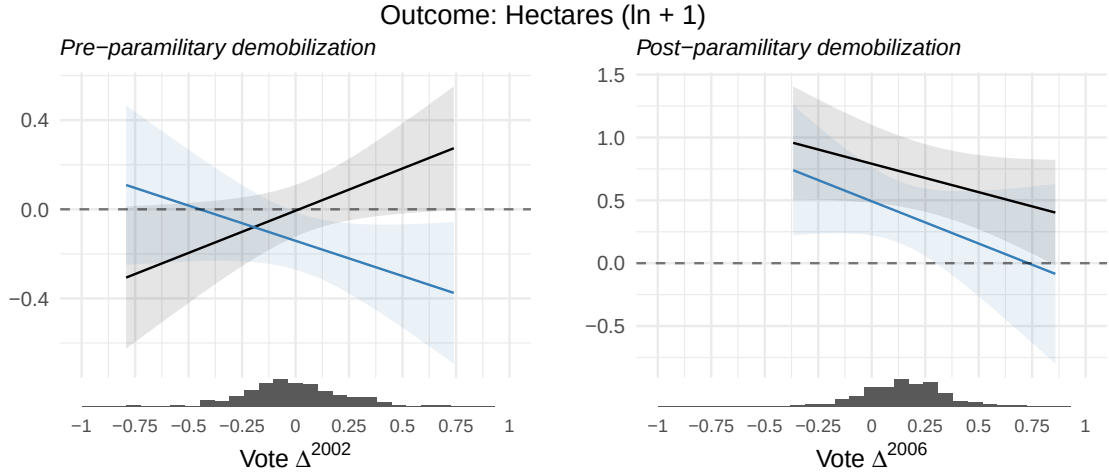
- Therefore, forbearance should be stronger in areas where the incumbent overperforms

- Measuring electoral overperformance
  - Define Δ_i^{2002} as Uribe 2002 vote share minus Pastrana 1998 vote share in municipality i
  - Define Δ_i^{2006} as Uribe 2006 vote share minus Uribe 2002 vote share in municipality i
- Expect less eradication in paramilitary areas where Uribe overperformed only in 2002
  - Paramilitaries mostly demobilized under favorable conditions in 2005, supported by Uribe

Electoral overperformance

Additional results



Mechanism: electoral violence

Additional results

- Incumbent is incentivized to hold back on enforcement to favorable armed groups
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Mechanism: electoral violence

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  - From Electoral Observation Mission, a nonpartisan civil society organization

Mechanism: electoral violence

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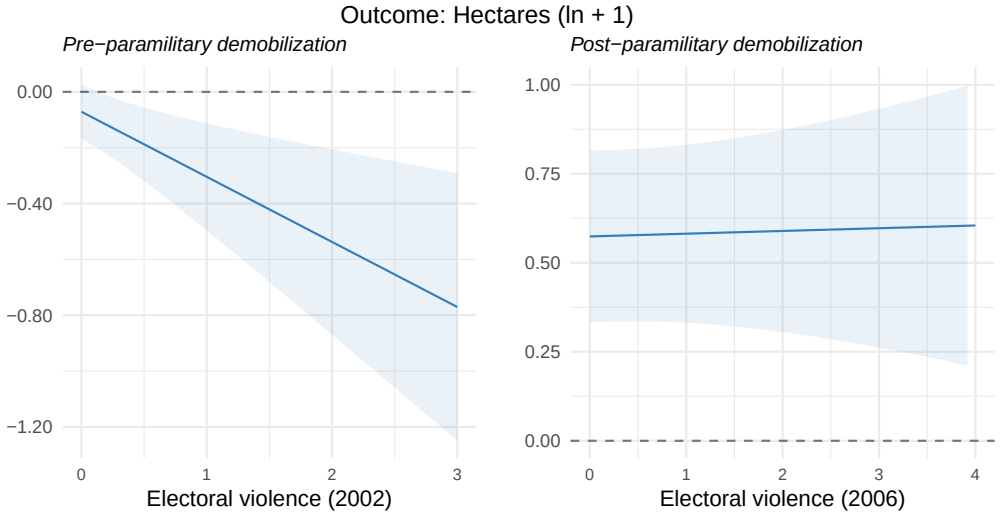
- Measuring electoral violence
  - Reports of threats to use armed violence against voters to support a particular candidate
  - From Electoral Observation Mission, a nonpartisan civil society organization
- Expect less eradication in areas with electoral violence in 2002 but not 2006
  - Significant paramilitary electoral violence in 2002, less so in 2006 (Nieto-Matiz, 2019)

Electoral violence



Road Map

Conclusion

- Political incentives drive supply-side approaches to drug enforcement

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Thanks!

