

# State-evading Solutions to Violence: Organized Crime and Governance in Indigenous Mexico

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# State-evading Solutions to Violence: Organized Crime and Governance in Indigenous Mexico

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#### Abstract

The monopoly of violence in the hands of the state is conceived as the principal vehicle to generate order. A problem with this vision is that parts of the state and its law enforcement apparatus often become extensions of criminality rather than solutions to it. We argue that one solution to this dilemma is to "opt out from the state." Using a multi-method strategy combining extensive qualitative research, quasi-experimental statistical analyses, and survey data, the paper demonstrates that indigenous communities in Mexico are better able to escape predatory criminal rule when they are legally allowed to carve a space of autonomy from the state through the institution of "usos y costumbres." We demonstrate that these municipalities are more immune to violence than similar localities where regular police forces and local judiciaries are in charge of law enforcement and where mayors are elected through multiparty elections rather than customary practices.

"Here there is no organized crime presence. We don't have criminal gangs either. If there were, the topiles (community police) would mobilize to protect social order and would alert the community so we could all get organized to resist them."

-Interview with an elderly shopkeeper from Otozolotepec, Oaxaca, Mexico

#### Introduction

Criminal groups "rule" territories, performing state-like functions such as taxation, conflict resolution, policing, and even welfare delivery, much like rebel groups (Arjona, 2016; Mampilly, 2011; Arias, 2017; Magaloni et al., 2020; Lessing and Willis, 2019; Yashar, 2018; Lessing, 2020; Trejo and Ley, 2020). Our work expands upon this body of work focusing on rural Mexico, where the degree of infiltration and local control of cartels¹ puts them on par with very successful insurgencies.

Mexican cartels' revenue generation model is no longer based purely on drug trafficking, but also the large-scale extortion of licit activities and looting of mineral and natural resources. Though, as our field research shows, there are clear differences between cartels' business models regarding the importance of extortion as a source of revenues. This comprehensive illegal revenue extraction is flanked by the capture of elected governments and police at the state and municipal levels (Trejo and Ley, 2020). Because official security forces in Mexico often fail to provide security and many end up captured by the cartels, some rural communities organize autodefensas to defend themselves (Guerra Manzo, 2015; Osorio et al., 2021; Moncada, 2019). Although explaining autodefensas goes beyond our scope, a problem with this strategy is that cartels can coopt these armed groups even after their initial successful resistance. It is also difficult for communities to maintain citizen engagement for non-state security provision if they lack strong traditions of collective action. This paper focuses, instead, on the role of municipal governance institutions and how these shape the capacity of rural communities either to resist the dominance of cartels or to submit to them.

We argue that the institution known as usos y costumbres (hereafter "usos") provides a strong protective mechanism against cartels. Usos is a form of indigenous self-rule based on customary practices (Recondo, 2007; Eisenstadt, 2011). A key difference in

<sup>&</sup>lt;sup>1</sup>We will use the word "cartel" in an emic sense as a term used by violent crime groups in the Mexican context. In anthropology, "emic" refers to viewpoints and concepts obtained from within the social group (from the perspective of the subject).

municipalities with usos is that mayors and other local authorities are selected following local traditions. The selection often considers one's history of service to the community through the system of *cargos*, and is not organized along political party lines. The ultimate authority is the community assembly that selects these leaders and meets with regularity to make public decisions. There is also a customary justice system for dispute resolution and a community police of local townspeople.

Our theory and empirical findings raise important questions about the problem of order. The literature on state building has argued that the monopoly of violence in the hands of the state, accomplished after long-term processes of warring and conflict, allowed European nations to establish order (Tilly, 1990; Olson, 1993). The nationalization of justice rendered vigilantism, frontier justice, and violent retaliation increasingly unnecessary to deter crime (Pinker, 2012). By contrast, in many developing settings, the state has failed to monopolize violence. The literature attributes this problem to "difficult geography" (Herbst, 2014) or poverty (Fearon and Laitin, 2003). These works share a vision that the state constitutes a solution to the problem of order, and that increasing state presence in its most remote corners is needed to tame violence.

This influential vision about the emergence of order misses the important problem that parts of the state and its law enforcement apparatus often become extensions of criminality rather than solutions to it. In contrast to rebels, organized criminal groups often seek the active collaboration of the state. This is because the expansion of illicit activities is more effective with the assistance of state agents that they buy through rampant corruption (Snyder and Duran-Martinez, 2009; Barnes, 2017; Moncada, 2013). The most tyrannical form of criminal rule emerges where criminal groups extract resources from the population and violate human rights with the full backing of state agents and police forces.

In this paper we argue that one solution to this form of predatory criminal rule is to "opt out from the state." The paper demonstrates that rural indigenous communities in Mexico live more securely where they are legally allowed to carve a space of autonomy

from the state. Our findings join Scott (2010), who also conceives benefits to the strategy of living at the margins of the state. In the case he studies, hill societies in Southeast Asia avoided exploitation in the form of taxes, slavery, and epidemics by keeping the state away. In our case, usos allow communities to prevent takeover by corrupt leaders and local police infiltrated by cartels. Our approach is also congenial with Ostrom (1990)'s seminal contribution. In her approach, cooperative governance of common pool resources can be more effective in formulating and enforcing rules than a centralized state, which lacks enough information and capacity to enforce rules. We extend this approach to the problem of social order.

Our findings also relate to the emerging literature on traditional governance. Holzinger et al. (2019) provide a comprehensive study of the constitutional acknowledgment of indigenous rights and customary law across the globe, showing that over 30% of the world's population lives under traditional political institutions. Some earlier literature regarded traditional authorities as competitors to the centralized state and a challenge to state building (Migdal, 1988). Others regard traditional authorities as the very antithesis of democracy (Mamdani, 2018). More recent literature has questioned these views and posits that recognizing traditional governance can actually strengthen state compliance (McMurry, 2020) and that traditional authorities can be accountable and effective in providing local public goods (Holzinger et al., 2019; Baldwin, 2016).

Our paper joins Moncada (2019)'s important contribution in exploring civilian strategies of resistance to criminal groups. Our approach is also congenial with Mattiace et al. (2019), who use case studies from Mexico to argue that indigenous communities that establish regional autonomy are most able to resist narcos. In their approach, autonomy is conquered by those indigenous communities that have "a history of social mobilization" in trans-local indigenous movements. Our approach underscores instead the role of formal municipal governance institutions and provides both qualitative and a range of quasi-experimental statistical evidence supporting our theoretical claims. Our findings are also congenial to Arjona (2016)'s pioneering work on Colombia, where she shows

that strong community organization allows civilians to establish less intrusive social contracts with armed groups. In our case, it is the congruence of strong social control and formal institutions granting legal autonomy that can deter cartels' collusion with local authorities and the imposition of predatory rule. The paper also contributes to recent work on vigilantism that explores why civilians who are exposed to high levels of violence and where the state fails to punish crimes often seek punitive justice, including vigilante actions (Garcia Ponce et al., nd; Bateson, 2021).

To explore how non-state forms of local leader election impact criminal rule, this paper exploits a constitutional reform in Oaxaca, the only state in Mexico that has legalized usos. Some municipalities outside Oaxaca have obtained recognition to self-rule through federal judicial channels. The most prominent cases include various P'urhepecha communities in Michoacán. Our findings draw from extensive field research that contrasts indigenous responses in municipalities ruled by political parties and usos in Oaxaca as well as responses in the indigenous P'urhepecha region. The paper presents a range of statistical tests, analyzing a national victimization survey and homicide and cartel presence data using difference-in-differences, matching, and geographic discontinuity, all of which lend credence to our argument that the protective effect of usos is causal.

#### 1 Violence in Mexico

Mexico is the second-largest opium producer in the world UNODC (2008). In addition, between 60 to 90 percent of the cocaine consumed in the U.S. transits through Mexico (DEA, 2011). Cartels aspire to control territory valuable for drug cultivation, production, transportation, and smuggling. While there is a clear economic motivation explaining why cartels fight for certain locations, politics also influences territorial control and levels of conflict. During the long period of dominance by the Institutional Revolutionary Party (PRI), deals between the state and cartels could be enforced without much violence. These deals secured a state-sponsored division of territory among cartels and a more or

less peaceful co-existence (Astorga, 2003; Grillo, 2011). However, alternation of political power in office first at the local level in the 1990s (Trejo and Ley, 2020, 2018) and then at the national level in 2000 upended these deals (Osorio and Reyes, 2014; Rios, 2015). With competitive party elections and political alternation, these deals became unstable, and increased the frequency with which cartels intimidate, coerce, and kill local officials (Blume, 2017; Trejo and Ley, 2016).

