Silencing the Press in Criminal Wars

Why the War on Drugs Turned Mexico into the World's Most Dangerous Country for Journalists

ONLINE APPENDIX

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APPENDIX I

The Attacks on Journalists in Mexico Dataset

The Attacks on Journalists in Mexico (AJM) dataset is a compilation of four different sources that document lethal attacks against journalists. The first three sources are international non-governmental organizations that collect information about attacks on the press around the world: the Committee to Protect Journalists (CPJ), Article-19 (A19), and International Press Institute (IPI). Our fourth source, Reporteras en Guardia (ReG), is a collective of Mexican reporters that focuses specifically on the murders of journalists in Mexico. Our master database includes information about journalists killed between 1994 and 2019. Though violence against journalists is not limited to just murders, records of other forms of violence such as general threats, death threats, attempted murders, and kidnappings are not as systematic and are harder to confirm.

Definitions

In our data, a "journalist" refers to someone who covers the news or provides commentary on relevant information via any form of media, including newspapers, magazines, television, radio, and online platforms. This definition, similar to CPJ's,[1] does not limit the term to correspondents and thus includes photographers, editors, and owners. An issue that has become increasingly relevant is the matter of whether bloggers are considered journalists. Following international standards, when the journalist killed had an online platform that focused specifically on reporting or commenting on public issues and was not a personal account, we included the case in our dataset.

[1] https://cpj.org/about/faq.php.

As we explain in the main text, drawing strict boundaries between investigative and narrative reporting and photography is not always straightforward, as shown by our close engagement with Mexican journalists (national and local), our FGs, and the most influential studies that take in-depth looks at the work biographies of dozens of local journalists (e.g., Article-19 2024; Ibarra 2023). These blurred lines are particularly evident in local journalism, where resources tend to be scarce and multitasking is common, in contrast to national or international media companies where a clearer division of labor prevails and tasks are more delimited. Given the prevalence of multitasking in the Mexican local press, local reporters often conduct their own investigations about corruption and criminality, as illustrated by the case of Moisés Sánchez – a self-made reporter and editor of the Veracruz-based *La Unión: La Voz de Medellín*. At the same time, some of the most iconic local investigative journalists killed (e.g., Regina Martínez from Veracruz, Javier Valdez from Sinaloa, Miroslava Breach from Chihuahua) and their surviving colleagues who talked to us conducted their investigations in close collaboration with local reporters and photojournalists. As the influential Article-19 report (2024) explains, local reporters can be journalists with a college degree from a local university or self-made reporters (the so-called *empíricos*). While news outlets recognize these differences and pay them different salaries, Article-19 and other important reports recognize that both professionals and *empíricos* local reporters go beyond simply reporting events and engage in investigations of different depths. Even photojournalists, as participants in our FGs shared, are not passive participants but co-investigators, or when they work on their own they conduct investigations themselves to understand what photo images to take and their meanings.

Sources

Founded in 1981, the Committee to Protect Journalists (CPJ) is a non-profit organization that promotes freedom of the press across the world. CPJ documents attacks on the media. Such documentation focuses on murders, threats, censorship, imprisonment, and abduction. A full-time CPJ representative is often deployed to specific countries. In Mexico, the CPJ representative has an extensive network of national and local journalists who assist in the cross-verification of information about attacks. CPJ publishes an annual report about freedom of the press worldwide and a number of in-depth reports; the organization also conducts high-level advocacy campaigns on journalists' behalf, and provides comprehensive, life-saving emergency support.[2]

Article-19 is a UK-based international organization that promotes freedom of the press across the world. The Article-19 Mexico City office, staffed with a large team of media experts, human rights lawyers, and social scientists and historians, documents both lethal and non-lethal attacks on the media. They have an extensive network of contacts in the national and local press built over the course of nearly two decades of work in Mexico. We used their publicly available information about the assassinations of journalists, which includes multiple characteristics about the victims. Article-19 publishes an annual report about press freedom in Mexico, and its team of lawyers represents many journalists who have been target of lethal and non-lethal attacks.

The International Press Institute (IPI) is a global network made up of editors, journalists, and media executives from nearly 100 countries who promote independent journalism and defend freedom of the press through advocacy and network collaboration.[3]

[2] Ibid.
[3] ipi.media/about/.

Reporteras en Guardia (ReG) is a collective of over 100 female Mexican reporters dedicated to documenting and memorializing violence against journalists in Mexico. Their project *Matar a Nadie* highlights the murders and disappearances of reporters throughout Mexico. In addition, ReG provides a biographical profile of each murdered journalist.[4]

In general, each of the sources listed the name of the journalist, the date on which they were killed, which media organization(s) they worked for, their title, and the place where they were murdered or their body was found. In the few cases where one source did not have full details about a case, such as their title or media organization, the details were cross-checked with other sources – including national and subnational news outlets – using their name and date of murder.

While in many cases sources inferred who the perpetrators might be, unsurprisingly many of them could not definitely demonstrate culpability or confirm the murderers' identities. This was an issue across all four sources. In only few instances were alleged perpetrators charged with the murders. Very few, however, were actually prosecuted, as authorities later cited insufficient evidence. Pieces published right before a journalist's murder were often pointed to by the sources as possible motives for their murders.

Although CPJ reported the most information about perpetrators, the information was limited. CPJ reported 116 killings between 1994 and 2019, but the organization listed the names and institutional affiliation of likely perpetrators in only 22 cases, that is, in 19 percent of all cases. Article-19 does not provide information about perpetrators of killings but has systematic information about perpetrators of *non-lethal* attacks for recent years, from 2015 to the present.

[4] mataranadie.com/quienes-somos-2.

Because the information about likely perpetrators is severely limited across sources, we did not use it for purposes of statistical analysis.

APPENDIX II

Fieldwork

Our research was informed by multiple forms of engagement with local, national, and international journalists in Mexico; international freedom-of-expression NGOs; Mexican human rights NGOs; and Mexican government officials. Under IRB approval from the University of Notre Dame, these engagements involved (pre-COVID) face-to-face exploratory interviews and online (post-COVID) focus groups and in-depth interviews. The information gathered in these different engagements 1) guided us in navigating the rich landscape of data and journalistic investigations about attacks on the press in Mexico and 2) helped us to understand the challenges of journalism in the context of the drug wars, the potential drivers of attacks, and why reporters continue with their work despite the extraordinary risks they face.

Here we explain how we used the information from these multiple forms of engagement and how we adhere to the highest ethical principles in the social sciences. We distinguish between two types of information sources: first, members of international and Mexican NGOs and government officials and, second, local and national journalists.

Members of international and Mexican NGOs and government officials

To understand the landscape of different information sources, throughout 2019 and 2020 we held several in-depth interviews with two directors (Ana Cristina Ruelas and Leopoldo Maldonado), a deputy director (Paula Saucedo) and research associates of the Mexico City office of Article-19 (María DeVecchi, Pedro Cárdenas, and Sebastián Salamanca). Our initial questions had to do with Article-19's data generation process since their rigorous count of lethal and non-lethal

attacks against the press is a crucial information source for the Attacks on Journalists in Mexico (AJM) dataset, which we constructed. In 2019 we also talked to prominent human rights defenders who have played a key role in the development of the Mexican government's "Mechanism for the Protection of Journalists and Human Rights Defenders" (Edgar Cortez, from the Mexican Institute for Human Rights and Democracy, or IMDHD) and to government officials from the National Human Rights Commission (CNDH), who at the time of the interview were participating in the protection mechanism (Rodrigo Santiago). Between 2019 and 2021, we held exploratory conversations also with two of the most influential journalists who have developed national networks of local journalists (Marcela Turati from Quinto Elemento Lab) and Patricia Mayorga (Periodistas de a Pie) and with Katherine Corcoran (an international US journalists and former Associated Press Mexico Bureau Chief).

Local journalists

Because local journalists are the target of over 80 percent of lethal attacks, we spoke to local journalists to understand the challenges of covering Mexico's drug wars. By "local" we mean town and city-level journalists who work in their places of residence outside Mexico's capital city. We leveraged years of collaboration with Article-19 to collect fine-grained qualitative data and access to on-the-ground journalists who specialize in the intersection of crime, politics, corruption, and human rights. The most detailed source of information comes from three online focus groups (FGs) we conducted with Article-19 in June of 2022. We also conducted in-depth interviews with selected local, national, and international journalists.

Table A.II.a summarizes the anonymous information of the 10 local journalists who participated in the three focus groups and of the four in-depth interviews. Overall, we talked to

local journalists from eight different states. Seven of these states (Veracruz, Sinaloa, Michoacán, Guerrero, Jalisco, Chihuahua and Morelos) belong to four of the five hot spots of lethal attacks against the press identified in Map 1 of the main text. We also talked to journalists from a state that is not identified as a hot spot of attacks (Baja California). We intentionally spoke to local journalists from different subnational regions, age and seniority, sex, journalistic responsibility, and type of media outlet.

Table A.II.a. Online Focus Group Participants and Online In-depth Interviews

	Type of work	**Sex**	**Age/ Seniority**	**Place**	**Media type**	**Date**
Focus Groups						
Group 1						
Journalist 1	Reporter/editor	Female	Mid-age	Guerrero (under state protection program)	Local digital platform	June 2022
Journalist 2	Photojournalist	Male	Senior	Guerrero (formerly under state protection program)	Multiple local daily newspapers	June 2022
Journalist 3	Investigative	Female	Young	Morelos	Local and national newspapers	June 2022
Journalist 4	Editor	Female	Senior	Sinaloa	Local daily newspaper	June 2022
Group 2						
Journalist 5	Reporter/editor	Male	Senior	Michoacán	Local digital platform	June 2022
Journalist 6	Investigative	Female	Senior	Veracruz	Local and national newspapers	June 2022
Journalist 7	Reporter	Male	Young	Jalisco	Local newspaper and digital platform	June 2022
Group 3						
Journalist 8	Photojournalist	Male	Young	Veracruz and Michoacán	Multiple local and national newspapers	June 2022

Journalist 9	Reporter/editor	Male	Mid-age	Veracruz	Local newspaper	June 2022
Journalist 10	Reporter/editor	Male	Young	Veracruz	Local newspaper	June 2022
In-depth interviews						
Adela Navarro	Editor	Female	Senior	Baja California	*Zeta* magazine (weekly)	June 2022
Patricia Mayorga	Investigative	Female	Senior	Chihuahua	*Raíchali noticias* (local media plaftform covering indigenous Tarahumara Sierra) and *Periodistas de de a Pie* (national media platform for local journalists)	June 2022
Marcela Turati*	Investigative	Female	Senior	Mexico City and Chihuahua	*Quinto Elemento Lab* (media lab) and *A dónde van los desaparecidos* (local journalist network specialized on disappearances)	July 2019; September 2022
Katherine Corcoran*	Investigative	Female	Senior	Mexico City and the US (former AP Mexico Bureau Chief)	Associated Press and *Quinto Elemento Lab*	February 2020; January 2021; October 2022

*In-person interviews

We co-conducted the focus groups in close collaboration with Article-19. We used the theory, descriptive statistics, and findings from our quasi-experimental statistical models and Articles-19's extensive knowledge of each region's political, criminal, and journalistic landscape to guide the selections of invited journalists and the questions asked during the focus groups.