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Appendix Table of Contents

Geographies of production

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Table: The relationship between coca cultivation and aerial coca eradication.

	Hectares (1)	Hectares (ln + 1) (2)	Hectares (> 0) (3)
Coca cultivation	0.042***		
	(0.008)		
Coca cultivation (ln + 1)		0.065***	
		(0.009)	
Coca cultivation (> 0)			0.014***
			(0.002)
R^2	0.15	0.25	0.23
Observations	142,494	142,494	142,494
Municipalities	1,122	1,122	1,122

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

Coca eradication and cultivation

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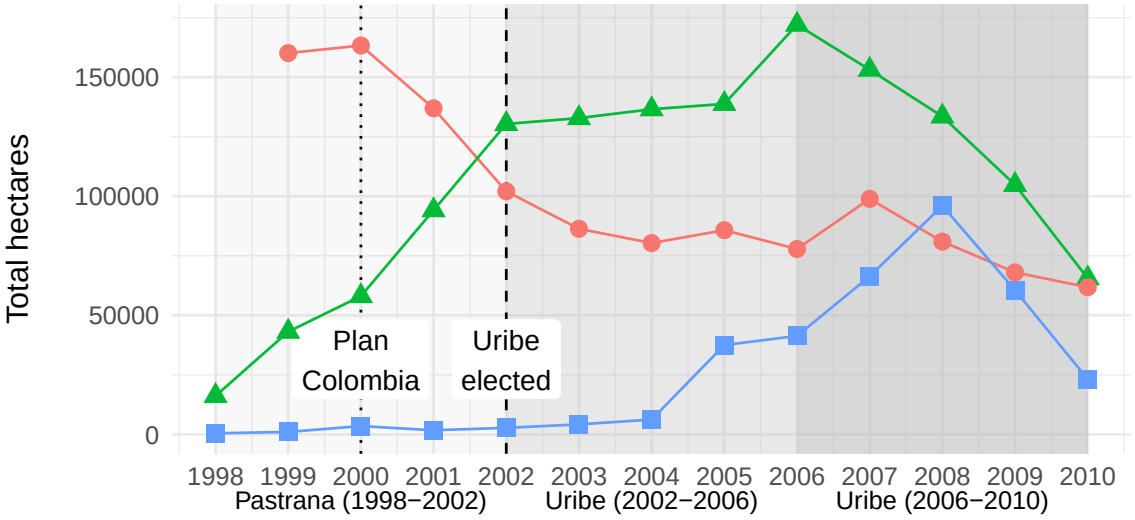

Public opinion figure

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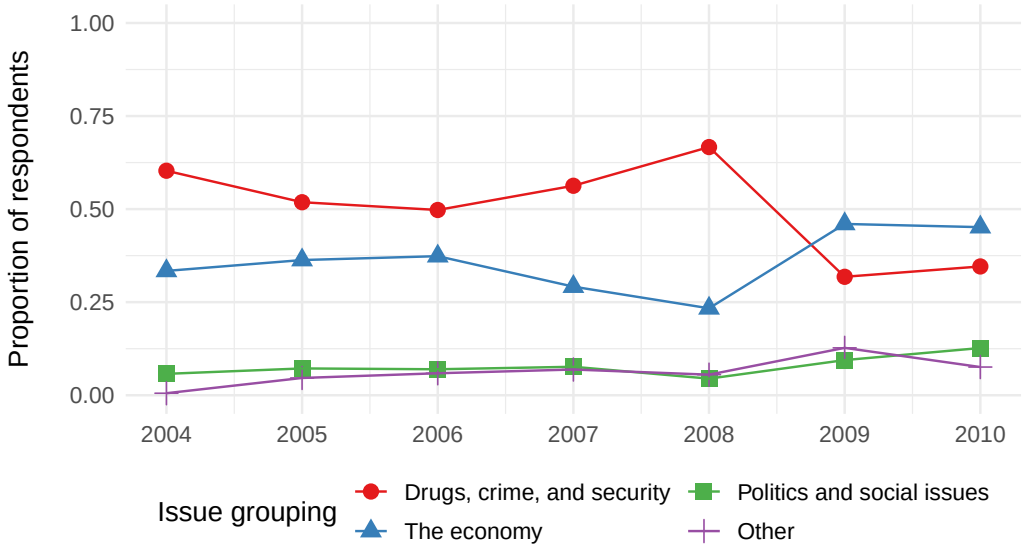