The recent sharp increase in violence in Mexico is further associated with security policies. The onset of the Drug War during the Calderón presidency (2006–2012) produced a massive escalation of violence. Armed forces deployed across the country to help local governments fight organized criminal groups, and targeted cartel leaders for arrest or assassination. State crackdowns and this beheading strategy had unanticipated consequences, fracturing cartels and increasing the incidence of turf wars for valuable territory (Guerrero, 2011a; Dell, 2015; Lessing, 2015; Phillips, 2015; Calderón et al., 2015; Castillo and Kronick, 2020).

With escalating competition over territory, cartels developed a diversified revenue generation model that includes the large-scale extortion of licit activities, including farming (e.g., avocados, lemons, berries). They also invade land to prey on oil, mining, and forestry (Guerrero, 2011b; Moncada, 2019). In addition to the regular payment of "cuotas," many cartels began to use "kidnappings" and "disappearances" to extract revenue from local populations.

#### Cartel takeover

As part of this illegal revenue extraction model, cartels aim to capture elected governments at the state and municipal levels, and the corresponding administration and police. The capture of elected governments and administrations offers to these criminal groups protection, intelligence, and, ultimately, impunity. Existing literature and our fieldwork suggest that takeover of municipalities by organized criminal groups occurs via a combi-

nation of three mechanisms.

First, takeover involves establishing criminal cells and infiltrating communities. Local criminal cells represent a ready-made entry point for cartels to infiltrate municipalities. They begin by providing information about a locality and carrying out initial criminal activities on behalf of the cartel. In return, cells receive money and weapons, and can use the cartel's name (or "brand").<sup>2</sup> Where successful, crime surges. The constant threat of criminal groups forces local communities to remain vigilant to fend off infiltrations and intrusions. As we explore below, usos municipalities are significantly better able to deter and sanction this form of infiltration.

Second, once initial cells have been established, cartels can strengthen their presence and build connections to local politics and police. Influencing politics can go through various channels, including financing electoral campaigns of main local candidates and continuing to pay bribes to the winner. In addition to mere corruption, the "hard" way of infiltrating local politics is through the use of violence to intimidate and, if necessary, kill rivals (Trejo and Ley, 2020).

A third way in which cartels take control of communities is by violent takeover. This is the hardest and most violent form of gaining control of a territory. It is omnipresent in current-day Mexico—and also highly visible. These military offensives are often accompanied by assassinations of political officials. In addition to targeting the population, cartels take aim at mayors and chiefs of police whom they fear may defect to a rival cartel or are already on rivals' payrolls.

# 2 Indigenous Autonomy in Oaxaca

Oaxaca is the only state that has legalized indigenous cultural practices and autonomy. Since 1995, 418 of the 570 municipalities of Oaxaca govern themselves accordingly. The usos reform was adopted by governor Heladio Ramirez (1986-1992)—himself indigenous—

 $<sup>^2</sup>$ We identified several likely cases during our fieldwork. Debriefing on November 2019 in Michoacán and February 2020 in Oaxaca.

to recognize Oaxaca's multiculturalism. There is considerable speculation in the literature about why political elites in Oaxaca adopted the reform. One line of argumentation stresses that state elites feared the spread of indigenous peasant uprisings from the Zapatista rebellion in Chiapas (Eisenstadt, 2011; Trejo, 2012). Other scholars focus on local elites' electoral calculations, arguing that the PRI selected usos to entrench itself and deter the entry of opposition parties into local politics (Benton, 2012, 2017). A third explanation emphasizes the convergence of various national and local factors, including the presence of a strong local indigenous movement lobbying for autonomy and state power holders' imperative to halt the opposition and settle persistent problems of violence (Recondo, 2007). Indeed, as we show below, in the early 1990s rural municipalities in Oaxaca had among the highest levels of interpersonal violence in the country.

It is important to further trace the usos reform to longer-term historical processes. Indigenous communities in Oaxaca have long traditions of autonomy, some dating back to pre-Hispanic times. The Aztecs ruled Oaxaca's Valles Centrales for only thirty years, when in 1486 they established their first major military base in Huaxyácac charged with the enforcement of tribute collection (Schmal, 2006). Before that, a significant area of today's Oaxaca lay wholly outside of Aztec imperial boundaries—what Davies (1968) called Señoríos Independientes. When the Spaniards conquered Mexico, and during the colonial era, Oaxaca saw the emergence of a more powerful indigenous elite. Diaz-Cayeros and Jha (2016)'s study shows that indigenous producers of cochineal dye—New Spain's most valuable processed good that was mostly produced in Oaxaca<sup>3</sup>—were more likely to survive the conquest and extract concessions from the conquistadores because this economic activity was hard to replicate and expropriate. There was also a tradition of violent resistance in Oaxaca. After the Spanish conquest, the Mixes (Ayuujkjä'äy) were able to resist through violent uprisings (tot Westerflier, 2007; Burgoa, 1989). The last major Mixe rebellion came in 1570, when they attacked and burned the Spanish presidio

 $<sup>^3</sup>$ Cochineal was also produced in other regions such as Tlaxcala, where contrary to Oaxaca, the indigenous elite would lose their cultural ethnic distinctiveness.

of Villa Alta, which had been established as the new capital of the province with sixteen Mixe towns that would be subject to the Crown. The Spaniards crushed the rebellion and the Mixe retreated to remote parts of the Sierra, retaining significant autonomy (tot Westerflier, 2007).

With Mexican independence, attempts at state building and establishing centralized military control challenged the autonomy of indigenous communities. Liberal reforms in the second half of the nineteenth century would abolish lands held in common by indigenous communities. In contrast to most states where indigenous communities were totally expropriated from their lands by powerful landholding white local elites, Oaxaca was not governed by White or Ladino elites or landowners, but an ascendant indigenous political class.<sup>4</sup> Communal land often dating back to colonial times, rather than ejidal land, survived these reforms, underscoring the persistence and strength of traditional forms of indigenous rule.

The 1995 reform legalized these cultural traditions. Several authors believe the reform enhanced conflict, particularly in the electoral arena (see Eisenstadt, 2007, 2011; Eisenstadt and Ríos, 2014). This paper departs from these perspectives by providing solid evidence that the usos reform significantly reduced interpersonal violence. We emphasize that our reading of the existing literature allows us to understand why Oaxaca's unique history explains the adoption of the reform. Nonetheless, there remains a gap in our knowledge and available data<sup>5</sup> to explain why different municipalities adopted this reform. We know that adoption was heavily correlated with a municipality being more indigenous, poor, and rural. We will exploit this variation to provide causal evidence of the effect of this institution on criminal governance.

<sup>&</sup>lt;sup>4</sup>Recall that in 1858, Benito Juárez became the first president of indigenous origin in Mexico. He was born in Oaxaca to a poor, rural Zapotec family.

 $<sup>^5</sup>$ Unfortunately, to our knowledge there are no voting records from when community assemblies opted for these institutions.

# 3 Background of Qualitative Evidence

The centerpiece of our qualitative evidence stems from research conducted in 2019-20 in central and northeastern Oaxaca focusing on rural non-governmental police forces. We hired graduates of the Instituto Superior Intercultural Ayuuk (ISIA), a university of indigenous students located in the lower Mixe region, training them using the Institution-Centered Conflict Research (ICCR) approach (see Koehler et al., 2019). During the training we selected 10 municipalities in Oaxaca, three "party"- and seven "usos"-governed (see left panel in Figure 1). Five lie in ethnic Mixe areas and cluster around Route 147, the westernmost route leading from the Isthmus towards the north and bordering Veracruz. This area is hotly-contested between the Cartel Jalisco Nueva Generación (CJNG) and remnants of the Zetas and Gulf Cartel. It is not uncommon to see armed sicarios in daylight (see e.g. field diary, August and September 2019). The other five lie in the Valles Centrales, 20 to 60 minutes driving distance from Oaxaca City. This area is well-connected and its economy, based on tourism and mezcal production, is vibrant. With the Valles Centrales municipalities we thus wanted to investigate whether in a more connected and developed context usos communities still resist cartel takeover. We found strong supporting evidence.

