LIVING IN FEAR:
THE DYNAMICS OF EXTORTION IN MEXICO'S CRIMINAL INSURGENCY

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Living in Fear: The Dynamics of Extortion in Mexico's Criminal Insurgency

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Abstract

This paper provides an account of the strategies of extortion and co-optation used by drug trafficking organizations (DTOs) toward civil society in Mexico. Drawing on the civil war and mafia crime literatures, our theoretical approach focuses on levels of territorial contestation among armed actors, as well as state capture by DTOs, to explain variation in co-opting or coercing civil society. Through the use of list experiments in a nationally representative survey, the paper measures extortion and assistance by DTOs in Mexico. We find that the effect of territorial contestation among rival DTOs has two effects. The effect on extortion is non-linear: highly contested places and non-contested places, controlled by a single DTO, show significantly less extortion than moderately contested places. The effect on assistance is negative: DTOs provide assistance mostly in non-contested places. Additionally, using areas of governance by the former ruling party, the Partido Revolucionario Institucional (PRI), as a proxy for state capture by DTOs, we find that both DTO and police extortion is higher in municipalities where the state has been captured. These results suggest that territorial contestation and state capture are important in determining the choice of tactics toward civil society during drug wars.

Keywords: Crime, drug-trafficking organizations, violence, extortion, civilian abuse, Mexico, drug war, list experiment.

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Living in Fear: The Dynamics of Extortion in Mexico's Criminal Insurgency

Since 2007, Mexico has witnessed a surge in violence linked to drug trafficking, gang wars, and criminality. The sharp increase in homicides coincides with the start of President Felipe Calderón's administration (2006-2012) and his militarized campaign to eradicate drug trafficking organizations (DTOs). Between 2006 and 2012, the drug war claimed nearly 60,000 lives, while thousands have either disappeared or been displaced as a result of violence, making this one of the deadliest active conflicts around the world. The vast majority of deaths have resulted from confrontations between drug cartels competing for control of trafficking routes. While Mexican DTOs[1] have primarily focused on narcotics, they have also diversified into other activities, including extortion, kidnapping for ransom, and human trafficking. DTOs reach into all realms of society and have built up a huge capacity for violence. Beyond assassinating competing cartel foes, DTOs execute politicians, kill journalists, and have even planted bombs targeting entire neighborhoods. The violence is so extreme and embedded in everyday life that it has been described as a "criminal insurgency" (Sullivan and Elus, 2010; Sullivan, 2012; Grillo, 2011).

In this paper we explore DTO strategies toward civil society. DTOs have not received sufficient attention in the literature on civil conflict—in particular, DTO strategies regarding the civilian population remain under-theorized.[2] In their interaction with civil society, DTOs may exhibit patterns of coercion and co-optation. In terms of coercion, we examine extortion, which we define as an armed actor, usually paramilitary but also the military or the police, charging

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[1] Mexican drug trafficking organizations are usually referred to as cartels, which is a misnomer since they operate as decentralized criminal organizations. Since it is common parlance, however, we will use drug trafficking organization (DTO) and cartel interchangeably.

[2] While there is a literature on the strategies that insurgencies may take toward civilians during civil war (Weinstein, 2006 and Walters, 2010), there has not been much work done applying these frameworks to DTOs. Do see, however, Trejo (2012) on the Zapatista insurgency in Chiapas.

fees for protection (e.g. Schelling 1984, 185; Gambetta 1996). In terms of co-optation, we explore when DTOs provide protection, land, permits, or even financial assistance, which can be provided to individuals, select "clubs, or the wider public" (as described, for example, in McGuire and Olson 1996; Olson 1993; Iannaccone 1992; Berman 2000; Berman and Laitin 2008; Gambetta 1996, 41; and Kalyvas 2006, 96).

Mexican DTOs vary widely in their coercion and co-optation strategies. For example, early in its existence, the Mexican drug cartel *La Familia Michoacana* provided loans and grants to individuals, businesses, and even churches within the communities where they operated. These activities were widely known and even publicized in local newspapers. The DTO allegedly targeted criminals from whom the community needed protection for "divine justice" (Gibbs 2009). In December 2010, when this DTO lost its leader, hundreds in Michoacán marched in support of the DTO with signs reading, "Long Live La Familia Michoacana" (Ferrer and Martínez 2010). By contrast, the Zetas, which served as enforcers for another DTO before splitting, carved out territory through the use of extensive extortion, kidnapping, homicide, and theft, alongside narcotics trafficking itself, across dozens of communities in several states.[3] In another instance, when the Cartel de Tijuana split, the two resulting factions adopted distinct strategies: Teodoro "El Teo" García Simental favored coercion in Tijuana, while Luis Fernando "El Ingeniero" Sánchez Arellano, who had strong political and economic connections in the city, focused primarily on drug trafficking, supported by co-optation.

To account for variation in DTO strategies toward civil society, this paper draws on the civil conflict literature to propose a theory that highlights the role of two explanatory variables—the level of territorial control and the capture of the state's coercive power (Kalyvas, 2006;

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[3] See Ricardo Ravelo's (2014) account of the Zetas as a franchise.

Humphrey and Weinstein, 2006). Beyond contributing to greater understanding of drug violence in Mexico (Bailey 2012; Castañeda and Aguilar 2010; Guerrero-Gutierrez 2010 and 2011; Ríos and Shirk 2011; Dell, 2011; Rios 2012; Osorio 2012), the paper also relates to the broader question of strategies toward civil society during civil conflict (Lichbach, 1995; Kalyvas, 2006; Weinstein, 2007; Humphreys and Weinstein, 2006; Wood, 2010).

As with other armed groups in civil conflict, DTOs may solicit community support in their operations. To generate profits from the drug trade, traffickers need to operate, avoid competition, and sidestep state prosecution, which requires community support. Citizens may cooperate with DTOs through silence or outright collaboration. Establishing cooperative arrangements with the population requires self-restraint on the part of DTOs. Drawing on Olson (1993, 571), our theory argues that DTOs will establish cooperative behavior toward civilians when they control a region and expect to control it in the future. Under monopolistic control, DTOs can be more confident of reaping gains from restraint in the future and may even provide some share of benefits from their trade to the community. They may, for example, offer help, protection, or credit in order to gain loyalty and continuous cooperation (Berman, 2000; Berman and Laitin, 2008).

Competition for territorial control should be accompanied by decreases in co-optation and increases in coercion, including extortion. When various DTOs compete for control of territory, sustaining cooperative relationships with the community becomes more difficult (Humphreys and Weinstein, 2006). Competition, relying on violence, will likely decrease DTO expectations to rule in the future, and shorter time horizons will increase incentives to reap short-term gains. Moreover, violent conflict with other DTOs will likely to reduce profits from the drug business. More deals will likely be broken, more resources lost, more people killed, more shipments

intercepted or seized as DTOs fight each other. DTOs facing contested territorial control may also adjust to declining profits from their "core" business by diversifying into a host of other criminal activities, including extortion, kidnapping for ransom, prostitution, and car theft. In extreme forms of violent contestation, competing DTOs can completely undermine their own capacity to extract resources by committing so much abuse that citizens will refuse to pay extortion fees (or will migrate) because no criminal organization can credibly offer protection anymore. Except for this last extreme scenario, extortion and these other activities provide greater profit than trafficking alone.