Article-19 reached out to five journalists per FG and the invitation to participate was made on behalf of them and of our research university team. Because these are at-risk journalists, many of which live under economic precarious conditions, our research team offered a small monetary compensation for participation. A member of Article-19 and a member of our research team co-conducted each of the three FGs. We communicated to the FG participants that an Article-19's psychologist was available if they needed to pause and get offline.

We organized three FGs around three topics: reporting on (1) the War on Drugs and the multiple localized conflicts it unleashed; (2) criminal governance; and (3) state-criminal collusion and gross human rights violations. Following our theory and statistical analysis, our questionnaires focused on the inherent risks journalists face when covering the federal intervention and the decapitation of drug lords; the control of territories, populations, and local governments by criminal structures; and gross human rights violations.

All groups began with questions of self-identification – whether journalists perceive themselves to be *war reporters* or not – and ended by discussing why journalists are killed and who kills them. In between these topics, FG1 debated how journalists' labor changed after 2006, when the government deployed military forces in joint operations to Mexico's most conflict zones. FG2 concentrated on the risks of reporting on criminal governance, and how journalistic coverage changes when a criminal group takes control of a region. FG3, in turn, exchanged views about the challenges of reporting on both government-criminal collusion and the human rights crisis that includes disappearances, clandestine graves, femicides, massacres, and the selective assassination of human rights activists and social leaders. In addition to these pre-set topics, all FGs included discussions about impunity, the existence of silence zones, the self-protection mechanisms journalists use to ensure their survival, and the impact of their work on

their mental health. While the first two groups included journalists from a wide range of states, FG3 zoomed in on Veracruz given the state's history of collusion and abuses, particularly during Javier Duarte's term (2010-2016) when journalist Regina Martínez was assassinated in 2012 (Table II.a).

In addition to the FGs, we conducted four in-depth interviews with journalists with ample knowledge about drug trafficking, state-criminal collusion, criminal governance, and human rights violations. We prioritized speaking to those who had worked directly with the murdered journalists included in our case studies or to journalists who were themselves conducting investigations about the killings.

After interviewing senior journalists and conducting the three FGs, we realized there was consensus on important points, including – as we detail in the main paper – the war-like nature of the Mexican setting, the collusion and confrontations between public authorities and organized criminal groups, the likely perpetrators, and actors' incentives to kill journalists. Combined with our theoretical argument, quantitative results, and in-depth knowledge of serious investigations by renowned local and international (groups of) journalists, we prioritized quality over quantity and figured that we had reached something close to saturation, in particular about the FGs' main goal: understanding the causal mechanisms driving the attacks against the press in Mexico, following our theoretical framework and statistical analysis.

APPENDIX III

Data used for descriptive analysis

Table A.III.a. Attacks on Journalists in Mexico (AJM) Dataset

Variable	Description	Primary Source
Journalists assassinated, 1994–2019	Assassination of journalist	Article 19; Committee to Protect Journalists (CPJ); International Press Institute (IPI); Reporteras en Guardia (ReG)
Name	Name of the journalist murdered	A19, CPJ, IPI and/or ReG
State	State in which the journalist was murdered	A19, CPJ, IPI and/or ReG. Cross-checked with national and subnational press when there were discrepancies among primary sources.
Municipality	Municipality in which the journalist was murdered	A19, CPJ, ReG and/or IPI. Cross-checked with national and subnational press when there were discrepancies among primary sources.
Year	Year in which the journalist was murdered	A19, CPJ, IPI and/or ReG.
News Outlet Geographic Coverage	Whether the journalist worked for an international, national, state-wide, or local (city or town) news outlet	A19, CPJ, IPI and/or ReG. Cross-checked with national and subnational press when there were discrepancies among primary sources.
Occupational Rank	Whether the journalist was an editor or owner of the news outlet, newsroom staff, or a reporter or photojournalist	A19, CPJ, IPI and/or ReG. Cross-checked with national and subnational press when there were discrepancies among primary sources.
Topic	Topic on which the assassinated journalist reported	A19, CPJ, IPI and/or ReG. Cross-checked with national and subnational press when there were discrepancies among primary sources.

Data used for regression analysis

Table A.III.b. Sources of State-level Variables

Variable	Description	Primary Source	Secondary Source
Journalists assassinated (count)	Number of journalists murdered	CPJ, A19, IPI, ReG	AJM Dataset
Journalists assassinated (dummy)	Dummy for journalists murdered	CPJ, A19, IPI, ReG	AJM Dataset
Military presence	Dummy for joint operations between armed forces and the federal police	National Public Security Program (PNSP), Sectorial Public Security Program (PSSP), National Defense Secretariat (SEDENA) (multiple annual activity and accountability reports), and CIDE's Drug Policy Program.	Flores-Macías (2018), Merino (2011), and Atuesta (2018)
Military intensity	Number of troops involved in each military operation	SEDENA and press	Atuesta (2018)
Homicide rate (t-1)	Total homicides per 100,000 people	Mexico's National Statistics Institute (INEGI)	Flores-Macías (2018)
GDP per capita (logged)	State's total output (pesos) divided by the state's population	INEGI	Flores-Macías (2018)
Debt/GDP	State's total debt divided by the state's GDP	INEGI	Flores-Macías (2018)
Taxation/GDP	Total revenue from local and state taxes divided by the state's GDP	INEGI	Flores-Macías (2018)
Vertical pol. fragmentation	Dummy for a state with a governor from a different party than the president	Centro de Investigación para el Desarrollo, A.C. (CIDAC)	Flores-Macías (2018)
Education attainment (yrs)	Educational attainment in years	INEGI	Flores-Macías (2018)

Table A.III.c. Sources of Municipal-level Variables

Variable	Description	Primary Source	Secondary Source
Journalists assassinated (count)	Number of journalists murdered	CPJ, A19, IPI, ReG	AJM Dataset
Journalists assassinated (dummy)	Dummy for journalists murdered	CPJ, A19, IPI, ReG	AJM Dataset
Decapitation	Count of cartel bosses who were imprisoned or killed	Sexto Informe de Gobierno, Office of the Mexican Presidency; and online searches on the main national and local Mexican newspapers.	Calderón et. al (2015)
Inter-cartel wars	Number of murders perpetrated by drug cartels and their private militias	*Reforma*, (1994-2012), *El Universal* (1994-2006), and *El Financiero* (1994-2006).	Trejo and Ley (2020)
Inter-cartel wars (dummy)	Dummy for murders perpetrated by drug cartels and their private militias	*Reforma*, (1994-2012), *El Universal* (1994-2006), and *El Financiero* (1994-2006).	Trejo and Ley (2020)
Criminal governance (attacks against mayors and local party candidates)	Lethal attacks against government authorities, political candidates, and party activists	Eight national daily newspapers, eighteen subnational daily newspapers, and two weekly magazines (2006-2012)	Trejo and Ley (2020)
Homicide rate (t-1)	Total homicides per 100,000 people	INEGI	
Public prosecutors per 10,000 population	Total number of prosecutors per 10,000 people	INEGI	
Partisan vertical fragmentation	Vertical partisan fragmentation	Centro de Investigación para el Desarrollo, A.C. (CIDAC)	

Municipal election	Year of municipal elections	CIDAC	
State election	Year of gubernatorial elections	CIDAC	
Municipal electoral competition	Effective number of parties at the municipal level	CIDAC	
State electoral competition	Effective number of parties at the state level	CIDAC	
Municipal alternation	Dummy for municipalities that experienced a rotation in the party in office	CIDAC	
State alternation	Dummy for states that experienced a rotation in the party in office	CIDAC	
Number of OCGs	Number of organized criminal groups	Automatized review of Mexican national and subnational press.	Coscia and Ríos (2012)
Institutional torture	Type of torture that requires a dedicated space, equipment, or training to be carried out effectively	National Survey of the Population Deprived of Liberty (ENPOL)	Magaloni and Rodríguez (2020)
Brute force	Captures (a) whether the individual was beaten or kicked and (b) whether the individual was beaten with objects. Responding affirmatively to one of the questions constitutes brute force torture	ENPOL	Magaloni and Rodríguez (2020)
Institutional threats	Threats by authorities, either to press false charges or to harm a detainee's family.	ENPOL	Magaloni and Rodríguez (2020)

APPENDIX IV

Alternative model specifications

As we discuss in the article, there are two crucial problems with using Generalized Linear Models (GLM) such as negative binomial and logistic regressions for our empirical tests.

The first, more consequential for our empirical analysis, is that because our dataset of lethal attacks on journalists includes a significant number of zero counts, there are many instances in which there is no change over time. When using GLM models, all these observations are dropped from the model. As Allison and Waterman (2002) and Guimarães (2008) observe, in cases of datasets with excess zero counts and overdispersion, the use of count models with fixed effects can lead to selection bias and has been criticized for not providing a true fixed effects analysis. This is because maximizing the conditional likelihood, as most software packages do, does not control for stable covariates. Scholars suggest, instead, the use of linear models.

The second, and theoretically more important, problem we face is the "incidental parameter problem," which indicates that fixed effects estimators from nonlinear panel data models can be severely biased. As Greene (2004) puts it, the maximum likelihood estimator in nonlinear panel data models with fixed effects is widely understood to be biased and inconsistent when T, the length of the panel, is small and fixed. As Greene and others suggest, the use of linear models is preferable because they are not affected by the incidental parameter problem.

In a linear model, one can look at within-group variation (FE) by differencing out the between-group variation, including group dummy variables as covariates. The linear model method transforms the data in such a way that a_i (the group dummies) drop out.

This becomes complicated in nonlinear maximum likelihood because it makes the standard numerical root finding solutions less effective at providing minimally biased results.