However, our qualitative research in Oaxaca is much longer-term and dates back to 2009, when one author first conducted focus group discussions and further qualitative interviews. This was followed by large-scale fieldwork in 2012–13 in northeastern Oaxaca—also with students from ISIA and using the ICCR methodology, but focusing on local governance. As our research interest shifted to include the presence or absence of cartels, the author(s) conducted additional field visits and interviews in the area (in 2014, 2018, and 2019). Finally, to contextualize our findings, we conducted extensive literature and online research on the broader region of our fieldwork municipalities: a large territory encompassing 119 municipalities between Route 147 along the Veracruz Border and Route 190 in the Valles Centrales reaching down toward the Isthmus.

We also conducted fieldwork in Michoacán using the same methodology, with local students led by a preeminent local photojournalist. The research team in Michoacán divided into two groups: the indigenous P'urhepecha region, and Tierra Caliente and Costa. In this paper we exclusively report on the Meseta P'urhepecha. Details of all research, including training, fieldwork, ethical considerations, and outputs, are in the Online Appendix.

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Figure 1: Research sites

# 4 Why usos deters cartel takeover

In terms of the criminal economy, Oaxaca is an important transshipment nexus with a long coastline, a busy harbor (Salinas Cruz), and three important routes leading from Central America towards the US-Mexican border (one along the coast, another via the center crossing the state capital, and a third along the Veracruz border). There is significant cultivation of marijuana and opium poppy in remote areas. Based on UNODC (2008), Oaxaca is the fifth-largest opium poppy cultivating state in Mexico. Despite its importance for the drug economy, violence in Oaxaca has remained relatively low (as compared to other Mexican states). Mexico's criminal cartels nonetheless maintain a presence in the state. Our qualitative evidence and statistical analyses demonstrate that the institution of usos is more resilient to cartel takeover and better able to deter criminal activity and violence. In this section, we develop a theory based on our fieldwork

that focuses on three mechanisms explaining why usos municipalities are better able to resist cartel takeover and control crime than party municipalities: i. social control and capacity for collective action; ii. a strongly participatory form of decision-making; and iii. the system of police and conflict resolution that is detached from the state.

#### Social control and capacity for collective action

Social control refers to how people's behavior is regulated by norms, rules, and laws. When this is strong, it is costly for individuals to engage in anomic behavior. Informal forms include norms and values, which are internalized and reinforced in social interactions. Formal social control relates to sanctions enforcing codified rules, regulations, and laws. It usually implies the involvement of state judicial (courts) and executive (police) bodies.

Usos communities share informal social control with many indigenous communities across Mexico endowed with strong communitarian traditions. However, a main difference is the backing of informal social control with formal mechanisms. Formally-constituted usos polities enforce explicit (often written) rules. The sindico or alcalde in pettier cases, and the communal assembly in grave cases, determine sanctions for breaches. Community police (topiles) implement sanctions and are first-responders to crime.

In usos communities, fines are common for many smaller transgressions: absence from communal meetings (Mex\$100-200 fine imposed in five of eight usos municipalities surveyed in 2012), non-participation in communal work (all surveyed communities sanctioned non-participation with fines, up to Mex\$500), speeding, littering, and drunkenness. Unsurprisingly, in contrast to party municipalities, usos communities are cleaner, more orderly, have only a few (if any) drunkards roaming the streets (they get arrested and thrown in the communal jail, as the sale of alcoholic beverages is often prohibited to known alcoholics), and bars and cantinas close by 10pm, enforced by topiles.

With regard to suppressing criminal behavior, these informal and formal mechanisms

of social control are rather effective. Communities suppress drug abuse, and prevent and punish norm-breaking criminal behavior. More serious transgressions like theft, refusal to perform cargos, or corruption can result in expulsion, confiscation of lands, or death. Expulsions are not spontaneously-imposed or taken lightly, but are explicitly stipulated for certain transgressions as one of the harshest punishments possible and deliberated over a series of assemblies. They are repeatedly put into practice. In our fieldwork and desktop research we identified 21 cases of expulsions from the case study area, with nine relating to criminal behavior. Four expulsions resulted from the refusal to perform cargos, and two from mayoral corruption. We found no expulsions in party municipalities, where people expressed an inability to denounce crimes to anybody other than the (often corrupt) police. Our interviews revealed that these residents mostly decide not to denounce crimes.

In some cases, formal and informal sanctions are combined. We recorded an interesting case from the municipality of UC17,<sup>6</sup> where a comunero reportedly assisted car thieves. As the plot was uncovered the external criminals fled. The assembly fined the man, but decided not to expel or physically punish him. However, it permitted the damaged parties to take revenge. The (alleged) perpetrator was then severely beaten by the person whose car was stolen and is now socially dead—the community avoids social contact with him and excludes him from communal activities.

Relating social control back to the first hypothesized mechanism of cartel takeover—the establishment of criminal cells—our cases make it clear that the strong social control in usos communities makes it more difficult for deviant criminal groups, which cartels use to gain footholds in communities, to emerge. Moreover, social cohesiveness is essential to repel armed criminal attacks, as we discuss below in the section on community policing. Our field research revealed that communities often sounded an alarm (ringing the church bell) and violently confronted intruding criminals. In many usos municipalities we found night curfews and chains on access roads to prevent entry.

The high degree of social control in usos contrasts with party municipalities, which lack

 $<sup>^6\</sup>mathrm{We}$  omit locality names when important to protect our informants.

formal sanctions enforcing participation in assemblies, communal works, or, in extreme cases, collective defense. Instead, norm compliance relies exclusively on informal sanctions (shame and respect). Enforcement of criminal behavior relies on informal sanctions and the rather-dysfunctional police and justice system. As a result, party municipalities have greater difficulty enforcing norm-compliant behavior, making the emergence of criminal cells more likely.

Moreover, we observed that party municipalities tend to be significantly more divided and fragmented. These divisions, in turn, make it harder for communities to act collectively to respond to cartel attacks. It is difficult to know if these divisions are the product of partisan competition, but given fierce partisan fights over public resources this is possible. Magaloni et al. (2019) demonstrate that usos municipalities distribute public resources more equally than in party municipalities, where mayors often disproportionately favor their supporters. It is not uncommon to find public services like water cut off from neighborhoods that voted for opposition parties. The authors even found in some party municipalities that people refuse to socialize with or marry members of different political parties. In terms of community initiatives to improve security, our field research revealed few actions in party municipalities. We found no night curfews nor chains closing access to the towns. The most we saw were neighborhoods with private police, or "casetas de vigilantes." We also found groups of men performing night watch, but performed at most in a few streets and never involving the entire town.

An exception to this general observation on party municipalities are villages (agencias) where indigenous communities informally continue their usos traditions. As such, they have communal assemblies, unpaid cargos, tequios, and topiles (e.g. El Zapote in the party municipality of San Juan Guichikovi). These communities are often better-placed to provide security to their citizens than neighboring party agencias. But a problem with these usos agencias is that their municipal police is selected and controlled by a mayor who is elected through party elections and, as we elaborate below, generally more likely to be corrupt.

#### Participatory decision-making

The second approach to capture municipal governments relates to bribing and intimidating municipal leaders already in office. The greater transparency of usos (compared to party governance) and how ultimate authority lies with the communal assembly make collusion between elected authorities and criminal groups more difficult. There is a very high degree of public participation in communal governance and decision-making. The usos municipalities we have surveyed have regular communal assemblies (between four to 12 times a year) that last between two to eight hours. Communities can also call meetings if need arises. Of the six usos municipalities that provided us with agendas of their most recent assemblies, five discussed public works, budgets, and spending (community profiles 2012), underlining a high degree of transparency and accountability of usos authorities. As an example, on the last day of our team training in Jaltepec, an extraordinary and obligatory communal assembly convened because the cargo-holder for public works was accused of embezzling Mex\$400,000. Participation in the assembly to adjudicate his dismissal was enforced by topiles closing all roads leading out. Once there, the accused cargo-holder could prove that he had submitted the amount in cash to the mayor. This case illustrates the swift and highly-public investigation of any accusations regarding misuse of funds. We also learned about two mayors expelled for corruption, further underscoring the degree of public scrutiny and level of punishments for irregularities in handling public funds.

The high degree of participation in public matters and the resulting accountability of office holders sharply contrasts with party municipalities, where decision-making is delegated to local authorities and administrations. As such, government is easily captured by a small number of local elites. In party municipalities there is a *cabildo* or local assembly, but this is appointed, powerless, and dis-embedded from the community, leaving mayors with more freedom to steal from public coffers and cut deals with narcos.