In addition to levels of contestation, state capture likely affects DTO strategies. DTOs often employ their financial power to capture the government and infiltrate the police. The incentives to extort and prey on the population are ever more present if DTOs and their criminal cells know that there is little probability of punishment. It is extremely difficult to know whether local police forces are infiltrated, unless an actual scandal emerges. When state institutions and law enforcement are infiltrated, however, DTOs are more likely to engage in extortion and terrorize the population with impunity.

In Mexico, there is significant variation in territorial control, contestation, and state capture. Capture, as mentioned is harder to measure, but, in this context, police capture and corruption should be more endemic where the former ruling party, the Institutional Revolutionary Party (PRI), still governs. During the long dominance by the PRI, politicians and police likely negotiated deals with DTOs, tolerating them in return for bribes. Members of the party, including a former president's brother, have been identified in drug-related corruption cases (e.g. Keefe 2014). The PRI lost the presidency to the National Action Party (PAN) in 2000, likely disrupting the system of power and the state capture by DTOs (Grillo, 2012; Dell, 2011).

To test our theory, we conducted a series of list experiments embedded in a probabilistic nationwide survey carried out in Mexico in July 2011, collected through the Public Opinion Coordination at the Office of the Mexican Presidency. The sample was stratified by population size and levels of violence to ensure proper representation of high-violence areas, even in rural settings.[4] Questionnaires containing the sensitive item on the list experiment, the "treatment," were randomized by polling point and enumerator. Our questions focused on extortion by both the DTOs and the police, and on the extent to which individuals used DTO assistance.

In testing our hypotheses, we use the multivariate regression model of survey data for list experiments proposed by Imai (2011) and Blair and Imai (2012). We specify a linear model with identical covariates to examine the dynamics of civilian extortion by DTOs and by police, and assistance by DTOs. The results turn out to meet our theoretical expectations. DTOs extort primarily in contested territories, where various DTOs fight over drug production, trafficking, and distribution. In contrast, armed groups provide assistance and extort at significantly lower levels in territories controlled by a single DTO. Additionally, consistent with some of the insights from the civil war literature, we find that extortion is highest at intermediate rather than high levels of territorial contestation (and, thus, violence). We also find that territories governed by the PRI are associated with higher levels of both DTO and police extortion, suggesting a role for state capture in addition to territorial control and contestation by armed actors.

The paper proceeds as follows. The first section identifies the puzzle within the Mexican case. The second section provides testable hypotheses, based on the literature on civil war and mafia crime. The third section describes our method and presents our empirical results. The last

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[4] Given the intensity of violence in the state of Tamaulipas, it was excluded from the sample frame in order to protect the enumerators.

section concludes with implications of our findings for the study of DTOs and the dynamics of extortion.

The Puzzle

Over the past decade, the drug war in Mexico has intensified. As the United States implemented a strategy of blocking and disrupting the illicit drug trade flowing from Colombia through the Caribbean, the supply chain shifted into Mexico. Since coming to office in December 2006, President Felipe Calderón initiated an aggressive campaign against the drug cartels, turning it into the centerpiece of his administration. The federal strategy to combat DTOs involved "joint operations" with thousands of military troops and federal police sent to combat drug cartels directly. This choice, together with the schisms that then occurred among the DTOs (Guerrero, 2011; Osorio, 2012), and the sharp increase in violence that accompanied the Calderón campaign, have been the subject of much study (Calderón et al., 2014; Escalante, 2011; Mejía and Posada, 2012; Dell, 2011; Coscia and Rios, 2012). The ways in which DTOs and the police interact with the civilian population have received much less attention.

During this violent conflict, the civilian population has both suffered coercion and enjoyed co-optation. DTOs have intensified their use of extortion and kidnapping for ransom, or "mafia-ridden violence" (Guerrero, 2011). While most publicity of these tactics has pertained to private businesses—the Templar Knights, for instance, attacked Sabritas, a subsidiary of PepsiCo, and then threatened other corporations, including Danone and Bimbo, with similar attacks—it is believed that more than one-third of all businesses in Mexico are threatened if they do not pay protection money. For individuals we have mostly anecdotal evidence, but in surveys they consistently report fearing such pressure (ENVIPE, 2011).

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To investigate DTO coercion and co-optation strategies toward the population, we conducted a series of list experiments embedded in a probabilistic nationwide survey that was collected in July 2011. According to our survey, one out of every four citizens had been extorted over the phone. Eighty percent of Mexican citizens feared becoming the victims of crime, including not just extortion but also kidnapping for ransom, and they said they had changed their daily routines to lower their perceived risk, even in regions regarded as low-risk. Most public opinion surveys in Mexico report fear of extortion and calculate prevalence rates based on direct questions. To our knowledge, no previous study has attempted to use survey techniques that reduce the bias emerging from social desirability in this context on these sensitive questions, nor have we seen a theoretical account to explain the strategic choices to use coercion and co-optation against civilians in this context.

Our Theory

In exploring the logic of DTO strategies toward civil society, our starting point is that drug cartels are primarily business organizations—albeit illegal ones—whose main goal is the production, transport, and sale of a product. The magnitude of the drug market and the profits involved, the financial dependence of citizens on the industry, as well as DTO capacity to buy off the state, means that these armed groups can mobilize support and extend their influence into society, even beyond what most rebel groups can.

Like insurgents, DTOs resort to violence to achieve their goals. Drug cartels fight with each other for territorial control, and they also fight against the state (Lessing, 2013). The main activity of DTOs in Mexico is not production. Their predominant role is solving the logistical problem of transporting and selling drugs. One of their main efforts is fighting for control of

strategic territories: ports and points of entry into the U.S., as well as localities that are connected to the flows of international trade. Hence, airstrips, airports, and high-speed highways to major cities along or easily connected to the U.S. border are among the most valuable territories to control, and also where most of the violence among DTOs takes place (Dell, 2011; Calderón et al., 2014).

Control of a drug-trafficking route gives a cartel not only the capacity to smuggle drugs directly into the U.S., but perhaps more significantly, the power to "tax" the illegal long-distance drug trade of other organizations. It is for this tax revenue that cartels fight each other for control in Mexico.[5]   DTOs operate through informal contracts through which they charge local suppliers and producers from other countries to transport or allow the transport of drugs. Hence, extortion, or tax for access, is at the core of DTO activity. In areas that these organizations control, they can also operate extortion rackets in other activities unrelated to drugs. Presumably the profit from this extortion on the side is far less than what can be extorted from drug trafficking.

Knowledge about the internal organization of drug cartels is limited and hard to acquire. Although the word "cartel" is used colloquially, Mexican criminal organizations do not collude to set the price of drugs, nor are they classic vertically integrated firms. Grillo (2011) has described them as highly decentralized organizations, in which *plaza* heads run semiautonomous criminal cells. Each cell makes money in its own territory and delivers it to lieutenants, who deal with the capos. *Sicarios*, or killers, are fairly low down in the structure, and even lower are

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[5] We thank Kristof Gostonyi for this valuable insight.

the *halcones*, or hawks, who work as the eyes and ears of the cartel (Grillo, 2011).[6] The lieutenants are responsible of supervising the criminal cells in their own territory and respond directly to the capos, who supervise the overall business, form strategic alliances, and appoint lieutenants.