Geographies of cultivation and fumigation

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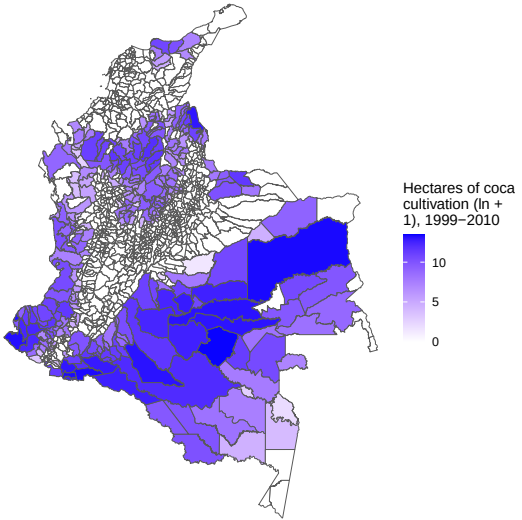

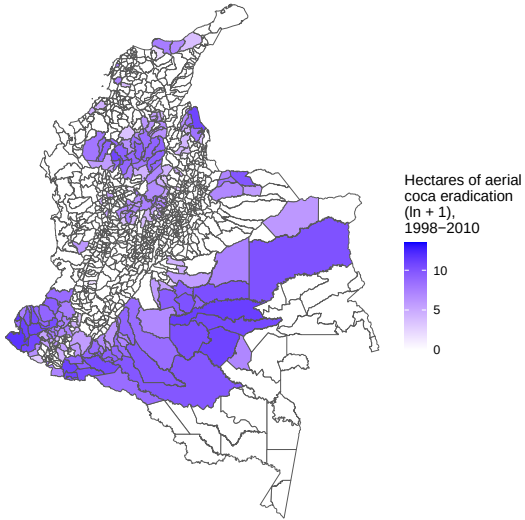

Geographies of violence

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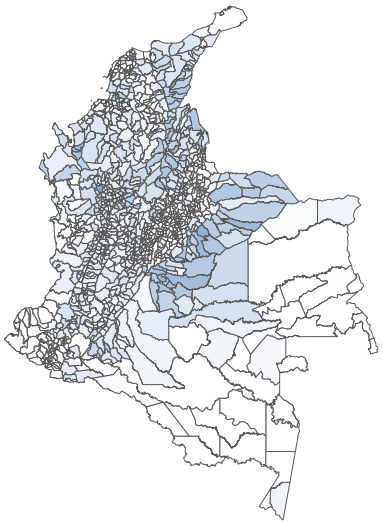
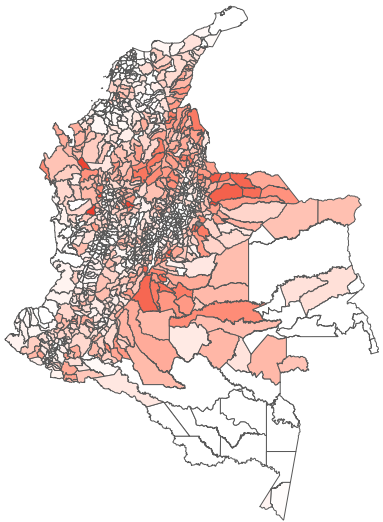