In usos municipalities, it is extremely rare for someone to be elected as local

authority—mayors, regidores, council of elders, etc.—without a clear history of service. The system of *cargos* provides the key ladder for ascension to leadership positions, so those with a proven record of service are elected as mayors. Usos mayors are more constrained by the expectation of living in the community after their terms than party-elected leaders, who normally leave in search of higher office after one term.<sup>7</sup>

The high degree of transparency and the constant scrutiny of the assembly also makes it potentially more difficult for corrupted (or intimidated) authorities within usos municipalities to deliver on corrupt deals. In usos community UC02-b, a cartel requested cooperation from an agente (chairman or mayor of a community). The agente called an extraordinary assembly where he reported the threats he had received. The assembly decided to visibly demonstrate its capacity to defend itself. With armed comuneros riding in the beds of 100 pickup trucks, it entered a nearby town considered to be the cartel's local headquarters. The demonstration did not result in violence, but in the coming days the community erected chains and posted night guards at its entrances. Assemblies where local officials must give account to the public are the absolute exception in party municipalities (one notable exception is our 2013 survey municipality of Ayotzintepec).

#### Detached community police and justice from the state

The third mechanism that protects usos communities from cartel capture is their local security and justice (retribution) system that is largely detached from the state. This is key because official Mexican law enforcement and security forces are unable to provide reliable security due to corruption, ineptitude, and insufficient numbers. Victimization surveys analyzed below and our interviews from Michoacán show a great deal of mistrust in municipal and state police, perceived as corrupt. In Michoacán allegations of collusion between the police and the narcos were common, as we elaborate below, and in many cases civilians fear reporting crimes to the police because they can be targeted in retaliation.

<sup>&</sup>lt;sup>7</sup>Until recently, mayors (both usos and party) could not be reelected for a consecutive term. Reelection for mayors first took place in July 2018. Exploring the effect of mayor reelection on criminal governance goes beyond our scope and time period.

In our Oaxaca interviews the most frequent allegations were not responding in cases of criminal threats and that if perpetrators are handed over to the justice system, they would be immediately let free (e.g. interview with former head of usos municipal police on 2 July 2014). We also noted clear cases of police harassment and even extortion in the broader research region (see, e.g. in Tamazulapam, debriefing in 2012; see also Quadratin, 24 March 2015).

In contrast, usos municipalities can provide local security and justice mostly independent of the state. First, the far-reaching autonomy granted by the constitution of Oaxaca extends partly to the field of security and justice, allowing these communities to resolve most crimes and conflicts internally—in theory, as long as all those involved agree to follow customary law (Code of Criminal Procedure of the State of Oaxaca, Art. 414 "Indigenous Communities"). Even though homicide and manslaughter are exempt, usos communities seek to and have traditionally sought to informally extend their autonomy to these offenses, too. Second, through their institutional setup and strong social control they have the capacity to effectively organize collective violence to fend off intrusions and sanction perpetrators. This autonomous system thus represents an effective alternative to state-provided security, justice, and enforcement.

In usos municipalities, the autonomous security and justice provision and its capacity to organize collective violence has three key pillars. We found this structure, with minimal variations in titles, responsibilities, and terms, in all qualitatively-surveyed usos municipalities and communities. Police leadership comes from the cargo-holding communal headmen, most importantly the municipal president in cabeceras and agentes in communities outside of them; the sindicos (a kind of constable) who are responsible for resolving conflicts and are usually also the commander of the communal police; and officers of the communal police (mayores or mayores de vara).

The first line of active defense is the community police, or topiles. They conduct patrols, identify outsiders, enforce curfews, and man checkpoints. Usually they are unarmed, but increasingly, as in the case of night patrols in the community of Otzolotepec,

they carry arms due to mounting cartel threats. Topiles play an active role in keeping the community safe from organized criminals, including alerting the community so all mobilize against criminals, as expressed by the elderly shopkeeper in the epigraph. In another case in a community of San Juan Mazatlán (UC01-a), topiles drove off and arrested criminals who tried to kidnap a comunero (debriefing, February 2020).

The last layer of the autonomous security and justice system is the community itself and its decision-making body in the communal assembly. During emergencies, like incursions by hostile armed men, kidnappings, or robberies, usos communities mobilize spontaneously. Out of a total of 18 identified cases of violent communal self-defense, ten likely involved a spontaneous mobilization of the (mostly male) population. Often in such cases topiles ring a bell calling all comuneros to participate in defense. As an example, in 2011 a suspected Zetas raiding party entered the usos community (UC02-b) of the municipality of San Juan Cotzocón guided by a local delinquent. This Zetas group was known to have entered and extorted other communities nearby, and community UC02-b was on alert. Upon being informed, the agent sounded the alarm and called the population to arms in Mixe via loudspeakers. Seeing the general mobilization, the Zetas fled and did not return (debriefing and case study, May 2012). In other cases communal mobilization is even more spontaneous. In VCUC07 in the Valles Centrales, the community was on alert because of repeated robberies and extortion in the town. One night, neighbors heard cries of a family being assaulted and came to help. Topiles apprehended three criminals who were then, by communal decision, burnt alive (debriefing and case study, February 2020).

When criminals cannot be arrested on site and instead flee, usos communities often alarm neighboring communities who rapidly erect checkpoints to block all escape routes. In all three such cases we identified in the research region (debriefing 2012, interviews in 2014 and 2018), this regional mobilization succeeded either in apprehending the fleeing criminals (two cases) or forcing (one case) the criminals to free kidnapped children lest they risk passing spontaneously-erected checkpoints with victims in their vehicle. Topiles

coordinated the action with local authorities, and community members participated in the mobilization. If security challenges leave time for deliberation, like planning raids or demonstrations, erecting and manning checkpoints for prolonged periods, or deciding what to do with apprehended criminals, communal assemblies are convened to organize collective mobilization. We are aware of various cases of such deliberate mobilizations linked to organized crime. One is the already-mentioned case of the UC02-b community's armed demonstration in the cartel's local headquarters. Following the incident, the community erected concrete posts with heavy chains to block vehicle access and for several weeks manned these checkpoints at night. To our knowledge, the community does not pay extortion to the cartel.

Once criminals are apprehended, usos communities must decide how to deal with them. The Mexican criminal justice system is notoriously corrupt and incompetent, and communities (rightly) distrust it. Usos communities thus face a dilemma. Either they adhere to the law, hand over apprehended criminals, and risk the criminals soon coming free (interview with former chief of Mazatlán's uniformed municipal police on 2 July 2014; debriefing February 2020), or they take justice into their own hands. If criminals are from the community, the usual sanction for grave crimes is expulsion. These and lesser sanctions (prison, fines, and informal sanctions like shaming) not only contribute to enforcing norm-compliant behavior, but also physically remove nascent criminal cells and those who could be hired by cartels to form the nucleus of cartel infiltration.

If the criminals are outsiders and the assembly decides not to hand them over to official authorities, a common punishment is lynching. We identified 29 cases of attempted and successful lynchings and extrajudicial killings for the broader research region (9 in party, 20 in usos municipalities). Of these, six (all usos) were actually carried out resulting in the death of 12-14 alleged perpetrators, while the remaining were not carried out, usually because the police intervened. Our cases suggest a clear difference between party and usos municipalities with regard to lynchings. In our usos cases the decision to lynch a criminal is made by the assembly and follows prolonged deliberation. In party communities,

lynchings appear to follow ad hoc dynamics, which may be why they abandon attempts once police arrive. A sindico from an usos municipality (VCUC06) in the Valles Centrales illustrates the deliberative process: "Insecurity was rampant in 2015, and in 2016 it was the same. In the middle of September, the population made justice, they chased a thieve and lynched him ... We have managed to control crime by not involving the state. The law doesn't do what it should. Because the community had all participated in the lynching, criminals were afraid. Imagine, there are many cases when the state detains someone and they let the criminal walk free the next day."