The critical question in this paper is why some DTOs operate their production, trafficking, and sale chains while co-opting civilians, while others engage in extortion and other coercion within the local communities. To answer this question, we draw on the civil war and mafia crime literature to generate hypotheses about variation in civilian abuse, as well as coercion and co-optation more broadly. The literature on mafias suggests that extortion destroys property, and the propensity for growth, so avoiding it is beneficial if the drug cartel wants to maintain stable control over the region (Gambetta 1996, 33). Excessive DTO abuse can destroy the human and capital base of the local economy, which would work against the cartel's goal to continue the drug trade without attracting state action. Even if incentives exist for DTOs to refrain from abusing the population, several factors might inhibit DTO capacity to act on such incentives. We analyze two possible factors below: the degree of territorial control and state capture.

Territorial Control

As with other armed groups, DTOs need tacit agreement, or at least silence, from local communities in order to operate their business while keeping their activities hidden. Establishing a cooperative relationship with civilians requires that the DTO expects to benefit from it over the long run through its business operations. The time-frame of expected control over a territory is

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[6] It is believed that the Zetas initially modeled their more militarized chain of command on the Mexican army and that other cartels learned it from them. Even in the case of the organization that was initially the most disciplined and hierarchical, however, the "Zetas" has become a loose brand used by a myriad of smaller criminal groups over time.

therefore critical for DTO behavior toward civilians. Drawing on Olson (1993, 571), we can formulate this hypothesis: if a ruler (or a bandit) is in control of a region and expects to be in control in the future, his interest will be to encourage growth, which he can then tax; if, however, control is tenuous, the interest of the ruler will be to seize as many resources as quickly as possible. In this case, what is being taxed is the drug trafficking but the logic holds. This hypothesis can be extended to any group that has coercive ability over a region, including governments or DTOs. Under monopolistic control, a DTO can be more confident of reaping the gains from restraint into the future. DTOs that exercise monopolistic control will even provide some share of the benefits of their trade to the population to maintain their loyalty (Iannaccone, 1992; Berman, 2000; Berman and Laitin, 2008).

We expect competition between DTOs for territorial control to be accompanied by increases in civilian extortion for the following reasons: first, as the number of armed groups increases, sustaining cooperative relationships with the community becomes more difficult. Each armed group will have incentives to extort as much as it can in the short term before a rival does (Humphreys and Weinstein, 2006).

Second, profits are likely to shrink when violence against other DTOs escalates. Because of the potential for each side to volunteer information about the other, the government is more likely to intervene against DTOs in contested regions, making cartels more vulnerable to arrests, including capture of their capos and lieutenants, and to the seizure of drugs, money, arms, and vehicles (Calderón et al., 2013). DTOs facing contested control by other DTOs and attacks by the state may adjust to declining profits by diversifying into extortion, kidnapping for ransom, and other forms of coercion designed to turn a profit. If profits from drug trafficking are not endangered, DTOs have fewer incentives to diversify into local enterprises—such as kidnapping

or extortion—because they then face a higher risk of pushback from society and, potentially, prosecution by the state.

Third, akin to the mechanisms described by Kalyvas (2006, 89-104, 116-124), DTOs may extort civilians to force them to withdraw their cooperation or allegiance from other DTOs, and to prevent them from supplying information to their rivals or to the government. Aside from profit, extortion can provide information. Extortion (as opposed to homicide, for example) can reveal how much an actor has control or is able to coerce the population in a region of contestation; it inherently reveals organizational capacity through the amount of collaboration that is observed. If individuals pay protection money or a ransom request, rather than reporting it to the police (or a competing criminal organization, asking for *their* protection), this reveals public perceptions about the level of control by that DTO versus a rival or the government. This aspect of the theory builds on the idea that collaboration of the civilian population is a crucial determinant of state capacity, but collaboration also reveals the capability of the group competing with the government (Kalyvas, 2006, Chapter 5).

We therefore believe that DTO monopolistic control should be associated with lower extortion and higher service provision. Violent competition among rival criminal gangs should be associated with higher extortion and lower service provision. Additionally, following logic similar to Kalyvas (2006), we anticipate a curvilinear relationship between levels of territorial contestation and extortion. In places of extreme violence, no DTO can offer credible protection, nor can it extract more resources, because citizens may refuse to pay or even choose to migrate. Hence we test the following three hypotheses:

Extortion by DTOs should be lower in places with monopolistic control by a DTO than in places with competition for territorial control (Hypothesis 1).

Service provision by DTOs should be higher in places of monopolistic control by a DTO than in places with competition for territorial control (Hypothesis 2).

Extortion should be curvilinear across levels of control: the most extortion should be in places with somewhat but not completely contested control (Hypothesis 3).

Beyond territorial competition among DTOs, varying characteristics of these organizations might make them more prone to abuse the population in the territories where they operate (Humphreys and Weinstein, 2006, 433). In this study of civil war ex-combatants, the existence of common goals, preexisting social networks, or formal codes of discipline are all examples of features that restrain predation. In principle, one could argue that levels of abusive behavior by DTO criminal cells should be more likely in less cohesive criminal organizations. Another possibility is that drug cartels that are more deeply rooted in their communities—those that integrate drug production, for instance—may be less prone to abuse because they require continued cooperation of the local economy to sustain their business. Beyond some journalistic accounts and classified security intelligence, there is little knowledge of the internal organization of Mexican DTOs.[7] Thus, while we introduce some controls on these characteristics, including fixed effects for each cartel in our empirical models in order to allow for the possibility that each

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[7] There are serious risks in conducting such research, and it is difficult to assess the potential biases contained in scattered journalistic accounts or leaked intelligence.

organization might have a distinctive way of interacting with citizens, we largely leave the question of DTO organizational structure for future research.

Police Capture

In addition to levels of contestation and DTO internal structures, state capture related police behavior may affect DTO strategies. DTOs can become the *de facto* power holders in the territories where they operate by capturing the state. The incentives to extort and prey on the population are ever more present if DTOs and their criminal cells know that there is only a slim probability that they will be arrested, because state officials are on their payroll. Additionally, corrupt police forces themselves are likely to engage in additional diversified forms of illegal activity yielding greater profits, including extortion.

Since measuring variation in state capture by DTOs is exceedingly challenging, we evaluate whether extortion by both DTOs and the police exhibit variation depending on the political party in office. During the long period of dominance by the PRI, state officials and politicians negotiated deals with DTOs, tolerating them in return for bribes. PRI governors, other party members, and various state officials in various states have faced such accusations.[8]

Upon assuming office in 2006, PAN member Calderón began an open war against the DTOs by deploying the army and the federal police into some of the most violent localities throughout Mexico. Yet federalism complicated Calderón's efforts to combat the drug trade. Each state and municipality has its own police corps, and many of these organizations were weak, corrupt, or

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[8] For example, the former governor of Tamaulipas, Tomas Yárrington, is being investigated by law enforcement in the U.S. for his connections to organized crime and money-laundering. The PRI suspended Yárrington in May 2012, and the Specialized Prosecutor Against Organized Crime (SEIDO) in Mexico revealed that he received $8.5 million from drug cartels to finance his campaign in 1998. There are similar accusations exist against many other PRI governors and politicians (http://www.proceso.com.mx/?p=312910).

captured by DTOs. Local authorities command most of Mexico's police: 90 percent of the approximately 500,000 police officers are under the command of state and municipal authorities (Guerrero, 2011). Municipal police have no jurisdiction over crimes related to the drug trade, but they are valuable allies for organized criminals because they are the first line of investigation (Dell, 2011).

