Ana I. López García, 1 Seung-hun Lee, 2 and Juan P. Figueroa Mansur 3

October 2025

wider.unu.edu

Abstract: Do criminal groups which help maintain order strengthen the fiscal contract or weaken it? This paper examines how the presence of organized-crime groups shapes Mexican municipalities' ability to collect revenue, deliver public goods, and earn citizens' trust. Survey data show that residents living in neighbourhoods home to organized crime report lower levels of trust in local government, regardless of whether those groups provide 'order' or engage in extortion and violence. Municipality-level data further reveal that both local revenue collection and public spending decline over time in areas with such a presence, independent of whether they are dominated by a single group (whereby crime syndicates' provision of order is more likely) or see multiple organizations vie for supremacy (leading to extortion and violence being more commonplace). Evidence from Mexico suggests that criminal governance fractures the social contract locally: it erodes institutional trust, weakens municipalities' fiscal capacity, and harms publicgood provision.

**Key words:** local government, institutional trust, fiscal capacity, public-good provision, organized crime, Mexico

JEL classification: H41, H72, K42, O17

Acknowledgements: We thank Lesley Ellen, Benjamin Lessing, Sandra Ley, Bruno Martorano, Covadonga Meseguer, Enzo Nussio, James Powell, Carlos Scarsticini and Hannah Smidt for their helpful comments on previous versions of the manuscript. We also extend our gratitude for the feedback received at the Political Economy Workshop at ITAM in Mexico City, 16 August 2025; the Annual Meeting of the European Political Science Association at Universidad Carlos III in Madrid, 28 June 2025; the Development Economics Seminar at UNU-Merit in Maastricht, 9 April 2025; the Annual Meeting of the Midwest Political Science Association in Chicago, 4 April 2025; the 'Pathways to State-building: Challenges and Opportunities' Workshop at UNU-WIDER in Helsinki, 27–28 March 2025; and the Annual Meeting of the Swiss Political Science Association at the University of Geneva, 7–9 January 2025. This paper was funded through the generous backing of UNU-WIDER. Special thanks to Patricia Justino and Santiago Tobón for their patience, encouragement and support.

<sup>1</sup>Maastricht University, Maastricht, The Netherlands, a.lopezgarcia@maastrichtuniversity.nl; <sup>2</sup>National Tsing Hua University, Hsinchu, Taiwan, seunghunlee0918@gmail.com; <sup>3</sup>Instituto Tecnológico Autónomo de México, México, juanpablofmansur@gmail.com

This study has been prepared within the UNU-WIDER project Building trust and institutions for peace, which is part of the research area From conflict to cohesion – pathways for peace and inclusive statebuilding.

Copyright © UNU-WIDER 2025

UNU-WIDER employs a fair use policy for reasonable reproduction of UNU-WIDER copyrighted content—such as the reproduction of a table or a figure, and/or text not exceeding 400 words—with due acknowledgement of the original source, without requiring explicit permission from the copyright holder.

Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9267-631-5

https://doi.org/10.35188/UNU-WIDER/2025/631-5

United Nations University World Institute for Development Economics Research provides economic analysis and policy advice with the aim of promoting sustainable and equitable development. The Institute began operations in 1985 in Helsinki, Finland, as the first research and training centre of the United Nations University. Today it is a unique blend of think tank, research institute, and UN agency—providing a range of services from policy advice to governments as well as freely available original research.

The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland and Sweden, as well as earmarked contributions for specific projects from a variety of donors.

Katajanokanlaituri 6 B, 00160 Helsinki, Finland

The views expressed in this paper are those of the author(s), and do not necessarily reflect the views of the Institute or the United Nations University, nor the programme/project donors.

### 1 Introduction

State capacity—the ability to enforce rules, deliver public services, and collect taxes—is essential for social progress (Besley 2020). Across much of the developing world, however, government promises as regards the provision of security and delivery of public goods often ring hollow. This is evident in Latin America and the Caribbean (LAC), the world's most violent region (UNODC 2023), where the majority of the homicides taking place are related to the activities of organized-crime groups (OCGs). Victims experience firsthand the state's failure to provide security (Altamirano et al. 2020). When such failures become widespread, as is the case in much of LAC, citizens may begin to doubt the state's core capacity or legitimacy (Corbacho et al. 2015). As a result, crime-related violence can place significant strain on the fiscal contract—the agreement by which governments provide security and welfare in exchange for taxation (Levi 1988). A growing body of research confirms that criminal violence erodes citizens' willingness to pay taxes, weakens revenue collection, and diminishes trust in state institutions in LAC (Figueroa Mansur 2024; Flores-Macías 2018a, 2018b, 2022; Lee 2024). Identifying how these actors undermine the fiscal contract is far from straightforward, however, as neither high levels of criminal violence nor the mere absence of state authority are reliable indicators of OCG presence or influence (Barnes 2017; Blattman et al. 2025; Fynn 2025; Lessing 2021; Uribe et al. 2025).

Studies show that OCGs are more likely to operate in areas with a strong state presence (Blattman et al. 2025), and how expanding the latter's coercive capacity can entrench OCG control rather than weaken it (Lessing 2017; Skarbek 2011). Furthermore, while some OCGs engage in predatory and violent tactics (Eaton et al. 2024), others provide public services—mainly order and security—to local communities (Barnes 2017; Lessing 2021; Uribe et al. 2025). Paradoxically, criminal groups often seek stability, as disorder draws unwanted attention from law enforcement (Blattman et al. 2025; Cerero-Guerra 2025). In so doing they may (indirectly) facilitate public-service delivery or encourage political participation, thereby helping local governments to function more effectively (Uribe et al. 2025). OCG-provided stability can also stimulate economic activity and therefore expand the fiscal base (Koivu 2018). OCGs are thus not always opposed to the state, nor do the authorities necessarily contest their presence. This is what makes criminal rule fundamentally different from rebel governance (Lessing 2021). This coexistence—often described as a 'duopoly of violence' (Lessing 2021)—calls into question the Weberian assumption that 'state strength creates order while state weakness breeds disorder' (Mantilla and Feldman 2021).

With this in mind we pose the following questions: How do OCGs shape the local fiscal contract? Can OCGs which help maintain order and security establish a stable environment supportive of formal tax collection and service delivery by the state? Are citizens who live in areas where OCGs provide order more trusting of local authorities compared to those living in areas marked by extortion or free from these groups' presence entirely? Are municipal revenues and public spending higher where OCGs provide security as compared to those places where they either engage in extortion and violence or are altogether absent?

Mexico is a good case study in seeking to investigate these myriad research puzzles. First, there is significant variation in OCG presence across time and space to be found there, encompassing areas with no OCG activity, ones where such groups coexist and violently compete, and others where a single organization maintains order. Second, most studies on the North American country to date have focused on the fiscal consequences of criminal violence and its intensity taxes (Figueroa Mansur 2024; Flores-Macías 2018a, 2018b; Lee 2024). Yet OCG presence does not necessarily entail

violence; in some cases it involves the provision of security instead (Blattman et al. 2025; Lessing 2021; Uribe et al. 2025). This diversity of circumstances allows us to explore how different forms of OCG presence influence citizens' trust in authorities as well as municipalities' capacity to raise revenues and deliver public services.

To analyse how OCG presence shapes the local fiscal contract, we examine its two respective dimensions: namely, the demand side concerning citizens' trust in the state and tax compliance versus the supply side and with it municipal fiscal capacity and service provision. We draw on two complementary sources: (i) survey data which capture the roles OCGs play in respondents' neighbourhoods, whether as guarantors of order or agents of extortion (Uribe et al. 2025); and (ii) municipal-level data which distinguish between areas dominated by a single OCG, where security provision is more likely, and those where multiple OCGs vie for supremacy, where extortion and violence often prevail (Magaloni and Robles 2020).

The micro-level analysis is based on data taken from the 2014 AmericasBarometer (LAPOP 2014) and 2020 Latinobarómetro (LB) surveys concerning Mexico. To address potential differences between respondents in neighbourhoods affected and unaffected by OCGs, entropy balancing (Hainmueller 2012) is applied. Results show that those living in neighbourhoods which see OCG presence report diminished trust in municipal authorities, regardless of whether these groups provide security or engage in violence and extortion.

The aggregate-level analysis is based on a municipality-by-year panel dataset covering the period 2000 to 2020 and pertaining to OCG presence and municipal finances. To compare outcomes across municipalities with different degrees of OCG presence and to account for multiple treated units with staggered timing, we employ the generalized synthetic control method (Xu 2017). We find that municipalities exposed to OCG presence experience significant declines in both revenues and spending—particularly in terms of locally generated funds and investment in basic services and infrastructure—and become increasingly dependent on transfers from higher levels of government instead. These effects hold for both single OCG municipalities and those with multiple OCGs present. Overall, evidence suggests that, whether through extortion (in competitive contexts) or the provision of order (in monopolistic ones), OCG presence fractures the local social contract by eroding institutional trust, weakening municipalities' fiscal capacity and autonomy, and harming service delivery.

The paper proceeds as follows. First, we review previous scholarly work and discuss how OCGs which help maintain order may shape citizen trust in local government and determine the level of municipal finances. Second, we provide background information on OCG presence and municipal finances in Mexico. Third, we outline the data and empirical strategy employed. Fourth, we present the estimation results first at the micro and then at the macro level. We conclude, fifth, with a discussion of findings.