It is important to emphasize that far-reaching impunity does not only refer to crime, but also to self-justice. In none of the cases we are aware of were communal leaders or participants in lynchings persecuted. Nonetheless, fear of state sanctions does impede certain communities from lynching suspected criminals. One example from an usos community within a party municipality in the Valles Centrales: "When we captured the criminals we tied them and were going to burn them, but some said that this will get us in trouble with state authorities." Faced with the dilemma of breaking the law or risking that the state lets criminals go free, some communities devise creative solutions. For example, topiles in an usos community (UC01-a) within the usos municipality of San Juan Mazatlán captured three would-be kidnappers. While they wanted to avoid problems associated with lynching, they feared state authorities would free the kidnappers and wanted to send a strong message about the community's toughness on criminals. They thus turned the tables and requested a very high ransom from the kidnappers' families. Upon payment, the kidnappers were freed. In another case, the same community faced an even greater dilemma: how to deal with a kidnapper within their own ranks. The community decided to expel the kidnapper's parents, who had failed to reign in or report their son's activities. The kidnapper was handed over to state justice. On the day of his court case, the entire community attended and staged a demonstration, forcing the judges to hand down a tough sentence (debriefing, February 2020).

# 5 The P'urhepecha Uprising in Michoacán

Michoacán is a key producer of marijuana, opium poppy, and—since the mid-2000s—synthetic drugs like crystal meth. Moreover, Michoacán is an important transhipment location for illegal goods. It contains Mexico's second largest port, Lázaro Cárdenas, a key entry for South American cocaine and of East Asian precursor chemicals for synthetic drugs. But drug trafficking is only one branch of the newly-diversified criminal business portfolio. In the 2000s, Michoacán's then-dominant cartels, the Familia Michoacana and the Knights Templar, pioneered using extortion of businesses and citizens, kidnap for ransom, diversion of government funds via local and regional state capture, and the exploitation of farming, mineral, and natural resources as main revenue generators. Since then, re-emergent mini-cartels mostly abandoned the most exploitative forms revenue generation and appear to have refocused on drug trafficking as their core business.

Faced with intolerable exploitation and terror, popular resistance emerged in central and southern Michoacán in the early-to-mid 2010s. Though not well-known, we can actually distinguish between two different, though related, uprisings. The internationally better-known, thanks to the charismatic and media-savvy José Manuel Mireles Valverde, is the autodefensa movement that broke out in February 2013 in two Tierra Caliente municipalities against the Knights Templar. By the end of 2014, half of Michoacán's territory was under autodefensa control and the Templars and the Familia Michoacana were defeated and degraded to mini-cartels with no importance outside of Michoacán. From the beginning, the Mexican federal state had an ambivalent relationship with the autodefensa movement. When, under public and international pressure, it intervened in 2014, it integrated existing autodefensa forces into a newly-created police force, only to disband it in 2016 and merge it with the normal state police. With federal intervention the autodefensa movement petered out. Narcos gradually re-infiltrated liberated areas and also some autodefensa groups became drug traffickers.

The second and less well-known uprising was the communitarian uprising of indigenous

communities. Contrary to autodefensas, this uprising was incremental, progressing less through cooperation and coordination and more through emulation. Probably the first community to establish its own non-state police was the P'urhepecha community of Nurio in 2005,<sup>8</sup> followed by the Nahua community of Santa María Ostula in 2009,<sup>9</sup> and the P'urhepecha community of Pichátaro (then municipality of Tingambato) in 2010, against taxation by the Familia Michoacana. These small indigenous local uprisings went largely unnoticed by the Mexican media until in 2011 Cherán, another indigenous P'urhepecha municipality, rose up and expelled the ruling Familia Michoacana gang plus the mayor and municipal police who had been protecting them. With newfound national media attention, one by one, more P'urhepecha communities followed suit.

We use as a counterfactual the uprising in the indigenous Meseta P'urhepecha. In particular, the case of Cherán, a town of 20,586 inhabitants. This case study is significant for various reasons. It first helps illustrate how cartels infiltrate party municipalities. Here, Familia Michoacana infiltrated the community through linkages with local criminal gangs from within Cherán proper and in nearby hamlets (Gasparello, 2018). Moreover, the case reveals why the strategy of "opting out from the state" (here, Cherán gaining legal recognition to self-governance through the 2011 uprising and later gaining autonomy with a ruling from the Supreme Court) is a solution to the problem of social order when existing state institutions for law enforcement are incapable of providing security (here, because they were ineffective and captured by the narcos).

From 2006 onward organized crime presence in Cherán grew. The focus of the criminal economy was, aside from transporting drugs through the town and the (very likely) production of meth in clandestine laboratories, illegal logging and extortion of businesses. Both the latter criminal activities escalated over time. To suppress dissent and intimidate the population, cartels also escalated violence. From 2009 onwards, 15 comuneros were killed and six disappeared (Gasparello, 2018, p. 195).

<sup>&</sup>lt;sup>8</sup>Yet with its links to the Zapatista movement, it may have had a rudimentary patrol much earlier.

<sup>&</sup>lt;sup>9</sup>Directed in equal measure against organized crime and mining companies.

Finally, in a well-coordinated uprising, on 15 April 2011, the population of Cherán confronted the criminal gangs. The uprising took the local gangs, the co-opted municipal government, and Familia Michoacana completely by surprise. Two trucks carrying illegally-logged wood were apprehended in the first hours of the uprising. Municipal police attempting to free the criminals were, after a confrontation, chased out of town with the mayor, suspected by all to be on the criminals' payroll. The townspeople then prepared for defense. They erected barricades at town entrances, organized patrols, and set up neighborhood watches every few blocks that gathered around some 180 fireplaces (fogatas) every night. Over the coming weeks and months the Cheránese repeatedly repulsed attacks by the cartel with several casualties (Gasparello, 2018). In the coming months, a U.S.-based diaspora financed a considerable extent of the uprising.

With the uprising, the community undertook the first step in "opting out from the state." The next essential steps were deciding the town's governance and gaining formal recognition. Cherán's citizens spent considerable effort discussing the form of their usos government. They devised a structure that differs considerably from those in Oaxaca, opting to be governed by a Consejo Mayor (great council) formed of 12 representatives (three from each of the four barrios of Cherán) elected by communal assemblies of the barrios. The council would have no president or chairman and would need to bring decisions by voting. This structure was explicitly devised to make it difficult for criminals to capture local government by bribing or intimidating any single leader (Ruiz, 2015, p. 227).

They also needed to decide the role of political parties. The notion that parties aided the criminal takeover of the town was widespread. One interviewee stated: "If the parties were to enter again, it would be as if we opened the door again for delinquency" (Ruiz, 2015, p. 207). Thus, just six weeks after the uprising began, a communal assembly decided that Cherán would not participate in state and municipal elections scheduled for that year, thereby also banning political parties. Then a group of Cherán citizens filed a request for recognition of their usos at the Tribunal Electoral del Poder Judicial de la

Federación (TEPJF). With its decision in November 2011, the TEPJF recognized their right to self-governance according to usos y costumbres. Following this victory, in January 2012 Cherán held elections according to its then officially-recognized usos system. Soon thereafter, it requested that Michoacán release the budget earmarked for the municipality to its newly-constituted government. With these funds and official recognition, Cherán could establish official armed and uniformed police to safeguard its citizens. Since then, there have been no political campaigns, parties, ballots, nor elections. Today Cherán is treated as an autonomous municipality, much like usos communities in Oaxaca. The authority of the community assembly lies above any other body. As in Oaxacan usos municipalities, decisions are made by the assembly, including the allocation of public services and overseeing the spending of the budget. Cherán's armed and uniformed community police, and its forest guard (guardabosques), combat illegal logging. Both are staffed with townsmen vetted and nominated by the four barrios (interview with coordinator of the ronda comunitaria on 11 September 2019). There are armed checkpoints on the three main roads coming into town.

Indigenous self-rule and community police allowed Cherán to significantly improve its security. In 2017, it had one of the lowest homicide rate in the entire state (see Online Appendix Figure A2). Kidnappings, murders, and extortion largely disappeared. Previously police forces were actively complicit with criminals and governing authorities provided criminals with public resources; current authorities and local police work with great independence from cartels.

Yet, from mid-2019 onwards, security once again deteriorated dramatically in south-western Michoacán, the core of the autodefensa and communitarian police movement of the mid-2010s. The reason was the offensive of the CJNG from neighboring Colima and Jalisco states, whose explicit aim is to capture the Tierra Caliente and coast of Michoacán. Faced with the CJNG onslaught, a large part of the defense in the Tierra Caliente is organized by mini-cartels that have re-emerged after the autodefensa movement. These mini-cartels joined into the Cárteles Unidos de Michoacán and enjoy the tacit support

of the remaining autodefensa forces in the Tierra Caliente. Meanwhile, the expansion of the indigenous rondas comunitarias follows the blueprint of Cherán. That is, they ban parties, establish a ronda comunitaria, revert to usos governance, and request recognition and a budget for their newly-established usos y costumbres government. Pichátaro—a community that resisted the Familia Michoacana even before Cherán—received recognition in 2016. Sevina, a community of Nahuatzen Municipality, held a referendum on transforming to usos governance during our research and reportedly received recognition. Just recently, further municipalities are refusing to participate in Michoacán state elections scheduled for late 2021, and are requesting legal recognition to revert back to usos to maintain their own security.