The pattern of state capture, especially through police behavior, should affect DTO strategy. In certain territories, denser networks of entrenched interests still date back to the hegemonic PRI regime (Dell, 2011; Grillo, 2011). Although it is difficult to know whether the local police are infiltrated, a reasonable hypothesis is that police capture and corruption should be more endemic where the PRI still rules. Thus, all else held equal, we expect that:

Extortion by DTOs should be higher in places where the former ruling party, the PRI, maintains power (Hypothesis 4).

Extortion by the police should also be higher in places where the PRI maintains power (Hypothesis 5).

Analysis of DTO Strategies

A well-known problem in public opinion surveys is that respondents often misreport their behavior and beliefs. Survey accuracy is often affected by responses based on pressure to conform to socially acceptable norms or on fear of providing certain information (Brooks, 2008; Kalyvas, 2006; Krueger, 2007). There is a significant literature on the problems related to measuring citizens' opinions and attitudes for crime and civil conflict (see, for instance,

Matanock and García 2013; Lyall et al. 2011; Brück et al. 2010; Mosher et al. 2010; Kalyvas and Kocher 2009; Stylianou 2003; Warr 2000).

The highly sensitive nature of these topics motivates all actors involved to hide information. DTOs do not advertise their membership, activities, or modus operandi. The government does not provide much detail on their strategies to combat DTOs for national security reasons, and it certainly does not give out information about its own collusion with DTOs or its members' misconduct. For their part, citizens fear providing any information that may trigger punishment from DTOs or even the state.

One solution in the literature to maximize the incidence of truthful responses to sensitive issues is the use of list experiments (Blair and Imai, 2012; Corstange, 2009; Gaines et al., 2006; Glynn, 2010; González-Ocantos, 2010; Holbrook and Krosnick, 2010; Kuklinski et al., 1997a; Kuklinski et al., 1997b). A list experiment creates two groups of individuals, a control and a treatment group, selected randomly from the overall sample, such that the two groups are equivalent. Individuals in the control group are shown a list of n items, they are then asked how many of the items they have/do/know of/agree with. It is important to ask them to not specify which items, only their count. These n items are non-sensitive, in the sense that they do not induce any fear or social desirability effects. The treatment group receives the same list with the n items plus an additional "sensitive" item. Interviewees in the treated group are also asked to specify a number of items they have/do/know of/agree with, but, again, to not mention which specific items. The difference of the mean item responses between the control and treatment groups provides an adequate estimate of the aggregate proportion of the population that has/does/know of/agree with the sensitive item.[9]

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[9] For more detailed explanations, see Blair and Imai, 2012; Imai, 2011; Glynn, 2010; Corstange 2009.

Following this literature, we conducted a series of list experiments in the Survey on Public

Safety and Governance in Mexico. We randomly selected three groups of 900 observations from

the full sample of 2,700: one control group and two treatment groups. There were three different

types of questionnaires. Individuals in the sample were randomly assigned to every group. The

lists were directly read by the interviewee from cards given by the interviewer. Each interviewee

received a total of three different cards. Figure 1 describes the exact wording, and indicates

which of the cards that were given to each experimental group. All groups received all the cards

listed in its row. In the first experiment there was only one treatment, since both treatment groups

received the same card. For the other two cards, there were two different treatments groups, each

one exposed to a different experiment.[10] The focus of this paper is on experiments 3, 4 and 5, but

the other experiments also provide some insights into how DTOs permeate many aspects of

everyday life in Mexico. Experiment 1 measures the prevalence of gun ownership, which has

usually been based more on speculation than hard evidence. Experiment 2 measures an all-too-

frequent signal of the failure of state control, sightings of non-state armed convoys. Experiment 3

asks whether citizens resort to criminals for help. And the final two experiments, 4 and 5,

measure extortion by DTOs and the police. It is important to note that the extortion questions are

framed as issues of protection and avoiding harm. Respondents understand we are not simply

asking about transactions involving the purchase of drugs, the payment of private security

guards, or the all-too-common practice of bribing traffic policemen.

[Figure 1 about here]

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[10] This design was established in order to gain more leverage in testing whether the assumptions of list experiments
hold, following the advice of Blair and Imai (2011).

The team collecting the survey was trained to ask the questions related to list experiments correctly. Questionnaires were randomized by polling point and enumerator. Lists were handed to respondents on cards, so respondents could read them for themselves.[11] The mechanics of the process were pretested before the survey. Both sensitive and control items in the lists were pretested as direct questions in a nationally representative survey two weeks before the collection of the dataset.

The safety of the enumerators was a major cause for concern. In order to understand some of the challenges faced by the enumerators of the polling firm, we met for several hours with them in Mexico City on August 16, 2011, to give them an opportunity to share their impressions and stories while collecting the survey. The experiences they described were chilling. Members of the drug gangs harassed some enumerators. In some of the locations where the survey was collected, enumerators were escorted either by police, or even drug traffickers, while doing their work.

In one particular town, a group of enumerators was told not to return the next day to finish their interviews, but to come back the following day, because "tomorrow is when the narcos come down to collect their payment (*cuota*)." Our interviewers noted that in the north of the country, narcotraficantes often guard the town, doing rounds every couple of hours, just as the police would patrol a "regular" town. It was also common to observe men known as "*falcons*," hawks, posted at certain strategic points in both rural and urban localities. These individuals inform the DTO of the presence of government authorities or strangers. The fieldwork team told us that these are not uncommon circumstances in their work, and that in some parts of the

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[11] Enumerators did not report any problem with respondents' ability to read the cards. The literacy rate in Mexico is high (93.1 percent in 2010), and oversampling in violent urban localities meant that practically every respondent could read.

country these circumstances existed even before the fight against organized crime began in late 2006. Nevertheless, the situation that was previously contained to a cluster of few known dangerous zones is now widespread across the country.

The survey was well-randomized across rural and urban regions and across localities with different levels of violence, which are two of the factors that we believe should have the most effect on the responses. The complete balance of the sample can be consulted in the Appendix. Except for gender, all individual level variables (education, age structure, and income) are well-balanced.

Inherent in any experiment are the assumptions on which the experiment is based. List experiments rely on two sets of assumptions: no liars and no design effects. Floor and ceiling effects can generate "liars": if an individual has performed none or all of the actions listed, he or she may lie so as to not reveal that he or she has performed (or not performed) the sensitive item. Thus, all of the lists are designed to include items rarely expected from the same individual, so that most individuals will have performed at least one of the control items but not all of them.

The other assumption inherent in the list experiment is that there is no "design effect." That is, adding an item to the list will not have an effect upon the responses for the other items on the list. A "design effect" would mean the items are not independent from each other. Thus, we need to test whether the responses to the control items in the list with the sensitive item are significantly different from the responses to the control items in the list without it. New techniques developed for testing this assumption allow us to compare these responses and, ideally, accept the null hypothesis of no design effect.[12] More specifically, we can identify joint probabilities by comparing the treatment group to the control group, and we expect each

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[12] For further explanation and the R code for the test, see Blair and Imai (2012).

probability to be equal to or greater than zero because otherwise there is likely downshifting in the control group. Using a test of two stochastic dominance relationships based on expectations about the joint probability, we can compare the relationships within each number of list items given and emerge with a minimum probability. Using a Bonferroni correction, we reject the joint null if the minimum probability is less than a set alpha.[13]

The results of the list experiments show a significant presence of DTOs in society—much higher than we had anticipated. Table 1 shows the difference in means between the treated and the control groups in the survey for the five list experiments included. On average, one out of every three Mexicans had seen a non-state armed convoy during daylight in the six months prior to the survey. One in ten Mexicans had been extorted by criminal organizations in the past six months. Even more worrisome, police extortion occurs with a very similar frequency. The security situation certainly does not represent stable state control.