One cannot typically difference the dummy variables out and so they have to be estimated as parameters in the model. Put it simply, in nonlinear models, a_i (the group dummies) do not drop out when we difference out.

The basic problem is that when a number of largely unnecessary independent variables are included in a model, the shape of the likelihood function that has to be maximized gets distorted. This is because of the addition of extra dimensions to an already difficult multivariate calculus problem, making it more likely that the standard numerical solutions work poorly. In other words, in linear models a_i randomness gets "averaged out." In nonlinear models this does not happen.

To summarize, in the analysis reported in the main article we opt for OLS as the primary estimator because OLS models are not affected by the "incidental parameter problem" and because, despite the excess zeroes in our data, OLS allows us to conduct a fixed effect analysis without introducing the biases that a count model would. Finally, OLS models obviously facilitate interpretation—something strongly valued but alone not enough to get rid of GLM models.

While these reasons have led us to prefer OLS, here we show that our results hold irrespective of the model specification. Because some of our dependent variables are binary or count in nature, we also present logistic and negative binomial regressions, mirroring the results attained in the main body of the article.

Alternative specifications for the militarization strategy

Table A.IV.a incorporates additional specifications for the main models of militarization presented in the main text of the article, which use OLS regression with state and year fixed

effects. Model 1 reproduces the article's central results, Model 2 tests H.1 using an OLS with random effects, and Models 3 and 4 use negative binomial models with fixed and random effects, respectively. The fact that the results of Models 2–4 are consistent with Model 1 give us strong confidence about the results reported in the main body of the article.

Table A.IV.a The Impact of Militarization on Attacks on Journalists by the Mexican State, 1994 –2015

	(1) OLS-FE	(2) OLS-RE	(3) NB-FE	(4) NB-RE
Military intervention	0.67**	0.68**	1.12**	1.50***
	(0.23)	(0.23)	(0.40)	(0.33)
Homicide rate (t-1)	-0.01*	-0.00+	-0.00	-0.01+
	(0.00)	(0.00)	(0.01)	(0.01)
GDP per capita (logged)	0.13	0.07	3.87*	0.90
	(0.11)	(0.06)	(1.81)	(0.55)
Debt/GDP	0.03	0.03	0.17+	0.13+
	(0.03)	(0.03)	(0.10)	(0.08)
Taxation/GDP	0.20	0.28*	4.61**	1.54+
	(0.19)	(0.13)	(1.48)	(0.82)
Divided government	0.07+	0.10**	0.21	0.85**
	(0.04)	(0.04)	(0.36)	(0.28)
Education (years)	-0.11	-0.09	1.31	-0.60+
	(0.12)	(0.07)	(2.18)	(0.36)
N	672	672	441	672

Note: Standard errors clustered at the state level in parentheses. FE = Fixed Effects. NB = Negative Binomial.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

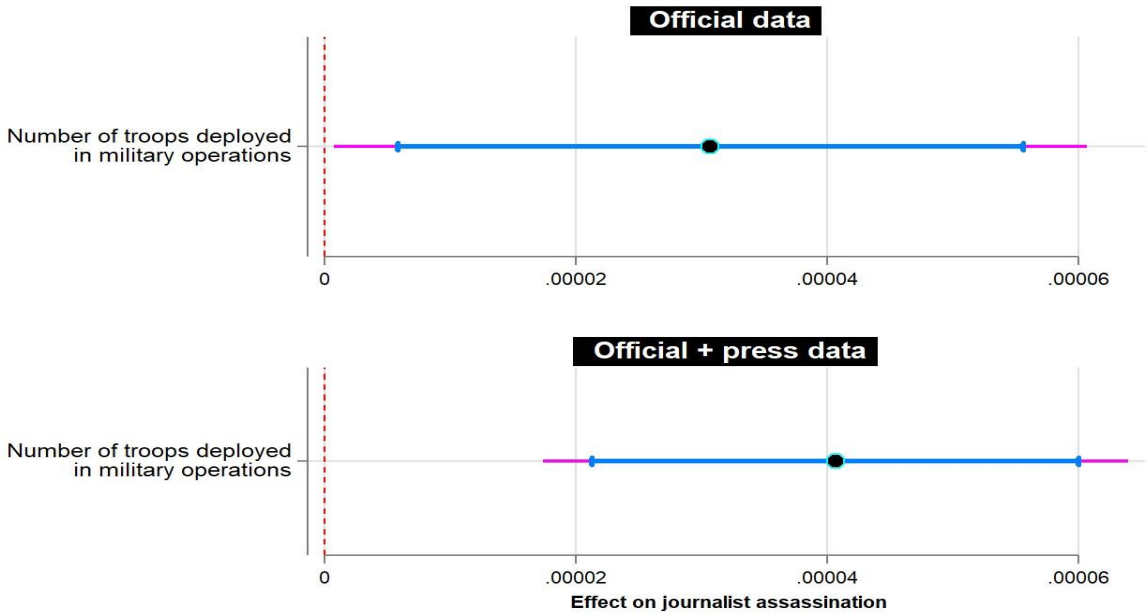
Table A.IV.b. The Impact of Militarization on Attacks on Journalists by Mexican State Using SEDENA and CIDE-PPD Data

	(1)	(2)	(3)	(4)
Military intervention (SEDENA data)	0.41*		0.44*	
	(0.17)		(0.20)	
Military intervention (CIDE-PPD data)		0.20**		0.18*
		(0.06)		(0.07)
Homicide rate (t-1)			-0.00+	-0.00
			(0.00)	(0.00)
GDP per capita (logged)			0.17	0.18
			(0.16)	(0.18)
Debt/GDP			0.04	0.04
			(0.03)	(0.04)
Taxation/GDP			0.30	0.33
			(0.24)	(0.23)
Divided government			0.05	0.06
			(0.04)	(0.04)
Education (years)			-0.32+	-0.54*
			(0.19)	(0.26)
N	704	704	672	672
State FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

Note: Entries are coefficients from OLS regressions. Standard errors clustered at the state level in parenthesis.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Our paper also shows that the effects of military intensity on the assassination of journalists are replicated when we use fine-grained information about military intensity, as captured by boots on the ground. We explain this in the main paper and show this visually in Figure A.IV.a, where we gauge the number of soldiers deployed through both official SEDENA data as well as official data complemented with press information. Using both sources, the findings indicate that lethal attacks on journalists increase as the deployment of state security forces in military operations also grows.

Figure A.IV.a. Military Intensity and the Assassination of Journalists



Note: 90% and 95% CIs shown. Official data come from SEDENA reports, supplemented in the graph below by newspaper articles.

Alternative specifications for the kingpin strategy

For robustness, we use negative binomial and rare event logistic models to retest H.2 – the decapitation strategy as a predictor of the assassination of journalists at the municipal level. We test for the count and a binary transformation of the dependent variable, using both fixed and random effects models (only for NB). As the results in Tables A.IV.c and A.IV.d show, our main findings as reported in the body of the article remain unchanged regardless of specifications.

Table A.IV.c. The Impact of Cartel Decapitation Strategy on Attacks on Journalists by Mexican Municipality (Negative Binomial Models)

	(1)	IRR	(2)	IRR	(3)	IRR	(4)	IRR
Decapitation (count)	0.42*	1.53	0.74***	2.10				
	(0.20)		(0.18)					
Decapitation (dummy)					1.25*	3.48	2.47***	11.81
					(0.51)		(0.48)	
N	420		24,097		420		24,097	
Model	FE		RE		FE		RE	
Controls	Y		Y		Y		Y	

Note: Entries are coefficients from negative binomial regressions with standard errors in parentheses. FE = Fixed Effects. RE = Random Effects. Fixed effects models include municipal dummies.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Table A.IV.d. The Impact of Cartel Decapitation Strategy on Attacks on Journalists by Mexican Municipality (Rare Event Logistic Regressions)

	(1)	(2)
Decapitation (count)	0.64***	
	(0.11)	
Decapitation (dummy)		2.80***
		(0.46)
N	24097	24097
Model	Rare Event Logit	Rare Event Logit
Controls	Y	Y

Note: Entries are coefficients from rare event regressions with clustered standard errors in parentheses.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Alternative specifications for inter-cartel wars

We also present results from negative binomial and rare event logistic regressions with fixed and random effects for H.3 – which tests the effect of inter-cartel wars on the assassination of journalists at the municipal level. As shown in Tables A.IV.e and A.IV.f, the main result is consistent with our findings reported in the main text, except for the random effects negative binomial model, which falls short of statistical significance (p = 0.11).

Table A.IV.e. The Impact of Inter-Cartel Wars on the Assassination vs. Journalists by Mexican Municipality (Negative Binomial Models)

	(1)	IRR	(2)	IRR	(3)	IRR	(4)	IRR
Inter-cartel violence	3.41***	30.12	1.41	4.10				
	(0.83)		(0.89)					
Inter-cartel violence (dummy)					2.17***	8.78	3.62***	37.32
					(0.41)		(0.32)	
N	864		36117		864		36117	
Model	FE		RE		FE		RE	
Controls	Y		Y		Y		Y	

Note: Entries are coefficients from negative binomial regressions with standard errors in parentheses. FE = Fixed Effects. RE = Random Effects. Fixed effects models include municipal dummies.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Table A.IV.f. The Impact of Inter-Cartel Wars on the Assassination vs. Journalists by Mexican Municipality (Rare Event Logistic Regressions)

	(1)	(2)
Inter-cartel violence	0.37***	
	(0.07)	
Inter-cartel violence (dummy)		3.72***
		(0.33)
N	36117	36117
Model	Rare Event Logit	Rare Event Logit
Controls	Y	Y

Note: Entries are coefficients from rare event regressions with clustered standard errors in parentheses. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Alternative specifications for criminal governance

We now present results from alternative models for our measure of criminal governance. Table A.IV.g displays estimates from random effects OLS and negative binomial models, as opposed to the fixed-effects regression presented in the main text. Using these specifications, we find that attacks against party candidates and public authorities during the prior years consistently and significantly predict the assassination of journalists across Mexican municipalities. Our results hold regardless of the time frame we use to measure attacks on candidates and authorities.