# 2 Criminal 'order' versus criminal 'chaos'

Despite contesting the state's monopoly on violence, not all forms of organized crime are the same. Magaloni and Robles (2020) find that when OCGs have monopolistic control over a given territory, they are more likely to assume 'benign' quasi-state roles such as resolving disputes, enforcing property rights, providing street cleaning or food aid, and even prohibiting theft, robbery, and sexual

assault (Lessing 2017). In such contexts OCGs behave like 'stationary bandits'. They show self-restraint and provide order and public goods in order to secure the loyalty of locals and sustain long-term control over the territory in question. Even though residents may be asked to pay money to these OCGs, they are likely to see it as a fair exchange if it guarantees their safety—unlike with coercive extortion (Barnes 2021; Uribe et al. 2025).

In areas of competing OCGs, in contrast, time horizons are shortened (Magaloni and Robles 2020). As criminal groups do not expect to maintain control over a given territory in the long run, they behave like 'roving bandits', focused only on short-term gains and extracting as much as possible from the population through extortion, kidnapping, and forced taxation. In such contexts the payments which citizens make to OCGs are more likely to be experienced as coercion and exploitation (Uribe et al. 2025). Rather than being invested in the provision of community goods, OCG resources are redirected towards sustaining turf wars. Competition among OCGs creates a situation whereby each such group questions whether its rivals will exercise restraint regarding the use of violence against civilians.

In settings where rival OCGs compete for control and engage in extortion, the repercussions for the local fiscal contract are clear. Empirical findings from El Salvador show that gang extortion reduces the capacity of individuals and businesses to pay levies to local authorities, making municipalities increasingly financially reliant on central government (Eaton et al. 2024). Because these transfers are not enough to fully offset the fiscal losses caused by extortion, Salvadorean municipalities have become increasingly constrained over time, unable to collect taxes or deliver services effectively in consequence. As public-service provision has collapsed, so has trust in local authorities in the beleaguered Central American country (Eaton et al. 2024).

But what about where a single OCG monopolizes the territory in question and provides order, security, and other public goods to secure residents' allegiance? In these contexts not only are overt violence and extortion likely to be limited but, by providing a degree of order, then OCGs may (inadvertently) create conditions which, in theory, could benefit state tax collection. How does criminal order influence citizens' trust in local authorities? Can OCG presence be less damaging—or even beneficial—for municipal finances in such circumstances?

Recent work shows that the relationship between the state and OCGs is not always a zero-sum game. When OCGs provide order and security, they can act as 'strategic complements' to the state (Blattman et al. 2025; Cerero-Guerra 2025). Blattman et al. (2025) find that, after certain neighbourhoods were brought into closer alignment with state institutions following administrative boundary changes in Medellín, Colombia, OCGs were more likely to provide order and security to local residents. Rather than counterbalancing one another, criminal rule and state presence often coexist and even reinforce each other. This pattern, moreover, is by no means unique to Colombia.

Uribe et al. (2025) show that, across Latin America, criminal governance is positively associated with both perceived state capacity and indicators of state presence. Countries with higher levels of criminal governance report lower levels of poverty and corruption. Similarly, at the subnational level, districts under OCG control see increased state infrastructure—including more police stations, schools, and

-

<sup>&</sup>lt;sup>1</sup> In El Salvador's gang-controlled neighbourhoods, levels of household income, material well-being and education are lower than in areas free from such influence (Melnikov et al. 2020).

hospitals. Furthermore, at the individual level, those living in these areas consider local government to be more responsive, express higher satisfaction with its performance, and note greater confidence in the national government—even reporting lower perceived police corruption. Where OCGs are present but do not maintain order, contrariwise, institutional trust is lower while police corruption is deemed to be more rampant.

If criminal governance can, under certain conditions, advance state interests—as prior research suggests—should we then expect municipal finances and trust in local government to improve when OCGs provide order?

# 3 How OCG order shapes institutional trust and municipal finances

Consider a municipality facing revenue constraints, meaning that high security costs crowd out spending on basic services, which in turn lowers their quality and may reduce overall public trust in government. When the state has a monopoly on the enforcement of order and there are no OCGs present, welfare is determined by the municipality's ability to allocate resources between basic services and security. When a (monopolistic) OCG assumes control over the provision of order, however, the fiscal landscape changes. The municipality's spending on security and law enforcement might decline, as these functions are outsourced to the OCG. Because the latter can keep violence in check without the state needing to pay for law enforcement, justice, or security services, criminal governance may ultimately result in cost savings for the central government. OCGs may prove more effective here than state security forces, because the former are above the law and can use violence in ways the state cannot (Lessing 2021). OCGs can also draw on vast revenues from illicit activities, with the amounts involved being out of municipalities' reach.<sup>2</sup>

When criminal groups maintain peace and enforce rules, state security expenditure may be more modest. Municipalities facing budgetary constraints continue to do so under OCG service provision, but the state can now allocate available funds to public goods and services other than just security. Fiscal space is freed up for other forms of public spending. The outcome of this is a type of hybrid governance whereby OCGs provide order and the state specializes in handling other public goods. As a result, state-provided welfare and basic service delivery are likely to improve, and, as public goods expand, trust in municipal authorities may increase too on the part of citizens. OCG-provided stability may, moreover, stimulate economic activity and therefore expand the local fiscal base, with benefits for both the state and the populace at large (Koivu 2018).

The above-outlined model is in line with the idea of OCGs complementing rather than substituting state authority (Blattman et al. 2025; Uribe et al. 2025). However, to be plausible, two conditions must be met: (i) OCG-provided security must be at least as sound as state-provided security, and (ii) reallocating funds to public goods must generate sufficient welfare gains for citizens. The first is likely to hold true in practice while the second is not, as we discuss below.

-

<sup>&</sup>lt;sup>2</sup> We thank Benjamin Lessing for this insight.

Although parallels can be drawn with research on the co-production of welfare between the central government and other non-state actors such as civil society organizations, migrant associations, and even the private sector—as shown to increase trust in local authorities, improve satisfaction with public services, and boost citizens' willingness to pay taxes (Burgess 2016; López García 2025; van den Boogaard and Santoro 2022)—the mechanisms through which institutional trust is built in these collaborative arrangements differ substantially. Trust is more likely to develop when co-production processes are transparent, accountable, and regulated. However, the state cannot formally delegate or outsource security provision to OCGs, nor oversee their activities, without undermining its own legitimacy and/or violating codified legal norms. In practice state officials turn a blind eye to (or even collude with) OCGs' activities.

Even if municipalities save resources when OCGs assume responsibility for security provision, this does not necessarily translate into greater public investment in infrastructure or basic services (or the better provision thereof). Local governments retain discretion over how to allocate their limited funds. They might choose to invest in public services, as suggested above, but they might also redirect these resources toward patronage or clientelistic networks. In the latter case citizens' welfare and trust in local institutions are unlikely to improve.

Local governments also frequently neglect service provision without facing substantial citizen pressure to rectify that. In fact, in Mexico, most citizens view the national government as the actor responsible for restoring order. Consequently, the 'security role' played by OCGs will not automatically generate a constituency seeking improved municipal services, nor will it compel municipalities to expand service delivery. Instead it can leave local governments with broad discretion—as potentially leading to the deprioritization of security and other public services. Indeed, as studies on non-state provision suggest, the mere presence of non-state actors filling service gaps can reduce governments' incentives to invest in and improve public services (Post et al. 2017).

Individuals may start to see local authorities as either unwilling or unable to provide public goods and services. By maintaining order OCGs may raise citizens' expectations of security, which local authorities struggle to fulfil. If OCGs deliver these with greater efficiency than municipalities, citizens may even come to rely on them instead—or look upwards to the national government, rather than locally, for solutions. As dissatisfaction with such service delivery grows, citizens may feel less inclined to pay taxes/fees, thereby reducing local governments' capacity to raise funds and provide public services. Over time municipalities may become increasingly dependent on fiscal transfers from higher levels of government and lose the capacity to make independent decisions on the allocation of resources.

In sum, OCGs may rely on state strength as an entry condition, preferring the sound infrastructure and improved predictability that come with it (Blattman et al. 2025; Uribe et al. 2025). Rather than helping municipalities improve service delivery, however, OCGs' provision of order and other services tends to fracture the local fiscal contract. Under criminal governance, citizens' demands for municipal services are likely to be crowded out, their willingness to pay taxes reduced, and their trust in local authorities weakened—ultimately reducing municipalities' capacity to deliver public goods and eroding their fiscal autonomy. This pattern echoes Nieto-Matiz's (2023) finding that collaboration between the state and OCGs in Colombia was associated with a long-term decline in public spending, property-tax collection, and law-enforcement capacity. We now test these arguments in the context of Mexico.

#### 4 The case of Mexico

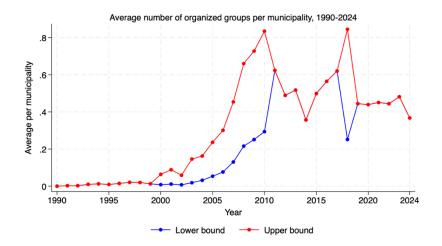
Mexico's OCGs grew and spread after 2006, when former president Felipe Calderón (2006–12) launched the so-called War on Drugs. This approach rested on two main pillars: (i) the militarization of domestic security, and (ii) a 'kingpin strategy' based on the capture or killing of cartel leaders. Yet, rather than weakening organized crime, these measures contributed to its fragmentation. Major cartels re-established themselves, while new groups formed and multiplied (Calderón et al. 2015). In 2006 some 20 OCGs operated in the country. By 2021 that number had increased tenfold, with more than 200 OCGs currently active (Crisis Group 2025). Their territorial reach has also widened. While in 2009–10 OCGs were present in only 11 per cent of Mexico's municipalities, by 2019–20 that figure had almost tripled to 29 per cent (Crisis Group 2024).