[Table 1 about here]

Explanatory Variables and Results

List experiments cannot provide information regarding the specific response of each individual, but it is possible to know the responses of groups of individuals. For example, they could identify if wealthier men are more likely to own guns or if poorer women may be subject to greater police abuse. It is also possible to detect whether there are significant differences in the territorial prevalence of the behaviors measured by the lists, which may be highly correlated with

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[13] The list experiments we conducted, regarding armed convoys, DTO lending, extortion by DTOs, and extortion by the police, all pass the test of no design effect (with, respectively, $p=0.66$, $p=0.37$, $p=0.20$, $p=0.55$).

the areas of operation of DTOs that behave differently toward the civilian population, as discussed in the theory.

In order to test the specific hypotheses derived from our theory, and to learn more about other correlates of extortion, we use a multivariate regression model of survey data for list experiments as proposed by Imai (2011) and Blair and Imai (2012).[14] We specified a linear model with identical covariates for the three treatments analyzed in the paper, inquiring into the dynamics of extortion by DTOs, police extortion, and seeking out help from criminals.

Our theory highlights two main explanatory variables: DTO territorial contestation and state capture. To measure DTO contestation, we use a dataset complied by the Mexican federal government on "Deaths by Presumed Criminal Rivalry" (*Fallecimientos por Presunta Rivalidad Delincuencial*)[15] that classifies violent deaths at the municipal level between December 2006 and September 2011 into three categories: 1. "Executions," defined as homicides resulting from battles between DTOs; 2. "Confrontations," defined as killings from clashes between the Mexican authorities and DTOs; and 3. "General Homicides," which are not related to confrontations between cartels or DTO-state violence. To measure territorial contestation among DTOs, we use executions in order to classify municipalities into three categories: monopoly, contested, and contested with extreme violence. We use the accumulated number of executions in a municipality from December 2006 until June 2011, which considers the period of Calderón's war against organized crime, up until one month before our survey was conducted. As we

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[14] We use the *List* 6.1 package for R (Blair and Imai, 2012).

[15] This database was compiled by Calderón's government, and it is only available from December 2006 to September 2011. After 2012, the new administration decided not to compile and publish this data. Although the classification of homicides could be questioned, the dataset is the best estimate reached by a group of experts reconciling the data from state public attorneys' offices and federal information. An analysis of this data against mortality data coming from death certificates from shows that executions closely match violent deaths by firearms for the age group 15 to 40 years (Calderón et al., 2014).

discuss in more detail below, all results are robust to various thresholds used for categorizing

levels of contestation.

We categorize municipalities as "monopoly" when they fall in the first three quartiles of the

executions distribution—four or less accumulated deaths resulting from confrontations among

DTOs between December 2006 and June 2011. Most experts agree that virtually every

municipality in Mexico has at least some drug cartel presence. Hence, the category approximates

the notion of a single dominant cartel operating in the municipality. Based on the existing

accounts on violence in Mexico (e.g. Grillo, 2011; Guerrero, 2010), it is reasonable to assume

that zero or very few DTO deaths signal no escalation from cartel competition. When executions

occur, it usually spirals into localized spikes of violence reflecting contestation among rival

DTOs for control of the territory.[16] The total number of monopoly municipalities, according to

our definition, is 1,819, which represents 74 percent of the total.

The upper quartile is all contested municipalities. However, we further divide contested

municipalities into two categories: one with violent deaths in the upper quartile and up to the 99

percentile of cases, comprising 631 municipalities. And a second of the most extreme violence,

corresponding to the four most violent cities in that period: Ciudad Juárez, Culiacán, Tijuana and

Chihuahua. These cities account for over 30 percent of the executions taking place in that period,

and are different from the rest of the contested municipalities.

Ciudad Juárez was the most dangerous city in the world until 2011, and alone accounted for

more than 20 percent of the total executions among members of DTOs. Culiacán, Tijuana, and

Chihuahua followed in number of executions, in that order, accounting for 6, 5, and 4 percent of

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[16] We do not set the cut at zero because monopolistic cartels likely carry out occasional preemptive killings to maintain their reputations in the territory they control. See Bates (2001) on the use of violence as a reputation mechanism.

the total number of executions in that period.[17] All results are robust to including these cities or a larger set in the extremely violent category.

We expect to observe less extortion by DTOs in places with monopolistic control than in contested places where DTOs fight each other for territorial control (Hypothesis 1). Moreover, service provision by DTOs should be higher in places of monopolistic control than in contested municipalities (Hypothesis 2). Additionally, extortion should be curvilinear across levels of control: the most extortion should be in contested but not in extremely violent territories (Hypothesis 3).

Our second explanatory variable relates to state and police capture. We have argued that police capture and corruption of the police should be more endemic where the PRI still governs. We thus include a dummy variable indicating whether the municipality was governed by the PRI when the survey was conducted; where the PRI governs, there should be more extortion by DTOs (Hypothesis 4), as well as by the police (Hypothesis 5).

We include variables that allow us to highlight groups of respondents with distinctive patterns, as well as correcting for any imbalance. We add a dummy variable indicating whether the polling point (electoral section) is considered urban or not according to Mexico's Federal Electoral Institute. We include the municipal level of development by using the marginalization index constructed with 2010 census data (CONAPO 2010). We also include a full set of demographic variables at the individual level—sex, age, occupation (unemployed and peasant), education, and receiving Oportunidades social transfers as a proxy for poverty—that control for

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[17] The next most violent cities—Acapulco, Gómez Palacios, Torreón, and Mazatlán—also have a high number of executions, but less than half the number observed in Chihuahua. The appendix shows the robustness of our categories of violence. There is no statistical difference in our estimators and estimators that include variables created at different cuts.

individual characteristics that may affect citizens' likelihood of being victimized.[18] Based on the

regression models, we describe our findings in the following sections.

Extortion by DTOs

The first column in Table 2 shows average predictions from a linear multivariate regression

model using the Methods for the Item Count Technique and List Experiment designed by Blair

and Imai (2012) for our list experiments. For ease of interpretation we present simulated

predicted values and their significant level, which can be interpreted as the estimated treatment

effects. Complete output of the regressions can be consulted in the Appendix. Our explanatory

variables are grouped into three categories: 1) those related to our theory regarding levels of

contestation and state capture (proxied by PRI-governance); 2) locality or municipal-level

variables related to urbanization and population size; and, 3) individual-level variables that can

illuminate patterns of victimization across societal groups.

   The first four rows show evidence supporting our hypotheses regarding the impact of

territorial and partisan control on DTO extortion strategies. The model predicts a statistically

significant increase of extortion in contested municipalities. The coefficients for municipalities

of one-cartel control and of extreme violence are not statistically different from zero. The model

also shows a positive effect on DTO extortion in municipalities governed by the PRI. Ceteris

paribus, in contested municipalities the model predicts a 14 percent incidence of extortion by

DTOs, on average. The magnitude of the predicted effect of a PRI-governed municipality is

slightly lower, at a 12 percent incidence of extortion, on average. Hence, as predicted, citizens

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[18] We did not include self-reported income, although we had collected this information, because this variable tends
to be very unreliable as a proxy for poverty. Results do not vary if such variables are included, and they fail to be
statistically significant.

appear to be "safer" where one cartel controls the territory and in non-PRI municipalities, at least in terms of levels of DTO extortion.