Paramilitary attacks per capita (ln + 1), 1988−2001

2.5
2.0
1.5
1.0
0.5
0.0



Guerrilla attacks per capita (ln + 1), 1988−2001

2.5
2.0
1.5
1.0
0.5
0.0

Event study estimating equation

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

- $Eradication_{i,t}$: measure of eradication in municipality i in year-month t
- P_i: time-invariant measure of paramilitary attacks
- G_i: time-invariant measure of guerrilla attacks
- $\mathbb{1}[y = j]$: year indicators
- γ_i: municipality fixed effects
- δ_t: year $\times$ month fixed effects

Parallel trends: July 2001 placebo

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Table: Formal test for parallel trends (Plan Colombia placebo), continuous treatment.

	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
Paramilitary attacks × 2001-2002	-7.338	-0.009	0.001
	(6.095)	(0.036)	(0.007)
Guerrilla attacks × 2001-2002	3.021	0.007	0.000
	(2.572)	(0.014)	(0.003)
R^2	0.10	0.28	0.29
Observations	15,264	15,264	15,264
Municipalities	318	318	318

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

Parallel trends: July 2000 placebo

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Table: Formal test for parallel trends (July 2000 placebo), continuous treatment.

	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
Paramilitary attacks × 2000-2002	-4.924	0.017	0.004
	(7.335)	(0.039)	(0.007)
Guerrilla attacks × 2000-2002	6.046*	0.013	0.001
	(3.602)	(0.017)	(0.003)
R^2	0.10	0.28	0.29
Observations	15,264	15,264	15,264
Municipalities	318	318	318

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

Controlling for baseline coca cultivation

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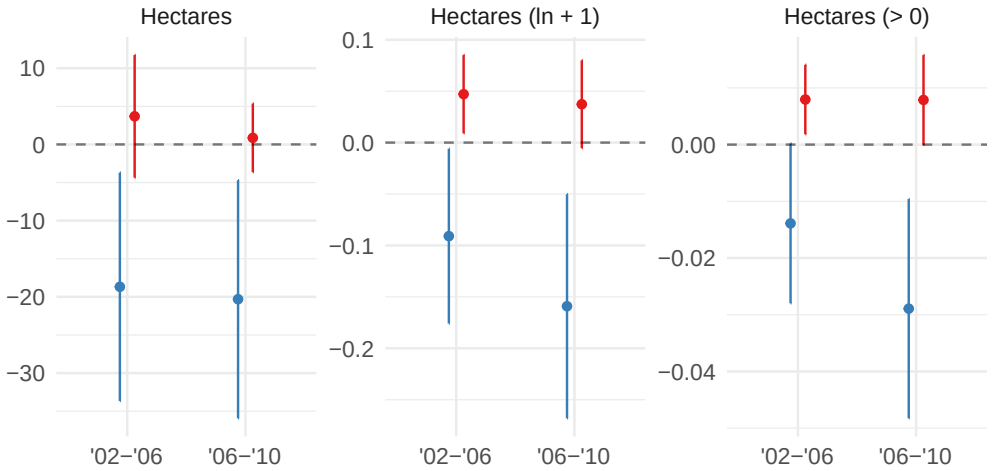

Controlling for lagged coca cultivation

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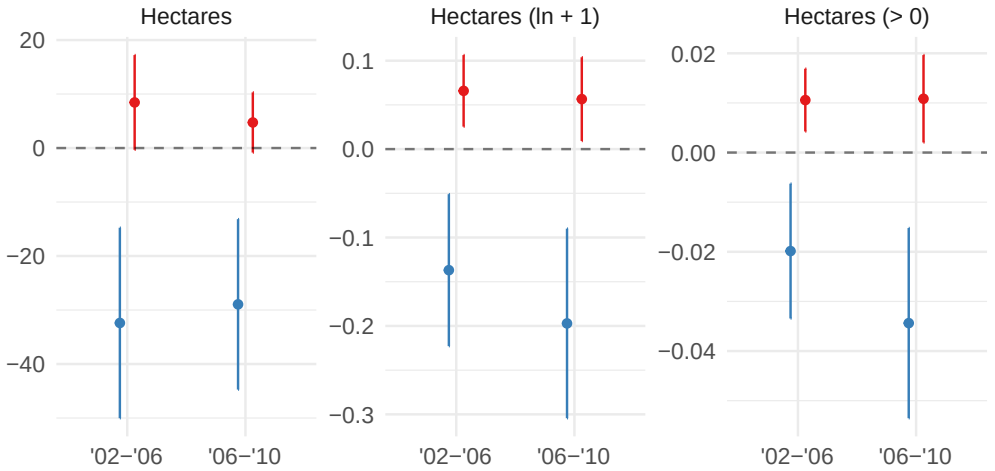