#### 6 Statistical Evidence

In the following sections we offer a range of statistical tests that lend support to our theory that and qualitative evidence showing usos-governed municipalities have significantly less crime and are better able to deter cartel takeover. Our statistical data comes from three sources: surveys, homicide data, and automated text analysis.

#### Victimization surveys

We first use Mexico's Encuesta Nacional de Victimización (ENVIPE) pooled from 2011–16 to provide statistical evidence on self-reported victimization, perceptions of public safety and police performance, and the social and economic context of crime.

If our claims about usos are correct, we expect to observe lower levels of police corruption in usos municipalities than in party ones. We also expect to observe higher levels of trust in the police and lower levels of police brutality. Moreover, we expect to observe significantly lower levels of criminal and cartel activity, which we proxy using extortion, gang presence, drug sales, and robbery. Lastly, our theory claims that usos municipalities have higher social control. We proxy this with a question asking if respondents have

engaged in communal collective organization for security purposes.

Our models include a variable for the indigenous share per municipality. We have argued that indigenous communities have stronger social control irrespective of the particular institutional setting and hence we expect this variable to have an independent effect deterring crime. Still, we expect usos to have a consistent and statistically significant effect on all variables.

Table 1: Perceptions of municipal police, crime and presence of gangs Analysis of ENVIPE 2011-2016 (rural areas only)

	Municipal Police			C	Social capital			
usos	Corruption -0.944*** (0.0937)	Trusts Police 0.523*** (0.0765)	Police Violence -0.367*** (0.139)	Extortion -0.473** (0.199)	Gangs -0.728*** (0.154)	Drug sales -0.544*** (0.148)	Robbery -0.407*** (0.109)	Organization 0.792*** (0.119)
indshare	-0.00400*** (0.000618)	-0.000336 (0.000459)	-0.000499 (0.000979)	-0.00681*** (0.00117)	0.000833 $(0.00117)$	-0.00499*** (0.00118)	-0.00436*** (0.000899)	$0.00000652 \\ (0.00101)$
Constant	0.983*** (0.0520)	-0.748*** (0.0471)	-1.757*** (0.0718)	-2.713*** (0.0765)	-1.185*** (0.0837)	-1.630*** (0.0771)	-1.031*** (0.0612)	-2.477*** (0.0993)
N	65934	72470	106394	106394	106394	106394	106394	109033

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Models are logits, with controls for age, sex, and education, and year FEs.

In Table 1 we estimate logistic regression models on ENVIPE data only from rural municipalities.<sup>10</sup> Results are as expected; usos has a consistently negative and statistically significant effect on police corruption and police violence, extortion, the presence of gangs, drugs sales, and robbery. Also as expected, usos has a positive effect on police trust and community organization. The effects are substantial: for municipal-level police corruption our model predicts a 42% probability of evaluating the municipal police (topiles) as corrupt in usos municipalities versus more than 64% in party municipalities.

As for crime, we predict a close to 50% decline in the probability of having gangs in usos municipalities (9% versus 17%) and of being extorted (4% versus 7%). We also find that usos municipality residents report seeing fewer robberies (19% versus 26%) and drug sales (10% versus 16%).

In Column 8 we predict usos municipalities to have a significantly higher propensity to organize with community members in the name of neighborhood safety (18% versus

 $<sup>^{10}\</sup>mathrm{More}$  information on ENVIPE variables are in the Online Appendix.

9%). It should be noted that the share of indigenous population also has an independent effect on most variables in this analysis. Remarkably, community organization is not generally higher in indigenous municipalities, suggesting that the institution of usos is key to collective action.

#### Evidence from Homicide Data

This section uses homicide rates to explore the differences between usos and party municipalities in levels of lethal violence. Figure 2 shows homicide rates in Mexican municipalities from 1990 to 2017, with data from the National Health Information System (SINAIS). The figure presents rates for usos and large and small party municipalities of less than 10,000 inhabitants.<sup>11</sup>

Municipalities that adopted usos had significantly higher homicide rates in the 1990s than comparable small party municipalities. Yet after the onset of the Drug War, homicide rates dramatically increase in party municipalities, especially in those of less than 10,000 inhabitants, whereas they remain significantly lower in usos municipalities.

#### Results from difference-in-differences OLS models

We next present results of difference-in-differences OLS regressions where our dependent variable is municipal homicide rates, to analyze the effect of usos on deterring cartel-related crime. We again use data from SINAIS from 1990–2017 at the municipality level.<sup>12</sup>

A challenge of identification is that usos are smaller and have a higher percentage of indigenous inhabitants than party municipalities, shown in the Online Appendix. We hence present results for the entire set of party municipalities, those with under 10,000 inhabitants, and those where at least 25% of the population is indigenous, according to

 $<sup>^{11}</sup>$ Differences between usos and party municipalities are even more striking with a 5,000-inhabitant cutoff.

 $<sup>^{12}</sup>$ In the Online Appendix we show robustness to inverse hyperbolic sine transformations, and control for population.

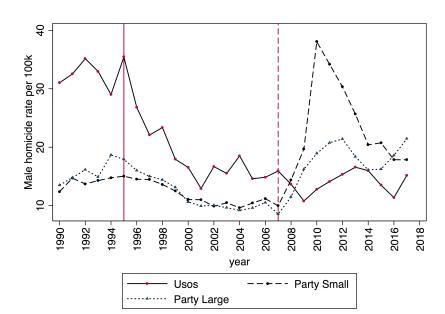


Figure 2: Homicide rates in Usos and Party municipalities

Notes: Vertical lines signify the usos reform and Drug War onset, respectively. Population calculated from the Mexican censuses and "conteos" 1990–2015 using yearly extrapolation.

the 2000 Mexican census.

For this part of our analysis, our time-varying covariates focus on drug seizures and drug crop eradication by the National Defense Secretary (that includes the Mexican army and the navy) obtained via the Mexican Freedom of Information Act. <sup>13</sup> Data consist of monthly observations at the municipal level from 1990 to 2017 for seizures of marijuana, cocaine, heroin, and methamphetamine in kilograms. The Mexican government also eradicates plots of marijuana and opium poppy, measured in hectares. To have a single measure, we use the yield rates per hectare reported in UNODC (2008). We construct a yearly average weight per municipality of all drug seizures, and hectares of opium-poppy and marijuana subject to eradication, with an inverse hyperbolic sine transformation. In the Online Appendix we present descriptive statistics on governance type, municipality size, and indigenous share.

Our expectation is that municipalities where more drugs are eradicated or seized should experience higher homicide rates. This could signify more drug-trafficking ac-

<sup>&</sup>lt;sup>13</sup>Request number/Folio: 0000700012419.

tivity, accompanied by the presence of organized criminal groups and armed men. But eradication of crops and seizures also might reflect higher levels of state enforcement, which can further fuel violence (Dell, 2015; Castillo and Kronick, 2020). To account for this, in the Online Appendix we show robustness to focusing exclusively on areas "suitable for drug production" rather than eradication or seizures. We take the suitability measure from Rodriguez (2021). Importantly, suitability for opium is quite similar in rural party and usos municipalities.

We estimate a series of OLS models using:

$$Homicides_{i,t} = \beta Usos_{i,t} + \theta Drugs_{i,t} + \gamma Drugs_{i,t} \times Usos_{i,t} + \eta_t + \gamma_i + \epsilon_{i,t}$$

Above,  $Homicides_{i,t}$  represents the outcome for municipality i in year t.  $Usos_{i,t}$  is a dummy for the usos treatment for municipality i in year t, taking 1 for usos municipalities after the 1995 reform and 0 otherwise. We expect a negative coefficient.  $Drugs_{i,t}$  corresponds to the presence of a drug economy, proxied with drug seizures in municipality i in year t. The interaction  $Drugs_{i,t} \times Usos_{i,t}$  aims to capture heterogeneous effects of the drug economy in usos relative to party municipalities. We expect a negative effect. Models add year  $(\eta_t)$  and municipal  $(\gamma_i)$  fixed effects, so time-invariant municipal characteristics will be accounted for such that we utilize only within-municipality variation in homicide rates. We calculate robust standard errors clustered by municipality.