[Table 2 about here]

In terms of individual socio-demographic characteristics, almost 20 percent of men claim to have been extorted by DTOs, which is much higher than the near zero rate for women. DTOs seem to disproportionately target men with secondary and high school education as the victims of extortion. Beneficiaries of the Oportunidades federal social program, which is a relatively good proxy for poverty since the transfers are targeted by income level, also report much higher DTO extortion rates than those not receiving the transfers.

In terms of municipal-level characteristics, the estimates suggest that urban localities are where most of the extortion takes place. Moreover, extortion also takes place more often in more marginalized neighborhoods, where respondents reported almost a 60 percent higher DTO extortion rate.

Thus the overall picture of extortion is clear from a compound hypothetical scenario: DTOs disproportionately extort poor men with secondary school education, who live in highly–DTO-contested, PRI-governed municipalities that are urban and marginalized. An individual with such a profile is predicted by our list experiment to have a 74 percent probability of facing DTO extortion.

Police Extortion

Police extortion tends to replicate DTO extortion in many respects: the local police extort in urban localities contested by DTOs and governed by the PRI (Column 2 in Table 2). Significantly, the size of the treatment effects of coercion by both the police and the DTOs are very similar. A possible explanation of this finding is that police forces in Mexico are as much a part of the problem of organized crime as the DTOs themselves. The police do seem to vary, however, in the profile of individuals they target for extortion: self-employed men of all ages, living in urban areas, with relatively low levels of education. These men, however, are not necessarily extremely poor, since the treatment effect is only significant for those who do not receive Oportunidades transfers. Self-employed men in DTO-contested PRI-governed municipalities are predicted to have a treatment effect of 31 percent.

Co-optation by DTOs

Regarding co-optation, our hypothesis was that citizens seek help from criminals more frequently where DTOs have firmer control over the territory. In these places, criminals seem to behave as "stationary" rather than "roving" bandits (Olson 1993), seeking to win the hearts and minds of citizens not for benevolent reasons (Fearon and Laitin, 2003; Weinstein, 2007; Berman, 2009; Walter, 2009; Lyall et al., 2011; Berman et al., 2011), but in their own self-interest in preventing other cartels from entering their territories. It should be noted that DTOs also help citizens in contested territories, but in a much smaller proportion than in monopolistic areas (Column 3 of Table 2). The significance of DTO co-optation disappears in extremely violent places.

A significant finding is that citizens living in municipalities where the PRI governs receive more help from criminals. It should be noted that there seems to be more DTO activity—both coercive and "benign"—where the PRI governs. We find more DTO help in the urban areas than in the rural areas, and more in relatively rich communities compared to poorer ones. However, at the level of the individual, DTOs offer more help to the poor—those who receive Oportunidades transfers report a treatment effect of 21 percent. A poor person living in a relatively rich, urban, PRI-governed locality, where only one cartel is present, has a 56 percent chance of seeking help from DTOs in the prior six months.

Robustness

We performed two types of robustness tests, both related to the core argument of contestation and state capture being critical to the strategy that is followed by DTOs. One potential objection to our operationalization of territorial control is that the results hinge on the particular decisions on where to put a cut-off point for the categories of monopoly, contestation, and extreme violence. Appendix B provides nine alternative models with different cutoffs, providing clear evidence that the results do not hinge on this decision. We also made estimations excluding the extreme outlier of Ciudad Juárez, which did not change the results. In all cases, contested territories are the ones where extortion by both the police and DTOs was observed; and in monopoly regions there is evidence of a large increase in the response of receiving help from DTOs.

An additional concern might be that particular DTOs drive the results rather than our main explanatory variables. The appendix shows that when the multivariate models are run including

the areas of influence of each cartel, the basic results hold. If anything, the overall treatment

effects become slightly larger for co-optation and extortion by DTOs.

The areas of influence of each cartel are often in flux and difficult to ascertain. Determining a

specific region controlled by or areas of influence in the operation of DTOs, therefore, is not an

easy task. We have used available sources of information to code for the territorial reach of

Mexican DTOs. We geo-coded images of maps that have been created by the consulting firm

Stratfor Global Intelligence, which claims to have used intelligence experts to map the territorial

reach and extent of drug cartels throughout Mexico.[19] The Stratfor maps shade areas of firm

control and weak influence, as well as territories of competing territorial reach for each DTO

over time. The Zetas were a particularly difficult organization to code in a reliable way. We used

alternative codings for the Zetas,[20] but we soon realized there is a great degree of disagreement

among experts of where the Zetas operate.

As alternatives, within our sample, we verified the correspondence of the territorial coding

between Stratfor and other sources. First, we geo-coded maps from Coscia and Rios (2013), who

use a Google search algorithm to match DTOs mentioned in particular municipalities, and we

examined maps from a report generated by the federal government.[21] We also checked whether

the areas of influence corresponded with a state-level classification by Guerrero (2012). The

Stratfor data correlates highly with these alternative codings for our sample. We re-ran all of the

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[19] Stratfor publishes updated maps describing the territorial reach of Mexican DTOs frequently. We used the geo-referenced map from the closest month to the collection of our survey, July 2011.

[20] In addition, the Institute for the Study of Violent Groups attempted to map the territorial control of the Zetas in Tamaulipas. This information was not relevant for our survey given that this state was excluded from the sampling frame due to security considerations.

[21] "Información sobre el Fenómeno Delictivo en México" from August 2010. This report classified municipal-level homicides presumably related to drug-trafficking activities according to the specific cartel that dominated the municipality, or the competing cartels vying for control of a given municipality.

results using the federal government coding, and the results hold.[22] Conditioning on cartel presence, the most important finding is the effect of DTO violent contestation and PRI-governance on coercion and cooptation.

Conclusions

The presence of criminal organizations is not a new phenomenon in Mexico. What is unprecedented is the way in which criminal organizations have shifted their activities from focusing primarily on the shipment of illegal drugs to international markets, toward diversifying into local criminal activities that prey on citizens, such as extortion, kidnapping, human trafficking, and in general the collection of protection money. Much of the focus of recent scholarly work on this problem in Mexico has been in understanding the dynamics of violence. This paper aims to provide an understanding of why drug trafficking organizations adopt particular strategies of extortion, and also co-optation, in their interactions with the civilian population. Drawing from the literature on civil war and organized crime, we provide a theoretical framework in which the degree of violence and territorial contestation between DTOs explains the ways these organizations interact with citizens. Through the use of list experiments, we provide evidence of the pervasiveness of extortion by DTOs and the police in contested regions, as well as estimations of the degree of co-optation and assistance provided by DTOs in uncontested places.

In Mexico's "criminal insurgency," citizens are living in fear. Lethal violence is not the only or most pervasive danger. Citizens are trapped in networks of extortion and coercion where both DTOs and the police prey with impunity. When they are in firm control of their territories, DTOs

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[22] We provide these results of our alternative analysis in Appendix B.

can also behave as more benign stationary bandits and offer citizens help. But as these criminal organizations violently compete with each other—and with the state—for control of territory and trafficking routes, they turn against citizens to extract resources through extortion.