Figure 1 reveals how both the average and maximum number of OCGs per municipality and year have risen over time in the North American country, and especially since midway through the first decade of the new century. At the time of writing roughly 30 per cent of Mexican municipalities report OCG presence. Figure 2, meanwhile, maps how OCGs have expanded from the US–Mexico border regions into central-western states such as Guerrero, Michoacán, Veracruz, and Zacatecas as well. In the 1990s OCG presence was not only territorially concentrated but also largely monopolistic; today, though, Mexico's criminal landscape is more diverse than ever. In some of its municipalities a single organization dominates, while in many others two or more groups compete for control.

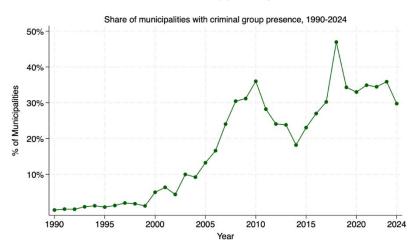
Unlike Salvadoran or Haitian gangs, whose main source of income is extortion, Mexican OCGs generate most of their revenue from trafficking cocaine and synthetic drugs. Presently, Mexico is the primary source of United States-bound fentanyl (Crisis Group 2025). In 2024 the annual profits generated by Mexican OCGs reached US\$33 billion (Canchola 2025). To fund their ongoing battles with rival cartels (and the Mexican state), and to prevent a loss of revenue from disruptions to drug routes caused by shifting supply chains or intensified law enforcement, OCGs have increasingly turned to other illicit industries. For instance, the Zetas Cartel is involved in at least 25 of the latter, including fuel theft, illegal logging, poaching, iron-ore theft, cybercrime, and human trafficking (Crisis Group 2024).

In principle OCGs with large and diversified revenue sources, such as those in Mexico, should have fewer incentives to coercively tax local populations. In contrast OCGs with fewer revenue options, such as those in El Salvador, should be more likely to rely on extortion (Eaton et al. 2024; Melnikov et al. 2020). Indeed, fuelled by enormous profits from the drug trade, various Mexican OCGs have invested in infrastructure, aid, and welfare in the areas under their control (Zapata Celestino 2023). After Hurricane Ingrid hit in 2013, for instance, the Gulf Cartel distributed food and supplies to displaced residents in southern Tamaulipas. Similar efforts were reported following Hurricane Priscilla (also 2013) by the Jalisco New Generation Cartel. During the Covid-19 pandemic, meanwhile, both the latter and the Sinaloa Cartel provided food assistance in regions where the Mexican government's own response thereto was insufficient (Felbab-Brown 2020).

Figure 1: Variation in OCG presence in Mexican municipalities over time



(a) Average number of OCGs



(b) Share of municipalities with OCGs

Note: Panel (a) shows the average number of OCGs per municipality in Mexico over time, while panel (b) plots the share of municipalities with OCG presence. Due to methodological differences across datasets, the graphs report both lower- and upper-bound estimates to reflect the range of reported figures.

Source: Authors' own compilation, based on Coscia and Rios (2012) for 1990–2010, Osorio and Beltrán (2020) for 2000–18, and ACLED (2021) for 2018–21.

Even in ordinary times it is common for OCGs to hand out year-end bonuses to local residents and fund community initiatives such as medical clinics, discount grocery stores, and low-cost pharmaceutical companies (Zapata Celestino 2023). Most often, however, OCGs act as non-state providers of order (Lessing 2018; Uribe et al. 2025). For example, residents of Culiacán, under the control of the Sinaloa Cartel, organized a series of public events expressing gratitude to El Chapo Guzmán for what they viewed as continued protection against kidnapping, robbery, and extortion. After his capture in 2016 many locals reported feeling less safe and more vulnerable to crime (Infobae 2019).

Number of organized criminal groups (min), year 2008

(a) 2000

Number of organized criminal groups (min), year 2015

(b) 2008

Number of organized criminal groups (min), year 2021

(c) 2015

(d) 2021

Figure 2: Municipalities affected by OCG presence

Note: The maps plot the geographic distribution of municipalities with none, one, two or three, and four or more OCGs for selected years. For years where differences across datasets and methodologies arise, we present the lower-bound estimates.

Source: Authors' own compilation, based on Coscia and Rios (2012) for 1990–2010, Osorio and Beltrán (2020) for 2000–18, and ACLED (2021) for 2018–21. This map was created using QGIS (version 3.22) and Stata 18 (MP version). GIS shapefiles were downloaded from the Humanitarian Data Exchange of the United Nations High Commissioner for Refugees Microdata Library at: https://data.humdata.org/dataset/cod-ab-mex

The ability of Mexican cartels to monopolize, and hence to maintain control over as well as provide goods and services in the territories they occupy, has become more limited with the passage of time though. With the global demand for drugs (such as fentanyl) having increased in recent years, disputes over key trafficking routes and ports across the country have only intensified (Calderón et al. 2015; De Haro 2025; Dell 2015; Trejo and Ley 2020). In 2023 there were 426 recorded instances of fighting between rival OCGs in the country, up from 377 in 2022 (Breda 2024). Unstable governance and frequent leadership changes have made it difficult for Mexican OCGs to build long-term relationships with local communities. Instead they have increasingly turned to extortion, kidnapping, and other forms of violent crime in pursuit of short-term gains (Magaloni and Robles 2020). In 2016, for instance, the splintering of La Familia Michoacana into rival factions led to an increase in the frequency of acts of both violence and extortion levelled against civilians (Magaloni and Robles 2020). More recently, a split within the Sinaloa Cartel (between Los Chapitos and La Mayiza) has triggered recurring episodes of extreme violence—including armed clashes and blockades—particularly in Mexico's northwest, where both factions enjoy strong territorial control (Méndez 2025; Velázquez 2025).

It is estimated that Mexican OCGs generate MXN168.9 billion annually (approximately US\$10 billion) from extortion alone (Vázquez del Mercado Almada and Félix 2022). Businesses in the country have been severely impacted by this, losing an estimated 20–80 per cent of their profits to related fees (Di Constanzo 2024). Moreover, these 'war taxes' are frequently passed on to consumers, driving up the price of both essential goods (such as tortillas, lemons, and avocados) and basic services like public transportation and fuel (Stolkin 2023; Vázquez del Mercado Almada 2019). In some contested

regions, more importantly, levels of violence have reached epidemic proportions. Mexico ranks as the most dangerous country for civilians in the ACLED Conflict Index due to OCG-related violence (Breda 2024).<sup>3</sup> Between 2006 and 2016 over 73,000 people were killed by OCGs (Crisis Group 2025). Although victimization by such groups differs from wartime experiences, the intensity of injuries, levels of trauma, and collective nature of their impact bear a close resemblance to circumstances encountered in conflict zones (Altamirano et al. 2020; Berens and Karim 2024).

Mexico's exceptionally high levels of organized crime-related violence unsurprisingly coincide with one of the lowest tax-to-gross domestic product ratios in LAC (OECD 2025). Together with Argentina and Brazil, the North American country is one of three federal democracies in this world region; revenue sources and spending responsibilities vary across levels of government in such polities. Municipal mayors are legally responsible for public safety and crime prevention within their jurisdictions, but the local police often lack the resources and capacity to effectively fulfil these duties (Arzt 2019; Figueroa Mansur 2024; López García and Berens 2025). Moreover, as crime and violence have worsened across the country, higher levels of government have increasingly stepped in and taken over many municipalities' domestic security functions.

Besides security, municipalities are officially charged with providing local services such as water, sanitation, trash collection, parks, markets, and public lighting. To fund these goods and services, they rely on revenue from property duties, permits, licences, and service fees—as well as federal and state transfers (*participaciones* and *aportaciones*).<sup>4</sup> However, most Mexican municipalities struggle to effectively collect taxes and fees and are highly dependent on transfers and earmarked funds from the federal government.<sup>5</sup> As Figure 3 shows, although municipal revenues have burgeoned over time, most of this growth has been driven by these federal transfers. Local tax collection has not only seen little change but there has also been a gradual decline in the shares of municipal income derived from local sources.<sup>6</sup>

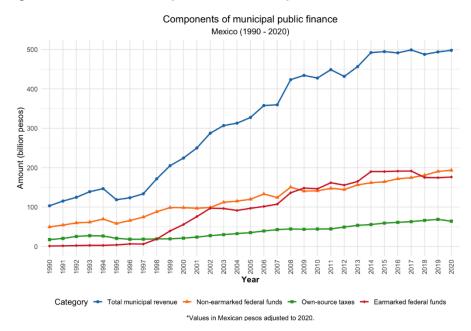
<sup>&</sup>lt;sup>3</sup> Recent polls show that most Mexicans feel unsafe in the state they live in (74 per cent) and see insecurity as the most serious problem affecting the country (61 per cent). In 2023 alone 28 per cent of households reported that at least one member had been a victim of crime; more alarmingly, 93 per cent of these occurrences went unreported. They refrain from reporting crimes because they believe it would be a waste of time (34 per cent), see law-enforcement agencies as ineffective (60.8 per cent), or lack trust in them (12.7 per cent) (all data from ENVIPE 2024).