Table A.IV.g. Criminal Governance and Attacks on Journalists by Mexican Municipality (Random Effects Models)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Attacks on authorities (t-1)	0.04*** (0.00)					0.59** (0.18)				
Attacks on authorities (sum of 2 lags)		0.03*** (0.00)					0.68*** (0.18)			
Attacks on authorities (sum of 3 lags)			0.04*** (0.00)					0.75*** (0.18)		
Attacks on authorities (sum of 4 lags)				0.04*** (0.00)					0.70*** (0.17)	
Attacks on authorities (sum of 5 lags)					0.04*** (0.00)					0.68*** (0.18)
N	26,114	26,114	26,114	26,114	24,118	26,114	26,114	26,114	26,114	24,118
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Model	OLS	OLS	OLS	OLS	OLS	NB	NB	NB	NB	NB

Note: Entries are coefficients from OLS and negative binomial (NB) regressions with standard errors in parentheses.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Alternative specifications for disappearances

We similarly employ OLS and negative binomial random effects to assess the correlation between the number of disappearances in a municipality and the assassination of journalists. In both cases, the results show a positive, statistically significant relationship between enforced disappearances and the assassination of journalists. For example, the negative binomial model reported in Table A.IV.h indicates that the expected number of journalists murdered increases by 0.9 percent for each additional disappearance in a municipality-year—an independent variable

that ranges from 0 to 411 during our time period.

Table A.IV.h. Disappearances and the Assassination of Journalists by Mexican Municipality

	(1)	(2)	IRR
Number of Disappearances	0.00***	0.01***	1.00985
	(0.00)	(0.00)	
N	26,114	26,114	
Controls	Y	Y	
Model	OLS	NB	

Note: Entries are coefficients from OLS and negative binomial (NB) regressions with standard errors in parenthesis. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

APPENDIX V

Time Trends

This section provides additional information to understand the timing of militarization and lethal attacks on journalists.

We first explore time trends by running the following equation:

$$y_{st} = \alpha + \delta_s + \gamma_t + \varepsilon_{st},$$

where y_{st} indicates if a journalist was assassinated in any given state and year; δ_s and γ_t correspond to state and year fixed effects, respectively. We then plot predicted rates of murders by year in Figure A.IV.a. Similar to the descrptive in-text plot, the graph shows fewer journalists targeted before the onset of militarization campaigns. The OLS coefficient substantially increases after the deployment of federal troops by President Vicente Fox in 2005, but decline before the onset of President Felipe Calderón's War on Drugs in December 2006. When the militarization of public security intensified under Calderón, the predicted rate of journalist assassinations increased again. Even though after several years the predicted killings seemed to decline, the predicted rates were generally higher than before the outbreak of the War on Drugs.

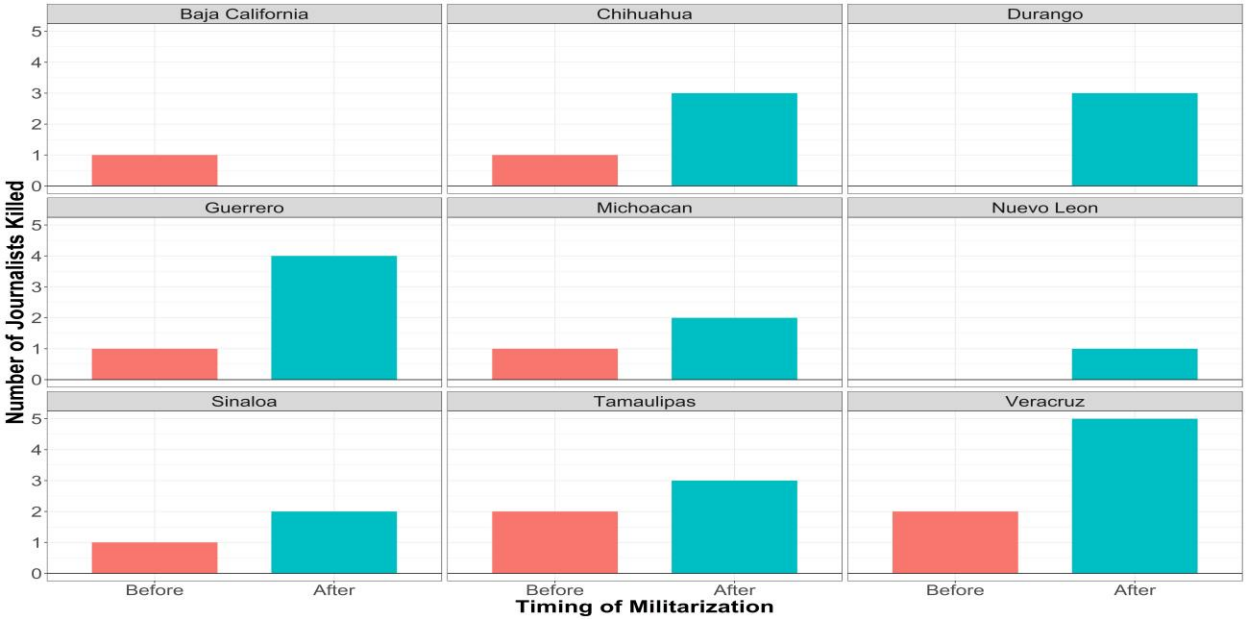
We then take a closer look at militarized states and examine the timing of attacks verus journalists. More specifically, we analyze whether lethal attacks on journalists increased after federal troops were deployed throughout treated Mexican states. This exercise allows us to consider the different timing of joint operations, as not all states experienced interventions in the same year, and potential heterogenous effects. Figure A.IV.b. shows that the number of journalists killed increased in virtually all militarized states – the exception being Baja California, where our dataset records only one journalist murdered before the War on Drugs and none after. Adela Navarro, the editor of the Tijuana-based *Zeta* magazine, confirmed this

exception. As she put it in our interview with her, in Baja California "things didn't change much with the War on Drugs under Calderón. The situation remained the same. We suffered attacks in 1987, 1997, and 2004. All of this happened before the War on Drugs." In the rest of the states, an increase in the number of journalists assassinated coincided with the onset of the War on Drugs, suggesting that joint operations worsened the conditions for journalists. This is most evident in Durango and Guerrero. In the former, no journalist had been lethally targeted before the federal troops were deployed in 2008, but three were killed between 2008 and 2015. In Guerrero, only one journalist had been murdered earlier, but four were murdered once joint operations began in 2007.

Figure A.V.a. Proportion of Journalists Killed by Year

Note: The graph plots predicted rates of journalist assassination by year along with their 95 percent confindence intervals from an OLS regression with state and year fixed effects. The solid red lines indicate the year President Vicente Fox launched his federal campaign against cartels (2005) and the onset of President Felipe Calderon's War on Drugs (2007).

Figure A.V.b. Journalists Assassinated Before and After Militarization



Finally, plots (a), (b), and (c) from Figure A.IV.c. display geographic variation over time in the number of lethal attacks on journalists. Before the militarization, there were only a few "hot spot" states. The northeast region, close to the US-Mexico border, was already somewhat dangerous for the press. Yet the deployment of federal troops expanded the zones under threat and spread the crime hot spots throughout Mexico, both to the north and to the south. By the end of the Enrique Peña Nieto administration, the number of dangerous regions dramatically increased, and states like Guerrero and Chihuahua became places in which reporting about corruption, state-criminal relations, and human rights abuses put journalists at high risk.

Figure A.V.c. The Geography of Lethal Attacks on Journalists over Time

(a) 2001-2006

(b) 2007-2012

(c) 2013-2018

Finally, Table A.V.a describes the timeline of federal military interventions by state, according to our primary measure (Flores-Macías 2018). As the dates of the interventions show, these were staggered actions involving approximately one-third of Mexican states.

Table A.V.a. Military Interventions in the War on Drugs in Mexico, by State and Date of Initial Deployment of the Armed Forces, According to Flores-Macías (2018)

STATE	YEAR OF MILITARIZATION
AGUASCALIENTES	Not Militarized
BAJA CALIFORNIA	2007
BAJA CALIFORNIA SUR	Not Militarized
CAMPECHE	Not Militarized
COAHUILA	Not Militarized
COLIMA	Not Militarized
CHIAPAS	Not Militarized
CHIHUAHUA	2008
DURANGO	2008
GUANAJUATO	Not Militarized
GUERRERO	2007
HIDALGO	Not Militarized
JALISCO	Not Militarized
MEXICO (CITY)	Not Militarized
MEXICO (STATE)	Not Militarized
MICHOACÁN	2007
MORELOS	Not Militarized
NAYARIT	Not Militarized
NUEVO LEÓN	2008
OAXACA	Not Militarized
PUEBLA	Not Militarized
QUERETARO	Not Militarized
QUINTANA ROO	Not Militarized
SAN LUIS POTOSÍ	Not Militarized
SINALOA	2008
SONORA	Not Militarized
TABASCO	Not Militarized
TAMAULIPAS	2008
TLAXCALA	Not Militarized
VERACRUZ	2011
YUCATÁN	Not Militarized
ZACATECAS	Not Militarized

APPENDIX VI

Parallel Trends

Difference-in-differences (DID) models do not assume random assignment of the treatment, as do randomized controlled trials. Rather, the key assumption is that confounders varying across units are time invariant, and that time-varying covariates are group invariant. Scholars refer to these two notions as the parallel trend assumption, which holds that the trajectories of treatment and control cases do not differ substantially. While the specific values of the dependent variable may be different across both groups, the effect we find can be treated as causal if they follow common trends. In the main text we offer evidence of the absence of pre-treatment effects. This subsection substantiates these claims by offering further proofs.

In Table A.VI.a, we perform additional tests to validate the parallel trends assumption (columns 2 and 3) and also exploit the bracketing relationship between DID designs and lagged dependent variables (LDV) models. In Model 1 we incorporate unit-specific time trends that relax the assumption of common trends between treated and control units. Model 2 alters the comparison groups relative to the baseline specifications in the article by estimating state-year fixed effects. This alternative specification averts assuming linear trends in the data when washing out over-time changes. These two models indicate that joint operations differentially affected militarized states, increasing the number of journalists assassinated by almost one relative to non-militarized states. Finally, the LDV model also lends support to H.1 by suggesting that the true effect of the deployment of federal forces is likely somewhere between 0.5 (half an additional journalist killed) and 1 (a change of one additional journalist murdered).