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Figure 1. Description of List Experiments

	Card 1	Card 2	Card 3
Introduction to all groups	Please tell me how many of these things you have in your home. We just want to know how many you have, do not tell me which ones.	Please tell me how many of these things you have done in the past six months. We just want to know how many you have done, do not tell me which ones.	Please tell me how many of these things you have done in the past six months. We just want to know how many you have done, do not tell me which ones.
Control Group	1. Refrigerator. 2. TV. 3. Computer. 4. Votive candles.	1. I got drunk at a party I went to. 2. I did some exercise outdoors. 3. I attended church almost every Sunday.	1. I have received benefits from the Oportunidades program. 2. I have participated in a tanda.* 3. I gave charity (*limosna*) in church or the street.
Treatment Group 1	EXPERIMENT 1 5. Gun.	EXPERIMENT 2 4. I have seen cars or trucks with armed men who are not policemen in broad daylight.	EXPERIMENT 4 4. I have given money to drug or criminal organizations so that they do not harm me.
Treatment Group 2		EXPERIMENT 3 4. I asked for help from someone working for organized crime.	EXPERIMENT 5 4. I have given money to the police so that they protect me.

* Rotating Savings and Credit Association (ROSCA)

Table 1. Average Effect of List Treatment

Treatment	Average Effect
Convoy	0.38***
	(0.04)
Help from criminals	0.12***
	(0.04)
Criminal extortion	0.10***
	(0.04)
Police extortion	0.11***
	(0.04)
Gun ownership	0.15***
	(0.04)

Note: Entries are differences in means between the treatment and the control groups. The standard errors are in parentheses. *p < .10; **p < .05; ***p < .01.

Table 2. Model Predictions

	Criminal extortion	Police extortion	Help from criminals
Violence			
Monopoly	-0.11	0.17	0.28***
Contested	0.14***	0.12***	0.12***
Extreme	0.07	0.09	0.00
Individual level			
Woman	0.00	0.06	0.10
Man	0.20***	0.18***	0.11
Age 18-29	0.10	0.26**	0.08
Age 30-45	0.11	0.18	0.07
Age 46-64	0.20	0.19	0.07
Age 65 or more	0.01	0.04	0.12
Education-None	0.02	0.18	-0.09
Education-Primary	-0.01	0.18***	0.09
Education-Secondary	0.32***	0.04	0.17
Education-High School	0.27***	-0.04	0.14
Education-College or more	0.08	-0.03	0.15
Oportunidades	0.23***	0.14	0.21***
No-Oportunidades	0.06	0.11***	0.08
Peasant	-0.11	0.10	0.18
Self-employed	0.00	0.20**	0.11
Municipal level			
Marginalization Index-High	0.60***	0.19	-0.02
Marginalization Index-Low	-0.06	0.09	0.15**
PRI locality	0.12***	0.14***	0.13***
Non-PRI locality	0.04	0.04	0.05
Urban locality	0.12**	0.15***	0.20***
Non-urban locality	0.07	0.07	0.00

Note: Entries are model predictions using the *List* 6.1 package for R (Blair and Imai, 2012).
*p < .10; **p < .05; ***p < .01.

Appendix A. Multivariate Regression Analyses of Survey Data with the Item Count Technique

Table A1. Criminal Extortion

	Sensitive		Control	
	Coefficient	Standard error	Coefficient	Standard error
(Intercept)	0.470	0.228	0.718	0.163
Violence				
Extreme	-0.033	0.100	0.050	0.067
Monopoly	-0.233	0.128	0.070	0.091
Individual level				
Sex	-0.193	0.083	0.171	0.057
Age 18-29	-0.003	0.145	-0.134	0.105
Age 30-45	0.014	0.140	-0.003	0.103
Age 46-64	0.126	0.146	-0.032	0.105
Education-None	-0.077	0.209	-0.026	0.157
Education-Secondary	0.307	0.102	0.039	0.064
Education-High School	0.215	0.108	0.135	0.074
Education-College or more	-0.021	0.124	0.167	0.089
Oportunidades	0.170	0.099	0.372	0.066
Peasant	-0.221	0.154	0.032	0.108
Self-employed	-0.114	0.109	0.056	0.074
Municipal level				
Marginalization Index	0.162	0.055	-0.039	0.039
PRI locality	0.086	0.092	-0.109	0.062
Rural locality	-0.054	0.083	0.002	0.057

Table A2. Police Extortion

	Sensitive		Control	
	Coefficient	Standard error	Coefficient	Standard error
(Intercept)	0.315	0.234	0.718	0.163
Violence				
Extreme	-0.040	0.102	0.050	0.067
Monopoly	0.059	0.125	0.070	0.091
Individual level				
Sex	-0.120	0.082	0.171	0.057
Age 18-29	0.197	0.145	-0.134	0.105
Age 30-45	0.105	0.134	-0.003	0.103
Age 46-64	0.091	0.138	-0.032	0.105
Education-None	0.064	0.198	-0.026	0.157
Education-Secondary	-0.100	0.099	0.039	0.064
Education-High School	-0.192	0.118	0.135	0.074
Education-College or more	-0.175	0.125	0.167	0.089
Oportunidades	0.028	0.098	0.372	0.066
Peasant	-0.018	0.153	0.032	0.108
Self-employed	0.099	0.108	0.056	0.074
Municipal level				
Marginalization Index	0.026	0.056	-0.039	0.039
PRI locality	0.104	0.089	-0.109	0.062
Rural locality	-0.080	0.086	0.002	0.057

Table A3. Help from Criminals

	Sensitive		Control	
	Coefficient	**Standard error**	**Coefficient**	**Standard error**
(Intercept)	0.289	0.245	1.137	0.168
Violence				
Extreme	-0.145	0.108	0.098	0.075
Monopoly	0.193	0.130	-0.083	0.087
Individual				
Sex	-0.009	0.088	-0.127	0.062
Age 18-29	-0.043	0.151	0.332	0.111
Age 30-45	-0.069	0.141	0.277	0.106
Age 46-64	-0.054	0.145	0.251	0.104
Education-None	-0.206	0.198	-0.071	0.142
Education-Secondary	0.079	0.105	-0.027	0.071
Education-High School	0.040	0.123	0.211	0.083
Education-College or more	0.052	0.130	0.270	0.092
Oportunidades	0.130	0.096	-0.145	0.065
Peasant	0.080	0.168	0.086	0.119
Self-employed	-0.001	0.113	0.001	0.082
Municipal level				
Marginalization Index	-0.042	0.061	0.014	0.040
PRI locality	0.087	0.095	-0.045	0.066
Rural locality	-0.192	0.088	0.028	0.060

Appendix B. Robustness Check

To check for potential biases in the regression estimates induced by our selection criteria on the number of cumulative homicides at the municipal level, we ran eight regression models identically specified to our core model (model m1 in Tables B1-B3), except that changed the thresholds at which we specified the *monopoly*, *contested*, and *extreme* variables.

The first three columns show the range of values that we assigned to each dummy variable. The last three columns show the predicted value of the experiment with its confidence interval in parentheses at each of the three types of localities. All models contain identical controls.

It can be observed from tables B1 to B3 that all interval coefficients by column overlap, which implies that there are no statistical differences on the models' predictions from varying the thresholds of the variables approximating violence at the municipal level.