Proportion of yearly hectares eradicated

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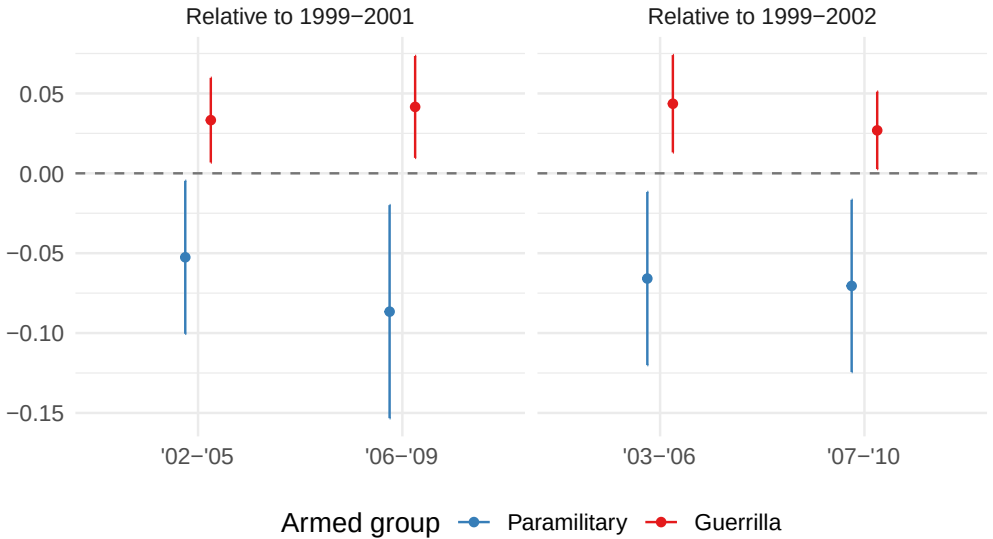

Full set of main results

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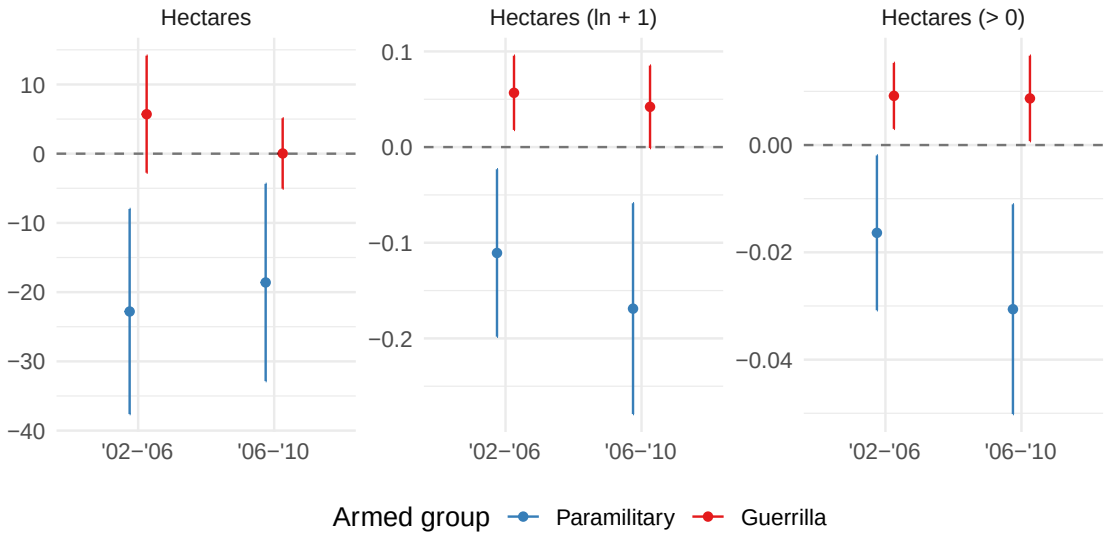