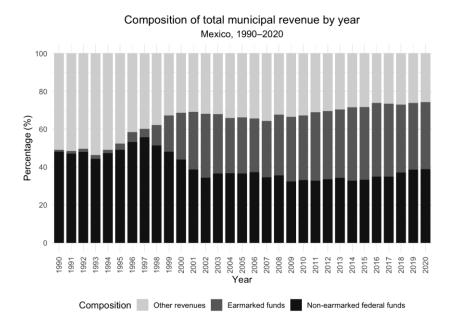
<sup>&</sup>lt;sup>4</sup> Fondo General de Participaciones (FGP) are non-earmarked transfers from the federal government (Ramo 28), while Fondo de Infraestructura Social Municipal (FISM) are funds earmarked by the federal government for specific programmes and services (Ramo 33). The latter funds are distributed according to two main considerations. The 'restorative principle' gives more money to states with stronger economies, while the 'compensatory principle' aims to support poorer municipalities which have weaker economies and limited capacity to raise their own funds (Sánchez Salazar 2023). In practice, however, some states and municipalities receive more or less than what the law outlines (Díaz-Cayeros 2006). Many municipalities also lack the tools, funding, and staff to collect taxes effectively.

<sup>&</sup>lt;sup>5</sup> Property taxes account for the lion's share of municipalities' own-source revenues—between 40 and 60 per cent (Supplementary Material (SM), Figure A1.2). Yet, they represent only 0.2 per cent of Mexico's gross domestic produce, compared to a regional average of 0.47 per cent in LAC and 1.85 per cent in OECD countries (OECD 2025).

<sup>&</sup>lt;sup>6</sup> In 1985, for instance, federal funds made up 46 per cent of the average municipal income amount; by 2015 that figure had risen to 71 per cent (Gutiérrez 2019).

Figure 3: Growth and composition of municipal revenue sources, 1990-2020





Source: Authors' own compilation, based on the National Institute of Statistics and Geography's (INEGI) 'State and Municipal Public Finance Statistics' (EFIPEM 2024).

This fiscal weakness is mirrored in low levels of citizen satisfaction with and trust in local authorities. As of 2023 only 49 per cent of Mexicans reported being content with municipal infrastructure and services (ENCIG 2023). Only four in ten believe that local authorities would address a problem in their neighbourhood in principle (Latinobarómetro 2020). Municipal governments are trusted by only 49 per cent of citizens, too—a much lower figure compared to those for the military (66 per cent) and the president (77 per cent), respectively (LAPOP 2014–23). Municipalities are also perceived as the most corrupt level of government: in 2023 about 70 per cent of Mexicans said financial malfeasance was frequent or very frequent at the municipal level (ENCIG 2023). The municipal police consistently rank among the most corrupt public institutions, whereas federal ones (especially the army and navy) are seen as the least so (ENVIPE 2024).

That said, there is substantial variation in municipalities' capacity to generate revenue and deliver security and other public services (Gutiérrez 2019). This, in turn, is likely to affect citizen satisfaction with local goods, trust in local authorities, and the willingness to pay taxes. We now turn to how the provision of order and security by OCGs might shape these outcomes, using both individual- and municipal-level data for that.

# 5 Micro-level analysis

#### 5.1 Data

We begin by examining how citizen attitudes towards local authorities in Mexico vary based on the type of neighbourhood in which they live: (i) areas in which there is no OCG presence, (ii) those where OCGs provide order and services, and (iii) those where OCGs engage in violence and extortion. We draw, as noted, on LAPOP and LB survey data for Mexico. The 2020 wave of the LB survey included an item on criminal presence (p67npn\_a), which asked respondents whether gangs or drug-trafficking organizations in their neighbourhood fulfilled any of the following roles: providing order, providing security, engaging in extortion, or resorting to violence against the population. Following Lessing (2021) and Uribe et al. (2025), we classify the first two roles (order and security provision) as 'criminal governance' and the latter two (extortion and violence) as 'criminal predation'.

Approximately 38 per cent of Mexican respondents in the LB survey wave were found to live in areas with OCG presence, 10 per cent in ones of criminal governance, and 26 per cent in areas of criminal predation. Those living in the second also reported lower levels of violence and extortion at the hands of OCGs. Among those subjected to extortion by criminal groups, 11.2 per cent lived in areas with OCG security provision and 88.8 per cent did not. Chi-square tests confirm that this association is significant (p < 0.001) (SM, section A1.3). However, there is an overlap here: that is, in some neighbourhoods OCGs simultaneously provide some degree of order and extract rents via extortion. Drawing on the LAPOP 2014 wave, meanwhile, we employ a variable which asked respondents whether OCGs in their neighbourhood had demanded levies or 'protection payments' (cobro de piso) in the year prior to the survey (vicbar4). We interpret this variable as capturing coercive predatory criminal activity. Around 18 per cent of respondents reported having personally experienced such demands.

We analyse how these different indicators of OCG presence correlate to a series of dependent variables (DVs). From the LB survey wave we use eight such DVs. The first measures perceived local government responsiveness: 'How probable is it that local authorities will listen to you when reporting a problem in your neighbourhood?' (p43n). This is an ordinal variable ranging from 0 to 3, with higher values indicating greater perceived responsiveness. The second is a binary variable coded as 1 if respondents believed their local government to be corrupt and 0 otherwise (p71stm\_04). The third variable measures trust in the state. It is an ordinal scale ranging from 0 to 3, based on responses to the question: 'How much confidence do you have in the national government?' (p13st\_e). The fourth variable similarly measures confidence in the police, with higher values indicating greater trust (p13stgbs\_b). The fifth and sixth are binary variables capturing perceptions of corruption among the police (p71stm\_05) and judges (p71stm\_07), respectively. The seventh is a binary variable measuring whether respondents knew someone who had avoided paying tax (p24st\_b). The eighth is similarly

coded as 1 if respondents considered voting a civic duty or believed all citizens should vote, and 0 otherwise (p56n).

From the LAPOP survey wave, we use five DVs. The first measures trust in local authorities: 'To what extent do you trust the local or municipal government?' (b32). This is an ordinal variable ranging from 0 to 6, where higher values indicate greater trust. The second variable taps into evaluations of municipal goods and services (sgl1), using an ordinal scale ranging from 0 to 4, where higher values indicate a more positive assessment thereof. The third and fourth variables are binary measures of experiences with bribery. The third takes a value of 1 if a respondent was asked for a bribe by any government official and 0 otherwise, the fourth captures whether the request came specifically from the police or not (exc2). The fifth variable registers political participation: 'Have you attended a townhall meeting or other meeting convened by the mayor in the past 12 months?' (np1). This a binary variable coded as 1 for 'yes' and 0 for 'no'. A full description and summary statistics for all variables used in the respective analyses are available in the SM (section A1.2).

## 5.2 Empirical strategy

The following baseline equation is specified:

$$Y_i = \alpha + \beta_1 \times OCG_i + Z_i + \varepsilon_i \tag{1}$$

where  $Y_i$  represents the DVs (e.g. trust in local authorities) for individual i;  $OCG_i$  indicates whether respondent i lives in a neighbourhood where OCGs are present (and play a state-like role),  $\beta_1$  is its respective regression coefficient, and  $Z_i$  represents the q covariates (measuring respondents' characteristics). Linear probability models are estimated with robust standard errors (SM, section A1.4).

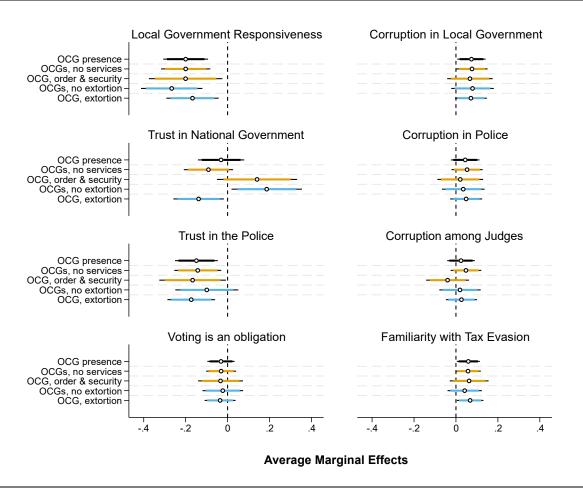
Respondents in neighbourhoods where OCGs are present (as measured by both the LB and LAPOP surveys) have more years of education, higher levels of wealth, and are more likely to be male (SM, section A1.1). Since those living in these areas systematically differ from others, we apply, as mentioned earlier, entropy balancing (Hainmueller 2012). This non-parametric approach, unlike coarsened exact matching, does not result in a loss of observations. To achieve balance between the treatment group (i.e. those living in OCG-controlled areas) and control group (those not), the following key variables are considered: age, gender, place of residence (urban/rural), education level, degree of wealth, and employment status.