Table 2 presents the results, and all are as expected. Usos has a consistent negative and statistically significant effect in all nine models. As expected, our composite variable for all drug seizures as well as seizures of opium and marijuana are associated with higher homicide rates, and the results are all statistically significant. Also as expected, we find consistently negative effects for the interaction of usos with drug seizures/eradication, supporting our theory that usos municipalities, even when there is drug cultivation, are significantly less violent than party municipalities.

Table 2: OLS Regressions: Homicide Rates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	All party	Indigenous party	Small party	All party	Indigenous party	Small party	All party	Indigenous party	Small party
Usos	-15.69*** (2.3709)	-15.44*** (3.4739)	-16.82*** (2.6032)	-15.87*** (2.3744)	-15.20*** (3.4400)	-17.31*** (2.6180)	-15.75*** (2.3698)	-15.54*** (3.4703)	-16.86*** (2.5996)
All drugs	0.466*** (0.1327)	0.456 (0.3029)	0.750** (0.3450)	( )	()	( )	()	( )	()
Usos X All drugs	-1.006*** (0.2500)	-0.934** (0.3916)	-1.238*** (0.3958)						
Opium	, ,	,	, ,	0.785*** (0.2316)	1.513** (0.7067)	1.121** (0.5529)			
Usos X Opium				-2.290*** (0.4802)	-2.795*** (0.8664)	-2.546*** (0.6838)			
Marijuana				,	,	,	0.437*** (0.1201)	0.417 (0.2635)	0.708** (0.3137)
Usos X Marijuana							-0.882*** (0.2238)	-0.803** (0.3444)	-1.106*** (0.3587)
Cons	15.66*** (0.6386)	18.50*** (1.2748)	18.35*** (1.2226)	15.84*** (0.6263)	18.48*** (1.2672)	18.52*** (1.2085)	15.65*** (0.6389)	18.50*** (1.2735)	18.34*** (1.2234)
N	67451	20021	30513	67451	20021	30513	67451	20021	30513
r2	0.0184	0.0273	0.0143	0.0184	0.029	0.0141	0.0185	0.0272	0.0143
Groups	2,444	728	1,216	2,444	728	1,216	2,444	728	1,216

Notes: Estimated coefficients from OLS regressions. The DV is homicide rates per 100,000 inhabitants from SINAIS. Models 1, 4 and 7 use all party municipalities. Models 2, 5 and 8 select for party municipalities that have at least 25% of indigenous inhabitants. Models 3, 6 and 9 select party municipalities that are smaller than 10,000 inhabitants. All models include year and municipality FEs. Robust standard errors clustered at the municipality level in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

# Robustness: Propensity Score Matching

The adoption of usos was not random, and there are notable differences in party versus usos municipalities at baseline, as shown in Table 3. The sections below use matching and geographic discontinuity approaches to provide evidence about the plausibly causal effects of usos on a municipality's capacity to deter cartel violence. By combining matching and a difference-in-differences design, we aim to evaluate if usos municipalities were capable of maintaining their pre-Drug War levels of violence, even while the rest of the municipalities in the country were on average increasing them. Here we take the Drug War as a shock that drastically altered violence across the country.

First, we use propensity score matching to identify a counterfactual group of municipalities that, before the beginning of the Drug War, were similar to usos municipalities. This matching strategy is useful when treated and control groups show high levels of imbalance, as here.<sup>14</sup> Our propensity score incorporates variables of theoretical importance to the adoption of usos and to homicides. First, we use 1990 municipal data from the National Population Council (CONAPO) for population, illiteracy rates, household electricity rates, and indigenous share. We also construct an average of homicide rates from 1990–94 in each municipality from SINAIS, helping ensure pre-Drug War balance on the outcome. We also use the yearly average weight of all drug seizures and hectares of opium-poppy and marijuana subject to eradication per municipality from 1990–94. Finally, we draw from Calderón et al. (2015)'s strategic points index comprising the number of ports, border crossings, train hubs, airports, landing sites, railroads, and highways per municipality. We use log or inverse hyperbolic sine transformations for population and drug seizures. Descriptive statistics of pre-matching variables are provided in Table 3, and details on the matching strategy are in the Online Appendix.

Table 3: Descriptive statistics: Pre-treatment period (1990-1994)

	Party	Municipalitie	es	Usos Municipalities			
Variable	Mean	Std. Dev.	$\mathbf{N}$	Mean	Std. Dev	$\mathbf{N}$	
Population	36497.58	95921.12	1969	2751.605	2759.598	418	
% Illiterate	21.367	13.455	1969	31.581	16.092	418	
% no electricity	23.008	21.315	1969	28.483	26.924	418	
% Indigenous	15.967	29.017	1969	48.473	40.955	418	
Avg homicides 90-94	6.125	20.863	1978	48.473	40.956	418	
All drug seizures	15209.18	120089	2022	2067.401	8125.04	418	
Strategic points	1.734	1.027	2022	1.010	0.373	418	
Poppy suitability	0.458	0.118	1757	0.493	0.095	418	

We report balance in Table 4, assessing balance between the weighted matched treatment and control units on covariates from the propensity score model. Results demonstrate balance along these covariates.

We estimate the ATT effect of being an usos municipality on homicide rates before and after the Drug War. To compare homicide rates over time, we run a panel differencein-differences model comparing usos and party municipalities by also controlling for time trends and municipal characteristics that do not change over time. The model takes the following form:

<sup>&</sup>lt;sup>14</sup>We discuss nonparametric matching methods (Coarsened Exact Matching) in the Online Appendix.

Table 4: Balance after Matching

	Pop	Literacy	Electricity	Indigenous	Homicides	Drugs	Strategic Pts
Usos	0.025	1.403	-0.854	2.184	0.095	-0.237	-0.029
	(0.056)	(1.083)	(1.831)	(2.762)	(0.052)	(0.240)	(0.022)
Constant	7.537***	30.178***	29.337***	46.289***	$0.497^{***}$	2.317***	1.039***
	(0.040)	(0.766)	(1.295)	(1.953)	(0.037)	(0.170)	(0.016)
Observations	935	935	935	935	935	935	935

Table reports log population, and inverse hyperbolic sine of drugs and strategic points

$$Homicides_{i,t} = \beta Usos_i + \sum_{k=1990}^{2017} \left[ \delta_k (year_{k,t} * Usos_i) \right] + \gamma_i + \eta_t + \epsilon_{i,t}$$

Above,  $Homicides_{i,t}$  represents the outcome for municipality i in year t.  $Usos_i$  is a dummy for the usos treatment for municipality i, which is not identified due to municipality fixed effects. The coefficient for the  $year_{k,t} * Usos_i$  interaction term is our key outcome, the change in homicide rates between matched control and treatment municipalities across  $year_k$ . We include fixed effects for municipalities i ( $\gamma$ ) and years t ( $\eta$ ). We estimate this using inverse propensity score weights derived from our matching process, and robust standard errors clustered by municipality.

Figure 3 presents the yearly difference in predicted homicide rates of usos versus matched party municipalities, showing large predicted differences after the Drug War onset.<sup>15</sup> In the first full year after onset, usos municipalities experienced on average 15 fewer homicides per 100,000 than party municipalities. By 2010, usos municipalities experienced 43.8 per 100,000 fewer homicides. These negative effects are large and statistically significant for every year after the onset, with the exception of 2017. We take this as further evidence that usos institutions insulate municipalities from cartel violence.

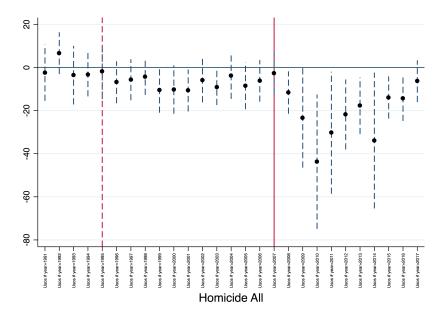
This figure also lends empirical evidence in support of the parallel trends assumption necessary for identification. This would hold that unobserved differences between usos and party municipalities are time-constant pre- and post-Drug War.<sup>16</sup> While we can-

<sup>\*\*\*</sup> p<0.01, \*\* p<0.05, \* p<0.1

 $<sup>^{15}</sup>$ In the Online Appendix, we show robustness to an IHS transformation of homicide rates.