Full set of event study results

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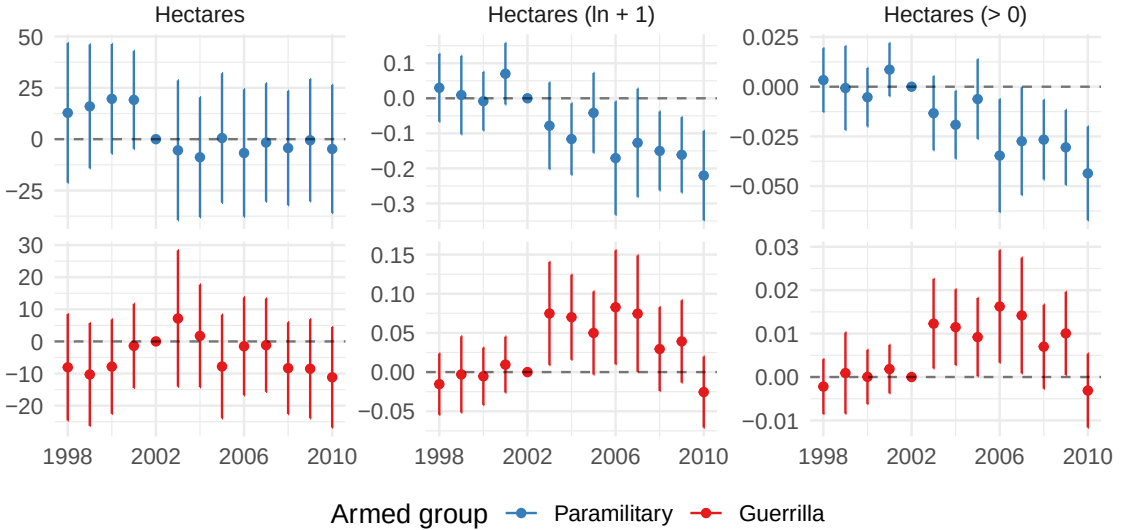

Binary measure of violence data

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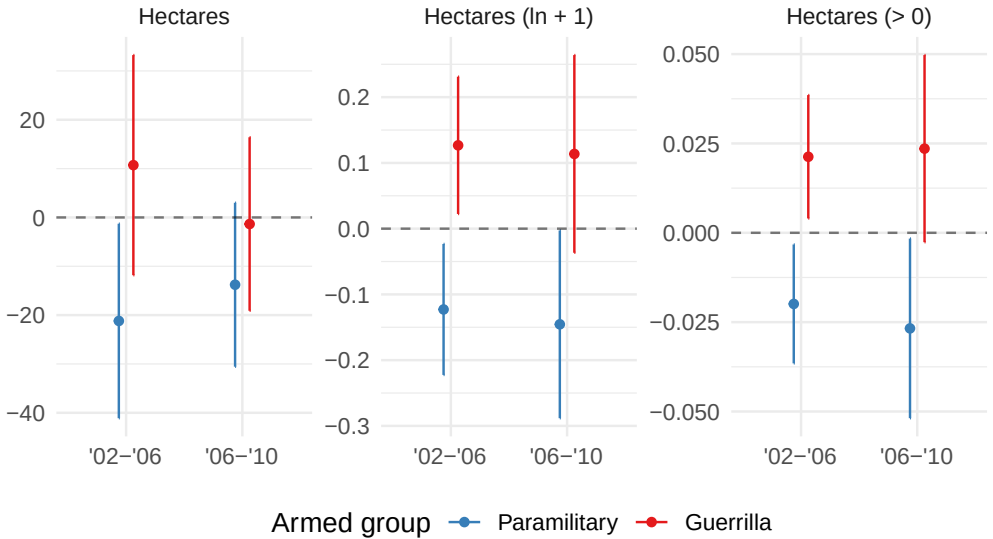