#### 5.3 Results

Figure 4 displays estimates drawn from the LB survey wave (full models are reported in the SM, section A1.4). As seen, those living in neighbourhoods with OCG presence are (20 percentage points) more likely to see local government as unresponsive compared to peers who reside elsewhere. This lack of trust is evident in these individuals being (7.4 percentage points) more likely to deem local authorities to be corrupt. Interestingly, there are no significant differences in confidence in the national government or in perceptions of corruption among police and judges between residents of OCG-controlled neighbourhoods and those living elsewhere, albeit that inhabitants of OCG-affected areas report lower trust in the police (by 0.15 points). In OCG-affected neighbourhoods locals are also

(6 percentage points) more likely to know someone who avoids paying tax. Yet beliefs about voting as a civic duty do not differ significantly between these residents and those in OCG-free neighbourhoods.

Figure 4: Citizen attitudes under the condition of OCG presence



Note: Point estimates with 90% and 95% confidence intervals, matched sample.

Source: Authors' own compilation, based on estimates using data from the LB 2020 wave for Mexico.

Moreover, the results indicate that, regardless of whether they are involved in criminal governance, OCG presence is consistently associated with less favourable perceptions of local government's responsiveness. Compared to in OCG-free neighbourhoods, those living where these groups are present but do not oversee criminal governance are (19 percentage points) less likely to view local government as responsive; those where OCGs do provide order and security are even less likely to do so (by 22 percentage points). This is an interesting result. Both types of OCG presence reduce confidence in local government, but the decline is more pronounced under the condition of criminal governance. However, trust in the national government remains unaffected among those living in neighbourhoods where OCGs provide order and security. In other words, although citizens living under criminal governance may perceive local authorities to be ineffective, they do not necessarily lose faith in the state itself.

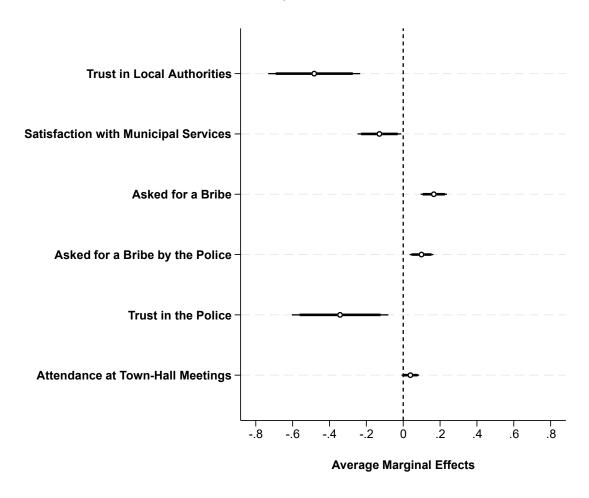
Residents of areas where OCGs do not provide services are (8 percentage points) more likely to perceive local government as corrupt and (6 percentage points) more likely to know someone who

avoids paying tax than those in OCG-free areas. In contrast those living under criminal governance are no more likely to believe local corruption to be real. However, they express significantly lower trust in the police (by 0.18 points) relative to OCG-free areas (and 0.14 points compared to areas without OCG-provided order). In other words, even when OCGs take on a security role, then citizens may come to view state enforcement institutions as less trustworthy or effective.

Analogous patterns are observed when comparing residents of neighbourhoods affected by criminal predation to those living elsewhere. Relative to those in OCG-free areas, those living where OCGs engage in violence or extortion are (0.16 points) less likely to view local government as responsive, while those calling home OCG-affected areas which do not see extortion practised report even less favourable perceptions (by -0.28 points). That said, residents in areas witnessing such extortion are (7 percentage points) more likely to perceive local government as corrupt, report lower trust in both the national government (0.14 points) and in police (0.17 points), and are also (6.5 percentage points) more likely to know someone who avoids paying tax. In contrast residents of OCG-affected areas without extortion report higher trust (0.18 points) in the national government compared to those in OCG-free areas. In other words criminal predation not only erodes confidence in local authorities but also delegitimizes the state's capacity to protect citizens. Where extortion is absent, the national government is still perceived as a vital counterbalance to municipal failures.

Similar results are obtained when looking at data on OCG extortion provided by the 2014 LAPOP survey wave. Figure 5 presents estimates from this dataset. Respondents in neighbourhoods where OCGs demand war taxes do not statistically vary from others in terms of their attendance at town-hall meetings or making demands of local officials. Compared to others, though, they do report (-0.48 points) lower trust in local authorities and (0.13 points) less satisfaction with local goods and services. They are also less trusting in the police (by 0.34 points), (17 percentage points) more likely to report having succumbed to the necessity of paying a bribe in their dealings with government officials, and (10 percentage points) more likely to have done so with the police. Criminal predation thus lowers trust in local authorities, satisfaction with public services, and perceptions of integrity vis-à-vis the government and police. Baseline results hold when adjusting for covariates, as well as accounting for respondents' experiencing of crime, their fear of it, and their exposure to criminal violence in the neighbourhood (SM, section A1.4).

Figure 5: Citizen attitudes in areas with OCG-imposed war taxes



Note: Point estimates with 90% and 95% confidence intervals, matched sample.

Source: Authors' own compilation, based on estimates using data from the LAPOP 2014 wave for Mexico.

Overall, micro-level evidence from Mexico indicates that even when OCGs help to maintain order and provide security, their presence will not improve trust in local institutions; instead, worsened perceptions of local government's responsiveness are found to prevail. Regardless of whether OCGs engage in security provision or extortion, citizens living in affected neighbourhoods deem local government to be unresponsive. When OCGs refrain from extortion and provide security, they crowd out municipal authorities—but they do not displace faith in the state as a whole. In contrast, when OCGs turn predatory through coercion and extortion, the damage extends upwards. Criminal predation erodes institutional trust across the board, including in the national government, and undermines compliance with tax norms. Whether under the condition of criminal governance or predation, OCG presence fractures the local fiscal contract.

# 6 Municipality-level analysis

#### 6.1 Data

We now examine how OCG presence impacts local finances in Mexico, using municipality-year panel data as regards levels of revenue and expenditure per INEGI statistics (EFIPEM 2024). We define 'own-source revenue' as the sum total of municipal income streams, as generated from taxation, permits (*derechos*), licences, and service fees;<sup>7</sup> and we treat federal transfers—both FGP and FISM—as external sources hereof (Larreguy et al. 2020). We measure municipalities' capacity to provide services using data on spending for public investment, personnel, and basic infrastructure.<sup>8</sup>

To ascertain the presence of OCGs in a given municipality, we use three sources: Coscia and Rios (2012) for 1990–2010, Osorio and Beltrán (2020) for 2000–18 and ACLED (2021) for 2018 onwards. All three use natural language-processing methods on the contents of Mexican newspaper articles to quantify the presence of OCGs at the municipal level. In years in which respective datasets overlap, the estimated number of OCGs in each municipality may vary according to respective sources. To account for this, we track both the highest (upper-bound) and the lowest (lower-bound) estimates of OCG presence. The upper bound suggests that 43.6 per cent of Mexican municipalities have been exposed to OCG presence during the period of study, while the lower bound puts this figure at 28.9 per cent. Regression results are based on the more conservative lower-bound estimates; however, findings do not change significantly when using the upper-bound estimates instead.

As municipal-level data on OCG presence are based on media reports, there is likely some bias—especially in Mexico, one of the most dangerous countries in the world for journalists (Trejo and Skigin 2024). In this context media coverage may be uneven: poverty-stricken areas or those seeing high levels of intimidation or actual violence may be under-reported. Another issue with this type of data is that they may underestimate cartel presence in some municipalities, especially where a single OCG is in control. The dominant criminal group might, for instance, use violence, silence local media, and/or limit information flows (Figueroa Mansur 2024). Another risk from drawing on newspaper articles in this way is that mention of a cartel does not necessarily mean it controls or governs the area in question. A news story may only cover a single event (like an arrest) without reflecting the group's true strength or level of activity. Data from municipalities where more than one criminal group is reported can be considered more reliable. Therefore, for robustness checks and to address potential measurement errors in capturing OCG presence, in the SM (section A2.4) we report estimations using the OCG data compiled by Sobrino (2020), who mapped cartel presence at the municipal level in Mexico using a combination of machine learning based on newspaper data alongside coded information from different government sources.

<sup>&</sup>lt;sup>7</sup> In the EFIPEM revenues from licences constitute a subcategory of fees which includes those from managing various registries. Furthermore, these are associated with enforcement and administrative capacity (Devas 2008).

<sup>&</sup>lt;sup>8</sup> Specifically, we focus on public spending regarding water and electricity as Mexican municipalities are responsible for the provision of these basic services.

In our models, we also consider demographic and socio-economic controls potentially related to both our outcome variables and the degree of OCG presence at the municipal level. Data on the local populace come from the Mexican Census (INEGI 2025) and annual satellite estimates from the WorldPop (2025) database. To differentiate between rural and urban areas, we use the population density in a given municipality. To proxy for economic development and state presence in a particular municipality, we use the shares of indigenous people and illiterate children as well as average nightlight intensity (Dal Bó and Tella 2013; Donaldson and Storeygard 2016). Given that high levels of OCG-initiated violence may correlate with acute overall levels thereof (Magaloni and Robles 2020), homicide rates are also considered. As the relationship between the state and OCGs in a municipality may vary based on certain political factors (Trejo and Ley 2020), models account for a series of dummies indicating the mayor's party affiliation (data from Magar 2018). Summary statistics for the abovementioned variables are provided in the SM (section A2.2).