While the parallel trend assumption cannot be tested formally, a common alternative approach used in the literature is to analyze whether future treatment exposures are predicted by

current outcomes. This can be performed by including leading values of the treatment in the DID regressions, conditional on state and year fixed effects. This is frequently called a Granger causality test and serves to show that militarized states were not already on an increasingly violent path, or that future outcomes do not predict past treatments. In other words, we want to be sure that "causes happen before consequences and not vice versa" (Angrist and Pischke 2008, 237). The results of this exercise are shown in Table A.VI.b, which replicates the test both with and without covariates. The findings are strikingly similar in both columns and point to the same direction: the fact that none of the leading values is significant provides us with confidence that future militarization is not predicted by pretreatment trends. That none of the lags is significant suggests that the increase in attacks on journalists is taking place right after the treatment – the effect is not just occurring several years after the treatment but *immediately* after the launching of the military campaign. These results complement those from Figure 8 from the main text.

Finally, we use De Chaisemartin and D'Haultfoeuille's (2020) approach to calculate placebo estimators by comparing the evolution of "switchers" and "non switchers" before switchers are treated. Again, under the parallel assumption, placebo estimators should not significantly differ from zero. If placebos do differ from zero, the common trends assumption is violated. We implemented this procedure through the 'DIDmultiplegt' R package and found that none of the placebos are significant. Taken together, these additional tests boost our confidence that the common trends assumption is met.

Figure VI.I. Effect of Militarization on the Murder of Journalists over Time Using De Chaisemartin and D'Haultfoeuille's (2020) procedure

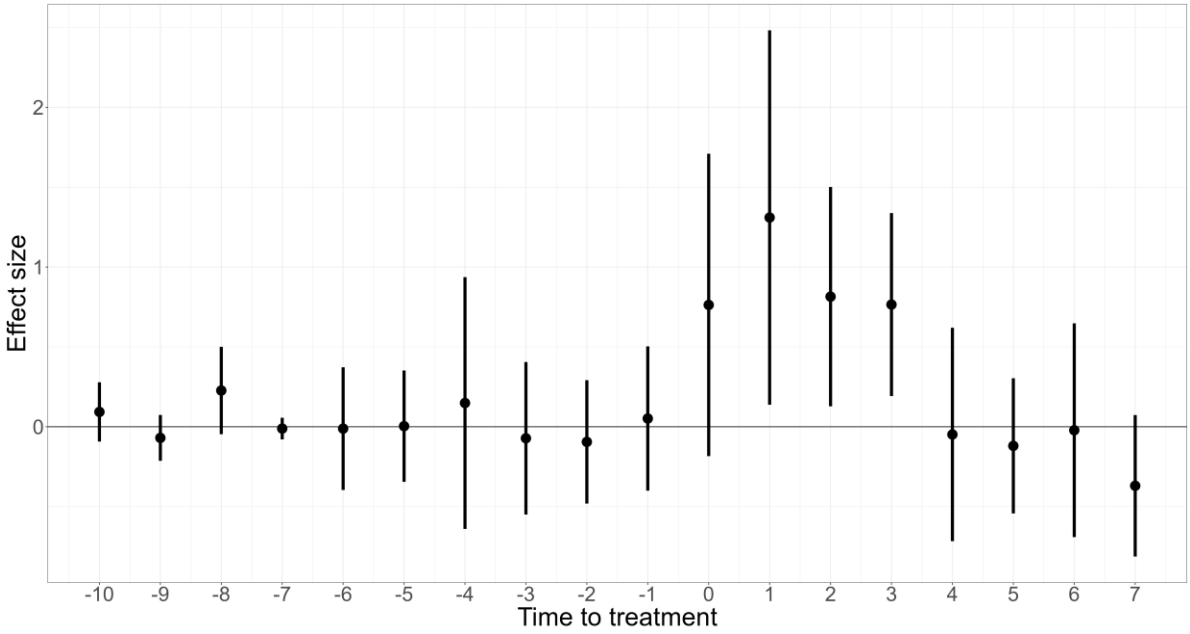


Table A.VI.a. The Impact of Militarization on the Murder of Journalists (Alternative Specifications)

	(1) DID	(2) DID	(3) LDV
Military intervention	0.95*	0.98**	0.53*
	(0.35)	(0.32)	(0.20)
Homicide rate (t-1)	-0.01*	-0.01**	-0.00
	(0.00)	(0.00)	(0.00)
GDP per capita (logged)	0.18	0.08	0.01
	(0.14)	(0.10)	(0.03)
Debt/GDP	0.00	-0.00	0.02
	(0.04)	(0.04)	(0.02)
Taxation/GDP	0.36	0.18	0.30**
	(0.29)	(0.22)	(0.11)
Divided government	0.03	0.04	0.08*
	(0.05)	(0.05)	(0.04)
Education (years)	-0.96	0.17	-0.07
	(0.62)	(0.31)	(0.05)
Lagged DV			0.24**
			(0.07)
N	672	672	672
Unit-specific time trends	Y		
State-by-Year FE		Y	
Year FE			Y

Note: Entries are coefficients from OLS regressions. Standard errors clustered at the state level in parentheses.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Table A.VI.b. The Impact of Militarization (Granger causality tests)

	(1)	(2)
Military intervention	0.85+	0.85+
	(0.47)	(0.47)
Homicide rate (t-1)		-0.01*
		(0.00)
GDP per capita (logged)		0.22
		(0.16)
Debt/GDP		0.02
		(0.04)
Taxation/GDP		0.53+
		(0.29)
Divided government		-0.00
		(0.04)
Education (years)		-0.13
		(0.28)
Military intervention (t+3)	0.18	0.20
	(0.14)	(0.15)
Military intervention (t+2)	-0.11	-0.11
	(0.20)	(0.20)
Military intervention (t+1)	0.05	0.06
	(0.19)	(0.19)
Military intervention (t-1)	0.55	0.59
	(0.41)	(0.41)
Military intervention (t-2)	-0.59	-0.48
	(0.67)	(0.63)
Military intervention (t-3)	-0.61	-0.53
	(0.40)	(0.39)
N	512	512
State FE	Y	Y
Year FE	Y	Y

Note: Entries are coefficients from OLS regressions. Standard errors clustered at the state level in parentheses.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

APPENDIX VII

Additional Tests

Testing the effect of subnational alternation and electoral cycles

Recent literature shows that criminal violence is frequently associated with election-related factors. In weak democracies, power fragmentation and rotation in office have been found to be strong predictors of drug war violence as well as high-profile attacks on mayors and local party candidates (Trejo and Ley 2020). We test whether lethal attacks on journalists cluster around subnational election cycles or whether they are more likely to take place in competitive races or when an opposition party unseats the incumbent.

The results, reported in Tables A.VII.a, b, and c report no discernible effect of electoral variables on the assassination of journalists.[5] Our null findings suggest that electoral dynamics do not have a direct effect on selective lethal violence against journalists. This does not mean that politics is unimportant in accounting for the assassination of members of the press. As we show in the body of the article, the rise of drug cartels as de facto local rulers is a strong predictor of the assassination of journalists.

Table A.VII.a. The Impact of Election Cycles on the Assassination of Journalists by Mexican Municipality

	(1)	(2)	(3)	(4)
Municipal election	-0.00	0.00	-0.10	0.13
	(0.00)	(0.00)	(0.35)	(0.27)
State election	-0.00	-0.00	0.02	-0.06
	(0.00)	(0.00)	(0.22)	(0.13)
N	24216	24216	216	24216
Model	OLS	OLS	NB	NB
Municipal FE	Y		Y	
Year FE	Y		Y	
Controls	Y	Y	Y	Y

Note: Clustered standard errors in parentheses. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

[5] Note that differences in the number of observations each model employs respond to data availability.

Table A.VII.b. The Impact of Party Alternations on the Assassination of Journalists by Mexican Municipality

	(1)	(2)	(3)	(4)
Municipal electoral competition	0.00	-0.00	0.32	-0.16
	(0.00)	(0.00)	(0.40)	(0.27)
State electoral competition	-0.01	-0.00	-2.91+	-0.80
	(0.01)	(0.00)	(1.65)	(0.55)
N	10068	10069	165	10069
Model	OLS	OLS	NB	NB
Municipal FE	Y		Y	
Year FE	Y		Y	
Controls	Y	Y	Y	Y

Note: Clustered standard errors in parentheses. Controls include the number of prosecutors per 100,000 population and homicide rates in t-1. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Table A.VII.c. The Impact of Party Alternation on the Assassination of Journalists by Mexican Municipality

	(1)	(2)	(3)	(4)
State alternation	0.00	0.00	0.13	0.07
	(0.00)	(0.00)	(0.44)	(0.35)
Municipal alternation	-0.00+	-0.00	-0.43	-0.38
	(0.00)	(0.00)	(0.39)	(0.30)
N	26110	26110	546	26110
Model	OLS	OLS	NB	NB
Municipal FE	Y		Y	
Year FE	Y		Y	
Controls	Y	Y	Y	Y

Note: Clustered standard errors in parentheses. Controls include the number of prosecutors per 100,000 population and homicide rates in t-1. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Urban versus rural

We now evaluate whether attacks on journalists occur primarily in urban and/or urban municipalities. As we note in the paper, this is a complex question because even when most journalists lived in the urban municipal seat of smaller municipalities, they often reported on armed disputes taking place in the rural peripheries of their municipalities. We examine the nature of this phenomenon in two ways: we first examine if our findings hold when we control

for whether a municipality is rural versus urban and then conduct subgroup analysis comparing rural versus urban municipalities.

Table A.VII.d examines the robustness of our municipal-level main findings to the inclusion of the *Rural* control using negative binomial models with random effects (because fixed effects models cannot incorporate a mostly time-invariant variable such as *Rural*). We find that our findings remain highly similar and significant. Interestingly, the coefficients for *Rural* are always negative and significant, suggesting that most lethal violence against the press occurs in urban municipalities.

Table A.VII.d. The Conflict Dynamics Unleashed by the War on Drugs and the Assassination of Journalists by Mexican Municipality, Controlling for Municipal Rurality

	(1)	(2)	(3)	(4)	(5)
Decapitation	2.19***				
	(0.48)				
Inter-cartel violence		0.75			
		(0.66)			
Inter-cartel violence (dummy)			3.32***		
			(0.36)		
Criminal governance				0.71***	
				(0.17)	
Number of Disappearances					0.01***
					(0.00)
Homicide rate (t-1)	0.01**	0.00	0.00	0.00+	0.00+
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Prosecutors per 100,000	1.62	0.74	0.49	5.58*	1.48
	(1.61)	(2.24)	(2.11)	(2.45)	(1.45)
Rural	-1.78***	-2.00***	-1.27**	-1.73***	-1.89***
	(0.47)	(0.46)	(0.43)	(0.48)	(0.44)
N	22,101	24,115	24115	24,118	24,118

Note: Entries are coefficients from negative binomial regressions with standard errors in parenthesis.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

To further assess this claim, we then use our preferred model specification (fixed-effects OLS) to conduct a subgroup analysis and assess whether the conflicts unleashed by the War on Drugs are

more lethal for journalists in urban or rural municipalities. We find in Table A.VII.e that these localized conflicts increase risks for reporters in urban but not necessarily in rural settings. These findings offer additional clarity about the nature of the phenomenon we study, although we interpret these results with caution because they speak to the place in which journalists are targeted rather than the specific settings about which they shed light on.