ln + 1 transformed violence data

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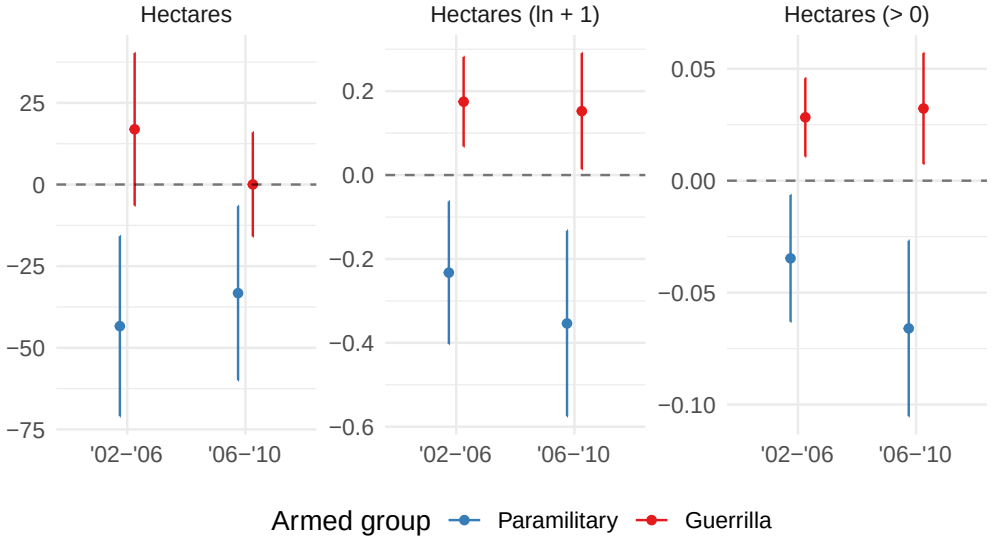

Pre-baseline violence data (1988-1997)

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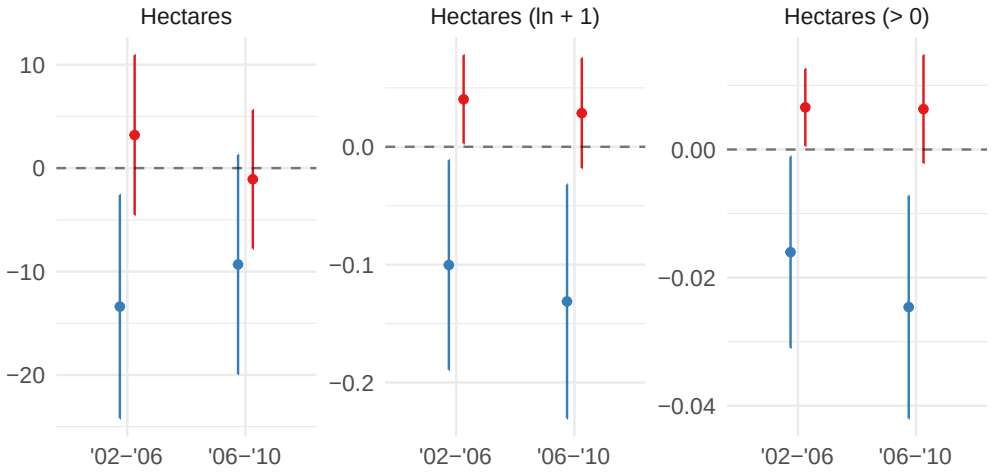