# 6.2 Empirical strategy

Municipalities are categorized into treatment and control groups based on OCG exposure. Following Magaloni and Robles (2020), treatment groups include: (i) monopolistic municipalities, where a single criminal group dominates and may provide security services, and (ii) contested municipalities, where rival groups compete with one another further to typically engaging in extortion.

Descriptive statistics according to type of OCG presence (SM, section A2.2) show that both total revenues and total spending are higher in municipalities which host criminal groups than in those which do not. Average fiscal values are lowest in municipalities without OCGs and increase under monopolistic control but reach their highest levels where multiple criminal groups compete. This pattern holds across most revenue and expenditure categories, including tax collection, federal transfers, and public investment. These descriptive differences do not, however, necessarily imply a causal relationship, as the presence of OCGs is non-random.

Many hidden factors may influence where and how they operate: for instance, whether the municipality is located along licit or illicit trade routes (De Haro 2025; Dell 2015; Macías-Medellín and Ponce 2024; Trejo and Ley 2020). The nature of OCGs' interactions with communities, whether they provide services or extract rents, similarly depends on how economically valuable the municipality is (De Haro 2025). OCGs are, for instance, more likely to engage in service provision in drug-producing or border areas where they want long-term control but are less likely to do so in places which are only temporary sites of transit or in areas under contestation (Magaloni and Robles 2020). These factors can cause bias and make it hard to clearly identify the impact of OCG rule on municipal finances using standard models like difference-in-differences (DiD). Another potential concern comes from the staggered nature of OCG presence. Some reported the latter as early as 1990; others experienced OCG takeover only later. If the municipalities affected by OCGs are already very different from others prior to takeover, the 'parallel trends' assumption is unlikely to hold. However, causal effects cannot be isolated using DiD regression models. When treatment occurs at different times, classic synthetic methods do not work well either.

To address these concerns, we use the generalized synthetic control method introduced by Xu (2017), which creates counterfactual outcomes for the municipalities affected by OCGs by estimating a latent factor model based on both the control group and the pre-treatment outcomes of its counterpart. These estimates are then used to predict post-treatment counterfactual outcomes for the treated units. The treatment effect is the average difference between observed outcomes and these

predicted counterfactuals. Unlike the traditional synthetic control method, the generalized version can handle multiple treated units and staggered treatment timing. In contrast to regular DiD approaches, it also incorporates interactive fixed effects, adjusting for time-varying unobserved confounders.

The estimation equation can be written as follows:

$$Y_{it} = \alpha_i + \delta_t + \sum_k \tau_k I[E_{it} = k] + X_{it}\gamma + \sum_{r=1}^2 f_{i,r} \times \lambda_{t,r} + \epsilon_{it}$$
 (2)

where  $Y_{it}$  is the outcome variable of interest.  $I[E_{it}=k]$  is the dummy variable indicating k periods after the entry of OCGs (or becoming a contested municipality after previously seeing monopolistic OCG presence). The parameter of interest is  $\tau_k$ , which captures the effect of OCG entry (or being exposed to competitive OCG presence) k years after the onset of such events. To accurately estimate counterfactuals, the set of economic and demographic covariates described above are included in  $X_{it}$ . The model includes additive fixed effects  $(\alpha_i, \delta_t)$  for municipalities and years too, and two types of latent time-varying factors  $(\lambda_{t,r})$  and municipal-level loadings  $(f_{i,r})$  to capture both nationwide and subnational trends. Bootstrapped standard errors at the municipality level are used.

The accuracy of the estimates depends on having enough data before and after event times, and on the assumption that timing of OCG entry is not influenced by hidden trends unaccounted for by the model employed. To make sure there is enough information to create good counterfactual scenarios for each pre- and post-treatment period, the event-timing window is hence restricted. That said, our estimates remain robust to changing the number of time-varying latent factor variables included in the model.

#### 6.3 Results

Table 1 reports the estimated treatment effects ( $\tau_k$ ). Panel A presents estimates for municipal revenues; panel B does so for municipal expenditures. Estimates for specific revenue and spending categories are reported in the SM (sections A2.4). As shown in panel A, total municipal revenues drop by about 5.5 per cent in the period after OCG entry, compared to counterfactual municipalities with no such presence. This decline is accompanied by a (1 percentage point) reduction in municipalities' own-source revenues—equivalent to 14 per cent of the counterfactual mean. At the same time municipalities become more dependent on external revenues following OCG entry. The share of revenue from central and state government transfers increases (by around 2 percentage points) in the post-treatment period. Comparing counterfactual municipalities dominated by a single OCG with those contested by multiple groups, we see that the latter have (4.6 percentage points) lower total revenues and a (1.1 percentage point) smaller share of own-source revenues—albeit that their dependence on external sources is similar.

Panel B reports how, after OCG entry, total municipal expenditure declines by 5.7 per cent, public investment drops by 13.7 per cent and spending on basic services goes down by 19.1 per cent, relative to counterfactual municipalities with no OCG presence. Other expenditure categories (SM, A2.4) follow similar patterns. Compared to counterfactual municipalities controlled by a single group, municipalities with multiple OCGs spend about 4.3 per cent less in total, albeit that there are no significant differences in investment amounts or spending on basic services across the two groups.

Table 1: Post-treatment period average treatment on the treated effect estimates

	Effect of OCG e	ntry versus no (	OCG presence	Multiple versus single OCGs		
Panel A. Municipal revenue						
	Total revenue (log)	Own-Source Revenue (%)	External Transfers (%)	Total revenue (log)	Own-Source Revenue (%)	External Transfers (%)
Estimate (s.e.)	-0.055*** (0.013)	-0.010*** (0.003)	0.020*** (0.005)	-0.046*** (0.014)	-0.011*** (0.004)	0.006 (0.009)
Control mean	16.67	0.07	0.89	17.62	0.1	0.87
Panel B. Munic	ipal spending					
	Total spending (log)	Public investment (log)	Basic services (log)	Total spending (log)	Public investment (log)	Basic services (log)
Estimate (s.e.)	-0.057*** (0.013)	-0.137*** (0.051)	-0.191*** (0.050)	-0.043*** (0.013)	-0.019 (0.044)	-0.045 (0.053)
Control mean	15.62	14.19	12.51	17.59	16.35	14.18

Note: The table reports the average post-treatment effects estimated using generalized synthetic control methods, weighted by the number of post-treatment periods for each municipality. All regressions include municipality and year fixed effects and control for pre-treatment homicide rates, shares of indigenous and illiterate population, nightlights, total population, population density, party-affiliation dummies, and whether the mayor belongs to the same party as the state governor. Bootstrapped standard errors clustered at the municipality level are reported in parentheses. Control group means are reported for each outcome. Coefficients significant at \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1.

Source: Authors' own estimations based on data from EFIPEM (2024), Coscia and Rios (2012), Osorio and Beltrán (2020), and ACLED (2021).

The results from Table 1 are presented graphically in the SM (section A2.3). Specifically, we illustrate them in two ways: (i) by showing the evolution of counterfactual and realized outcomes before and after OCG entry or the onset of OCG competition, and (ii) by plotting the relative differences between treated and counterfactual municipalities over time.

In sum, municipal-level data make clear that OCG presence—whether monopolistic (orderly) or contested (predatory)—leads to declines in both municipal revenue and spending levels over time. Municipalities hosting OCGs collect significantly less own-source revenue and become increasingly dependent on transfers from higher levels of government, thereby eroding their fiscal autonomy and ultimately capacity. They also exhibit lower spending potential, especially as regards public investment and basic services. These results hold after robustness checks using data from Sobrino (2020) (SM, section A2.5) and changes in model specifications (SM, section A2.6). Findings are thus not driven by measurement errors or model specifications.

Our results are consistent with the survey-based discoveries presented above. The municipal-level data indicate that after OCG entry municipal revenues and expenditures decline. These fiscal constraints might help explain why residents in OCG-affected areas perceive local government to be less responsive. While those living in areas where OCG do not engage in extortion or maintain order may continue to view national institutions as relatively trustworthy, the fiscal data reveal a deeper structural problem: local governments under OCG control become financially dependent on, and hence politically subordinate to, higher levels of government, rendering them less capable of performing their duties.

#### 7 Conclusion

What are the consequences for the local fiscal contract of OCGs acting as non-state providers of (criminal) governance? Do such endeavours lead to greater trust in local government and better municipal finances overall?

Using both micro- and macro-level data from Mexico, we find that OCG presence—whether orderly (monopolistic) or predatory (contested)—undermines the local fiscal contract. On the demand side citizens lose trust in local authorities; on the supply side municipalities suffer reduced fiscal capacity as well as the autonomy to collect taxes and provide public services. In other words, even when criminal rule might bring order, it hollows out the institutional foundations of the local fiscal contract between state and citizens. Our study thus brings nuance to the regional picture presented by Uribe et al. (2025), who find that criminal order can strengthen institutional trust and state capacity across Latin America. Such positive effects do not hold in the Mexican context. Our evidence is consistent with findings from other countries, where both extortion-based OCG presence, as in El Salvador (Eaton 2024), and more 'orderly' forms thereof, as in Colombia (Nieto-Matiz 2023), have similarly eroded municipal finances and trust in local authorities alike.