Table A.VII.e. The Conflicts Unleashed by the War on Drugs and the Assassination of Journalists by Mexican Municipality, Subgroup Analysis: Rural versus Urban

	Urban				Rural			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Decapitation	0.02				0.04			
	(0.01)				(0.04)			
Inter-cartel violence		0.01**				0.00		
		(0.00)				(0.00)		
Criminal governance			0 .03+				0.00	
			(0.02)				(0.00)	
Disappearances				0.00***				-0.00+
				(0.00)				(0.00)
Homicide rate (t-1)	0.00	-0.00	0.01+	-0.00	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Prosecutors per	-0.10*	-0.09*	8.12*	-0.08*	-0.01	-0.01	3.88	-0.01
100,000	(0.04)	(0.04)	(4.11)	(0.04)	(0.01)	(0.00)	(3.16)	(0.00)
N	11,010	12,015	12,016	12,016	11,089	12,100	12,102	12,102

Note: Entries are coefficients from two-way fixed effects OLS regressions with cluster robust standard errors in parenthesis. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Cartels and violence against the press

Table A.VII.f suggests that the odds of lethal attacks against journalists significantly increase with the presence of the Tijuana, La Familia Michoacana, Golfo, Zetas and, to a lesser degree,

Sinaloa and Beltran Leyva cartels.

Table A.VII.f. Which Cartels Are More Dangerous for Journalists

	(1)
Beltran Leyva	2.09+
	(0.87)
Familia	3.24**
	(1.29)
Golfo	3.13**
	(1.19)
Juarez	0.51
	(0.44)
Sinaloa	2.13+
	(0.89)
Tijuana	4.05*
	(2.40)
Zetas	3.02**
	(1.18)
Other cartels	0.69
	(0.42)
Homicide rates (t – 1)	1.01+
	(0.00)
Prosecutors per 100,000	6.52+
	(7.24)
Rural	0.26**
	(0.13)
N	22100

Note: Entries are incidence-rate ratios (IRR) from negative binomial regressions with standard errors in parenthesis. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Alternative measure of gross human rights violations

In the paper we focus on one type of gross human rights violation: enforced disappearance. Here, we show that our central findings remain unchanged when we focus on the broader set of serious abuses. Specifically, we leverage Flores-Macías and Zarkin's (2023) original data on municipal-level serious human rights violations perpetrated by federal security forces per 100,000

population. The authors obtained these granular data through a series of right-to-information petitions and recorded 18,504 complaints—of which 12,437 entail serious abuses—filed before the National Human Rights Commission (CNDH) against federal security agencies. These serious violations include "arbitrary detention, arbitrary use of force, cruel and inhumane treatment, disappearance, extrajudicial killing, false allegation of a crime, homicide, intimidation, illegal retention, sexual violence, and torture" (Flores-Macías and Zarkin 2023, 9). Because we intend to capture gross human rights abuses, we concentrate on serious violation complaints instead of focusing on less serious transgressions such as failing to adhere to procedures during seizures. Our results, presented in Table A.VII.g, show a positive and marginally significant association between complaints and journalists' assassination ($p = 0.093$).

Table A.VII.g. The Association between Gross Human Rights Violations and the Assassination of Journalists by Mexican Municipality

	(1)
Human rights abuse complaints federal security agencies	0.00+ (0.00)
N	24,118
Municipal FE	Y
Year FE	Y
Controls	Y

Note: Entries are coefficients from OLS regressions with cluster robust standard errors in parenthesis.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001.

APPENDIX VIII

Additional Causal Mechanisms

Testing the effect of cartel decapitation on fragmentation

We examine a result that is often taken for granted – whether the decapitation strategy Mexican authorities implemented actually fragmented the criminal underworld. We use information from Coscia and Rios (2012) about the number of cartels by municipality for the 1994–2010 period. This test represents a keystone of our argument because we claim that the military interventions fragmented the criminal underworld and incentivized cartels to use violence to control information about international fractures and breakaways. While in the main text we show that cartel entry in a municipality-year dramatically expanded the risk for the press, Table A.VIII.a reports that the arrest or killing of drug leaders and/or lieutenants actually fragmented the criminal landscape. On average, after a cartel decapitation the number of organized criminal groups increased by one relative to unaffected municipalities.

Table A.VIII.a. The Impact of Decapitation on Cartel Fragmentation by Mexican Municipality

	(1) Number of OCGs
Cartel Decapitation	1.01*** (0.09)
N	24,094
Municipal FE	Y
Year FE	Y
Controls	Y
Time Period	1994-2010

Note: Entries are coefficients from OLS regressions. Standard errors clustered at the state level in parentheses.
+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Bitter intra-cartel fragmentation, often resulting from the government's cartel decapitation strategy, often unleashed conflicts that led to the victimization of journalists, as in the case of Javier Valdez. Table A.VIII.b reports statistical evidence showing that this was not an isolated case but part of a more general pattern. Drawing on Coscia and Rios's (2012) data on the number of cartels by municipality for the 1994–2010 period, results from two difference-in-differences models show that risks for journalists are indeed higher in municipalities experiencing greater cartel fragmentation than those in which cartels remain united.

Table A.VIII.b. The Impact of Cartel Fragmentation on Journalists' Murders by Mexican Municipality, 1994–2010

	(1) Count of journalists murdered	(2) Dummy for journalists murdered
Number of cartels	0.01***	0.00***
	(0.00)	(0.00)
N	24,094	24,094
Municipal FE	Y	Y
Year FE	Y	Y
Controls	Y	Y
Time Period	1994-2010	1994-2010

Note: Entries are coefficients from OLS regressions. Standard errors clustered at the municipal level in parentheses. The model controls for previous homicide rates and public prosecutors per 10,000 population. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Testing the effect of militarization on torture

In the context of the multiple armed conflicts triggered by the War on Drugs, journalists reporting about state repression and abuse and about state-criminal collusion – like Regina Martínez did – are particularly vulnerable to lethal attacks. As shown in Table A.VIII.c., this is a context that was not unique to Veracruz but to any state where the army had been deployed. Following Magaloni and Rodríguez (2020), we leverage information from a unique survey of prison inmates to show that military intervention increased the prevalence of torture, the extra-

legal use of brutal force, and blackmail by federal and state security forces against alleged criminals. Journalists like Martínez reporting on these contexts of state repression and abuse faced heightened risks of lethal attacks.

Table A.VIII.c. The Impact of Militarization on Institutional Torture

	(1) Institutional Torture	(2) Brute Force	(3) Institutional Threats
Military intervention	0.09***	0.06**	0.06***
	(0.02)	(0.02)	(0.02)
N	49226	49272	49204
State FE	Y	Y	Y
Year FE	Y	Y	Y

Note 1: Entries are coefficients from OLS regressions. Standard errors clustered at the municipal level in parentheses. All models control for socioeconomic characteristics (sex, education, age at arrest, income, illiteracy, and whether the individual speaks an indigenous language). + p<0.1; * p<0.05; ** p<0.01; *** p<0.001
Note 2: Institutional torture is the kind that requires a dedicated space, equipment, or training to be carried out effectively (Magaloni and Rodríguez 2020).
Note 3: "Brute force captures (a) whether the individual was beaten or kicked and (b) whether the individual was beaten with objects. Responding affirmatively to one of the questions constitutes brute force torture" (Magaloni and Rodríguez 2020).
Note 4: Institutional threats are threats by authorities, either to press false charges or to harm a detainee's family.

Testing the effect of cartel decapitation, fragmentation, and inter-cartel wars on criminal governance

In this section we probe whether criminal war dynamics lead to subnational criminal governance regimes. We analyze whether cartel decapitation, criminal fragmentation, and inter-cartel wars increase the likelihood of high-profile criminal attacks through which drug cartels attempt to become de facto rulers and control local populations, economies, and territories. In the main text, we operationalize criminal governance as the total number of attacks on party candidates and local government officials in the previous three years because we use criminal governance as an independent variable. Because we now employ it as an outcome instead, here we proxy for criminal governance with the number of attacks in t to prevent reverse causality concerns (i.e.,

retrieving measures of the outcomes that occur *before* the independent variables). In Tables A.VIII.d, e, and f, we run fixed effects OLS and random effects negative binomial models. Our results are generally consistent with our theoretical expectations that the dynamics of state-cartel and inter-cartel wars offered criminal organizations powerful incentives to develop criminal governance regimes.

Overall, we find strong evidence that the fragmentation of the criminal underworld and the inter-cartel wars contributed to intensify lethal attacks on municipal authorities and party candidates. Results from the negative binomial model in Table A.VIII.d show that cartel fragmentation is associated with a 113-percent increased risk of assassination of mayors and local party candidates. Results in Table A.VIII.e show that the likelihood of criminal attacks on mayors and local party candidates also increased following major inter-cartel wars. While the use of the kingpin strategy by the Mexican government is a weak predictor of attacks on municipal officials and party candidates, results from the negative binomial regression models shown in Table A.VIII.f do suggest that criminal war dynamics lead to the de facto reconfiguration of local orders. This is relevant because local journalists reporting about inter-cartel wars, gross human rights violations, and state-criminal collusion in their cities were subject to lethal attacks.