Using all municipalities

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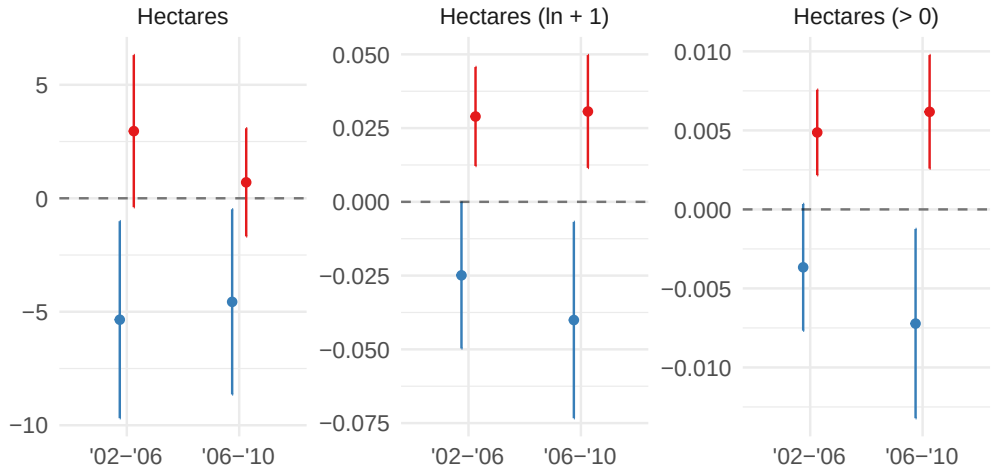

Cross-sectional results

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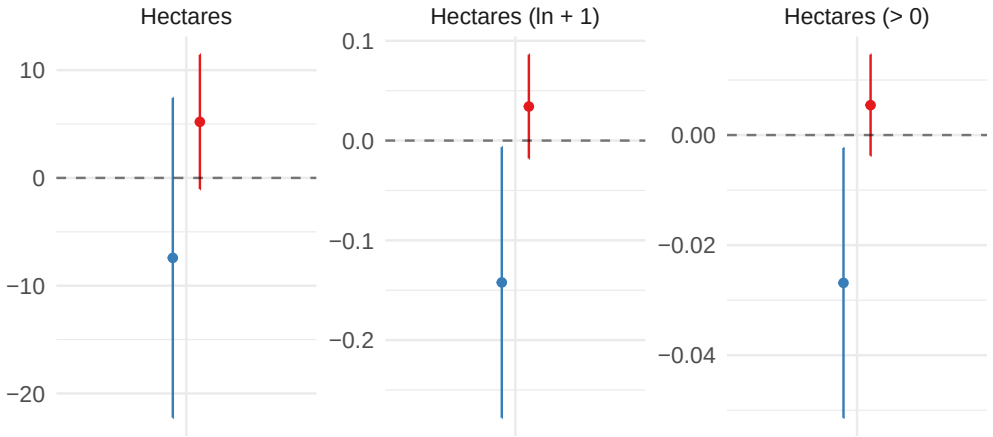

Electoral overperformance

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	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
Panel A: Aerial eradication (2002-2006)			
$\Delta^{2002}\times$ Paramilitary attacks	-100.954*	-0.419*	-0.066*
	(58.624)	(0.233)	(0.036)
R^2	0.04	0.10	0.09
Observations	13,680	13,680	13,680
Municipalities	285	285	285
Panel B: Aerial eradication (2006-2010)			
$\Delta^{2006}\times$ Paramilitary attacks	-3.182	-0.133	-0.022
	(38.673)	(0.446)	(0.082)
R^2	0.05	0.10	0.10
Observations	13,824	13,824	13,824
Municipalities	288	288	288

Notes: All specifications are estimated using OLS and include department and year $\times$ month fixed effects. Predictors are based on Ch et al. (2018) data for paramilitary and guerrilla attacks from 1988-2001 from Restrepo, Spagat and Vargas (2003) and updated by the Universidad del Rosario. Robust standard errors clustered by municipality are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Electoral violence

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	Hectares (1)	Hectares (ln +1) (2)	Hectares (> 0) (3)
Panel A: Aerial eradication (2002-2006)			
Electoral violence (2002)	-42.064	-0.235**	-0.037***
	(30.472)	(0.092)	(0.014)
R^2	0.04	0.11	0.10
Panel B: Aerial eradication (2006-2010)			
Electoral violence (2006)	-5.210	0.008	0.007
	(4.591)	(0.050)	(0.010)
R^2	0.05	0.10	0.10
Observations	14,208	14,208	14,208
Municipalities	296	296	296

Notes: All specifications are estimated using OLS and include department and year × month fixed effects. Predictors are based on Ch et al. (2018) data for paramilitary and guerrilla attacks from 1988-2001 from Restrepo, Spagat and Vargas (2003) and updated by the Universidad del Rosario. Robust standard errors clustered by municipality are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.