Table B1. Robustness Check: Criminal extortion

Violence variable range				Criminal extortion		
Monopoly	**Contested**	**Extreme**	**Model**	**Monopoly**	**Contested**	**Extreme**
(0-4)	**(6-661)**	**(1415-6437)**	**m1***	-0.108	0.136	0.073
				(-0.3395, 0.124)	(0.0443, 0.2275)	(-0.0936, 0.239)
(0-4)	**(6-553)**	**(661-6437)**	**m2**	-0.099	0.100	0.153
				(-0.3316, 0.1342)	(0.0014, 0.1986)	(0.0106, 0.296)
(0-4)	**(6-1415)**	**(1667-6437)**	**m3**	-0.109	0.139	0.042
				(-0.3409, 0.1231)	(0.0503, 0.2283)	(-0.133, 0.2173)
(0-3)	**(4-661)**	**(1415-6437)**	**m4**	-0.091	0.130	0.074
				(-0.335, 0.1541)	(0.0395, 0.2212)	(-0.0921, 0.2407)
(0-3)	**(4-553)**	**(661-6437)**	**m5**	-0.083	0.094	0.156
				(-0.3287, 0.1623)	(-0.0042, 0.1914)	(0.0138, 0.2991)
(0-3)	**(4-1415)**	**(1667-6437)**	**m6**	-0.091	0.134	0.044
				(-0.3357, 0.1538)	(0.0456, 0.2223)	(-0.1311, 0.2192)
(0-6)	**(8-661)**	**(1415-6437)**	**m7**	-0.076	0.132	0.072
				(-0.3058, 0.1547)	(0.0401, 0.2242)	(-0.0941, 0.2385)
(0-6)	**(8-1415)**	**(1667-6437)**	**m8**	-0.077	0.136	0.042
				(-0.3074, 0.1536)	(0.0465, 0.2255)	(-0.1331, 0.2171)
(0-6)	**(8-553)**	**(661-6437)**	**m9**	-0.065	0.095	0.154
				(-0.2966, 0.1666)	(-0.0045, 0.1938)	(0.0111, 0.2968)

Note: The top cell for every model in columns 5-7 are average predictions from linear multivariate regression models for list experiments; the lower cell for every model are 95% confidence intervals (Blair and Imai 2012).

Table B2. Robustness Check: Police extortion

Violence variable range				Police extortion		
Monopoly	**Contested**	**Extreme**	**Model**	**Monopoly**	**Contested**	**Extreme**
(0-4)	**(6-661)**	**(1415-6437)**	**m1***	0.169	0.118	0.086
				(-0.057, 0.3941)	(0.026, 0.2097)	(-0.0834, 0.2562)
(0-4)	**(6-553)**	**(661-6437)**	**m2**	0.165	0.113	0.109
				(-0.0629, 0.3919)	(0.011, 0.2157)	(-0.0296, 0.2471)
(0-4)	**(6-1415)**	**(1667-6437)**	**m3**	0.168	0.125	0.054
				(-0.058, 0.3932)	(0.0359, 0.2146)	(-0.1252, 0.2331)
(0-3)	**(4-661)**	**(1415-6437)**	**m4**	0.131	0.123	0.087
				(-0.1102, 0.372)	(0.0326, 0.2143)	(-0.0827, 0.2571)
(0-3)	**(4-553)**	**(661-6437)**	**m5**	0.126	0.120	0.107
				(-0.1163, 0.3681)	(0.0194, 0.2214)	(-0.0315, 0.2448)
(0-3)	**(4-1415)**	**(1667-6437)**	**m6**	0.131	0.130	0.054
				(-0.1106, 0.3715)	(0.042, 0.2189)	(-0.1251, 0.2333)
(0-6)	**(8-661)**	**(1415-6437)**	**m7**	0.168	0.118	0.086
				(-0.0562, 0.3927)	(0.0256, 0.2102)	(-0.0834, 0.2561)
(0-6)	**(8-1415)**	**(1667-6437)**	**m8**	0.167	0.126	0.054
				(-0.0574, 0.3917)	(0.0357, 0.2152)	(-0.1253, 0.2329)
(0-6)	**(8-553)**	**(661-6437)**	**m9**	0.164	0.113	0.109
				(-0.0626, 0.3908)	(0.0102, 0.2163)	(-0.0296, 0.2475)

Note: The top cell for every model in columns 5-7 are average predictions from linear multivariate regression models for list experiments; the lower cell for every model are 95% confidence intervals (Blair and Imai 2012).

Table B3. Robustness Check: Help from criminals

Violence variable range				Help from criminals		
Monopoly	**Contested**	**Extreme**	**Model**	**Monopoly**	**Contested**	**Extreme**
(0-4)	**(6-661)**	**(1415-6437)**	**m1***	0.279	0.117	-0.001
				(0.0472, 0.5116)	(0.0198, 0.2143)	(-0.1786, 0.1767)
(0-4)	**(6-553)**	**(661-6437)**	**m2**	0.251	0.141	0.003
				(0.0179, 0.4833)	(0.0331, 0.2494)	(-0.1416, 0.1482)
(0-4)	**(6-1415)**	**(1667-6437)**	**m3**	0.273	0.113	0.009
				(0.0416, 0.5048)	(0.0189, 0.2062)	(-0.183, 0.2005)
(0-3)	**(4-661)**	**(1415-6437)**	**m4**	0.294	0.118	-0.003
				(0.0452, 0.543)	(0.0216, 0.2141)	(-0.181, 0.1749)
(0-3)	**(4-553)**	**(661-6437)**	**m5**	0.265	0.142	0.002
				(0.0163, 0.513)	(0.035, 0.2485)	(-0.1426, 0.1469)
(0-3)	**(4-1415)**	**(1667-6437)**	**m6**	0.286	0.113	0.007
				(0.0384, 0.5342)	(0.0206, 0.2061)	(-0.1845, 0.1991)
(0-6)	**(8-661)**	**(1415-6437)**	**m7**	0.312	0.112	-0.002
				(0.0774, 0.5459)	(0.0146, 0.2097)	(-0.1798, 0.1755)
(0-6)	**(8-1415)**	**(1667-6437)**	**m8**	0.305	0.108	0.009
				(0.0716, 0.5389)	(0.0139, 0.2018)	(-0.1832, 0.2002)
(0-6)	**(8-553)**	**(661-6437)**	**m9**	0.281	0.136	0.006
				(0.046, 0.5157)	(0.0269, 0.2443)	(-0.139, 0.1509)

Note: The top cell for every model in columns 5-7 are average predictions from linear multivariate regression models for list experiments; the lower cell for every model are 95% confidence intervals (Blair and Imai 2012).

Appendix C. Predictions from Models including DTOs

Table C1. Model Predictions

	Criminal extortion		Police extortion		Help from criminals	
	Baseline	**DTOs**	**Baseline**	**DTOs**	**Baseline**	**DTOs**
Monopoly	-0.108	-0.048	0.169	0.172	0.279**	0.268**
Contested	0.136***	0.149***	0.118***	0.102**	0.117***	0.125**
Extreme	0.073	0.058	0.086	0.116	-0.001	-0.113
Tijuana		-0.024		0.187		0.150
Sinaloa		0.032		0.138**		0.067
Zetas		0.147		0.105		0.159
La Familia		0.456**		0.287		-0.113
Juarez		0.264*		-0.010		0.332**
No cartel		0.139*		0.099		0.035
Controls	Yes	Yes	Yes	Yes	Yes	Yes

Note: Data entries are average predictions from linear multivariate regression models for list experiments (Blair and Imai 2012). "Baseline" refers to the original model $*p < .10$; $**p < .05$; $***p < .01$.