Table A.VIII.d. Cartel Fragmentation and High-Profile Criminal Attacks in Mexican Municipalities

	(1) OLS	(2) Neg. Bin.	IRR
Number of Cartels	0.02*** (0.01)	0.76*** (0.08)	2.13
N	24,094	24,094	
Municipal FE	Y		
Year FE	Y		
Controls	Y	Y	

Note: Standard errors clustered at the municipal level in parentheses. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Table A.VIII.e. Inter-Cartel Wars and High-Profile Criminal Attacks in Mexican Municipalities

	(1) OLS	(2) Neg. Bin.	IRR
Inter-Cartel Wars (dummy)	0.07***	3.31***	27.38
	(0.01)	(0.15)	
N	26,110	26,110	
Municipal FE	Y		
Year FE	Y		
Controls	Y	Y	

Note: Standard errors clustered at the municipal level in parentheses. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Table A.VIII.f. The Impact of Decapitation on High-profile Criminal Attacks by Mexican Municipality

	(1) OLS	(2) Neg. Bin.	IRR
Cartel Decapitation	.03**	1.43***	4.17
	(0.05)	(0.21)	
N	24,095	24,097	
Municipal FE	Y		
Year FE	Y		
Controls	Y	Y	

Note: Standard errors clustered at the municipal level in parentheses. + p<0.1; * p<0.05; ** p<0.01; *** p<0.001

APPENDIX IX

Evidence about likely perpetrators

In a context of 98 percent impunity rate, in which Mexican authorities systematically fail to investigate the assassination of journalists, we know very little about perpetrators of lethal attacks against the press. Some of the most influential journalistic investigations about the assassination of local journalists in Mexico (Colectivo 23 de Marzo 2019; Corcoran 2022; Forbidden Investigations 2022; Article-19 2024) report that, without any serious evidence, police and judicial authorities tend to quickly conclude that the assassinations have nothing to do with the journalists' professional activities and that are the byproduct of personal vendettas (e.g., crimes of passion) or of the journalists' engagement in illegal activities (e.g., consumption of illegal drugs). For example, Veracruz's Attorney General Office initially downplayed signs of torture and dismissed the notion that the killing of Regina Martínez was related to her job, instead attributing it to a robbery resulting from an alleged crime of passion (Corcoran 2022). When they concede that the assassination may be related to the journalists' professional activities, police investigations typically follow an "individualistic" approach, and law enforcement agents arrest an alleged material perpetrator (a loner who often reports to have been victim of torture) but fail to investigate both material and intellectual perpetrators and their potential government allies (Article-19 2024). In most cases, authorities simply attribute the murders to "organized criminal" actors, and investigations intentionally remove or fail to follow any evidence that may implicate government officials (Colectivo 23 de Marzo 2021; Corcoran 2022; Article-19 2024).

The absence of serious investigations and the universal impunity have led local and international journalists and multinational organizations to conduct in-depth investigations of

"micro" cases of individual journalists murdered and "macro" cases of multiple journalists assassinated in specific Mexican regions under a single subnational government administration. While these findings do not constitute official criminal investigations, they are conducted as if journalists investigating these murders were effective and unbiased public prosecutors, laying out hypotheses, gathering evidence from multiple sources, and meticulously testing all the available hypotheses and making a case for the most likely explanation of the assassination(s).

Consistent with the information that our focus group (FG) participants conveyed about likely perpetrators of lethal attacks, all "micro" and "macro" investigations find strong evidence of the likely active participation of subnational government officials and their likely collusion with drug cartels and other organized criminal groups (OCGs) in the assassination of journalists. While all studies suggest that incentives for killing may vary and that the impetus for killing may sometimes be more evident for drug lords and others for subnational government officials, every serious study that looks into the assassinations and the flawed police investigations underscores how hard it is to dissociate OCGs from what seem to be their government partners in crime. Here is a brief summary of six of the most prominent investigations:

- *Article-19*. The Mexico City office of Article-19 – the influential international freedom of the press organization – led a path-breaking investigation of 20 town- and city-level journalists who were murdered (N=17) or disappeared (N=3) in the eastern state of Veracruz between 2010 and 2016 under the PRI administration of Governor Javier Duarte (Article-19 2024). A team of Article-19 researchers, nationally and locally renowned Mexican journalists, and international experts, including María Eloísa Quintero, the former chief of criminal investigation and co-prosecution of the International Commission Against Impunity in Guatemala (CICIG), conducted a

macro-criminality analysis to identify shared patterns in the assassination of journalists in Veracruz. In a macro-criminality analysis investigators typically group multiple cases into a "macro" case (rather than analyze individual/isolated cases) and explore the likely participation of multiple networked perpetrators (rather than analyze individual/isolated perpetrators). On the basis of 1) hundreds of interviews with the murdered journalists' colleagues, relatives, and friends and with multiple witnesses; 2) a detailed context analysis of the local press in Veracruz during the Duarte administration; 3) an extensive analysis of the modus operandi of each disappearance and assassination of the journalists; and 4) an in-depth analysis of the police and judicial investigations, including the multiple obstacles, threats, and fake information that the investigations often produced, Article-19 investigators and their advisors reached two conclusions about the perpetrators and their motivations. First, they found compelling evidence that all journalists in Veracruz were killed or disappeared as a result of their professional work. Second, they found robust evidence of the likely concerted action of subnational government officials and OCGs (and in some cases business owners) for the assassinations. The evidence across cases systematically pointed at the close collaboration of Governor Duarte and his Secretary of Public Security and the secretary's special police forces and the Attorney General (later the Public Prosecutor) and the judicial police with local mayors and the Zetas or the New Generation Jalisco Cartel (CJNG). The report indicates that, according to the prosecutors, at least 25 percent of the likely perpetrators were public authorities, although Article-19's estimates indicate that state officials may account for a percentage as high as 65 percent.

- *Katherine Corcoran, former Mexico Associated Press (AP) bureau chief*. In a multi-year award-winning investigation about the assassination of Veracruz journalist Regina Martínez, former AP bureau chief Katherine Corcoran (2022) conducted 1) hundreds of interviews with Martínez's colleagues and collaborators, friends and relatives, neighbors, and government officials; 2) an in-depth analysis of all of Martínez's writing over the course of her career; and 3) an extensive context analysis of the government-press relationship in Veracruz and of politics and organized crime. After carefully discarding multiple hypotheses, Corcoran concluded that Martínez was investigating a former Veracruz Secretary of the Interior and former Veracruz Attorney General during the Duarte Government – who had long been suspected of being one of the main local brokers who opened the door of Veracruz to the Zetas to seize control of multiple illicit economies and develop subnational criminal governance regimes. Martínez was looking into the former state official's partnerships with the Zetas in the operation of the retail drug industry (*narcomenudeo*) in Xalapa, the state's capital, through bars and nightclubs that he supposedly owned, though he denied any affiliation. The publication was scheduled to appear during the attorney's campaign for a federal congressional seat, for which he would gain criminal immunity. As in all 20 cases analyzed by Article-19, Corcoran documents the central role that Duarte's security, police, and judicial authorities played in threatening anyone who sought to question the official investigation, which had concluded that Martínez's assassination had been a "crime of passion."

- *Forbidden Investigations*. A parallel investigation of Regina Martínez's assassination by Forbidden Investigations (2022) – an international consortium of journalists conducting in-depth investigations about unresolved journalists' murders around the world – concluded that subnational government officials from the Secretariat of Public Security and the state police, in collusion with the Zetas, could have ordered the assassination of Martínez to prevent the publication of "explosive" information that would show their involvement in burying the corpses of victims of homicidal violence as anonymous persons in municipal cemeteries or in clandestine mass graves. Working with local Veracruz journalists, the Forbidden Investigation consortium conducted dozens of interviews with Martínez's co-workers in Veracruz and in Mexico City as well as in-depth analyses of her writing.

Whether driven by a logic of business survival (per Corcoran) or by a logic of political-criminal survival (per Forbidden Investigations), for purposes of our study the most consequential finding is that both Corcoran and Forbidden Investigations gathered compelling evidence about the extensive collusion of subnational government officials and drug cartels and their private militias in the operation of illicit economies and in the potential collusion to murder journalists and to silence the press. As our FG participants extensively discussed and we report in the main manuscript, both the logic of business survival and the one of political-criminal survival that may have motivated Martínez's assassination are prevalent in the assassination of other local journalists in Veracruz and in other Mexican subnational regions.

- *Colectivo 23 de Marzo*. A group of Mexican journalists working with the Forbidden Investigations network, the Bellingcat network, and the Centro Latinoamericano de Periodismo de Investigación (CLIP) conducted another major investigation about the assassination of journalist Miroslava Breach in the northern Mexican Chihuahua state in 2017. Although the public prosecutor's office was initially reluctant to accept that Breach may have been murdered for reasons associated with her professional activities, it became difficult to ignore a series of articles Breach had penned. These articles showed that the Salazar clan – the local representatives of the Sinaloa Cartel in southern Chihuahua – had imposed some of their members as PRI candidates for local elections, which resulted in the party's removal of these candidates. Several years after the assassination, a local Chihuahua judge ruled for the first time in Mexico's long history of impunity for the assassination of journalists that Breach had been murdered for reasons associated with her professional activity. The judge sentenced the Salazar clan's chief *sicario* to 60 years in prison but ignored any evidence leading to potential intellectual perpetrators and partners in crime. The Colectivo 23 de Marzo (2021), a group of local and international journalists linked to the Forbidden Investigation consortium, conducted a major investigation that confirmed what local journalists had long suspected: that the National Action Party (PAN) mayor of Chínipas, Breach's hometown in the Sierra Tarahumara, in collaboration with the Salazar clan, had ordered Breach's assassination for disclosing the clan's fierce control of multiple Sierra municipalities and their police forces, and for the forced displacement of hundreds of Rarámuri indigenous families to seize control over their lands and the region's natural resources. As a key member of a

powerful local political-criminal structure linked to the Sinaloa Cartel, the Chínipas mayor was responsible for silencing the local press in the Sierra Tarahumara.

- *Chihuahua court sentence*.[6] The Colectivo 23 de Marzo produced compelling evidence of state-criminal collusion, including the collaboration of the Chínipas mayor with the Salazar clan and their chief *sicario* to murder Miroslava Breach and thus silence the local press in the Sierra Tarahumara. Under tremendous social pressure, the same local court that had sentenced the Salazar's chief *sicario* for Breach's assassination reopened the case and sentenced the Chínipas mayor to prison. This new sentence was also path-breaking because it was the first time that a local Mexican court recognized the existence of a network of state-criminal collusion responsible for establishing subnational de facto criminal governance in the Sierra Tarahumara and for violently silencing the local press. Local journalists and the Colectivo 23 de Marzo continue with their own investigations to pressure local authorities to look further up into the command chain and the likely participation of Chihahua state judicial and police authorities in the state-criminal structure to which the Salazar clan and the mayor of Chínipas belonged.