Even so, we should be cautious about generalizing these results. Mexico's political frameworks (such as federalism) and the drug trade may shape OCG behaviour and political outcomes in ways distinct to the North American country. Future research should therefore explore whether Mexico is an exception to regional trends or reflects broader mechanisms which previous studies may have overlooked. Scholars should also draw on alternative data sources and methods to verify or extend our results. Qualitative studies could explore in more detail how state and non-state actors cooperate (or compete) in providing order and security, and how this interaction impacts service quality, municipal finances, and overall public trust in both of these camps. Further work should likewise take account of leadership stability or specific OCG organizational characteristics when explaining why some crime groups provide services while others rely on extortion, giving consideration to how this affects public-good provision at the local level.<sup>9</sup> In sum, there is still much to scrutinize regarding the fiscal consequences of criminal governance in Mexico and other LAC countries, as well as in other world regions affected hereby such as sub-Saharan Africa and the Western Balkans.

# References

ACLED (2021). 'Armed Conflict Location & Event Data Project: Mexico [Data set]'. Available at: https://acleddata.com (accessed 1 June 2025).

Altamirano, M., S. Berens, and S. Ley (2020). 'The Welfare State Amid Crime: How Victimization and Perceptions of Insecurity Affect Social Policy Preferences in Latin America and the Caribbean'. *Politics & Society*, 48(3): 389–422. https://doi.org/10.1177/0032329220940850

-

<sup>&</sup>lt;sup>9</sup> Magaloni and Robles (2020) show that Mexican OCGs with centralized, hierarchical structures are less likely to engage in extortion and more so to provide assistance to the community instead. Similarly, Blattman et al. (2024) note that the neighbourhoods of Medellín where OCGs are highly structured and organized tend to be more peaceful and orderly overall.

- Arzt, S. (2019). 'The Collapse of Mexico's Police and the Militarization of Public Security'. In J. Rosen, B. Bagley, and J. Chabat (eds), *The Criminalization of States: The Relationship Between States and Organized Crime*. London: Rowman & Littlefield.
- Barnes, N. (2017). 'Criminal Politics: an Integrated Approach to the Study of Organized Crime, Politics, and Violence'. *Perspectives on Politics*, 15(4), 967–87. https://doi.org/10.1017/S1537592717002110
- Barnes, N. (2021). 'The Logic of Criminal Territorial Control: Military Intervention in Rio de Janeiro'. *Comparative Political Studies*, 55(5): 789–831. https://doi.org/10.1177/00104140211036035
- Berens, S., and S. Karim (2024). 'Quotidian Crime, Wartime Violence and Public Goods Preferences: Evidence from Liberia'. *Journal of Peace Research*, 61(4): 545–59. https://doi.org/10.1177/00223433231155281
- Besley, T. (2020). 'State Capacity, Reciprocity, and Social Contract'. *Econometrica*, 88(4): 1307–35. https://doi.org/10.3982/ECTA16863
- Blattman, C., G. Duncan, B. Lessing, and S. Tobón (2025). 'Gang Rule: Understanding and Countering Criminal Governance'. *Review of Economic Studies*, 92(3): 1497–531. https://doi.org/10.1093/restud/rdae079
- Breda, T. (2024). 'Mexico: Confronting Deadly Political and Criminal Power Struggles in an Election Year'. ACLED Conflict Watchlist 2024. Available at: https://acleddata.com/conflict-watchlist-2024/mexico/(accessed 11 September 2025).
- Burgess, K. (2016). 'Organized Migrants and Accountability from Afar'. Latin American Research Review, 51(2): 150–73. https://doi.org/10.1353/lar.2016.0020
- Calderón, G., G. Robles, A. Díaz-Cayeros, and B. Magaloni (2015). 'The Beheading of Criminal Organizations and the Dynamics of Violence in Mexico'. *Journal of Conflict Resolution*, 59(8): 1455–85. https://doi.org/10.1177/0022002715587053
- Canchola, A. (2025). 'Cambia paradigma; cárteles ganan más con otros delitos que por narco'. *El Universal,* 10 March. Available at: Cambio de paradigma; cárteles ganan más con otros delitos que por narco (accessed 11 September 2025).
- Cerero-Guerra, D. (2025). When Criminals Help the State: Winning Hearts and Minds throughout Facilitation of State Service Provision. PhD Dissertation. New Haven, CT: Yale University.
- Corbacho, A., J. Philipp, and M. Ruiz-Vega (2015). 'Crime and Erosion of Trust: Evidence for Latin America'. World Development, 70: 400–15. https://doi.org/10.1016/j.worlddev.2014.04.013
- Coscia, M., and V. Rios (2012). 'Knowing Where and How Criminal Organizations Operate Using Web Content', In *Proceedings of the 21<sup>st</sup> ACM International Conference on Information and Knowledge Management*, 1412–21. https://doi.org/10.1145/2396761.23984
- Crisis Group (2024). 'Crime in Pieces: The Effects of Mexico's "War on Drugs", Explained'. Available at: <a href="https://www.crisisgroup.org/content/crime-pieces-effects-mexicos-war-drugs-explained">https://www.crisisgroup.org/content/crime-pieces-effects-mexicos-war-drugs-explained</a> (accessed 11 September 2025).
- Crisis Group (2025). 'Curbing Violence in Latin America's Drug Trafficking Hotspots'. Available at: https://www.crisisgroup.org/latin-america-caribbean/colombia-ecuador-guatemala-honduras-mexico/108-curbing-violence-latin-america-drug-trafficking-hotspots (accessed 11 September 2025).
- Dal Bó, E., and R. Di Tella (2003). 'Capture by Threat'. *Journal of Political Economy*, 111(5): 1123–54. https://doi.org/10.1086/376951
- De Haro, I. (2025). 'Avocados: Mexico's Green Gold, Drug Cartel Violence and the US Opioid Crisis'. World Development, 191: 106942. https://doi.org/10.1016/j.worlddev.2025.106942
- Dell, M. (2015). 'Trafficking Networks and the Mexican Drug War'. *American Economic Review*, 105(6): 1738–79. https://doi.org/10.1257/aer.20121637
- Devas, N. (2008). 'Revenue Sources for Local Government'. Financing Local Government, 23.
- Díaz-Cayeros, A. (2006). Federalism, Fiscal Authority, and Centralization in Latin America. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511617928
- Di Constanzo, M. (2024). 'El cobro de derecho de piso como mecanismo de fondeo del crimen organizado'. López Dóriga Digital. Available at: https://lopezdoriga.com/nacional/cobro-derecho-de-piso-mecanismo-fondeo-crimen-organizado-mario-di-costanzo/ (accessed 11 September 2025).
- Donaldson, D., and A. Storeygard (2016). 'The View from Above: Applications of Satellite Data in Economics'. *Journal of Economic Perspectives*, 30(4): 171–98. https://doi.org/10.1257/jep.30.4.171
- Eaton, K., S. Huanqui, and J. Larios (2024). 'Decentralization and Criminal Gangs in El Salvador: Impacts on Municipal Finances and Local Economic Development'. *The Journal of Development Studies*, (60)9: 1372–92. https://doi.org/10.1080/00220388.2024.2339932