<sup>&</sup>lt;sup>16</sup>Parallel trends in the 1990–1995 time period are partly by construction due to propensity score

Figure 3: Propensity score difference-in-differences: estimates of homicide rates



Notes: This figure shows the interaction between usos and yearly dummies on homicides rates per 100,000 from SINAIS. Vertical lines signify the usos reform and Drug War onset, respectively. The model uses inverse propensity score weights derived from matching, and includes municipality and year fixed effects. Error lines show 95% confidence intervals

not test this assumption directly, we do find results consistent with the assumption, as coefficients in Figure 3 from the 1995–2006 time period are substantially close to zero.

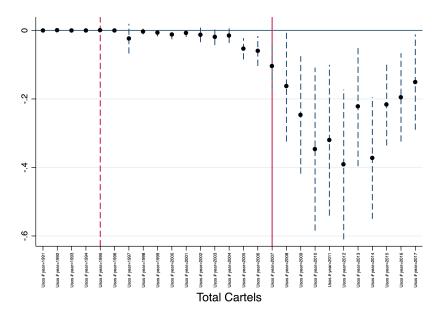
We next employ the same approach using cartel presence as our dependent variable. Our strategy to map cartel presence draws on the framework proposed by Coscia and Rios (2012). They developed a Web crawler to extract information from Google News on criminal group activity in Mexico from 1990–2010. Their data is available at the municipality level and consists of dummy variables indicating whether a particular cartel had presence in a municipality in a given year from 1990–2008. We updated the former analysis for 2008–2018 by establishing a collaboration with two of the biggest news monitoring agencies in Mexico. Details of the automated text analysis of cartel presence are in the Online Appendix.<sup>17</sup>

In particular, we analyzed text data from 15 years of coverage of local and national construction.

<sup>&</sup>lt;sup>17</sup>The cartel presence data is a project of the ... coordinated by ...

news (about 7 million notes) related to security and violence in hundreds of media outlets (both printed and electronic) in Mexico. We searched for mentions of 19 criminal organizations (e.g. La Familia Michoacana); 126 armed wings or gangs (e.g. Guardia Morelense); and 76 cartel leaders (e.g. El Chapo).

Figure 4: Propensity score difference-in-differences: estimates of number of cartels



Notes: This figure shows the interaction between usos and yearly number of cartels mentioned by news outlets per municipality. Vertical lines signify the usos reform and Drug War onset, respectively. The model uses inverse propensity score weights derived from matching, and includes municipality and year fixed effects. Error lines show 95% confidence intervals.

Figure 4 show the results. The results practically mirror those of homicides. Usos municipalities systematically have lower cartel presence. In the Online Appendix section 22 we further perform intensive manual Google searches in all 119 municipalities of the broader case study area, and provide more context about the content of news we classified. The results are broadly consistent with those reported in Figure 4.

### Geographic discontinuity

The prior analysis revealed that Oaxacan usos municipalities reported lower homicide rates and cartel presence than similar municipalities across the country once the Drug War began. Figure 5 shows the locations of these usos (yellow) and matched party (blue) municipalities. Many municipalities that served as our control group come from Oaxaca and neighboring states of Guerrero, Puebla, and Veracruz, in areas with an abundance of opium production and transport routes. Yet others border heroin crossover points into the United States, or abut the sites of numerous turf wars (shown in red circles on the map). It should be noted that the municipalities in the Meseta P'urhepecha in Michoacán that are part of our case studies are part of our control group.

Figure 5: Usos and matched municipalities across Mexico

Notes: The figure shows usos municipalities in Oaxaca (yellow) and their matched indigenous municipalities (blue). Heroin routes in green based on own calculations as described in the Online Appendix. Circles correspond to turf wars between 2014–2018. Details on turf war calculation are provided in the Online Appendix.

Given that we are comparing different regions that have been affected by different cartels, turf wars, and even policies, there could still be skepticism about whether our results are causal. As a robustness test, we use a geographic discontinuity approach. This approach exploits similarities that may exist in a narrow bandwidth around geographic boundaries as a strategy for identification. The primary assumption for identification under this design involves continuity of the conditional regression functions near the border (Keele and Titiunik, 2015). In our case, this would be violated if individuals moved in or out of usos municipalities to benefit from or avoid indigenous governance.

But this would be difficult for individuals and for villages. Communities in our sample impose strict land tenure rules making it difficult for individuals to buy or sell land. Moreover, communities tend to be closely knit and are not open to outsiders relocating into their lands. High linguistic diversity also reduces the scope for exit. Additionally, because municipal boundaries are rarely redrawn, it would be difficult for villages to formally sort into or out of indigenous governance.

For this analysis, we limit our sample to municipalities in a small geographic bandwidth (1 km) of usos municipalities. Then, we use propensity score matching and two-period difference-in-differences to analyze five homicide outcomes of interest: all homicides per 100,000 citizens, and then restricting by victim sex, victim age, and weapon type, in line with homicides most likely to be associated with cartel violence.<sup>18</sup> We estimate effects using a two-period difference-in-differences model.

Table 5: Geographic Discontinuity - One Kilometer

	(1) Homicide All	(2) Firearm All	(3) Homicide Male	(4) Homicide Male 15-39 Yrs	(5) Firearm Male 15-39 Yrs
Post=1	-15.44*** (5.083)	-8.071** (3.621)	-27.45*** (10.50)	-11.73 (30.80)	1.463 (29.66)
Post=1 $\times$ Treatment=1	-5.725 (3.472)	-7.111** (3.047)	-9.734 (7.407)	-34.16** (16.90)	-44.65*** (14.82)
DV Mean: Party Pre-2007	23.18	14.58	43.30	66.57	45.28
Year FE Mun FE	Yes Yes	$\begin{array}{c} { m Yes} \\ { m Yes} \end{array}$	Yes Yes	$\begin{array}{c} { m Yes} \\ { m Yes} \end{array}$	$\begin{array}{c} { m Yes} \\ { m Yes} \end{array}$
Observations	7868	7868	7868	7868	7868
Municipalities	281	281	281	281	281
R-squared	0.0358	0.0337	0.0380	0.0313	0.0324

<sup>\*\*\*</sup> p<0.01, \*\* p<0.05, \* p<0.1

Table 5 displays the result of the difference-in-differences analysis when limiting matches to party municipalities within 1 kilometer of usos municipalities (our number of observations drops to 281). Strikingly, when compared to party municipalities less than 1 kilometer away (meaning they are likely neighboring), usos municipalities experience fewer homicides per 100,000 than their party neighbors. This result is statistically signif-

 $<sup>^{18}</sup>$ We also use the cartel presence dataset in the Online Appendix applying a similar geographic discontinuity design.

icant at the 0.05 level for three of our dependent variables of interest. For the outcome especially likely to indicate cartel-related violence, young male firearm homicides, usos governance is associated with 44.65 fewer homicides per 100,000 in the Drug War time period than party governance. In the Online Appendix, we show that as the distance bandwidth increases up to 20 kilometers, the effect of indigenous institutions diminishes but remains statistically significant and approximately 40% of baseline levels of homicides. This suggests that the borders delimiting usos municipalities—borders internal to Mexico as well as to the state of Oaxaca—are associated with statistically and substantively significant changes in homicide rates.

#### 7 Conclusion

The results presented in this paper suggest that indigenous, local self-governance can produce better outcomes than being integrated into the state. Combining fieldwork with statistical evidence, we show that communities granted self-rule are better able to insulate themselves from predatory armed actors. Unlike their political-party-ruled counterparts, indigenous usos municipalities in Oaxaca on average avoided the spikes in violence associated with the onset of the Drug War.

We argue that due to higher social control, strongly participatory decision-making, and the presence of separate community police and justice, usos municipalities were more resilient to cartel takeover. We find suggestive evidence for this mechanism using survey data. Usos residents were more likely to trust their local police forces, less likely to live in the presence of gangs and crime, and reported higher propensity for organization than municipalities governed by typical political party institutions.

Our results show the limits of the state in creating order. While some states face resource constraints in doing so, others directly harm their citizens or turn a blind eye as criminal organization prey in the population. In the context of predatory regimes, our findings suggest that "opting out from the state" can be a viable solution for some communities. While hill peoples of Southeast Asia retreated to the mountains to avoid slavery, conscription, and epidemics (Scott, 2010), in modern times and with modern technology, geographic retreats are more difficult. Our paper demonstrates that communities today can retreat from the state by opting for local autonomy, and can foster order with traditional institutions designed to solve collective action problems.

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