- *Article-19: Evidence about perpetrators in non-lethal attacks*. While the failure of serious official investigations has resulted in the absence of any reliable quantitative evidence about perpetrators, over the past decade Article-19 has gathered quantitative evidence about perpetrators of non-violent attacks against the press in Mexico. To be

[6] Causa Penal 150/2020, Poder Judicial de la Federación.

sure, participation in non-lethal attacks does not necessarily entail participation in murders. However, the information reported in Figures A.IX.a and A.IX.b reveal two important patterns: 1) on average government officials are involved in over 40 percent of non-lethal attacks and 2) in over 80 percent of these cases subnational government officials involved conducted the attacks. Based on the macro-criminality investigation of Article-19, which reports that many of the journalists killed had prior histories of non-violent attacks and that subnational government officials were part of state-criminal networks that possibly ordered the attacks (Article-19 2024), we take this quantitative evidence as an additional layer that suggests the likely involvement of subnational government officials in the multiple iterations of non-lethal attacks against the press that sometimes result in the murder of specific journalists. Two caveats are important: First, while the data cover the 2009 to 2020 period, the information is more reliable starting 2015. Second, it is important to note that we were unable to use this information for our statistical analyses because it only covers a small part of the time period we study, several years after the onset of the War on Drugs in 2006.

Figure A.IX. a. Perpetrators of Non-Lethal Attacks against the Press in Mexico

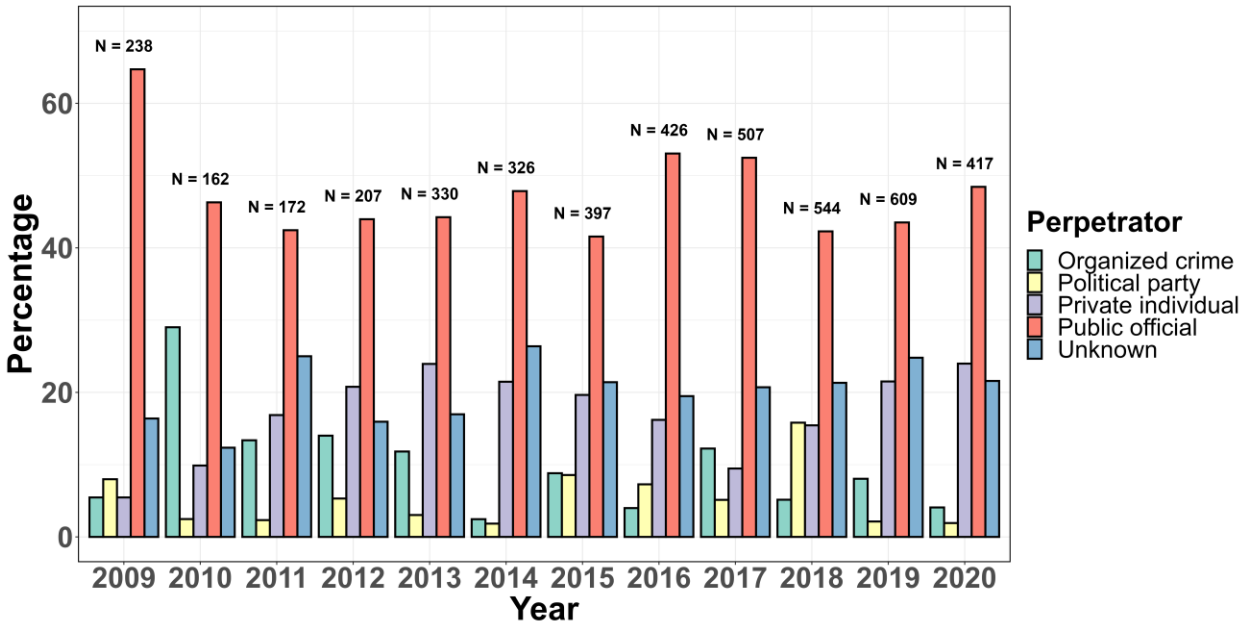
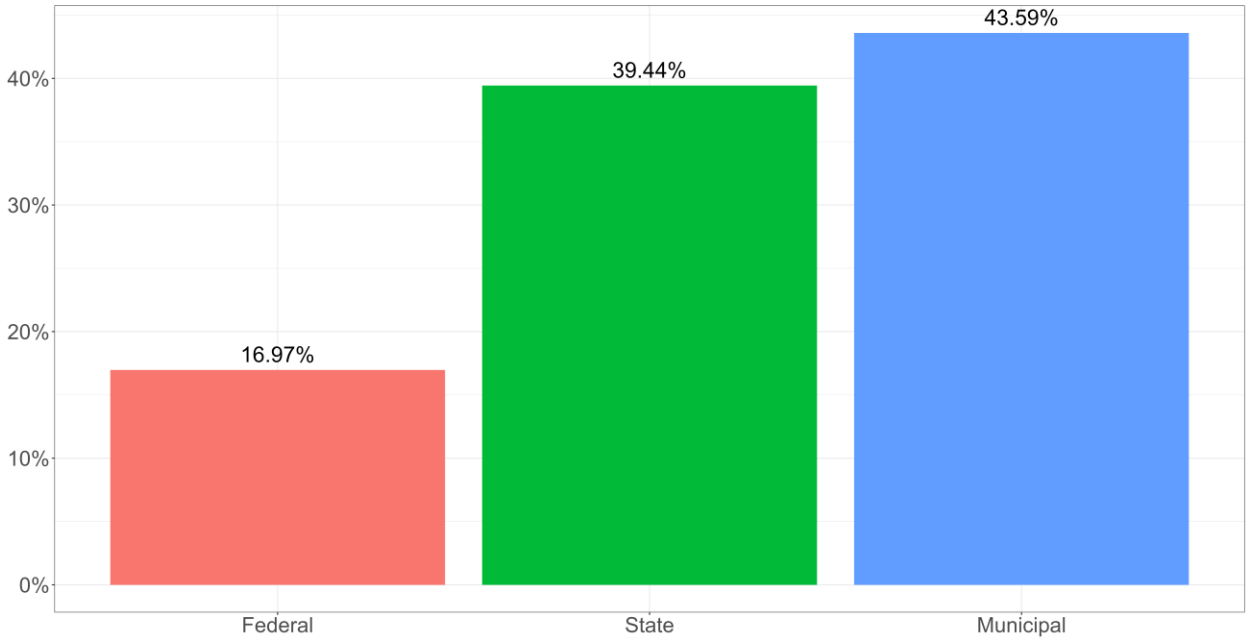


Figure A.IX.b. Non-Lethal Attacks against the Press in Mexico by Government Officials



REFERENCES (Appendix)

Acemoglu, Daron, Leopoldo Fergusson, James Robinson, Dario Romero, and Juan F. Vargas. 2020. "The Perils of High-Powered Incentives: Evidence from Colombia's False Positives." *American Economic Journal: Economic Policy* 12(3): 1–43.

Allison, Paul, and Richard Waterman. 2002. "Fixed Effects Negative Binomial Regression Models." In Ross M. Stolzenberg, ed., *Sociological Methodology*, Oxford: Basil Blackwell.

Angrist, Joshua, and Jörn-Steffen Pischke. 2008. *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton, NJ: Princeton University Press.

Article-19. 2024. "Veracruz de los silencios." https://veracruzdelossilencios.org/.

Colectivo 23 de Marzo. 2019. "Las pistas no investigadas del asesinato de Miroslava Breach." https://www.elclip.org/las-pistas-no-investigadas-del-asesinato-de-miroslava-breach/

Coscia, Michelle, and Viridiana Rios. 2012. ''Knowing Where and How Criminal Organizations Operate Using Web Content.'' In *CIKM'12. ACM International Conference on Information and Knowledge Management*. Maui, Hawaii.

Corcoran, Katherine. 2022. *In the Mouth of the Wolf: A Murder, a Cover-Up, and the True Cost of Silencing the Press*. New York: Bloomsbury.

De Chaisemartin, Clement, and Xavier D'Haultfoeuille. 2020. "Two-Way Fixed Effects Estimators with Heterogeneous Treatment Effects." *American Economic Review*, 110(9): 2964–2996.

Dube, Oeindrila, and Suresh Naidu. 2015. "Bases, Bullets, and Ballots: The Effect of US Military Aid on Political Conflict in Colombia." *The Journal of Politics* 77(1): 249–67.

Dube, Oeindrila, and Juan Vargas. 2013. "Commodity Price Shocks and Civil Conflict: Evidence from Colombia." *Review of Economic Studies* 80(4): 1384–1421.

Flores-Macías, Gustavo A. 2018. "The Consequences of Militarizing Anti-Drug Efforts for State Capacity in Latin America: Evidence from Mexico." *Comparative Politics* 51(1): 1-20.

Flores-Macías, Gustavo, and Jessica Zarkin. 2023. "The Consequences of Militarized Policing for Human Rights: Evidence from Mexico." Comparative Political Studies. doi: 10.1177/00104140231168362.

Forbidden Investigations. 2022. "Uncovered: The burrieds truth of the assassinated journalist Regina Martínez." https://www.elclip.org/regina-martinez-tras-los-pasos-de-una-verdad-enterrada/?lang=en

Garfias, Francisco. 2018. "Elite Competition and State Capacity Development: Theory and Evidence from Post-Revolutionary Mexico." *American Political Science Review* 112(2): 339–357.

Greene, William. 2004. "Fixed Effects and Bias Due to the Incidental Parameters Problem in the

Tobit Model." *Econometric Reviews* 23(2): 125–147.

Guimarães, Paulo. 2008. "The Fixed Effects Negative Binomial Model Revisited." *Economics Letters* 99(1): 63–66.

La Ferrara, Eliana, Alberto Chong, and Suzanne Duryea. 2012. "Soap Operas and Fertility: Evidence from Brazil." *American Economic Journal: Applied Economics* 4(4): 1–31.

Magaloni, Beatriz, and Luis Rodríguez. 2020. "Institutionalized Police Brutality: Torture, the Militarization of Security, and the Reform of Inquisitorial Criminal Justice in Mexico." *American Political Science Review* 114(4):1013-1034.

Mikulaschek, Christoph, Saurabh Pant, and Beza Tesfaye. 2020. "Winning Hearts and Minds in Civil Wars: Governance, Leadership Change, and Support for Violent Groups in Iraq." *American Journal of Political Science* 64(4): 773–790.

Trejo, Guillermo and Sandra Ley. 2020. *Votes, Drugs, and Violence: The Political Logic of Criminal Wars in Mexico,* Cambridge: Cambridge University Press.