- EFIPEM (2024). Finanzas Públicas Estatales y Municipales 2024. Mexico City: INEGI. Available at : https://en.www.inegi.org.mx/programas/finanzas/#open\_data (accessed 1 September 2025).
- ENCIG (2023). Encuesta Nacional de Calidad e Impacto Gubernamental 2019. Mexico City: INEGI.
- ENVIPE (2024). Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE) 2024. Mexico City: INEGI. Available at: https://www.inegi.org.mx/contenidos/saladeprensa/boletines/2024/ENVIPE/ENVIPE\_24.pdf
- Felbab-Brown, V. (2020). Mexican Cartels Are Providing COVID-19 Assistance. Why That's Not Surprising. Washington, DC: Brookings Institution. Available at: https://www.brookings.edu/articles/mexican-cartels-are-providing-covid-19-assistance-why-thats-not-surprising/ (accessed 11 September 2025).
- Figueroa Mansur, J.P. (2024). 'Competencia entre cárteles: El efecto de la presencia del crimen organizado en la capacidad estatal de los municipios en México'. Undergraduate thesis. CDMX: Instituto Tecnológico Autónomo de México.
- Flores-Macías, G. (2018a). 'The Consequences of Militarizing Anti-drug Efforts for State Capacity in Latin America: Evidence from Mexico'. *Comparative Politics*, 51(1): 1–20. https://doi.org/10.5129/001041518824414647
- Flores-Macías, G. (2018b). 'Building Support for Taxation in Developing Countries: Experimental Evidence from Mexico'. World Development, 105: 13–24. https://doi.org/10.1016/j.worlddev.2017.12.014
- Flores-Macías, G. (2022). Contemporary State Building: Elite Taxation and Public Safety in Latin America. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781009091992
- Fynn, I. (2025). 'Commitments of Silence: Reciprocity Networks and Criminal Organizations in Montevideo'. Perspectives on Politics, First View: 1–19. https://doi.org/10.1017/S1537592724002780
- Gutiérrez, M.U. (2019). 'Finanzas municipales en México: Por qué unos municipios recaudan más y gastan mejor'. Working Paper. Cambridge, MA: Lincoln Institute of Land Policy.
- Hainmueller, J. (2012). 'Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies'. *Political Analysis*, 20(1): 25–46. https://doi.org/10.1093/pan/mpr025
- INEGI (2025). 'Censo de Población y Vivienda [Data set]'. Mexico City: Instituto Nacional de Estadística y Geografía. Available at: https://en.www.inegi.org.mx/programas/ccpv/2020/ (accessed 1 June 2025).
- Infobae (2019). 'El mito del "narco benefactor" y los oscuros intereses detrás de la repartición de ayuda a la población'. *Infobae*, 23 October. Available at: https://www.infobae.com/america/mexico/2019/10/23/el-mito-del-narco-benefactor-y-los-oscuros-intereses-detras-de-la-reparticion-de-ayuda-a-la-poblacion/ (accessed 11 September 2025).
- Koivu, K.L. (2018). 'Illicit Partners and Political Development: How Organized Crime Made the State'. *Studies in Comparative International Development*, 53: 47–66. https://doi.org/10.1007/s12116-017-9242-1
- Larreguy, H., J. Marshall, and J.M. Snyder, Jr. (2020). 'Publicising Malfeasance: When the Local Media Structure Facilitates Electoral Accountability in Mexico'. *The Economic Journal*, 130(631): 2291–327. https://doi.org/10.1093/ei/ueaa046
- LAPOP (Latin American Public Opinion Project) (2014–23). 'AmericasBarometer: Mexico, 2014 [dataset]'. Nashville: Vanderbilt University. Available at: https://www.vanderbilt.edu/lapop/ab2014.php (accessed 1 June 2025).
- Latinobarómetro (2020).' Latinobarómetro 2020 Survey [dataset]'. Santiago: Latinobarómetro Corporation. Available at: https://www.latinobarometro.org/latinobarometro-2020 (accessed 1 June 2025).
- Lee, S. (2024). 'Organized Crime, Local Politicians, and State Capacity'. Ph.D. Dissertation. New York, NY: Columbia University.
- Lessing, B. (2017). 'Counterproductive Punishment: How Prison Gangs Undermine State Authority'. *Rationality and Society*, 29(3): 257–97. https://doi.org/10.1177/1043463117701132
- Lessing, B. (2021). 'Conceptualizing Criminal Governance'. Perspectives on Politics, 19(3): 854–73. https://doi.org/10.1017/S1537592720001243
- Levi, M. (1988). Of Rule and Revenue. Berkeley, CA: University of California Press.
- López García, A.I. (2025). 'When Governments Deliver: Migrant Remittances and the Willingness to Pay Higher Local Taxes'. *Development and Change*, 56(3): 393–425. https://doi.org/10.1111/dech.70002
- López García, A.I., and S. Berens (2025). 'Restoring Trust in Mexico's Police: Do Officer Gender and Work Experience Matter?'. *Policing and Society*, 35(8): 1117–37. https://doi.org/10.1080/10439463.2025.2450430

- Macías-Medellín, M., and A. Ponce (2024). 'Strategic Resources for Drug Trafficking Organizations and the Geography of Violence: Evidence from Mexico'. *Latin American Politics and Society*, 66(4): 92–112. https://doi.org/10.1017/lap.2024.11
- Magaloni, B., and G. Robles (2020). 'Living in Fear: The Dynamics of Extortion in Mexico's Drug War'. Comparative Political Studies, 53(7): 1124–74. https://doi.org/10.1177/0010414019879958
- Magar, E. (2018). Recent Mexican Election Vote Returns Repository. Available at: https://github.com/emagar/elecRetrns (accessed 11 September 2025).
- Mantilla, J., and A. Feldmann (2021). 'Criminal Governance in Latin America'. In Oxford Research Encyclopedia on Criminology and Criminal Justice. Oxford: Oxford University Press. https://doi.org/10.1093/acrefore/9780190264079.013.697
- Melnikov, N., C. Schmidt-Padilla, and M.M. Sviatschi (2020). 'Gangs, Labor Mobility and Development'. NBER Working Paper 27832. Cambridge, MA: National Bureau of Economic Research. https://doi.org/10.3386/w27832
- Méndez, E. (2025). 'Sinaloa, inundada de fentanilo: México golpea a los Chapitos en el bastión de la droga que parte a Estados Unidos'. *El País*, 23 February. Available at : https://elpais.com/mexico/2025-02-23/sinaloa-inundada-de-fentanilo-mexico-golpea-a-los-chapitos-en-el-bastion-de-la-droga-que-parte-a-estados-unidos.html (accessed 11 September 2025).
- Nieto-Matiz, C. (2023). 'When the State Becomes Complicit: Mayors, Criminal Actors, and the Deliberate Weakening of the Local State in Colombia'. Comparative Political Studies, 56(9): 1295–327. https://doi.org/10.1177/00104140221139380
- OECD (2025). Estadísticas de los ingresos en América Latina y el Caribe 2025: Notas por país México. Paris: OECD Publishing. Available at: https://www.oecd.org/content/dam/oecd/es/publications/reports/2025/05/revenue-statistics-in-latin-america-and-the-caribbean-2025-country-notes\_29961c77/mexico\_365f99c2/993680fd-es.pdf (accessed 11 September 2025).
- Osorio, J., and A. Beltrán (2020). 'Enhancing the Detection of Criminal Organizations in Mexico using ML and NLP'. Paper presented at the 2020 *International Joint Conference on Neural Networks (IJCNN)*, Glasgow, 19–24 July. https://doi.org/10.1109/IJCNN48605.2020.9207039
- Post, A.E., V. Bronsoler, and L. Salman (2017). 'Hybrid Regimes for Local Public Goods Provision: A Framework for Analysis'. *Perspectives on Politics*, 15(4): 952–66. https://doi.org/10.1017/S1537592717002109
- Sánchez Salazar, E. (2023). Aportaciones federales y el principio compensatorio: Una revisión a las fórmulas de los fondos. Mexico City: Centro de Investigación Económica y Presupuestaria (CIEP). Available at: https://ciep.mx/aportaciones-federales-y-el-principio-compensatorio-una-revision-a-las-formulas-de-los-fondos/ (accessed 11 September 2025).
- Skarbek, D. (2011). 'Governance and Prison Gangs'. American Political Science Review, 105(4): 702–16. https://doi.org/10.1017/S0003055411000335
- Sobrino, F. (2020) 'Mexican Cartel Wars: Fighting for the U.S. Opioid Market'. Working Paper. Available at: https://www.fersobrino.com/files/DraftPaper.pdf (accessed 11 September 2025).
- Stolkin, G. (2023). 'Paying for Violence: The Effect of Drug Trafficking Organization: Presence on Consumer Prices'. https://doi.org/10.2139/ssrn.4428016
- Trejo, G., and N. Skigin (2024). 'Silencing the Press in Criminal Wars: Why the War on Drugs Turned Mexico into the World's Most Dangerous Country for Journalists'. *Perspectives on Politics*, First View: 1–22. https://doi.org/10.1017/S153759272400135X
- Trejo, G., and S. Ley (2020). Votes, Drugs, and Violence: The Political Logic of Criminal Wars in Mexico. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781108894807
- UNODC (United Nations Office on Drugs and Crime) (2023). *Global Study on Homicide 2023*. Vienna: United Nations. Available at: https://www.unodc.org/gsh/ (accessed 11 September 2025).
- Uribe, A., B. Lessing, N. Schouela, and E. Stecher (2025). 'Criminal Governance in Latin America: Prevalence and Correlates'. *Perspectives on Politics*, 1–19. https://10.1017/S1537592725101849
- van den Boogaard, V., and F. Santoro (2022). 'Financing Governance Beyond the State: Informal Revenue Generation in South-Central Somalia'. *African Affairs*, 121(485): 569–94. https://doi.org/10.1093/afraf/adac030
- Vázquez del Mercado Almada, G., and L. Félix (2022). 'Mexico's at War with Itself'. *Global Initiative*, 21 October. Available at: https://globalinitiative.net/analysis/mexico-war-with-itself/ (accessed 11 September 2025).

- Vázquez del Mercado Almada, G. (2019). 'Central America's Criminal Culture. Lessons for Mexico'. *Global Initiative*, 4 July. Available at: https://globalinitiative.net/analysis/central-americas-criminal-culture-lessons-for-mexico/ (accessed 11 September 2025).
- Velázquez, C. (2025). 'Ola de violencia inunda de sangre a Sinaloa: Guerra Chapitos vs. Mayiza suma 829 asesinados'. *El Financiero*. 10 February. Available at : <a href="https://www.elfinanciero.com.mx/estados/2025/02/10/ola-de-violencia-inunda-de-sangre-a-sinaloa-guerra-chapitos-vs-mayiza-suma-829-asesinados/">https://www.elfinanciero.com.mx/estados/2025/02/10/ola-de-violencia-inunda-de-sangre-a-sinaloa-guerra-chapitos-vs-mayiza-suma-829-asesinados/</a> (accessed 11 September 2025).
- WorldPop (2025). 'WorldPop database [Data set]'. Southampton: University of Southampton. Available at: https://www.worldpop.org (accessed 11 September 2025)
- Xu, Y. (2017). 'Generalized Synthetic Control Method: Causal Inference with Interactive Fixed Effects Models'. *Political Analysis*, 25(1): 57–76. https://doi.org/10.1017/pan.2016.2
- Zapata Celestino, K. (2023). 'The Clandestine Welfare: The Role of Illicit Actors in the Provision of Social Protection in Latin America'. *Journal of International and Comparative Social Policy*, 39(2): 128–46. https://doi.org/10.1017/ics.2023.10